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# THE ENCYCLOPÆDIA BRITANNICA

## A DICTIONARY OF ARTS, SCIENCES, LITERATURE AND GENERAL INFORMATION

### ELEVENTH EDITION

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**VOLUME XIV SLICE IV**

**Independence, Declaration of to Indo-European Languages**

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## Articles in This Slice

**INDEPENDENCE, DECLARATION OF,** in United States history, the act (or document) by which the thirteen original states of the Union broke their colonial allegiance to Great Britain in 1776. The controversy preceding the war (see American Independence, War of) gradually shifted from one primarily upon economic policy to one upon issues of pure politics and sovereignty, and the acts of Congress, as viewed to-day, seem to have been carrying it, from the beginning, inevitably into revolution; but there was apparently no general and conscious drift toward independence until near the close of 1775. The first colony to give official countenance to separation as a solution of colonial grievances was North Carolina, which, on the 12th of April 1776, authorized its delegates in Congress to join with others in a declaration to that end. The first colony to instruct its delegates to take the actual initiative was Virginia, in accordance with whose instructions—voted on the 15th of May—Richard Henry Lee, on the 7th of June, moved a resolution "that these United Colonies are, and of right ought to be, free and independent States.rdquo; John Adams of Massachusetts seconded the motion. The conservatives could only plead the unpreparedness of public opinion, and the radicals conceded delay on condition that a committee be meanwhile at work on a declaration "to the effect of the said ... resolution," to serve as a preamble thereto when adopted. This committee consisted of Thomas Jefferson, John Adams, Benjamin Franklin, Roger Sherman and Robert R. Livingston. To Jefferson the committee entrusted the actual preparation of the paper. On the 2nd of July, by a vote of 12 states—10 voting unanimously, New York not voting, and Pennsylvania and Delaware casting divided ballots (3 votes in the negative)—Congress adopted the resolution of independence; and on the 4th, Jefferson's "Declaration." The 4th has always been the day celebrated;[1] the decisive act of the 2nd being quite forgotten in the memory of the day on which that act was published to the world. It should also be noted that as Congress had already, on the 6th of December 1775, formally disavowed allegiance to parliament, the Declaration recites its array of grievances against the crown, and breaks allegiance to the crown. Moreover, on the 10th of May 1776, Congress had recommended to the people of the colonies that they form such new governments as their representatives should deem desirable; and in the accompanying statement of causes, formulated on the 15th of May, had declared it to be "absolutely irreconcilable to reason and good conscience for the people of these colonies now to take the oaths and affirmations necessary for the support of any government under the crown of Great Britain," whose authority ought to be "totally suppressed" and taken over by the people—a determination which, as John Adams said, inevitably involved a struggle for absolute independence, involving as it did the extinguishment of all authority, whether of crown, parliament or nation.

Though the Declaration reads as "In Congress, July 4, 1776. The unanimous Declaration of the thirteen united States of America," New York's adhesion was in fact not voted until the 9th, nor announced to Congress until the 15th—the Declaration being unanimous, however, when it was ordered, on the 19th, to be engrossed and signed under the above title.[2] Contrary to the inference naturally to be drawn from the form of the document, no signatures were attached on the 4th. As adopted by Congress, the Declaration differs only in details from the draft prepared by Jefferson; censures of the British *people* and a noble denunciation of slavery were omitted, appeals to Providence were inserted, and verbal improvements made in the interest of terseness and measured statement. The document is full of Jefferson's fervent spirit and personality, and its ideals were those to which his life was consecrated. It is the best known and the noblest of American state papers. Though open to controversy on some issues of historical fact, not flawless in logic, necessarily partisan in tone and purpose, it is a justificatory preamble, a party manifesto and appeal, reasoned enough to carry conviction, fervent enough to inspire enthusiasm. It mingles—as in all the controversy of the time, but with a literary skill and political address elsewhere unrivalled—stale disputation with philosophy. The rights of man lend dignity to the rights of Englishmen, and the broad outlook of a world-wide appeal, and the elevation of noble principles, relieve minute criticisms of an administrative system.

Jefferson's political theory was that of Locke, whose words the Declaration echoes. Uncritical critics have repeated John Adams's assertion that its arguments were hackneyed: so they undoubtedly were—in Congress, and probably little less so without,—but that is certainly pre-eminent among its great merits. As Madison said, "The object was to assert, not to discover truths." Others have echoed Rufus Choate's phrase, that the Declaration is made up of "glittering and sounding generalities of natural right." In truth, its long array of "facts ... submitted to a candid world" had its basis in the whole development of the relations between England and the colonies; every charge had point in a definite reference to historical events, and appealed primarily to men's reason; but the history is to-day forgotten, while the fanciful basis of the "compact" theory does not appeal to a later age. It should be judged, however, by its purpose and success in its own time. The "compact" theory was always primarily a theory of political ethics, a revolutionary theory, and from the early middle ages to the French Revolution it worked with revolutionary power. It held up an ideal. Its ideal of "equality" was not realized in America in 1776—nor in England in 1688—but no man knew this better than Jefferson. Locke disclaimed for him in 1690[3] the shallower misunderstandings still daily put upon his words. Both Locke and Jefferson wrote simply of political equality, political freedom. Even within this limitation, the idealistic formulas of both were at variance with the actual conditions of their time. The variance would have been greater had their phrases been applied as humanitarian formulas to industrial and social conditions. The Lockian theory fitted beautifully the question of colonial dependence, and was applied to that by America with inexorable logic; it fitted the question of individual political rights, and was applied to them in 1776, but not in 1690; it did

not apply to non-political conditions of individual liberty, a fact realized by many at the time—and it is true that such an application would have been more inconsistent in America in 1776 as regards the negroes than in England in 1690 as regarded freemen. Beyond this, there is no pertinence in the stricture that the Declaration is made up of glittering generalities of natural right. Its influence upon American legal and constitutional development has been profound. Locke, says Leslie Stephen, popularized "a convenient formula for enforcing the responsibility of governors"—but his theories were those of an individual philosopher—while by the Declaration a state, for the first time in history, founded its life on democratic idealism, pronouncing governments to exist for securing the happiness of the people, and to derive their just powers from the consent of the governed. It was a democratic instrument, and the revolution a democratic movement; in South Carolina and the Middle Colonies particularly, the cause of independence was bound up with popular movements against aristocratic elements. Congress was fond of appealing to "the purest maxims of representation"; it sedulously measured public opinion; took no great step without an explanatory address to the country; cast its influence with the people in local struggles as far as it could; appealed to them directly over the heads of conservative assemblies; and in general stirred up democracy. The Declaration gave the people recognition equivalent to promises, which, as fast as new governments were instituted, were converted by written constitutions into rights, which have since then steadily extended.

The original parchment of the Declaration, preserved in the Department of State (from 1841 to 1877 in the Patent Office, once a part of the Department of State), was injured—the injury was almost wholly to the signatures—in 1823 by the preparation of a facsimile copper-plate, and since 1894, when it was already partly illegible, it has been jealously guarded from light and air. The signers were as follows: John Hancock (1737-1792), of Massachusetts, president; Button Gwinnett (*c.* 1732-1777), Lyman Hall (1725-1790), George Walton (1740-1804), of Georgia; William Hooper (1742-1790), Joseph Hewes (1730-1779), John Penn (1741-1788), of North Carolina; Edward Rutledge (1749-1800), Thomas Heyward, Jr. (1746-1809), Thomas Lynch, Jr. (1749-1779), Arthur Middleton (1742-1787), of South Carolina; Samuel Chase (1741-1811), William Paca (1740-1799), Thomas Stone (1743-1787), Charles Carroll (1737-1832) of Carrollton, of Maryland; George Wythe (1726-1806), Richard Henry Lee (1732-1794), Thomas Jefferson (1743-1826), Benjamin Harrison (1740-1791), Thomas Nelson, Jr.(1738-1789), Francis Lightfoot Lee (1734-1797), Carter Braxton (1736-1797), of Virginia; Robert Morris (1734-1806), Benjamin Rush (1745-1813), Benjamin Franklin (1706-1790), John Morton (1724-1777), George Clymer (1739-1813), James Smith (*c.* 1719-1806), George Taylor (1716-1781), James Wilson (1742-1798), George Ross (1730-1779), of Pennsylvania; Caesar Rodney (1728-1784), George Read (1733-1798), Thomas McKean (1734-1817), of Delaware; William Floyd (1734-1821), Philip Livingston (1716-1778), Francis Lewis (1713-1803), Lewis Morris (1726-1798), of New York; Richard Stockton (1730-1781), John Witherspoon (1722-1794), Francis Hopkinson (1737-1791), John Hart (1708-1780), Abraham Clark (1726-1794), of New Jersey; Josiah Bartlett (1729-1795), William Whipple (1730-1785), Matthew Thornton (1714-1803), of New Hampshire; Samuel Adams (1722-1803), John Adams (1735-1826), Robert Treat Paine (1731-1814), Elbridge Gerry (1744-1814), of Massachusetts; Stephen Hopkins (1707-1785), William Ellery (1727-1820), of Rhode Island; Roger Sherman (1721-1793), Samuel Huntington (1732-1796), William Williams (1731-1811), Oliver Wolcott (1726-1797), of Connecticut. Not all the men who rendered the greatest services to independence were in Congress in July 1776; not all who voted for the Declaration ever signed it; not all who signed it were members when it was adopted. The greater part of the signatures were certainly attached on the 2nd of August; but at least six were attached later. With one exception—that of Thomas McKean, present on the 4th of July but not on the 2nd of August, and permitted to sign in 1781—all were added before printed copies with names attached were first authorized by Congress for public circulation in January 1777.



See H. Friedenwald, *The Declaration of Independence, An Interpretation and an Analysis* (New York, 1904); J. H. Hazleton, *The Declaration of Independence: its History* (New York, 1906); M. Chamberlain, *John Adams ... with other Essays and Addresses* (Boston, 1898), containing, "The Authentication of the Declaration of Independence" (same in Massachusetts Historical Society, *Proceedings*, Nov. 1884); M. C. Tyler, *Literary History of the American Revolution*, vol. i. (New York, 1897), or same material in *North American Review*, vol. 163, 1896, p. 1; W. F. Dana in *Harvard Law Review*, vol. 13, 1900, p. 319; G. E. Ellis in J. Winsor, *Narrative and Critical History of America*, vol. vi. (Boston, 1888); R. Frothingham, *Rise of the Republic*, ch. ii. (Boston, 1872). There are various collected editions of biographies of the signers; probably the best are John Sanderson's *Biography of the Signers of the Declaration of Independence* (7 vols., Philadelphia, 1823-1827), and William Brotherhead's *Book of the Signers* (Philadelphia, 1860, new ed., 1875). The Declaration itself is available in the *Revised Statutes* of the United States (1878), and many other places. A facsimile of the original parchment in uninjured condition is inserted in P. Force's *American Archives*, 5th series, vol. i. at p. 1595 (Washington, 1848). The reader will find it interesting to compare a study of the French Declaration: G. Jellinek, *The Declaration of the Rights of Man and of Citizens* (New York, 1901; German edition, Leipzig, 1895; French translation preferable because of preface of Professor Larnande).

(F. S. P.)

1 "Independence Day" is a holiday in all the states and territories of the United States.

2 As read before the army meanwhile, it was headed "In Congress, July 4, 1776. A Declaration by the representatives of the United States of America in General Congress assembled."

3 *Two Treatises of Government*, No. ii. § 54, as to age, abilities, virtue, &c.

**INDEPENDENTS,** in religion, a name used in the 17th century for those holding to the autonomy of each several church or congregation, hence otherwise known as Congregationalists. Down to the end of the 18th century the former title prevailed in England, though not in America; while since then "Congregationalist" has obtained generally in both. (See CONGREGATIONALISM.)

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**INDEX,** a word that may be understood either specially as a table of references to a book or, more generally, as an indicator of the position of required information on any given subject. According to classical usage, the Latin word *index* denoted a discoverer, discloser or informer; a catalogue or list; an inscription; the title of a book; and the fore or index-finger. Cicero also used the word to express the table of contents to a book, and explained his meaning by the Greek form *syllabus*. Shakespeare uses the word with the general meaning of a table of contents or preface—thus Nestor says (*Troilus and Cressida*, i. 3):—

> "And in such indexes, although small pricks;
> To their subsequent volumes, there is seen;
> The baby figure of the giant mass."

Table was the usual English word, and index was not thoroughly naturalized until the beginning of the 17th century, and even then it was usual to explain it as "index or table." By the present English usage, according to which the word "table" is reserved for the summary of the contents as they occur in a book, and the word "index" for the arranged analysis of the contents for the purpose of detailed reference, we obtain an advantage not enjoyed in other languages; for the French *table* is used for both kinds, as is *indice* in Italian and Spanish. There is a group of words each of which has its distinct meaning but finds its respective place under the general heading of index work; these are calendar, catalogue, digest, inventory, register, summary, syllabus and table.[1] The value of indexes was recognized in the earliest times, and many old books have full and admirably constructed ones. A good index has sometimes kept a dull book alive by reason of the value or amusing character of its contents. Carlyle referred to Prynne's *Histrio-Mastix* as "a book still extant, but never more to be read by mortal"; but the index must have given amusement to many from the curious character of its entries, and Attorney-General Noy particularly alluded to it in his speech at Prynne's trial. Indexes have sometimes been used as vehicles of satire, and the witty Dr William King was the first to use them as a weapon of attack. His earliest essay in this field was the index added to the second edition of the Hon. Charles Boyle's attack upon Bentley's *Dissertation on the Epistles of Phalaris* (1698).

To serve its purpose well, an index to a book must be compiled with care, the references being placed under the heading that the reader is most likely to seek. An index should be one and indivisible, and not broken up into several alphabets; thus every work, whether in one or more volumes, ought to have its complete index. The mode of arrangement calls for special attention; this may be either chronological, alphabetical or according to classes, but great confusion will be caused by uniting the three systems. The alphabetical arrangement is so simple, convenient and easily understood that it has naturally superseded the other forms, save in some exceptional cases. Much of the value of an index depends upon the mode in which it is printed, and every endeavour should be made to set it out with clearness. In old indexes the indexed word was not brought to the front, but was left in its place in the sentence, so that the alphabetical order was not made perceptible to the eye. There are few points in which the printer is more likely to go wrong than in the use of marks of repetition, and many otherwise good indexes are full of the most perplexing cases of misapplication in this respect. The oft-quoted instance,

> Mill on Liberty
> ——on the Floss

actually occurred in a catalogue. But in modern times there has been a great advance in the art of indexing, especially since the foundation in 1877 in England of the Index Society; and the growth of great libraries has given a stimulus to this method of making it easy for readers and researchers to find a ready reference to the facts or discussions they require. Not only has it become almost a *sine qua non* that any good book must have its own index, but the art of indexing has been applied to those books which are really collections of books (such as the *Encyclopaedia Britannica*), to a great newspaper like the London *Times*, and to the cataloguing of great libraries themselves. The work in these more elaborate cases has been enormously facilitated by the modern devices by means of which separate cards are used, arranged in drawers and cases, American enterprise in this direction having led the way. And the value of the work done in this respect by the Congressional Library at Washington, the British Museum and the London Library (notably by its Subject Index published in 1909) cannot well be exaggerated. (See also BIBLIOGRAPHY).



There are numerous books on Indexing, but the best for any one who wants to get a general idea is H. B. Wheatley's *How to make an Index* (1902).

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1 Another old word occasionally used in the sense of an index is "pye." Sir T. Duffus Hardy, in some observations on the derivation of the word "Pye-Book" (which most probably comes from the Latin *pica*), remarks that the earliest use he had noted of pye in this sense is dated 1547—"a Pye of all the names of such Balives as been to accompte pro anno regni regis Edwardi Sexti primo."

**INDEX LIBRORUM PROHIBITORUM,** the title of the official list of those books which on doctrinal or moral grounds the Roman Catholic Church authoritatively forbids the members of her communion to read or to possess, irrespective of works forbidden by the general rules on the subject. Most governments, whether civil or ecclesiastical, have at all times in one way or another acted on the general principle that some control may and ought to be exercised over the literature circulated among those under their jurisdiction. If we set aside the heretical books condemned by the early councils, the earliest known instance of a list of proscribed books being issued with the authority of a bishop of Rome is the *Notitia librorum apocryphorum qui non recipiuntur*, the first redaction of which, by Pope Gelasius (494), was subsequently amplified on several occasions. The document is for the most part an enumeration of such apocryphal works as by their titles might be supposed to be part of Holy Scripture (the "Acts" of Philip, Thomas and Peter, and the Gospels of Thaddaeus, Matthias, Peter, James the Less and others).[1] Subsequent pontiffs continued to exhort the episcopate and the whole body of the faithful to be on their guard against heretical writings, whether old or new; and one of the functions of the Inquisition when it was established was to exercise a rigid censorship over books put in circulation. The majority of the condemnations were at that time of a specially theological character. With the discovery of the art of printing, and the wide and cheap diffusion of all sorts of books which ensued, the need for new precautions against heresy and immorality in literature made itself felt, and more than one pope (Sixtus IV. in 1479 and Alexander VI. in 1501) gave special directions to the archbishops of Cologne, Mainz, Trier and Magdeburg regarding the growing abuses of the printing press; in 1515 the Lateran council formulated the decree *De Impressione Librorum*, which required that no work should be printed without previous examination by the proper ecclesiastical authority, the penalty of unlicensed printing being excommunication of the culprit, and confiscation and destruction of the books. The council of Trent in its fourth session, 8th April 1546, forbade the sale or possession of any anonymous religious book which had not previously been seen and approved by the ordinary; in the same year the university of Louvain, at the command of Charles V., prepared an "Index" of pernicious and forbidden books, a second edition of which appeared in 1550. In 1557, and again in 1559, Pope Paul IV., through the Inquisition at Rome, published what may be regarded as the first Roman Index in the modern ecclesiastical use of that term (*Index auctorum et librorum qui tanquam haeretici aut suspecti aut perversi ab Officio S. R. Inquisitionis reprobantur et in universa Christiana republica interdicuntur*). In this we find the three classes which were to be maintained in the Trent Index: authors condemned with all their writings; prohibited books, the authors of which are known; pernicious books by anonymous authors. An excessively severe general condemnation was applied to all anonymous books published since 1519; and a list of sixty-two printers of heretical books was appended. This excessive rigour was mitigated in 1561. At the 18th session of the council of Trent (26th February 1562), in consideration of the great increase in the number of suspect and pernicious books, and also of the inefficacy of the many previous "censures" which had proceeded from the provinces and from Rome itself, eighteen fathers with a certain number of theologians were appointed to inquire into these "censures," and to consider what ought to be done in the circumstances. At the 25th session (4th December 1563) this committee of the council was reported to have completed its work, but as the subject did not seem (on account of the great number and variety of the books) to admit of being properly discussed by the council, the result of its labours was handed over to the pope (Pius IV.) to deal with as he should think proper. In the following March accordingly were published, with papal approval, the *Index librorum prohibitorum*, which continued to be reprinted and brought down to date, and the "Ten Rules" which, supplemented and explained by Clement VIII., Sixtus V., Alexander VII., and finally by Benedict XIV. (10th July 1753), regulated the matter until the pontificate of Leo XIII. The business of condemning pernicious books and of correcting the Index to date has been since the time of Pope Sixtus V. in the hands of the "Congregation of the Index," which consists of several cardinals, one of whom is the prefect, and more or less numerous "consultors" and "examiners of books." An attempt has been made to publish separately the *Index Librorum Expurgandorum or Expurgatorius*, a catalogue of the works which may be read after the deletion or amending of specified passages; but this was soon abandoned.

With the alteration of social conditions, however, the Rules of Trent ceased to be entirely applicable. Their application to publications which had no concern with morals or religion was no longer conceivable; and, finally, the penalties called for modification. Already, at the Vatican Council, several bishops had submitted requests for a reform of the Index, but the Council was not able to deal with the question. The reform was accomplished by Leo XIII., who, on the 25th of January 1897, published the constitution *Officiorum*, in 49 articles. In this constitution, although the writings of heretics in support of heresy are condemned as before (No. 1), those of their books which contain nothing against Catholic doctrine or which treat other subjects are permitted (Nos. 2-3). Editions of the text of the Scriptures are permitted for purposes of study; translations of the Bible into the vulgar tongue have to be approved, while those published by non-Catholics are permitted for the use of scholars (Nos. 5-8). Obscene books are forbidden; the classics, however, are authorized for educational purposes (Nos. 9-10). Articles 11-14 forbid books which outrage God and sacred things, books which propagate magic and superstition, and books which are pernicious to society. The ecclesiastical laws relating to sacred images, to indulgences, and to liturgical books and books of devotion are maintained (Nos. 15-20). Articles 21-22 condemn immoral and irreligious newspapers, and forbid writers to contribute to them. Articles 23-26 deal with permissions to read prohibited books; these are given by the bishop in particular cases, and in the ordinary course by the Congregation of the Index. In the second part of the constitution the pope deals with the censorship of books. After indicating the official publications for which the authorization of the divers Roman congregations is required, he goes on to say that the others are amenable to the ordinary of the editor and, in the case of regulars, to their superior (Nos. 30-37). The examination of the books is entrusted to

censors, who have to study them without prejudice; if their report is favourable, the bishop gives the *imprimatur* (Nos. 38-40). All books concerned with the religious sciences and with ethics are submitted to preliminary censorship, and in addition to this ecclesiastics have to obtain a personal authorization for all their books and for the acceptance of the editorship of a periodical (Nos. 41-42). The penalty of excommunication *ipso facto* is only maintained for reading books written by heretics or apostates in defence of heresy, or books condemned by name under pain of excommunication by pontifical letters (not by decrees of the Index). By the same constitution Leo XIII. ordered the revision of the catalogue of the Index. The new Index, which omits works anterior to 1600 as well as a great number of others included in the old catalogue, appeared in 1900. The encyclical *Pascendi* of Pius X. (8th September 1907) made it obligatory for periodicals amenable to the ecclesiastical authority to be submitted to a censor, who subsequently makes useful observations. The legislation of Leo XIII. resulted in the better observance of the rules for the publication of books, but apparently did not modify the practice as regards the reading of prohibited books. It is to be regretted that the catalogue does not discriminate among the prohibited works according to the motive of their condemnation and the danger ascribed to reading them. The tendency of the practice among Catholics at large is to reduce these condemnations to the proportions of the moral law.



See H. Reusch, *Der Index der verbotenen Bücher* (Bonn, 1883); A. Arndt, *De Libris prohibitis commentarii* (Ratisbon, 1895); A. Boudinhon, *La Nouvelle Législation de l'index* (Paris, 1899); J. Hilgers, *Der Index der verbotenen Bücher* (Freiburg in B., 1904); A. Vermeersch, *De prohibitione et censura librorum* (Tournai, 1907); T. Hurley, *Commentary on the Present Index Legislation* (Dublin, 1908).

(A. Bo.*)

1 Hardouin, *Conc.* ii. 940; Labbé, *Conc.* ii. 938-941. The whole document has also been reprinted in Smith's *Dict. of Chr. Antiq.*, art. "Prohibited Books."

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**INDIA,**[1] a great country and empire of Asia under British rule, inhabited by a congeries of different races, speaking upwards of fifty different languages. The whole Indian empire, including Burma, has an area of 1,766,000 sq. m., and a population of 294 million inhabitants, being about equal to the area and population of the whole of Europe without Russia. The population more than doubles Gibbon's estimate of 120 millions for all the races and nations which obeyed imperial Rome.

The natives of India can scarcely be said to have a word of their own by which to express their common country. In Sanskrit, it would be called "Bharata-varsha," from Bharata, a legendary monarch of the Lunar line; but Sanskrit is no more the vernacular of India than Latin is of Europe. The name "Hindustan," which was at one time adopted by European geographers, is of Persian origin, meaning "the land of the Hindus," as Afghanistan means "the land of the Afghans." According to native usage, however, "Hindustan" is limited either to that portion of the peninsula lying north of the Vindhya mountains, or yet more strictly to the upper basin of the Ganges where Hindi is the spoken language. The "East Indies," as opposed to the "West Indies," is an old-fashioned and inaccurate phrase, dating from the dawn of maritime discovery, and still lingering in certain parliamentary papers. "India," the abstract form of a word derived through the Greeks from the Persicized form of the Sanskrit *sindhu*, a "river," pre-eminently the Indus, has become familiar since the British acquired the country, and is now officially recognized in the imperial title of the sovereign.

## The Country

India, as thus defined, is the middle of the three irregularly shaped peninsulas which jut out southwards from the mainland of Asia, thus corresponding roughly to the peninsula of Italy in the map of Europe. Its form is that of a great triangle, with its base resting upon the Himalayan range and its apex running far into the ocean. The chief part of its western side is washed by the Arabian Sea, and the chief part of its eastern side by the Bay of Bengal. It extends from the 8th to the 37th degree of north latitude, that is to say, from the hottest regions of the equator to far within the temperate zone. The capital, Calcutta, lies in 88° E., so that when the sun sets at six o'clock there, it is just past mid-day in England and early morning in New York. The length of India from north to south, and its greatest breadth from east to west, are both about 1900 m.; but the triangle tapers with a pear-shaped curve to a point at Cape Comorin, its southern extremity. To this compact dominion the British have added Burma, the strip of country on the eastern shores of the Bay of Bengal. But on the other hand the adjacent island of Ceylon has been administratively severed and placed under the Colonial Office. Two groups of islands in the Bay of Bengal, the Andamans and the Nicobars; one group in the Arabian Sea, the Laccadives; and the outlying station of Aden at the mouth of the Red Sea, with Perim, and protectorates over the island of Sokotra, along the southern coast of Arabia and in the Persian Gulf, are all politically included within the Indian empire; while on the coast of the peninsula itself, Portuguese and French settlements break at intervals the continuous line of British territory.

***Position and shape.***

India is shut off from the rest of Asia on the north by a vast mountainous region, known in the aggregate as the Himalayas, amid which lie the independent states of Nepal and Bhutan, with the great table-land of Tibet behind. The native principality of Kashmir occupies the north-western angle of India. At this north-western angle (in 35° N., 74° E.) the mountains curve southwards, and India is separated by the well-marked ranges of the Safed Koh and Suliman from

***Boundaries.***

Afghanistan; and by a southern continuation of lower hills from Baluchistan. Still farther southwards, India is bounded along the W. and S.W. by the Arabian Sea and Indian Ocean. Turning northwards from the southern extremity at Cape Comorin (8° 4′ 20″ N., 77° 35′ 35″ E.), the long sea-line of the Bay of Bengal forms the main part of its eastern boundary. But on the north-east, as on the north-west, India has again a land frontier. The Himalayan ranges at the north-eastern angle (in about 28° N., 97° E.) throw off spurs and chains to the south-east, which separate Eastern Bengal from Assam and Burma. Stretching south-eastwards from the delta of the Irrawaddy, a confused succession of little explored ranges separates the Burmese division of Tenasserim from the native kingdom of Siam. The boundary line runs down to Point Victoria at the extremity of Tenasserim (9° 59′ N., 98° 32′ E.), following in a somewhat rough manner the watershed between the rivers of the British territory on the west and of Siam on the east.

***Three regions.***

The empire included within these boundaries is rich in varieties of scenery and climate, from the highest mountains in the world to vast river deltas raised only a few inches above the level of the sea. It practically forms a continent rather than a country. But if we could look down on the whole from a balloon, we should find that India (apart from Burma, for which see the separate article) consists of three separate and well-defined tracts.

***Himalayas.***

The first of the three regions is the Himalaya (*q.v.*) mountains and their offshoots to the southward, comprising a system of stupendous ranges, the loftiest in the world. They are the *Emodus* of Ptolemy (among other names), and extend in the shape of a scimitar, with its edge facing southwards, for a distance of 1500 m. along the northern frontier of India. At the north-eastern angle of that frontier, the Dihang river, the connecting link between the Tsanpo of Tibet and the Brahmaputra of Assam, bursts through the main axis of the range. At the opposite or north-western angle, the Indus in like manner pierces the Himalayas, and turns southwards on its course through the Punjab. This wild region is in many parts impenetrable to man, and nowhere yields a passage for a modern army. Ancient and well-known trade routes exist, by means of which merchandise from the Punjab finds its way over heights of 18,000 ft. into Eastern Turkestan and Tibet. The Muztagh (Snowy Mountain), the Karakoram (Black Mountain), and the Changchenmo are the most famous of these passes.

The Himalayas not only form a double wall along the north of India, but at both their eastern and western extremities send out ranges to the south, which protect its north-eastern and north-western frontiers. On the north-east, those offshoots, under the name of the Naga and Patkoi mountains, &c., form a barrier between the civilized districts of Assam and the wild tribes of Upper Burma. On the opposite or north-western frontier of India, the mountainous offshoots run down the entire length of the British boundaries from the Himalayas to the sea. As they proceed southwards, their best marked ranges are in turn known as the Safed Koh, the Suliman and the Hala mountains. These massive barriers have peaks of great height, culminating in the Takht-i-Suliman or Throne of Solomon, 11,317 ft. above the level of the sea. But the mountain wall is pierced at the corner where it strikes southwards from the Himalayas by an opening through which the Kabul river flows into India. An adjacent opening, the Khyber Pass, the Kurram Pass to the south of it, the Gomal Pass near Dera Ismail Khan, the Tochi Pass between the two last-named, and the famous Bolan Pass still farther south, furnish the gateways between India and Afghanistan. The Hala, Brahui and Pab mountains, forming the southern hilly offshoots between India and Baluchistan, have a much less elevation.



***River plains.***

The wide plains watered by the Himalayan rivers form the second of the three regions into which we have divided India. They extend from the Bay of Bengal on the east to the Afghan frontier and the Arabian Sea on the west, and contain the richest and most densely crowded provinces of the empire. One set of invaders after another has from prehistoric times entered by the passes at their eastern and north-western frontiers. They followed the courses of the rivers, and pushed the earlier comers southwards before them towards the sea. About 167 millions of people now live on and around these river plains, in the provinces known as the lieutenant-governorship of Bengal, Eastern Bengal and Assam, the United Provinces, the Punjab, Sind, Rajputana and other native states.

***River systems.***

The vast level tract which thus covers northern India is watered by three distinct river systems. One of these systems takes its rise in the hollow trough beyond the Himalayas, and issues through their western ranges upon the Punjab as the Sutlej and Indus. The second of the three river systems also takes its rise beyond the double wall of the Himalayas, not very far from the sources of the Indus and the Sutlej. It turns, however, almost due east instead of west, enters India at the eastern extremity of the Himalayas, and becomes the Brahmaputra of Eastern Bengal and Assam. These rivers collect the drainage of the northern slopes of the Himalayas, and convey it, by long and tortuous although opposite routes, into India. Indeed, the special feature of the Himalayas is that they send down the rainfall from their northern as well as from their southern slopes to the Indian plains. The third river system of northern India receives the drainage of their southern slopes, and eventually unites into the mighty stream of the Ganges. In this way the rainfall, alike from the northern and southern slopes of the Himalayas, pours down into the river plains of Bengal.

***Northern table-land.***

The third division of India comprises the three-sided table-land which covers the southern half or more strictly peninsular portion of India. This tract, known in ancient times as the Deccan (Dakshin), literally “the right hand or south,” comprises the Central Provinces and Berar, the presidencies of Madras and Bombay, and the territories of Hyderabad, Mysore and other feudatory states. It had in 1901 an aggregate population of about 100 millions.

The northern side rests on confused ranges, running with a general direction of east to west, and known in the aggregate as the Vindhya mountains. The Vindhyas, however, are made up of several distinct hill systems. Two sacred peaks guard the flanks in the extreme east and west, with a succession of ranges stretching 800 m. between. At the western extremity, Mount Abu, famous for its exquisite Jain temples, rises, as a solitary outpost of the Aravalli hills 5650 ft. above the Rajputana plain, like an island out of the sea. On the extreme east, Mount Parasnath—like Mount Abu on the extreme west, sacred to Jain rites—rises to 4400 ft. above the level of the Gangetic plains. The various ranges of the Vindhyas, from 1500 to over 4000 ft. high, form, as it were, the northern wall and buttresses which support the central table-land.

Though now pierced by road and railway, they stood in former times as a barrier of mountain and jungle between northern and southern India, and formed one of the main obstructions to welding the whole into an empire. They consist of vast masses of forests, ridges and peaks, broken by cultivated valleys and broad high-lying plains.

The other two sides of the elevated southern triangle are known as the Eastern and Western Ghats. These start southwards from the eastern and western extremities of the Vindhya system, and run along the eastern and western coasts of India. The Eastern Ghats stretch in fragmentary spurs and ranges down the Madras presidency, here and there receding inland and leaving broad level tracts between their base and the coast. The Western Ghats form the great sea-wall of the Bombay presidency, with only a narrow strip between them and the shore. In many parts they rise in magnificent precipices and headlands out of the ocean, and truly look like colossal "passes or landing-stairs" (*ghâts*) from the sea. The Eastern Ghats have an average elevation of 1500 ft. The Western Ghats ascend more abruptly from the sea to an average height of about 3000 ft. with peaks up to 4700, along the Bombay coast, rising to 7000 and even 8760 in the upheaved angle which they unite to form with the Eastern Ghats, towards their southern extremity.

***Ghats.***

The inner triangular plateau thus enclosed lies from 1000 to 3000 ft. above the level of the sea. But it is dotted with peaks and seamed with ranges exceeding 4000 ft. in height. Its best known hills are the Nilgiris, with the summer capital of Madras, Ootacamund, 7000 ft. above the sea. The highest point is Dodabetta Peak (8760 ft.), at the upheaved southern angle.

On the eastern side of India, the Ghats form a series of spurs and buttresses for the elevated inner plateau, rather than a continuous mountain wall. They are traversed by a number of broad and easy passages from the Madras coast. Through these openings the rainfall of the southern half of the inner plateau reaches the sea. The drainage from the northern or Vindhyan edge of the three-sided table-land falls into the Ganges. The Nerbudda and Tapti carry the rainfall of the southern slopes of the Vindhyas and of the Satpura hills, in almost parallel lines, into the Gulf of Cambay. But from Surat, in 21° 9′, to Cape Comorin, in 8° 4′, no large river succeeds in reaching the western coast from the interior table-land. The Western Ghats form, in fact, a lofty unbroken barrier between the waters of the central plateau and the Indian Ocean. The drainage has therefore to make its way across India to the eastwards, now turning sharply round projecting ranges, now tumbling down ravines, or rushing along the valleys, until the rain which the Bombay sea-breeze has dropped upon the Western Ghats finally falls into the Bay of Bengal. In this way the three great rivers of the Madras Presidency, viz., the Godavari, the Kistna and the Cauvery, rise in the mountains overhanging the western coast, and traverse the whole breadth of the central table-land before they reach the sea on the eastern shores of India.

***Eastern Ghats.***

Of the three regions of India thus briefly surveyed, the first, or the Himalayas, lies for the most part beyond the British frontier, but a knowledge of it supplies the key to the ethnology and history of India. The second region, or the great river plains in the north, formed the theatre of the ancient race-movements which shaped the civilization and the political destinies of the whole Indian peninsula. The third region, or the triangular table-land in the south, has a character quite distinct from either of the other two divisions, and a population which is now working out a separate development of its own. Broadly speaking, the Himalayas are peopled by Mongoloid tribes; the great river plains of Hindustan are still the home of the Aryan race; the triangular table-land has formed an arena for a long struggle between that gifted race from the north and what is known as the Dravidian stock in the south.

### *Geology.*

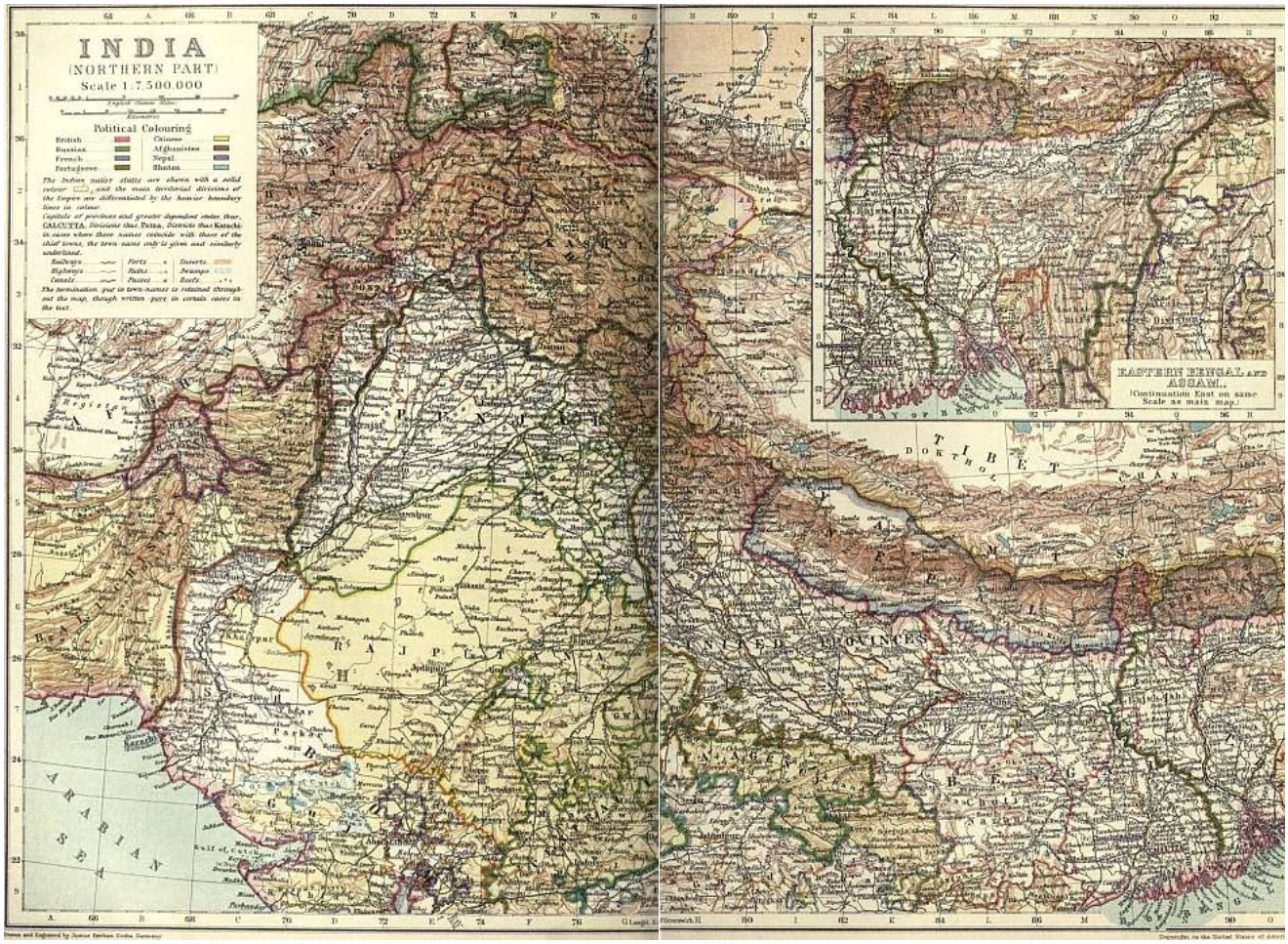
Geologically, as well as physically, India consists of three distinct regions, the Himalayas, the Peninsula, and—between these two—the Indo-Gangetic plain with its covering of alluvium and wind-blown sands. The contrast between the Himalayas and the Peninsula is one of fundamental importance. The former, from the Tertiary period even to the present day, has been a region of compression; the latter, since the Carboniferous period at least, has been a region of equilibrium or of tension. In the former even the Pliocene beds are crumpled and folded, overfolded and overthrust in the most violent fashion; in the latter none but the oldest beds, certainly none so late as the Permian, have been crumpled or crushed—occasionally they are bent and frequently they are faulted, but the faults, though sometimes of considerable magnitude, are simple dislocations, unaccompanied by any serious disturbance of the strata. The greater part of the Himalayan region lay beneath the sea from early Palaeozoic times to the Eocene period, and the deposits are accordingly marine; the Peninsula, on the other hand, has been land since the Permian period at least—there is, indeed, no evidence that it was ever beneath the sea—only on its margins are any marine deposits to be found. It should, however, be mentioned that in the eastern part of the Himalayas some of the beds resemble those of the Peninsula, and it appears that a part of the old Indian continent has here been involved in the folds of the mountain chain.

The geology of the Himalayas being described elsewhere (see Himalayas), the following account deals only with the Indo-Gangetic plain and the Peninsula.

The *Indo-Gangetic Plain* covers an area of about 300,000 sq. m., and varies in width from 90 to nearly 300 m. It rises very gradually from the sea at either end; the lowest point of the watershed between the Punjab rivers and the Ganges is about 924 ft. above the sea. This point, by a line measured down the valley, but not following the winding of the river, is about 1050 m. from the mouth of the Ganges and 850 m. from the mouth of the Indus, so that the average inclination of the plain, from the central watershed to the sea, is only about 1 ft. per mile. It is less near the sea, where for long distances there is no fall at all. Near the watershed it is generally more; but there is here no ridge of high ground between the Indus and the Ganges, and a very trifling change of level would often turn the upper waters of one river into the other. It is not unlikely that such changes have in past time occurred; and if so an explanation is afforded of the occurrence of allied forms of freshwater dolphins (*Platanista*) and of many other animals in the two rivers and in the Brahmaputra.

The alluvial deposits of the plain, as made known by the boring at Calcutta, prove a gradual depression of the area in recent times. There are peat and forest beds, which must have grown quietly at the surface, alternating with deposits of gravel, sand and clay. The thickness of the delta deposit is unknown; 481 ft. was proved at the bore hole, but probably this represents only a small part of the deposit. Outside the delta, in the Bay of Bengal, is a deep depression known as the “swatch of no ground”; all around it the soundings are only of 5 to 10 fathoms, but they very rapidly deepen to over 300 fathoms. Mr J. Ferguson has shown that the sediment is carried away from this area by the set of the currents; probably then it has remained free from sediment whilst the neighbouring sea bottom has gradually been filled up. If so, the thickness of the alluvium is at least 1800 ft., and may be much more. At Lucknow a boring was driven through the Gangetic alluvium to a depth of 1336 ft. from the surface, or nearly 1000 ft. below sea-level. Even at this depth there was no indication of an approach to the base of the alluvial deposits.



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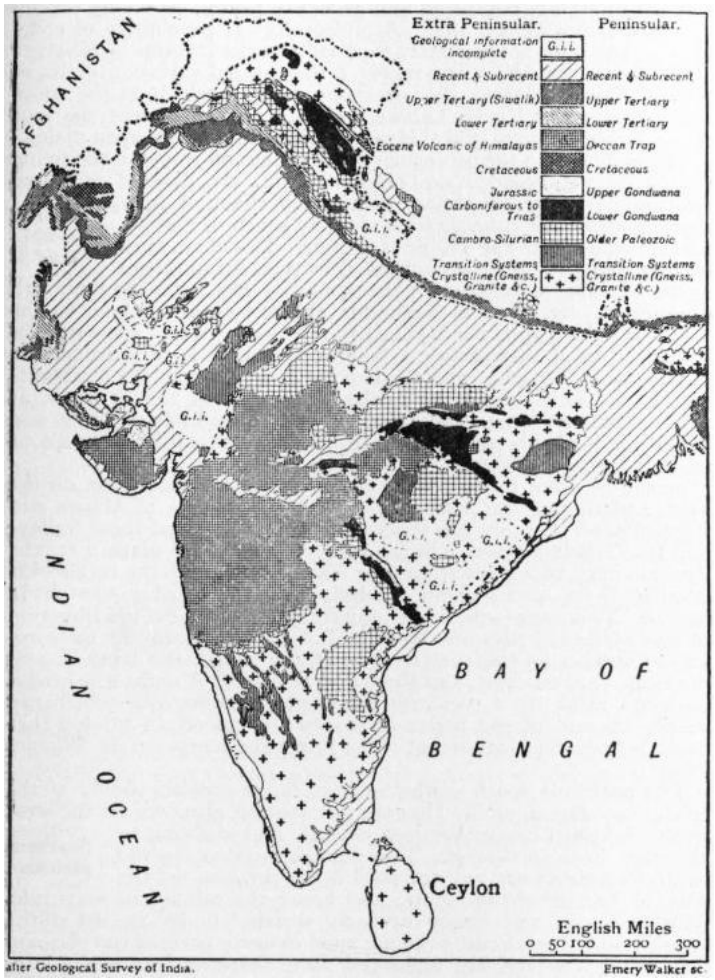
The deposits of the Indo-Gangetic plain are of modern date and the formation of the depression which they fill is almost certainly connected with the elevation of the Himalayas. Both movements are probably still going on. The alluvial deposits prove depression in quite recent geological times; and within the Himalayan region earthquakes are still common, whilst in Peninsular India they are rare.




*Peninsular India.*—The oldest rocks of this region consist of gneiss, granite and other crystalline rocks. They cover a large area in Bengal and Madras and extend into Ceylon; and they are found also in Bundelkhand and in Gujarat. Upon them rest the unfossiliferous strata known to Indian geologists as the Transition and Vindhyan series. The Transition rocks are often violently folded and are frequently converted into schists. In the south, where they are known as the Dharwar series, they form long and narrow bands running from north-north-west to south-south-east across the ancient gneiss; and it is interesting to note that all the quartz-reefs which contain gold in paying quantities occur in the Dharwar series. The Transition rocks are of great but unknown age. The Vindhyan rocks which succeed them are also of ancient date. But long before the earliest Vindhyan rocks were laid down the Transition rocks had been altered and contorted. Occasionally the Vindhyan beds themselves are strongly folded, as in the east of the Cuddapah basin; but this was the last folding of any violence which has occurred in the Peninsula. In more recent times there have been local disturbances, and large faults have in places been formed; but the greater part of the Peninsula rocks are only slightly disturbed. The Vindhyan series is generally sharply marked off from older rocks; but in the Godavari valley there is no well-defined line between them and the Transition rocks. The Vindhyan beds are divided into two groups. The lower, with an estimated thickness of only 2000 ft., or slightly more, cover a large area—extending, with but little change of character, from the Sone valley in one direction to Cuddapah, and in a diverging line to near Bijapur—in each case a distance of over 700 m. The upper Vindhyans cover a much smaller area, but attain a thickness of about 12,000 ft. The Vindhyans are well-stratified beds of sandstone and shale, with some limestones. As yet they have yielded no trace of fossils, and their exact age is consequently unknown. They are however certainly Pre-Permian, and it is most probable that they belong to the early part of the Palaeozoic era. The total absence of fossils is a remarkable fact, and one for which it is difficult to account, as the beds are for the most part quite unaltered. Even if they are entirely of freshwater origin, we should expect that some traces of life from the waters or neighbouring land would be found.

The Gondwana series is in many respects the most interesting and important series of the Indian Peninsula. The beds are almost entirely of freshwater origin. Many subdivisions have been made, but here we need only note the main division into two great groups: Lower Gondwanas, 13,000 ft. thick; Upper Gondwanas, 11,000 ft. thick. The series is mainly confined to the area of country between the Nerbudda and the Sone on the north, and the Kistna on the south; but the western part of this region is in great part covered by newer beds. The lowest Gondwanas are very constant in character, wherever they are found; the upper members of the lower division show more variation, and this divergence of character in different districts becomes more marked in the Upper Gondwana series. Disturbances have occurred in the lower series before the formation of the upper.

The Gondwana beds contain fossils which are of very great interest. In large part these consist of plants which grew near the margins of the old rivers, and which were carried down by floods, and deposited in the alluvial plains, deltas and estuarine areas of the old Gondwana period. The plants of the Lower Gondwanas consist chiefly of acrogens (*Equisetaceae* and ferns) and gymnogens (cycads and conifers), the former being the more abundant. The same classes of plants occur in the Upper Gondwanas; but there the

proportions are reversed, the conifers, and still more the cycads, being more numerous than the ferns, whilst the *Equisetaceae* are but sparingly found. But even within the limits of the Lower Gondwana series there are great diversities of vegetation, three distinct floras occurring in the three great divisions of that formation. In many respects the flora of the highest of these three divisions (the Panchet group) is more nearly related to that of the Upper Gondwanas than it is to the other Lower Gondwana floras. Although during the Gondwana period the flora of India differed greatly from that of Europe, it was strikingly similar to the contemporaneous floras of South America, South Africa and Australia. It is somewhat remarkable that this characteristically southern flora, known as the Glossopteris Flora (from the name of one of the most characteristic genera), has also been found in the north of Russia.

One of the most interesting facts in the history of the Gondwana series is the occurrence near the base (in the Talchir group) of large striated boulders in a fine mud or silt, the boulders in one place resting upon rock (of Vindhyan age) which is also striated. These beds are the result of ice-action, and it is interesting to note that a similar boulder bed is associated with the Glossopteris-bearing deposits of Australia, South Africa and probably South America.

The Damuda series, the middle division of the Lower Gondwanas, is the chief source of coal in Peninsular India, yielding more of that mineral than all other formations taken together. The Karharbari group is the only other coal-bearing formation of any value. The Damudas are 8400 ft. thick in the Raniganj coal-field, and about 10,000 ft. thick in the Satpura basin. They consist of three divisions; coal occurs in the upper and lower, ironstone (without coal) in the middle division. The Raniganj coal-field is the most important in India. It covers an area of about 500 sq. m. and is traversed by the Damuda river, along which run the road from Calcutta to Benares and the East Indian railway. From its situation and importance this coal-field is better known than any other in India. The upper or Raniganj series (stated by the Geological Survey to be 5000 ft. thick) contains eleven seams, having a total thickness of 120 ft., in the eastern district, and thirteen seams, 100 ft. thick, in the western district. The average thickness of the seams worked is from 12 to 18 ft., but occasionally a seam attains a great thickness—20 to 80 ft. The lower or Barakar series (2000 ft. thick) contains four seams, of a total thickness of 69 ft. Compared with English coals those of this coal-field are of but poor quality; they contain much ash, and are generally non-coking. The seams of the lower series are the best, and some of these at Sanktoria, near the Barakar river, are fairly good for coke and gas. The best coal in India is in the small coal-field at Karharbari. The beds there are lower in the series than those of the Raniganj field; they belong to the upper part of the Talchir group, the lowest of the Gondwana series. The coal-bearing beds cover an area of only about 11 sq. m.; there are three seams, varying from 9 to 33 ft. thick. The lowest seam is the best, and this is as good as English steam coal. This coal-field, now largely worked, is the property of the East Indian railway, which is thus supplied with fuel at a cheaper rate than any other railway in the world. Indian coal usually contains phosphoric acid, which greatly lessens its value for iron-smelting.

The Damuda series, which, as we have seen, is the chief source of coal in India, is also one of the most important sources of iron. The ore occurs in the middle division, coal in the highest and lowest. The ore is partly a clay ironstone, like that occurring in the Coal-measures of England, partly an oxide of iron or haematite, and it generally contains phosphorus. Excellent iron-ore occurs in the crystalline rocks south of the Damuda river as also in many other parts of India. Laterite (see below) is sometimes used as ore. It is very earthy and of a low percentage; but it contains only a comparatively small proportion of phosphorus.



The want of limestone for flux, within easy reach, is generally a great drawback as regards iron-smelting in India. *Kankar* or *ghutin* (concretionary carbonate of lime) is collected for this purpose from the river-beds and alluvial deposits. It sometimes contains as much as 70% of carbonate of lime; but generally the amount is much less and the fluxing value proportionally diminished. The real difficulty in India is to find the ore, the fuel, and the flux in sufficiently close proximity to yield a profit.

Contemporaneously with the formation of the upper part of the Gondwana series marine deposits of Jurassic age were laid down in Cutch. Cretaceous beds of marine origin are also found in Cutch, Kathiawar and the Nerbudda valley on the northern margin of the Peninsula, and near Pondicherry and Trichinopoly on its south-eastern margin. There is a striking difference between the Cretaceous faunas of the two areas, the fossils from the north being closely allied to those of Europe, while those of the south (Pondicherry and Trichinopoly) are very different and are much more nearly related to those from the Cretaceous of Natal. It is now very generally believed that in Jurassic and Cretaceous times a great land-mass stretched from South Africa through Madagascar to India, and that the Cretaceous deposits of Cutch, &c., were laid down upon its northern shore, and those of Pondicherry and Trichinopoly upon its southern shore. The land probably extended as far as Assam, for the Cretaceous fossils of Assam are similar to those of the south.

The enormous mass of basaltic rock known as the Deccan Trap is of great importance in the geological structure of the Indian Peninsula. It now covers about 200,000 sq. m., and formerly extended over a much wider area. Where thickest, the traps are at least 6000 ft. thick. They form some of the most striking physical features of the Peninsula, many of the most prominent hill ranges having been carved out of the basaltic flows. The great volcanic outbursts which produced this trap commenced in the Cretaceous period and lasted on into the Eocene period.

Laterite is a ferruginous and argillaceous rock, varying from 30 to 200 ft. thick, which often occurs over the trap area and also over the gneiss. As a rule it makes rather barren land; it is highly porous, and the rain rapidly sinks into it. Laterite may be roughly divided into two kinds, high-level and low-level laterites. It has usually been formed by the decomposition *in situ* of the rock on which it rests, but it is often broken up and re-deposited elsewhere.

### *Meteorology.*

The great peninsula of India, with its lofty mountain ranges behind and its extensive seaboard exposed to the first violence of the winds of two oceans, forms an exceptionally valuable and interesting field for the study of meteorological phenomena.

From the gorge of the Indus to that of the Brahmaputra, a distance of 1400 m., the Himalayas form an unbroken watershed, the northern flank of which is drained by the upper valleys of these two rivers; while the Sutlej, starting from the southern foot of the Kailas Peak, breaks through the watershed, dividing it into two very unequal portions, that to the north-west being the smaller. The average elevation of the Himalaya crest may be taken at not less than 19,000 ft., and therefore equal to the height of the lower half of the atmosphere; and indeed few of the passes are under 16,000 or 17,000 ft. Across this mountain barrier there appears to be a constant flow of air, more active in the day-time than at night, northwards to the arid plateau of Tibet. There is no reason to believe that any transfer of air takes place across the Himalayas in a southerly direction, unless indeed in those most elevated regions of the atmosphere which lie beyond the range of observation; but a nocturnal flow of cooled air, from the southern slopes, is felt as a strong wind where the rivers debouch on the plains, more especially in the early morning hours; and this probably contributes in some degree to lower the mean temperature of that belt of the plains which fringes the mountain zone.

***Himalayas.***

At the foot of the great mountain barrier, and separating it from the more ancient land which now forms the highlands of the peninsula, a broad plain, for the most part alluvial, stretches from sea to sea. On the west, in the dry region, this is occupied partly by the alluvial deposits of the Indus and its tributaries and the saline swamps of Cutch, partly by the rolling sands and rocky surface of the desert of Jaisalmer and Bikaner, and the more fertile tracts to the eastward watered by the Luni. Over the greater part of this region rain is of rare occurrence; and not infrequently more than a year passes without a drop falling on the parched surface. On its eastern margin, however, in the neighbourhood of the Aravalli hills, and again in the northern Punjab, rain is more frequent, occurring both in the south-west monsoon and also at the opposite season in the cold weather. As far south as Sirsa and Multan the average rainfall does not much exceed 7 in.

***Indus plain.***

The alluvial plain of the Punjab passes into that of the Gangetic valley without visible interruption. Up or down this plain, at opposite seasons, sweep the monsoon winds, in a direction at right angles to that of their nominal course; and thus vapour which has been brought by winds from the Bay of Bengal is discharged as snow and rain on the peaks and hillsides of the Western Himalayas. Nearly the whole surface is under cultivation, and it ranks among the most productive as well as the most densely populated regions of the world. The rainfall diminishes from 100 in. in the south-east corner of the Gangetic delta to less than 30 in. at Agra and Delhi, and there is an average difference of from 15 to 25 in. between the northern and southern borders of the plain.

***Gangetic plain.***

Eastward from the Bengal delta, two alluvial plains stretch up between the hills which connect the Himalayan system with that of the Burmese peninsula. The first, or the valley of Assam and the Brahmaputra, is long and narrow, bordered on the north by the Himalayas, on the south by the lower plateau of the Garo, Khasi and Naga hills. The other, short and broad, and in great part occupied by swamps and *jhils*, separates the Garo, Khasi and Naga hills from those of Tippera and the Lushai country. The climate of these plains is damp and equable, and the rainfall is prolonged and generally heavy, especially on the southern slopes of the hills. A meteorological peculiarity of some interest has been noticed, more especially at the stations of Sibsagar and Silchar, viz. the great range of the diurnal variation of barometric pressure during the afternoon hours,—which is the more striking, since at Rurki, Lahore, and other stations near the foot of the Western Himalayas this range is less than in the open plains.

***Eastern Bengal.***

The highlands of the peninsula, which are cut off from the encircling ranges by the broad Indo-Gangetic plain, are divided into two unequal parts by an almost continuous chain of hills running across the country from west by south to east by north, just south of the Tropic of Cancer. This chain may be regarded as a single geographical feature, forming one of the principal watersheds of the peninsula, the waters to the north draining chiefly into the Nerbudda and the Ganges, those to the south into the Tapti, the Mahanadi, the Godavari and some smaller streams. In a meteorological point of view it is of considerable importance. Together with the two parallel valleys of the Nerbudda and Tapti, which drain the flanks of its western half, it gives, at opposite seasons of the year, a decided easterly and westerly direction to the winds of this part of India, and condenses a tolerably copious rainfall during the south-west monsoon.

***Central table-land.***

Separated from this chain by the valley of the Nerbudda on the west, and that of the Sone on the east, the plateau of Malwa and Baghelkhand occupies the space intervening between these valleys and the Gangetic plain. On the western edge of the plateau are the Aravalli hills, which run from near Ahmedabad up to the neighbourhood of Delhi, and include one hill, Mount Abu, over 5000 ft. in height. This range exerts an important influence on the direction of the wind, and also on the rainfall. At Ajmer, an old meteorological station at the eastern foot of the range, the wind is predominantly south-west, and there and at Mount Abu the south-west monsoon rains are a regularly recurrent phenomenon,—which can hardly be said of the region of scanty and uncertain rainfall that extends from the western foot of the range and merges in the Bikaner desert.

The peninsula south of the Satpura range consists chiefly of the triangular plateau of the Deccan, terminating abruptly on the west in the Sahyadri range (Western Ghats), and shelving to the east (Eastern Ghats). This plateau is swept by the south-west monsoon, but not until it has surmounted the western barrier of the Ghats; and hence the rainfall is, as a rule, light at Poona and places similarly situated under the lee of the range, and but moderate over the more easterly parts of the plateau. The rains, however, are prolonged some three or four weeks later than in tracts to the north of the Satpuras, since they are also brought by the easterly winds which blow from the Bay of Bengal in October and the early part of November, when the recurved southerly wind ceases to blow up the Gangetic valley, and sets towards the south-east coast.

***Southern plateau.***

At the junction of the Eastern and Western Ghats rises the bold triangular plateau of the Nilgiris, and to the south of them come the Anamalais, the Palnis, and the hills of Travancore. These ranges are separated from the Nilgiris by a broad depression or pass known as the Palghat Gap, some 25 m. wide, the highest

***Southern India.*** point of which is only 1500 ft. above the sea. This gap affords a passage to the winds which elsewhere are barred by the hills of the Ghat chain. The country to the east of the gap receives the rainfall of the south-west monsoon; and during the north-east monsoon ships passing Beypur meet with a stronger wind from the land than is felt elsewhere on the Malabar coast. In the strip of low country that fringes the peninsula below the Ghats the rainfall is heavy and the climate warm and damp, the vegetation being dense and characteristically tropical, and the steep slopes of the Ghats, where they have not been artificially cleared, thickly clothed with forest.

***Burma.*** In Lower Burma the western face of the Arakan Yoma hills, like that of the Western Ghats in India, is exposed to the full force of the south-western monsoon, and receives a very heavy rainfall. At Sandoway this amounts to an annual mean of 212 in. It diminishes to the northwards, but even at Chittagong it is over 104 in. annually.

The country around Mandalay, as well as the hill country to the north, has suffered from severe earthquakes, one of which destroyed Ava in 1839. The general meridional direction of the ranges and valleys determines the direction of the prevailing surface winds, this being, however, subject to many local modifications. But it would appear that throughout the year there is, with but slight interruption, a steady upper current from the south-west, such as has been already noticed over the Himalayas. The rainfall in the lower part of the Irrawaddy valley, viz. the delta and the neighbouring part of the province of Pegu, is very heavy; and the climate is mild and equable at all seasons. But higher up the valley, and especially north of Pegu, the country is drier, and is characterized by a less luxuriant vegetation and a retarded and more scanty rainfall.



***Climate.*** Within the boundaries of India almost any extreme of climate that is known to the tropics or the temperate zone can be found. It is influenced from outside by two adjoining areas. On the north, the Himalaya range and the plateau of Afghanistan shut it off from the climate of central Asia, and give it a continental climate, the characteristics of which are the prevalence of land winds, great dryness of the air, large diurnal range of temperature, and little or no precipitation. On the south the ocean gives it an oceanic climate, the chief features of which are great uniformity of temperature, small diurnal range of temperature, great dampness of the air, and more or less frequent rain. The continental type of weather prevails over almost the whole of India from December to May, and the oceanic type from June to November, thus giving rise to the two great divisions of the year, the dry season or north-east monsoon, and the rainy season or south-west monsoon. India thus becomes the type of a tropical monsoon climate. For the origin of the monsoon currents and their distribution see Monsoon.

The two monsoon periods are divided by the change of temperature, due to solar action upon the earth’s surface, into two separate seasons; and thus the Indian year may be divided into four seasons: the cold season, including the months of January and February; the hot season, comprising the months of March, April and May; the south-west monsoon period, including the months of June, July, August, September and October; and the retreating monsoon period, including the months of November and December. The temperature is nearly constant in southern India the whole year round, but in northern India, where the extremes of both heat and cold are greatest, the variation is very large.

***The cold weather.*** In the cold season the mean temperature averages about 30° lower in the Punjab than in southern India. In the Punjab, the United Provinces, and northern India generally the climate resembles that of the Riviera with a brilliant cloudless sky and cool dry weather. This is the time for the tourist to visit India. In south India it is warmer on the west coast than on the east, and the maximum temperature is found round the headwaters of the Kistna. Calcutta, Bombay and Madras all possess the equable climate that is induced by proximity to the sea, but Calcutta enjoys a cold season which is not to be found in the other presidency towns, while the hot season is more unendurable there.

***The hot weather.*** The hot season begins officially in the Punjab on the 15th of March, and from that date there is a steady rise in the temperature, induced by the fiery rays of the sun upon the baking earth, until the break of the rains in June. During this season the interior of the peninsula and northern India is greatly heated; and the contrast of temperature is not between northern and southern India, but between the interior of India and the coast districts and adjacent seas. The greater part of the Deccan and the Central Provinces are included within the hottest area, though in May the highest temperatures are found in Upper Sind, north-west Rajputana, and south-west Punjab. At Jacobabad the thermometer sometimes rises to 125° in the shade.

***The monsoon period.*** The south-west monsoon currents usually set in during the first fortnight of June on the Bombay and Bengal coasts, and give more or less general rain in every part of India during the next three months. But the distribution of the rainfall is very uneven. On the face of the Western Ghats, and on the Khasi hills, overlooking the Bay of Bengal, where the mountains catch the masses of vapour as it rises off the sea, the rainfall is enormous. At Cherrapunji in the Khasi hills it averages upwards of 500 in. a year. The Bombay monsoon, after surmounting the Ghats, blows across the peninsula as a west and sometimes in places a north-west wind; but it leaves with very little rain a strip 100 to 200 m. in width in the western Deccan parallel with the Ghats, and it is this part of the Deccan, together with the Mysore table-land and the Carnatic, that is most subject to drought. Similarly the Bengal monsoon passes by the Coromandel coast and the Carnatic with an occasional shower, taking a larger volume to Masulipatam and Orissa, and abundant rain to Bengal, Assam and Cachar. The same current also supplies with rain the broad band across India, which includes the Satpura range, Chota Nagpur, the greater part of the Central Provinces and Central India, Orissa and Bengal. Rainfall rapidly diminishes to the north-west from that belt. A branch of the Bombay current blows pretty steadily through Rajputana to the Punjab, carrying some rain to the latter province. But the greater part of north-west India is served as a rule by cyclonic storms between the two currents. In September the force of the monsoon begins rapidly to decline, and after about the middle of the month it ceases to carry rain to the greater part of north-western India. In its rear springs up a gentle steady north-east wind, which gradually extends over the Bay of Bengal, and is known as the north-east monsoon. A wind similar in

character, but rather more easterly in direction, simultaneously takes possession of the Arabian Sea. The months of November and December form a transition period between the monsoon and the cold season. The most unhealthy period of the year follows immediately after the rains, when malaria is prevalent, especially in northern India.

*Flora.*

Unlike many other large geographical areas, India is remarkable for having no distinctive botanical features peculiar to itself. It differs conspicuously in this respect from such countries as Australia or South Africa. Its vegetation is in point of fact of a composite character, and is constituted by the meeting and more or less blending of adjoining floras,—those of Persia and the south-eastern Mediterranean area to the north-west, of Siberia to the north, of China to the east, and of Malaya to the south-east. Regarded broadly, four tolerably distinct types present themselves.

1. The upper levels of the Himalayas slope northwards gradually to the Tibetan uplands, over which the Siberian temperate vegetation ranges. This is part of the great temperate flora which, with locally individualized species, but often with identical genera, ranges over the whole of the temperate zone of the northern hemisphere. In the western Himalayas this upland flora is marked by a strong admixture of European species, such as the columbine (*Aquilegia*) and hawthorn (*Crataegus Oxyacantha*). These disappear rapidly eastward, and are scarcely found beyond Kumaon. The base of the Himalayas is occupied by a narrow belt forming an extreme north-western extension of the Malayan type described below. Above that there is a rich temperate flora which in the eastern chain may be regarded as forming an extension of that of northern China, gradually assuming westwards more and more of a European type. *Magnolia*, *Aucuba*, *Abelia* and *Skimmia* may be mentioned as examples of Chinese genera found in the eastern Himalayas, and the tea-tree grows wild in Assam. The same coniferous trees are common to both parts of the range. *Pinus longifolia* extends to the Hindu-Kush; *P. excelsa* is found universally except in Sikkim, and has its European analogue in *P. Peuce*, found in the mountains of Greece. *Abies smithiana* extends into Afghanistan; *Abies webbiana* forms dense forests at altitudes of 8000 to 12,000 ft., and ranges from Bhutan to Kashmir; several junipers and the common yew (*Taxus baccata*) also occur. The deodar (*Cedrus Deodara*), which is indigenous to the mountains of Afghanistan and the north-west Himalaya, is nearly allied to the Atlantic cedar and to the cedar of Lebanon, a form of which is found in Cyprus. A notable further instance of the connexion of the western Himalayan flora with that of Europe is the holm oak (*Quercus Ilex*), which is characteristic of the Mediterranean region.

***Himalayas.***

2. The north-western area is best marked in Sind and the Punjab, where the climate is very dry (the rainfall averaging less than 15 in.), and where the soil, though fertile, is wholly dependent on irrigation for its cultivation. The flora is a poor one in number of species, and is essentially identical with that of Persia, southern Arabia and Egypt. The low scattered jungle contains such characteristic species as *Capparis aphylla*, *Acacia arabica* (babul), *Populus euphratica* (the “willows” of Ps. cxxxvii. 2), *Salvadora persica* (erroneously identified by Royle with the mustard of Matt. xiii. 31), tamarisk, *Zizyphus*, *Lotus*, &c. The dry flora extends somewhat in a south-east direction, and then blends insensibly with that of the western peninsula; some species representing it are found in the upper Gangetic plain, and a few are widely distributed in dry parts of the country.

***North-west.***

3. For the Malayan area, which Sir Joseph Hooker describes as forming “the bulk of the flora of the perennially humid regions of India, as of the whole Malayan peninsula, Upper Assam valley, the Khasi mountains, the forests of the base of the Himalaya from the Brahmaputra to Nepal, of the Malabar coast, and of Ceylon,” see Assam, Ceylon and Malay Peninsula.

***Assam and Malayan peninsula.***

4. The western India type is difficult to characterize, and is in many respects intermediate between the two just preceding. It occupies a comparatively dry area, with a rainfall under 75 in. In respect to positive affinities, Sir Joseph Hooker pointed out some relations with the flora of tropical Africa as evidenced by the prevalence of such genera as *Grewia* and *Impatiens*, and the absence, common to both countries, of oaks and pines which abound in the Malayan archipelago. The annual vegetation which springs up in the rainy season includes numerous genera, such as *Sida* and *Indigofera*, which are largely represented both in Africa and Hindustan. Palms also in both countries are scanty, the most notable in southern India being the wild date (*Phoenix sylvestris*); *Borassus* and the coco-nut are cultivated. The forests, though occasionally very dense, as in the Western Ghats, are usually drier and more open than those of the Malayan type, and are often scrubby. The most important timber trees are the *túm* (*Cedrela Toona*), *sál* (*Shorea robusta*), the present area of which forms two belts separated by the Gangetic plain; satin wood (*Chloroxylon Swietenia*), common in the drier parts of the peninsula; sandal-wood, especially characteristic of Mysore; iron-wood (*Mesua ferrea*), and teak (*Tectona grandis*).

***Western India.***



*Fauna.*

*Mammals.*—First among the wild animals of India must be mentioned the lion (*Felis leo*), which is known to have been not uncommon within historical times in Hindustan proper and the Punjab. At present the lion is confined to the Gir, or rocky hill-desert and forest of Kathiawar. A peculiar variety is there found, marked by the absence of a mane; but whether this variety deserves to be classed as a distinct species, naturalists have not yet determined. These lions at one time were almost extinct, but after being preserved since about 1890 by the Nawab of Junagarh, they have once more become comparatively plentiful. A good lion, measures from 9 to 9½ ft. in length.

***Lion.***

The characteristic beast of prey in India is the tiger (*F. tigris*), which is found in every part of the country, from the slopes of the Himalayas to the Sundarbans swamps. The average length of a tiger from nose to tip of tail is 9 ft. to 10 ft. for tigers, and 8 ft. to 9 ft. for tigresses, but a tiger of 12 ft. 4 in. has been

**Tiger.** shot. The advance of cultivation, even more than the incessant attacks of sportsmen, has gradually caused the tiger to become a rare animal in large tracts of country; but it is scarcely probable that he will ever be exterminated from India. The malarious *tarái* fringing the Himalayas, the uninhabitable swamps of the Gangetic delta, and the wide jungles of the central plateau are at present the chief home of the tiger. His favourite food appears to be deer, antelope and wild hog. When these abound he will disregard domestic cattle. Indeed, the natives are disposed to consider him as in some sort their protector, as he saves their crops from destruction by the wild animals on which he feeds. But when once he develops a taste for human blood, then the slaughter he works becomes truly formidable. The confirmed man-eater, which is generally an old beast, disabled from overtaking his usual prey, seems to accumulate his tale of victims in sheer cruelty rather than for food. A single tiger is known to have killed 108 people in the course of three years. Another killed an average of about 80 persons per annum. A third caused thirteen villages to be abandoned, and 250 sq. m. of land to be thrown out of cultivation. A fourth, in 1869, killed 127 people, and stopped a public road for many weeks, until the opportune arrival of an English sportsman, who at last killed him. Such cases are, of course, exceptional, and generally refer to a period long past, but they explain and justify the superstitious awe with which the tiger is regarded by the natives. The favourite mode of shooting the tiger is from the back of elephants, or from elevated platforms (*machán*s) of boughs in the jungle. In Central India they are shot on foot. In Assam they are sometimes speared from boats, and in the Himalayas they are said to be ensnared by bird-lime. Rewards are given by government to native *shikáris* for the heads of tigers, varying in time and place according to the need. In 1903 the number of persons killed by tigers in the whole of India was 866, while forty years previously 700 people were said to be killed annually in Bengal alone.

**Leopard.** The leopard or panther (*F. pardus*) is far more common than the tiger in all parts of India, and at least equally destructive to life and property. The greatest length of the leopard is about 7 ft. 6 in. A black variety, as beautiful as it is rare, is sometimes found in the extreme south of the peninsula, and also in Java.

The cheetah or hunting leopard (*Cynaelurus jubatus*) must be carefully distinguished from the leopard proper. This animal appears to be a native only of the Deccan, where it is trained for hunting the antelope. In some respects it approaches the dog more nearly than the cat tribe. Its limbs are long, its hair rough, and its claws blunt and only partially retractile. The speed with which it bounds upon its prey, when loosed from the cart, exceeds the swiftness of any other mammal. If it misses its first attack, it scarcely ever attempts to follow, but returns to its master. Among other species of the family *Felidae* found in India may be mentioned the ounce or snow leopard (*F. uncia*), the clouded leopard (*F. nebulosa*), the marbled cat (*F. marmorata*), the jungle cat (*F. chaus*), and the viverrine cat (*F. viverrina*).

**Wolf tribe.** Wolves (*Canis lupus*) abound throughout the open country, but are rare in the wooded districts. Their favourite prey is sheep, but they are also said to run down antelopes and hares, or rather catch them by lying in ambush. Instances of their attacking man are not uncommon, and the story of Romulus and Remus has had its counterpart in India within comparatively recent times. The Indian wolf has a dingy reddish-white fur, some of the hairs being tipped with black. By some naturalists it is regarded as a distinct species, under the name of *Canis pallipes*. Three distinct varieties, the white, the red and the black wolf, are found in the Tibetan Himalayas. The Indian fox (*Vulpes bengalensis*) is comparatively rare, but the jackal (*C. aureus*) abounds everywhere, making night hideous by its never-to-be-forgotten yells. The jackal, and not the fox, is usually the animal hunted by the packs of hounds occasionally kept by Europeans.

**Dog.** The wild dog, or dhole (*Cyon*), is found in all the wilder jungles of India, including Assam and Lower Burma. Its characteristic is that it hunts in packs, sometimes containing thirty dogs, and does not give tongue. When once a pack of wild dogs has put up any animal, that animal's doom is sealed. They do not leave it for days, and finally bring it to bay, or run it down exhausted. A peculiar variety of wild dog exists in the Karen hills of Burma, thus described from a specimen in confinement. It was black and white, as hairy as a skye-terrier, and as large as a medium-sized spaniel. It had an invariable habit of digging a hole in the ground, into which it crawled backwards, remaining there all day with only its nose and ferrety eyes visible. Among other dogs of India are the pariah, which is merely a mongrel, run wild and half starved; the poligar dog, an immense creature peculiar to the south; the greyhound, used for coursing; and the mastiff of Tibet and Bhutan. The striped hyaena (*Hyaena striata*) is common, being found wherever the wolf is absent. Like the wolf, it is very destructive both to the flocks and to children.

**Bear.** Of bears, the common black or sloth bear (*Melursus ursinus*) is common throughout India wherever rocky hills and forests occur. It is distinguished by a white horse-shoe mark on its breast. Its food consists of ants, honey and fruit. When disturbed it will attack man, and it is a dangerous antagonist, for it always strikes at the face. The Himalayan or Tibetan sun bear (*Ursus torquatus*) is found along the north, from the Punjab to Assam. During the summer it remains high up in the mountains, near the limit of snow, but in the winter it descends to 5000 ft. and even lower. Its congener, the Malayan sun bear (*U. malayanus*), is found in Lower Burma.

**Elephant.** The elephant (*Elephas indicus*) is found in many parts of India, though not in the north-west. Contrary to what might be anticipated from its size and from the habits of its African cousin, the Indian elephant is now, at any rate, an inhabitant, not of the plains, but of the hills; and even on the hills it is usually found among the higher ridges and plateaus, and not in the valleys. From the peninsula of India the elephant has been gradually exterminated, being only found now in the primeval forests of Coorg, Mysore and Travancore, and in the tributary state of Orissa. It still exists in places along the *tarái* or submontane fringe of the Himalayas. The main source of supply at the present time is the confused mass of hills which forms the north-east boundary of British India, from Assam to Burma. Two varieties are there distinguished, the *gunda* or tusker, and the *makna* or *hine*, which has no tusks. The reports of the height of the elephant, like those of its intelligence, seem to be exaggerated. The maximum is probably 12 ft. If hunted, the elephant must be attacked on foot, and the sport is therefore dangerous, especially as the animal has but few parts vulnerable to a bullet. The regular mode of catching

elephants is by means of a *keddah*, or gigantic stockade, into which a wild herd is driven, then starved into submission, and tamed by animals already domesticated. The practice of capturing them in pitfalls is discouraged as cruel and wasteful. Elephants now form a government monopoly everywhere in India. The shooting of them is prohibited, except when they become dangerous to man or destructive to the crops; and the right of capturing them is only leased out upon conditions. A special law, under the title of "The Elephants Preservation Act" (No. VI. of 1879), regulates this licensing system. Whoever kills, captures or injures an elephant, or attempts to do so, without a licence, is punishable by a fine of 500 rupees for the first offence; and a similar fine, together with six months' imprisonment, for a second offence. Though the supply is decreasing, elephants continue to be in great demand. Their chief use is in the timber trade and for government transport. They are also bought up by native chiefs at high prices for purposes of ostentation.

**Rhinoceros.**

Of the rhinoceros, three distinct varieties are enumerated, two with a single and one with a double horn. The most familiar is the *Rhinoceros unicornis*, commonly found in the Brahmaputra valley. It has but one horn, and is covered with massive folds of naked skin. It sometimes attains a height of 6 ft.; its horn, which is much prized by the natives for medicinal purposes, seldom exceeds 14 in. in length. It frequents swampy, shady spots, and wallows in mud like a pig. The traditional antipathy of the rhinoceros to the elephant seems to be mythical. The Javan rhinoceros (*R. sondaicus*) is found in the Sundarbans and also in Burma. It also has but one horn, and mainly differs from the foregoing in being smaller, and having less prominent "shields." The Sumatran rhinoceros (*R. sumatrensis*) is found from Chittagong southwards through Burma. It has two horns and a bristly coat.

**Wild hog.**

The wild hog (*Sus cristatus*) is well known as affording the most exciting sport in the world—"pig-sticking." It frequents cultivated situations, and is the most mischievous enemy of the villager. A rare animal, called the pigmy hog (*S. salvanius*), exists in the *tarái* of Nepal and Sikkim, and has been shot in Assam. Its height is only 10 in., and its weight does not exceed 12 lb.

**Wild ass.**

The wild ass (*Equus hemionus*) is confined to the sandy deserts of Sind and Cutch, where, from its speed and timidity, it is almost unapproachable.

**Sheep and goats.**

Many wild species of the sheep and goat tribe are to be found in the Himalayan ranges. The *Ovis ammon* and *O. poli* are Tibetan rather than Indian species. The *urial* and the *shapu* are kindred species of wild sheep (*Ovis vignei*), found respectively in Ladakh and the Suleiman range. The former comes down to 2000 ft. above the sea, the latter is never seen at altitudes lower than 12,000 ft. The *barhal*, or blue wild sheep (*O. nahura*), and the *markhor* and *tahr* (both wild goats), also inhabit the Himalayas. A variety of the ibex is also found there, as well as in the highest ranges of southern India. The *sarau* (*Nemorhaedus bubalinus*), allied to the chamois, has a wide range in the mountains of the north, from the Himalayas to Assam and Burma.



**Antelopes.**

The antelope tribe is represented by comparatively few species, as compared with the great number peculiar to Africa. The antelope proper (*Antilope*), the "black buck" of sportsmen, is very generally distributed. Its special habitat is salt plains, as on the coast-line of Gujarat and Orissa, where herds of fifty does may be seen, accompanied by a single buck. The doe is of a light fawn colour and has no horns. The colour of the buck is a deep brown-black above, sharply marked off from the white of the belly. His spiral horns, twisted for three or four turns like a corkscrew, often reach the length of 30 in. The flesh is dry and unsavoury, but is permitted meat for Hindus, even of the Brahman caste. The *nílgai*, or blue cow (*Boselaephus tragocamelus*) is also widely distributed, but specially abounds in Hindustan Proper and Gujarat. As with the antelope, the male alone has the dark-blue colour. The *nílgai* is held peculiarly sacred by Hindus, from its fancied kinship to the cow, and on this account its destructive inroads upon the crops are tolerated. The four-horned antelope (*Tetracerus quadricornis*) and the gazelle (*Gazella bennetti*), the chinkara or "ravine deer" of sportsmen, are also found in India.

**Deer.**

The king of the deer tribe is the *sámbhar* or *jarau* (*Cervus unicolor*), erroneously called "elk" by sportsmen. It is found on the forest-clad hills in all parts of the country. It is of a deep-brown colour, with hair on its neck almost like a mane; and it stands nearly 5 ft. high, with spreading antlers nearly 3 ft. in length. Next in size is the swamp deer or *bara-singha*, signifying "twelve points" (*C. duvaucelli*), which is common in Lower Bengal and Assam. The *chitál* or spotted deer (*C. axis*) is generally admitted to be the most beautiful inhabitant of the Indian jungles. Other species include the hog deer (*C. porcinus*), the barking deer or muntjac (*Cervulus muntjac*), and the chevrotain or mouse deer (*Tragulus meminna*). The musk deer (*Moschus moschiferus*) is confined to Tibet.

**Bison.**

The ox tribe is represented in India by some of its noblest species. The *gaur* (*Bos gaurus*), the "bison" of sportsmen, is found in all the hill jungles of the country, in the Western Ghats, in Central India, in Assam, and in Burma. This animal sometimes attains the height of 20 hands (close on 7 ft.), measuring from the hump above the shoulder. Its short curved horns and skull are enormously massive. Its colour is dark chestnut, or coffee-brown. From the difficult nature of its habitat, and from the ferocity with which it charges an enemy, the pursuit of the bison is no less dangerous and no less exciting than that of the tiger or the elephant. Akin to the gaur, though not identical, are the *gayál* or *mithun* (*B. frontalis*), confined to the hills of the north-east frontier, where it is domesticated for sacrificial purposes by the aboriginal tribes, and the *tsine* or *banting* (*B. sondaicus*), found in Burma. The wild buffalo (*Bos bubalus*) differs from the tame buffalo only in being larger and more fierce. The finest specimens come from Assam and Burma. The horns of the bull are thicker than those of the cow, but the horns of the cow are larger. A head has been known to measure 13 ft. 6 in. in circumference, and 6 ft. 6 in. between the tips. The greatest height is 6 ft. The colour is a slaty black; the hide is immensely thick, with scanty hairs. Alone perhaps of all wild animals in India, the buffalo will charge unprovoked. Even tame buffaloes seem to have an inveterate dislike to Europeans.

**Buffalo.**

The rat and mouse family is only too numerous. Conspicuous in it is the loathsome bandicoot (*Nesocia bandicota*), which sometimes measures 2 ft. in length, including its tail, and weighs 3 lb. It burrows under houses, and is very destructive to plants, fruit and even poultry. More interesting is the tree mouse (*Vandeleusia*), about 7 in. long, which makes its nest in palms and bamboos. The field rats (*Mus mettada*) occasionally multiply so exceedingly as to diminish the out-turn of the local harvest, and to require special measures for their destruction.

**Rat tribe.**

*Birds.*—The ornithology of India, though it is not considered so rich in specimens of gorgeous and variegated plumage as that of other tropical regions, contains many splendid and curious varieties. Some are clothed in nature's gay attire, others distinguished by strength, size and fierceness. The parrot tribe is the most remarkable for beauty. Among birds of prey, four vultures are found, including the common scavengers (*Gyps indicus* and *G. bengalensis*). The eagles comprise many species, but none to surpass the golden eagle of Europe. Of falcons, there are the peregrine (*F. peregrinus*), the *shain* (*F. peregrinator*), and the *lagar* (*F. jugger*), which are all trained by the natives for hawking; of hawks, the *shikara* (*Astur badius*), the goshawk (*A. palumbarius*), and the sparrow-hawk (*Accipiter nisus*). Kingfishers of various kinds and herons are sought for their plumage. No bird is more popular with natives than the *maina* (*Acridotheres tristis*), a member of the starling family, which lives contentedly in a cage, and can be taught to pronounce words, especially the name of the god Rama. Water-fowl are especially numerous. Of game-birds, the floriken (*Sypheotis aurita*) is valued as much for its rarity as for the delicacy of its flesh. Snipe (*Gallinago coelestis*) abound at certain seasons, in such numbers that one gun has been known to make a bag of one hundred brace in a day. Pigeons, partridges, quail, plover, duck, teal, sheldrake, widgeon—all of many varieties—complete the list of small game. The red jungle fowl (*Gallus ferrugineus*), supposed to be the ancestor of our own poultry, is not good eating; and the same may be said of the peacock (*Pavo cristatus*), except when young. The pheasant does not occur in India Proper, though a white variety is found in Burma.

**Birds.**

*Reptiles.*—The serpent tribe in India is numerous; they swarm in all the gardens, and intrude into the dwellings of the inhabitants, especially in the rainy season. Most are comparatively harmless, but the bite of others is speedily fatal. The cobra di capello (*Naia tripudians*)—the name given to it by the Portuguese, from the appearance of a hood which it produces by the expanded skin about the neck—is the most dreaded. It seldom exceeds 3 or 4 ft. in length, and is about 1¼ in. thick, with a small head, covered on the forepart with large smooth scales; it is of a pale brown colour above, and the belly is of a bluish-white tinged with pale brown or yellow. The Russelian snake (*Vipera russellii*), about 4 ft. in length, is of a pale yellowish-brown, beautifully variegated with large oval spots of deep brown, with a white edging. Its bite is extremely fatal. Itinerant showmen carry about these serpents, and cause them to assume a dancing motion for the amusement of the spectators. They also give out that they render snakes harmless by the use of charms or music,—in reality it is by extracting the venomous fangs. But, judging from the frequent accidents which occur, they sometimes dispense with this precaution. All the salt-water snakes in India are poisonous, while the freshwater forms are wholly innocuous.

**Reptiles.**

The other reptiles include two species of crocodile (*C. porosus* and *C. palustris*) and the ghariyal (*Gavialis gangeticus*). These are more ugly in appearance than destructive to human life. Scorpions also abound.

*Fishes.*—All the waters of India—the sea, the rivers and the tanks—swarm with a great variety of fishes, which are caught in every conceivable way, and furnish a considerable proportion of the food of the poorer classes. They are eaten fresh, or as nearly fresh as may be, for the art of curing them is not generally practised, owing to the exigencies of the salt monopoly. In Burma the favourite relish of *nga-pi* is prepared from fish; and at Goalanda, at the junction of the Brahmaputra with the Ganges, and along the Madras coast many establishments exist for salting fish in bond. The indiscriminate slaughter of fry, and the obstacles opposed by irrigation dams to breeding fish, are said to be causing a sensible diminution in the supply in certain rivers. Measures of conservancy have been suggested, but their execution would be almost impracticable. Among Indian fishes, the *Cyprinidae* or carp family and the *Siluridae* or cat-fishes are best represented. From the angler's point of view, by far the finest fish is the *mahseer* (*Barbustor*), found in all hill streams, whether in Assam, the Punjab or the South. One has been caught weighing 60 lb, which gave play for more than seven hours. Though called the salmon of India, the *mahseer* is really a species of barbel. One of the richest and most delicious of Indian fishes is the *hilsa* (*Clupea ilisha*), which tastes and looks like a fat white salmon. But the enhanced price of fish and the decreased supply throughout the country are matters of grave concern both to the government and the people.

**Fishes.**

*Insects.*—The insect tribes in India may be truly said to be innumerable. The heat and the rains give incredible activity to noxious or troublesome insects, and to others of a more showy class, whose large wings surpass in brilliancy the most splendid colours of art. Mosquitoes are innumerable, and moths and ants of the most destructive kind, as well as others equally noxious and disagreeable. Amongst those which are useful are the bee, the silk-worm, and the insect that produces lac. Clouds of locusts occasionally appear, which leave no trace of green behind them, and give the country over which they pass the appearance of a desert. Their size is about that of a man's finger, and their colour reddish. They are swept north by the wind till they strike upon the outer ranges of the Himalayas.

## Political Divisions

India (including Burma) has a total area of 1,766,597 sq. m., and a population (1901) of 294,361,056. Of this total, 1,087,204 sq. m., with a population of 231,899,515, consists of British territory, administered directly by British officers; while the remaining 679,393 sq. m., with a population of 62,461,549, is divided up among various native states, all of which acknowledge the suzerainty of the paramount power, but are directly administered by semi-independent rulers, usually assisted by a British resident.

The British possessions are distributed into thirteen provinces of varying size, each with a separate head, but all under the supreme control of the governor-general in council. These thirteen provinces or local governments are Ajmer-Merwara, Andaman and Nicobar Islands, British Baluchistan, Bengal, Bombay, Burma, Central Provinces with Berar, Coorg, Eastern Bengal and Assam, Madras, North-West Frontier Province, Punjab, and the United Provinces of Agra and Oudh. Each of these provinces is described under its separate name.

***British India.***



The native states are governed, as a rule, by native princes with the help of a political officer appointed by the British government and residing at their courts. Some of them administer the internal affairs of their states with almost complete independence; others require more assistance or a stricter control. These feudatory rulers possess revenues and armies of their own, and the more important exercise the power of life and death over their subjects; but the authority of each is limited by treaties or engagements, or recognized practice by which their subordinate dependence on the British government is determined. That government, as suzerain in India, does not allow its feudatories to form alliances with each other or with foreign states. It interferes when any chief misgoverns his people; rebukes, and if needful removes, the oppressor; protects the weak; and firmly imposes peace upon all. There are in all nearly 700 distinct units, which may be divided into the following groups.

***The native states.***

The most important states are Hyderabad, Mysore, Baroda, Kashmir and Jammu, the Rajputana Agency, and the Central India Agency. The first four of these are single units, each under its separate ruler; but Rajputana and Central India are political groups consisting of many states, enjoying different degrees of autonomy. Rajputana is the name of a great territorial circle, containing twenty states in all; while under the Central India Agency there are grouped 148 states and petty chiefs.

***Major states.***

Amongst the minor states, subordinate to the various provincial governments, five are controlled by Madras; 354 by Bombay, many of them being quite petty; 26 by Bengal, of which Kuch Behar is the chief; 34 by the Punjab, amongst which the Phulkian Sikh states and Bhawalpur are the most important; 2 under Eastern Bengal and Assam; 15 under the Central Provinces; and 2 under the United Provinces. Burma contains a number of Shan states, which technically form part of British India, but are administered through their hereditary chiefs. All the most important of these native states are separately described.

***Minor states.***

In addition to the internal states, which have a fixed status, there are several frontier tracts of India, whose status is fluctuating or not strictly defined. In Baluchistan there are the native states of Kalat and Las Bela, and also tribal areas belonging to the Marri and Bugti tribes. On the north-west frontier, in addition to the chief ships of Chitral and Dir, there are a number of independent tribes which reside within the political frontier of British India, but over which effective control has never been exercised. The territory belonging to these tribes, of whom the chief are the Waziris, Afridis, Orakzais, Mohmands, Swatis and Bajouris, is attached to, but is not strictly within, the North-West Frontier Province. Kashmir possesses as feudatories Gilgit and a number of petty states, of which the most important are Hunza-Nagar and Chilas, but effective control over these outlying states has only been asserted in comparatively recent years for political reasons. Nepal and Bhutan, though independent, are under various commercial and other agreements with the government of India. On the north-east frontier, as on the north-west, semi-independent tribes extend across the frontier into independent country. Similarly Karenni, on the Burmese border, is not included in British territory, but the superintendent of the Shan states exercises some judicial and other powers over it.

***Frontier states.***

## The People

According to the census of 1901 the population of India (including Burma) was 294,361,056. But this vast mass of people does not constitute a single nationality, neither is it divided into a number of different nations of distinct blood and distinct language. They are drawn, indeed, from four well-marked elements: the non-Aryan tribes or aborigines of the country; the Aryan or Sanskrit-speaking race; the great mixed population which has grown out of a fusion of the two previous elements; and the Mahommedan invaders from the north-west. These four elements, however, have become inextricably mixed together, some predominating in one portion of the country, some in another, while all are found in every province and native state. The chief modern divisions of the population, therefore, do not follow the lines of blood and language, but of religion and caste.

Of the four elements already enumerated the oldest are the wild tribes of central India, such as the Bhils and Gonds, who probably represent the original inhabitants of the country. These number some 11,000,000. Second come the Dravidians of the south, amounting to about 54,000,000. Thirdly come the Aryans, inhabiting mainly that portion of India north of the Nerbudda which is known as Hindustan proper. Of these only the Brahmans and Rajputs, about 20,000,000, are of pure Aryan blood. The remaining 135,000,000 Hindus represent the fusion of Aryan and non-Aryan elements. Fourthly come the Mahommedans, numbering some 62,000,000. Many of them are the descendents of Arab, Afghan, Mogul and Persian invaders, and the remainder are converts made to Islam in the course of the centuries of Mahommedan rule.

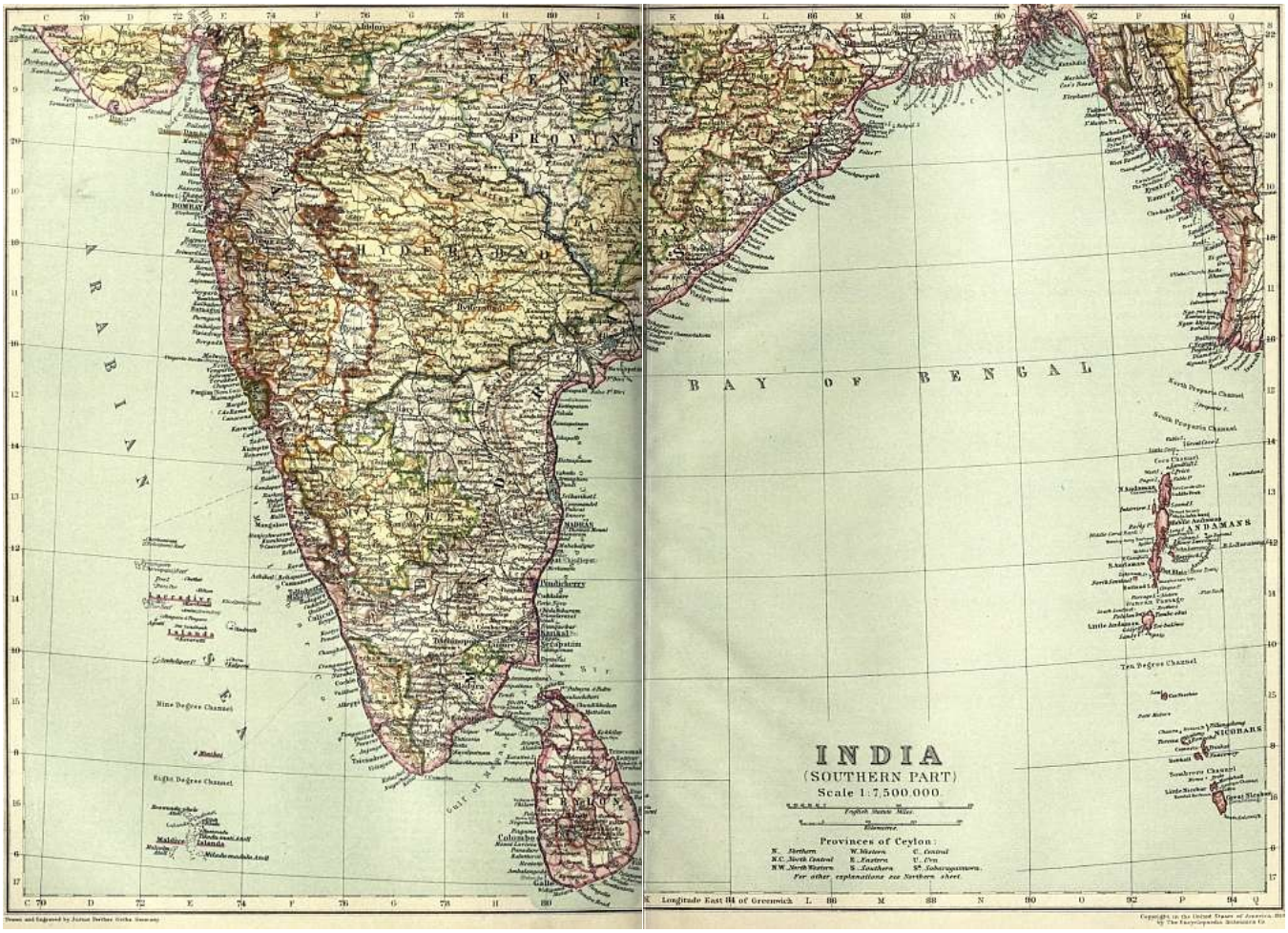
The census report of 1901 divided the population of India into seven distinct racial types: the Turko-Iranian type, represented by the Baluch, Brahui and Afghans of the Baluchistan Agency and the North-West Frontier Province; the Indo-Aryan type, occupying the Punjab, Rajputana and Kashmir, and having as its characteristic members the Rajputs, Khatris and Jats; the

***Racial types.***

Scytho-Dravidian type of western India, comprising the Mahrattas; the Kunbis, and the Coorgs, probably formed by a mixture of Scythian and Dravidian elements; the Aryo-Dravidian type found in the United Provinces, in parts of Rajputana, and in Behar, represented in its upper strata by the Hindustani Brahman, and in its lower by the Chamar. This type is probably the result of the intermixture, in varying proportions, of the Indo-Aryan and Dravidian types, the former element predominating in the higher groups and the latter in the lower. The fifth type is the Mongolo-Dravidian of Bengal and Orissa, comprising the Bengal Brahmans and Kayasths, the Mahommedans of Eastern Bengal, and other groups peculiar to this part of India. It is probably a blend of Dravidian and Mongoloid elements with a strain of Indo-Aryan blood in the higher groups. The sixth type is the Mongoloid of the Himalayas, Nepal, Assam and Burma, represented by the Kanets of Lahoul and Kulu, the Lepchas of Darjeeling, the Limbus, Murmis and Gurungs of Nepal, the Bodo of Assam, and the Burmese. Seventh and last comes the Dravidian type, extending from Ceylon to the valley of the Ganges, and pervading the whole of Madras and Mysore and most of Hyderabad, the Central Provinces, Central India and Chota Nagpur. Its most characteristic representatives are the Paniyans of the south Indian hills and the Santals of Chota Nagpur. This is probably the original type of the population of India, now modified to a varying extent by the admixture of Aryan, Scythian and Mongoloid elements.

It is apparently from the differences in civilization and political power resulting from these successive strata of conquerors over the conquered that the Hindu system of caste arose. A caste is defined in the census report of 1901 as a collection of families or groups of families bearing a common name, which usually denotes or is associated with a specific occupation; claiming common descent from a mythical ancestor, human or divine, professing to follow the same calling, and regarded by those who are competent to give an opinion as forming a single homogeneous community. A caste is almost invariably endogamous, in the sense that a member of the large circle denoted by the common name may not marry outside that circle, but within the circle there are usually a number of smaller circles, each of which is also endogamous. Thus it is not enough to say at the present day that a Brahman cannot marry any woman who is not a Brahman; his wife must not only be a Brahman, but must also belong to the same endogamous division of the Brahman caste. The origin of caste was described by Sir Denzil Ibbetson in the Punjab Census Report of 1881 in the following terms: “We have the following steps in the process by which caste has been evolved in the Punjab—(1) the tribal divisions common to all primitive societies; (2) the gilds based upon hereditary occupation common to the middle life of all communities; (3) the exaltation of the priestly office to a degree unexampled in other countries; (4) the exaltation of the Levitical blood by a special insistence upon the necessarily hereditary nature of occupation; (5) the preservation and support of this principle by the elaboration from the theories of the Hindu creed or cosmogony of a purely artificial set of rules regulating marriage and intermarriage, declaring certain occupations and foods to be impure and polluting, and prescribing the conditions and degree of social intercourse permitted between the several castes. Add to these the pride of social rank and the pride of blood, which are natural to man, and which alone could reconcile a nation to restrictions at once irksome from a domestic and burdensome from a material point of view, and it is hardly to be wondered at that caste should have assumed the rigidity which distinguishes it in India.” Caste has, in fact, come to be the chief dominating factor in the life of the ordinary native of India. All a man’s actions from the cradle to the grave are regulated by it; and the tendency in modern India is for tribes to turn into castes. So widespread is its influence that, though originally a purely Hindu institution, it has come to exercise considerable influence over their Mahommedan neighbours (see Caste).

***Caste.***

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***Religion.***

The chief Indian religions with the numbers of their followers according to the census of 1901 are: Hindu (207,147,026), Mahommedan (62,458,077), Buddhist (9,476,759), Sikh (2,195,339), Jain (1,334,148), Christian (2,923,241), Parsee (94,190), and Animist (8,584,148). The oldest of these religions is Animism (*q.v.*), which represents the beginnings of religion in India, and is still professed by the more primitive tribes, such as Santals, Bhils and Gonds. The transition from this crude form of religion to popular Hinduism (*q.v.*) is comparatively easy. The most obvious characteristics of the ordinary Hindu are that he worships a plurality of gods, looks upon the cow as a sacred animal, and accepts the Brahmanical supremacy (see BRAHMANISM) and the caste system; and when it is a question whether one of the animistic tribes has or has not entered the fold of Hinduism, these two latter points seem to be the proper test to apply. On the other hand there are various offshoots from orthodox Hinduism, the distinguishing feature of which, in their earlier history at least, is the obliteration of caste distinctions and the rejection of the Brahmanical hierarchy. It is doubtful if Buddhism, and still more so if Jainism and Sikhism, all of which are commonly recognized as distinct religions, ever differed from Hinduism to a greater extent than did the tenets of the earlier followers of Chaitanya in Bengal or those of the Lingayats in Mysore; and yet these latter two are regarded only as sects of Hinduism. Considerations of their history and past political importance have led to the elevation of Buddhism, Jainism and Sikhism to the rank of independent religions, while the numerous other schismatic bodies are held to be only sects. But there is a marked tendency both on the part of the sects and of the distinct religions to lapse into the parent religion from which they sprang. In this way both Buddhism (*q.v.*) and Jains (*q.v.*) have almost been swallowed up by Hinduism; Sikhism (*q.v.*) is only preserved by the military requirements of the British, and even the antagonism between Hindu and Mahommedan is much less acute than it used to be. The bewildering diversity of religious beliefs collected under the name of Hinduism has no counterpart amongst the Mahommedans (see MAHOMMEDAN RELIGION), who are limited as to their main tenets by the teaching of a single book, the Koran. The two main sects are the Sunnis and the Shiahs. In India the Sunnis greatly preponderate, but they usually share with the Shiahs their veneration for Hasan and Husain and strictly observe the Mohurrum.

The Mahommedans of India may be divided into two classes, pure Mahommedans from the Mogul and Pathan conquering races, and Mahommedan converts, who differ very little from the surrounding Hindu population from which they originally sprang. The pure Mahommedans may again be subdivided into four sections: Moguls, or the descendants of the last conquering race, including Persians; Afghans or Pathans, who from their proximity to the frontier are much more strongly represented, chiefly in the Punjab and in the Rohilkhand division of the United Provinces; Sayads, who claim to be lineally descended from the Prophet; and Sheikhs, which is a name often adopted by converts. The remainder are unspecified, but the following tribes or classes among Indian Mussulmans are worthy of notice. In Bengal the vast majority of the Mahommedans manifestly belong to the same race as the lowest castes of Hindus. They are themselves subdivided into many classes, which in their devotion to hereditary occupations are scarcely to

be distinguished from Hindu castes. In the Punjab, besides the Pathan immigrants from across the frontier, Islam has taken a strong hold of the native population. The census returned large numbers of Jats, Rajputs and Gujars among the Mussulmans. Here, again, the Mahommedans are not strongly distinguished from their Hindu brethren. Bombay possesses three peculiar classes of Mussulmans, each of which is specially devoted to maritime trade—the Memons, chiefly in Sind; the Borahs, mainly in Gujarat; and the Khojahs, of whom half live in the island of Bombay. In southern India the majority are known as Deccani Mussulmans, being descendants of the armies led by the kings and nawabs of the Deccan. But the two peculiar races of the south are the Moplahs and the Labbays, both of which are seated along the coast and follow a seafaring life. They are descended from the Arab traders who settled there in very early times, and were recruited partly by voluntary adhesions and partly by forcible conversions during the persecutions of Hyder Ali and Tippoo Sultan. The Moplahs of Malabar are notorious for repeated outbreaks of bloody fanaticism. In proportion to the total population Islam is most strongly represented in the North-West Frontier Province, where it is the religion of 92% of the inhabitants; then follow Kashmir and Sind with about 75% each. Eastern Bengal and Assam with 58%, the Punjab with 49%, Bengal with 18%, and the United Provinces with 14%. In the great Mahommedan state of Hyderabad the proportion is only 10%. It appears that the Mahommedans generally tend to increase at a faster rate than the Hindus.

The Sikh religion is almost entirely confined to the Punjab. Of the total number of 2,195,339 Sikhs all but 64,352 are found in the Punjab, and two-thirds of the remainder are in the United Provinces and Kashmir which adjoin it.

Buddhism had disappeared from India long before the East India Company gained a foothold in the country, and at the present day there are very few Buddhists in India proper. Of the 9,476,759 enumerated in the census of 1901 all but some three hundred thousand were in Burma. The greater part of the remainder are found in Bengal on the borders of Burma, on the borders of Nepal, Tibet and Bhutan, and in the Spiti, Lahul and Kanawar districts of the Punjab Himalayas, where many of the inhabitants are of Tibetan origin.

More than two-fifths of the Jains in India are found in Bombay and its native states, including Baroda. They are proportionally most numerous in central and western Rajputana and in Gujarat and Central India.

The Parsees, though influential and wealthy, are a very small community, numbering only 94,000, of whom all but 7000 are found in Bombay. The remainder are scattered all over India, but are most numerous in Hyderabad, the Central India Agency, and the Central Provinces.

The Christian community numbers 2,923,241, of whom, 2,664,313 are natives and the remainder Europeans and Eurasians. Of the native Christians about two-fifths are Roman Catholics and one-eighth Uniat Syrians; one-ninth belong to the Anglican communion, one-eleventh are Jacobite Syrians, and one-twelfth are Baptists; while Lutherans, Methodists and Presbyterians are also represented. Nearly two-thirds of the total number are found in the Madras Presidency, including its native states. In Cochin and Travancore, where the Syrian church has most of its adherents, nearly a quarter of the entire population profess the Christian faith. More than four-fifths of the Christians in Madras proper are found in the eight southernmost districts, the scene of the labours of St Francis Xavier and the Protestant missionary Schwarz. The adherents of the Syrian church, known as “Christians of St Thomas,” in Malabar, Travancore and Cochin are the most ancient Christian community in the south. After these come the Roman Catholics, who trace their origin to the teaching of St Francis Xavier and the Madura Jesuits. The Protestant churches date only from about the beginning of the 19th century, but their progress since that time has been considerable. As is to be expected in the case of a religion with a strong proselytizing agency, the growth of Christianity is far more rapid than that of the general population. Taking native Christians alone, their numbers increased from 1,246,288 in 1872 to 2,664,313 in 1901, and the rate of increase in the thirty years was even greater than these figures would show, because they include the Syrian church, whose numbers are practically constant. The classes most receptive of Christianity are those who are outside the Hindu system, or whom Hinduism regards as degraded. Amongst the Hindu higher castes there are serious obstacles in the way of conversion, of which family influence and the caste system are the greatest.

*Languages.*—According to the linguistic survey of India no fewer than 147 distinct languages are recorded as vernacular in India. These are grouped according to the following system:—



*Vernaculars of India.*

| | Number of languages spoken. |
|---|---|
| Malayo-Polynesian Family— | |
| Malay Group (7831) | 2 |
| Mon-Khmer Family (427,760) | 4 |
| Tibeto-Chinese Family— | |
| Tibeto-Burman Sub-family (9,560,454) | 79 |
| Siamese-Chinese Sub-family (1,724,085) | 9 |
| Dravidian Family (56,514,524) | 14 |
| Munda Family (3,179,275) | 10 |
| Indo-European Family, Aryan Sub-family— | |
| Iranian Branch (1,377,023) | 3 |
| Indo-Aryan Branch (219,780,650) | 22 |
| Semitic Family (42,881) | 1 |
| Hamitic Family (5530) | 1 |
| Unclassed Languages | 2 |

| | |
|---|---|
| Andamanese (1882) | |
| Gipsy Languages (344,143) | |
| Others (125) | |
| Total Vernaculars of India | 147 |

The only representatives of the Malayo-Polynesian group in India are the Selungs of the Mergui Archipelago and the Nicobarese. The Mon-Khmer family, which is most numerous in Indo-China, is here represented by the Talaings of southern Burma and the Khasis of Assam. Of the Tibeto-Chinese family, the Tibeto-Burman subfamily, as its name implies, is spoken from Tibet to Burma; while the Siamese-Chinese subfamily is represented by the Karens and Shans of Burma. The Munda or Kolarian family, which is now distinguished from the Dravidian, is almost confined to Chota Nagpur, its best-known tribe being the Santals. The Dravidian family includes the four literary languages of the south, as well as many dialects spoken by hill tribes in central India, and also the isolated Brahui in Baluchistan. Of the Indo-European family, the Iranian branch inhabits Persia, Afghanistan and Baluchistan; while the Indo-Aryan branch is spoken by the great mass of the people of northern India. The only Semitic language is Arabic, found at Aden, where also the Hamitic Somali was returned. Gipsy dialects are used by the nomadic tribes of India, while Andamanese has not been connected by philologists with any recognized family of speech.

All the chief languages of India are described under their separate names.

*Education.*—The existing system of education in India is mainly dependent upon the government, being directly organized by the state, at least in its higher departments, assisted throughout by grants-in-aid and under careful inspection. But at no period of its history has India been an altogether unenlightened country. The origin of the Deva-Nagari alphabet is lost in antiquity, though that is generally admitted not to be of indigenous invention. Inscriptions on stone and copper, the palm-leaf records of the temples, and in later days the widespread manufacture of paper, all alike indicate, not only the general knowledge, but also the common use, of the art of writing. From the earliest times the caste of Brahmans has preserved, by oral tradition as well as in MSS., a literature unrivalled alike in its antiquity and in the intellectual subtlety of its contents. The Mahommedan invaders introduced the profession of the historian, which reached a high degree of excellence, even as compared with contemporary Europe. Through all changes of government vernacular instruction in its simplest form has always been given, at least to the children of respectable classes, in every large village. On the one hand, the *tols* or seminaries for teaching Sanskrit philosophy at Benares and Nadiya recall the schools of Athens and Alexandria; on the other, the importance attached to instruction in accounts reminds us of the picture which Horace has left of a Roman education. Even at the present day knowledge of reading and writing is, owing to the teaching of Buddhist monks, as widely diffused throughout Burma as it is in some countries of Europe. English efforts to stimulate education have ever been most successful when based upon the existing indigenous institutions.

During the early days of the East India Company’s rule the promotion of education was not recognized as a duty of government. The enlightened mind of Warren Hastings did indeed anticipate his age by founding the Calcutta *madrasa* for Mahommedan teaching, and by affording steady patronage alike to Hindu pundits and European students. But Wellesley’s schemes of imperial dominion did not extend beyond the establishment of a college for English officials. Of the Calcutta colleges, that of Sanskrit was founded in 1824, when Lord Amherst was governor-general, the medical college by Lord William Bentinck in 1835, the Hooghly *madrasa* by a wealthy native gentleman in 1836. The Sanskrit college at Benares had been established in 1791, the Agra college in 1823. Meanwhile the missionaries made the field of vernacular education their own. Discouraged by the official authorities, and ever liable to banishment or deportation, they not only devoted themselves with courage to their special work of evangelization, but were also the first to study the vernacular dialects spoken by the common people. Just as two centuries earlier the Jesuits at Madura, in the extreme south, composed works in Tamil, which are still acknowledged as classical by native authors, so did the Baptist mission at Serampur, near Calcutta, first raise Bengali to the rank of a literary dialect. The interest of the missionaries in education, which has never ceased to the present day, though now comparatively overshadowed by government activity, had two distinct aspects. They studied the vernacular, in order to reach the people by their preaching and to translate the Bible; and they taught English, as the channel of non-sectarian learning.

At last the government awoke to its own responsibility in the matter of education, after the long and acrimonious controversy between the advocates of English and vernacular teaching had worn itself out. The present system dates from 1854, being based upon a comprehensive despatch sent out by Sir C. Wood (afterwards Lord Halifax) in that year. At that time the three universities were founded at Calcutta, Madras and Bombay; English-teaching schools were established in every district; the benefit of grants-in-aid was extended to the lower vernacular institutions and to girls’ schools; and public instruction was erected into a department of the administration in every province, under a director, with a staff of inspectors. In some respects this scheme may have been in advance of the time; but it supplied a definite outline, which has gradually been filled up with each succeeding year of progress. A network of schools has now been spread over the country, graduated from the indigenous village institutions up to the highest colleges. All alike receive some measure of pecuniary support, which is justified by the guarantee of regular inspection; and a series of scholarships at once stimulates efficiency and opens a path to the university for children of the poor.

During Lord Curzon’s term of office the whole system of education in India was examined, reported upon and improved. The five universities of Calcutta, Madras, Bombay, Allahabad and Lahore, which were formerly merely examining bodies, had their senates reformed by the introduction of experts; while hostels or boarding-houses for the college students were founded, so as to approach more nearly to the English ideal of residential institutions. The schools for secondary education were found to be fairly

prosperous, owing to the increasing demand for English education; but more teachers and more inspectors were provided. In the primary schools, however, which provide vernacular teaching for the masses, there were only 4½ million pupils to the 300 millions of India. In 1901 three out of every four country villages had no school, only 3,000,000 boys, or less than one-fifth of the total number of school-going age, were in receipt of primary education, and only one girl for every ten of the male sex, or 2½% of the female population of school-going age. In order to remedy these defects primary education was made a first charge upon provincial revenues, and a permanent annual grant of £213,000 was made from the central government, with the result that thousands of new primary schools have since been opened. The technical schools may be divided into two classes, technical colleges and schools and industrial schools. The former include colleges of engineering and agriculture, veterinary colleges, schools of art and similar institutions. Several of these, such as the Rurki and Sibpur engineering colleges, the college of science at Poona, the Victoria Jubilee Institute at Bombay and some of the schools of art, have shown excellent results. The agricultural colleges have been less successful. The industrial schools were largely engaged in 1901 in teaching carpentry and smithy-work to boys who never intended to be carpenters or smiths; but this misdirection of industry has since been remedied, and the industrial schools have been made the first stepping-stone towards a professional career. In addition a number of technical scholarships of £150 each have been founded tenable in Europe or America.



## Administration

By the act of parliament which transferred the government of India from the company to the crown, the administration in England is exercised by the sovereign through a secretary of state, who inherits all the powers formerly belonging to the Court of Directors and the Board of Control, and who, as a member of the cabinet, is responsible to parliament. In administrative details he is assisted by the Council of India, an advisory body, with special control over finance. This council consists of not more than fifteen and not fewer than ten members, appointed by the secretary of state for a term of seven years, of whom at least nine must have served or resided in India for ten years. A Hindu and a Mahommedan were for the first time appointed to the council in 1907.

***The Supreme Government.***

At the head of the government in India is the governor-general, styled also viceroy, as representative of the sovereign. He is appointed by the crown, and his tenure of office is five years. The supreme authority, civil and military, including control over all the local governments, is vested in the governor-general in council, commonly known as “the Government of India,” which has its seat at Calcutta during the cold season from November to April, and migrates to Simla in the Punjab hills for the rest of the year. The executive council of the governor-general is composed of six ordinary members, likewise appointed by the crown for a term of five years, of whom three must have served for ten years in India and one must be a barrister, together with the commander-in-chief as an extraordinary member. A Hindu barrister was first appointed a member of council in 1909. The several departments of administration—Foreign, Home, Finance, Legislative, Army, Revenue and Agriculture (with Public Works), Commerce and Industry, Education (added in 1910)—are distributed among the council after the fashion of a European cabinet, the foreign portfolio being reserved by the viceroy; but all orders and resolutions are issued in the name of the governor-general in council and must be signed by a secretary.

***The Legislative Council.***

For legislative purposes the executive council is enlarged into a legislative council by the addition of other members, *ex officio*, nominated and elected. In accordance with regulations made under the Indian Councils Act 1909, these additional members number 61, making 68 in all with the viceroy, so arranged as to give an official majority of three. The only *ex-officio* additional member is the lieutenant-governor of the province in which the legislative council may happen to meet; nominated members number 35, of whom not more than 28 may be officials; while 25 are elected, directly or indirectly, with special representation for Mahommedans and landholders. Apart from legislation, the members of the council enjoy the right to interpellate the government on all matters of public interest, including the putting of supplementary questions; the right to move and discuss general resolutions, which, if carried, have effect only as recommendations; and the right to discuss and criticize in detail the budget, or annual financial statement.

The local or provincial governments are fifteen in all, with varying degrees of responsibility. First stand the two presidencies of Madras (officially Fort St George) and Bombay, each of which is administered by a governor and council appointed by the crown. The governor is usually sent from England; the members of council may number four, of whom two must have served in India for ten years. Next follow the five lieutenant-governorships of Bengal, the United Provinces of Agra and Oudh, the Punjab, Burma, and Eastern Bengal and Assam, for each of which a council may be appointed, beginning with Bengal. Last come the chief commissionerships, of which the Central Provinces (with Berar) rank scarcely below the lieutenant-governorships, while the rest—the North-West Frontier Province, British Baluchistan, Ajmer-Merwara, Coorg and the Andamans—are minor charges, generally associated with political supervision over native states or frontier tribes. The two presidencies and also the five lieutenant-governorships each possesses a legislative council, modelled on that of the governor-general, but so that in every case there shall be a majority of non-official members, varying from 13 to 3.

***Districts.***

Within the separate provinces the administrative unit is the district, of which there are 249 in India. In every province except Madras there are divisions, consisting of three or more districts under a commissioner. The title of the district officer varies according to whether the province is “regulation” or “non-regulation.” This is an old distinction, which now tends to become obsolete; but broadly speaking a larger measure of discretion is allowed in the non-

regulation provinces, and the district officer may be a military officer, while in the regulation provinces he must be a member of the Indian civil service. In a regulation province the district officer is styled a collector, while in a non-regulation province he is called a deputy-commissioner. The chief non-regulation provinces are the Punjab, Central Provinces and Burma; but non-regulation districts are also to be found in Bengal, Eastern Bengal and Assam, the United Provinces and Sind.

The districts are partitioned out into lesser tracts, which are strictly units of administration, though subordinate ones. The system of partitioning, and also the nomenclature, vary in the different provinces; but generally it may be said that the subdivision or *tahsil* is the ultimate unit of administration. The double name indicates the twofold principle of separation: the subdivision is properly the charge of an assistant magistrate or executive officer, the *tahsil* is the charge of a deputy-collector or fiscal officer; and these two offices may or may not be in the same hands. Broadly speaking, the subdivision is characteristic of Bengal, where revenue duties are in the background, and the *tahsil* of Madras, where the land settlement requires attention year by year. There is no administrative unit below the subdivision or *tahsil*. The *thana*, or police division, only exists for police purposes. The *pargana*, or fiscal division, under native rule, has now but an historical interest. The village still remains as the agricultural unit, and preserves its independence for revenue purposes in most parts of the country. The township is peculiar to Burma.

***The Judicial Service.***

Bengal (including Eastern Bengal and Assam), Madras, Bombay and the old North-Western Provinces each has a high court, established by charter under an act of parliament, with judges appointed by the crown. Of the other provinces the Punjab and Lower Burma have chief courts, and Oudh, the Central Provinces, Upper Burma, Sind and the North-West Frontier Province have judicial commissioners, all established by local legislation. From the high courts, chief courts and judicial commissioners an appeal lies to the judicial committee of the privy council in England. Below these courts come district and sessions judges, who perform the ordinary judicial work of the country, civil and criminal. Their jurisdictions coincide for the most part with the magisterial and fiscal boundaries. But, except in Madras, where the districts are large, a single civil and sessions judge sometimes exercises jurisdiction over more than one district. In the non-regulation territory judicial and executive functions are to a large extent combined in the same hands.

The law administered in the Indian courts is described in the article Indian Law.

***Indian Services.***

The chief of the Indian services is technically known as the Indian civil service. It is limited to about a thousand members, who are chosen by open competition in England between the ages of twenty-one and twenty-four. Nearly all the higher appointments, administrative and judicial, are appropriated by statute to this service, with the exception of a few held by military officers on civil duty in the non-regulation provinces. Other services mainly or entirely recruited in England are the education department, police, engineering, public works, telegraph and forest services. In addition to the British officials employed in these services, there is a host of natives of India holding superior or subordinate appointments in the government service. According to a calculation made in 1904, out of 1370 appointments with a salary of £800 a year and upwards, 1263 were held by Europeans, 15 by Eurasians and 92 by natives of India. But below that line natives of India greatly preponderate; of 26,908 appointments ranging between £800 and £60 a year, only 5205 were held by Europeans, 5420 by Eurasians and 16,283 by natives.



These figures show that less than 6500 Englishmen are employed to rule over the 300 millions of India. On the other hand, natives manage the greater part of the administration of the revenue and land affairs and magisterial work. The subordinate courts throughout India are almost entirely manned by native judges, who sit also on the bench in each of the High Courts. Similarly in the other services. There are four engineering colleges in India, which furnish to natives access to the higher grades of the public works department; and the provincial education services are recruited solely in India.

***The Army.***

Though the total strength of the army in India has undergone little change, important reforms of organization have been effected in recent years which have greatly improved its efficiency. In 1895, after long discussion, the old presidency system was abolished and the whole army was placed under one commander-in-chief, though it was not till 1904 that the native regiments of cavalry and infantry were re-numbered consecutively, and the Hyderabad contingent and a few local battalions were incorporated with the rest of the army. About the same time (1903) the designation of British officers serving with native troops was changed from “Indian Staff Corps” to “Indian Army.” The entire force, British and native, is now subdivided into a Northern and a Southern Army, with Burma as an independent command attached to the latter. Each of these armies is organized in divisions, nine in number, based on the principles that the troops in peace should be trained in units of command similar to those in which they would take the field, and that much larger powers should be entrusted to the divisional commanders. At the same time large sums of money have been expended on strategic works along the north-west frontier, supply and transport has been reorganized, rifle, gun and ammunition factories have been established, and a Staff College at Quetta.

In 1907-1908 the actual strength of the army in India numbered 227,714 officers and men, of whom 73,947 were British troops; and the total military expenditure amounted to £17,625,000, of which £2,996,000 was for non-effective charges. In addition, the reserve of the native army numbered 34,846 men, the volunteers 34,962, the frontier militia (including the Khyber Rifles) about 6000, the levies (chiefly in Baluchistan) about 6000, and the military police (chiefly in Burma) about 22,000. These figures do not include the Imperial Service troops, consisting of cavalry, infantry and transport corps, about 18,000 in all, which are paid and officered by the native states furnishing them, though supervised by British inspectors. The military forces otherwise maintained by the several native states are estimated to number about 100,000 men, of varying degrees of efficiency.

The police, it is admitted, still form an unsatisfactory part of the administration, though important

reforms have recently been introduced. The present system, which is modelled somewhat on that of the Irish constabulary, dates from shortly after the Mutiny, and is regulated for the greater part of the country by an act passed in 1861. It provides a regular force in each district, under a superintendent who is almost always a European, subordinate for general purposes to the district magistrate. For the preservation of order this force is by no means inefficient, but it fails as a detective agency and also in the prosecution of crime, being distrusted by the people generally. As the result of a Commission appointed in 1902, a considerable addition has been made to the expenditure on police, which is being devoted to increasing the pay of all the lower grades and to augmenting the number of investigating officers. In 1901 the total strength of the civil police force was about 145,000 men, maintained at a total cost of about £2,200,000. In addition, the village watchmen or *chaukidars*, a primitive institution paid from local sources but to some extent incorporated in the general system, aggregated about 700,000; while a special force of military police, numbering about 20,000 under officers seconded from the army, is maintained along the frontier, more especially in Burma.

***Police.***

The administration of gaols in India can be described more favourably. As a rule, there is one gaol in each district, under the management of the civil surgeon. Discipline is well maintained, though separate confinement is practically unknown; and various industries (especially carpet-weaving) are profitably pursued wherever possible. So much attention has been directed to diet and sanitation that the death-rate compares well with that of the general working population: in 1907 it was as low as 18 per 1000. Convicts with more than six years to serve are transported to the Andaman Islands, where the penal settlement is organized on an elaborate system, permitting ultimately self-support on a ticket of leave and even marriage. In 1907 the daily average gaol population in India was 87,306, while the convicts in the Andamans numbered 14,235.

***Gaols.***

Local self-government, municipal and rural, in the form in which it now prevails in India, is essentially a product of British rule. Village communities and trade gilds in towns existed previously, but these were only rudimentary forms of self-government. The beginnings of municipal government occurred in the Presidency towns. Apart from these the act of 1850 respecting improvements in towns initiated consultative committees. In 1870 Lord Mayo delegated to local committees the control over these improvement funds. But the system at present in force is based upon legislation by Lord Ripon in 1882, providing for the establishment of municipal committees and local boards, whose members should be chosen by election with a preponderance of non-official members. The large towns of Calcutta, Bombay and Madras have municipalities of this character, and there are large numbers of municipal committees and local boards all over the country. There are also Port Trusts in the great maritime cities of Calcutta, Bombay, Madras, Karachi and Rangoon.

***Municipalities.***

As the land furnishes the main source of Indian revenue, so the assessment of the land tax is the main work of Indian administration. No technical term is more familiar to Anglo-Indians, and none more strange to the English public, than that of land settlement. No subject has given rise to more voluminous controversy. It will be enough in this place to explain the general principles upon which the system is based, and to indicate the chief differences of application in the several provinces. That the state should appropriate to itself a direct share in the produce of the soil is a fundamental maxim of Indian finance that has been recognized throughout the East from time immemorial. The germs of rival systems can be traced in the old military and other service tenures of Assam, and in the poll tax of Burma, &c. The exclusive development of the land system is due to two conditions,—a comparatively high state of agriculture and an organized plan of administration,—both of which are supplied by the primitive village community. During the lapse of untold generations, despite domestic anarchy and foreign conquest, the Hindu village has in many parts preserved its simple customs, written in the imperishable tablets of traditions. The land was not held by private owners but by occupiers under the petty corporation; the revenue was not due from individuals, but from the community represented by its head-man. The aggregate harvest of the village fields was thrown into a common fund, and before the general distribution the head-man was bound to set aside the share of the state. No other system of taxation could be theoretically more just, or in practice less obnoxious to the people. Such is an outline of the land system as it may be found at the present day throughout large portions of India both under British and native rule; and such we may fancy it to have been universally before the Mahommedan conquest. The Mussulmans brought with them the avarice of conquerors, and a stringent system of revenue collection. Under the Mogul empire, as organized by Akbar the Great, the share of the state was fixed at one-third of the gross produce of the soil; and a regular army of tax-collectors was permitted to intervene between the cultivator and the supreme government. The entire vocabulary of the present land system is borrowed from the Mogul administration. The zamindar himself is a creation of the Mahommedans, unknown to the early Hindu system. He was originally a mere tax-collector, or farmer of the land revenue, who agreed to furnish a lump sum from the tract of country assigned to him. If the Hindu village system may be praised for its justice, the Mogul farming system had at least the merit of efficiency. Shah Jahan and Aurangzeb extracted a larger land revenue than the British do. When the government was first undertaken by the East India Company, no attempt was made to understand the social system upon which the land revenue was based. The zamindar was conspicuous and useful; the village community and the cultivating ryot did not force themselves into notice. The zamindar seemed a solvent person, capable of keeping a contract; and his official position as tax-collector was confused with the proprietary rights of an English landlord. The superior stability of the village system was overlooked, and in the old provinces of Bengal and Madras the village organization has gradually been suffered to fall into decay. The consistent aim of the British authorities has been to establish private property in the soil, so far as is consistent with the punctual payment of the revenue. The annual government demand, like the succession duty in England, is universally the first liability on the land; when that is satisfied, the registered landholder has powers of sale or mortgage scarcely more restricted than those of a tenant in fee-simple. At the same time the possible hardships, as regards the cultivator, of this absolute right of property vested in the owner have been anticipated by the recognition of occupancy rights or fixity of

***Land Settlement.***

tenure, under certain conditions. Legal rights are everywhere taking the place of unwritten customs. Land, which was before merely a source of livelihood to the cultivator and of revenue to the state, has now become the subject of commercial speculation. The fixing of the revenue demand has conferred upon the owner a credit which he never before possessed, by allowing him a certain share of the unearned increment. This credit he may use improvidently, but none the less has the land system of India been raised from a lower to a higher stage of civilization.

> The means by which the land revenue is assessed is known as settlement, and the assessor is styled a settlement officer. In Bengal the assessment has been accomplished once and for all, but throughout the greater part of the rest of India the process is continually going on. The details vary in the different provinces; but, broadly speaking, a settlement may be described as the ascertainment of the agricultural capacity of the land. Prior to the settlement is the work of survey, which first determines the area of every village and frequently of every field also. Then comes the settlement officer, whose duty it is to estimate the character of the soil, the kind of crop, the opportunities for irrigation, the means of communication and their probable development in the future, and all other circumstances which tend to affect the value of the produce. With these facts before him, he proceeds to assess the government demand upon the land according to certain general principles, which may vary in the several provinces. The final result is a settlement report, which records, as in a Domesday Book, the entire mass of agricultural statistics concerning the district.

Lower Bengal and a few adjoining districts of the United Provinces and of Madras have a permanent settlement, *i.e.* the land revenue has been fixed in perpetuity. When the Company obtained the *diwání* or financial administration of Bengal in 1765, the theory of a settlement, as described above, was unknown. The existing Mahommedan system was adopted in its entirety. Engagements, sometimes yearly, sometimes for a term of years, were entered into with the zamindars to pay a lump sum for the area over which they exercised control. If the offer of the zamindar was not deemed satisfactory, another contractor was substituted in his place. But no steps were taken, and perhaps no steps were possible, to ascertain in detail the amount which the country could afford to pay. For more than twenty years these temporary engagements continued, and received the sanction of Warren Hastings, the first titular governor-general of India. Hastings' great rival, Francis, was among those who urged the superior advantages of a permanent assessment. At last, in 1789, a more accurate investigation into the agricultural resources of Bengal was commenced, and the settlement based upon this investigation was declared perpetual by Lord Cornwallis in 1793. The zamindars of that time were raised to the status of landlords, with rights of transfer and inheritance, subject always to the payment in perpetuity of a rent-charge. In default of due payment, their lands were liable to be sold to the highest bidder. The aggregate assessment was fixed at *sikká* Rs.26,800,989, equivalent to Co.'s Rs.28,587,722, or say 2¾ millions sterling. While the claim of Government against the zamindars was thus fixed for ever, it was intended that the rights of the zamindars over their own tenants should be equally restricted. But no detailed record of tenant-right was inserted in the settlement papers, and, as a matter of fact, the cultivators lost rather than gained in security of tenure. The same English prejudice which made a landlord of the zamindar could recognize nothing but a tenant-at-will in the ryot. By two stringent regulations of 1799 and 1812 the tenant was practically put at the mercy of a rack-renting landlord. If he failed to pay his rent, however excessive, his property was rendered liable to distraint and his person to imprisonment. At the same time the operation of the revenue sale law had introduced a new race of zamindars, who were bound to their tenants by no traditions of hereditary sympathy, but whose sole object was to make a profit out of their newly purchased property. The rack-rented peasantry found no protection in the law courts until 1859, when an act was passed which restricted the landlord's powers of enhancement in certain specified cases. Later the Bengal Tenancy Act of 1885, since amended by an act of 1898, created various classes of privileged tenants, including one class known as "settled ryots," in which the qualifying condition is holding land, not necessarily the same land, for twelve years continuously in one village. Outside the privileged classes of tenants the act gives valuable protection to tenants-at-will. The progress in the acquisition of occupancy rights by tenants may be judged from the fact that, whereas in 1877 it was stated of the Champaran district that the cultivator had hardly acquired any permanent interest in the soil, the settlement officer in 1900 reported that 87% of the occupied area was in the possession of tenants with occupancy rights or holding at fixed rates. It is believed that the ryots will eventually be able to secure, and to hold against all comers, the strong legal position which the Bengal Tenancy Act has given them.

The permanent settlement was confined to the three provinces of Bengal, Behar and Orissa, according to their boundaries at that time. Orissa proper, which was conquered from the Mahrattas in 1803, is subject to a temporary settlement, which expired in 1897 and a re-settlement was made in 1900. The enhancement in the revenue amounted to 52% of the previous demand; but in estates in which the increase was specially large it was decided to introduce the new rates gradually.

***The Ryotwari system.***

The prevailing system throughout the Madras presidency is the ryotwari, which takes the cultivator or peasant proprietor as its rent-paying unit, somewhat as the Bengal system takes the zamindar. This system cannot be called indigenous to the country, any more than the zamindari of Bengal. If any system deserves that name, it is that of village assessment, which still lingers in the memories of the people in the south. When the British declared themselves heir to the nawab of the Carnatic at the opening of the 19th century, they had no adequate experience of revenue management. The authorities in England favoured the zamindari system already at work in Bengal, which appeared at least calculated to secure punctual payment. The Madras Government was accordingly instructed to enter into permanent engagements with zamindars, and, where no zamindars could be found, to create substitutes out of enterprising contractors. The attempt resulted in failure in every case, except where the zamindars happened to be the representatives of ancient lines of powerful chiefs. Several of such chiefs exist in the extreme south and in the north of the presidency. Their estates have been guaranteed to them on payment of a *peshkash* or permanent tribute, and are saved by

the custom of primogeniture from the usual fate of subdivision. Throughout the rest of Madras there are no zamindars either in name or fact. The influence of Sir Thomas Munro afterwards led to the adoption of the ryotwari system, which will always be associated with his name. According to this system, an assessment is made with the cultivating proprietor upon the land taken up for cultivation year by year. Neither zamindar nor village officer intervenes between the cultivator and the state, which takes directly upon its own shoulders all a landlord's responsibility. The early ryotwari settlements in Madras were based upon insufficient experience. They were preceded by no survey, but adopted the crude estimates of native officials. Since 1858 a department of revenue survey has been organized, and the old assessments have been everywhere revised.

> Nothing can be more complete in theory and more difficult of exposition than a Madras ryotwari settlement. First, the entire area of the district, whether cultivated or uncultivated, and of each field within the district is accurately measured. The next step is to calculate the estimated produce of each field, having regard to every kind of both natural and artificial advantage. Lastly, a rate is fixed upon every field, which may be regarded as roughly equal to one-third of the gross and one-half of the net produce. The elaborate nature of these inquiries and calculations may be inferred from the fact that as many as thirty-five different rates are sometimes struck for a single district, ranging from 6d. to £1, 4s. per acre. The rates thus ascertained are fixed for a term of thirty years; but during that period the aggregate rent-roll of a district is liable to be affected by several considerations. New land may be taken up for cultivation, or old land may be abandoned; and occasional remissions are permitted under no less than eighteen specified heads. Such matters are discussed and decided by the collector at the *jamabandi* or court held every year for definitely ascertaining the amount of revenue to be paid by each ryot for the current season. This annual inquiry has sometimes been mistaken by careless passers-by for an annual reassessment of each ryot's holding. It is not, however, a change in the rates for the land which he already holds, but an inquiry into and record of the changes in his former holding or of any new land which he may wish to take up.

In the early days of British rule no system whatever prevailed throughout the Bombay presidency; and even at the present time there are tracts where something of the old confusion survives. The modern "survey tenure," as it is called, dates from 1838, when it was first introduced into one of the *tálukas* of Poona district, and it has since been gradually extended over the greater part of the presidency. As its name implies, the settlement is preceded by survey. Each field is measured, and an assessment placed upon it according to the quality of the soil without any attempt to fix the actual average produce. This assessment holds good, without any possibility of modification, for a term of thirty years. The Famine Commission of 1901 suggested the following measures with a view to improving the position of the Bombay ryot: (1) A tenancy law to protect expropriated ryots, (2) a bankruptcy law, (3) the limitation of the right of transfer, in the interests of ryots who are still in possession of their land.

***The other Provinces.***

In the other provinces variations of the zamindari and ryotwari systems are found. In the United Provinces and the Punjab the ascertainment of the actual rents paid is the necessary preliminary to the land revenue demand. In the Central Provinces, where the landlords (*malguzars*) derive their title from the revenue settlements made under British rule, the rents are actually fixed by the settlement officer for varying periods. In addition nearly every province has its own laws regulating the subject of tenancy; the tenancy laws of the United Provinces and of the Central Provinces were revised and amended during the decade 1891-1901.

***Land Tenures and Settlements.***

The principles of the land revenue settlement and administration were reviewed by the government of India in a resolution presented to parliament in 1902, in which its policy is summarised as follows:—

> "In the review of their land revenue policy which has now been brought to a close, the Government of India claim to have established the following propositions, which, for convenience' sake, it may be desirable to summarize before concluding this Resolution: —
>
> (1) That a Permanent Settlement, whether in Bengal or elsewhere, is no protection against the incidence and consequences of famine.
>
> (2) That in areas where the State receives its land revenue from landlords, progressive moderation is the key-note of the policy of Government, and that the standard of 50% of the assets is one which is almost uniformly observed in practice, and is more often departed from on the side of deficiency than of excess.
>
> (3) That in the same areas the State has not objected, and does not hesitate, to interfere by legislation to protect the interests of the tenants against oppression at the hands of the landlord.
>
> (4) That in areas where the State takes the land revenue from the cultivators, the proposal to fix the assessment at one-fifth of the gross produce would result in the imposition of a greatly increased burden upon the people.
>
> (5) That the policy of long term settlements is gradually being extended, the exceptions being justified by conditions of local development.
>
> (6) That a simplification and cheapening of the proceedings connected with new settlements and an avoidance of the harassing invasion of an army of subordinate officials, are a part of the deliberate policy of Government.
>
> (7) That the principle of exempting or allowing for improvements is one of general acceptance, but may be capable of further extension.
>
> (8) That assessments have ceased to be made upon prospective assets.
>
> (9) That local taxation as a whole, though susceptible of some redistribution, is neither immoderate

nor burdensome.

(10) That over-assessment is not, as alleged, a general or widespread source of poverty and indebtedness in India, and that it cannot fairly be regarded as a contributory cause of famine.

The Government of India have further laid down liberal principles for future guidance and will be prepared, where the necessity is established, to make further advance in respect of:—

(11) The progressive and graduated imposition of large enhancements.

(12) Greater elasticity in the revenue collection, facilitating its adjustment to the variations of the seasons, and the circumstances of the people.

(13) A more general resort to reduction of assessments in cases of local deterioration, where such reduction cannot be claimed under the terms of settlement."

In 1900-1901 the total land revenue realized from territory under British administration in India amounted to £17,325,000, the rate per cultivated acre varying from 3s. 1d. in Madras to 10d. in the Central Provinces. The general conclusion of the Famine Commission of 1901 was that "except in Bombay, where it is full, the incidence of land revenue is low to moderate in ordinary years, and it should in no way *per se* be the cause of indebtedness."

***Salt Administration.***

Prior to the successive reductions of the salt duty in 1903, 1905 and 1907, next to land, salt contributed the largest share to the Indian revenue; and, where salt is locally manufactured, its supervision becomes an important part of administrative duty. Up to within quite recent times the tax levied upon salt varied extremely in different parts of the country, and a strong preventive staff was required to be stationed along a continuous barrier hedge, which almost cut the peninsula into two fiscal sections. The reform of Sir J. Strachey in 1878, by which the higher rates were reduced and the lower rates raised, with a view to their ultimate equalization over the whole country, effectually abolished this old engine of oppression. Communication is now free; and it has been found that prices are absolutely lowered by thus bringing the consumer nearer to his market, even though the rate of taxation be increased. Broadly speaking the salt consumed in India is derived from four sources: (1) importation by sea, chiefly from England and the Red Sea and Aden; (2) solar evaporation in shallow tanks along the seaboard; (3) the salt lakes in Rajputana; (4) quarrying in the salt hills of the northern Punjab. The salt lakes in Rajputana have been leased by the government of India from the rulers of the native states in which they lie, and the huge salt deposits of the Salt Range mines are worked under government control, as also are the brine works on the Runn of Cutch. At the Kohat mines, and in the salt evaporation works on the sea-coast, with the exception of a few of the Madras factories, the government does not come between the manufacturer and the merchant, except in so far as is necessary in order to levy the duty from the salt as it issues from the factory. The salt administration is in the hands of (1) the Northern India Salt Department, which is directly under the government of India, and controls the salt resources of Rajputana and the Punjab, and (2) the salt revenue authorities of Madras and Bombay.



The consumption of salt per head in India varies from 7 lb in Rajputana to 16.02 lb in Madras. The salt duty, which stood in 1888 at Rs.2½ per maund, was reduced in 1903 to Rs.2, in 1905 to Rs.1½ and in 1907 to R. 1 per maund, the rate being uniform all over India. In 1907-1908 the gross yield of the salt duty was £3,339,000, of which more than one-fourth was derived from imported salt.

***Opium.***

The heading *Opium* in the finance accounts represents the duty on the export of the drug. The duty on local consumption, which is included under excise, yielded £981,000 in 1907-1908. The opium revenue proper is derived from two sources: (1) a monopoly of production in the valley of the Ganges, and (2) a transit duty levied on opium grown in the native states of western India, known as Malwa opium. Throughout British territory the growth of the poppy is almost universally prohibited, except in a certain tract of Bengal and the United Provinces, where it is grown with the help of advances from government and under strict supervision. The opium, known as "provision opium," is manufactured in government factories at Patna and Ghazipur, and sold by auction at Calcutta for export to China. The net opium revenue represents the difference between the sum realized at these sales and the cost of production. Malwa opium is exported from Bombay, the duty having previously been levied on its passage into British territory. In 1907-1908 the net opium revenue from both sources amounted to £3,576,000. The Chinese government having issued an edict that the growth and consumption of opium in China should be entirely suppressed within ten years, the government of India accordingly agreed in 1908 that the export of opium from India should be reduced year by year, so that the opium revenue would henceforth rapidly decline and might be expected to cease altogether. In 1908 an international commission that met at Shanghai passed resolutions inviting all the states there represented to take measures for the gradual suppression of the manufacture, sale and distribution of opium, except for medicinal purposes.

*Excise.*—Excise, like salt, is not only a department of revenue collection, but also to a great extent a branch of the executive. In other words, excise duties in India are not a mere tax upon the consumer, levied for convenience through the manufacturer and retail dealer, but a species of government monopoly. The only excisable articles are intoxicants and drugs; and the avowed object of the state is to check consumption not less than to raise revenue. The limit of taxation and restriction is the point at which too great encouragement is given to smuggling. Details vary in the different provinces, but the general plan of administration is the same. The right to manufacture and the right to retail are both monopolies of government permitted to private individuals only upon terms. Distillation of country spirits is allowed according to two systems—either to the highest bidder under strict supervision, or only upon certain spots set apart for the purpose. The latter is known as the *sadr* or central distillery system. The right of sale is also usually farmed out to the highest bidder, subject to regulations fixing the minimum quantity of liquor that may be sold at one time. The brewing of beer from rice and other grains, which is universal among the hill tribes and other aboriginal races, is practically untaxed and unrestrained. The European breweries

at several hill stations pay the same tax as imported beer. Apart from spirits, excise duties are levied upon the sale of a number of intoxicating or stimulant drugs, of which the most important are opium, bhang, ganja and charas. Opium is issued for local consumption in India from the government manufactories at Ghazipur and Patna in the Behar and Benares Agencies, and sold through private retailers at a monopoly price. Bhang, ganja and charas are three different narcotic drugs prepared from the hemp plant (*Cannabis sativa*, var. *indica*). Scientifically speaking, bhang consists of the dried leaves and small stalks, with a few fruits; ganja of the flowering and fruiting heads of the female plant; while charas is the resin itself, collected in various ways as it naturally exudes. The plant grows wild in many parts of India; but the cultivation of it for ganja is practically confined to a limited area in the Rajshahi district of eastern Bengal, and charas is mainly imported from Central Asia. The use of bhang in moderation is comparatively harmless; ganja and charas when taken in excess are undoubtedly injurious, leading to crime and sometimes to insanity. In accordance with the recommendations of the Hemp Drugs Commission, the government of India passed an act in 1896 providing that, in regard to ganja and charas, cultivation of the plants should be restricted as much as possible, and that a direct quantitative duty should be levied on the drugs on issue from the warehouse in the province of consumption; while as regards bhang, cultivation of the hemp for its production should be prohibited or taxed, and collection of the drug from wild plants permitted only under licence, a moderate quantitative duty being levied in addition to vend fees. No duty whatever is now levied upon tobacco in any part of India. The plant is universally grown by the cultivators for their own smoking, and, like everything else, was subject to taxation under native rule; but the impossibility of accurate excise supervision has caused the British government to abandon the impost. In 1907-1908 the total gross revenue from excise amounted to £6,214,000, of which more than two-thirds was derived from spirits and toddy.

Since 1894 a uniform customs duty of 5% *ad valorem* has been levied generally on imported goods, certain classes being placed on the free list, of which the most important are food-grains, machinery, railway material, coal, and cotton twist and yarn (exempted in 1896). Most classes of iron and steel are admitted at the lower rate of 1%. Cotton goods are taxed at 3½%, whether imported or woven in Indian mills. Special duties are imposed on liquors, arms and ammunition and petroleum, while imported salt pays the same duty as salt manufactured locally. From 1899 to 1904 a countervailing duty was imposed on bounty-fed beet sugar. There is also a customs duty at the rate of about 3d. per 82 lb on exported rice. In 1907-1908 the total customs revenue amounted to £4,910,000, of which £664,000 was derived from the export duty on rice and £223,730 from the excise on cotton manufactures.

Since 1886 an assessed tax has been levied on all sources of income except that derived from land. The rate is a little more than 2½% on all incomes exceeding £133 a year, and a little more than 2% on incomes exceeding £66, the minimum income liable to assessment having been raised in 1903 from £33. The total number of persons assessed is only about 260,000. In 1907-1908 the gross receipts from income tax amounted to £1,504,000.

Other sources of revenue are stamps, levied on judicial proceedings and commercial documents; registration of mortgages and other instruments; and provincial rates, chiefly in Bengal and the United Provinces for public works or rural police. The rates levied at a certain percentage of the land revenue for local purposes are now excluded from the finance accounts. In 1907-1908 the gross receipts amounted to: from stamps, £4,259,000, of which more than two-thirds was derived from the sale of court fee stamps; from registration, £415,000; and from provincial rates, £526,000.

### *Commerce and Industries.*

India may almost be said to be a country of a single industry, that industry being agriculture. According to the census of 1901 two-thirds of the total population were employed in occupations connected with the land, while not one-tenth of that proportion were supported by any other single industry. The prosperity of agriculture therefore is of overwhelming importance to the people of India, and all other industries are only subsidiary to this main occupation. This excessive dependence upon a single industry, which is in its turn dependent upon the accident of the seasons, upon a favourable or unfavourable monsoon, has been held to be one of the main causes of the frequent famines which ravage India.

*Agriculture.*—The cultivation of the soil is the occupation of the Indian people in a sense which is difficult to realize in England, and which cannot be adequately expressed by figures. As the land tax forms the mainstay of the imperial revenue, so the ryot or cultivator constitutes the unit of the social system. The organized village community contains many other members besides the cultivators; but they all exist for his benefit, and all alike are directly maintained from the produce of the village fields. Even in considerable towns, the traders and handicraftsmen almost always possess plots of land of their own, on which they raise sufficient grain to supply their families with food. The operations of rural life are familiar to every class. They are enveloped in a cloud of religious sanctions, and serve to mark out by their recurring periods the annual round of common life.

But though agriculture thus forms the staple industry of the country, its practice is pursued in different provinces with infinite variety of detail. Everywhere the same perpetual assiduity is found, but the inherited experience of generations has taught the cultivators to adapt their simple methods to differing circumstances. For irrigation, native patience and ingenuity have devised means which compare not unfavourably with the colossal projects of government. Manure is copiously applied to the more valuable crops whenever manure is available, its use being limited by poverty and not by ignorance. The rotation of crops is not adopted as a principle of cultivation; but in practice it is well known that a succession of exhausting crops cannot be taken in consecutive seasons from the same field, and the advantage of fallows is widely recognized. The periodicity of the seasons usually allows two, and sometimes three, harvests in the year, but not necessarily, nor indeed usually, from the same fields. For inexhaustible fertility, and for retentiveness of moisture in a dry year, no soil in the world can surpass the “black cotton-soil” of the Deccan. In the broad river basins the inundations deposit annually a fresh top-dressing of silt, thus superseding the necessity of manures.

*Wheat.*—Within recent years wheat has become one of the most important crops in India, more especially for export. The canal colonies of the Punjab have turned northern India into one of the great grain-fields of the British empire; and in 1904 India took the first place in supplying wheat to the United Kingdom, sending nearly 25½ million cwts. out of a total of 97¾ millions. In 1905, however, it fell back again into the third place, being passed by Russia and Argentina. Wheat is grown chiefly in the Punjab, the United Provinces, and the Central Provinces. In 1905-1906 there were 23 million acres under wheat in the whole of India, of which 8½ million were in the Punjab alone.

*Rice.*—The name of rice has from time immemorial been so closely associated with Indian agriculture that it is difficult to realize how comparatively small an area is planted with this crop. With the exception of the deltas of the great rivers and the long strip of land fringing the western coast, rice may be called an occasional crop throughout the remainder of the peninsula. But where it is grown it is grown to the exclusion of all other crops. The rice crop is most important in Burma, Bengal and Madras, and there is an average of 20 million acres under rice in the other provinces of British India. In Bengal the area varies from 36 to 40 million acres according to the season. In Burma, where the large waste area is being gradually brought under cultivation, there has been an almost uninterrupted increase in the area of the rice crop, and the rice export is one of the main industries of the province. In ordinary years most of this rice goes either to Europe or to the Farther East; but in famine seasons a large part is diverted to peninsular India, and Burma is the most important of the outside sources from which the deficient crops are supplemented. In 1905-1906 the export of rice from India was valued at 12½ millions sterling.

*Millets.*—Taking India as a whole, the staple food grain is neither rice nor wheat, but millets, which are probably the most prolific grain in the world, and the best adapted to the vicissitudes of a tropical climate. Excluding the special rice-growing tracts, different kinds of millet are grown more extensively than any other crop from Madras in the south at least as far as Rajputana in the north. The *sorghum* or great millet, generally known as *jowar* or *cholum*, is the staple grain crop of southern India. The spiked millet, known as *bajra* or *cumbu*, which yields a poorer food, is grown on dry sandy soil in the Deccan and the Punjab. A third sort of millet, *ragi* or *marua*, is cultivated chiefly in Madras and Bengal. There are also other kinds, which are included as a rule under the general head of “other food grains.” Millet crops are grown for the most part on unirrigated land. In the Bombay Deccan districts they cover generally upwards of 60% of the grain area, or an even larger proportion in years of drought. In Gujarat about half the grain area is under millets or maize in ordinary years. The grain is consumed almost entirely in India, though a small amount is exported.

*Pulses.*—Among pulses gram covers in ordinary years more than 10 millions of acres, chiefly in the United Provinces, the Punjab and Bengal. Gram is largely eaten by the poorer classes, but it is also used as horse-food. Other pulses, lentils, &c., are extensively grown, but the area under these crops is liable to great contraction in years of drought, as it consists for the most part of unirrigated lands.

*Oil-seeds.*—Oil-seeds also form an important crop in all parts of the country, being perhaps more universally grown than any other, as oil is necessary, according to native custom, for application to the person, for food, and for burning in lamps. In recent years the cultivation of oil-seeds has received an extraordinary stimulus owing to the demand for export to Europe, especially to France; but as they can be grown after rice, &c., as a second crop, this increase has hardly at all tended to diminish the production of food grains. The four chief varieties grown are mustard or rape seed, linseed, *til* or gingelly (sesamum), and castor-oil. Bengal and the United Provinces are at present the chief sources of supply for the foreign demand, but gingelly is largely exported from Madras, and, to a smaller extent, from Burma. These seeds are for the most part pressed in India either in bullock presses or in oil-mills. The refuse or cake is of great value to agriculturists, as it forms a food for cattle, and in the case of sesamum it is eaten by the people. But a very large quantity of the seeds is exported. The total value of oils and oil-seeds exported in 1905-1906 was over 7½ millions sterling.

*Vegetables.*—Vegetables are everywhere cultivated in garden plots for household use, and also on a larger scale in the neighbourhood of great towns. Among favourite native vegetables, the following may be mentioned:—the egg-plant, called *brinjal* or *baigan* (*Solanum Melongena*), potatoes, cabbages, cauliflower, radishes, onions, garlic, turnips, yams, and a great variety of cucurbitaceous plants, including *Cucumis sativus*, *Cucurbita maxima*, *Lagenaria vulgaris*, *Trichosanthes dioica*, and *Benincasa cerifera*. Of these, potatoes, cabbages, and turnips are of comparatively recent introduction. Almost all English vegetables can be raised by a careful gardener. Potatoes thrive best on the higher elevations, such as the Khasi hills, the Nilgiris, the Mysore uplands, the Shan States, and the slopes of the Himalayas; but they are also grown even in lowland districts.

*Fruits.*—Among cultivated fruits are the following:—Mango (*Mangifera indica*), plantain (*Musa paradisiaca*), pine-apple (*Ananassa sativa*), pomegranate (*Punica Granatum*), guava (*Psidium pomiferum* and *P. pyriferum*), tamarind (*Tamarindus indica*), jack (*Artocarpus integrifolia*), custard-apple (*Anona squamosa*), papaw (*Carica Papaya*), shaddock (*Citrus decumana*), and several varieties of fig, melon, orange, lime and citron. According to the verdict of Europeans, no native fruits can compare with those of England. But the mangoes of Bombay, of Multan, and of Malda in Bengal, and the oranges of Nagpur and the Khasi hills, enjoy a high reputation; while the guavas of Madras are made into an excellent preserve.

*Spices.*—Among spices, for the preparation of curry and other hot dishes, turmeric and chillies hold the first place, being very generally cultivated. Next in importance come ginger, coriander, aniseed, black cummin, and fenugreek. Pepper proper is confined to the Malabar coast, from Kanara to Travancore. Cardamoms are a valuable crop in the same locality, and also in the Nepalese Himalayas. *Pan* or betel-leaf is grown by a special caste in most parts of the country. Its cultivation requires constant care, but is highly remunerative. The betel-nut or areca palm is chiefly grown in certain favoured localities, such as the deltaic districts of Bengal and the highlands of southern India.

*Palms.*—Besides betel-nut (*Areca Catechu*), the palms of India include the coco-nut (*Cocos nucifera*), the bastard date (*Phoenix sylvestris*), the palmyra (*Borassus flabellifer*), and the true date (*Phoenix dactylifera*). The coco-nut, which loves a sandy soil and a moist climate, is found in greatest perfection

along the strip of coast-line that fringes the west of the peninsula, where it ranks next to rice as the staple product. The bastard date, grown chiefly in the country round Calcutta and in the north-east of the Madras presidency, supplies both the jaggery sugar of commerce and intoxicating liquors for local consumption. Spirit is also distilled from the palmyra, especially in the neighbourhood of Bombay and in the south-east of Madras. The true date is almost confined to Sind.

*Sugar.*—Sugar is manufactured both from the sugar-cane and from the bastard date-palm, but the total production is inadequate to the local demand. The best cane is grown in the United Provinces, on irrigated land. It is an expensive crop, requiring much attention, and not yielding a return within the year; but the profits are proportionately large. The normal area under sugar-cane in India is generally about 3 million acres, chiefly in the United Provinces, Bengal, and the Punjab. A large share of the produce is consumed in the form of *gur* or unrefined sugar, and the market for this preparation is independent of foreign competition. The total import of sugar in 1905-1906 was valued at £5,182,000, chiefly from Java and Mauritius.

*Indigo.*—Owing to the manufacture of synthetic indigo by German chemists the export trade in indigo, which was formerly the most important business carried on by European capital in India, has been almost entirely ruined. In the early years of the 19th century there were colonies of English planters in many districts of Bengal, and it was calculated that the planters of North Behar alone had a turnover of a million sterling. The industry suffered depression owing to the indigo riots of 1860 and the emancipation of the peasantry by the Land Act of 1859; but in the closing decade of the century it received a much more disastrous blow from the invention of the German chemists. In 1895-1896 the area under indigo was 1,570,000 acres, and the value of the exports £3,569,700, while in 1905-1906 the area had sunk to 383,000 acres, and the value of the exports to £390,879. The only hope of rescuing the industry from total disappearance lies in the fact that the natural indigo gives a faster dye than the manufactured product, while an effort has also been made to introduce the Java-Natal seed into India, which gives a much heavier yield, and so may be better able to compete in price with synthetic indigo.

*Tea.*—The cultivation of tea in India began within the memory of men still living, and now has replaced indigo as the chief article for European capital, more particularly in Assam. Unlike coffee-planting the enterprise owes its origin to the initiation of government, and has never attracted the attention of the natives. Early travellers reported that the tea-plant was indigenous to the southern valleys of the Himalayas; but they were mistaken in the identity of the shrub, which was the *Osyris nepalensis*. The real tea (*Thea viridis*), a plant akin to the camellia, grows wild in Assam, being commonly found throughout the hilly tract between the valleys of the Brahmaputra and the Barak. There it sometimes attains the dimensions of a large tree; and from that, as well as from other indications, it has been plausibly inferred that Assam is the original home of the plant, which was thence introduced at a prehistoric date into China.  The real progress of tea-planting in Assam dates from about 1851, and was greatly assisted by the promulgation of the Waste-land Rules of 1854. By 1859 there were already fifty-one gardens in existence, owned by private individuals; and the enterprise had extended from its original headquarters in Lakhimpur and Sibsagar as far down the Brahmaputra as Kamrup. In 1856 the tea-plant was discovered wild in the district of Cachar in the Barak valley, and European capital was at once directed to that quarter. At about the same time tea-planting was introduced into the neighbourhood of the sanatorium of Darjeeling, among the Sikkim Himalayas. The success of these undertakings engendered a wild spirit of speculation in tea companies both in India and at home, which reached its climax in 1865. The industry recovered but slowly from the effects of this disastrous crisis, and did not again reach a stable position until 1869. Since that date it has rapidly but steadily progressed, and has been ever opening new fields of enterprise. At the head of the Bay of Bengal in Chittagong district, side by side with coffee on the Nilgiri hills, on the forest-clad slopes of Kumaon and Kangra, amid the low-lying jungle of the Bhutan Dwars, and even in Arakan, the energetic pioneers of tea-planting have established their industry. Different degrees of success may have rewarded them, but in no case have they abandoned the struggle. The area under tea, of which nine-tenths lies in the new province of Eastern Bengal and Assam, expanded by 85% during the sixteen years from 1885 to 1901, while the production increased by 167%. This great rise in the supply, unaccompanied by an equal expansion of the market for Indian tea, involved the industry in great difficulties, to meet which it became necessary to restrict the area under tea as far as possible, and to reduce the quantity of leaf taken from the plant, thus at the same time improving the quality of the tea. The area under tea in 1885 was 283,925 acres and the yield 71,525,977 lb, while in 1905 the area had increased to 527,290 acres and the yield to 222,360,132 lb, while the export alone was 214,223,728 lb. As much as 92% of the export goes to the United Kingdom, where China tea has been gradually ousted by tea from India and Ceylon. The other chief countries that afford a market for Indian tea are Canada, Russia, Australia, Turkey in Asia, Persia, and the United States. India’s consumption of tea is computed to average 8¼ million pounds, of which 5½ millions are Indian and the remainder Chinese. There should therefore be considerable room for expansion in the home market. In 1905 there were 134 tea-planting companies registered in India, about 80% of the capital being held by shareholders in London.

*Coffee.*—The cultivation of coffee is confined to southern India, though attempts have been made to introduce the plant both into Lower Burma and into the Eastern Bengal district of Chittagong. The coffee tract may be roughly defined as a section of the landward slope of the Western Ghats, extending from Kanara in the north to Travancore in the extreme south. That tract includes almost the whole of Coorg, the districts of Kadur and Hassan in Mysore, the Nilgiri hills, and the Wynaad. The cultivation has also extended to the Shevaroy hills in Salem district and to the Palni hills in Madura.

Unlike tea, coffee was not introduced into India by European enterprise; and even to the present day its cultivation is largely followed by the natives. The Malabar coast has always enjoyed a direct commerce with Arabia, and at an early date gave many converts to Islam. One of these converts, Baba Budan by name, is said to have gone on a pilgrimage to Mecca and to have brought back with him the coffee berry, which he planted on the hill range in Mysore still called after him. According to local tradition this happened more than two centuries ago. The shrubs thus sown lived on, but the cultivation did not spread until the beginning of the 19th century. The state of Mysore and the Baba Budan range also witnessed the first opening of a coffee-garden by an English planter about 1840. The success of this experiment led to

the extension of coffee cultivation into the neighbouring tract of Manjarabad, also in Mysore, and into the Wynaad subdivision of the Madras district of Malabar. From 1840 to 1860 the enterprise made slow progress; but since the latter date it has spread with great rapidity along the whole line of the Western Ghats, clearing away the primeval forest, and opening a new era of prosperity to the labouring classes. The export of coffee in 1905 was 360,000 cwt., being the highest for sixteen years. The over-supply of cheap Brazilian coffee in the consuming markets caused a heavy fall in prices at the beginning of the decade, the average price in London in 1901 being 47s. per cwt. compared with 101s. in 1894. The United Kingdom and France are the chief consumers. An agreement with France at the beginning of the decade secured to Indian produce imported into that country the benefits of the minimum tariff, thus protecting the coffee industry from taxation in French ports on a scale which would have seriously hampered the trade. There is practically no local market for coffee in India.

*Cinchona.*—The cultivation of cinchona was introduced into India in the year 1860 under the auspices of government, owing to the efforts of Sir Clements Markham, and a stock of plants was prepared and distributed to planters in the Nilgiris and in Coorg. At the same time governmental plantations were established in the Nilgiri hills and at Darjeeling, and these have been continued up to the present time. A considerable amount of the bark from private plantations is bought by the government and treated at the government factories. The sulphate of quinine and the cinchona febrifuge thus produced are issued for the most part to medical officers in the various provinces, to gaols, and to the authorities of native states; but a large and increasing amount is disposed of in the form of 5-grain packets, costing a farthing each, through the medium of the post-offices. This system brings the drug easily within the reach of the people.

*Cattle.*—Throughout the whole of India, except in Sind and the western districts of the Punjab, horned cattle are the only beasts used for ploughing. The well-known humped species of cattle predominates everywhere, being divided into many varieties. Owing partly to unfavourable conditions of climate and soil, partly to the insufficiency of grazing ground, and partly to the want of selection in breeding, the general condition of the cattle is miserably poor. As cultivation advances, the area of waste land available for grazing steadily diminishes, and the prospects of the poor beasts are becoming worse rather than better. Their only hope lies in the introduction of fodder crops as a regular stage in the agricultural course. There are, however, some fine breeds in existence. In Mysore the *amrit mahal*, a breed said to have been introduced by Hyder Ali for military purposes, is still kept up by the state. In the Madras districts of Nellore and Kurnool the indigenous breed has been greatly improved under the stimulus of cattle shows and prizes founded by British officials. In the Central Provinces there is a peculiar breed of trotting bullocks which is in great demand for wheeled carriages. The large and handsome oxen of Gujarat in Bombay and of Hariana in the Punjab are excellently adapted for drawing heavy loads in a sandy soil. The fodder famines that accompanied the great famines of 1897 and 1900 proved little short of disastrous to the cattle in the affected provinces. In Gujarat and the arid plains of the south-east Punjab the renowned herds almost disappeared. In the affected districts of the Punjab the loss of cattle averaged from 17 to 45% of the whole. In Rajputana more than half of its thirteen or fourteen millions of stock is said to have perished in 1900 alone. In one state the loss amounted to 90%, and in four others to 70%. In Gujarat half of its 1½ million cattle perished in spite of the utmost efforts to obtain fodder. The worst cattle are to be found always in the deltaic tracts, but there their place is to a large extent taken by buffaloes. These last are more hardy than ordinary cattle; their character is maintained by crossing the cows with wild bulls, and their milk yields the best *ghi* or clarified butter. Along the valley of the Indus, and in the sandy desert which stretches into Rajputana, camels supersede cattle for agricultural operations. The breed of horses has generally deteriorated since the demand for military purposes has declined with the establishment of British supremacy. In Bengal Proper, and also in Madras, it may be broadly said that horses are not bred. But horses are still required for the Indian army, the native cavalry, and the police; and in order to maintain the supply of remounts a civil veterinary department was founded in 1892, transferred in 1903 to the army remount department. Horse-breeding is carried on chiefly in the Punjab, the United Provinces, and Baluchistan, and government keep a number of stallions in the various provinces. Formerly Norfolk trotters held the first place in point of number, but their place has been taken in recent years by English thoroughbreds, Arabs, and especially Australians. For the supply of ordnance, baggage, and transport mules a large number of donkey stallions have been imported by the government annually from various European and other sources. But the supply of suitable animals is not good, and their cost is large; so the breeding of donkey stallions has been undertaken at the Hissar farm in the Punjab.

*Forests.*—The forests of India, both as a source of natural wealth and as a department of the administration, are beginning to receive their proper share of attention. Up to the middle of the 19th century the destruction of forests by timber-cutters, by charcoal-burners, and above all by shifting cultivation, was allowed to go on everywhere unchecked. The extension of cultivation was considered as the chief care of government, and no regard was paid to the improvident waste going on on all sides. But as the pressure of population on the soil became more dense, and the construction of railways increased the demand for fuel, the question of forest conservation forced itself into notice. It was recognized that the inheritance of future generations was being recklessly sacrificed to satisfy the immoderate desire for profit. And at the same time the importance of forests as affecting the general meteorology of a country was being learned from bitter experience in Europe. On many grounds, therefore, it became necessary to preserve what remained of the forests in India, and to repair the mischief of previous neglect even at considerable expense. In 1844 and 1847 the subject was actively taken up by the governments of Bombay and Madras. In 1864 Dr Brandis was appointed inspector-general of forests to the government of India, and in the following year an act of the legislature was passed (No. VII. of 1865). The regular training of candidates for the Forest Department in the schools of France and Germany dates from 1867. In the interval that has since elapsed, sound principles of forest administration have been gradually extended. Indiscriminate timber-cutting has been prohibited, the burning of the jungle by the hill tribes has been confined within bounds, large areas have been surveyed and demarcated, plantations have been laid out, and, generally, forest conservation has become a reality. Systematic conservancy of the Indian forests received a great impetus from the passing of the Forest Law in 1878, which gave to the government powers of dealing with private rights in the forests of which the chief proprietary right is vested in the state. The Famine Commission of 1878 urged the importance of forest conservancy as a safeguard to

agriculture, pointing out that a supply of wood for fuel was necessary if cattle manure was to be used to any extent for the fields, and also that forest growth served to retain the moisture in the subsoil. They also advised the protection and extension of communal rights of pasture, and the planting of the higher slopes with forest, with a view to the possible increase of the water-supply. These recommendations embody the principle upon which the management of the state forests is based. In 1894 the government divided forests into four classes: forests the preservation of which is essential on climatic or physical grounds, forests which supply valuable timber for commercial purposes, minor forests, and pasture lands. In the first class the special purpose of the forests, such as the protection of the plains from devastation by torrents, must come before any smaller interests. The second class includes tracts of teak, *sal* or *deodar* timber and the like, where private or village rights of user are few. In these forests every reasonable facility is afforded to the people concerned for the full and easy satisfaction of their needs, which are generally for small timber for building or fuel, fodder and grazing for their cattle, and edible products for themselves; and considerations of forest income are subordinated to those purposes. Restrictions necessary for the proper conservancy of the forests are, however, imposed, and the system of shifting cultivation, which denudes a large area of forest growth in order to place a small area under crops, is held to cost more to the community than it is worth, and is only permitted, under due regulation, where forest tribes depend on it for their sustenance. In the third place, there are minor forests, which produce inferior or smaller timber. These are managed mainly in the interests of the surrounding population, and supply grazing or fuel to them at moderate rates, higher charges being levied on consumers who are not inhabitants of the locality. The fourth class includes pastures and grazing grounds. In these even more than in the third class the interests of the local community stand first. The state forests, which are under the control of the forest department, amounted in 1901-1902 to about 217,500 sq. m., or more than one-fifth of the total area of British India, varying from 61% in Burma to 4% in the United Provinces.

*Timbers.*—A large part of the reserved forests, where the control of the forest department is most complete, consists of valuable timber, in which the first place is held by teak, found at its best in Burma, especially in the upper division, and on the south-west coast of India, in Kanara and Malabar. It is also the most prevalent and valuable product of the forests at the foot of the Ghats in Bombay, and along the Satpura and Vindhya ranges, as far as the middle of the Central Provinces. Here it meets the *sal*, which however is more especially found in the sub-Himalayan tracts of the United Provinces and Eastern Bengal and Assam. In the Himalayas themselves the *deodar* and other conifers form the bulk of the timber, while in the lower ranges, such as the Khasi hills in Assam, and those of Burma, various pines are prominent. In the north-east of Assam and in the north of Upper Burma the *Ficus elastica*, a species of india-rubber tree, is found. The sandal-wood flourishes all along the southern portion of the Ghats, especially about Mysore and Coorg; and in the same regions, as well as in Upper India, the blackwood occurs. A valuable tree, known as the padouk, is at present restricted almost entirely to the Andaman Islands, with a scattering in Lower Burma. There are many other timber trees that are in general demand in different parts of India, but the above are the best known outside that country. There is also the universal bamboo, and in the north-western tracts the equally useful rattan. The annual timber yield of the Indian forests is about fifty millions of cubic feet, excluding what is used for local purposes. About half of this quantity comes from the forests of Burma, where large amounts of teak and other woods are annually extracted, chiefly through the agency of private firms. It is, however, only the more valuable of the woods, such as teak, sandal-wood, ebony and the like, which find a market abroad. The total value of the export trade in forest produce averages between 1½ and 2 millions annually.

### *Manufactures.*

Manufacturing industries are being slowly developed in India, though their growth has not yet materially affected the pressure on the land. Next to agriculture, weaving is the most important industry in the country, the cotton-mills of Bombay and the jute mills of Bengal having increased greatly of recent years. On the other hand, the old indigenous industries of India decayed greatly during the latter part of the 19th century. The colonies of hand-workers in silk, cotton, carpets, brass and silver ware, wood and ivory, and other skilled craftsmen, which formerly existed in various parts of India, have fallen off both in the extent of their output and in the artistic excellence of their work. An attempt has been made to remedy the evil by means of schools of art, but with little result.

*Cotton.*—Cotton is the staple article of clothing in Eastern countries, and Indian cotton and other piece goods used to find a ready market in Europe before the English cotton manufacturer had arisen. When European adventurers found the way to India, cotton and silk always formed part of the rich cargoes that they brought home, and the early settlers were always careful to fix their abode amid a weaving population, at Surat, Calicut, Masulipatam or Hugli. But now the larger part of the cotton goods used in India is manufactured in mills in that country or in England, and the handloom weavers' output is confined to the coarsest kinds of cloth, or to certain special kinds of goods, such as the turbans and "saris" of Bombay, or the muslins of Arni, Cuddapah, and Madura in Madras, and of Dacca in Bengal. The extent to which village industries still survive is shown by the fact that according to the census of 1901 there were 5,800,000 hand-loom weavers in India against only 350,000 workers in cotton mills.

The present importance of the cotton crop dates only from the crisis in Lancashire caused by the American War. Prior to 1860 the exports of raw cotton from India used to average less than 3 millions sterling a year, mostly to China; but after that date they rose by leaps, until in 1866 they reached the enormous total of 37 millions. Then came the crash, caused by the restoration of peace in the United States, and the exports fell, until they now average little more than 8 millions a year. The fact is that Indian cotton has a short staple, and cannot compete with the best American cotton for spinning the finer qualities of yarn. But while the cotton famine was at its height, the cultivators were intelligent enough to make the most of their opportunity. The area under cotton increased enormously, and the growers managed to retain in their own hands a fair share of the profit. The principal cotton-growing tracts are the plains of Gujarat and Kathiawar, whence Indian cotton has received in the Liverpool market the historic name of "Surat"; the highlands of the Deccan, and the valleys of the Central Provinces and Berar. The total area under cotton in 1905-1906 was 20½ million acres, and the export was 7,396,000 cwt.

It was estimated in 1905 that the world's output of cotton was 19,000,000 bales, of which 13¾ millions were produced in the United States, 3 millions in India, and nearly 1¼ millions in Egypt, Japan and China being India's best customers for the raw article. At the same time the total number of spindles employed in working up the world's raw cotton was 116 millions, of which 48 millions were in the United Kingdom, 24 millions in the United States, and a little over 5 millions in India. There were 203 cotton mills in India, employing a daily average of 196,369 persons. The Bombay Presidency possessed 70% of the mills and much the same percentage of spindles and looms. The industry dates from 1851, when the first mill was started. But though India has special advantages in home-grown cotton and cheap labour, the labour is so inefficient as to make competition with Europe difficult. It is calculated that an Indian power-loom weaver working 72 hours a week can turn out 70 ℔ of cloth, while a European working 54 hours can turn out 468 ℔, and that one Lancashire weaver can do the work of six Indian power-loom weavers and nine hand-loom weavers. While these figures hold good, India cannot be a serious competitor with Europe in the cotton industry.

*Jute.*—Next to cotton, jute is the most important and prosperous of Indian manufactures. With the advance of commerce it is more and more required for its best-known use, as sacking for produce. Australia and Argentina need it for wool and wheat, Chili and Brazil for nitrates and coffee, Asiatic countries for rice, and the world as a whole for its increased output of produce. The supply has not kept pace with the demand, and the consequence was a steady appreciation in price from 1901 onwards. The cultivation of jute is confined, to a comparatively restricted area, more than three-fourths of the total acreage being in eastern Bengal and Assam, while nearly the whole of the remaining fourth is in Bengal. In 1907, however, experiments were made towards growing it in other parts of India. In Behar it has begun to replace indigo, and some success was achieved in Orissa, Assam and Madras; but jute is a very exhausting crop, and requires to be planted in lands fertilized with silt or else with manure. About half the total crop is exported, and the remainder used in the jute mills centred round Calcutta, which supply cloth and bags for the grain export trade. The number of jute mills in 1904 was 38, employing 124,000 hands, and since then the number has tended constantly upwards. The export of jute in 1905-1906 was 14,480,000 cwt. with a value of £12,350,000.

*Silk.*—The silk industry in India has experienced many vicissitudes. Under the East India Company large quantities of mulberry silk were produced chiefly in Bengal, and exported to Europe; and Malda, Murshidabad, and other places in that province have long been famous for their silk manufactures. Other kinds of silk are native to certain parts of India, such as those produced by the "castor oil" and the *muga* silkworms of Assam; but the chief of the wild silks is the tussore silk, which is found in the jungles nearly throughout India. Large quantities of comparatively coarse silk are made from silk so produced. In Assam silk is still the national dress, and forms the common costume of the women, but the men are relinquishing it as an article of daily wear in favour of cotton. Amongst the Burmese, however, silk still holds its own. Owing to disease among the silk-worms the industry has declined of recent years; and in 1886 an inquiry was held, which resulted in putting the silk-rearing industry of Bengal on a better basis. The most hopeful ground, however, for the industry is Kashmir, where Sir Thomas Wardle reported that the silk was of as high a quality as from any part of the world. The most important seat of the silk-weaving industry is Bengal, but there are few parts of India where some silk fabrics are not woven. The silk weavers of India possess the very highest skill in their craft, and with competent and energetic management and increased capital the industry could be revived and extended.



*Other Manufactures.*—The demand of the Indian population for woollen fabrics is very small in comparison with that for cotton, and although the manufacture of blankets is carried on in many parts of India, the chief part of the indigenous woollen industry was originally concerned with shawls. Kashmir shawls were at one time famous, but the industry is practically extinct. The chief seat of the woollen industry now is the Punjab, where a considerable number of weavers, thrown out of work by the decline of the shawl industry, have taken to carpet-making. The chief centre of this industry is Amritsar. The output of the woollen mills is chiefly used for the army and the police. In addition to these and the cotton and jute mills there are indigo factories, rice mills, timber mills, coffee works, oil mills, iron and brass foundries, tile factories, printing presses, lac factories, silk mills, and paper mills. There is a large trade in wood-carving, the material being generally Indian ebony in northern India, sandal-wood in southern India, and teak in Burma and elsewhere.

From an artistic point of view the metal manufactures are one of the most important products of India.

*Brass and Copper Work.*—The village brazier, like the village smith, manufactures the necessary vessels for domestic use. Chief among these vessels is the *lota*, or globular bowl, universally used in ceremonial ablutions. The form of the *lota*, and even the style of ornamentation, has been handed down unaltered from the earliest times. Benares enjoys the first reputation for work in brass and copper. In the south, Madura and Tanjore have a similar fame; and in the west, Ahmedabad, Poona and Nasik. At Bombay itself large quantities of imported copper are wrought up by native braziers. The temple bells of India are well known for the depth and purity of their note. In many localities the braziers have a special repute either for a peculiar alloy or for a particular process of ornamentation. Silver is sometimes mixed with the brass, and in rarer cases gold. The brass or rather bell-metal ware of Murshidabad, known as *khagrai*, has more than a local reputation, owing to the large admixture of silver in it.

***Pottery.***

Pottery is made in almost every village, from the small vessels required in cooking to the large jars used for storing grain and occasionally as floats to ferry persons across a swollen stream. But, though the industry is universal, it has hardly anywhere risen to the dignity of a fine art. Sind is the only province of India where the potter's craft is pursued with any regard to artistic considerations; and there the industry is said to have been introduced by the Mahommedans. Sind pottery is of two kinds, encaustic tiles and vessels for domestic use. In both cases the colours are the same,—turquoise blue, copper green, dark purple or golden brown, under an exquisitely transparent glaze. The usual ornament is a conventional flower pattern, pricked in from paper and dusted along the pricking. The tiles, which are evidently of the same origin as those of Persia and Turkey, are chiefly to be found in the ruined mosques and tombs of the old Mussulman dynasties; but the industry still

survives at the little towns of Saidpur and Bubri. Artistic pottery is made at Hyderabad, Karachi, Tatta and Hala, and also at Multan and Lahore in the Punjab. The Madura pottery deserves mention from the elegance of its form and the richness of its colour. The United Provinces have, among other specialties, an elegant black ware with designs in white metal worked into its surface.

### *Mineral Resources.*

Putting aside salt, which has been already treated, the chief mining resources of India at the present day are the coal mines, the gold mines, the petroleum oil-fields, the ruby mines, manganese deposits, mica mines in Bengal, and the tin ores and jade of Burma. Other minerals which exist but have not yet been developed in paying quantities are copper ore, alum, gypsum and plumbago.

*Coal.*—Coal has been known to exist in India since 1774. The first mine at Raniganj dates from 1820, and has been regularly worked up to the present time. Coal of varying quality exists under a very extensive area in India, being found in almost every province and native state with the exception of Bombay and Mysore. In respect, however, of both the number and size of its mines Bengal comes easily first, with seven-eighths of the total output, the largest mines being those of Raniganj, Jherria, and Giridih, while the Singareni mine in Hyderabad comes next. Many of the Bengal mines, however, are very small. There are some important mines in Assam and the Central Provinces. The importance of the Indian coal production lies in the hope that it holds out for the development of Indian industries, especially in connexion with the nascent iron and steel industry. Coal and iron are found in conjunction in the Central Provinces, and the Tata Company has recently been formed to work them on a large scale. The railways already use Indian coal almost exclusively, and Indian coal is being taken yearly in greater quantities by ships trading to Eastern ports. The total output in 1905-1906 was 8,417,739 tons; while there were 47 companies engaged in coal-mining, of which 46 were in Bengal.

*Gold.*—The production of gold in India is practically confined to the Kolar gold fields in Mysore. An uncertain but unimportant amount is annually procured by sand-washing in various tracts of northern India and Burma; and there have been many attempts, including the great boom of 1880, to work mines in the Wynaad district of the Madras Presidency. There are also mines in the Hyderabad state from which a small amount of gold is produced. But the output of gold in Mysore represents 99% of the annual Indian yield. Modern mining at Kolar dates from 1881, but there are extensive old workings showing that much gold had been extracted under native rule. The mines are worked under leases from the Mysore government, which secure to the state a royalty of 5% of the gold produced. Up to the end of 1903 the total output of the Kolar mines reached the value of £19,000,000.

*Iron.*—In purity of ore, and in antiquity of working, the iron deposits of India probably rank first in the world. They are to be found in every part of the country, from the northern mountains of Assam and Kumaun to the extreme south of the Madras Presidency. Wherever there are hills, iron is found and worked to a greater or less extent. The indigenous methods of smelting the ore, which are everywhere the same, and have been handed down unchanged through countless generations, yield a metal of the finest quality in a form well suited to native wants. But they require an extravagant supply of charcoal; and even with the cheapness of native labour the product cannot compete in price with imported iron from England. European enterprise, attracted by the richness of the ore and the low rate of wages, has repeatedly tried to establish iron-works on a large scale; but hitherto every one of these attempts has ended in failure with the exception of the iron-works at Barrakur in Bengal, first started in 1865, which after many years of struggle seem to have turned the corner of success. The principal sources of iron-stone at present are the Madras ores, chiefly at Salem, the Chanda ores in the Central Provinces, and the ores obtained at and near Raniganj in Bengal.

*Petroleum.*—The great oilfields of the Indian empire are in Burma, which supplies 98% of the total output. Of the remainder nearly all comes from Assam. In both provinces the growth of the yield has been very great, the total output in 1901 being six times as large as in 1892; but even so it has failed to keep pace with the demand. A regular service of steamers carries oil in bulk from Rangoon to Calcutta, and now Burmese oil competes with the Russian product, which had already driven the dearer American oil from the market (see Burma).

*Other Ores.*—Manganese ore is found in very large quantities on a tract on the Madras coast about midway between Calcutta and Madras. Most of the ore goes to Great Britain. There are also valuable deposits of manganese in the Central Provinces and, it is believed, in Burma. The export of manganese, which had been only about ten years in existence in 1905-1906, amounted then to 316,694 tons, with a value of £250,000. Mica has long been obtained in Bengal, chiefly in the Hazaribagh district, and there is a ruby-coloured variety which is held in great estimation. In Madras also a mica industry has recently grown up. Tin is found in the Tavoy and Mergui districts of Lower Burma, and has for many years been worked in an unprogressive manner chiefly by Chinese labour. In 1900 tin of good quality was found in the Southern Shan States. Copper ore is found in many tracts throughout India, plumbago in Madras, and corundum in southern India.

*Precious Stones.*—Despite its legendary wealth, which is really due to the accumulations of ages, India cannot be said to be naturally rich in precious stones. Under the Mahommedan rule diamonds were a distinct source of state revenue; and Akbar is said to have received a royalty of £80,000 a year from the mines of Panna. But at the present day the search for them, if carried on anywhere in British territory, is an insignificant occupation. The name of Golconda has passed into literature; but that city, once the Mussulman capital of the Deccan, was rather the home of diamond-cutters than the source of supply. It is believed that the far-famed diamonds of Golconda actually came from the sandstone formation which extends across the south-east borders of the nizam’s dominions into the Madras districts of Ganjam and Godavari. A few poor stones are still found in that region. Sambalpur, on the upper channel of the Mahanadi river in the Central Provinces, is another spot once famous for diamonds. So late as 1818 a stone is said to have been found there weighing 84 grains and valued at £500. The river-valleys of Chota

Nagpur are also known to have yielded a tribute of diamonds to their Mahommedan conquerors. At the present day the only place where the search for diamonds is pursued as a regular industry is the native state of Panna in Bundelkhand. The stones are found by digging down through several strata of gravelly soil and washing the earth. Even there, however, the pursuit is understood to be unremunerative, and has failed to attract European capital. At the present day the only important industries are the rubies and jade of Burma. The former are worked by the Ruby Mines Company or by licensed native miners under the company. The value of the rubies found has increased rapidly, and the company, which was for some time worked unprofitably under the lease granted in 1896, has now, with the aid of favourable treatment from the government, become more prosperous. Pearls are found off the southern coast of Madras and also in the Mergui archipelago.



*Trade.*

The trade of India with foreign countries is conducted partly by sea and partly across the land frontiers; but the frontier trade, though capable of much extension, is only a small fraction of the whole. The sea-borne trade is carried on chiefly through the four great ports of Calcutta, Bombay, Karachi, and Rangoon, of which Calcutta serves the fertile valley of the Ganges and Brahmaputra, Bombay serves the cotton-trade of western India, Karachi exports the wheat crop of the Punjab, and Rangoon the rice crop of Burma. Madras, which has been supplied with an artificial harbour, serves southern India, and Chittagong is rising into prominence as the point of departure for the tea and jute of eastern Bengal and Assam. The land trade is carried on with Persia, Afghanistan, Nepal, Tibet and western China. The new caravan route to Persia from Quetta by way of the Nushki railway offers facilities to traders, of which increasing advantage has been taken, but the trade is still small. Afghanistan under Abdur Rahman imposed prohibitive imposts upon trade, and the present amir followed his father’s policy, but his visit to India in 1907 may result in improved relations. The trade with the tribes lying north of the Malakand Pass has improved considerably since the frontier war of 1897-98, but they are a poor community. Nepal takes the largest share of the frontier trade. The trade with Tibet has slightly improved since the treaty of Lhasa of 1904, but it still amounts to only £90,000 annually. The trade with western China is about half a million annually, and shows signs of development.

***Exports.***

A review of Indian trade by the director-general of the statistical department in India is annually presented to parliament, and therefore it is only necessary here to mention the main channels that it has taken of recent years. The chief exports are raw cotton, cotton goods and yarn, rice, wheat, oil-seeds, raw jute and jute-manufactures, hides and skins, tea, opium and lac. In 1905-1906 there was great activity in both the cotton and jute industries. In Bombay new cotton mills were erected, and old ones extended, high-speed machinery was widely introduced, and 12,000 new looms were set up. Similarly the jute trade far surpassed all records. The crop was a record one, but the demand far exceeded the supply, the cultivators reaped profits of eight millions more than the previous year, and 2000 new looms were set up in Calcutta. The tea outlook was good, and the coffee industry was recovering from the effects of plant disease and Brazilian competition. But both the indigo and opium trades are declining industries, which mean a serious loss to the Indian exchequer. Indigo fell to about one-tenth of its value in the previous decade; and an agreement was come to with China in 1907, by which the area under opium is to be gradually reduced. The total exports for 1905-1906 were valued at £112,000,000.

***Imports.***

The chief articles of import are cotton goods, cotton yarn, metals, sugar, mineral oils, machinery and mill-work, woollen manufactures, provisions, hardware and cutlery, silk, liquors, apparel, railway material and chemicals. Cotton manufactures and yarns are imported almost exclusively from the United Kingdom, and amount to about 40% of the total trade. Metals, including hardware and cutlery, railway material, &c., supply about a fifth. The only other important article of import is sugar, which came to about 5 millions in 1905-1906. The balance of trade is always against India, because she is a debtor country, and has to pay interest on borrowed capital, and the “home charges” for the upkeep of the civil and military services and of the secretary of state’s establishment in London. The total imports for 1905-1906 were valued at 82½ millions sterling, including 14 millions of gold and silver, which are continually hoarded by the people of India.

***Trading classes.***

Broadly speaking, the greater part of the internal trade remains in the hands of the natives. Europeans control the shipping business and have a share in the collection of some of the more valuable staples of exports, such as cotton, jute, oil-seeds and wheat. But the work of distribution and the adaptation of the supply to the demand of the consumer naturally fall to those who are best acquainted with native wants. The Vaisya, or trading caste of Manu, has no longer any separate existence; but its place is occupied by several well-marked classes. On the western coast the Parsees, by the boldness and extent of their operations, tread close upon the heels of the most prosperous English houses. In the interior of the Bombay presidency, business is mainly divided between two classes, the Bunniahs of Gujarat and the Marwaris from Rajputana. Each of these profess a peculiar form of religion, the former being Vishnuvites of the Vallabhacharí sect, the latter Jains. In the Deccan their place is taken by Lingayats from the south, who again follow their own form of Hinduism, which is an heretical species of Siva worship. Throughout Mysore, and in the north of Madras, Lingayats are still found, but along the eastern sea-board the predominating classes of traders are those named Chetties and Komatis. In Bengal many of the upper castes of Sudras have devoted themselves to general trade; but there again the Jain Marwaris from Rajputana occupy the front rank. Their headquarters are in Murshidabad district, and their agents are to be found throughout the valley of the Brahmaputra, as far up as the unexplored frontier of China.

***Local trade.***

Local trade is conducted either at the permanent bazaars of great towns, at weekly markets held in certain villages, at annual gatherings primarily held for religious purposes, or by means of travelling brokers and agents. The cultivator himself, who is the chief producer and also the chief customer, knows little of the great towns, and expects the dealer to come to his own

door. Each village has at least one resident trader, who usually combines in his own person the functions of money-lender, grain dealer and cloth seller. The simple system of rural economy is entirely based upon the dealings of this man, whom it is the fashion sometimes to decry as a usurer, but who is really the one thrifty person among an improvident population. Abolish the money-lender, and the general body of cultivators would have nothing to depend upon but the harvest of a single year. The money-lender deals chiefly in grain and in specie. In those districts where the staples of export are largely grown, the cultivators commonly sell their crops to travelling brokers, who re-sell to larger dealers, and so on until the commodities reach the hands of the agents of the great shipping houses. The wholesale trade thus rests ultimately with a comparatively small number of persons, who have agencies, or rather corresponding firms, at the great central marts. Buying and selling in their aspects most characteristic of India are to be seen, not at these great towns, nor even at the weekly markets, but at the fairs which are held periodically at certain spots in most districts. Religion is always the original pretext of these gatherings or *melás*, at some of which nothing is done beyond bathing in the river, or performing various superstitious ceremonies. But in the majority of cases religion has become a mere excuse for secular business. Crowds of petty traders attend, bringing all those miscellaneous articles that can be packed into a pedlar's wallet; and the neighbouring villagers look forward to the occasion to satisfy alike their curiosity and their household wants.

**Finance.**

The control of the revenues of India is vested by act of parliament in the secretary of state for India in council. Subject to his control the government of India enjoys a certain discretionary power, but no new expenditure may be incurred without his sanction. There is a special member for finance in the governor-general's council, and all important matters are brought before the council. The central government keeps in its own hands certain revenues, such as salt, the post-office, telegraphs, railways, army and Indian Marine, in addition to the districts of Coorg, Ajmere and the North-West Frontier province. The other provinces raise and administer their own revenues, subject to the central control; they are allowed a certain proportion of the revenue to meet their own administrative charges, and so have an interest in economical expenditure. The apportionment of the revenues is settled afresh every five years. In 1893 the Indian mints were closed to the free coinage of silver, and in 1899 the British sovereign was made legal tender at the rate of 1s. 4d. per rupee; so that since that year the finances of India have been practically upon a gold basis. The principal heads of revenue are land, opium, salt, stamps, excise, customs, assessed taxes, forests, registration and tributes from native states; and the chief heads of expenditure are charges of collection, interest, post-office, telegraph and mint, civil departments, famine relief and insurance, railways, irrigation, other public works and army. The point most frequently criticized in the finances of India is the "home charges" which amount on an average to about 18½ millions a year. Of this total about 9½ millions are for interest on railways and other public works, 5 millions for pensions and furlough pay for civil and military officers, 2½ millions for stores and 1½ millions miscellaneous. These charges constitute the home expenditure on revenue account, but there are also other remittances from India on capital account which bring up the total disbursements in England to an annual average of about 21¼ millions.

### *Public Works.*

Public works in India fall under three categories—railways, irrigation, and roads and buildings. The railways are managed in various ways, the other two classes of works are carried out through the agency of separate departments in Madras and Bombay, and of officers of the government of India public works department, either under local or central control, in other provinces.



**Railways.**

Railways in India serve different purposes—the ordinary purpose of trade and passenger communication, and also the special purposes pf the safeguarding the internal and external peace of the country, and of protecting special districts against famine by facilitating the movement of grain. For this reason the interest on capital expended on all the lines cannot be judged by a purely commercial standard. They are administered in three separate ways—as guaranteed, state or assisted lines. In the early days of railway enterprise the agency of private companies guaranteed by the state was exclusively employed, and nearly all the great trunk lines were made under this system, but the leases of the last three of these lines, the Great Indian Peninsula, the Bombay Baroda and Central India, and the Madras companies, fell in respectively in 1900, 1905 and 1907. In 1870 a new policy of railway development by the direct agency of the state was inaugurated; and in 1880 the system of encouraging private enterprise by state assistance was again resorted to. Both agencies are now employed side by side. The administration of railways was formerly under a secretary in the public works department; but since 1905 it has been placed in charge of a railway board, consisting of a president and two members, which is connected with, though not subordinate to, the department of commerce and industry. In 1908 the total length of railways open in India was 30,578, m., which carried 330 million passengers and 64 million tons of goods, and yielded a net profit exceeding 4%.

**Irrigation.**

Facilities for irrigation (*q.v.*) vary widely, and irrigation works differ both in extent and in character. The main distinction arises from the fact that the rivers of northern India are fed by the Himalayan snows, and, therefore, afford a supply of water which surpasses in constancy and volume any of the rivers of the south. In Bombay and Madras almost all the irrigation systems, except in the deltas of the chief rivers, are dependent on reservoirs or "tanks," which collect the rainfall of the adjacent hills. In Sind and the Punjab there are many canals which act merely as distributaries of the overflow of the great rivers at the time of inundation; but where the utility of the canals has been increased by permanent head-works the supply of water is perennial and practically inexhaustible, thus contrasting favourably with the less certain protection given by tanks. The Irrigation Commission of 1901 advised an expenditure of 30 millions sterling, spread over a term of twenty years, and irrigating 6½ million acres in addition to the 47 millions already irrigated at that time; but it was estimated that that programme would practically exhaust the irrigable land in India, and that some of the later works would be merely protective against the danger of famine, and would not be financially

productive.

***Buildings and roads.***

In addition to the provision and maintenance of roads and the construction of public buildings, the department of public works also provides all works of a public nature, such as water-supply, sanitation, embankments, lighthouses, ferries and bridges, which require technical skill. Road-making is an ordinary form of relief work in times of famine. In the famine of 1896-1897, for instance, 579 m. of new roads were made in the Central Provinces alone, and 819 m. were repaired. One of the finest roads in the world is the Grand Trunk Road which stretches across India from Calcutta to Peshawar, and which is metalled most of the way with *kankar*, a hard limestone outgrowth. The great buildings of ancient India are described under the names of the different cities which contain them.

***Post Office.***

The post-office of India is under the control of a director-general, in subordination to the department of commerce and industry; and this officer has under him a postmaster-general or deputy postmaster-general in each province. In 1906 the district post, originally provided for local convenience and maintained by a local cess, was amalgamated with the imperial post. The mileage over which mails are carried by railway has been constantly increasing with the development of the railway system, but a far larger number are still carried by runners and boats. The total number of letters, &c., carried by the post exceeds 800 millions, and the service yields a small profit to the state. In connexion with the post-office there are inland money order and savings-bank businesses; and in addition the value-payable system, by which the post-office undertakes to recover from the addressee the value of an article sent by post and to remit the amount to the sender, has found great popularity.

***Telegraphs.***

Excluding the Indo European telegraph wire, the whole telegraph system of India forms an imperial charge, administered through a director-general. The total length of line is about 69,000 m., and the net profits of the service approximately pay for new expenditure on capital account.

Telegraphic communication with Europe is maintained by the cable of the Eastern Telegraph Company via Aden, and by the Indo-European system, of which the eastern portion from Teheran and Fao to Karachi belongs to the government of India. The administration of the Indo-European department is in London under the direct control of the secretary of state. The system comprises two sections. The first, called the Persian Gulf section, runs from Karachi to Bushire, from Jask to Muscat, and from Bushire to Fao, where a connexion is made with the Ottoman government line. It includes also the Makran coast lines, running from Jask to Guadur, and thence to Karachi. The second section, known as the Persian section, consists of land lines running from Bushire to Teheran. These land lines, as well as the Makran coast lines, are worked under a treaty with the Persian government. A connexion for extending the system through Persia was signed in 1901, the route to be followed being from Kashan near Teheran to the Baluchistan frontier via Yezd and Kerman.

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(W. W. H.; J. S. Co.)

## HISTORY

For an orthodox Hindu the history of India begins more than three thousand years before the Christian era with the events detailed in the great epic of the *Mahabharata*; but by the sober historian these can only be regarded as legends. See the article INSCRIPTIONS: section *Indian*, for a discussion of the scientific basis of the early history. It is needless to repeat here the analysis given in that article. The following account of the earlier period follows the main outlines of the traditional facts, corrected as far as possible by the inscriptional record; and further details will be found in the separate biographical, racial and linguistic articles, and those on the geographical areas into which India is administratively divided.

***Legends.***

Our earliest glimpses of India disclose two races struggling for the soil, the Dravidians, a dark-skinned race of aborigines, and the Aryans, a fair-skinned people, descending from the north-western passes. Ultimately the Dravidians were driven back into the southern table-land, and the great plains of Hindustan were occupied by the Aryans, who dominated the history of India for many centuries thereafter.

The *Rig-Veda* forms the great literary memorial of the early Aryan settlements in the Punjab. The age of this primitive folk-song is unknown. The Hindus believe, without evidence, that it existed "from before all time," or at least 3001 years B.C.—nearly 5000 years ago. European scholars have inferred from astronomical dates that its composition was going on about 1400 B.C. But these dates are themselves given in writings of later origin, and might have been calculated backwards. We only know that the Vedic religion had been at work long before the rise of Buddhism in the 6th century B.C. Nevertheless, the antiquity of the *Rig-Veda*, although not to be expressed in figures, is abundantly established. The earlier hymns exhibit the Aryans on the north-western frontiers of India just starting on their long journey. They

show us the Aryans on the banks of the Indus, divided into various tribes, sometimes at war with each other, sometimes united against the "black-skinned" aborigines. Caste, in its later sense, is unknown. Each father of a family is the priest of his own household. The chieftain acts as father and priest to the tribe; but at the greater festivals he chooses some one specially learned in holy offerings to conduct the sacrifice in the name of the people. The chief himself seems to have been elected. Women enjoyed a high position, and some of the most beautiful hymns were composed by ladies and queens. Marriage was held sacred. Husband and wife were both "rulers of the house" (*dampati*), and drew near to the gods together in prayer. The burning of widows on their husbands' funeral-pile was unknown, and the verses in the *Veda* which the Brahmans afterwards distorted into a sanction for the practice have the very opposite meaning.

The Aryan tribes in the *Veda* are acquainted with most of the metals. They have blacksmiths, coppersmiths and goldsmiths among them, besides carpenters, barbers and other artisans. They fight from chariots, and freely use the horse, although not yet the elephant, in war. They have settled down as husbandmen, till their fields with the plough, and live in villages or towns. But they also cling to their old wandering life, with their herds and "cattle-pens." Cattle, indeed, still form their chief wealth, the coin (Lat. *pecunia*) in which payments of fines are made; and one of their words for war literally means "a desire for cows." They have learned to build "ships," perhaps large river-boats, and seem to have heard something of the sea. Unlike the modern Hindus, the Aryans of the *Veda* ate beef, used a fermented liquor or beer made from the *soma* plant, and offered the same strong meat and drink to their gods. Thus the stout Aryans spread eastwards through northern India, pushed on from behind by later arrivals of their own stock, and driving before them, or reducing to bondage, the earlier "black-skinned" races. They marched in whole communities from one river-valley to another, each house-father a warrior, husbandman and priest, with his wife and his little ones, and cattle.

***Early states.***

About the beginning of the 6th century B.C. the settled country between the Himalaya mountains and the Nerbudda river was divided into sixteen independent states, some monarchies and some tribal republics, the most important of which were the four monarchies of Kosala, Magadha, the Vamsas and Avanti. Kosala, the modern kingdom of Oudh, appears to have been the premier state of India in 600 B.C. Later the supremacy was reft from it by the kingdom of Magadha, the modern Behar (*q.v.*). South of Kosala lay the kingdom of the Vamsas, and south of that again the kingdom of Avanti. In the north-west was Gandhara, on the banks of the Indus, in the neighbourhood of Peshawar. The history of these early states is only a confused record of war and intermarriages, and is still semi-mythical. The list of the sixteen states ignores everything north of the Himalayas, south of the Vindhyas, and east of the Ganges where it turns south.

***Capital cities.***

The principal cities of India at this date were Ayōdhyā, the capital of Kosala at the time of the Ramayana, though it afterwards gave place to Srāvastī, which was one of the six great cities of India in the time of Buddha: archaeologists differ as to its position. Baranasi, the modern Benares, had in the time of Megasthenes a circuit of 25 m. Kosambi, the capital of the Vamsas, lay on the Jumna, 230 m. from Benares. Rajagriha (Rajgir), the capital of Magadha, was built by Bimbisara, the contemporary of Buddha. Roruka, the capital of Sovira, was an important centre of the coasting trade. Saketa was sometime the capital of Kosala. Ujjayini, the modern Ujjain, was the capital of Avanti. None of these great cities has as yet been properly excavated.

***Social life.***

In those early days the Aryan tribes were divided into four social grades on a basis of colour: the Kshatriyas or nobles, who claimed descent from the early leaders; the Brahmans or sacrificing priests; the Vaisyas, the peasantry; and last of all the Sudras, the hewers of wood and drawers of water, of non-Aryan descent. Even below these there were low tribes and trades, aboriginal tribes and slaves. In later documents mention is made of eighteen gilds of work-people, whose names are nowhere given, but they probably included workers in wood, workers in metal, workers in stone, weavers, leather-workers, potters, ivory-workers, dyers, fisher-folk, butchers, hunters, cooks, barbers, flower-sellers, sailors, basket-makers and painters.

It is supposed that sea-going merchants, mostly Dravidians, and not Aryans, availing themselves of the monsoons, traded in the 7th century B.C. from the south-west ports of India to Babylon, and that there they became acquainted with a Semitic alphabet, which they brought back with them, and from which all the alphabets now used in India, Burma, Siam and Ceylon have been gradually evolved. For the early inscriptional remains, see Inscriptions: *India*. The earliest written records in India, however, are Buddhist. The earliest written books are in Pali and Buddhist Sanskrit.

### *The Buddhist Period.*

The systems called Jainism (see Jains) and Buddhism (*q.v.*) had their roots in prehistoric philosophies, but were founded respectively by Vardhamana Mahavira and Gotama Buddha, both of whom were preaching in Magadha during the reign of Bimbisara (*c.* 520 B.C.).

During the next two hundred years Buddhism spread over northern India, perhaps receiving a new impulse from the Greek kingdoms in the Punjab. About the middle of the 3rd century B.C. Asoka, the king of Magadha or Behar, who reigned from 264 B.C. to 227 B.C., became a zealous convert to Buddhism. He is said to have supported 64,000 Buddhist priests; he founded many religious houses, and his kingdom is called the Land of the Monasteries (Vihara or Behar) to this day. He did for Buddhism what Constantine effected for Christianity; he organized it on the basis of a state religion. This he accomplished by five means—by a council to settle the faith, by edicts promulgating its principles, by a state department to watch over its purity, by missionaries to spread its doctrines, and by an authoritative collection of its sacred books. In 246 B.C. Asoka is said[2] to have convened at Pataliputra (Patna) the third Buddhist council of one thousand elders (the tradition that he actually convened it rests on no actual evidence that we

possess). Evil men, taking on them the yellow robe of the order, had given forth their own opinions as the teaching of Buddha. Such heresies were now corrected; and the Buddhism of southern Asia practically dates from Asoka's council. In a number of edicts, both before and after the synod, he published throughout India the grand principles of the faith. Such edicts are still found graven deep upon pillars, in caves and on rocks, from the Yusafzai valley beyond Peshawar on the north-western frontier, through the heart of Hindustan, to Kathiawar and Mysore on the south and Orissa in the east. Tradition states that Asoka set up 64,000 memorial columns; and the thirty-five inscriptions extant in our own day show how widely these royal sermons were spread over India. In the year of the council, the king also founded a state department to watch over the purity and to direct the spread of the faith. A minister of justice and religion (Dharma Mahamatra) directed its operations; and, one of its first duties being to proselytize, he was specially charged with the welfare of the aborigines among whom its missionaries were sent. Asoka did not think it enough to convert the inferior races without looking after their material interests. Wells were to be dug and trees planted along the roads; a system of medical aid was established throughout his kingdom and the conquered provinces, as far as Ceylon, for both man and beast. Officers were appointed to watch over domestic life and public morality, and to promote instruction among the women as well as the youth.

Asoka recognized proselytism by peaceful means as a state duty. The rock inscriptions record how he sent forth missionaries "to the utmost limits of the barbarian countries," to "intermingle among all unbelievers" for the spread of religion. They shall mix equally with Brahmans and beggars, with the dreaded and the despised, both within the kingdom "and in foreign countries, teaching better things." Conversion is to be effected by persuasion, not by the sword. This character of a proselytizing faith which wins its victories by peaceful means has remained a prominent feature of Buddhism to the present day. Asoka, however, not only took measures to spread the religion; he also endeavoured to secure its orthodoxy. He collected the body of doctrine into an authoritative version, in the Magadhi language or dialect of his central kingdom in Behar—a version which for two thousand years has formed the canon (*pitakas*) of the southern Buddhists.



The fourth and last of the great councils was held in Kashmir under the Kushan king Kanishka (see below). This council, which consisted of five hundred members, compiled three commentaries on the Buddhist faith. These commentaries supplied in part materials for the Tibetan or northern canon, drawn up at a subsequent period. The northern canon, or, as the Chinese proudly call it, the "greater vehicle of the law," includes many later corruptions or developments of the Indian faith as originally embodied by Asoka in the "lesser vehicle," or canon of the southern Buddhists.

The Kanishka commentaries were written in the Sanskrit language, perhaps because the Kashmir and northern priests who formed his council belonged to isolated Aryan colonies, which had been little influenced by the growth of the Indian vernacular dialects. In this way Kanishka and his Kashmir council became in some degree to the northern or Tibetan Buddhists what Asoka and his council had been to the Buddhists of Ceylon and the south.[3]

***Buddhism and Brahmanism.***

Buddhism never ousted Brahmanism from any large part of India. The two systems co-existed as popular religions during more than a thousand years (250 B.C. to about A.D. 800), and modern Hinduism is the joint product of both. Certain kings and certain eras were intensely Buddhistic; but the continuous existence of Brahmanism is abundantly proved from the time of Alexander (327 B.C.) downwards. The historians who chronicled his march, and the Greek ambassador Megasthenes, who succeeded them (300 B.C.) in their literary labours, bear witness to the predominance of the old faith in the period immediately preceding Asoka. Inscriptions, local legends, Sanskrit literature, and the drama disclose the survival of Brahman influence during the next six centuries (250 B.C.-A.D. 400). From A.D. 400 we have the evidence of the Chinese pilgrims, who toiled through Central Asia into India as the birthplace of their faith. Fa-Hien entered India from Afghanistan, and journeyed down the whole Gangetic valley to the Bay of Bengal in A.D. 399-413. He found Brahman priests equally honoured with Buddhist monks, and temples to the Indian gods side by side with the religious houses of his own faith. Hsüan Tsang also travelled to India from China by the Central Asia route, and has left a fuller record of the state of the two religions in the 7th century. His journey extended from A.D. 629 to 645, and everywhere throughout India he found the two faiths eagerly competing for the suffrages of the people. By that time, indeed, Brahmanism was beginning to assert itself at the expense of the other religion. The monuments of the great Buddhist monarchs, Asoka and Kanishka, confronted him from the time he neared the Punjab frontier; but so also did the temples of Siva and his "dread" queen Bhima. Throughout north-western India he found Buddhist convents and monks surrounded by "swarms of heretics." The political power was also divided, although Buddhist sovereigns predominated. A Buddhist monarch ruled over ten kingdoms in Afghanistan. At Peshawar the great monastery built by Kanishka was deserted, but the populace remained faithful. In Kashmir king and people were devout Buddhists, under the teaching of five hundred monasteries and five thousand monks. In the country identified with Jaipur, on the other hand, the inhabitants were devoted to heresy and war.

***Decline of Buddhism.***

During the next few centuries Brahmanism gradually became the ruling religion. There are legends of persecutions instigated by Brahman reformers, such as Kumarila Bhatta and Sankar-Acharjya. But the downfall of Buddhism seems to have resulted from natural decay, and from new movements of religious thought, rather than from any general suppression by the sword. Its extinction is contemporaneous with the rise of Hinduism, and belongs to a subsequent part of this sketch. In the 11th century, only outlying states, such as Kashmir and Orissa, remained faithful; and before the Mahommedans fairly came upon the scene Buddhism as a popular faith had disappeared from India. During the last ten centuries Buddhism has been a banished religion from its native home. But it has won greater triumphs in its exile than it could ever have achieved in the land of its birth. It has created a literature and a religion for more than a third of the human race, and has

profoundly affected the beliefs of the rest. Five hundred millions of men, or 35% of the inhabitants of the world, still follow the teaching of Buddha. Afghanistan, Nepal, Eastern Turkestan, Tibet, Mongolia, Manchuria, China, Japan, the Eastern Archipelago, Siam, Burma, Ceylon and India at one time marked the magnificent circumference of its conquests. Its shrines and monasteries stretched in a continuous line from the Caspian to the Pacific, and still extend from the confines of the Russian empire to the equatorial archipelago. During twenty-four centuries Buddhism has encountered and outlived a series of powerful rivals. At this day it forms one of the three great religions of the world, and is more numerously followed than either Christianity or Islam. In India its influence has survived its separate existence: it supplied a basis upon which Brahmanism finally developed from the creed of a caste into the religion of the people. The noblest survivals of Buddhism in India are to be found, not among any peculiar body, but in the religion of the people; in that principle of the brotherhood of man, with the reassertion of which each new revival of Hinduism starts; in the asylum which the great Hindu sects afford to women who have fallen victims to caste rules, to the widow and the out-caste; in the gentleness and charity to all men, which takes the place of a poor-law in India, and gives a high significance to the half satirical epithet of the "mild" Hindu.

*Hindu Period.*

The external history of India may be considered to begin with the Greek invasion in 327 B.C. Some indirect trade between India and the Levant seems to have existed from very ancient times. Homer was acquainted with tin and other articles of Indian merchandise by their Sanskrit names; and a long list has been made of Indian products mentioned in the Bible. In the time of Darius (see PERSIA) the valley of the Indus was a Persian satrapy. But the first Greek historian who speaks clearly of India was Hecataeus of Miletus (549-486 B.C.); the knowledge of Herodotus (450 B.C.) ended at the Indus; and Ctesias, the physician (401 B.C.), brought back from his residence in Persia only a few facts about the products of India, its dyes and fabrics, its monkeys and parrots. India to the east of the Indus was first made known in Europe by the historians and men of science who accompanied Alexander the Great in 327 B.C. Their narratives, although now lost, are condensed in Strabo, Pliny and Arrian. Soon afterwards Megasthenes, as Greek ambassador resident at a court in Bengal (306-298 B.C.), had opportunities for the closest observation. The knowledge of the Greeks and Romans concerning India practically dates from his researches, 300 B.C.

Alexander the Great entered India early in 327 B.C. Crossing the lofty Khawak and Kaoshan passes of the Hindu Kush, he advanced by Alexandria, a city previously founded in the Koh-i-Daman, and Nicaea, another city to the west of Jalalabad, on the road from Kabul to India. Thence he turned eastwards through the Kunar valley and Bajour, and crossed the Gouraios (Panjkora) river. Here he laid siege to Mount Aornos, which is identified by some authorities with the modern Mahaban, though this identification was rejected by Dr Stein after an exhaustive survey of Mount Mahaban in 1904. Alexander crossed the Indus at Ohind, 16 m. above Attock, receiving there the submission of the great city of Taxila, which is now represented by miles of ruins near the modern Rawalpindi. Crossing the Hydaspes (Jhelum) he defeated Porus in a great battle, and crossing the Acesines (Chenab) near the foot of the hills and the Hydraotes (Ravi), reached the Hyphasis (Beas). Here he was obliged by the temper of his army to retrace his steps, and retreat to the Jhelum, whence he sailed down the river to its confluence with the Indus, and thence to Patala, probably the modern Hyderabad. From Patala the admiral Nearchos was to sail round the coast to the Euphrates, while Alexander himself marched through the wilds of Gedrosia, or modern Makran. Ultimately, after suffering agonies of thirst in the desert, the army made its way back to the coast at the modern harbour of Pasin, whence the return to Susa in Persia was comparatively easy.

***Alexander's march.***



During his two years' campaign in the Punjab and Sind, Alexander captured no province, but he made alliances, founded cities and planted garrisons. He had transferred much territory to chiefs and confederacies devoted to his cause; every petty court had its Greek faction; and the detachments which he left behind at various positions, from the Afghan frontier to the Beas, and from near the base of the Himalaya to the Sind delta, were visible pledges of his return. At Taxila (Dehri-Shahan) and Nicaea (Mong) in the northern Punjab, at Alexandria (Uchch) in the southern Punjab, at Patala (Hyderabad) in Sind, and at other points along his route, he established military settlements of Greeks or allies. A large body of his troops remained in Bactria; and, in the partition of the empire which followed Alexander's death in 323 B.C., Bactria and India eventually fell to Seleucus Nicator, the founder of the Syrian monarchy (see SELEUCID).

Meanwhile a new power had arisen in India. Among the Indian adventurers who thronged Alexander's camp in the Punjab, each with his plot for winning a kingdom or crushing a rival, Chandragupta Maurya, an exile from the Gangetic valley, seems to have played a somewhat ignominious part. He tried to tempt the wearied Greeks on the banks of the Beas with schemes of conquest in the rich south-eastern provinces; but, having personally offended their leader, he had to fly the camp (326 B.C.). In the confused years which followed, he managed with the aid of plundering bands to form a kingdom on the ruins of the Nanda dynasty in Magadha or Behar (321 B.C.). He seized the capital, Pataliputra, the modern Patna, established himself firmly in the Gangetic valley, and compelled the north-western principalities, Greeks and natives alike, to acknowledge his suzerainty. While, therefore, Seleucus was winning his way to the Syrian monarchy during the eleven years which followed Alexander's death, Chandragupta was building up an empire in northern India. Seleucus reigned in Syria from 312 to 280 B.C., Chandragupta in the Gangetic valley from 321 to 296 B.C. In 312 B.C. the power of both had been consolidated, and the two new sovereignties were brought face to face. In that year Seleucus, having recovered Babylon, proceeded to re-establish his authority in Bactria (*q.v.*) and the Punjab. In the latter province he found the Greek influence decayed. Alexander had left behind a mixed

***Chandragupta Maurya.***

force of Greeks and Indians at Taxila. No sooner was he gone than the Indians rose and slew the Greek governor; the Macedonians massacred the Indians; a new governor, sent by Alexander, murdered the friendly Punjab prince, Porus, and was himself driven out of the country by the advance of Chandragupta from the Gangetic valley. Seleucus, after a war with Chandragupta, determined to ally himself with the new power in India rather than to oppose it. In return for five hundred elephants, he ceded the Greek settlements in the Punjab and the Kabul valley, gave his daughter to Chandragupta in marriage, and stationed an ambassador, Megasthenes, at the Gangetic court (302 B.C.). Chandragupta became familiar to the Greeks as Sandrocottus, king of the Prasii; his capital, Pataliputra was called by them Palimbothra. On the other hand, the names of Greeks and kings of Grecian dynasties appear in the rock inscriptions, under Indian forms.

> Previous to the time of Megasthenes the Greek idea of India was a very vague one. Their historians spoke of two classes of Indians—certain mountainous tribes who dwelt in northern Afghanistan under the Caucasus or Hindu Kush, and a maritime race living on the coast of Baluchistan. Of the India of modern geography lying beyond the Indus they practically knew nothing. It was this India to the east of the Indus that Megasthenes opened up to the western world. He describes the classification of the people, dividing them, however, into seven castes instead of four, namely, philosophers, husbandmen, shepherds, artisans, soldiers, inspectors and the counsellors of the king. The philosophers were the Brahmans, and the prescribed stages of their life are indicated. Megasthenes draws a distinction between the Brahmans (Βραχμᾶνες) and the Sarmanae (Σαρμάναι), from which some scholars have inferred that the Buddhist Sarmanas were a recognized class fifty years before the council of Asoka. But the Sarmanae also include Brahmans in the first and third stages of their life as students and forest recluses. The inspectors or sixth class of Megasthenes have been identified with Asoka's *Mahamatra* and his Buddhist inspectors of morals.
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> The Greek ambassador observed with admiration the absence of slavery in India, the chastity of the women, and the courage of the men. In valour they excelled all other Asiatics; they required no locks to their doors; above all, no Indian was ever known to tell a lie. Sober and industrious, good farmers and skilful artisans, they scarcely ever had recourse to a lawsuit, and lived peaceably under their native chiefs. The kingly government is portrayed almost as described in Manu, with its hereditary castes of councillors and soldiers. Megasthenes mentions that India was divided into one hundred and eighteen kingdoms; some of which, such as that of the Prasii under Chandragupta, exercised suzerain powers. The village system is well described, each little rural unit seeming to be an independent republic. Megasthenes remarked the exemption of the husbandmen (Vaisyas) from war and public services, and enumerates the dyes, fibres, fabrics and products (animal, vegetable and mineral) of India. Husbandry depended on the periodical rains; and forecasts of the weather, with a view to "make adequate provision against a coming deficiency," formed a special duty of the Brahmans. "The philosopher who errs in his predictions observes silence for the rest of his life."

Before the year 300 B.C. two powerful monarchies had thus begun to act upon the Brahmanism of northern India, from the east and from the west. On the east, in the Gangetic valley, Chandragupta (320-296 B.C.) firmly consolidated the dynasty which during the next century produced Asoka (264-228 or 227 B.C.), and established Buddhism throughout India. On the west, the Seleucids diffused Greek influences, and sent forth Graeco-Bactrian expeditions to the Punjab. Antiochus Theos (grandson of Seleucus Nicator) and Asoka (grandson of Chandragupta), who ruled these two monarchies in the 3rd century B.C., made a treaty with each other (256). In the next century Eucratides, king of Bactria, conquered as far as Alexander's royal city of Patala, and possibly sent expeditions into Cutch and Gujarat, 181-161 B.C. Of the Graeco-Indian monarchs, Menander (*q.v.*) advanced farthest into north-western India, and his coins are found from Kabul, near which he probably had his capital, as far as Muttra on the Jumna.[4] The Buddhist dynasty of Chandragupta profoundly modified the religion of northern India from the east; the Seleucid empire, with its Bactrian and later offshoots, deeply influenced the science and art of Hindustan from the west.

***Greek influence on art.***

Brahman astronomy owed much to the Greeks, and what the Buddhists were to the architecture of northern India, that the Greeks were to its sculpture. Greek faces and profiles constantly occur in ancient Buddhist statuary, and enrich almost all the larger museums in India. The purest specimens have been found in the North-west frontier province (the ancient Gandhara) and the Punjab, where the Greeks settled in greatest force. As we proceed eastward from the Punjab, the Greek type begins to fade. Purity of outline gives place to lusciousness of form. In the female figures, the artists trust more and more to swelling breasts and towering chignons, and load the neck with constantly accumulating jewels. Nevertheless, the Grecian type of countenance long survived in Indian art. It is entirely unlike the present coarse conventional ideal of sculptured beauty, and may even be traced in the delicate profiles on the so-called sun temple at Kanarak, built in the 12th century A.D. on the remote Orissa shore.



***The Maurya Dynasty.***

Chandragupta (*q.v.*) was one of the greatest of Indian kings. The dominions that he had won back from the Greeks he administered with equal power. He maintained an army of 600,000 infantry, 30,000 horsemen, 36,000 men with the elephants, and 24,000 men with the chariots, which was controlled by an elaborate war-office system. The account given of his reign by Megasthenes makes him better known to us than any other Indian monarch down to the time of Akbar. In 297 B.C. he was succeeded by his son, Bindusara, who is supposed to have extended his dominions down to Madras. In 272 B.C. he in turn was succeeded by Asoka, the Buddhist emperor, the religious side of whose reign has already been described. Asoka's empire included the greater part of Afghanistan, a large part of Baluchistan, Sind, Kashmir, Nepal, Bengal to the mouths of the Ganges, and peninsular India down to the Palar river. After Asoka the Mauryas dwindled away, and the last of them, Brihadratha, was treacherously assassinated in 184 B.C. by his commander-in-chief, Pushyamitra Sunga, who founded the Sunga dynasty.

During the 2nd century B.C. north-western India was invaded and partially conquered by Antiochus III.

the Great, Demetrius (*q.v.*), Eucratides (*q.v.*) and Menander (*q.v.*). With the last of these Pushyamitra Sunga waged successful war, driving him from the Gangetic valley and confining him to his conquests in the west. Pushyamitra established his own paramountcy over northern India; but his reign is mainly memorable as marking the beginning of the Brahmanical reaction against Buddhism, a reaction which Pushyamitra is said to have forwarded not only by the peaceful revival of Hindu rites but by a savage persecution of the Buddhist monks. The Sunga dynasty, after lasting 112 years, was succeeded by the Kanva dynasty, which lasted 45 years, *i.e.* until about 27 B.C., when it was overthrown by an unknown king of the Andhra dynasty of the Satavahanas, whose power, originating in the deltas of the Godavari and Kistna rivers, by A.D. 200 had spread across India to Nasik and gradually pushed its way northwards.

***Sunga, Kanva, and Andhra Dynasties.***

About A.D. 100 there appeared in the west three foreign tribes from the north, who conquered the native population and established themselves in Malwa, Gujarat and Kathiawar. These tribes were the Sakas, a horde of pastoral nomads from Central Asia (see SAKA), the Pahlavas, whose name is supposed to be a corruption of "Parthiva" (*i.e.* Parthians of Persia), and the Yavanas (Ionians), *i.e.* foreigners from the old Indo-Greek kingdoms of the north west frontier, all of whom had been driven southwards by the Yue-chi (*q.v.*). Their rulers, of whom the first to be mentioned is Bhumaka, of the Kshaharata family, took the Persian title of satrap (Kshatrapa). They were hated by the Hindus as barbarians who disregarded the caste system and despised the holy law, and for centuries an intermittent struggle continued between the satraps and the Andhras, with varying fortune. Finally, however, about A.D. 236, the Andhra dynasty, after an existence of some 460 years, came to an end, under circumstances of which no record remains, and their place in western India was taken by the Kshaharata satraps, until the last of them was overthrown by Chandragupta Vikramaditya at the close of the 4th century.

***The Saka Satraps.***

Meanwhile, the Yue-chi had themselves crossed the Hindu Kush to the invasion of north-western India (see YUE-CHI). They were originally divided into five tribes, which were united under the rule of Kadphises I.[5] (? A.D. 45-85), the founder of the Kushan dynasty, who conquered the Kabul valley, annihilating what remained there of the Greek dominion, and swept away the petty Indo-Greek and Indo-Parthian principalities on the Indus. His successors completed the conquest of north-western India from the delta of the Indus eastwards probably as far as Benares. One effect of the Yue-chi conquests was to open up a channel of commerce with the Roman empire by the northern trade routes; and the Indian embassy which, according to Dion. Cassius (ix. 58), visited Trajan after his arrival at Rome in A.D. 99, was probably[6] sent by Kadphises II. (Ooemokadphises) to announce his conquest of north-western India. The most celebrated of the Kushan kings, however, was Kanishka, whose date is still a matter of controversy.[7] From his capital at Purushapura (Peshawar) he not only maintained his hold on north-western India, but conquered Kashmir, attacked Pataliputra, carried on a successful war with the Parthians, and led an army across the appalling passes of the Taghdumbash Pamir to the conquest of Kashgar, Yarkand and Khotan. It is not, however, as a conqueror that Kanishka mainly lives on in tradition, but as a Buddhist monarch, second in reputation only to Asoka, and as the convener of the celebrated council of Kashmir already mentioned.

***The Kushan Dynasty A.D. 45-225.***

The dynasties of the Andhras in the centre and south and of the Kushans in the north came to an end almost at the same time (*c.* A.D. 236-225 respectively). The history of India during the remainder of the 3rd century is all but a blank, a confused record of meaningless names and disconnected events; and it Is not until the opening of the 4th century that the veil is lifted, with the rise to supreme power in Magadha (A.D. 320) of Chandragupta I., the founder of the Gupta dynasty and empire (see GUPTA), the most extensive since the days of Asoka. He was succeeded by Chandragupta II. Vikramaditya, whose court and administration are described by the Chinese pilgrim Fa-hien, and who is supposed to have been the original of the mythical king Vikramaditya, who figures largely in Indian legends. The later Guptas were overwhelmed (*c.* 470) by the White Huns, or Ephthalites (*q.v.*), who after breaking the power of Persia and assailing the Kushan kingdom of Kabul, had poured into India, conquered Sind, and established their rule as far south as the Nerbudda. The dominion of the Huns in India, as elsewhere, was a mere organization for brigandage on an imperial scale and it did not long survive. It was shaken (*c.* 528) by the defeat, at the hands of tributary princes goaded to desperation, of Mihiragula, the most powerful and bloodthirsty of its rulers—the "Attila of India." It collapsed with the overthrow of the central power of the White Huns on the Oxus (*c.* 565) by the Turks. Though, however, this stopped the incursions of Asiatic hordes from the north-west, and India was to remain almost exempt from foreign invasion for some 500 years, the Ephthalite conquest added new and permanent elements to the Indian population. After the fall of the central power, the scattered Hunnish settlers, like so many before them, became rapidly Hinduized, and are probably the ancestors of some of the most famous Rajput clans.[8]

The last native monarch, prior to the Mahommedan conquest, to establish and maintain paramount power in the north was Harsha, or Harshavardhana (also known as Siladitya), for whose reign (606-648) full and trustworthy materials exist in the book of travels written by the Chinese pilgrim Hsüan Tsang and the *Harsha-charita* (Deeds of Harsha) composed by Bana, a Brahman who lived at the royal court. Harsha was the younger son of the raja of Thanesar, and gained his first experience of campaigning while still a boy in the successful wars waged by his father and brother against the Huns on the north-western frontier. After the treacherous murder of his brother by Sasanka, king of Central Bengal, he was confirmed as raja, though still very young, by the nobles of Thanesar in 606, though it would appear that his effective rule did not begin till six years later.[9] His first care was to revenge his brother's death, and though it seems that Sasanka escaped destruction for a while (he was still ruling in 619), Harsha's experience of warfare encouraged him to make preparations for bringing all India under his sway. By the end of five and a half years he had actually conquered the north-western regions and also, probably, part of Bengal. After this he reigned for 34½ years, devoting most of his energy to perfecting the administration of his vast dominions, which he did with such wisdom and liberality as to earn the

commendation of Hsüan Tsang. In his campaigns he was almost uniformly successful; but in his attempt to conquer the Deccan he was repulsed (620) by the Chalukya king, Pulikesin II., who successfully prevented him from forcing the passes of the Nerbudda. Towards the end of his reign Harsha's empire embraced the whole basin of the Ganges from the Himalayas to the Nerbudda, including Nepal,[10] besides Malwa, Gujarat and Surashtra (Kathiawar); while even Assam (Kamarupa) was tributary to him. The empire, however, died with its founder. His benevolent despotism had healed the wounds inflicted by the barbarian invaders, and given to his subjects a false feeling of security. For he left no heir to carry on his work; his death "loosened the bonds which restrained the disruptive forces always ready to operate in India, and allowed them to produce their normal result, a medley of petty states, with ever-varying boundaries, and engaged in unceasing internecine war."[11]

***The Deccan.***

In the Deccan the middle of the 6th century saw the rise of the Chalukya dynasty, founded by Pulikesin I. about A.D. 550. The most famous monarch of this line was Pulikesin II., who repelled the inroads of Harsha (A.D. 620), and whose court was visited by Hsüan Tsang (A.D. 640); but in A.D. 642 he was defeated by the Pallavas of Conjeeveram, and though his son Vikramaditya I. restored the fallen fortunes of his family, the Chalukyas were finally superseded by the Rashtrakutas about A.D. 750. The Kailas temple at Ellora was built in the reign of Krishna I. (*c.* A.D. 760). The last of the Rashtrakutas was overthrown in A.D. 973 by Taila II., a scion of the old Chalukya stock, who founded a second dynasty known as the Chalukyas of Kalyani, which lasted like its predecessor for about two centuries and a quarter. About A.D. 1000 the Chalukya kingdom suffered severely from the invasion of the Chola king, Rajaraja the Great. Vikramanka, the hero of Bilhana's historical poem, came to the throne in A.D. 1076 and reigned for fifty years. After his death the Chalukya power declined. During the 12th and 13th centuries a family called Hoysala attained considerable prominence in the Mysore country, but they were overthrown by Malik Kafur in A.D. 1310. The Yadava kings of Deogiri were descendants of feudatory nobles of the Chalukya kingdom, but they, like the Hoysalas, were overthrown by Malik Kafur, and Ramachandra, the last of the line, was the last independent Hindu sovereign of the Deccan.

***The Kingdoms of the South.***

According to ancient tradition the kingdoms of the south were three—Pandya, Chola and Chera. Pandya occupied the extremity of the peninsula, south of Pudukottai, Chola extended northwards to Nellore, and Chera lay to the west, including Malabar, and is identified with the Kerala of Asoka. All three kingdoms were occupied by races speaking Dravidian languages. The authentic history of the south does not begin until the 9th and 10th centuries A.D., though the kingdoms are known to have existed in Asoka's time.

***The Pandya Kingdom.***

The most ancient mention of the name Pandya occurs in the 4th century B.C., and in Asoka's time the kingdom was independent, but no early records survive, the Inscriptions of the dynasty being of late date, while the long lists of kings in Tamil literature are untrustworthy. During the early centuries of the Christian era the Pandya and Chera kingdoms traded with Rome. The most ancient Pandya king to whom a definite date can be ascribed is Rajasimha (*c.* A.D. 920). Records begin towards the end of the 12th century, and the dynasty can be traced from then till the middle of the 16th century. The most conspicuous event in its history was the invasion by the Sinhalese armies of Parakramabahu, king of Ceylon (*c.* A.D. 1175). The early records of the Chera kingdom are still more meagre; and the authentic list of the rajas of Travancore does not begin till A.D. 1335, and the rajas of Cochin two centuries later.

***The Chola Kingdom.***

The Chola kingdom, like the Pandya, is mentioned by the Sanskrit grammarian Katyayana in the 4th century B.C., and was recognized by Asoka as independent. The dynastic history of the Cholas begins about A.D. 860, and is known from then until its decline in the middle of the 13th century. During those four centuries their history is intertwined with that of the Pallavas, Chalukyas, Rashtrakutas and other minor dynasties. In A.D. 640 the Chola country was visited by Hsüan Tsang, but the country at that time was desolate, and the dynasty of small importance. In A.D. 985 Rajaraja the Great came to the throne, and after a reign of twenty-seven years died the paramount ruler of southern India. He conquered and annexed the island of Ceylon, and was succeeded by four equally vigorous members of the dynasty; but after the time of Vikrama (A.D. 1120) the Chola power gradually declined, and was practically extinguished by Malik Kafur.

***The Pallava Confederacy.***

The name of the Pallavas appears to be identical with that of the Pahlavas, a foreign tribe, frequently mentioned in inscriptions and Sanskrit literature. It is supposed, therefore, that the Pallavas came from the north, and gradually worked their way down to Malabar and the Coromandel coast. When first heard of in the 2nd century A.D. they are a ruling race. The Pallavas appear, like the Mahrattas in later times, to have imposed tribute on the territorial governments of the country. The first Pallava king about whom anything substantial is known was Siva-skanda-varman (*c.* A.D. 150), whose capital was Kanchi (Conjeeveram), his power extending into the Telugu country as far as the Kistna river. Two centuries later Samudragupta conquered eleven kings of the south, of whom three were Pallavas. It appears that in the 4th century three Pallava chiefs were established at Kanchi, Vengi and Palakkada, the latter two being subordinate to the first, and that Pallava rule extended from the Godavari on the north to the Southern Vellaru river on the south, and stretched across Mysore from sea to sea. About A.D. 609 Pulikesin II., the Chalukya king, defeated Mahendra-Varman, a Pallava chief, and drove him to take refuge behind the walls of Kanchi. About A.D. 620 a prince named Vishnuvardhana founded the Eastern Chalukya line in the province of Vengi, which was taken from the Pallavas. Hsüan Tsang visited Kanchi, the Pallava capital, in the year A.D. 640; the country was, according to his account, 1000 m. in circumference, and the capital was a large city 5 or 6 m. in circumference. In A.D. 642 the Pallavas defeated in turn Pulikesin II. The conflict became perennial, and when the Rashtrakutas supplanted the Chalukyas in the middle of the 8th century, they took up the old quarrel with the Pallavas. Towards the end of the 10th century the Pallava power, which had lasted for ten centuries, was destroyed by the Chola monarch, Rajaraja the Great. Pallava nobles existed to the end of

the 17th century, and the raja of Pudukottai claims descent from the ancient royal family.

*Mahommedan Period.*

At the time that Buddhism was being crushed out of India by the Brahmanic reaction, a new faith was being born in Arabia, destined to supply a youthful fanaticism which should sweep the country from the Himalayas to Cape Comorin, and from the western to the eastern sea. Mahomet, the founder of Islam, died at Medina in A.D. 632, while the Chinese pilgrim Hsüan Tsang was still on his travels. The first Mahommedan invasion of India is placed in 664, only thirty-two years after the death of the prophet. The Punjab is said to have been ravaged on this occasion with no permanent results. The first Mahommedan conquest was the outlying province of Sind. In 711, or seventy-nine years after the death of Mahomet, an Arab army under Mahommed b. Kasim invaded and conquered the Hindus of Sind in the name of Walid I., caliph of Damascus, of the Omayyad line. In the same year Roderic, the last of the Goths, fell before the victorious Saracens in Spain. But in India the bravery of the Rajputs and the devotion of the Brahmans seem to have afforded a stronger national bulwark than existed in western Europe. In 750 the Hindus rose in rebellion and drove out the Mussulman tyrant, and the land had rest for one hundred and fifty years.



The next Mahommedan invasion of India is associated with the name of Sultan Mahmud of Ghazni. Mahmud was the eldest son of Sabuktagin, surnamed Nasr-ud-din, in origin a Turkish slave, who had established his rule over the greater part of modern Afghanistan and Khorassan, with Ghazni as his capital. In 977 Sabuktagin is said to have defeated Jaipal, the Hindu raja of Lahore, and to have rendered the Punjab tributary. But his son Mahmud was the first of the great Mussulman conquerors whose names still ring through Asia. Mahmud succeeded to the throne in 997. During his reign of thirty-three years he extended the limits of his father's kingdom from Persia on the east to the Ganges on the west; and it is related that he led his armies into the plains of India no fewer than seventeen times. In 1001 he defeated Raja Jaipal a second time, and took him prisoner. But Anandpal, son of Jaipal, raised again the standard of national independence, and gathered an army of Rajput allies from the farthest corners of Hindustan. The decisive battle was fought in the valley of Peshawar. Mahmud won the day by the aid of his Turkish horsemen, and thenceforth the Punjab has been a Mahommedan province, except during the brief period of Sikh supremacy. The most famous of Mahmud's invasions of India was that undertaken in 1025-1026 against Gujarat. The goal of this expedition was the temple dedicated to Siva at Somnath, around which so many legends have gathered. It is reported that Mahmud marched through Ajmere to avoid the desert of Sind; that he found the Hindus gathered on the neck of the peninsula of Somnath in defence of their holy city; that the battle lasted for two days; that in the end the Rajput warriors fled to their boats, while the Brahman priests retired into the inmost shrine; that Mahmud, introduced into this shrine, rejected all entreaties by the Brahmans to spare their idol, and all offers of ransom; that he smote the image with his club, and forthwith a fountain of precious stones gushed out. Until the British invasion of Afghanistan in 1839, the club of Mahmud and the wood gates of Somnath were preserved at the tomb of the great conqueror near Ghazni. The club has now disappeared, and the gates brought back to India by Lord Ellenborough are recognized to be a clumsy forgery. To Mahommedans Mahmud is known, not only as a champion of the faith, but as a munificent patron of literature. The dynasty that he founded was not long-lived. Fourteen of his descendants occupied his throne within little more than a century, but none of them achieved greatness. A blood-feud arose between them and a line of Afghan princes who had established themselves among the mountains of Ghor. In 1155 Bahram, the last of the Ghaznivide Turks, was overthrown by Ala-ud-din of Ghor, and the wealthy and populous city of Ghazni was razed to the ground. But even the Ghoride conqueror spared the tomb of Mahmud.

***Mahmud of Ghazni.***

Khusru, the son of Bahram, fled to Lahore, and there established the first Mahommedan dynasty within India. It speedily ended with his son, also called Khusru, whom Mahommed Ghori, the relentless enemy of the Ghaznivide house, carried away into captivity in 1186.

The Afghans of Ghor thus rose to power on the downfall of the Turks of Ghazni. The founder of the family is said to have been Izzud-din al Husain, whose son Ala-ud-din destroyed Ghazni, as already mentioned. Ala-ud-din had two nephews, Ghiyas-ud-din and Muiz-ud-din, the latter of whom, also called Shahab-ud-din by Mussulman chroniclers, and generally known in history as Mahommed Ghori, is the second of the great Mahommedan conquerors of India. In 1175 he took Multan and Uchch; in 1186 Lahore fell into his hands; in 1191 he was repulsed before Delhi, but soon afterwards he redeemed this disaster. Hindustan proper was at that period divided between the two Rajput kingdoms of Kanauj and Delhi. Mahommed Ghori achieved his object by playing off the rival kings against each other. By 1193 he had extended his conquests as far east as Benares, and the defeated Rajputs migrated in a body to the hills and deserts now known as Rajputana. In 1199 one of his lieutenants, named Bakhtiyar, advanced into Bengal, and expelled by an audacious stratagem the last Hindu raja of Nadia. The entire northern plain, from the Indus to the Brahmaputra, thus lay under the Mahommedan yoke. But Mahommed Ghori never settled permanently in India. His favourite residence is said to have been the old capital of Ghazni, while he governed his Indian conquests through the agency of a favourite slave, Kutb-ud-din. Mahommed Ghori died in 1206, being assassinated by some Ghakkar tribesmen while sleeping in his tent by the bank of the Indus; on his death both Ghor and Ghazni drop out of history, and Delhi first appears as the Mahommedan capital of India.

On the death of Mahommed Ghori, Kutb-ud-din at once laid aside the title of viceroy, and proclaimed himself sultan of Delhi. He was the founder of what is known as the slave dynasty, which lasted for nearly a century (1206-1288). The name of Kutb is preserved in the minar, or pillar of victory, which still stands amid the ruins of ancient Delhi, towering high above all later structures. Kutb himself is said to have been successful as a general and an

***The Slave Dynasty.***

administrator, but none of his successors has left a mark in history.

In 1294 Ala-ud-din Khilji, the third of the great Mahommedan conquerors of India, raised himself to the throne of Delhi by the treacherous assassination of his uncle Feroz II. who had himself supplanted the last of the slave dynasty. Ala-ud-din had already won military renown by his expeditions into the yet unsubdued south. He had plundered the temples at Bhilsa in central India, which are admired to the present day as the most interesting examples of Buddhist architecture in the country. At the head of a small band of horsemen, he had ridden as far south as Deogiri (Daulatabad) in the Deccan (*q.v.*), and plundered the Yadava capital. When once established as sultan, he planned more extensive schemes of conquest. One army was sent to Gujarat under Alaf Khan, who conquered and expelled the last Rajput king of Anhalwar or Patan. Another army, led by the sultan in person, marched into the heart of Rajputana, and stormed the rock-fortress of Chitor, where the Rajputs had taken refuge with their women and children. A third army, commanded by Malik Kafur, a Hindu renegade and favourite of Ala-ud-din, penetrated to the extreme south of the peninsula, scattering the unwarlike Dravidian races, and stripping every Hindu temple of its accumulations of gold and jewels. To this day the name of Malik Kafur is remembered in the remote district of Madura, in association with irresistible fate and every form of sacrilege.

***Ala-ud-din.***

Ala-ud-din died In 1316, having subjected to Islam the Deccan and Gujarat. Three successors followed him upon the throne, but their united reigns extended over only five years. In 1321 a successful revolt was headed by Ghiyas-ud-din Tughlak, governor of the Punjab, who is said to have been of Turkish origin. The Tughlak dynasty lasted for about seventy years, until it was swept away by the invasion of Timur, the fourth Mahommedan conqueror of India, in 1398. Tughlak's son and successor, Mahommed b. Tughlak, who reigned from 1325 to 1351, is described by Elphinstone as "one of the most accomplished princes and one of the most furious tyrants that ever adorned or disgraced human nature." He wasted the treasure accumulated by Ala-ud-din in purchasing the retirement of the Mogul hordes, who had already made their appearance in the Punjab. When the internal circulation failed, he issued a forced currency of copper, which is said to have deranged the whole commerce of the country. At one time he raised an army for the invasion of Persia. At another he actually despatched an expedition against China, which perished miserably in the Himalayan passes. When Hindustan was thus suffering from his misgovernment, he conceived the project of transferring the seat of empire to the Deccan, and compelled the inhabitants of Delhi to remove a distance of 700 m. to Deogiri or Daulatabad. And yet during the reign of this sultan both the Tughlak dynasty and the city of Delhi are said to have attained their utmost growth. Mahommed was succeeded by his cousin Feroz, who likewise was not content without a new capital, which he placed a few miles north of Delhi, and called after his own name. He was a kind-hearted and popular, but weak, ruler. Meanwhile the remote provinces of the empire began to throw off their allegiance to the sultans of Delhi. The independence of the Afghan kings of Bengal is generally dated from 1336, when Mahommed Tughlak was yet on the throne. The commencement of the reign of Ala-ud-din, the founder of the Bahmani dynasty in the Deccan, is assigned to 1347. Zafar Khan, the first of the Ahmedabad kings, acted as an independent ruler from the time of his first appointment as governor of Gujarat in 1391. These and other revolts prepared the way for the fourth great invasion of India under Timur (Tamerlane).

***Mahommed b. Tughlak.***



Accordingly, when Timur invaded India in 1398, he encountered but little organized resistance. Mahmud, the last of the Tughlak dynasty, being defeated in a battle outside the walls of Delhi, fled into Gujarat. The city was sacked and the inhabitants massacred by the victorious Moguls. But the invasion of Timur left no permanent impress upon the history of India, except in so far as its memory fired the imagination of Baber, the founder of the Mogul dynasty. The details of the fighting and of the atrocities may be found related in cold blood by Timur himself in the *Malfuzat-i-Timuri*, which has been translated in Elliot's *History of India as told by its own Historians*, vol. iii. Timur marched back to Samarkand as he had come, by way of Kabul, and Mahmud Tughlak ventured to return to his desolate capital. He was succeeded by what is known as the Sayyid dynasty, which held Delhi and a few miles of surrounding country for about forty years. The Sayyids were in their turn expelled by Bahlol, an Afghan of the Lodi tribe, whose successors removed the seat of government to Agra, which thus for the first time became the imperial city. In 1526 Baber, the fifth in descent from Timur, and also the fifth Mahommedan conqueror, invaded India at the instigation of the governor of the Punjab, won the victory of Panipat over Ibrahim, the last of the Lodi dynasty, and founded the Mogul empire, which lasted, at least in name, until 1857.

***Timur's invasion.***

In southern India at this time authentic history begins with the Hindu empire of Vijayanagar, which exercised an ill-defined sovereignty over the entire south from the 14th to the 16th century. The empire of Vijayanagar represents the last stand made by the national faith in India against conquering Islam. For at least two centuries its sway over the south was undisputed, and its rajas waged wars and concluded treaties of peace with the sultans of the Deccan on equal terms.

***Vijayanagar.***

The earliest of the Mahommedan dynasties in the Deccan was that founded by Ala-ud-din in 1347, which has received the name of the Bahmani dynasty. The capital was first at Gulbarga, and was afterwards removed to Bidar, both which places still possess magnificent palaces and mosques in ruins. Towards the close of the 14th century the Bahmani empire fell to pieces, and five independent kingdoms divided the Deccan among them. These were—(1) the Adil Shahi dynasty, with its capital at Bijapur, founded in 1490 by a Turk; (2) the Kutb Shahi dynasty, with its capital at Golconda, founded in 1512 by a Turkoman adventurer; (3) the Nizam Shahi dynasty, with its capital at Ahmednagar, founded in 1490 by a Brahman renegade; (4) the Imad Shahi dynasty of Berar, with its capital at Ellichpur, founded in 1484 also by a Hindu from Vijayanagar; (5) the Barid Shahi dynasty, with its capital at Bidar, founded about 1492 by one who is variously described as a

***Bahmani Dynasty.***

Turk and a Georgian slave. It is, of course, impossible here to trace in detail the history of these several dynasties. In 1565 they combined against the Hindu raja of Vijayanagar, who was defeated and slain in the decisive battle of Talikota. But, though the city was sacked and the supremacy of Vijayanagar for ever destroyed, the Mahommedan victors did not themselves advance far into the south. The Naiks or feudatories of Vijayanagar everywhere asserted their independence. From them are descended the well-known Palegars of the south, and also the present raja of Mysore. One of the blood-royal of Vijayanagar fled to Chandragiri, and founded a line which exercised a prerogative of its former sovereignty by granting the site of Madras to the English in 1639. Another scion claiming the same high descent lingers to the present day near the ruins of Vijayanagar, and is known as the raja of Anagundi, a feudatory of the nizam of Hyderabad. Despite frequent internal strife, the sultans of the Deccan retained their independence until conquered by the Mogul emperor Aurangzeb in the latter half of the 17th century. To complete this sketch of India at the time of Baber's invasion it remains to say that an independent Mahommedan dynasty reigned at Ahmedabad in Gujarat for nearly two centuries (from 1391 to 1573), until conquered by Akbar; and that Bengal was similarly independent, under a line of Afghan kings, with Gaur for their capital, from 1336 to 1573.

***The Mogul Dynasty.***

When, therefore, Baber invaded India in 1525, the greater part of the country was Mahommedan, but it did not recognize the authority of the Afghan sultan of the Lodi dynasty, who resided at Agra, and also ruled the historical capital of Delhi. After having won the battle of Panipat (1526) Baber was no more acknowledged as emperor of India than his ancestor Timur had been. Baber, however, unlike Timur, had resolved to settle in the plains of Hindustan, and carve out for himself a new empire with the help of his Mogul followers. His first task was to repel an attack by the Rajputs of Chitor, who seem to have attempted to re-establish at this time a Hindu empire. The battle was fought at Sikri near Agra, and is memorable for the vow made by the easy-living Baber that he would never again touch wine. Baber was again victorious, but died shortly afterwards in 1530. He was succeeded by his son Humayun, who is chiefly known as being the father of Akbar. In Humayun's reign the subject Afghans rose in revolt under Sher Shah, a native of Bengal, who for a short time established his authority over all Hindustan. Humayun was driven as an exile into Persia; and, while he was flying through the desert of Sind, his son Akbar was born to him in the petty fortress of Umarkot. But Sher Shah was killed at the storming of the rock-fortress of Kalinjar, and Humayun, after many vicissitudes, succeeded in re-establishing his authority at Lahore and Delhi.

***Akbar.***

Humayun died by an accident in 1556, leaving but a circumscribed kingdom, surrounded on every side by active foes, to his son Akbar, then a boy of only fourteen years. Akbar the Great, the real founder of the Mogul empire as it existed for two centuries, was the contemporary of Queen Elizabeth of England. He was born in 1542, and his reign lasted from 1556 to 1605. When his father died he was absent in the Punjab, fighting the revolted Afghans, under the guardianship of Bairam Khan, a native of Badakshan, whose military skill largely contributed to recover the throne for the Mogul line. For the first seven years of his reign Akbar was perpetually engaged in warfare. His first task was to establish his authority in the Punjab, and in the country around Delhi and Agra. In 1567 he stormed the Rajput stronghold of Chitor, and conquered Ajmere. In 1570 he obtained possession of Oudh and Gwalior, In 1572 he marched in person into Gujarat, defeated the last of the independent sultans of Ahmedabad, and formed the province into a Mogul viceroyalty or subah. In the same year his generals drove out the Afghans from Bengal, and reunited the lower valley of the Ganges to Hindustan. Akbar was then the undisputed ruler of a larger portion of India than had ever before acknowledged the sway of one man. But he continued to extend his conquests throughout his lifetime. In 1578 Orissa was annexed to Bengal by his Hindu general Todar Mall, who forthwith organized a revenue survey of the whole province. Kabul submitted in 1581, Kashmir in 1587, Sind in 1592, and Kandahar in 1594. At last he turned his arms against the Mahommedan kings of the Deccan, and wrested from them Berar; but the permanent conquest of the south was reserved for Aurangzeb.



If the history of Akbar were confined to this long list of conquests, his name would on their account alone find a high place among those which mankind delights to remember. But it is as a civil administrator that his reputation is cherished in India to the present day. With regard to the land revenue, the essence of his procedure was to fix the amount which the cultivators should pay at one-third of the gross produce, leaving it to their option to pay in money or in kind. The total land revenue received by Akbar amounted to about 16½ millions sterling. Comparing the area of his empire with the corresponding area now under the British, it has been calculated that Akbar, three hundred years ago, obtained 15½ millions where they obtain only 13½ millions—an amount representing not more than one-half the purchasing power of Akbar's 15½ millions. The distinction between *khalsa* land, or the imperial demesne, and *jagir* lands, granted revenue free or at quit rent in reward for services, also dates from the time of Akbar. As regards his military system, Akbar invented a sort of feudal organization, by which every tributary raja took his place by the side of his own Mogul nobles. In theory it was an aristocracy based only upon military command; but practically it accomplished the object at which it aimed by incorporating the hereditary chiefships of Rajputana among the mushroom creations of a Mahommedan despotism. Mussulmans and Hindus were alike known only as *mansabdars* or commanders of so many horse, the highest title being that of *amir*, of which the plural is *umrah* or *omrah*. The third and last of Akbar's characteristic measures were those connected with religious innovation, about which it is difficult to speak with precision. The necessity of conciliating the proud warriors of Rajputana had taught him toleration from his earliest days. His favourite wife was a Rajput princess, and another wife is said to have been a Christian. Out of four hundred and fifteen of his *mansabdars* whose names are recorded, as many as fifty-one were Hindus. Starting from the broad ground of general toleration, Akbar was gradually led on by the stimulus of cosmopolitan discussion to question the truth of his inherited faith. The counsels of his friend Abul Fazl, coinciding with that sense of superhuman omnipotence which is bred of despotic power, led him at last to promulgate a new state religion, based upon natural theology, and comprising the best practices of all

known creeds. In this strange faith Akbar himself was the prophet, or rather the head of the church. Every morning he worshipped the sun in public, as being the representative of the divine soul that animates the universe, while he was himself worshipped by the ignorant multitude.

Akbar died in 1605, in his sixty-third year. He lies buried beneath a plain slab in the magnificent mausoleum which he had reared at Sikandra, near his capital of Agra. As his name is still cherished in India, so his tomb is still honoured, being covered by a cloth presented by Lord Northbrook when viceroy in 1873.

***Jahangir.***

The reign of Jahangir, his son, extended from 1605 to 1627. It is chiefly remarkable for the influence exercised over the emperor by his favourite wife, surnamed Nur Jahan. The currency was struck in her name, and in her hands centred all the intrigues that made up the work of administration. She lies buried by the side of her husband at Lahore, whither the seat of government had been moved by Jahangir, just as Akbar had previously transferred it from Delhi to Agra. It was in the reign of Jahangir that the English first established themselves at Surat, and also sent their first embassy to the Mogul court.

***Shah Jahan.***

Jahangir was succeeded by his son Shah Jahan, who had rebelled against his father, as Jahangir had rebelled against Akbar. Shah Jahan's reign is generally regarded as the period when the Mogul empire attained its greatest magnificence, though not its greatest extent of territory. He founded the existing city of Delhi, which is still known to its Mahommedan inhabitants as Shahjahanabad. At Delhi also he erected the celebrated peacock throne; but his favourite place of residence was Agra, where his name will ever be associated with the marvel of Indian architecture, the Taj Mahal. That most chaste and most ornamental of buildings was erected by Shah Jahan as the mausoleum of his favourite wife Mumtäz Mahal, and he himself lies by her side (see Agra). Shah Jahan had four sons, whose fratricidal wars for the succession during their father's lifetime it would be tedious to dwell upon. Suffice it to say that Aurangzeb, by mingled treachery and violence, supplanted or overthrew his brothers and proclaimed himself emperor in 1658, while Shah Jahan was yet alive.

***Aurangzeb.***

Aurangzeb's long reign, from 1658 to 1707, may be regarded as representing both the culminating point of Mogul power and the beginning of its decay. Unattractive as his character was, it contained at least some elements of greatness. None of his successors on the throne was any thing higher than a debauchee or a puppet. He was the first to conquer the independent sultans of the Deccan, and to extend his authority to the extreme south. But even during his lifetime two new Hindu nationalities were being formed in the Mahrattas and the Sikhs; while immediately after his death the nawabs of the Deccan, of Oudh, and of Bengal raised themselves to practical independence. Aurangzeb had indeed enlarged the empire, but he had not strengthened its foundations. During the reign of his father Shah Jahan he had been viceroy of the Deccan or rather of the northern portion only, which had been annexed to the Mogul empire since the reign of Akbar. His early ambition was to conquer the Mahommedan kings of Bijapur and Golconda, who, since the downfall of Vijayanagar, had been practically supreme over the south.

***Rise of Mahratta power.***

This object was not accomplished without many tedious campaigns, in which Sivaji, the founder of the Mahratta confederacy, first comes upon the scene. In name Sivaji was a feudatory of the house of Bijapur, on whose behalf he held the rock-forts of his native Ghats; but in fact he found his opportunity in playing off the Mahommedan powers against one another, and in rivalling Aurangzeb himself in the art of treachery. In 1680 Sivaji died, and his son and successor, Sambhaji, was betrayed to Aurangzeb and put to death. The rising Mahratta power was thus for a time checked, and the Mogul armies were set free to operate in the eastern Deccan. In 1686 the city of Bijapur was taken by Aurangzeb in person, and in the following year Golconda also fell. No independent power then remained in the south, though the numerous local chieftains, known as *palegars* and *naiks*, never formally submitted to the Mogul empire. During the early years of his reign Aurangzeb had fixed his capital at Delhi, while he kept his dethroned father, Shah Jahan, in close confinement at Agra. In 1682 he set out with his army on his victorious march into the Deccan, and from that time until his death in 1707 he never again returned to Delhi. In this camp life Aurangzeb may be taken as representative of one aspect of the Mogul rule, which has been picturesquely described by European travellers of that day. They agree in depicting the emperor as a peripatetic sovereign, and the empire as held together by its military highways no less than by the strength of its armies. The Grand Trunk road running across the north of the peninsula, is generally attributed to the Afghan usurper, Sher Shah. The other roads branching out southward from Agra, to Surat and Burhanpur and Golconda, were undoubtedly the work of Mogul times. Each of these roads was laid out with avenues of trees, with wells of water, and with frequent *saráis* or rest-houses. Constant communication between the capital and remote cities was maintained by a system of foot-runners, whose aggregate speed is said to have surpassed that of a horse. Commerce was conducted by means of a caste of bullock-drivers, whose occupation in India is hardly yet extinct.



***Decline of Mogul Empire.***

On the death of Aurangzeb in 1707, the decline of the Mogul empire set in with extraordinary rapidity. Ten emperors after Aurangzeb are enumerated in the chronicles, but none of them has left any mark on history. His son and successor was Bahadur Shah, who reigned only five years. Then followed in order three sons of Bahadur Shah, whose united reigns occupy only five years more. In 1739 Nadir Shah of Persia, the sixth and last of the great Mahommedan conquerors of India, swept like a whirlwind over Hindustan, and sacked the imperial city of Delhi. Thenceforth the Great Mogul became a mere name, though the hereditary succession continued unbroken down to the time of the Mutiny. Real power had passed into the hands of Mahommedan courtiers and Mahratta generals, both of whom were then carving for themselves kingdoms out of the dismembered empire, until at last British authority placed itself supreme over all. From the time of Aurangzeb no Mussulman, however powerful, dared to assume the title of sultan or emperor, with the

single exception of Tippoo's brief paroxysm of madness. The name of *nawáb*, corrupted by Europeans into "nabob," appears to be an invention of the Moguls to express delegated authority, and as such it is the highest title conferred upon Mahommedans at the present day, as *maharaja* is the highest title conferred upon Hindus. At first nawabs were only found in important cities, such as Surat and Dacca, with the special function of administering civil justice; criminal justice was in the hands of the *kotwál*. The corresponding officials at that time in a large tract of country were the *subahdar* and the *faujdar*. But the title of subahdar, or viceroy, gradually dropped into desuetude, as the paramount power was shaken off, and nawab became a territorial title with some distinguishing adjunct. During the troubled period of intrigue and assassination that followed on the death of Aurangzeb, two Mahommedan foreigners rose to high position as courtiers and generals, and succeeded in transmitting their power to their sons. The one was Chin Kulich Khan, also called Asaf Jah, and still more commonly Nizam-ul-Mulk, who was of Turkoman origin, and belonged to the Sunni sect. His independence at Hyderabad in the Deccan dates from 1712. The other was Saadat Ali Khan, a Persian, and therefore a Shiah, who was appointed subahdar or nawab of Oudh about 1720. Thenceforth these two important provinces paid no more tribute to Delhi, though their hereditary rulers continued to seek formal recognition from the emperor on their succession. The Mahrattas were in possession of the entire west and great part of the centre of the peninsula; while the rich and unwarlike province of Bengal, though governed by an hereditary line of nawabs founded by Murshid Kuli Khan in 1704, still continued to pour its wealth into the imperial treasury. The central authority never recovered from the invasion of Nadir Shah in 1739, who carried off plunder variously estimated at from 8 to 30 millions sterling. The Mahrattas closed round Delhi from the south, and the Afghans from the west. The victory of Panipat, won by Ahmad Shah Durani over the united Mahratta confederacy in 1761, gave the Mahommedans one more chance of rule. But Ahmad Shah had no ambition to found a dynasty of his own, nor were the British in Bengal yet ready for territorial conquest.

***End of Mogul line.***

Shah Alam, the lineal heir of the Mogul line, was thus permitted to ascend the throne of Delhi, where he lived during the great part of a long life as a puppet in the hands of Mahadji Sindhia. He was succeeded by Akbar II., who lived similarly under the shadow of British protection. Last of all came Bahadur Shah, who atoned for his association with the mutineers in 1857 by banishment to Burma. Thus ended the Mogul line, after a history which covers three hundred and thirty years. Mahommedan rule remodelled the revenue system, and has left behind fifty millions of Mussulmans in British India.

### *Early European Settlements.*

Mahommedan invaders have always entered India from the north-west. Her new conquerors approached from the sea and from the south. From the time of Alexander to that of Vasco da Gama, Europe had enjoyed little direct intercourse with the East. An occasional traveller brought back stories of powerful kingdoms and of untold wealth; but the passage by sea was unthought of, and by land many wide deserts and warlike tribes lay between. Commerce, indeed, never ceased entirely, being carried on chiefly by the Italian cities on the Mediterranean, which traded to the ports of the Levant. But to the Europeans of the 15th century India was practically an unknown land, which powerfully attracted the imagination of spirits stimulated by the Renaissance and ardent for discovery. In 1492 Christopher Columbus set sail under the Spanish flag to seek India beyond the Atlantic, bearing with him a letter to the great khan of Tartary. The expedition under Vasco da Gama started from Lisbon five years later, and, doubling the Cape of Good Hope, cast anchor off the city of Calicut on the 20th of May 1498, after a prolonged voyage of nearly eleven months. From the first da Gama encountered hostility from the "Moors," or rather Arabs, who monopolized the sea-borne trade; but he seems to have found favour with the zamorin, or Hindu raja of Malabar. It may be worth while to recall the contemporary condition of India at that epoch. An Afghan of the Lodi dynasty was on the throne of Delhi, and another Afghan king was ruling over Bengal. Ahmedabad in Gujarat, Gulbarga, Bijapur, Ahmednagar and Ellichpur in the Deccan were each the capital of an independent Mahommedan kingdom; while the Hindu raja of Vijayanagar was recognized as paramount over the entire south. Neither Mogul nor Mahratta had yet appeared above the political horizon.

***Portuguese expeditions.***

After staying nearly six months on the Malabar coast, da Gama returned to Europe by the same route as he had come, bearing with him the following letter from the zamorin to the king of Portugal: "Vasco da Gama, a nobleman of your household, has visited my kingdom and has given me great pleasure. In my kingdom there is abundance of cinnamon, cloves, ginger, pepper, and precious stones. What I seek from thy country is gold, silver, coral, and scarlet." The arrival of da Gama at Lisbon was celebrated with national rejoicings scarcely less enthusiastic than had greeted the return of Columbus. If the West Indies belonged to Spain by priority of discovery, Portugal might claim the East Indies by the same right. Territorial ambition combined with the spirit of proselytism and with the greed of commerce to fill all Portuguese minds with the dream of a mighty Oriental empire. The early Portuguese discoverers were not traders or private adventurers, but admirals with a royal commission to conquer territory and promote the spread of Christianity. A second expedition, consisting of thirteen ships and twelve hundred soldiers, under the command of Cabral, was despatched in 1500. "The sum of his instructions was to begin with preaching, and, if that failed, to proceed to the sharp determination of the sword." On his outward voyage Cabral was driven by stress of weather to the coast of Brazil. Ultimately he reached Calicut, and established factories both there and at Cochin, in the face of active hostility from the natives. In 1502 the king of Portugal obtained from Pope Alexander VI. a bull constituting him "lord of the navigation, conquest, and trade of Ethiopia, Arabia, Persia, and India." In that year Vasco da Gama sailed again to the East, with a fleet numbering twenty vessels. He formed an alliance with the rajas of Cochin and Cannanore against the zamorin of Calicut, and bombarded the latter in his palace. In 1503 the great Alfonso d'Albuquerque is first heard of, as in command of one of three expeditions from Portugal. In 1505 a large fleet of twenty sail and fifteen

hundred men was sent under Francisco de Almeida, the first Portuguese viceroy of India. In 1509 Albuquerque succeeded as governor, and widely extended the area of Portuguese influence. Having failed in an attack upon Calicut, he seized Goa, which from 1530 became the capital of Portuguese India. Then, sailing round Ceylon, he captured Malacca, the key of the navigation of the Indian archipelago, and opened a trade with Siam and the Spice Islands (Moluccas). Lastly, he sailed back westwards, and, after penetrating into the Red Sea, and building a fortress at Ormuz in the Persian Gulf, returned to Goa only to die in 1515. In 1524 Vasco da Gama came out to the East for the third time, and he too died at Cochin.

For exactly a century, from 1500 to 1600, the Portuguese enjoyed a monopoly of Oriental trade.

***Decline of the Portuguese.***

Their three objects were conquest, commerce and conversion, and for all three their position on the Malabar coast strip was remarkably well adapted. Shut off by the line of the Ghats from Mahommedan India of that day, they were able to dominate the petty chiefs of Malabar, who welcomed maritime commerce, and allowed religious freedom in their domains. Their trade relations with Vijayanagar were very close, when that great empire was at the height of its power; but in 1564 Vijayanagar went down before the five Mahommedan states of southern India on the field of Talikota, and with its fall began the decline of Portugal. During the whole of the 16th century the Portuguese disputed with the Mahommedans the supremacy of the Indian seas, and the antagonism between Christianity and Islam became gradually more intense, until the Portuguese power assumed a purely religious aspect. In 1560 the Inquisition with all its horrors was introduced into Goa. But Portugal was too small a country to keep up the struggle for long. The drain of men told upon her vitality, their quality deteriorated, and their bigotry and intolerance raised even a fiercer opposition to them within the bounds of India; and as the Dutch and British came into prominence the Portuguese gradually faded away. In 1603 and 1639 the Dutch blockaded Goa; during the first half of the 17th century they routed the Portuguese everywhere in India, Ceylon and Java. Similarly in 1611 the British defeated them off Cambay and in 1615 won a great victory at Swally. After the middle of the 17th century the Asiatic trade of Portugal practically disappeared, and now only Goa, Daman and Diu are left to her as relics of her former greatness.

***Dutch settlements.***

The Dutch were the first European nation to break through the Portuguese monopoly. During the 16th century Bruges, Antwerp and Amsterdam became the great emporia whence Indian produce, imported by the Portuguese, was distributed to Germany and even to England. At first the Dutch, following in the track of the English, attempted to find their way to India by sailing round the north coasts of Europe and Asia. William Barents is honourably known as the leader of three of these arctic expeditions, in the last of which he perished. The first Dutchman to double the Cape of Good Hope was Cornelius Houtman, who reached Sumatra and Bantam in 1596. Forthwith private companies for trade with the East were formed in many parts of the United Provinces, but in 1602 they were all amalgamated by the states-general into “The United East India Company of the Netherlands.” Within a few years the Dutch had established factories on the continent of India, in Ceylon, in Sumatra, on the Persian Gulf and on the Red Sea, besides having obtained exclusive possession of the Moluccas. In 1618 they laid the foundation of the city of Batavia in Java, to be the seat of the supreme government of the Dutch possessions in the East Indies. At about the same time they discovered the coast of Australia, and in North America founded the city of New Amsterdam or Manhattan, now New York. During the 17th century the Dutch maritime power was the first in the world. The massacre of Amboyna in 1623 led the English East India Company to retire from the Eastern seas to the continent of India, and thus, though indirectly, contributed to the foundation of the British Indian empire. The long naval wars and bloody battles between the English and the Dutch within the narrow seas were not terminated until William of Orange united the two crowns in 1689. In the far East the Dutch ruled without a rival, and gradually expelled the Portuguese from almost all their territorial possessions. In 1635 they occupied Formosa; in 1641 they took Malacca, a blow from which the Portuguese never recovered; in 1652 they founded a colony at the Cape of Good Hope, as a half-way station to the East; in 1658 they captured Jaffna, the last stronghold of the Portuguese in Ceylon; by 1664 they had wrested from the Portuguese all their earlier settlements on the pepper-bearing coast of Malabar.

***Decline of the Dutch.***

The rapid and signal downfall of the Dutch colonial empire is to be explained by its short-sighted commercial policy. It was deliberately based upon a monopoly of the trade in spices, and remained from first to last destitute of the true imperial spirit. Like the Phoenicians of old, the Dutch stopped short of no acts of cruelty towards their rivals in commerce; but, unlike the Phoenicians, they failed to introduce a respect for their own higher civilization among the natives with whom they came in contact. The knell of Dutch supremacy was sounded by Clive, when in 1758 he attacked the Dutch at Chinsura both by land and water, and forced them to an ignominious capitulation. In the great French war from 1781 to 1811 England wrested from Holland every one of her colonies, though Java was restored in 1816 and Sumatra in exchange for Malacca in 1824. At the present time the Dutch flag flies nowhere on the mainland of India, though the quaint houses and regular canals at Chinsura, Negapatam, Jaffna, and many petty ports on the Coromandel and Malabar coasts remind the traveller of familiar scenes in the Netherlands.

***British expeditions.***

The earliest English attempts to reach the East were the expeditions under John Cabot in 1497 and 1498. Their objective was not so much India as Japan (Cipangu), of which they only knew vaguely as a land of spices and silks, and which they hoped to reach by sailing westward. They failed, but discovered Newfoundland, and sailed along the coast of America from Labrador to Virginia. In 1553 the ill-fated Sir Hugh Willoughby attempted to force a passage along the north of Europe and Asia. Sir Hugh himself perished miserably, but his second in command, Chancellor, reached a harbour on the White Sea, now Archangel. Thence he penetrated by land to the court of the grand-duke of Moscow, and laid the foundation of the Russia Company for carrying on the overland trade with India through Persia, Bokhara and Moscow. Many subsequent attempts were

made at the North-West Passage from 1576 to 1616, which have left on our modern maps the imperishable names of Frobisher, Davis, Hudson and Baffin. Meanwhile, in 1577, Sir Francis Drake had circumnavigated the globe, and on his way home had touched at Ternate, one of the Moluccas, the king of which island agreed to supply the English nation with all the cloves it produced. The first Englishman who actually visited India was Thomas Stephens in 1579. He had been educated at Winchester, and became rector of the Jesuits' College in Goa. His letters to his father are said to have roused great enthusiasm in England to trade directly with India. In 1583 four English merchants, Ralph Fitch, John Newbery, William Leedes and James Story, went out to India overland as mercantile adventurers. The jealous Portuguese threw them into prison at Ormuz, and again at Goa. At length Story settled down as a shopkeeper at Goa, Leedes entered the service of the Great Mogul, Newbery died on his way home overland, and Fitch, after a lengthened peregrination in Bengal, Pegu, Siam and other parts of the East Indies, returned to England.

The defeat of the "Invincible Armada" in 1588, at which time the crowns of Spain and Portugal were united, gave a fresh stimulus to maritime enterprise in England; and the successful voyage of Cornelius Houtman in 1596 showed the way round the Cape of Good Hope into waters hitherto monopolized by the Portuguese. The "Governor and Company of Merchants of London trading into the East Indies" was founded by Queen Elizabeth on the 31st of December 1600, and the first expedition of four ships under James Lancaster left Torbay towards the end of April 1601, and reached Achin in Sumatra on the 5th of June 1602, returning with a cargo of spices. Between 1600 and 1612 there were twelve separate voyages, but in the latter year a joint-stock system began involving continual communication with the Indies. At first the trade was mainly with the Indian archipelago, but soon the English began to feel their way towards the mainland of India itself. In 1608 Captain Hawkins visited Jahangir at Agra, and obtained permission to build a factory at Surat, which was subsequently revoked, and in 1609 some English merchants obtained an unstable footing at Surat. Wherever the English went they were met by the hostility of the Portuguese; and on the 29th of November 1612 the Portuguese admiral with four ships attempted to capture the English vessels under Captain Best at Swally, off the mouth of the Tapti river; but the Portuguese were severely defeated, to the great astonishment of the natives, and that action formed the beginning of British maritime supremacy in Indian seas. The first fruits of the victory were the foundation of a factory at Surat and at other places round the Gulf of Cambay and in the interior. From the imperial firman of December 1612 dates the British settlement on the mainland of India. At this point begins the Indian history of the company, for the domestic history of which see East India Company.

***East India Company.***



The ten years that elapsed between the battle of Swally in 1612 and the British capture of Ormuz in 1622 sufficed to decide the issue in the struggle for supremacy between the British and the Portuguese. The latter, unwillingly linked to the dying power of Spain, were already decadent, and on the 20th of January 1615 a great Portuguese armada, consisting of six great galleons, three smaller ships, two galleys and sixty rowed barges, was defeated for the second time in Swally roads by Captain Nicholas Downton, in command of four British vessels. In 1618 the English opened trade between Surat and Jask in the Persian Gulf, and in 1620 gained a victory over the Portuguese fleet there. Early in 1622 the English fleet gained a second decisive victory, and captured Ormuz, the pearl of the Portuguese possessions in Asia. From this date onwards India and the Persian Gulf lay open to the English as far as Portugal was concerned, and before Portugal broke loose from Spain in 1640 her supremacy in Asiatic seas was hopelessly lost. In 1642 she partially and in 1654 finally accepted the situation, and opened all her Eastern possessions to English trade.

***Rivalry with Portugal.***

The struggle with the young and growing power of Holland was destined to be a much more serious affair than that with the exhausted power of Portugal. The Dutch had just emerged victorious from the struggle with Spain, and were pulsing with national life. In 1602 the Dutch routed the Portuguese near Bantam, and opened the road to the Spice Islands. In 1603 they threatened Goa, in 1619 they fixed their capital at Batavia, in 1638 they drove the Portuguese from Ceylon and in 1641 from Malacca. When Portugal emerged in 1640 from her sixty years' captivity to Spain, she found that her power in the Eastern seas had passed to the Dutch, and thenceforward the struggle lay between the Dutch and the English. The Dutch were already too strongly entrenched in the Indian archipelago for English competition to avail there, and the intense rivalry between the two nations led to the tragedy of Amboyna in 1623, when Governor Van Speult put to torture and death nine Englishmen on a charge of conspiring to take the Dutch forts. This outrage was not avenged until the time of Cromwell (1654), and in the meantime the English abandoned the struggle for the Spice Islands, and turned their attention entirely to the mainland of India. In 1616 the Dutch began to compete with the English at Surat, and their piracies against native vessels led to the Mogul governor seizing English warehouses; but soon the native authorities learnt to discriminate between the different European nations, and the unscrupulous methods of the Dutch cast them into disfavour.

***Rivalry with the Dutch.***

In 1611 Captain Hippon in the seventh separate voyage essayed a landing at Pulicat, but was driven off by the Dutch, who were already settled there, and sailed farther up the coast to Pettapoli, where he founded the first English settlement in the Bay of Bengal, which finally perished through pestilence in 1687. Captain Hippon, however, also touched at Masulipatam, the chief sea-port of the kings of Golconda. In 1628 the Dutch won over the native governor there, and the English were compelled to retreat to Armagon, where they built the first English fort in India. In 1639 Francis Day, the chief at Armagon, founded Madras, building Fort St George (1640), and transferring thither the chief factory from Masulipatam. Here the English obtained their first grant of Indian soil, apart from the plots on which their factories were built. In 1653 Madras was raised to an independent presidency, and in 1658 all the settlements in Bengal and on the Coromandel coast were made subordinate to Fort St George.

***Madras settlements.***

In 1633 eight Englishmen from Masulipatam, under Ralph Cartwright, sailed northward to Harishpur

near Cuttack on the mouth of the Mahanadi, and entered into negotiations to trade with the governor of Orissa; and in June 1633 Cartwright founded a factory at Balasore, which proved very unhealthy. In 1651 the English reached Hugli, which was at that time the chief port of Bengal; about that year Gabriel Boughton, a surgeon, obtained from the Mogul viceroy permission for the English to trade in Bengal. In 1657 Hugli became the head agency in Bengal, with Balasore and Cossimbazar in the Gangetic delta and Patna in Behar under its control. In that year the name of Job Charnock, the future founder of Calcutta, appeared in the lowest grade of the staff.

***Bengal settlements.***

The company had long fixed an eye on Bombay. Its position half way down the Indian seaboard gave it both strategic and commercial importance, while it lay beyond the authority of the Moguls, and so could be fortified without offending them. In 1626 the company joined with the Dutch under Van Speult in attacking Bombay, but could not retain possession. In 1661 Charles II. received Bombay from Portugal as part of the Infanta Catherine's dowry, but effective possession was not taken until 1665, and in 1668 Charles handed the island over to the company. At first the loss of life, owing to the unhealthiness of the climate, was appalling; but in spite of that fact it gradually prospered, until it reached its present position as the second port and city of India. In 1670 Gerald Aungier fortified the island, and so became the true founder of its prosperity. In 1674 a treaty was entered into with Sivaji. In 1682 Sir Josiah Child at home and Sir John Child in India formed a combination, which recognized that in the struggle between the Mogul and the Mahrattas the English must meet force with force; and in 1687 Bombay supplanted Surat as the chief seat of the English in India.

***Acquisition of Bombay.***

In 1664 Shaista Khan, the brother of the empress Nur Jahan, became viceroy of Bengal, and though a strong and just ruler from the native point of view, was not favourable to the foreign traders. In 1677 the president of Madras had to warn him that unless his exactions ceased, the company would be obliged to withdraw from Bengal. In 1679 the English obtained from the Mogul emperor a firman exempting them from dues everywhere except at Surat; but Shaista Khan refused to recognize the document, and on the 14th of January 1686 the court of directors resolved to have recourse to arms to effect what they could not obtain by treaty. This was the first formal repudiation of the doctrine of unarmed traffic laid down by Sir Thomas Roe in 1616. An expedition was despatched to India consisting of six companies of infantry and ten ships under Captain Nicholson. Two of the ships with 308 soldiers arrived at the Hugli river in the autumn of 1686. At this time Job Charnock was the chief of the Bengal council, and, owing to an affray with the Mogul troops at Hugli on the 28th of October 1686, he embarked the company's goods and servants on board light vessels and dropped down the river to Sutanati, the site of the modern Calcutta. At this place, about 70 m. from the sea and accessible at high tide to heavily armed ships, the stream had scooped for itself a long deep pool, now Calcutta harbour, while the position was well chosen to make a stand against the Bengal viceroy. On the 20th of December 1686 Charnock first settled at Calcutta, but in the following February Shaista Khan despatched an army against him, and he was forced to drop farther down the river to Hijili. In June Charnock was obliged to make an honourable capitulation, and returned to Ulubaria, 16 m. below Calcutta, thence moving in September to Calcutta for the second time. On the 8th of November 1688 Captain Heath arrived with orders from England, and took away Charnock against his will; but after peace was restored between the Mogul emperor and the company in February 1690, Charnock returned to Calcutta for the third and last time on the 24th of August of that year. It was thus by his courage and persistence that the modern capital of India was eventually founded. As the result of the war with the Mogul empire, which lasted from 1686 to 1690, the company perceived that a land war was beyond their strength, but their sea-power could obtain them terms by blockading the customs ports and threatening the pilgrim route to Mecca. From this time onwards they saw that they could no longer trust to defenceless factories. During this first period of their dealings with India the aims of the British were purely those of traders, without any aspirations to military power or territorial aggrandizement; but in the period that followed, the gradual decay of the Mogul empire from within, and the consequent anarchy, forced the English to take up arms in their own defence, and triumphing over one enemy after another they found themselves at last in the place of the Moguls.

***The founding of Calcutta.***



## *India under the Company.*

The political history of the British in India begins in the 18th century with the French wars in the Carnatic. The British at Fort St George and the French at Pondicherry for many years traded side by side without either active rivalry or territorial ambition. The British, especially, appear to have been submissive to the native powers at Madras no less than in Bengal. They paid their annual rent of 1200 pagodas (say £500) to the deputies of the Mogul empire when Aurangzeb annexed the south, and on two several occasions bought off a besieging army with a heavy bribe.

On the death of Aurangzeb in 1707, the whole of southern India became practically independent of Delhi. In the Deccan proper, the Nizam-ul-Mulk founded an independent dynasty, with Hyderabad for its capital, which exercised a nominal sovereignty over the entire south. The Carnatic, or the lowland tract between the central plateau and the eastern sea, was ruled by a deputy of the nizam, known as the nawab of Arcot, who in his turn asserted claims to hereditary sovereignty. Farther south, Trichinopoly was the capital of a Hindu raja, and Tanjore formed another Hindu kingdom under a degenerate descendant of the line of Sivaji. Inland, Mysore was gradually growing into a third Hindu state, while everywhere local chieftains, called *palegars* or *naiks*, were in semi-independent possession of citadels or hill-forts.

In that condition of affairs the flame of war was kindled between the British and the French in Europe in 1745. Dupleix was at that time governor of Pondicherry and Clive was a young writer at Madras. A British fleet first appeared on the Coromandel coast, but Dupleix by a judicious present induced the nawab of Arcot to interpose and prevent hostilities. In 1746 a French squadron

***French and***

***British wars.*** arrived, under the command of La Bourdonnais. Madras surrendered almost without a blow, and the only settlement left to the British was Fort St David, a few miles south of Pondicherry, where Clive and a few other fugitives sought shelter. The nawab, faithful to his policy of impartiality, marched with 10,000 men to drive the French out of Madras, but he was signally defeated by a French force of only four hundred men and two guns. In 1748 a British fleet arrived under Admiral Boscawen and attempted the siege of Pondicherry, while a land force co-operated under Major Stringer Lawrence, whose name afterwards became associated with that of Clive. The French successfully repulsed all attacks, and at last peace was restored, by the treaty of Aix-la-Chapelle, which gave back Madras to the British (1748).

The first war with the French was merely an incident in the greater contest in Europe. The second war had its origin in Indian politics, while England and France were at peace. The easy success of the French arms had inspired Dupleix with the ambition of founding a French empire in India, under the shadow of the existing Mahommedan powers. Disputed successions at Hyderabad and at Arcot supplied his opportunity. On both thrones he placed nominees of his own, and for a short time posed as the supreme arbiter of the entire south. In boldness of conception, and in knowledge of Oriental diplomacy, Dupleix has had probably no rival. But he was no soldier, and he was destined in that sphere to encounter the “heaven-born genius” of Clive. For the British of Madras, under the instinct of self-preservation, were compelled to maintain the cause of another candidate to the throne of Arcot in opposition to the nominee of Dupleix. This candidate was Mahommed Ali, afterwards known in history as Wala-jah. The war that then ensued between the French and British, each with their native allies, has been exhaustively described in the pages of Orme. The one incident that stands out conspicuously is the capture and subsequent defence of Arcot by Clive in 1751. This heroic feat, even more than the battle of Plassey, established the reputation of the British for valour throughout India. Shortly afterwards Clive returned to England in ill-health, but the war continued fitfully for many years. On the whole, British Influence predominated in the Carnatic, and their candidate, Mahommed Ali, maintained his position at Arcot. But the French were no less supreme in the Deccan, whence they were able to take possession of the coast tract called “the Northern Circars.” The final struggle was postponed until 1760, when Colonel (afterwards Sir Eyre) Coote won the decisive victory of Wandiwash over the French general Lally, and proceeded to invest Pondicherry, which was starved into capitulation in January 1761. A few months later the hill-fortress of Gingee (Chenji) also surrendered. In the words of Orme, “That day terminated the long hostilities between the two rival European powers in Coromandel, and left not a single ensign of the French nation avowed by the authority of its Government in any part of India.”

***Clive.***

Meanwhile the interest of history shifts with Clive to Bengal.

At the time of Aurangzeb’s death in 1707 the nawab or governor of Bengal was Murshid Kuli Khan, known also as Jafar Khan. By birth a Brahman, and brought up as a slave in Persia, he united the administrative ability of a Hindu to the fanaticism of a renegade. Hitherto the capital of Bengal had been at Dacca on the eastern frontier of the empire, whence the piratical attacks of the Portuguese and of the Arakanese or Mughs could be most easily checked. Murshid Kuli Khan transferred his residence to Murshidabad, in the neighbourhood of Cossimbazar, the river port of all the Ganges trade. The British, the French and the Dutch had each factories at Cossimbazar, as well as at Dacca, Patna and Malda. But Calcutta was the headquarters of the British, Chandernagore of the French, and Chinsura of the Dutch, all three towns being situated close to each other in the lower reaches of the Hugli, where the river is navigable for large ships. Murshid Kuli Khan ruled over Bengal prosperously for twenty-one years, and left his power to a son-in-law and a grandson. The hereditary succession was broken in 1740 by Ali Vardi Khan, who was the last of the great nawabs of Bengal. In his days the Mahratta horsemen began to ravage the country, and the British at Calcutta obtained permission to erect an earth-work, which is known to the present day as the Mahratta ditch. Ali Vardi Khan died in 1756, and was succeeded by his grandson, Suraj-ud-Dowlah, a youth of only nineteen years, whose ungovernable temper led to a rupture with the British within two months after his accession. In pursuit of one of his own family who had escaped from his vengeance, he marched upon Calcutta with a large army. Many of the British fled down the river in their ships. The remainder surrendered after a feeble resistance, and were thrown as prisoners into the “black hole” or military jail of Fort William, a room 18 ft. by 14 ft. 10 in. in size, with only two small windows barred with iron. It was the month of June, in which the tropical heat of Calcutta is most oppressive. When the door of the prison was opened in the morning, only twenty-three persons out of one hundred and forty-six were found alive.

***Black Hole of Calcutta.***



The news of this disaster fortunately found Clive returned to Madras, where also was a squadron of king’s ships under Admiral Watson. Clive and Watson promptly sailed to the mouth of the Ganges with all the troops that could be got together. Calcutta was recovered with little fighting, and the nawab consented to a peace which restored to the company all their privileges, and gave them compensation for their losses of property. It is possible that matters might have ended here if a fresh cause of hostilities had not suddenly arisen. War had just been declared between the British and French in Europe, and Clive, following the traditions of his early warfare in the Carnatic, attacked and captured Chandernagore. Suraj-ud-Dowlah, exasperated by this breach of neutrality within his own dominions, took the side of the French. But Clive, again acting upon the policy he had learned from Dupleix, had provided himself with a rival candidate to the throne. Undaunted, he marched out to the battlefield of Plassey (Palasi), at the head of about 900 Europeans and 2000 sepoys, with 8 pieces of artillery. The Mahommedan army is said to have consisted of 35,000 foot, 15,000 horse and 50 pieces of cannon. But there was a traitor in the Mahommedan camp in the person of Mir Jafar, who had married a sister of the late nawab, Ali Vardi Khan. The battle was short but decisive. After a few rounds of artillery fire, Suraj-ud-Dowlah fled, and the road to Murshidabad was left open.

***Battle of Plassey.***

The battle of Plassey was fought on the 23rd of June 1757, an anniversary afterwards remembered when

the mutiny was at its height in 1857. History has agreed to adopt this date as the beginning of the British empire in the East; but the immediate results of the victory were comparatively small, and several more hard-won fights were fought before even the Bengalis would admit the superiority of the British arms. For the moment, however, all opposition was at an end. Clive, again following in the steps of Dupleix, placed his nominee, Mir Jafar, upon the *masnad* at Murshidabad, being careful to obtain a patent of investiture from the Mogul court. Enormous sums were exacted from Mir Jafar as the price of his elevation. The company claimed 10,000,000 rupees as compensation for losses; for the British, the Armenian and the Indian inhabitants of Calcutta there were demanded the sums of 5,000,000, 2,000,000 and 1,000,000 rupees; for the squadron 2,500,000 rupees, and an equal sum for the army. The members of the council received the following amounts: Mr Drake, the governor, and Colonel Clive 280,000 rupees each; and Mr Becher, Mr Watts and Major Kilpatrick 240,000 rupees each. The whole amounted to £2,340,000. The British, deluded by their avarice, still cherished extravagant ideas of Indian wealth; nor would they listen to the unwelcome truth. But it was found that there were no funds in the treasury to satisfy their inordinate demands, and they were obliged to be contented with one-half the stipulated sums, which, after many difficulties, were paid in specie and in jewels, with the exception of 584,905 rupees. The shares of the council were, however, paid in full. At the same time the nawab made a grant to the company of the *zamindari* rights over an extensive tract of country round Calcutta, now known as the district of the Twenty-four Parganas. The area of this tract was about 882 sq. m., and it paid a revenue or quit rent of about £23,000. The gross rental at first payable to the company was £53,000, but within a period of ten years it had risen to £146,000. Originally the company possessed only the *zamindari* rights, *i.e.* revenue jurisdiction. The superior lordship, or right to receive the quit rent, remained with the nawab; but in 1759 this also was parted with by the nawab in favour of Clive, who thus became the landlord of his own masters, the company. At that time also Clive was enrolled among the nobility of the Mogul empire, with the rank of commander of 6000 foot and 5000 horse. Clive's *jagir*, as it was called, subsequently became a matter of inquiry in England, and on his death it passed to the company, thus merging the *zamindari* in the proprietary rights.

In 1758 Clive was appointed by the court of directors to be governor of all the company's settlements in Bengal. From two quarters troubles threatened, which perhaps Clive alone was capable of overcoming. On the west the shahzada or imperial prince, known afterwards as the emperor Shah Alam, with a mixed army of Afghans and Mahrattas, and supported by the nawab wazir of Oudh, was advancing his own claims to the province of Bengal. In the south the influence of the French under Lally and Bussy was overshadowing the British at Madras. But the name of Clive exercised a decisive effect in both directions. Mir Jafar was anxious to buy off the shahzada, who had already invested Patna. But Clive in person marched to the rescue, with an army of only 450 Europeans and 2500 sepoys, and the Mogul army dispersed without striking a blow. In the same year Clive despatched a force southwards under Colonel Forde, which captured Masulipatam from the French, and permanently established British influence throughout the Northern Circars, and at the court of Hyderabad. He next attacked the Dutch, the sole European nation that might yet be a formidable rival to the English. He defeated them by both land and water; and from that time their settlement at Chinsura existed only on sufferance.

From 1760 to 1765, while Clive was at home, the history of the British in Bengal contains little that is creditable. Clive had left behind him no system of government, but merely the tradition that unlimited sums of money might be extracted from the natives by the mere terror of the British name. In 1761 it was found expedient and profitable to dethrone Mir Jafar, the nawab of Murshidabad, and substitute his son-in-law, Mir Kasim, in his place. On that occasion, besides private donations, the British received a grant of the three districts of Burdwan, Midnapur and Chittagong, estimated to yield a net revenue of half a million sterling. But Mir Kasim proved to possess a will of his own, and to cherish dreams of independence. He retired from Murshidabad to Monghyr, a strong position on the Ganges, which commanded the only means of communication with Upper India. There he proceeded to organize an army, drilled and equipped after European models, and to carry on intrigues with the nawab wazir of Oudh. The company's servants claimed the privilege of carrying on private trade throughout Bengal, free from inland dues and all other imposts. The assertion of this claim caused frequent affrays between the customs' officers of the nawab and those traders who, whether falsely or not, represented that they were acting on behalf of the servants of the company. The nawab alleged that his civil authority was everywhere being set at nought. The majority of the council at Calcutta would not listen to his statements. The governor, Mr Vansittart, and Warren Hastings, then a junior member of council, attempted to effect some compromise. But the controversy had become too hot. The nawab's officers fired upon a British boat, and forthwith all Bengal was in a blaze. A force of 2000 sepoys was cut to pieces at Patna, and about 200 Englishmen in various parts of the province fell into the hands of the Mahommedans, and were subsequently massacred. But as soon as regular warfare commenced Mir Kasim met with no more successes. His trained regiments were defeated in two pitched battles by Major Adams, at Gheria and at Udha-nala, and he himself took refuge with the nawab wazir of Oudh, who refused to deliver him up. This led to a prolongation of the war. Shah Alam, who had now succeeded his father as emperor, and Shuja-ud-Daula, the nawab wazir of Oudh, united their forces, and threatened Patna, which the British had recovered. A more formidable danger appeared in the British camp, in the form of the first sepoy mutiny. This was quelled by Major (afterwards Sir Hector) Munro, who ordered twenty-four of the ringleaders to be blown from guns, an old Mogul punishment. In 1764 Major Munro won the decisive battle of Buxar, which laid Oudh at the feet of the conquerors, and brought the Mogul emperor as a suppliant to the British camp.

***Massacre of Patna.***



Meanwhile the council at Calcutta had twice found the opportunity they desired of selling the government of Bengal to a new nawab. But in 1765 Clive (now Baron Clive of Plassey, in the peerage of Ireland) arrived at Calcutta, as governor of Bengal for the second time, to settle the entire system of relations with the native powers. Two objects stand out conspicuously in

***Clive's***

***reforms.*** his policy. First, he sought to acquire the substance, though not the name, of territorial power, by using the authority of the Mogul emperor for so much as he wished, and for no more; and, secondly, he desired to purify the company's service by prohibiting illicit gains, and at the same time guaranteeing a reasonable remuneration from honest sources. In neither respect were the details of his plans carried out by his successors. But the beginning of the British administration of India dates from this second governorship of Clive, just as the origin of the British empire in India dates from his victory at Plassey. Clive's first step was to hurry up from Calcutta to Allahabad, and there settle in person the fate of half northern India. Oudh was given back to the nawab wazir, on condition of his paying half a million sterling towards the expenses of the war. The provinces of Allahabad and Kora, forming the lower part of the Doab, were handed over to Shah Alam himself, who in his turn granted to the company the *diwani* or financial administration of Bengal, Behar and Orissa, together with the Northern Circars. A puppet nawab was still maintained at Murshidabad, who received an annual allowance of about half a million sterling; and half that amount was paid to the emperor as tribute from Bengal. Thus was constituted the dual system of government, by which the British received all the revenues and undertook to maintain an army for the defence of the frontier, while the criminal jurisdiction vested in the nawab. In Indian phraseology, the company was *diwan* and the nawab was *nazim*. As a matter of general administration, the actual collection of the revenues still remained for some years in the hands of native officials. In attempting to reorganize and purify the company's service, Clive undertook a task yet more difficult than to partition the valley of the Ganges. The officers, civil and military alike, were all tainted with the common corruption. Their legal salaries were absolutely insignificant, but they had been permitted to augment them ten and a hundredfold by means of private trade and gifts from the native powers. Despite the united resistance of the civil servants, and an actual mutiny of two hundred military officers, Clive carried through his reforms. Both private trade and the receipt of presents were absolutely prohibited for the future, while a substantial increase of pay was provided out of the monopoly of salt.

Lord Clive quitted India for the third and last time in 1767. Between that date and the arrival of Warren Hastings in 1772 nothing of importance occurred in Bengal beyond the terrible famine of 1770, which is officially reported to have swept away one-third of the inhabitants. The dual system of government, however, established by Clive, had proved a failure. Warren Hastings, a tried servant of the company, distinguished alike for intelligence, for probity and for knowledge of oriental manners, was nominated governor by the court of directors, with express instructions to carry out a predetermined series of reforms. In their own words, the court had resolved to "stand forth as diwan, and to take upon themselves, by the agency of their own servants, the entire care and administration of the revenues." In the execution of this plan, Hastings removed the exchequer from Murshidabad to Calcutta, and for the first time appointed European officers, under the now familiar title of collectors, to superintend the revenue collections and preside in the civil courts. The urgency of foreign affairs, and subsequently internal strife at the council table, hindered Hastings from developing farther the system of civil administration, a task finally accomplished by Lord Cornwallis.

***Warren Hastings.***

Though Hastings always prided himself specially upon that reform, as well as upon the improvements he introduced into the collection of the revenues from salt and opium, his name will be remembered in history for the boldness and success of his foreign policy. From 1772 to 1774 he was governor of Bengal; from 1774 to 1785 he was the first titular governor-general of India, presiding over a council nominated, like himself, not by the company, but by an act of parliament, known as the Regulating Act. In his domestic policy he was greatly hampered by the opposition of Sir Philip Francis; but, so far as regards external relations with Oudh, with the Mahrattas, and with Hyder Ali, he was generally able to compel assent to his own measures. His treatment of Oudh may here be passed over as not being material to the general history of India, while the personal aspects of his rule are discussed in a separate article (see HASTINGS, WARREN). To explain his Mahratta policy, it will be necessary to give a short retrospective sketch of the history of that people.

***First Governor-General.***

Sivaji the Great, as already mentioned, died in 1680, while Aurangzeb was still on the throne. The family of Sivaji produced no great names, either among those who continued to be the nominal chiefs of the Mahratta confederacy, with their capital at Satara, or among the rajas of Kolhapur and Tanjore. All real power passed into the hands of the peshwa, or Brahman minister, who founded in his turn an hereditary dynasty at Poona, dating from the beginning of the 18th century. Next rose several Mahratta generals, who, though recognizing the suzerainty of the peshwa, carved out for themselves independent kingdoms in different parts of India, sometimes far from the original home of the Mahratta race. Chief among these generals were the gaikwar in Gujarat, Sindhia and Holkar in Malwa, and the Bhonsla raja of Berar and Nagpur. At one time it seemed probable that the Mahratta confederacy would expel the Mahommedans even from northern India; but the decisive battle of Panipat, won by the Afghans in 1761, gave a respite to the Delhi empire. The Mahratta chiefs never again united heartily for a common purpose, though they still continued to be the most formidable military power in India. In especial, they dominated over the British settlement of Bombay on the western coast, which was the last of the three presidencies to feel the lust of territorial ambition. For more than a hundred years, from its acquisition in 1661 to the outbreak of the first Mahratta war in 1775, the British on the west coast possessed no territory outside the island of Bombay and their fortified factory at Surat.

***Rise of the Mahrattas.***

The Bombay government was naturally emulous to follow the example of Madras and Bengal, and to establish its influence at the court of Poona by placing its own nominee upon the throne. The attempt took form in 1775 in the treaty of Surat, by which Raghunath Rao, one of the claimants to the throne of the peshwa, agreed to cede Salsette and Bassein to the British, in consideration of being himself restored to Poona. The military operations that followed are known as the first Mahratta War. Warren Hastings, who in his capacity of governor-general claimed a right of control over the decisions of the Bombay government, strongly disapproved of

***First Mahratta War.***

the treaty of Surat, but, when war once broke out, he threw the whole force of the Bengal army into the scale. One of his favourite officers, General Goddard, marched across the peninsula, and conquered the rich province of Gujarat almost without a blow. Another, Captain Popham, stormed the rock-fortress of Gwalior, which was regarded as the key of Hindustan. These brilliant successes atoned for the disgrace of the convention of Wargaon in 1779, when the Mahrattas dictated terms to a Bombay force, but the war was protracted until 1782. It was then closed by the treaty of Salbai, which practically restored the *status quo*. Raghunath Rao, the English claimant, was set aside; Gujarat was restored, and only Salsette and some other small islands were retained by the English.



***First Mysore War.***

Meanwhile Warren Hastings had to deal with a more formidable enemy than the Mahratta confederacy. The reckless conduct of the Madras government had roused the hostility both of Hyder Ali of Mysore and of the nizam of the Deccan, the two strongest Mussulman powers in India, who attempted to draw the Mahrattas into an alliance against the British. The diplomacy of Hastings won over the nizam and the Mahratta raja of Nagpur, but the army of Hyder Ali fell like a thunderbolt upon the British possessions in the Carnatic. A strong detachment under Colonel Baillie was cut to pieces at Perambakam, and the Mysore cavalry ravaged the country unchecked up to the walls of Madras. For the second time the Bengal army, stimulated by the energy of Hastings, saved the honour of the British name. Sir Eyre Coote, the victor of Wandiwash, was sent by sea to relieve Madras with all the men and money available, while Colonel Pearse marched south overland to overawe the raja of Berar and the nizam. The war was hotly contested, for Sir Eyre Coote was now an old man, and the Mysore army was well-disciplined and equipped, and also skilfully handled by Hyder and his son Tippoo. Hyder died in 1782, and peace was finally concluded with Tippoo in 1784, on the basis of a mutual restitution of all conquests.

***Permanent settlement of Bengal.***

It was Warren Hastings's merit to organize the empire which Clive founded. He was governor or governor-general for thirteen years, a longer period than any of his successors. During that time the British lost the American colonies, but in India their reputation steadily rose to its highest pitch. Within a year Hastings was succeeded by Lord Cornwallis, the first English nobleman of rank who undertook the office of governor-general. His rule lasted from 1786 to 1793, and is celebrated for two events—the introduction of the permanent settlement into Bengal and the second Mysore war. If the foundations of the system of civil administration were laid by Hastings, the superstructure was erected by Cornwallis. It was he who first entrusted criminal jurisdiction to Europeans, and established the Nizamat Sadr Adalat, or appellate court of criminal judicature, at Calcutta; and it was he who separated the functions of collector and judge. The system thus organized in Bengal was afterwards extended to Madras and Bombay, when those presidencies also acquired territorial sovereignty. But the achievement most familiarly associated with the name of Cornwallis is the permanent settlement of the land revenue of Bengal. Up to this time the revenue had been collected pretty much according to the old Mogul system. *Zamindars*, or government farmers, whose office always tended to become hereditary, were recognized as having a right of some sort to collect the revenue from the actual cultivators. But no principle of assessment existed, and the amount actually realized varied greatly from year to year. Hastings had the reputation of bearing hard upon the *zamindars*, and was absorbed in other critical affairs of state or of war. On the whole he seems to have looked to experience, as acquired from a succession of quinquennial settlements, to furnish the standard rate of the future. Francis, on the other hand, Hastings's great rival, deserves the credit of being among the first to advocate a limitation of the state demand in perpetuity. The same view recommended itself to the authorities at home, partly because it would place their finances on a more stable basis, partly because it seemed to identify the *zamindar* with the more familiar landlord. Accordingly, Cornwallis took out with him in 1787 instructions to introduce a permanent settlement. The process of assessment began in 1789 and terminated in 1791. No attempt was made to measure the fields or calculate the out-turn, as had been done by Akbar, and is now done when occasion requires in the British provinces; but the amount payable was fixed by reference to what had been paid in the past. At first the settlement was called decennial, but in 1793 it was declared permanent for ever. The total assessment amounted to *sikka* Rs.26,800,989, or about 2¾ millions sterling. Though Lord Cornwallis carried the scheme into execution, all praise or blame, so far as details are concerned, must belong to Sir John Shore, afterwards Lord Teignmouth, whose knowledge of the country was unsurpassed by that of any civilian of his time. Shore would have proceeded more cautiously than Cornwallis's preconceived idea of a proprietary body and the court of directors' haste after fixity permitted.

***Second Mysore War.***

The second Mysore War of 1790-92 is noteworthy on two accounts: Lord Cornwallis, the governor-general, led the British army in person, with a pomp and lavishness of supplies that recalled the campaigns of Aurangzeb; and the two great native powers, the nizam of the Deccan and the Mahratta confederacy, co-operated as allies of the British. In the result, Tippoo Sultan submitted when Lord Cornwallis had commenced to beleaguer his capital. He agreed to yield one-half of his dominions to be divided among the allies, and to pay three millions sterling towards the cost of the war. Those conditions he fulfilled, but ever afterwards he burned to be revenged upon his conquerors.

***Wellesley.***

The period of Sir John Shore's rule as governor-general, from 1793 to 1798, was uneventful. In 1798 Lord Mornington, better known as the marquis Wellesley, arrived in India, already inspired with imperial projects that were destined to change the map of the country. Mornington was the friend and favourite of Pitt, from whom he is thought to have derived the comprehensiveness of his political vision and his antipathy to the French name. From the first he laid down as his guiding principle that the British must be the one paramount power in the peninsula, and that the native princes could only retain the insignia of sovereignty by surrendering the substance of independence. The subsequent political history of India has been but the gradual development of this policy, which received its finishing touch when Queen Victoria was proclaimed empress of India in 1877.

To frustrate the possibility of a French invasion of India, led by Napoleon in person, was the governing idea of Wellesley's foreign policy; for France at this time, and for many years later, filled the place afterwards occupied by Russia in the imagination of British statesmen. Nor was the possibility so remote as might now be thought. French regiments guarded and overawed the nizam of Hyderabad. The soldiers of Sindhia, the military head of the Mahratta confederacy, were disciplined and led by French adventurers. Tippoo Sultan carried on a secret correspondence with the French directorate, and allowed a tree of liberty to be planted in his dominions. The islands of Mauritius and Bourbon afforded a convenient half-way house both for French intrigue and for the assembling of a hostile expedition. Above all, Napoleon Buonaparte was then in Egypt, dreaming of the conquests of Alexander; and no man knew in what direction he might turn his hitherto unconquered legions. Wellesley first addressed himself to the nizam, where his policy prevailed without serious opposition. The French battalions at Hyderabad were disbanded and the nizam bound himself by treaty not to take any European into his service without the consent of the British government—a clause since inserted in every engagement entered into with native powers. Next, the whole weight of Wellesley's resources was turned against Tippoo, whom Cornwallis had defeated but not subdued. His intrigues with the French were laid bare, and he was given an opportunity of adhering to the new subsidiary system. On his refusal war was declared, and Wellesley came down in state to Madras to organize the expedition in person and watch over the course of events. One British army marched into Mysore from Madras, accompanied by a contingent from the nizam. Another advanced from the western coast. Tippoo, after offering but a feeble resistance in the field, retired into Seringapatam, and, when his capital was stormed, died fighting bravely in the breach (1799). Since the battle of Plassey no event so greatly impressed the native imagination as the capture of Seringapatam, which won for General Harris a peerage and for Wellesley an Irish marquisate. In dealing with the territories of Tippoo, Wellesley acted with moderation. The central portion, forming the old state of Mysore, was restored to an infant representative of the Hindu rajas, whom Hyder Ali had dethroned, while the rest was partitioned between the nizam and the British. At about the same time the province of the Carnatic, or all that large portion of southern India ruled by the nawab of Arcot, and also the principality of Tanjore, were placed under direct British administration, thus constituting the Madras presidency almost as it has existed to the present day.

***The French Menace.***



The Mahrattas had been the nominal allies of the British in both their wars with Tippoo, but they had never given active assistance, nor were they secured to the British side as the nizam now was. The Mahratta powers at this time were five in number. The recognized head of the confederacy was the peshwa of Poona, who ruled the hill country of the Western Ghats, the cradle of the Mahratta race. The fertile province of Gujarat was annually harried by the horsemen of the gaekwar of Baroda. In central India two military leaders, Sindhia of Gwalior and Holkar of Indore, alternately held the pre-eminency. Towards the east the Bhonsla raja of Nagpur reigned from Berar to the coast of Orissa. Wellesley tried assiduously to bring these several Mahratta powers within the net of his subsidiary system. At last, in 1802, the necessities of the peshwa, who had been defeated by Holkar, and driven as a fugitive into British territory, induced him to sign the treaty of Bassein, by which he pledged himself to hold communications with no other power, European or native, and ceded territory for the maintenance of a subsidiary force. This greatly extended the British territorial influence in western India, but led directly to the second Mahratta war, for neither Sindhia nor the raja of Nagpur would tolerate this abandonment of Mahratta independence. The campaigns that followed are perhaps the most glorious in the history of the British arms in India. The general plan and the adequate provision of resources were due to the marquis Wellesley, as also the indomitable spirit that could not anticipate defeat. The armies were led by General Arthur Wellesley (afterwards duke of Wellington) and General (afterwards Lord) Lake. Wellesley operated in the Deccan, where, in a few short months, he won the decisive victories of Assaye and Argaum. Lake's campaign in Hindustan was no less brilliant, though it has received less notice from historians. He won pitched battles at Aligarh and Laswari, and captured the cities of Delhi and Agra, thus scattering the French troops of Sindhia, and at the same time coming forward as the champion of the Mogul emperor in his hereditary capital. Before the year 1803 was out, both Sindhia and the Bhonsla raja were glad to sue for peace. Sindhia ceded all claims to the territory north of the Jumna, and left the blind old emperor Shah Alam once more under British protection. The Bhonsla raja forfeited Orissa to the English, who had already occupied it with a flying column, and Berar to the nizam, who gained a fresh addition by every act of complaisance to the British government. The freebooter, Jaswant Rao Holkar, alone remained in the field, supporting his troops by ravages through Malwa and Rajputana. The concluding years of Wellesley's rule were occupied with a series of operations against Holkar, which brought no credit to the British name. The disastrous retreat of Colonel Monson through Central India (1804) recalled memories of the convention of Wargaum, and of the destruction of Colonel Baillie's force by Hyder Ali. The repulse of Lake in person at the siege of Bharatpur (Bhurtpore) (1805) is memorable as an instance of a British army in India having to turn back with its object unaccomplished.

***Wars with Sindhia and Holkar.***

The ambitious policy and the continuous wars of Lord Wellesley exhausted the patience of the court of directors at home. In 1804 Lord Cornwallis was sent out as governor-general a second time, with instructions to bring about peace at any price, while Holkar was still unsubdued, and Sindhia was threatening a fresh war. But Cornwallis was now an old man and broken down in health. Travelling up to the north-west during the rainy season, he sank and died at Ghazipur, before he had been ten weeks in the country. His immediate successor was Sir George Barlow, a civil servant of the company, who, as a *locum tenens*, had no alternative but to carry out faithfully the orders of his employers. He is charged with being, under these orders, the only governor-general who diminished the area of British territory, and with violating engagements by abandoning the Rajput chiefs to the tender mercies of Holkar and Sindhia. During his administration also occurred the mutiny of the Madras sepoys at Vellore, which, though promptly suppressed, sent a shock of insecurity through the empire.

***Barlow.***

Lord Minto, governor-general from 1807 to 1813, consolidated the conquests which Wellesley had acquired. His only military exploits were the occupation of the island of Mauritius, and the conquest of Java by an expedition which he accompanied in person. The condition of central India continued to be disturbed, but Lord Minto succeeded in preventing any violent outbreaks without himself having recourse to the sword. The company had ordered him to follow a policy of non-intervention, and he managed to obey his orders without injuring the prestige of the British name. In his time the Indian government first opened relations with a new set of foreign powers by sending embassies to the Punjab, to Afghanistan and to Persia. The ambassadors were all trained in the school of Wellesley, and formed perhaps the most illustrious trio of "politicals" that the Indian service has produced. Sir Charles Metcalfe was the envoy to the court of Ranjit Singh at Lahore; Mountstuart Elphinstone met the shah of Afghanistan at Peshawar; and Sir John Malcolm was despatched to Persia. If it cannot be said that any of these missions were fruitful in permanent results, at least they introduced the English to a new set of diplomatic relations, and widened the sphere of their influence.

The successor of Lord Minto was Lord Moira, better known as the marquis of Hastings, who governed India for the long period of nine years, from 1814 to 1823. This period was marked by two wars of the first magnitude, the campaigns against the Gurkhas of Nepal, and the third and last Mahratta War. The Gurkhas, the present ruling race in Nepal, are Hindu immigrants who claim a Rajput origin. Their sovereignty dates only from 1767, in which year they overran the valley of Katmandu, and gradually extended their power over all the hills and valleys of Nepal. Organized upon a sort of military and feudal basis, they soon became a terror to all their neighbours, marching east into Sikkim, west into Kumaon, and south into the Gangetic plains. In the last quarter their victims were British subjects, and at last it became imperatively necessary to check their advance. Sir George Barlow and Lord Minto had remonstrated in vain, and nothing was left to Lord Moira but to take up arms. The campaign of 1814 was little short of disastrous. After overcoming the natural difficulties of a malarious climate and precipitous hills, the sepoys were on several occasions fairly worsted by the unexpected bravery of the little Gurkhas, whose heavy knives or kukris dealt terrible execution. But in 1815 General Ochterlony, who commanded the army operating by way of the Sutlej, stormed one by one the hill forts which still stud the Himalayan states now under the Punjab government, and compelled the Nepal darbar to sue for peace. In the following year the same general advanced from Patna into the valley of Katmandu, and finally dictated the terms which had before been rejected, within a few miles of the capital. By the treaty of Segauli, which defines the English relations with Nepal to the present day, the Gurkhas withdrew on the one hand from Sikkim, and on the other from those lower ranges of the western Himalayas which have supplied the health-giving stations of Naini Tal, Mussoorie and Simla.

***Gurkha War.***

Meanwhile the condition of central India was every year becoming more unsatisfactory. Though the great Mahratta chiefs were learning to live rather as peaceful princes than as leaders of predatory bands, the example of lawlessness they had set was being followed, and bettered in the following, by a new set of freebooters, known as the Pindaris. As opposed to the Mahrattas, who were at least a nationality bound by some traditions of a united government, the Pindaris were merely irregular soldiers, corresponding most nearly to the free companies of medieval Europe. Of no common race and of no common religion, they welcomed to their ranks the outlaws and broken tribes of all India—Afghans, Mahrattas or Jats. Their headquarters were in Malwa, but their depredations were not confined to central India. In bands, sometimes numbering a few hundreds, sometimes many thousands, they rode out on their forays as far as the Coromandel coast. The most powerful of the Pindari captains, Amir Khan, had an organized army of many regiments, and several batteries of cannon. Two other leaders, known as Chitu and Karim, at one time paid a ransom to Sindhia of £100,000. To suppress the Pindari hordes, who were supported by the sympathy, more or less open, of all the Mahratta chiefs, Lord Hastings (1817) collected the strongest British army that had been seen in India, numbering nearly 120,000 men, half to operate from the north, half from the south. Sindhia was overawed, and remained quiet. Amir Khan consented to disband his army, on condition of being guaranteed the possession of what is now the principality of Tonk. The remaining bodies of Pindaris were attacked in their homes, surrounded, and cut to pieces. Karim threw himself upon the mercy of the conquerors. Chitu fled to the jungles, and was killed by a tiger.

***Pindaris.***



In the same year (1817) as that in which the Pindaris were crushed, and almost in the same month (November), the three great Mahratta powers at Poona, Nagpur and Indore rose against the English. The peshwa, Baji Rao, had long been chafing under the terms imposed by the treaty of Bassein (1802), and the subsequent treaty of Poona (1817), which riveted yet closer the chains of dependence upon the paramount power. Elphinstone, then resident at his court, foresaw what was coming and ordered up a European regiment from Bombay. The next day the residency was burned down, and Kirkee was attacked by the whole army of the peshwa. The attack was bravely repulsed, and the peshwa immediately fled from his capital. Almost the same plot was enacted at Nagpur, where the honour of the British name was saved by the sepoys who defended the hill of Sitabaldi against enormous odds. The army of Holkar was defeated in the following month at the pitched battle of Mehidpur. All open resistance was now at an end. Nothing remained but to follow up the fugitives, and determine the conditions of the general pacification. In both these duties Sir John Malcolm played a prominent part. The peshwa himself surrendered, and was permitted to reside at Bithur, near Cawnpore, on a pension of £80,000 a year. His adopted son was the infamous Nana Sahib. To fill the peshwa's place to some extent at the head of the Mahratta confederacy, the lineal descendant of Sivaji was brought forth from obscurity, and placed upon the throne of Satara. The greater part of the peshwa's dominions was ultimately incorporated in the Bombay presidency, while the nucleus of the Central Provinces was formed out of territory taken from the peshwa and the raja of Nagpur. An infant was recognized as the heir of Holkar, and a second infant was proclaimed raja of Nagpur under British guardianship. At the same time the several states of Rajputana accepted the position of feudatories of the

***Third Mahratta War.***

paramount power. The map of India, as thus drawn by Lord Hastings, remained substantially unchanged until the time of Lord Dalhousie. But the proudest boast of Lord Hastings and Sir John Malcolm was, not that they had advanced the *pomoerium*, but that they had conferred the blessings of peace and good government upon millions who had suffered unutterable things from Mahratta and Pindari tyranny.

The marquis of Hastings was succeeded by Lord Amherst, after the interval of a few months, during which Mr Adam, a civil servant, acted as governor-general. Lord Amherst's administration lasted for five years, from 1823 to 1828. It is known in history by two prominent events, the first Burmese War and the capture of Bharatpur. For some years past the north-east frontier had been disturbed by the restlessness of the Burmese. The successors of Alompra, after having subjugated all Burma, and overrun Assam, which was then an independent kingdom, began a series of encroachments upon British territory in Bengal. As all peaceful proposals were scornfully rejected, Lord Amherst was compelled to declare war in 1824. Little military glory could be gained by beating the Burmese, who were formidable only from the pestilential character of their country. One expedition with gunboats proceeded up the Brahmaputra into Assam; another marched by land through Chittagong into Arakan, for the Bengal sepoys refused to go by sea; a third, and the strongest, sailed from Madras direct to the mouth of the Irrawaddy. The war was protracted over two years. At last, after the loss of about 20,000 lives and an expenditure of £14,000,000, the king of Ava consented to sign the treaty of Yandabu, by which he abandoned all claim to Assam, and ceded the provinces of Arakan and Tenasserim, which were already in the military occupation of the British. He retained all the valley of the Irrawaddy, down to the sea at Rangoon. The capture of Bharatpur in central India by Lord Combermere in 1826 wiped out the repulse which Lord Lake had received before that city in January 1805. A disputed succession necessitated British intervention. Artillery could make little impression upon the massive walls of mud, but at last a breach was effected by mining, and the city was taken by storm, thus losing its general reputation throughout India for impregnability, which had threatened to become a political danger.

***First Burmese War.***

The next governor-general was Lord William Bentinck, who had been governor of Madras twenty years earlier at the time of the mutiny of Vellore. His seven years' rule (from 1828 to 1835) is not signalized by any of those victories or extensions of territory by which chroniclers delight to measure the growth of empire. But it forms an epoch in administrative reform, and in the benign process by which the hearts of a subject population are won over to venerate as well as obey their alien rulers. The modern history of the British in India, as benevolent administrators ruling the country with an eye to the good of the natives, may be said to begin with Lord William Bentinck. According to the inscription upon his statue at Calcutta, from the pen of Macaulay: "He abolished cruel rites; he effaced humiliating distinctions; he gave liberty to the expression of public opinion; his constant study it was to elevate the intellectual and moral character of the nations committed to his charge." His first care on arrival in India was to restore equilibrium to the finances, which were tottering under the burden imposed upon them by the Burmese War. This he effected by reductions in permanent expenditure, amounting in the aggregate to 1½ millions sterling, as well as by augmenting the revenue from land that had escaped assessment, and from the opium of Malwa. He also widened the gates by which educated natives could enter the service of the company. Some of these reforms were distasteful to the covenanted service and to the officers of the army, but Lord William was always staunchly supported by the court of directors and by the Whig ministry at home.

***Bentinck.***

His two most memorable acts are the abolition of suttee and the suppression of the Thugs. At this distance of time it is difficult to realize the degree to which these two barbarous practices had corrupted the social system of the Hindus. European research has clearly proved that the text in the *Vedas* adduced to authorize the immolation of widows was a wilful mistranslation. But the practice had been engrained in Hindu opinion by the authority of centuries, and had acquired the sanctity of a religious rite. The emperor Akbar is said to have prohibited it by law, but the early British rulers did not dare so far to violate the religious customs of the people. In the year 1817 no fewer than seven hundred widows are said to have been burned alive in the Bengal presidency alone. To this day the most holy spots of Hindu pilgrimage are thickly dotted with little white pillars, each commemorating a suttee. In the teeth of strenuous opposition, from both Europeans and natives, Lord William carried the regulation in council on the 4th of December 1829, by which all who abetted suttee were declared guilty of "culpable homicide." The honour of suppressing Thuggism must be shared between Lord William and Captain Sleeman. Thuggism was an abnormal excrescence upon Hinduism, in so far as the bands of secret assassins were sworn together by an oath based on the rites of the bloody goddess Kali. Between 1826 and 1835 as many as 1562 Thugs were apprehended in different parts of British India, and by the evidence of approvers the moral plague spot was gradually stamped out.

***Suttee.***



Two other historical events are connected with the administration of Lord William Bentinck. In 1833 the charter of the East India Company was renewed for twenty years, but only upon the terms that it should abandon its trade and permit Europeans to settle freely in the country. At the same time a legal or fourth member was added to the governor-general's council, who might not be a servant of the company, and a commission was appointed to revise and codify the law. Macaulay was the first legal member of council, and the first president of the law commission. In 1830 it was found necessary to take the state of Mysore under British administration, where it continued until 1881, when it was restored to native rule; and in 1834 the frantic misrule of the raja of Coorg brought on a short and sharp war. The raja was permitted to retire to Benares, and the brave and proud inhabitants of that mountainous little territory decided to place themselves under the rule of the company; so that the only annexation effected by Lord William Bentinck was "in consideration of the unanimous wish of the people."

Sir Charles (afterwards Lord) Metcalfe succeeded Lord William as senior member of council. His short term of office is memorable for the measure which his predecessor had initiated, but which he willingly

***Auckland.***

carried into execution, for giving entire liberty to the press. Public opinion in India, as well as the express wish of the court of directors at home, pointed to Metcalfe as the most fit person to carry out the policy of Bentinck, not provisionally, but as governor-general for a full term. Party exigencies, however, led to the appointment of Lord Auckland. From that date commences a new era of war and conquest, which may be said to have lasted for twenty years. All looked peaceful until Lord Auckland, prompted by his evil genius, attempted by force to place Shah Shuja upon the throne of Kabul, an attempt which ended in gross mismanagement and the annihilation of the British garrison in that city. The disaster in Afghanistan was quickly followed by the conquest of Sind, the two wars in the Punjab, the second Burmese War, and last of all the Mutiny.

***First Afghan War.***

The attention of the British government had been directed to Afghan affairs ever since the time of Sir John Shore, who feared that Zaman Shah, then holding his court at Lahore, might follow in the path of Ahmed Shah, and overrun Hindustan. The growth of the powerful Sikh kingdom of Ranjit Singh effectually dispelled any such alarms for the future. Subsequently, in 1809, while a French invasion of India was still a possibility to be guarded against, Mountstuart Elphinstone was sent by Lord Minto on a mission to Shah Shuja to form a defensive alliance. Before the year was out Shah Shuja had been driven into exile, and a third brother, Mahmud Shah, was on the throne. In 1837, when the curtain rises upon the drama of British interference in Afghanistan, the usurper, Dost Mahommed Barakzai, was firmly established at Kabul. His great ambition was to recover Peshawar from the Sikhs; and when Captain Alexander Burnes arrived on a mission from Lord Auckland, with the ostensible object of opening trade, the Dost was willing to promise everything, if only he could get Peshawar. But Lord Auckland had another and more important object in view. At this time the Russians were advancing rapidly in Central Asia, and a Persian army, not without Russian support, was besieging Herat, the traditional bulwark of Afghanistan on the east. A Russian envoy was at Kabul at the same time as Burnes. The latter was unable to satisfy the demands of Dost Mahommed in the matter of Peshawar, and returned to India unsuccessful. Lord Auckland forthwith resolved upon the hazardous plan of placing a more subservient ruler upon the throne of Kabul. Shah Shuja, now in exile at Ludhiana, was selected for the purpose. At this time both the Punjab and Sind were independent kingdoms. Sind was the less powerful of the two, and, therefore, a British army escorting Shah Shuja made its way by that route to enter Afghanistan through the Bolan Pass. Kandahar surrendered, Ghazni was taken by storm, Dost Mahommed fled across the Hindu Kush, and Shah Shuja was triumphantly led into the Bala Hissar at Kabul in August 1839. During the two years that followed Afghanistan remained in the military occupation of the British. The catastrophe occurred in November 1841, when Sir Alexander Burnes was assassinated in the city of Kabul. The troops in the cantonments were then under the command of General Elphinstone (not to be confounded with the civilian Mountstuart Elphinstone), with Sir William Macnaghten as chief political adviser. Elphinstone was an old man, unequal to the responsibilities of the position. Macnaghten was treacherously murdered at an interview with the Afghan chief, Akbar Khan, eldest son of Dost Mahommed. After lingering in their cantonments for two months, the British army set off in the depth of winter to find its way back to India through the passes. When they started they numbered 4000 fighting men, with 12,000 camp followers. A single survivor, Dr Brydon, reached the friendly walls of Jalalabad, where General Sale was gallantly holding out. The rest perished in the defiles of Khurd Kabul and Jagdalak, either from the knives and matchlocks of the Afghans or from the effects of cold. A few prisoners, mostly women, children and officers, were considerately treated by the orders of Akbar Khan. (See Afghanistan.)

Within a month after the news reached Calcutta, Lord Auckland had been superseded by Lord Ellenborough, whose first impulse was to be satisfied with drawing off in safety the garrisons from Kandahar and Jalalabad. But bolder counsels prevailed. General Pollock, who was marching straight through the Punjab to relieve General Sale, was ordered to penetrate to Kabul, while General Nott was only too glad not to be forbidden to retire from Kandahar through Kabul. After a good deal of fighting, the two British forces met at their common destination in September 1842. The great *bazar* at Kabul was blown up with gunpowder to fix a stigma upon the city; the prisoners were recovered; and all marched back to India, leaving Dost Mahommed to take undisputed possession of his throne. The drama closed with a bombastic proclamation from Lord Ellenborough, who had caused the gates from the tomb of Mahmud of Ghazni to be carried back as a memorial of “Somnath revenged.”

***Annexation of Sind.***

Lord Ellenborough, who loved military display, had his tastes gratified by two more wars. In 1843 the Mahommedan rulers of Sind, known as the “meers” or amirs, whose only fault was that they would not surrender their independence, were crushed by Sir Charles Napier. The victory of Meeanee, in which 3000 British troops defeated 20,000 Baluchis, is perhaps the most brilliant feat of arms in Indian history; but an honest excuse can scarcely be found for the annexation of the country. In the same year a disputed succession at Gwalior, fomented by femimine intrigue, resulted in an outbreak of the overgrown army which the Sindhia family had been allowed to maintain. Peace was restored by the battles of Maharajpur and Punniar, at the former of which Lord Ellenborough was present in person.

***First Sikh War.***

In 1844 Lord Ellenborough was recalled by the court of directors, who differed from him on many points of administration, and distrusted his erratic genius. He was succeeded by Sir Henry (afterwards Lord) Hardinge, who had served through the Peninsular War and had lost a hand at Ligny. It was felt on all sides that a trial of strength between the British and the Sikhs was at hand. (For the origin of the Sikh power see Punjab.)

Ranjit Singh, the founder of the Sikh kingdom in the Punjab, had faithfully fulfilled all his obligations towards the British. But on his death in 1839 no successor was left to curb the ambition of the Sikh nationality.

In 1845 the *khalsa*, or Sikh army, numbering 60,000 men with 150 guns, crossed the Sutlej and invaded

British territory. Sir Hugh Gough, the commander-in-chief, together with the governor-general, hurried up to the frontier. Within three weeks four pitched battles were fought, at Mudki, Ferozeshah, Aliwal and Sobraon. The British loss on each occasion was heavy; but by the last victory the Sikhs were fairly driven into and across the Sutlej, and Lahore surrendered to the British. By the terms of peace then dictated the infant son of Ranjit, Dhuleep Singh, was recognized as raja; the Jullundur Doab, or tract between the Sutlej and the Ravi, was annexed; the Sikh army was limited to a specified number; Major Henry Lawrence was appointed to be resident at Lahore; and a British force was detailed to garrison the Punjab for a period of eight years.

Lord Dalhousie succeeded Lord Hardinge, and his eight years' administration (from 1848 to 1856) was more pregnant of results than that of any governor-general since Wellesley. Though professedly a man of peace, he was compelled to fight two wars, in the Punjab and in Burma. These both ended in large acquisitions of territory, while Nagpur, Oudh and several minor states also came under British rule. But Dalhousie's own special interest lay in the advancement of the moral and material condition of the country. The system of administration carried out in the conquered Punjab by the two Lawrences and their assistants is probably the most successful piece of difficult work ever accomplished by Englishmen. Lower Burma prospered under their rule scarcely less than the Punjab. In both cases Lord Dalhousie deserves a large share of the credit. No branch of the administration escaped his reforming hand. He founded the public works department, to pay special attention to roads and canals. He opened the Ganges canal, still the largest work of the kind in the country, and he turned the sod of the first Indian railway. He promoted steam communication with England via the Red Sea, and introduced cheap postage and the electric telegraph. It is Lord Dalhousie's misfortune that these benefits are too often forgotten in the vivid recollections of the Mutiny, which avenged his policy of annexation.

***Dalhousie.***

Lord Dalhousie had not been six months in India before the second Sikh war broke out. Two British officers were treacherously assassinated at Multan. Unfortunately Henry Lawrence was at home on sick leave. The British army was not ready to act in the hot season, and, despite the single-handed exertions of Lieutenant (afterwards Sir Herbert) Edwardes, this outbreak of fanaticism led to a general rising. The *khalsa* army again came together, and more than once fought on even terms with the British. On the fatal field of Chillianwalla, which patriotism prefers to call a drawn battle, the British lost 2400 officers and men, besides four guns and the colours of three regiments. Before reinforcements could come out from England, with Sir Charles Napier as commander-in-chief, Lord Gough had restored his own reputation by the crowning victory of Gujrat, which absolutely destroyed the Sikh army. Multan had previously fallen; and the Afghan horse under Dost Mahommed, who had forgotten their hereditary antipathy to the Sikhs in their greater hatred of the British name, were chased back with ignominy to their native hills. The Punjab henceforth became a British province, supplying a virgin field for the administrative talents of Dalhousie and the two Lawrences. Raja Dhuleep Singh received an allowance of £50,000 a year, on which he retired as a country gentleman to Norfolk in England. (See PUNJAB.)

***Second Sikh War.***

The second Burmese war of 1852 was caused by the ill-treatment of European merchants at Rangoon, and the insolence offered to the captain of a frigate who had been sent to remonstrate. The whole valley of the Irrawaddy, from Rangoon to Prome, was occupied in a few months, and, as the king of Ava refused to treat, it was annexed, under the name of Pegu, to the provinces of Arakan and Tenasserim, which had been acquired in 1826.

***Second Burmese War.***

Lord Dalhousie's dealings with the feudatory states of India, though actuated by the highest motives, seem now to have proceeded upon mistaken lines. His policy of annexing each native state on the death of its ruler without natural heirs produced a general feeling of insecurity of tenure among the princes, and gave offence to the people of India. This policy was reversed when India was taken over by the crown after the Mutiny; and its reversal has led to the native princes being amongst the most loyal subjects of the British government. The first state to escheat to the British government was Satara, which had been reconstituted by Lord Hastings on the downfall of the peshwa Baji Rao in 1818. The last direct representative of Sivaji died without a male heir in 1848, and his deathbed adoption was set aside. In the same year the Rajput state of Karauli was saved by the interposition of the court of directors, who drew a fine distinction between a dependent principality and a protected ally. In 1853 Jhansi suffered the same fate as Satara. But the most conspicuous application of the doctrine of lapse was the case of Nagpur. The last of the Bhonslas, a dynasty older than the British government itself, died without a son, natural or adopted, in 1853. That year also saw British administration extended to the Berars, or the assigned districts which the nizam of Hyderabad was induced to cede as a territorial guarantee for the subsidies which he perpetually kept in arrear. Three more distinguished names likewise passed away in 1853, though without any attendant accretion to British territory. In the extreme south the titular nawab of the Carnatic and the titular raja of Tanjore both died without heirs. Their rank and their pensions died with them, though compassionate allowances were continued to their families. In the north of India, Baji Rao, the ex-peshwa who had been dethroned in 1818, lived on till 1853 in the enjoyment of his annual pension of £80,000. His adopted son, Nana Sahib, inherited his accumulated savings, but could obtain no further recognition.

***The doctrine of lapse.***

The annexation of the province of Oudh was justifiable on the ground of morals, though not on that of policy. Ever since the nawab wazir, Shuja-ud-Dowlah, received back his forfeited territories from the hands of Lord Clive in 1765, the very existence of Oudh as an independent state had depended only upon the protection of British bayonets. Thus, preserved alike from foreign invasion and from domestic rebellion, the long line of subsequent nawabs had given way to that neglect of public affairs and those private vices which naturally flow from irresponsible power. Their only redeeming virtue was steady loyalty to the British government.

***Annexation of Oudh.***

Warning after warning had been given to the nawabs, who had assumed the title of king since 1819, to put their house in order; but every warning was neglected, and Lord Dalhousie at last carried into effect what both the previous governors-general had threatened. In 1856, the last year of his rule, he issued orders to General (afterwards Sir James) Outram, then resident at the court of Lucknow, to assume the direct administration of Oudh, on the ground that "the British government would be guilty in the sight of God and man, if it were any longer to aid in sustaining by its countenance an administration fraught with suffering to millions." The king, Wajid Ali, bowed to irresistible force, though he ever refused to recognize the justice of his deposition. After a mission to England, by way of protest and appeal, he settled down in the pleasant suburb of Garden Reach near Calcutta, where he lived in the enjoyment of a pension of £120,000 a year. Oudh was thus annexed without a blow; but it may be doubted whether the one measure of Lord Dalhousie upon which he looked back himself with the clearest conscience was not the very one that most alarmed native public opinion.

Lord Dalhousie was succeeded by his friend, Lord Canning, who, at the farewell banquet in England given to him by the court of directors, uttered these prophetic words: "I wish for a peaceful term of office. But I cannot forget that in the sky of India, serene as it is, a small cloud may arise, no larger than a man's hand, but which, growing larger and larger, may at last threaten to burst and overwhelm us with ruin." In the following year the sepoys of the Bengal army mutinied, and all the valley of the Ganges from Patna to Delhi rose in open rebellion.

***The Mutiny.***



The various motives assigned for the Mutiny appear inadequate to the European mind. The truth seems to be that native opinion throughout India was in a ferment, predisposing men to believe the wildest stories, and to act precipitately upon their fears. The influence of panic in an Oriental population is greater than might be readily believed. In the first place, the policy of Lord Dalhousie, exactly in proportion as it had been dictated by the most honourable considerations, was utterly distasteful to the native mind. Repeated annexations, the spread of education, the appearance of the steam engine and the telegraph wire, all alike revealed a consistent determination to substitute an English for an Indian civilization. The Bengal sepoys, especially, thought that they could see into the future farther than the rest of their countrymen. Nearly all men of high caste, and many of them recruited from Oudh, they dreaded tendencies which they deemed to be denationalizing, and they knew at first hand what annexation meant. They believed it was by their prowess that the Punjab had been conquered, and all India was held quiet. The numerous dethroned princes, their heirs and their widows, were the first to take advantage of the spirit of disaffection that was abroad. They had heard of the Crimean War, and were told that Russia was the perpetual enemy of England. Owing to the silladar system, under which the native cavalry provided their own horses and accoutrements, many of the sowars were in debt, and were in favour of a change which would wipe out the existing régime and with it the money-lender.

But in addition to these general causes of unrest the condition of the native army had long given cause for uneasiness to acute observers. During the course of its history it had broken out into mutiny at recurrent intervals, the latest occasion being the winter of 1843-1844, when there were two separate mutinies in Sind and at Ferozepur. Moreover the spirit of the sepoys during the Sikh wars was unsatisfactory, and led to excessive casualties amongst the British officers and soldiers. Both General Jacob and Sir Charles Napier had prophesied that the Mutiny would take place. Sir Hugh Gough and other commanders-in-chief had petitioned for the removal of India's chief arsenal from Delhi to Umballa; and Lord Dalhousie himself had protested against the reduction of the British element in the army. But all these warnings were disregarded with a blindness as great as was the incapacity that allowed the Mutiny to gather head unchecked after its first outbreak at Meerut. Moreover the outbreak was immediately provoked by an unparalleled instance of carelessness. It has recently been proved by Mr G. W. Forrest's researches in the Government of India records that the sepoys' belief that their cartridges were greased with the fat of cows and pigs had some foundation in fact. Such a gross violation of their caste prejudices would alone be sufficient to account for the outbreak that followed. (For the military incidents of the Mutiny see Indian Mutiny.)

The Mutiny sealed the fate of the East India company, after a life of more than two and a half centuries. The Act for the Better Government of India (1858), which finally transferred the entire administration from the company to the crown, was not passed without an eloquent protest from the directors, nor without acrimonious party discussion in parliament. It enacts that India shall be governed by, and in the name of, the sovereign of England through a principal secretary of state, assisted by a council. The governor-general received the new title of viceroy. The European troops of the company, numbering about 24,000 officers and men, were amalgamated with the royal service, and the Indian navy was abolished. By the Indian Councils Act 1861 the governor-general's council and also the councils at Madras and Bombay were augmented by the addition of non-official members, either natives or Europeans, for legislative purposes only; and by another act passed in the same year high courts of judicature were constituted out of the existing supreme courts and company's courts at the presidency towns.

***Transfer to the Crown.***

*India under the Crown.*

It fell to the lot of Lord Canning both to suppress the Mutiny and to introduce the peaceful revolution that followed. As regards his execution of the former part of his duties, it is sufficient to say that he preserved his equanimity undisturbed in the darkest hours of peril, and that the strict impartiality of his conduct incurred alternate praise and blame from the fanatics on either side. The epithet then scornfully applied to him of "Clemency" Canning is now remembered only to his honour. On November 1, 1858, at a grand durbar held at Allahabad the royal proclamation was published which announced that the queen had assumed the government of India. This document, which has been called the Magna Charta of the

Indian people, went on to explain the policy of political justice and religious toleration which it was her royal pleasure to pursue, and granted an amnesty to all except those who had directly taken part in the murder of British subjects. Peace was proclaimed throughout India on the 8th of July 1859; and in the following cold season Lord Canning made a viceregal progress through the upper provinces, to receive the homage of loyal princes and chiefs, and to guarantee to them the right of adoption. The suppression of the Mutiny increased the debt of India by about 40 millions sterling, and the military changes that ensued augmented the annual expenditure by about 10 millions. To grapple with this deficit, James Wilson was sent out from the treasury as financial member of council. He reorganized the customs system, imposed an income tax and licence duty and created a state paper currency. The penal code, originally drawn up by Macaulay in 1837, passed into law in 1860, together with codes of civil and criminal procedure.

Lord Canning left India in March 1862, and died before he had been a month in England. His successor, Lord Elgin, only lived till November 1863, when he too fell a victim to the excessive work of the governor-generalship, dying at the Himalayan station of Dharmsala, where he lies buried. He was succeeded by Sir John Lawrence, the saviour of the Punjab. The chief incidents of his administration were the Bhutan war and the terrible Orissa famine of 1866. Lord Mayo, who succeeded him in 1869, carried on the permanent British policy of moral and material progress with a special degree of personal energy. The Umballa durbar, at which Shere Ali was recognized as amir of Afghanistan, though in one sense the completion of what Lord Lawrence had begun, owed much of its success to the personal influence of Lord Mayo himself. The same quality, combined with sympathy and firmness, stood him in good stead in all his dealings both with native chiefs and European officials. His example of hard work stimulated all to their best. While engaged in exploring with his own eyes the furthest corners of the empire, he fell by the hand of an assassin in the convict settlement of the Andaman islands in 1872. His successor was Lord Northbrook, whose ability showed itself chiefly in the department of finance. During the time of his administration a famine in Lower Bengal in 1874 was successfully obviated by government relief and public works, though at an enormous cost; the gaekwar of Baroda was dethroned in 1875 for misgovernment and disloyalty, while his dominions were continued to a nominated child of the family; and the prince of Wales (Edward VII.) visited the country in the cold season of 1875-1876. Lord Lytton followed Lord Northbrook in 1876. On the 1st of January 1877 Queen Victoria was proclaimed empress of India at a durbar of great magnificence, held on the historic “Ridge” overlooking the Mogul capital Delhi. But, while the princes and high officials of the country were flocking to this gorgeous scene, the shadow of famine was already darkening over the south of India. Both the monsoons of 1876 had failed to bring their due supply of rain, and the season of 1877 was little better. The consequences of this prolonged drought, which extended from Cape Comorin to the Deccan, and subsequently invaded northern India, were more disastrous than any similar calamity up to that time from the introduction of British rule. Despite unparalleled importations of grain by sea and rail, despite the most strenuous exertions of the government, which incurred a total expenditure on this account of 11 millions sterling, the loss of life from actual starvation and its attendant train of diseases was lamentable. In the autumn of 1878 the affairs of Afghanistan again forced themselves into notice. Shere Ali, the amir, who had been hospitably entertained by Lord Mayo, was found to be favouring Russian intrigues. A British envoy was refused admittance to the country, while a Russian mission was received with honour. This led to a declaration of war. British armies advanced by three routes—the Khyber, the Kurram and the Bolan—and without much opposition occupied the inner entrances of the passes. Shere Ali fled to Afghan Turkestan, and there died. A treaty was entered into with his son, Yakub Khan, at Gandamak, by which the British frontier was advanced to the crests or farther sides of the passes and a British officer was admitted to reside at Kabul. Within a few months the British resident, Sir Louis Cavagnari, was treacherously attacked and massacred, together with his escort, and a second war became necessary. Yakub Khan abdicated, and was deported to India, while Kabul was occupied in force.



***Lord Ripon.***

At this crisis of affairs a general election in England resulted in a change of government. Lord Lytton resigned with the Conservative ministry, and the marquis of Ripon was nominated as his successor in 1880. Shortly afterwards a British brigade was defeated at Maiwand by the Herati army of Ayub Khan, a defeat promptly and completely retrieved by the brilliant march of General Sir Frederick Roberts from Kabul to Kandahar, and by the total rout of Ayub Khan’s army on the 1st of September 1880. Abdur Rahman Khan, the eldest male representative of the stock of Dost Mahommed, was then recognized as amir of Kabul. Lord Ripon was sent out to India by the Liberal ministry of 1880 for the purpose of reversing Lord Lytton’s policy in Afghanistan, and of introducing a more sympathetic system into the administration of India. The disaster at Maiwand, and the Russian advance east of the Caspian, prevented the proposed withdrawal from Quetta; but Kandahar was evacuated, Abdur Rahman was left in complete control of his country and was given an annual subsidy of twelve lakhs of rupees in 1883. In the second purpose of his administration Lord Ripon’s well-meant efforts only succeeded in setting Europeans and natives against each other. His term of office was chiefly notable for the agitation against the Ilbert Bill, which proposed to subject European offenders to trial by native magistrates. The measure aroused a storm of indignation amongst the European community which finally resulted in the bill being shorn of its most objectionable features. Lord Ripon’s good intentions and personal sympathy were recognized by the natives, and on leaving Bombay he received the greatest ovation ever accorded to an Indian viceroy.

***The Panjdeh scare.***

After the arrival of Lord Dufferin as governor-general the incident known as the Panjdeh Scare brought Britain to the verge of war with Russia. During the preceding decades Russia had gradually advanced her power from the Caspian across the Turkoman steppes to the border of Afghanistan, and Russian intrigue was largely responsible for the second Afghan war. In February 1884 Russia annexed Merv. This action led to an arrangement in August of the same year for a joint Anglo-Russian commission to delimit the Afghan frontier. In March 1885, while the commission was at work, Lord Dufferin was entertaining the amir Abdur Rahman at a durbar at

Rawalpindi. The durbar was interrupted by the news that a Russian general had attacked and routed the Afghan force holding the bridge across the river Kushk, and the incident might possibly have resulted in war between Britain and Russia but for the slight importance that Abdur Rahman attributed to what he termed a border scuffle.

***Increase in the Army.***

The incident, however, led to military measures being taken by the government of Lord Dufferin, which had far-reaching effects on Indian finance. The total strength of the army was raised by 10,000 British and 20,000 native troops, at an annual cost of about two millions sterling; and the frontier post of Quetta, in the neighbourhood of Kandahar, was connected with the Indian railway system by a line that involved very expensive tunnelling.

***Imperial Service troops.***

The Panjdeh incident was likewise the cause of the establishment of Imperial Service troops in India. At the moment when war seemed imminent, the leading native princes made offers of pecuniary aid. These offers were declined, but it was intimated to them at a later date that, if they would place a small military force in each state at the disposal of the British government, to be commanded by state officers, but drilled, disciplined and armed under the supervision of British officers and on British lines, the government would undertake to find the necessary supervising officer, arms and organization. The proposal was widely accepted, and the Imperial Service troops, as they are called, amount at present to some 20,000 cavalry, infantry and transport, whose efficiency is very highly thought of. They have rendered good service in the wars on the north-west frontier, and also in China and Somaliland. Later in the same year (1885) occurred the third Burmese war. For the causes of the dispute with King Thebaw, and a description of the military operations which ensued before the country was finally pacified, see Burma.

From 1885 onwards the attention of the Indian government was increasingly devoted to the north-west frontier. Between the years 1885 and 1895 there were delimited at various times by joint commissions the Russo-Afghan frontier between the Oxus and Sarakhs on the Persian frontier, the Russo-Afghan frontier from Lake Victoria to the frontier of China and the Afghan-Indian frontier from the Kunar river to a point in the neighbourhood of the Nawa Kotal. To the westward, after various disagreements and two military expeditions, the territories comprising the Zhob, Barhan and Bori valleys, occupied by Pathan tribes, were in 1890 finally incorporated in the general system of the Trans-Indus protectorate. About the same time in the extreme north the post of British resident in Gilgit was re-established, and the supremacy of Kashmir over the adjoining petty chiefships of Hunza-Nagar was enforced (1891-1892). In 1893 the frontiers of Afghanistan and British India were defined by a joint agreement between the two governments, known as the Durand agreement. There followed on the part of the British authorities, interference in Chitral, ending in an expedition in 1895 and the ejection of the local chiefs in favour of candidates amenable to British influence. A more formidable hostile combination, however, awaited the government of India. By the agreement of 1893 with the amir most of the Waziri clan and also the Afridis had been left outside the limits of the amir’s influence and transferred to the British zone. Soon after that date the establishment by the British military authorities of posts within the Waziri country led to apprehension on the part of the local tribesmen. In 1895 the occupation of points within the Swat territory for the safety of the road from India to Chitral similarly roused the suspicion of the Swatis. The Waziris and Swatis successively rose in arms, in June and July 1897, and their example was followed by the Mohmands. Finally, in August the powerful Afridi tribe joined the combination and closed the Khyber Pass, which runs through their territory, and which was held by them, on conditions, in trust for the government of India. This led to the military operations known as the Tirah campaign, which proved very costly both in men and money.

***The currency.***

Meanwhile considerable difficulties had been experienced with the Indian currency, which was on a purely silver basis. Before 1873 the fluctuations in the value of silver as compared with gold had been comparatively small, and the exchange value of the rupee was rarely less than two shillings. But after 1873, in consequence of changes in the monetary systems of France and Germany, and the increased production of silver, this stability of exchange no longer continued, and the rupee sank steadily in value, till it was worth little more than half its face value. This great shrinkage in exchange caused considerable loss to the Indian government in remitting to Europe, and entailed hardship upon Anglo-Indians who received pensions or other payments in rupees, while on the other hand it supplied an artificial stimulus to the export trade by increasing the purchasing power of gold. This advantage, however, was outweighed by the uncertainty as to what the exchange value of the rupee might be at any particular date, which imported a gambling element into commerce. Accordingly in June 1893 an act was passed closing the Indian mints to the free coinage of silver. Six years later, in 1899, the change was completed by an act making gold legal tender at the rate of £1 for Rs.15, or at the rate of is. 4d. per rupee, and both the government and the individual now know exactly what their obligations will be.



***Lord Curzon’s reforms.***

When Lord Curzon became viceroy in 1898, he reversed the policy on the north-west frontier which had given rise to the Tirah campaign, withdrew outlying garrisons in tribal country, substituted for them tribal militia, and created the new North-West Frontier province, for the purpose of introducing consistency of policy and firmness of control upon that disturbed border. In addition, after making careful inquiry through various commissions, he reformed the systems of education and police, laid down a comprehensive scheme of irrigation, improved the leave rules and the excessive report-writing of the civil service, encouraged the native princes by the formation of the Imperial Cadet Corps and introduced many other reforms. His term of office was also notable for the coronation durbar at Delhi in January 1903, the expedition to Lhasa in 1904, which first unveiled that forbidden city to European gaze, and the partition of Bengal in 1905. In December 1904 Lord Curzon entered upon a second term of office, which was unfortunately marred by a controversy with Lord Kitchener, the commander-in-chief, as to the position of the military member of council. Lord Curzon, finding himself at variance with the secretary of state, resigned before the end of

the first year, and was succeeded by Lord Minto.

The new viceroy, who might have expected a tranquil time after the energetic reforms of his predecessor, soon found himself face to face with the most serious troubles, euphemistically called the "unrest," that British rule has had to encounter in India since the Mutiny. For many years the educated class among the natives had been claiming for themselves a larger share in the administration, and had organized a political party under the name of the National Congress, which held annual meetings at Christmas in one or ether of the large cities of the peninsula. This class also exercised a wide influence through the press, printed both in the vernacular languages and in English, especially among young students. There is no doubt too that the adoption of Western civilization by the Japanese and their victorious war with Russia set in motion a current through all the peoples of the East. The occasion though not the cause of trouble arose from the partition of Bengal, which was represented by Bengali agitators as an insult to their mother country. While the first riots occurred in the Punjab and Madras, it is only in Bengal and eastern Bengal that the unrest has been bitter and continuous. This is the centre of the *swadeshi* movement for the boycott of English goods, of the most seditious speeches and writings and of conspiracies for the assassination of officials. At first the government attempted to quell the disaffection by means of the ordinary law, with fair success outside Bengal; but there, owing to the secret ramifications of the conspiracy, it has been found necessary to adopt special measures. Recourse has been had to a regulation of the year 1818, by which persons may be imprisoned or "deported" without reason assigned; and three acts of the legislature have been passed for dealing more directly with the prevalent classes of crime: (1) an Explosives Act, containing provisions similar to those in force in England; (2) a Prevention of Seditious Meetings Act, which can only be applied specially by proclamation; and (3) a Criminal Law Amendment Act, of which the two chief provisions are—a magisterial inquiry in private (similar to the Scotch procedure) and a trial before three judges of the High Court without a jury.

***Lord Minto. The unrest.***

While the law was thus sternly enforced, important acts of conciliation and measures of reform were carried out simultaneously. In 1907 two natives, a Hindu and a Mahommedan, were appointed to the secretary of state's council; and in 1909 another native, a Hindu barrister, was for the first time appointed, as legal member, to the council of the viceroy. Occasion was taken of the fiftieth anniversary of the assumption by the crown of the government of India to address a message (on November 2, 1908) by the king-emperor to the princes and peoples, reviewing in stately language the later development, and containing these memorable words:—

***Reforms.***

> "From the first, the principle of representative institutions began to be gradually introduced, and the time has come when, in the judgment of my viceroy and governor-general and others of my counsellors, that principle may be prudently extended. Important classes among you, representing ideas that have been fostered and encouraged by British rule, claim equality of citizenship, and a greater share in legislation and government. The politic satisfaction of such a claim will strengthen, not impair, existing authority and power. Administration will be all the more efficient if the officers who conduct it have greater opportunities of regular contact with those whom it affects and with those who influence and reflect common opinion about it."

The policy here adumbrated was (at least partly) carried into effect by parliament in the Indian Councils Act 1909, which reconstituted all the legislative councils by the addition of members directly elected, and conferred upon these councils wider powers of discussion. It further authorized the addition of two members to the executive councils at Madras and Bombay, and the creation of an executive council in Bengal and also (subject to conditions) in other provinces under a lieutenant-governor. Regulations for bringing the act into operation were issued by the governor-general in council, with the approval of the secretary of state, in November 1909. They provided (*inter alia*) for a non-official majority in all of the provincial councils, but not in that of the governor-general; for an elaborate system of election of members by organized constituencies; for nomination where direct election is not appropriate; and for the separate representation of Mahommedans and other special interests. They also contain provisions authorizing the asking of supplementary questions, the moving and discussion of resolutions on any matter of public interest and the annual consideration of the contents of the budget. In brief, the legislative councils were not only enlarged, but transformed into debating bodies, with the power of criticizing the executive. The first elections took place during December 1909, with results that showed widespread interest and were generally accepted as satisfactory. The new council of the governor-general met in the following month.

Authorities.—Vincent A. Smith, *The Early History of India* (Oxford, 1904, 2nd ed., 1908); and *Asoka* ("Rulers of India" series, Oxford, 1901); J. W. McCrindle, *Ancient India* (1901); T. W. Rhys Davids, *Buddhist India* (1903); *Imperial Gazetteer of India* (1907-1909); Sir J. Campbell, *Gazetteer of Bombay* (1896); Stanley Lane-Poole, *Medieval India* ("Story of the Nations" series, 1903); *The Mohammedan Dynasties* (1894) and *The Mogul Emperors* (1892); H. C. Fanshawe, *Delhi Past and Present* (1902); Sir H. M. Elliot, *History of India as told by its own Historians* (1867). For the "unrest," its causation and history, see the series of articles in *The Times*, beginning July 16, 1910.

(W. W. H.; J. S. Co.)

## Indian Costume

Personal attire in India so far resembles a uniform that a resident can tell from a garb alone the native place, religion and social standing of the wearer. This is still true, though the present facility of intercommunication has had its effect in tending to assimilate the appearance of natives. Together with costume it is necessary to study the methods of wearing the hair, for each race adopts a different method.

The population of India, of which the main divisions are religious, falls naturally into four groups, (1) Mahommedans, (2) Hindus, (3) Sikhs, (4) Parsees. To these may be added aboriginal races such as Bhils,

Sonthals, Gonds, &c., whose costume is chiefly noticeable from its absence.

*Mahommedan Men.*—Apart from the two sects, Sunnis and Shias, whose garb differs in some respects, there are four families of Moslems, viz. Pathans, Moguls, Syeds and Sheiks. The first came to India with Sultan Mahmud Ghaznavi in A.D. 1002; the second are of Tatar origin and came to India with Baber; the Syeds claim descent from Mahomet, while Sheiks comprise all other Mussulmans, including converted Hindus. It is now no longer possible to distinguish these families by their turbans as was formerly the case.

*Hair.*—In the *hadis*, or traditional sayings of Mahomet other than those to be found in the Koran, it is laid down that the head is to be shaved and the beard to be allowed to grow naturally to "a legal" length, *i.e.* 7 or 8 in. long. This is known as *fitrah* or the custom of prophets. The beard is frequently dyed with henna and indigo for much the same reasons as in Europe by elderly men; this is entirely optional. The wearing of whiskers while shaving the chin was a Mogul fashion of the 17th and 18th centuries and is now seldom seen except among Deccani Mahommedans. The mustachios must not grow below the line of the upper lip, which must be clearly seen; a division or parting is made below the nose. The lower lip is also carefully kept clear. Hair under the arms or elsewhere on the body except the breast is always removed.

Mahommedan clothing for indoor wear consists of three pieces: (*a*) Head-dress, (*b*) body-covering, (*c*) covering for the legs.

*Head-dress.*—This is of two kinds: the turban and the cap. The former is chiefly worn in northern India, the latter in Oudh and the United Provinces. What is known in Europe as a turban (from the Persian *sarband*, a binding for the head) is in India divided into two classes. The first, made of a single piece of cloth 20 to 30 in. wide and from 6 to 9 yds. long, is bound round the head from right to left or from left to right indifferently and quite simply, so as to form narrow angles over the forehead and at the back. This form is called *amāmāh* (Arabic), *dastār* (Persian), *shimlā* or *shamlā*, *safā*, *lungi*, *selā*, *rumāl*, or *dopattā*. The terms *amāmāh* and *dastār* are used chiefly with reference to the turbans of priests and *ulema*, that is learned and religious persons. They are usually white; formerly Syeds wore them of green colour. They are never of bright hue. The *lungi* is made of cloth of a special kind manufactured mostly in Ludhiana. It is generally blue and has an ornamented border. In the case of Pathans and sometimes of Punjabi Moslems it is bound round a tall red conical cap called a *kullah* (Plate I. fig. 1). The ends are frequently allowed to hang down over the shoulders, and are called *shimla* or *shamla*, terms which also apply to the whole head-dress. The names *safa*, *sela*, *rumal* and *dopatta* are sometimes given to this form of turban. The *sela* is gaudier and more ornamental generally; it is worn by the nobles and wealthier classes.

The second form of the turban is known as the *pagri*.[12] This head-dress is of Hindu origin but is much worn by Mahommedans. It is a single piece of cloth 6 to 8 in. wide, and of any length from 10 to 50 yds. The methods of binding the *pagri* are innumerable, each method having a distinctive name as *arabi* (Arab fashion); *mansabi* (official fashion, much used in the Deccan); *mushakhi* (sheik fashion); *chakridar* (worn by hadjis, that is those who have made the pilgrimage to Mecca); *khirki-dār* (a fashion of piling the cloth high, adopted by retainers of great men); *latudār* (top-shaped, worn by *kāyasths* or writers); *joridār* (the cloth twisted into rope shape) (Plate I. fig. 6); *siparali* (shield-shaped, worn by the Shiā sect); *murassa*, or *nastālikh* (ornately bound), *latpati* (carelessly bound) (Plate I. fig. 4). Many other fashions which it would be difficult to describe can best be learned by studying pictures with the help of a competent teacher. The *chīrā* is a pagri of checked cloth. The *mandīl* is of gold or highly ornamented cloth; it is worn by nobles and persons of distinction.

The cap or *topi* is not bound round the head, but is placed upon it. It is made of cut and sewn cloth. Some varieties are *dopallari*, a skull-cap; *kishtinumā*, or boat-shaped cap; *goltopi*, a round cap of the kind known in England as "pork-pie"; *bezwi*, or egg-shaped cap; *sigoshiā*, or three-cornered cap; *chaugoshiā*, or four-cornered cap; *tājdār*, or crown-shaped cap; &c. Many other caps are named after the locality of manufacture or some peculiarity of make, *e.g. Kashmīrē-kītopī*; *jhālardār*, fringed cap, &c.

A form of cap much worn in Bengal and western India is known as *Irānī kullāh*, or Persian cap. It is made of goatskin and is shaped like a *tārbūsh* but has no tassel. The cap worn in cold weather is called *top*, *topa*, or *kantop* (ear-cover) (Plate I. fig. 2); these are sometimes padded with cotton. Caps are much worn by Mussulmans of Delhi, Agra, Lucknow and other cities of the United provinces.

The *tārbūsh* or *tūrki-topī* was introduced into India by Sir Sayyid Ahmad (Plate I. fig. 3). It must not be confused with the Moorish "fez," which is skull-shaped. The *tārbūsh* is of Greek origin and was adopted by Sultan Mahmud of Turkey in the early part of the 19th century. To remove the head-dress of whatever kind is, in the East, an act of discourtesy; to strike it off is a deep insult.

*Clothing.*—The following rules from the *hadith* or traditional sayings of the prophet are noteworthy: —"Wear white garments, for verily they are full of cleanliness, and pleasant to the eye." "It is lawful for the woman of my people to clothe herself in silken garments, and to wear ornaments of gold; but it is forbidden to man: any man who shall wear silken garments in this world, shall not wear them in the next." "God will not be merciful to him who through vanity wears long trousers" (*i.e.* reaching below the ankle). The foregoing rules are now only observed by the ultra-orthodox, such as the Wāhabī sect and by ulemas, or learned elderly men. The Mogul court of Delhi, especially during the reign of Mahommed Shah, nicknamed *Rangīla* or the "dandy," greatly influenced change in these matters. Coloured clothing, gold ornaments and silken raiment began to be worn commonly by Mussulman men in his reign.

For the upper part of the body the principal article of clothing is the *kūrtā*. The Persian name for this is *pairahan* and the Arabic *kamīs*, whence "chemise." This *kūrtā* is the equivalent for the shirt of Europe. It is usually of white cotton, and has the opening or *galā* in front, at the back, or on either side indifferently. It was formerly fastened with strings, but now with the *ghundi* (the old form of button) and *tukmah* or

loop. In southern India, Gujarat and in the United Provinces the *kūrtā* is much the same as to length and fit as the English shirt; as the traveller goes northward from Delhi to the Afghan border he sees the *kūrtā* becoming longer and looser till he finds the Pathan wearing it almost to his ankles, with very full wide sleeves. The sleeves are everywhere long and are sometimes fastened with one or two buttons at the wrist.

Mussulmans always wear some form of trousers. They are known as *izār* (Arabic) or *pa'ejáma*[13] (Persian). This article of clothing is sometimes loose, sometimes tight all the way, sometimes loose as far as the knee and tight below like Jodhpur riding breeches. They are fastened round the waist with a scarf or string called *kamarband* (waistband) or *izārband*, and are usually of white cotton. The varieties of cut are sharai or canonical, orthodox, which reach to the ankles and fit as close to the leg as European trousers; *rumi* or *gharāredār*, which reach to the ankles but are much wider than European trousers (this pattern is much worn by the Shias); and *tang* or *chust*, reaching to the ankles, from which to the knee they fit quite close. When this last kind is "rucked" at the ankle it is called *churidār* (Plate I. fig. 4). They are sometimes buttoned at the ankle, especially in the Meerut district. The *shalwār* pattern, very large round the waist and hanging in folds, is worn by Pathans, Baluchis, Sindis, Multanis, &c.



PLATE I.

FIG. 1.—Punjabi Mahommedan wearing *lungi* bound round a red or gold *kullah*.

FIG. 2.—Mahommedan Saint, *pir*, wearing the *kāntōp*, ear-cap.

FIG. 3.—Student of the Aligarh College wearing the *tārbūsh*.

FIG. 4.—Punjabi Mahommedan wearing *pagri*, with *shimla*, *achkan izār* or *paejamas*.

FIG. 5.—Bombay or Gujarati Bora wearing white and gold turban with red top.

FIG. 6.—Mahommedan Jat cultivators. Wife:—with *izār*, *kurta*, and *orhni* or *chadar*; husband:—with *majba*, *chadar*, and *joridar pagri*.

FIG. 7.—The Parsi *khoka*, a tall hat of glazed chintz.

FIG. 8.—Parsi woman wearing Parsi *sari* and *mathabana* or white hair cover.

FIG. 9.—Parsi schoolgirl.

FIG. 10.—Parsi pith hat with felt brim.

*From Pen and Ink Drawings by J. Lockwook Kipling, C.I.E.*

PLATE II.

FIG. 1.—Deccan Brahman wearing *pagri*, *dhoti* or *pitamber*, *angā* and *dopatta*.

FIG. 2.—Brahman wearing *dhoti* and *janeo* or sacred thread. This is the dining and sacrificial dress of most Hindus.

FIG. 3.—Rajput wearing *chapkan*, which is worn both by Mussulmans and Hindus, buttoning on different sides.

FIG. 4.—Hindu woman showing method of wearing the *sari*.

FIG. 5.—Bengali *Babū* wearing the most popular form of the embroidered cap.

FIG. 6.—Sikh devotee, *Akali* or *Nihung*, vowed to the wearing of blue and steel, &c.

*From Pen and Ink Drawings by J. Lockwook Kipling, C.I.E.*

The new fashion in vogue amongst the younger generation of Mussulman is called the *ikbārah* or *patalūnnumā*, which is like the European trousers. They are usually made of calico; they have no buttons but are fastened with string (kamarband). Bathing drawers are called *ghutannah* and reach to the knee. The tight drawers worn by wrestlers are called *janghiah*.

Garments for outdoor wear are the *angā*, or *angarkhā*, the *chapkan*, the *achkan* or *sherwāni*; the *angā*, a coat with full sleeves, is made of any material, white or coloured. It is slit at the sides, has perpendicularly cut side-pockets, and is fastened with strings just below the breast. It is opened on the right or left side according to local custom. The *angā* is now considered old-fashioned, and is chiefly worn by elderly men or religious persons. It is still not uncommon in Delhi, Agra, Lucknow and at native courts, but is being superseded by the *achkan* (Plate I. fig. 4), which is buttoned straight down the front. Both *angā* and *achkan* reach to a little below the knee, as also does the *chapkan*, a relic of Mogul court dress, best known as the shield-like and highly adorned coat worn by government *chaprasis* (Plate II. fig. 3). Over the *angā* is sometimes worn an overcoat called a *chogā*; this is made of any material, thick or thin, plain or ornamented; it has one or two fastenings only, loops below the breast whence it hangs loosely to below the knees. The *chogā* is sometimes known by its Arabic names *abā* or *kabā*, terms applied to it when worn by priests or ulemas. In cold weather Pathans and other border residents wear *posteens*, sleeved coats made of sheepskin with the woolly side in. In India farther south in cold weather an overcoat called *daglā* is worn; this is an *angā* padded with cotton wool. A padded *chogā* is called *labādā*; when very heavily padded *farghūl*. Whereas the European wears his waistcoat *under* his coat, the Indian wears his *over* his *angā* or *chapkan* (not over the *achkan*). A sleeveless waistcoat generally made of silk is called a *sadari*; when it has half sleeves it is called *nimāstīn*; the full-sleeved waistcoat worn in winter padded with cotton is called *mirzāi*. For ceremonial purposes a coat called *jāmā* is worn. This fits closely as to the upper part of the body, but flows loosely below the waist. It is generally white, and is fastened in front by strings.

In Gujarat and other parts of western India are to be found classes of Moslems who differ somewhat from those met with elsewhere, such as Memans, Borās and Khojās. The first are Sunnis: the two last Shias. Memans wear (1) a gold embroidered skull-cap, (2) a long *kamīs* fastened at the neck with 3 or 4 buttons on a gold chain, (3) *sadariya*, *i.e.* a tight waistcoat without sleeves, fastened in front with small silk buttons and loops, (4) an over-waistcoat called *shāyā-sadriya* instead of the *angā*, with sleeves, and slits at the sides (probably of Arab origin). When he does not wear a skull-cap his *amāmāh* is made after the arched Arab form, or is a Kashmir scarf wound round a skull-cap made of Java straw. The Borā adopts one of four forms of pagri; the *Ujjain*, a small neatly bound one; the *Āhmadābād*, a loose high one; the *Surat*, fuller and higher than the *Ujjain* pattern (Plate I. fig. 5); or the *Kathiāwādā*, a conical turban with a gold stripe in the middle of the cone. The Borā wears the *angā*, otherwise he resembles the Meman. The Khoja wears a *pagri* smaller than the Meman's, called a *Moghalāi phentā*; this leaves a portion of the head bare at the back. The material is always of *kashīda*, a kind of embroidered cloth. Amongst Mahommedans only Pathans wear ear-rings.

MAHOMMEDAN WOMEN. *Head-dress.*—The *rupatta* (also called *dopatta*), or veil, is of various colours and materials. Its length is about 3 yds., its width about 1½. It is worn over the head and thrown over the left shoulder. It is considered essential to modesty to cover the head. This head-dress is also known as *orhna*, *orhni*, *pochan*, *pochni* (Baluchistan and western India) *chundri*, *reo* (Sind), *sipatta*, *takrai* or *chadar* (Pathan). Among the poorer classes it is called *pacholi*. Farther south in India when of thicker material it is called *chadar* or *chaddar*. It is called *pachedi*, *potra* or *malāyā* by Meman, Borā and Khojā women. As a

rule married women wear brighter colours than unmarried ones. In Kashmir a small round cap, *goltopi*, is worn. The *kassawa* is a handkerchief bound over the head and tied at the back, and is worn by Mahommedan women indoors to keep the hair tidy; Mahommedan women plait their hair and let it hang down behind (Plate I. fig. 6).

*Clothing.*—A short jacket fastened at the back and with short sleeves is worn. It may be of any material. In Sind, Gujarat and other parts of western India it is called a *choli*. It is also very generally known as *angiyā*. Other common names are *mahram* and *sināband* (breast-cover). The *kūrtā* is a sort of sleeveless shirt, open in front and reaching to the waist. It may be of any material. When this is worn with the *angiya* it is worn over it. This combination of dress is worn only by young married women. In Kashmir and northern India generally the *angiya* is not worn, and the *kūrtā* is worn instead. This is like the *kamīs* of the man, already described; it has full sleeves, is open at the front, which is embroidered, and reaches to the knee or lower. Among Pathans there are two kinds of *kūrtā* (*kamīs* or *khat*); one worn by married women called *gìrādānā khat* is dark red or blue, embroidered with silk in front; the *jalānā khat* worn by unmarried women is less conspicuous for colour and ornament. A large pocket (*jeb*) is often sewn on in front like the Highlander's sporran.

The *Pa'ejāmās*, also called *izār*, are cut like those of men, and known by the same names. They differ only in being of silk or other fine material and being coloured (Plate I. fig. 6). Among Pathans they are called *partog* or *partek* (*pardek*), and those of unmarried girls are of white, while married women wear them of *susi*, a kind of coloured silk or cotton. As a general rule the wearing of *paijāmās* is the chief distinction between Mussulman and Hindu women. In the Shahpur and other districts, however, where Mahommedans have followed Hindu customs, Moslem women wear the *majlā*, a cloth about 3 yds. long by 1½ wide tied tightly round the waist so as to fall in folds over the legs. Even Mahommedan men sometimes wear the *majlā* in these districts. This form of dress is known among Moslems as *tahband* [lower binding] (Plate I. fig. 6). In Rajputana, Gujarat and the southern Punjab, Mahommedan women sometimes wear a *lhenga* or *ghagra* skirt without trousers; in the Sirsa district and parts of Gujarat the ghagra is worn over the trousers. The *sadari* or waistcoat is worn by women as well as men. The *tillak* or *peshwaz* is a dress or robe the skirt and bodice of which are made in one piece, usually of red or other coloured material; it is common in Gujarat, Rajputana and the Sirsa district, and is the style usually adopted by nautch girls when dancing. Meman women wear also the *abā*, or overcoat, which differs from that worn by men in that it has loose half sleeves, and fastens with two buttons at each side of the neck over the shoulders; it is embroidered on the breast, and adorned with gold lace on the skirts.

In Delhi, Lucknow, Agra and other towns in the Punjab and the United Provinces a special wedding dress is worn by the bride, called *rīt-kājorā*, the "dress of custom." It is worn on the wedding night only; and it is a rule that no scissors are employed in making it. The trouser string of this dress is not the usual *kamarband*, but is made of untwisted cotton thread called *kalāwā*. Out of doors Mahommedan women wear the *būrkā*, a long loose white garment entirely covering the head and body. It has two holes for the eyes. Mahommedan women pencil the eyes with *kohl* or *sūrmā*, use *missi* for the teeth and colour the palms and nails of the hand with henna. A nose-ring is a sign of marriage.

Hindus.—Caste does not influence dress amongst Hindus as much as might be expected. The garment distinctive of the Hindus of all castes, men and women, all over India, is the *dhoti* or loin cloth. It is a very ancient dress, and their gods are represented as clothed in it in old sculptures.

The general term used for clothing is *kaprā*, *latā* or *lugā*. Under Mahommedan influence Hindu clothing developed into "suits," consisting of five pieces for men, hence called *pancho tuk kapra*—(1) head-dress, (2) *dhoti*, (3) coat, (4) *chaddar* or sheet, (5) bathing cloth; and three for women, hence called *tīn tuk*—(1) *dhoti*, (2) jacket, (3) shawl.



*Men.*—The Hindu (except the Rajput) shaves his head, leaving only a top-knot on the point of the skull. He shaves the face (except the eye-brows) and his body. The Rajput wears a full beard and whiskers, usually parted in the middle. He sometimes draws the beard and whiskers to the side of the head, and to keep it tidy wraps round it a cloth called *dhātā* or *galmochā*.

*Head-dress.*—Hindus wear sometimes turbans and sometimes caps. When the turban is worn it is always of the *pagri* form, never the *amāmāh*. Hindus wind the *pagri* in various ways as described for Mussulmans, but the angles are formed over the ears and not from front to back. Mahrattas wear flat red pagris, with a small conical peak variously shaped and placed. The *pagri* is known in different parts of India as *pāg*, *phentā*, *phag*, *phagdi* and many other names. In Bengal a sort of turban is worn which can be taken off like a hat. When Hindus wear caps or *topis* they resemble those worn by Mahommedans, but they never wear the *fez*, *tārbūsh* or *irāni topi*. In Gaya a peculiar cap made of *tāl* leaves is worn in rainy weather, called *ghungā*. Bengalis, whether Brahmans or of other castes, frequently go bareheaded.

*Body Clothing.*—The *dhoti* is a simple piece of cloth (cotton), generally white. It is wound round the loins, the end passed between the legs from front to back and tucked in at the waist behind (Plate II. fig. 2). The small form of *dhoti* worn by men of the lower class is called *langoti*. It does not fall below mid-thigh. A Brahman's *dhoti*, as also that of some other castes, reaches to a little below the knee; a Rajput's to his ankles. The *dhoti* is known under many names, *dhutia*, *pitambar*, *lungi*, &c. In some parts of India half the dhoti only is wound round the loins, the other half being thrown over the left shoulder. Some upper classes of Hindus wear for coat the *kūrtā*; most wear the *angharkā* (Plate II. fig. 1), a short *angā* reaching to the waist. It is also known as *kamri*, *baktari*, *badan* or *bandi*. Hindus wear the *angharkhā* or *angā* as Mahommedans do, but whereas the Mahommedan has the opening on the left the Hindu wears it on the right. When the *kūrtā* is worn it is worn under the *angā*. The *chaddar* (*chadar* or *dopatta*) is of various kinds. It is a piece of cotton cloth 3 yds. long by 1 yd. wide. It is worn across the shoulders, or wrapped round the body, but when bathing, round the loins. Hindus, both men and women, wear ear-rings.

*The Brakminical thread* (*janeo*) (Plate II. fig. 2) is a cord made of twisted cotton prepared with many ceremonies. It is worn over the left shoulder and hangs down to the right hip. It is of three strands till the wearer is married, when it becomes six or nine. It is 96 handbreadths in length, and is knotted. Rajputs also wear this thread, similar in make and length, but the knots are different.

Caste and sect marks also distinguish Hindus from each other.

*Women.*—The hair is sometimes worn plaited (*choti*), usually an odd number of thin plaits made into one large one, falling down the back and fastened at the end with ribbons. Another style is wearing it in a knot after the ancient Grecian fashion; it is always worn smooth in front and parted in the middle. Over the head is worn the *orhna* or veil. The end is thrown over the left shoulder in such a manner as to conceal the breast. On the upper part of the body the *kūrtā* is sometimes worn. A bodice called *angiyā* is worn. This covers the breast and shoulder; it has half sleeves, is very short, and is fastened at the back with strings.

The skirt is called *lhenga* or *ghagra*. It is worn mostly in Rajputana hanging in full flounces to the knee or a little below. In Bengal, Madras and Bombay Presidencies women do not wear a skirt, only a *choli* and *sārī*. This last is a long piece of cotton or silk cloth. Half is draped round the waist and hangs to the feet in folds; the remainder is passed over the head and thrown over the left shoulder (Plate II. fig. 4).

Sikh.—The Sikh does not shave or cut his hair. The beard is parted in the middle and carried up each side of the face to the top of the head. A piece of cloth called *dhātā* or *galmochā* is wound round the chin and head so as to keep the hair clean and tidy. The hair of the head is tied into a knot (*kes*) at the top of the head or at the back, a distinguishing mark of the Sikh. His religion requires the Sikh to carry five articles—*kes*, the knot of hair on the head; the *kanga*, a comb; the *kard*, a knife; the *kach*, a pair of short trousers peculiar to the Sikh; and the *kharā*, an iron bangle on the wrist. It is *de rigueur* that he should carry some piece of iron on his person. His head-dress he calls a *pāg*; it is a turban of *amāmāh* shape but enormously large. The Sikh nobility and gentry wear two turbans, either both of pagri form or one of pagri and one of *amāmāh* form. Each is of a different colour.

The Sikh calls his *kūrtā jhaggā*; it is very large and loose, bound with a scarf round the waist. The *kach* is a sort of knickerbockers reaching to just below the knee, which they encircle tightly. Over all the Sikh wears the *choga*. In outlying villages he wears instead of the *kūrtā* a *chādar* or cloth, which he calls *khes*, on the upper part of his body. Some village Sikhs wear a *tahband* or waistcloth instead of the *kach*. Sikhs are fond of jewelry and wear ear-rings. The dress of Sikh women does not differ greatly from that of Hindu women; but in the Sirsa district and some other parts she wears the Mahommedan *sutan* or trousers, under the *lhenga* or skirt. There is a small sect of Sikh known as *Akāli* or *Nihang*. Their dress is entirely of dark blue colour, the turban being also blue, high and pointed; on it are fastened three steel quoits. The quoit was the ancient weapon of the Sikh, who calls it *chakar*. Certain steel blades are stuck through the body of the turban. The Akālis also wear large flat iron rings round the neck and arms (Plate II. fig. 6).

Parsis.—When the Parsis were first admitted into India, certain conditions were imposed upon them by the Hindus; among others they were not to eat beef, and they were to follow the Hindu custom of wearing a top-knot of hair. Old-fashioned Parsis in country districts still follow these customs. To uncover the head is looked upon as a sin; hence Parsis of both sexes always wear some head covering whether indoors or out. In the house the man wears a skull cap; out of doors the older Parsis wear the *khoka*, a tall hat, higher in front than at the back, made of a stiff shiny material, with a diaper pattern (Plate I. fig. 7). The younger generation adopted a round pith hat with a rolled edge of felt, but, under the influence of the *swadeshi* movement, they have generally reverted to the older form (Plate I. fig. 10). Next to the skin the Parsi wears a *sadra* or sacred shirt, with a girdle called *kasti*. Over the *sadra* a white cotton coat is worn, reaching to a little below the waist. The Parsi wears loose cotton trousers like a Mussulman. In country districts he wears a *jāmā*, and over the *jāmā* a *pechodi* or shoulder cloth. The young Parsi in Bombay has adopted European dress to a great extent, except as to head-gear. The Parsi woman dresses her hair in the old Greek fashion with a knot behind. She also wears a *sadra* or sacred shirt. Country Parsis in villages wear a tight-fitting sleeveless bodice, and trousers of coloured cloth. Over all she winds a silken *sari* or sheet round the body; it is then passed between the legs and the end thrown over the right shoulder. Out of doors she covers her head and right temple (Plate I. fig. 8). In towns the *sari* is not passed between the legs, but hangs in loose folds so as to hide the trousers. The upper classes wear a sleeved *polka* jacket instead of the bodice. Parsi children up to the age of seven wear cotton frocks called *jabhlan*. They wear long white trousers of early Victorian cut, with frills at the bottom. They wear a round cap like a smoking-cap. The little girls wear their hair flowing loose (Plate I. fig. 9).

Shoes.—There is no distinction between the shoes worn by Hindus, Moslems, Sikhs or Parsis, but Hindus will not wear them when made of cow's leather. Shoes are called *juta*, *juti* or *jute* by Mahommedans, and *jore* or *zore* by Hindus. Shoes are usually distinguished by the name of the material, as *nāri kā jūtā*, leather shoes, *banati jūtā*, felt shoes, and so on.

There are innumerable styles of cut of shoe, three being the commonest: (1) *Salimshahi*, these are shaped like English slippers, but are pointed at the toe, terminating in a thin wisp turned back and fastened to the instep. They are mostly made of thin red leather, plain in the case of poorer people and richly embroidered in the case of rich people. This cut of shoe is most in vogue amongst Moslems. (2) *Gol panjē ki jūti*, like English slippers, but rounded at the toes. (3) *Gheltā* or *nāgphani* (snake's head) *jutā*, the toe is turned up, while the back part is folded inwards and trodden under the heel. Ladies usually wear shoes of this fashion, known as *phiri juti*. Women's shoes differ only in size and in being made of finer material, and in being embroidered. Hindu women seldom wear shoes. On the northern frontier the pattern known as the *kafshi* is worn; this is a slipper having neither sides nor back; the sole towards the heel is narrow and raised by a small iron-shod heel. In the hills shoes resembling sandals, called *chaplis*, made of wood, straw or grass are worn. The soles are very thick, and are secured with straps; there is generally a loop for the big toe. They are known as *phulkārru* in Kashmir, and *pula* in Kulu and Chamba.

Shoes are invariably removed on entering mosques or other holy places. It is also customary to remove them when entering a house. Orientals sit on the floor in preference to chairs; hence it is thought very necessary by them that the carpet should be kept clean, which could not be done were persons to keep their shoes on. While it would be considered a breach of good manners to enter a room with the shoes on, an exception has been made in favour of those natives who have adopted European boots or shoes. The babus of Bengal have taken to English-made shoes of patent leather worn over white socks or stockings.

AUTHORITIES.—The Indian section of the Victoria and Albert Museum (London) includes an exhibition of oriental dress; and the library of the India Office many prints and photographs. The following books may be consulted: *Coloured Drawings illustrating the Manners and Customs of Natives of India* (originally prepared by order of the marquess Wellesley, Governor-General; *vide* Council minute dated 16th August, 1866) (1 vol.); J. Forbes Watson and J. W. Kaye, *The People of India*; F. Baltazar Solvyns, *Les Hindous* (4 vols. illustrated, Paris, 1808); India Office Library, 3 small portfolios of pictures of Katch and Bombay men and women; *Costume of Bala Ghat* (Carnatic), S.E. India (large water-colours, India Office Library); Illustrations of various trades in Kashmir, by Indian artists (India Office Library); R. H. Thalbhoy, *Portrait Gallery of Western India* (1886) (chiefly portraits of Parsi notables); Edward Tuite Dalton, C.S.I., *Descriptive Ethnology of Bengal* (1 vol., 1872); Talboys Wheeler, *History of the Imperial Assembly at Delhi, 1st January 1877*; *Queen Victoria's Jubilee, 6th February 1887* (in Urdu, illustrated); T. H. Hendley, C.I.E., V.D., *Rulers of India and Chiefs of Rajputana* (London, 1897)—the last three are useful for the study of ceremonial dress; G. A. Grierson, *Bihar Peasant Life* (Calcutta, 1885; this is a most valuable work of learning and research; in division 2, subdivision 3, chapter 1, on clothes, will be found names and descriptions of every article of clothing used in south, central and eastern India); H. B. Baden-Powell, *Handbook of Manufactures and Arts of the Punjab* (Lahore, 1872); W. W. Hunter, *Statistical Account of Bengal* (1875); Hughes' *Dictionary of Islam* (London, 1895); Sir Denzil Ibbetson, *Outlines of Punjab Ethnography*; E. Thurston, *Castes and Tribes of Southern India*. It is to be hoped that steps will shortly be taken to arrange articles of costume now displayed at the Indian Section, Victoria and Albert Museum, in some systematic order so as to assist students in arriving at a scientific knowledge of the subject.

(C. G.)

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1 The spelling throughout all the articles dealing with India is that adopted by the government of India, modified in special instances with deference to long-established usage.

2 The historicity of this convention, not now usually admitted by scholars, is maintained by Bishop Copleston of Calcutta in his *Buddhism, Primitive and Present* (1908).

3 In 1909 the excavation of a ruined stupa near Peshawar disclosed a casket, with an inscription of Kanishka, and containing fragments of bones believed to be those of Buddha himself.

4 In 1909 an inscription in Brahmi characters was discovered near Bhilsa in Central India recording the name of a Greek, Heliodorus. He describes himself as a worshipper of Bhagavata (= Vishnu), and states that he had come from Taxila in the name of the great king Antialcidas, who is known from his coins to have lived c. 170 B.C.

5 This is the conventional European form of the name. For other forms see YUE-CHI.

6 V. A. Smith, *Early Hist. of India*, p. 238.

7 Smith, *op. cit.* pp. 239, &c., says that he probably succeeded Kadphises II. about A.D. 120. Dr Fleet dates the beginning of Kanishka's reign 58 B.C. (see INSCRIPTIONS: *Indian*). Mr Vincent Smith (*Imp. Gaz. of India, The Indian Empire*, ed. 1908, vol. ii. p. 289, note) dissents from this view, which is also held by Dr Otto Franke of Berlin, stating that Dr Stein's discoveries in Chinese Turkestan "strongly confirm the view" held by himself.

8 See V. A. Smith, *op. cit.* pp. 297, &c.

9 His era, however, is dated from 606.

10 So V. A. Smith, *op. cit.* p. 314, who on this point differs from Sylvain Levi and Ettinghausen.

11 For Harsha's reign see Smith, *op. cit.* xiii. 311-331.

12 This has been Englished by Anglo-Indians into "puggaree" or "pugree" and applied to a scarf of white cotton or silk wound round a hat or helmet as a protection against the sun.

13 Anglicized as "pyjamas" (in America "pajamas"), the term is used of a form of night-wear for men which has now generally superseded the night-shirt. This consists of a loose coat and trousers of silk, wool or other material; the trousers are fastened by a cord round the waist.

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**INDIA, FRENCH,** a general name for the French possessions in India—on the Coromandel coast, Pondicherry, Karikal and Yanaon; on the Malabar coast, Mahé; and in Bengal, Chandernagore. In addition there are a few "lodges" elsewhere, but they are merely nominal remnants of French factories. The total area amounts to 203 sq. m., of which 113 sq. m. belong to the territory of Pondicherry. In 1901 the total population amounted to 273,185. By decree of the 25th of January 1879 French India was provided with an elective general council and elective local councils. The results of this measure have not been very satisfactory, and the qualifications for and the classes of the franchise have been modified. The governor resides at Pondicherry, and is assisted by a council. There are two tribunals of first instance (at Pondicherry and Karikal), one court of appeal (at Pondicherry) and five justices of the peace. The agricultural produce consists of rice, earth-nuts, tobacco, betel nuts and vegetables.

*History.*—The first French expedition to India is believed to have taken place in the reign of Francis I., when two ships were fitted out by some merchants of Rouen to trade in eastern seas; they sailed from

Havre in that year and were never afterwards heard of. In 1604 a company was granted letters patent by Henry IV., but the project failed. Fresh letters patent were issued in 1615, and two ships went to India, only one returning. *La Compagnie des Indes* was formed under the auspices of Richelieu (1642) and reconstructed under Colbert (1664), sending an expedition to Madagascar. In 1667 the French India Company sent out another expedition, which reached Surat in 1668, where the first French factory in India was established. In 1672 Saint Thomé was taken, but the French were driven out by the Dutch and retired to Pondicherry (1674). In 1741 Dupleix became governor of Pondicherry and in 1744 war broke out between France and England; for the remaining history of the French in India see INDIA.

See Haurigot, *French India* (Paris, 1887); Henrique, *Les Colonies françaises* (Paris, 1889); Lee, *French Colonies* (Foreign Office Report, 1900); *L'Année coloniale* (Paris, 1900); and F. C. Danvers, *Records of the India Office* (1887).

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**INDIANA,** a north-central state of the United States of America, the second state to be erected from the old North-West Territory; popularly known as the "Hoosier State." It is located between latitudes 37° 47′ and 41° 50′ N. and longitudes 84° 49′ and 88° 2′ W. It is bounded on the N. by Michigan and Lake Michigan, on the E. by Ohio, on the S. by Kentucky from which it is separated by the Ohio river, and on the W. by Illinois. Its total area is 36,350 sq. m., of which 440 sq. m. are water surface.

*Physiography.*—Topographically, Indiana is similar to Ohio and Illinois, the greater part of its surface being undulating prairie land, with a range of sand-hills in the N. and a chain of picturesque and rocky hills, known as "Knobs," some of which rise to a height of 500 ft., in the southern counties along the Ohio river. This southern border of hills is the edge of the "Cumberland Plateau" physiographic province. In the northern portion of the state there are a number of lakes, of glacial origin, of which the largest are English Lake in Stark county, James Lake and Crooked Lake in Steuben county, Turkey Lake and Tippecanoe Lake in Kosciusko county and Lake Maxinkuckee in Marshall county. In the limestone region of the south there are numerous caves, the most notable being Wyandotte Cave in Crawford county, next to Mammoth Cave the largest in the United States. In the southern and south-central part of the state, particularly in Orange county, there are many mineral springs, of which the best known are those at French Lick and West Baden. The larger streams flow in a general south-westerly direction, and the greater part of the state is drained into the Ohio through the Wabash river and its tributaries. The Wabash, which has a total length of more than 500 m., has its headwaters in the western part of Ohio, and flows in a north-west, south-west, and south direction across the state, emptying into the Ohio river and forming for a considerable distance the boundary between Indiana and Illinois. It is navigable for river steamboats at high water for about 350 m. of its course. Its principal tributaries are the Salamanie, Mississinewa, Wild Cat, Tippecanoe and White rivers. Of these the White river is by far the most important, being second only to the Wabash itself in extent of territory drained. It is formed by the confluence of its East and West Forks, almost 50 m. above its entrance into the Wabash, which it joins about 100 m. above the Ohio. Other portions of the state are drained by the Kankakee, a tributary of the Illinois, the St Joseph and its principal branch, the Elkhart, which flow north through the south-west corner of Michigan and empty into Lake Michigan; the St Mary's and another St Joseph, whose confluence forms the Maumee, which empties into Lake Erie; and the White Water, which drains a considerable portion of the south-west part of the state into the Ohio.

*Flora and Fauna.*—The flora of the state is varied, between 1400 and 1500 species of flowering plants being found. Among its native fruits are the persimmon, the paw-paw, the goose plum and the fox grape. Cultivated fruits, such as apples, pears, peaches, plums, grapes and berries, are raised in large quantities for the market. The economic value of the forests was originally great, but there has been reckless cutting, and the timber-bearing forests are rapidly disappearing. As late as 1880 Indiana was an important timber-producing state, but in 1900 less than 30% of the total acreage of the state—only about 10,800 sq. m.—was woodland, and on very little of this land were there forests of commercial importance. There are about 110 species of trees in the state, the commonest being the oak. The bald cypress, a southern tree, seems to be an anomalous growth. Blue grass is valuable for grazing and hay-making. The principal crops include Indian corn, wheat, oats, potatoes, buckwheat, rye and clover.

The fauna originally included buffalo, elk, deer, wolves, bear, lynx, beaver, otter, porcupine and puma, but civilization has driven them all out entirely. Rattlesnakes and copperheads were formerly common in the south. The game birds include quail (Bob White), ruffed grouse and a few pinnated grouse (once very plentiful, then nearly exterminated, but now apparently reappearing under strict protection), and such water birds as the mallard duck, wood duck, blue- and green-winged teals, Wilson's snipe, and greater and lesser yellow legs (snipe). The song birds and insectivorous birds include the cardinal grosbeak, scarlet and summer tanagers, meadow lark, song sparrow, catbird, brown thrasher, wood thrush, house wren, robin, blue bird, goldfinch, red-headed woodpecker, flicker (golden-winged woodpecker), and several species of warblers. The game fish include the bass (small-mouth and large-mouth), brook trout, pike, pickerel, and muskallonge, and there are many other large and small food fishes.



*Climate.*—The climate of Indiana is unusually equable. The mean annual temperature is about 52° F., ranging from 49° F. in the north to 54° in the south. The mean monthly temperature varies from 25° in the months of December and January to 77°-79° in July and August. Cold winds from the Great Lakes region frequently cause a fall in temperature to an extreme of −25° F. in the north and north central parts of the state. The mean annual rainfall for the entire state is about 43 in., varying from 35 in. in the north to 46 in. in the Ohio Valley.

The soil of the greater part of the state consists of a drift deposit of loose calcareous loam, which extends to a considerable depth, and which is exceedingly fertile. In the Ohio and White Water river

valleys a sandstone and limestone formation predominates. The north and north central portions of the state, formerly rather swampy, have become since the clearing of the forests as productive as the south central. The most fertile part of the state is the Wabash valley; the least fertile the sandy region, of small extent, immediately south of Lake Michigan.

*Industry and Manufactures.*—Agriculture has always been and still is the chief industry of the state of Indiana. According to the census of 1900, 94.1% of the land area was included in farms, and of this 77.2% was improved. The proportion of farms rented comprised 28.6% of the whole number, four-fifths of these being rented on a share basis. The average size of farms, which in 1850 was 136.2 acres, had decreased to 105.3 acres in 1880 and to 97.4 acres in 1900. The value of the farm property increased from $726,781,857 in 1880 to $978,616,471 in 1900. The farms are commonly cultivated on the three-crop rotation system. The proximity of such good markets as Chicago, Cincinnati, St Louis and Louisville, in addition to the local markets, and the unusual opportunities afforded by the railways that traverse every portion of the state, have been important factors in the rapid agricultural advance which has enabled Indiana to keep pace with the newly developed states farther west. Indiana was ninth in the value of its agricultural products in 1889, and retained the same relative rank in 1899, although the value had considerably more than doubled, increasing from $94,759,262 in 1889 to $204,450,196 in 1899. The principal crops in which the state has maintained a high relative rank are Indian corn, wheat and hay; the acreage devoted to each of these increased considerably in the decade 1890-1900. In 1907, according to the Department of Agriculture, the acreage of Indian corn was 4,690,000 acres (7th of the states), and the yield was 168,840,000 bushels (5th of the states); of wheat, 2,362,000 acres (6th of the states) was planted, and the crop was 34,013,000 bushels (7th of the states); and 2,328,000 acres of hay (the 8th largest acreage among the states of the United States) produced 3,143,000 tons (the 8th largest crop). Other important staple crops are oats, rye and potatoes, of which the crops in 1907 were respectively 36,683,000 bushels, 961,000 bushels, and 7,308,000 bushels. There are no well-defined crop belts, the production of the various crops being general throughout the state, except in the case of potatoes, most of which are raised in the sandy regions of the north. The value of the orchard products is large, and is steadily increasing: in the decade 1890-1900 the number of pear trees increased from 204,579 to 868,184, and between 1889 and 1899 the crop increased from 157,707 to 231,713 bushels. Of apple trees, which surpass all other orchard trees in number, there were more than 8,600,000 in 1900. The total value of the state's orchard products in 1899 was $3,166,338, and the value of small fruits was $1,113,527. The canning industry both for fruits and small vegetables has become one of much importance since 1890.

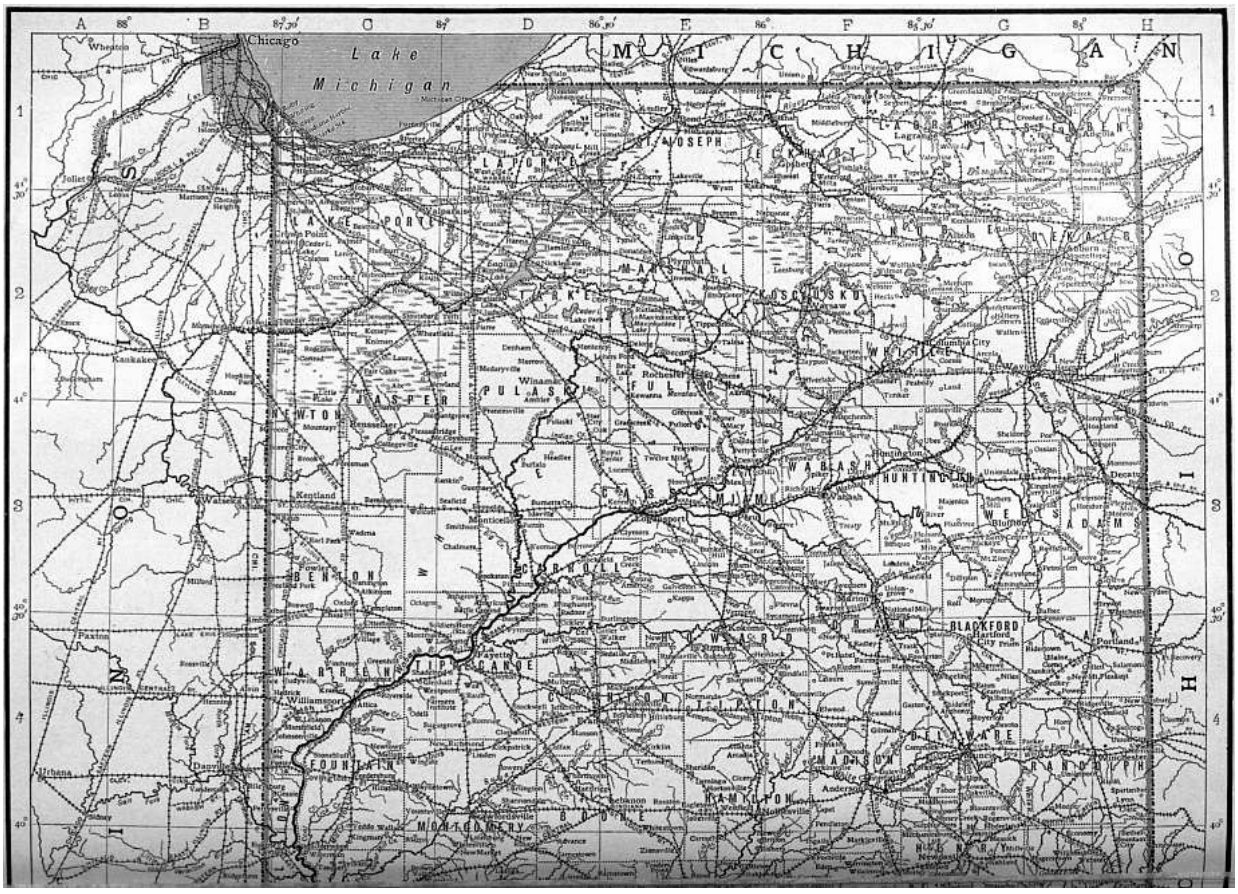
Stock-raising is an industry of growing importance, the value of the live stock in the state increasing from $71,068,758 in 1880 to $93,361,422 in 1890 and $109,550,761 in 1900. Sheep-raising, however, which is confined largely to the north and east portions of the state, decreased slightly in importance between 1890 and 1900. The value of the dairy products sold in 1899 (census of 1900) was $8,027,370, nearly one-half of which was represented by butter; and the total value of dairy products was $15,739,594.

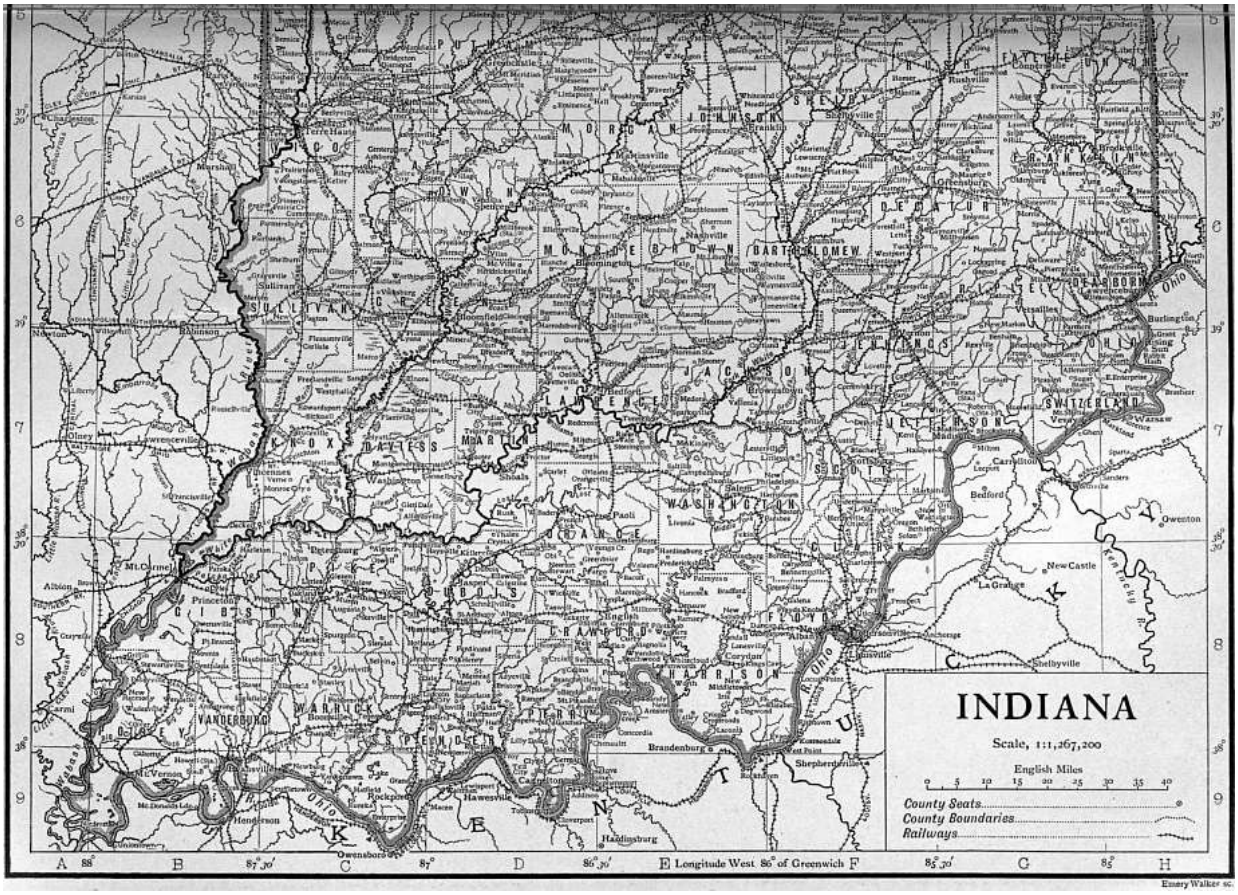
In the value, extent and producing power of her manufacturing industries Indiana has made remarkable advance since 1880. This increase, which more than kept pace with that of the country as a whole, was due largely to local causes, among which may be mentioned the unusual shipping facilities afforded by the network of railways, the discovery and development of natural gas, and the proximity of coal fields, the gas and the coal together furnishing an ample supply of cheap fuel. The number of manufacturing establishments (under the "factory" system) within the state was 7128 in 1900, 7044 in 1905; their invested capital was $219,321,080 in 1900 and $312,071,234 in 1905, an increase of 42.3%; and the value of their total product was $337,071,630 in 1900 and $393,954,405 in 1905, an increase of 16.9%. The most important manufactured products in 1905 were flour and grist mill products, valued at $36,473,543; in 1900, when they were second in importance to slaughter-house products and packed meats, they were valued at $29,037,843. Next in importance in 1905 was the slaughtering and meat-packing industry, of which the total product was valued at $29,352,593; in 1900 it was valued at $43,862,273. Other important manufactured products were: those of machine shops and foundries, the value of which increased from $17,228,096 in 1900 to $23,108,516 in 1905, or 34.1%; distilled liquors, the value of which had increased from $16,961,058 in 1900 to $20,520,261 in 1905, an increase of 21%; iron and steel, valued at $19,338,481 in 1900 and at $16,920,326 in 1905; carriages and wagons, valued at $12,661,217 in 1900 and at $15,228,337 in 1905; lumber and timber products, valued at $19,979,971 in 1900 and at $14,559,662 in 1905; and glass, valued at $14,757,883 in 1900 and at $14,706,929 in 1905—this being 3.7% of the product value of all manufactures in the state in 1905, and 18.5% of the value of glass produced in the United States in that year. The growth in the preceding decade of the iron and steel industry, the products of which increased in value from $4,742,760 in 1890 to $19,338,481 in 1900 (307.7%), and of the manufacture of glass, the value of which increased from $2,995,409 in 1890 to $14,757,883 in 1900 (392.7%), is directly attributable to the development of natural gas as fuel; the decrease in the value of the products of these same industries in 1900-1905 is partly due to the growing scarcity of the natural gas supply. As compared with the other states of the United States in value of manufactured products, Indiana ranked second in 1900 and in 1905 in carriages and wagons, glass and distilled liquors; was seventh in 1900 and fourth in 1905 in furniture; was fourth in 1900 and seventh in 1905 in wholesale slaughtering and meat-packing; was fifth in 1900 and sixth in 1905 in agricultural implements; and in iron and steel and flour and grist mill products was fifth in 1900 and eighth in 1905. The most important manufacturing centres are Indianapolis, Terre Haute, Evansville, South Bend, Fort Wayne, Anderson, Hammond, Richmond, Muncie, Michigan City and Elwood, each having a gross annual product of more than $6,000,000.

According to the annual report on *Mineral Resources of the United States* for 1906, Indiana ranked fifth in the Union in the value of natural gas produced, sixth in petroleum, and sixth in coal. Natural gas was discovered in 1886 in the east-central part of the state, and its general application to manufacturing purposes caused an industrial revolution in the immediate region. Pipe lines carried it to various manufacturing centres within the state and to Chicago, Ill., and Dayton, Ohio. During the early years an enormous amount was wasted; this was soon prohibited by law, and a realization that the supply was not unlimited resulted in a better appreciation of its great value. The gas, which is found in the Trenton

limestone, had an initial pressure at the point of discovery of 325 lb.; this pressure had decreased in the field centre by January 1896 to 230 lb., and by January 1901 to 115 lb., the general average of pressure at the latter date being 80 lb. The gas field extends over Hancock, Henry, Hamilton, Tipton, Madison, Grant and Delaware counties. The value of the output fell from $7,254,539 in 1900 to $1,750,715 in 1906, when the state's product was only 4.2% of that of the entire country. On the 1st of January 1909 there were 3223 wells in operation, some of which were 1200 ft. deep. It has been found that "dead" gas wells, if drilled somewhat deeper, generally become active oil wells. The development of the petroleum field, which extends over Adams, Wells, Jay, Blackford and Grant counties, was rapid up to 1904. The annual output increased from 33,375 barrels in 1889 to 11,339,124 barrels in 1904, the latter amount being valued at $12,235,674 and being 12.09% of the value of the product of the entire country. In 1906 there was an output of only 7,673,477 barrels, valued at $6,770,066, being 7.3% of the product value of the entire country. The Indiana coal fields, which cover an area of between 7000 and 7500 sq. m. in the west and south-west, chiefly in Clay, Vigo, Sullivan, Vermilion and Greene counties, yielded in 1902 9,446,424 tons, valued at $10,399,660; in 1907, 13,985,713 tons, valued at $15,114,300; the production more than trebled since 1896, when it was 3,905,779 tons. The deposits consist of workable veins, 50 to 220 ft. in depth, and averaging 80 ft. below the surface. It is a high grade block, or "splint" coal, remarkably free from sulphur and rich in carbon, peculiarly adapted to blast furnace use. The quarries and clay beds of the state are of great value. The quarries of sandstone and limestone are chiefly in the south and south-central portions of the state. The value of the limestone quarried in 1908 was $3,643,261, as compared with $2,553,502 in 1902. The Bedford oolitic limestone quarries in Owen, Monroe, Lawrence, Washington and Crawford counties furnish one of the most valuable and widely used building stones in the United States, the value of the product in 1905 being $2,492,960, of which $2,393,475 was from Lawrence and Monroe counties and $1,550,076 from Lawrence county alone. Beds of brick-clays and potters' clay are widely distributed throughout the state, the total value of pottery products in 1902 being $5,283,733 and in 1906 $7,158,234. Marls adapted to the manufacture of Portland cement are found along the Ohio river, and in the lake region in the north. In 1905 and 1906 Indiana ranked third among the states in the production of Portland cement, which in 1908 was 6,478,165 barrels, valued at $5,386,563—an enormous advance over 1903, when the product was 1,077,137 barrels, valued at $1,347,797. The production of natural rock cement, chiefly in Clark county, is one of the two oldest industries in the state, but in Indiana as elsewhere it is falling off—from an output in 1903 of about 1,350,000 barrels to 212,901 barrels (valued at $240,000) in 1908. There are many mineral springs in the state, and there are famous resorts at French Lick and West Baden in Orange county. A large part of the water bottled is medicinal: hence the high average price per gallon ($0.99 in 1907 when 514,366 gallons were sold, valued at $507,746, only 2% being table waters). In 1907 19 springs were reported at which mineral waters were bottled and sold; they were in Allen, Hendricks, Pike, Bartholomew, Warren, Clark, Martin, Brown, Gibson, Wayne, Orange, Vigo and Dearborn counties. A law of 1909 prohibited the pumping of certain mineral waters if such pumping diminished the flow or injured the quality of the water of any spring.





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*Communications.*—During the early period, the settlement of the northern and central portions of the state was greatly retarded by the lack of highways or navigable waterways. The Wabash and Erie canal (1843), which connected Lake Erie with the Ohio river, entering the state in Allen county, east of Fort Wayne, and following the Wabash river to Terre Haute and the western fork of the White river from Worthington, Greene county, to Petersburg, Pike county, whence it ran south-south-west to Evansville; and the White Water canal from Hagerstown, Wayne county, mostly along the course of the White Water river, to Lawrenceburg, on the Ohio river, in the south-eastern corner of the state, although now abandoned, served an important purpose in their day. The completion (about 1850) of the National Road, which traversed the state, still further aided the internal development. With the beginning of railway construction (about 1847), however, a new era was opened. Indiana is unusually well served with railways, which form a veritable network of track in every part of the state. It is traversed by nearly all the great transcontinental trunk line systems, and also by important north and south lines. The total railway mileage in January 1909 was 7286.20 m. There has been a great development also in interurban electric lines, which have been adapted both to passenger and to light freight and express traffic; in 1908 there were 31 interurban electric lines within the state with a mileage of 1500 m. Indianapolis is the centre of this interurban network. The first trolley sleeping cars were those used on the Ohio and Indiana interurban railways. The deepening of the channel of the Wabash river was begun in 1872. Below Vincennes before 1885 boats of 3-ft. draft could navigate the river, but after work was concentrated in 1885 on the lock at Grand Rapids, near Mt Carmel, Ill., the channel was soon clogged again, and in 1909 it was impossible for boats with a greater draft than 20 in. to go from Mt Carmel to Vincennes, although up to June 1909 about $810,000 had been spent by the Federal government on improving this river. In 1879 an appropriation was made for the improvement of the channel of the White river, but no work was done here between 1895 and 1909, and although the lower 13 m. of the river was navigable for boats with a draft of 3 ft. or less, there was practically no traffic up to 1909 on the White, because there was no outlet for it by the Wabash river.

*Population.*—The population of Indiana, according to the Federal Census of 1910, was 2,700,876, and the rank of the state in the Union as regards population was ninth. In 1810, the year following the erection of the western part of Indiana into Illinois Territory, the population was 24,520, in 1820 it had increased to 147,178, in 1850 to 988,416, in 1870 to 1,680,637, in 1890 to 2,192,404, and in 1900 to 2,516,462. In 1900 34.3% was urban, *i.e.* lived in places of 2500 inhabitants and over. The foreign-born population in the same year amounted to 142,121, or 5.6% of the whole, and the negro population to 57,505, or 2.3%. There were in 1900 five cities with a population of more than 35,000, viz. Indianapolis (169,164), Evansville (59,007), Fort Wayne (45,115), Terre Haute (36,673), and South Bend (35,999). In the same year there were 14 cities with a population of less than 35,000 (all less than 21,000) and more than 10,000; and there were 21 places with a population of less than 10,000 and more than 5000. In 1906 it was estimated that there were 938,405 members of different religious denominations; of this total 233,443 were Methodists (210,593 of the Northern Church), 174,849 were Roman Catholics, 108,188 were Disciples of Christ (and 10,259 members of the Churches of Christ), 92,705 were Baptists (60,203 of the Northern Convention, 13,526 of the National (Colored) Convention, 8132 Primitive Baptists, and 6671 General Baptists), 58,633 were Presbyterians (49,041 of the Northern Church, and 6376 of the

Cumberland Church—since united with the Northern), 55,768 were Lutherans (34,028 of the Evangelical Lutheran Synodical Conference, 8310 of the Evangelical Lutheran Joint Synod of Ohio and other states), 52,700 were United Brethren (48,059 of the Church of the United Brethren in Christ; the others of the "Old Constitution") and 21,624 of the German Evangelical Synod.

*Constitution.*—Indiana is governed under a constitution adopted in 1851, which superseded the original state constitution of 1816. An amendment to the constitution may be proposed by either branch of the General Assembly; if a majority of both houses votes in favour of an amendment and it is favourably voted upon by the General Assembly chosen by the next general election, the amendment is submitted to popular vote and a majority vote is necessary for its ratification. The constitution of 1816 had conferred the suffrage upon all "white male citizens of the United States of the age of twenty-one and upward," had prohibited slavery, and had provided that no alteration of the constitution should ever introduce it. The new constitution contained similar suffrage restrictions, and further by Article XIII., which was voted upon separately, prohibited the entrance of negroes or mulattoes into the state and made the encouragement of their immigration or employment an indictable offence. This prohibition was held by the United States Supreme Court in 1866 to be in conflict with the Federal Constitution and therefore null and void. It was not until 1881 that the restriction of the suffrage to "white" males, which was in conflict with the Fifteenth Amendment (1870) to the Federal Constitution, was removed by constitutional amendment. Since that date those who may vote have been all male citizens twenty-one years old and upward who have lived in Indiana six months immediately preceding the election, and every foreign-born male of the requisite age who has lived in the United States one year and in Indiana six months immediately preceding the election, and who has declared his intention of becoming a citizen of the United States; but the General Assembly has the power to deprive of the suffrage any person convicted of an infamous crime. The Australian ballot was adopted in 1889. The general state election (up to 1881, held in October) takes place on the first Tuesday after the first Monday in November of even-numbered years. The governor and lieutenant-governor (minimum age, 30 years) and the clerk of the Supreme Court are chosen in presidential years for a term of four years,[1] the other state officers—secretary of state, attorney-general, auditor, treasurer and superintendent of public instruction—every two years. The state legislature, known as the General Assembly, which meets biennially in odd-numbered years and in special session summoned by the governor, consists of a Senate of fifty members (minimum age, 25 years) elected for four years, and a House of Representatives of one hundred members (minimum age, 21 years) elected for two years. Two-thirds of each house constitute a quorum to do business. The governor has the veto power, but the provision that a bill may be passed over his veto by a majority of all elected members renders it little more than an expression of opinion.

*Law.*—The judiciary consists of a Supreme Court of five members elected for districts by the state at large for a term of six years, an appellate court (first constituted in 1891), and a system of circuit and minor criminal and county courts. The system of local government has undergone radical changes in recent years. A law of 1899, aimed to separate the legislative and executive functions, provided for the election of legislative bodies in every township and county. These bodies have control of the local expenditures and tax levies, and without their consent the local administrative officers cannot contract debts. In 1905 a new municipal code, probably the most elaborate and complete local government act in the United States, providing for a uniform system of government in all cities and towns, went into effect. It was constructed on the lines of the Indianapolis city charter, adopted in 1891, and repealed all individual charters and special corporation acts. Its controlling principle is the more complete separation of the executive, legislative and judicial powers. For this purpose all cities are divided into five classes according to population, the powers being concentrated and simplified by degrees in the case of the smaller cities, and reaching a maximum of separation and completeness in class 1, *i.e.* cities of 100,000 and over, which includes only Indianapolis. In all classes the executive officer is a mayor elected for four years and ineligible to succeed himself. There are six administrative departments (the number is often less in cities of the lower classes, where several departments may be combined under one head)—departments of public works, public safety, public health and charities, law, finance, and collection and assessment. There is a city court with elected judge or judges, and an elected common council, which may authorize the municipal ownership of public utilities by ordinance, and can pass legislation over the mayor's veto by a two-thirds vote. Communities under 2500 in population are regarded as towns, and have a separate form of government by a board of trustees.



Until 1908 the state had a prohibition law "by remonstrance," under which if a majority of the legal voters of a township or city ward remonstrated against the granting of licences for the sale of liquor, no licence could be granted by the county commissioners in that township or ward. Under this system 800 out of 1016 townships and more than 30 entire counties were in 1908 without saloons. In 1908, when the Republican party had declared in favour of county option and the Democratic party favoured township and ward option, a special session of the legislature, called by the Republican governor, passed the Cox Bill for county options.

*Education.*—Indiana has a well-organized free public school system. Provision was made for such a system in the first state constitution, to utilize the school lands set aside in all the North-West Territory by the Ordinance of 1787, but the existing system is of late growth. The first step toward such a system was a law of 1824 which provided for the election of school trustees in every township and for the erection of school buildings, but made no provision for support. Therefore, before 1850 what schools there were were not free. The constitution of 1851 made further and more complete provisions for a uniform system, and on that basis the general school law of 1852 erected the framework of the existing system. It provided, for the organization of free schools, supported by a property tax, and for county and township control. The movement, however, was retarded in 1858 by a decision of the supreme court holding that under the law of 1852 the system was not "uniform" as provided for by the constitution. In 1865 a new and more satisfactory law was passed, which with supplemental legislation is still in force. Under the existing

system supreme administrative control is vested in a state superintendent elected biennially. County superintendents, county boards, and township trustees are also chosen, the latter possessing the important power of issuing school bonds. Teachers' institutes are regularly held, and a state normal school, established in 1870, is maintained at Terre Haute. There are normal schools at Valparaiso, Angola, Marion and Danville, and a Teachers' College at Indianapolis, which are on the state's "accredited" list and belong to the normal school system. In 1897 a compulsory education law was enacted. In 1906-1907 the state school tax was increased from 11.6 cents per $100 to 13.6 cents per $100; an educational standard was provided, coming into effect in August 1908, for public school teachers, in addition to the previous requirement of a written test; a regular system of normal training was authorized; uniform courses were provided for the public high schools; and small township schools with twelve pupils or less were discontinued, and transportation supplied for pupils in such abandoned schools to central school houses. The proportion of illiterates is very small, in 1900, 95.4% of the population (of 10 years old or over) being able to read and write. The total school revenue from state and local sources in 1905 amounted to $10,642,638, or $13.85 per capita of enumeration ($19.34 per capita of enrolment). In 1824 a state college was opened at Bloomington; it was re-chartered in 1838 as the State University. Purdue University (1874) at Lafayette, maintained under state control, received the benefit of the Federal grant under the Morrill Act. Other educational institutions of college rank include Vincennes University (non-sectarian), at Vincennes; Hanover College (1833, Presbyterian), at Hanover; Wabash College (1832, non-sectarian), at Crawfordsville; Franklin College (1837, Baptist), at Franklin; De Pauw University (1837, Methodist Episcopal), at Greencastle; Butler University (1855, Christian), at Indianapolis; Earlham College (1847, Friends), at Richmond; Notre Dame University (1842, Roman Catholic), at Notre Dame; Moore's Hill College (1856, Methodist Episcopal), at Moore's Hill; the University of Indianapolis (non-sectarian), a loosely affiliated series of schools at Indianapolis, centring around Butler University; and Rose Polytechnic Institute (1883, non-sectarian), at Terre Haute.

The charitable and correctional institutions of Indiana are well administered in accordance with the most improved modern methods, and form one of the most complete and adequate systems possessed by any state in the Union. The state was one of the first to establish schools for the deaf and the blind. Its Institution for the Education of the Deaf was established in 1844, and its Institution for the Education of the Blind in 1847, both being in Indianapolis. The first State Hospital for the Insane was opened in Indianapolis in 1848 and became the Central Indiana Hospital for the Insane in 1883; other similar institutions are the Northern Indiana Hospital at Logansport (1888), the Eastern at Richmond (1890), the Southern at Evansville (1890), and the South-eastern at North Madison (1905). There are a Soldiers' and Sailors' Orphans' Home at Knightstown (1868), and a State Soldiers' Home at Lafayette (1896); a School for Feeble-Minded Youth (1879), removed from Knightstown to Fort Wayne in 1890; a village for epileptics at New Castle (1907); and a hospital for the treatment of tuberculosis, authorized in 1907, for which a site at Rockville was purchased in 1908. There are five state penal and correctional institutions: the Indiana Boys' School (1868-1883, the House of Refuge; 1883-1903, the Reform School for Boys), at Plainfield; the Indiana Girls' School, established at Indianapolis (1873), and removed to Clermont in 1907; a woman's prison (the first in the United States, authorized in 1869 and opened in 1873 at Indianapolis), which is entirely under the control of women (as is also the Indiana Girls' School) and has a correctional department (1908), in reality a state workhouse for women, formed with a view to removing as far as possible sentenced women from the county jails; a reformatory (1897), at Jeffersonville, conducted upon a modification of the "Elmira plan," formerly the State Prison (1822), later (1860) the State Prison South, so called to distinguish it from the State Prison North (1860) at Michigan City; and the prison at Michigan City, which became the Indiana State Prison in 1897. The old State Prison at Jeffersonville was at first conducted on the lease system, but public opinion compelled the abandonment of that system some years before the Civil War. The prisoners of the reformatory work under a law providing for trade schools; the product of the work is sold to the state institutions and to the civil and political divisions of the state, the surplus being disposed of on the market. At the State Prison practically one half the prisoners are employed on contracts. Not more than 100 may be employed on any one contract, and the day's work is limited to eight hours. The remainder of the population of the prison is employed on state account. The policy of indeterminate sentence and paroles was adopted in 1897 in the two prisons and the reformatory. Prisoners released upon parole are carefully supervised by state agents. Indiana has an habitual-criminal law, and a law providing for the sterilization of mental degenerates, confirmed criminals, and rapists. There are also an adult probation law and a juvenile court law, the latter applying to every county in the state. Each of the state institutions mentioned above is under the control of a separate bi-partisan board of four members. The whole system of public charities is under the supervision of a bi-partisan Board of State Charities (1889), which is appointed by the governor, and to which the excellent condition of state institutions is largely due. In the counties there are unsalaried boards of county charities and correction and county boards of children's guardians, appointed by the circuit judges. The township trustees, 1016 in number, are ex-officio overseers of the poor. They dispense official outdoor relief. Nowhere else have the principles of organized charities in the administration of public outdoor relief been applied to an entire state. Each county provides for the indoor care of the poor in poor asylums and children's homes, and for local prisoners in county jails. Provision is made for truant, dependent, neglected and delinquent children. No child can be made a public ward except upon order of the juvenile court, and all such children may be placed in family homes by agents of the Board of State Charities.

*Finance.*—The total true value of taxable property in the state was, according to the tax levy of 1907, $1,767,815,487, and the total taxes, including delinquencies, in the same year amounted to $38,880,257. The total net receipts for the fiscal year ending September 30, 1908, were $4,771,628, and the total net expenditure $5,259,002, the cash balance in the treasury for the year ending September 30, 1907, amounted to $1,096,459, leaving a cash balance on September 30, 1908, of $609,085. The total state debt on September 30, 1908, was $1,389,615.



*History.*—Of the prehistoric inhabitants of Indiana little is known, but extensive remains in the form of mounds and fortifications abound in every part of the state, being particularly numerous in Knox and Sullivan counties. Along the Ohio river are remnants of several interesting stone forts. Upon the earliest

arrival of Europeans the state was inhabited chiefly by the various tribes of the Miami Confederacy, a league of Algonquian Indians formed to oppose the advance of the Iroquois. The first Europeans to visit the state were probably French *coureurs des bois* or Jesuit missionaries. La Salle, the explorer, it is contended, must have passed through parts of Indiana during his journeys of 1669 and the succeeding years. Apparently a French trading post was in existence on the St Joseph river of Michigan about 1672, but it was in no sense a permanent settlement and seems soon to have been abandoned. It seems probable that the Wabash-Maumee portage was known to Father Claude Jean Allouez as early as 1680. When, a few years later, this portage came to be generally used by traders, the necessity of establishing a base on the upper Wabash as a defence against the Carolina and Pennsylvania traders, who had already reached the lower Wabash and incited the Indians to hostility against the French, became evident; but it was not, apparently, until the second decade of the 18th century that any permanent settlement was made. About 1720 a French post was probably established at Ouiatenon (about 5 m. S.W. of the present city of Lafayette), the headquarters of the Wea branch of the Miami, on the upper Wabash. The military post at Vincennes was founded about 1731 by François Margane, Sieur de Vincennes (or Vincent), but it was not until about 1735 that eight French families were settled there. Vincennes, which thus became the first actual white settlement in Indiana, remained the only one until after the War of Independence, although military posts were maintained at Ouiatenon and at the head of the Maumee, the site of the present Fort Wayne, where there was a French trading post (1680) and later Fort Miami. After the fall of Quebec the British took possession of the other forts, but not at once of Vincennes, which remained for several years under the jurisdiction of New Orleans, both under French and Spanish rule. The British garrisons at Ouiatenon and Fort Miami (near the site of the later Fort Wayne) on the Maumee were captured by the Indians as a result of the Pontiac conspiracy. All Indiana was united with Canada by the Quebec Act (1774), but it was not until three years later that the forts and Vincennes were occupied by the British, who then realized the necessity of ensuring possession of the Mississippi Valley to prevent its falling into the hands of the rebellious colonies. Nevertheless, in 1778 Vincennes fell an easy prey to agents sent to occupy it by George Rogers Clark, and although again occupied a few months later by General Henry Hamilton, the lieutenant-governor at Detroit, it passed finally into American control in February 1779 as a result of Clark’s remarkable march from Kaskaskia. Fort Miami remained in British hands until the close of the war.

The first American settlement was made at Clarksville, between the present cities of Jeffersonville and New Albany, at the Falls of the Ohio (opposite Louisville), in 1784. The decade following the close of the war was one of ceaseless Indian warfare. The disastrous defeats of General Josiah Harmar (1753-1813) in October 1790 on the Miami river in Ohio, and of Governor Arthur St Clair on the 4th of November 1791 near Fort Recovery, Ohio, were followed in 1792 by the appointment of General Anthony Wayne to the command of the frontier. By him the Indians were signally defeated in the Battle of Fallen Timbers (or Maumee Rapids) on the 20th of August 1794, and Fort Wayne, Indiana, was erected on the Maumee river. On the 3rd of August 1795, at Greenville, Ohio, a treaty was concluded between Wayne and twelve Indian tribes, and a narrow slice of the east-south-eastern part of the present state (the disputed lands in the valley of the Maumee) and various other small but not unimportant tracts were ceded to the United States. Then came several years’ respite from Indian war, and settlers began at once to pour into the region. The claims of Virginia (1784) and the other eastern states having been extinguished, a clear field existed for the establishment of Federal jurisdiction in the “Territory North-West of the Ohio,” but it was not until 1787 that by the celebrated Ordinance of that year such jurisdiction became an actuality. The North-West Territory was governed by its first governor, Arthur St Clair, until 1799, when it was accorded a representative government. In 1800 it was divided, and from its western part (including the present states of Indiana, Illinois and Wisconsin, the north-east part of Minnesota, and a large part—from 1803 to 1805 all—of the present state of Michigan) Indiana Territory was erected, with General William Henry Harrison—who had been secretary of the North-West Territory since 1798—as its first governor, and with Vincennes as the seat of government. Harrison made many treaties with the Indians, the most important being that signed at Fort Wayne on the 7th of June 1803, defining the Vincennes tract transferred to the United States by the Treaty of Greenville; those signed at Vincennes on the 18th and the 27th of August 1804, transferring to the United States a strip north of the Ohio river and south of the Vincennes tract; that concluded at Grouseland on the 21st of August 1805, procuring from the Delawares and others a tract along the Ohio river between the parcels of 1795 and 1804; and the treaties of Fort Wayne, signed on the 30th of September 1809, and securing one tract immediately west of that of 1795 and another north of the Vincennes tract defined in 1803. In January 1805 Michigan Territory was erected from the northern part of Indiana Territory, and in July following the first General Assembly of Indiana Territory met at Vincennes. In March 1809 the Territory was again divided, Illinois Territory being established from its western portion; Indiana was then reduced to its present limits. In 1810 began the last great Indian war in Indiana, in which the confederated Indians were led by Tecumseh, the celebrated Shawnee chief; it terminated with their defeat at Tippecanoe (the present Battle Ground) by Governor Harrison on the 7th of November 1811. After the close of the second war with Great Britain, immigration began again to flow rapidly into the Territory, and, having attained a sufficient population, Indiana was admitted to the Union as a state by joint resolution of Congress on the 11th of December 1816. The seat of government was established at Corydon, whither it had been removed from Vincennes in 1813. In 1820 the site of the present Indianapolis was selected for a new capital, but the seat of government was not removed thither until 1825.

The first great political problem presenting itself was that of slavery, and for a decade or more the only party divisions were on pro-slavery and anti-slavery lines. Although the Ordinance of 1787 actually prohibited slavery, it did not abolish that already in existence. Slavery had been introduced by the French, and was readily accepted and perpetuated by the early American settlers, almost all of whom were natives of Virginia, Kentucky, Georgia or the Carolinas. According to the census of 1800 there were 175 slaves in the Territory. The population of settlers from slave states was considerably larger than in Illinois, the

proportion being 20% as late as 1850. It was but natural, therefore, that efforts should at once have been made to establish the institution of slavery on Indiana soil, and as early as 1802 a convention called to consider the expediency of slavery asked Congress to suspend the prohibitory clause of the Ordinance for ten years, but a committee of which John Randolph of Virginia was chairman reported against such action. Within the Territory there were several attempts to escape, by means of legislation, the effects of the Ordinance. These efforts consisted in (1) a law regulating the status of “servants,” by which it was sought to establish a legal relation between master and slave; (2) a law by which it was sought to establish practical slavery by a system of indenture. By 1808 the opponents of slavery, found chiefly among the Quaker settlers in the south-eastern counties, began to awake to the danger that confronted them, and in 1809 elected their candidate, Jonathan Jennings (1776-1834) to Congress on an anti-slavery platform. In 1810, by which year the number of slaves had increased to 237, the anti-slavery party was strong enough to secure the repeal of the indenture law, which had received the unwilling acquiescence of Governor Harrison. Jennings was re-elected in 1811, and subsequently was chosen first governor of the state on the same issue, and the state constitution of 1816 pronounced strongly against slavery. The liberation of most of the slaves in the eastern counties followed; and some slave-holders removed to Kentucky. In 1830 there were only three slaves in the state, and the danger of the establishment of slavery as an institution on a large scale was long past.



The problem of “internal improvements” came to be of paramount importance in the decade 1820-1830. In 1827 Congress granted land to aid in the construction of a canal to connect Lake Erie and the Ohio river. This canal was completed from the St Joseph river to the Wabash in 1835, opened in 1843, and later abandoned. In 1836 the state legislature passed a law providing for an elaborate system of public improvements, consisting largely of canals and railways. The state issued bonds to the value of $10,000,000, a period of wild speculation followed, and the financial panic of 1837 forced the abandonment of the proposed plan and the sale to private persons of that part already completed. The legislature authorized the issue of $1,500,000 in treasury bonds, which by 1842 had fallen in value to 40 or 50% of their face value. A new constitution was adopted in February 1851 by a vote of 109,319 against 26,755.

Despite its large Southern population, Indiana’s answer to President Lincoln’s first call for volunteers at the outbreak of the Civil War was prompt and spirited. From first to last the state furnished 208,000 officers and men for the Union armies, besides a home legion of some 50,000, organized to protect the state against possible invasion. The efficiency of the state military organization, as well as that of the civil administration during the trying years of the war, was largely due to the extraordinary ability and energy of Governor Oliver P. Morton, one of the greatest of the “war governors” of the North. The problems met and solved by Governor Morton, however, were not only the comparatively simple ones of furnishing troops as required. The legislature of 1863 and the state officers were opposed to him politically, and did everything in their power to thwart him and deprive him of his control of the militia. The Republican members seceded, legislative appropriations were blocked, and Governor Morton was compelled to take the extraconstitutional step of arranging with a New York banking house for the payment of the interest on the state debt, of borrowing money for state expenditure on his own responsibility, and of constituting an unofficial financial bureau, which disbursed money in disregard of the state officers. Furthermore Indiana was the principal centre of activity of the disloyal association known as the Knights of the Golden Circle, or Sons of Liberty, which found a ready growth among the large Southern population. Prominent among Southern sympathisers was Senator Jesse D. Bright (1812-1875), who on the 5th of February 1862 was expelled from the United States Senate for writing a letter addressed to Jefferson Davis, as President of the Confederacy, in which he recommended a friend who had an improvement in fire-arms to dispose of. The Knights of the Golden Circle at first confined their activities to the encouragement of desertion, and resistance to the draft, but in 1864 a plot to overthrow the state government was discovered, and Governor Morton’s prompt action resulted in the seizure of a large quantity of arms and ammunition, and the arrest, trial and conviction of several of the leaders. In June 1863 the state was invaded by Confederate cavalry under General John H. Morgan, but most of his men were captured in Indiana and he was taken in Ohio. There were other attempts at invasion, but the expected rising, on which the invaders had counted, did not take place, and in every case the home legion was able to capture or drive out the hostile bands.

Politically Indiana has been rather evenly divided between the great political parties. Before the Civil War, except when William Henry Harrison was a candidate for the presidency, its electoral vote was generally given to the Democratic party, to which also most of its governors belonged. After the war the control of the state alternated with considerable regularity between the Republican and Democratic parties, until 1896, between which time and 1904 the former were continuously successful. In 1908 a Democratic governor was elected, but Republican presidential electors were chosen.

Governors of Indiana

*Territorial.*

| | |
|---|---|
| Arthur St Clair (North-West Territory) | 1787-1800 |
| John Gibson, Territorial Secretary (acting) | 1800-1801 |
| William Henry Harrison | 1801-1812 |
| John Gibson, Territorial Secretary (acting) | 1812-1813 |
| Thomas Posey | 1813-1816 |

*State.*

| | | |
|---|---|---|
| Jonathan Jennings | 1816-1822 | Democratic-Republican |
| Ratliff Boone (acting) | 1822 | ” |
| William Hendricks | 1822-1825 | ” |

| | | |
|---|---|---|
| James B. Ray, President of Senate (acting) | 1825 | ” |
| James B. Ray | 1825-1831 | ” |
| Noah Noble | 1831-1837 | ” |
| David Wallace | 1837-1840 | Whig |
| Samuel Bigger | 1840-1843 | ” |
| James Whitcomb | 1843-1848 | Democrat |
| Paris C. Dunning, Lt.-Gov. (acting) | 1848-1849 | ” |
| Joseph A. Wright | 1849-1857 | ” |
| Ashbel P. Willard | 1857-1860 | ” |
| Abram A. Hammond, Lt.-Gov. (acting) | 1860-1861 | ” |
| Henry S. Lane | 1861 | Republican |
| Oliver P. Morton, Lt.-Gov. (acting) | 1861-1865 | ” |
| Oliver P. Morton | 1865-1867 | ” |
| Conrad Baker, Lt-Gov. (acting) | 1867-1869 | ” |
| Conrad Baker | 1869-1873 | ” |
| Thomas A. Hendricks | 1873-1877 | Democrat |
| James D. Williams | 1877-1880 | ” |
| Isaac P. Gray, Lt.-Gov. (acting) | 1880-1881 | ” |
| Albert G. Porter | 1881-1885 | Republican |
| Isaac P. Gray | 1885-1889 | Democrat |
| Alvin P. Hovey | 1889-1891 | Republican |
| Ira J. Chase, Lt.-Gov. (acting) | 1891-1893 | ” |
| Claude Matthews | 1893-1897 | Democrat |
| James A. Mount | 1897-1901 | Republican |
| Winfield T. Durbin | 1901-1905 | ” |
| J. Frank Hanly | 1905-1909 | ” |
| Thomas R. Marshall | 1909- | Democrat |

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1 No man can serve as governor for more than four years in any period of eight years.

**INDIANAPOLIS,** the capital and largest city of Indiana, U.S.A., situated on the W. fork of the White river, in Marion county, of which it is the county-seat, and at almost the exact geographical centre of the state. It is 824 m. W. of New York by rail, and 183 m. S.E. of Chicago, and is about 710 ft. above sea-level, and about 138 ft. above Lake Erie. Its area is 30.77 sq. m., of which 29.95 sq. m. is land. Pop. (1880) 75,074; (1890) 105,436; (1900) 169,164, of whom 17,122 were foreign-born (8362 being by birth German, 3765 Irish, and 1154 English) and 15,931 were negroes; (1910 census) 233,650. Indianapolis is near the centre of population of the United States. From 1847, when the first railway entered the city, Indianapolis has steadily grown in importance as a railway centre. It is served by the Chicago, Indianapolis & Louisville, the Cincinnati, Hamilton & Dayton, the Cleveland, Cincinnati, Chicago & St Louis (New York Central System), the Lake Erie & Western (New York Central System), the Pittsburg, Cincinnati, Chicago & St Louis (Pennsylvania System) and the Vandalia (Pennsylvania System) railways. At the Union Station more than 150 trains enter and depart daily, carrying more than 30,000 passengers. Outside the city there is a “belt line,” 15½ m. long, connecting the several railways and carrying more than 1,000,000 freight cars annually; and an extensive electric street railway system, with more than 150 m. of track and with interurban connexions, serves every part of the city and its suburbs. The city has a large traction terminal

station, and is the principal centre for the interurban electric lines of Indiana, which handle freight as well as passengers; in 1908 twenty-five interurban electric lines entered the city and operated about 400 cars every 24 hours.

Physically Indianapolis is one of the most attractive inland cities in America. It is built on a level plain surrounded by low, gently sloping and beautifully wooded hills. Four principal avenues radiate from points near a central circle to the four corners of the city. The other streets run at right angles to one another. Streets and avenues are 90 ft. wide, except Washington Street, which has a width of 120 ft. An excellent system of parks—8 within the city with an aggregate area of 1311 acres, and 3 with an aggregate area of 310 acres just outside the city limits—adds to the beauty of the city, among the most attractive being the Riverside, the St Clair, the University, the Military, the Fair View, the Garfield and the Brookside. The city is lighted by gas and electricity,—it was one of the first cities in the United States to adopt electric lighting,—and has a good water-supply system, owned by a private corporation, with a 4½ acre filter plant of 18,000,000 gallons *per diem* capacity and an additional supply of water pumped from deep wells outside the city. The public buildings and business blocks are built mostly of Indiana building stone. The state capitol stands in a square 8 acres in extent, and has a central tower and dome 240 ft. high. It covers 2 acres of ground and cost $2,000,000. The Marion county court-house cost $1,750,000. Other noteworthy buildings are the Federal building (containing post-office, custom-house and Federal court-rooms; erected at a cost of $3,000,000); Tomlinson Hall, capable of seating 3000 persons, given to the city by Daniel Tomlinson; the Propylaeum, a club-house for women; the Commercial club; Das Deutsche Haus, belonging to a German social club; the Maennerchor club-house; the Union railway station; the traction terminal building; the city hall, and the public library. Near the city is the important United States army post, Fort Benjamin Harrison, named in honour of President Benjamin Harrison, whose home was in Indianapolis. In or near the city are the Central Indiana Hospital for the Insane, the Indiana Institution for the Education of the Blind, the Indiana Institution for the Education of the Deaf, the Indiana Girls’ School (included with the Women’s prison until 1899, and under the same management as the prison from 1899 to 1903, when it became a separate institution,—it was removed to Clermont, 10 m. from Indianapolis, in 1907), and a Women’s prison (opened in 1873, the first in the United States), which is under female management. The public library, founded in 1871, contains more than 100,000 volumes. There are ten other libraries, the most important of which are the state law library (about 40,000 volumes) and the state library (about 46,000 volumes).

The city is an educational centre of considerable importance. The university of Indianapolis (1896) is a loose association of three really independent institutions—the Indiana Law School (1894), the Indiana Dental College (1879), and Butler University (chartered in 1849 and opened in 1855 as the North-western Christian University, and named Butler University in 1877 in honour of Ovid Butler, a benefactor). Other educational institutions are the Indianapolis College of Law (1897), the Indiana Medical College (the School of Medicine of Purdue University, formed in 1905 by the consolidation of the Medical College of Indiana, the Central College of Physicians and Surgeons and the Fort Wayne College of Medicine), the State College of Physicians and Surgeons (the medical school of Indiana University), the Indiana Veterinary College (1892), the Indianapolis Normal School, the Indiana Kindergarten and Primary Normal Training School (private), and the Winona Technical Institute. The last named was opened in 1904, and is controlled by the Winona Lake corporation, having official connexion with several national trade unions. It has departments of pharmacy, chemistry, electrical wiring, lithography, house-painting, printing, carpentry, moulding, tile-setting, bricklaying, machinery and applied science. The art association of Indianapolis was founded in 1883; and under its auspices is conducted an art school (1902) in accordance with the bequest of John Herron (1817-1895), the school and museum of the association being housed in the John Herron Art Institute, dedicated in 1906.

The city has several fine monuments, among which are statues of Oliver P. Morton, George Rogers Clark, William Henry Harrison, Benjamin Harrison, Thomas A. Hendricks and Major-General Henry W. Lawton. The Soldiers’ and Sailors’ Monument, erected by the state, stands in the circle in the centre of the city, rises to a height of 284.5 ft. above the street level, and is surmounted by a statue of Victory 38 ft. high. On the east and west faces of the base are two great stone groups of Peace and War respectively. The monument was erected after designs by Bruno Schmidt of Berlin, with fountains at the base said to be among the largest in the world, their capacity being 20,000 gallons per minute.

The city’s central geographical position, its extensive railway connexions, and its proximity to important coal-fields have combined to make it one of the principal industrial centres of the Middle West. The value of its “factory” products was 17.6% of the state’s total in 1900 and 20.9% of the total in 1905. The increase in the value of the “factory” product between 1900 and 1905 was from $59,322,234 to $82,227,950, or 38.6%. Indianapolis is the principal live stock centre of the Ohio Valley, and has extensive stock-yards covering more than 100 acres. Slaughtering and meat-packing is the most important industry, the value of the product amounting to $24,458,810 in 1905; this industry dates from about 1835. Among other important manufactures are foundry and machine shop products ($6,944,392 in 1905); flour and grist-mill products ($4,428,664); cars and shop construction and repairs by steam railways ($2,502,789); saws; waggons and carriages ($2,049,207); printing and publishing (book and job, $1,572,688; and newspapers and periodicals, $2,715,666); starch; cotton and woollen goods; furniture ($2,528,238); canned goods ($1,693,818); lumber and timber ($1,556,466); structural iron work ($1,541,732); beer ($1,300,764); and planing-mill products, sash, doors and blinds ($1,111,264).

Indianapolis is governed under a form of government adopted originally in a special charter of 1891 and in 1905 incorporated in the new state municipal code, which was based upon it, It provides for a mayor elected every four years, a single legislative chamber, a common council, and various administrative departments—of public safety, public health, &c. The guiding principle of the charter, which is generally accepted as a model of its kind, is that of the complete separation of powers and the absolute placing of

responsibility.

On the admission of Indiana as a state, Congress gave to it four sections of public land as a site on which to establish a state capital. This was located in 1820 in almost the exact geographical centre of the state, where a small settlement had recently been made, and the town of Indianapolis was laid out in the following year. It was then in the midst of dense forests and was wholly unconnected by roads with other parts of the state. Upon its final acceptance as the capital, there was some activity in land speculation, but Indianapolis had only 600 inhabitants and a single street when the seat of government was removed thither in 1824. The legislature met here for the first time in 1825. Some impetus was given to the city's growth by the completion of the National Road, and later by the opening of railways, but until after the Civil War its advancement was slow. It was incorporated as a town in 1832, its population then being 1000. The first state capitol was completed in 1836. Indianapolis suffered severely from the business panic of 1837, and ten years later, when it received its first city charter, it had only about 6000 inhabitants; in the same year a free public school system was inaugurated.

AUTHORITIES.—B. R. Sulgrove, *History of Indianapolis and Marion County* (Philadelphia, 1884); M. R. Hyman, *Handbook of Indianapolis* (Indianapolis, 1907); Nathaniel Bolton, "Early History of Indianapolis and Central Indiana" (Indiana Historical Society's *Publications*, No. 5, 1897); W. R. Holloway, *Indianapolis, a Historical and Statistical Sketch* (Indianapolis, 1870); the Indianapolis Board of Trade's *Report on the Industries of Indianapolis* (1889); *Civic Studies of Indianapolis* (Indianapolis, 1907 seq.), edited by Arthur W. Dunne; and P. S. Heath's sketch of Indianapolis in L. P. Powell's *Historic Towns of the Western States* (New York, 1901).

**INDIAN ARCHITECTURE.** The development of architectural art in India is of the highest interest for the history of the subject; and whatever may be our estimate of its aesthetic qualities, we can hardly fail to realize that Indian builders attained with marked success the aims they had before them, though they employed arrangements and adopted forms and details very different from those of western builders in ancient and medieval times. These forms and adaptations, of course, require study properly to understand them, and to recognize the adjustment of the designs to their purposes. But besides the scientific advantages of such a study, it has been well remarked by Fergusson, to whose genius the history of Indian architecture is so specially due as its creator, that "it will undoubtedly be conceded by those who are familiar with the subject that, for certain qualities, the Indian buildings are unrivalled. They display an exuberance of fancy, a lavishness of labour, and an elaboration of detail to be found nowhere else." Besides, if anywhere the history of a country is imprinted in its architecture, it is in India that it throws the most continuous, distinct and varied light on that history.

In the early architecture of India, as in that of Burma, China and Japan till the present day, wood was solely or almost solely employed; and it was only about the 3rd century B.C. that stone became largely used as the material for important structures; if brick or stone were in use previously, it was only for foundations and engineering purposes. Even at the end of the 4th century B.C. Megasthenes states that Pataliputra, the capital of Chandragupta—the Sandrokottos of Greek writers—was "surrounded by a wooden wall pierced with loop-holes for the discharge of arrows." And if the capital were defended by such palisading, we may fairly infer that the architecture of the time was wholly wooden. On the Sānchi gateways, brick walls are indeed represented, but apparently only as fences or limits with serrated copings, but not in architectural structures. And at whatever date stone came to be introduced, the Hindus continued and repeated the forms they had employed in the earlier material, and preserved their own style, so that it bore witness to the general antecedent use of wood. Hence we are able to trace its conversion into lithic forms until finally its origin disappears in its absorption in later styles.

India possesses no historical work to afford us a landmark previous to the invasion of Alexander the Great in the 4th century B.C., nor do we know of an architectural monument of earlier date. For later periods there are fortunately a few examples dated by inscriptions, and for others by applying the scientific principles developed by Thomas Rickman for the discrimination of other styles and the relative ages of architectural works, we are enabled to arrange the monuments of India approximately in chronological sequence or order of succession.

The invasion of Alexander and the westward spread of Buddhism brought India into contact with Persia, where the Achaemenian kings had hewn out mausolea in the rocks, and built palaces with stone basements, doorways and pillars, filling in the walls with bricks. These works would attract the attention of Indian visitors—ambassadors, missionaries and merchants; and the report of such magnificent works would lead to their imitation.

About the middle of the 3rd century B.C. we find the great Asoka, the grandson of Chandragupta, in communication with the contemporary kings of Syria, Egypt, Macedonia, Epirus and Cyrene; and to his reign belong the great stone pillars, with capitals of Persian type, that are engraved with his religious edicts. A convert to Buddhism, Asoka is credited with the construction all over the country of vast numbers of stūpas—monumental structures enshrining relics of Sakyamuni Buddha or other Buddhist saints; and with them were erected monasteries and chapels for the monks.

On the monumental pillars, known as lāts, set up by this emperor, besides the Persepolitan form of capital, we find the honeysuckle with the bead and reel and the cable ornaments that were employed in earlier Persian carvings; and though not continued later in India proper, these prevailed in use in

Afghanistan for some centuries after the Christian era. This seems to indicate that these forms first came from Persia along with the ideas that led to the change of wooden architecture for that of stone.

The stūpas were structures that may be regarded as conventional architectural substitutes for funeral tumuli, and were constructed to enshrine relics of Buddha or of his more notable disciples, or even to mark the scene of notable events in the tradition of his life. How relic-worship originated and came to hold so large a place in the Buddhist cult we can hardly conjecture: the sentiment could not have arisen for the first time on the death of Gotama Buddha, when, we are told, eight stūpas were built over his corporeal relics, a ninth over the vessel with which they were divided, and a tenth over the charcoal of the funeral pile.

These stūpas, known as dāgabas in Ceylon, and chaityas in Nepal, are called *topes* in the ordinary patois of upper India. They consisted of a low circular drum supporting a hemispherical dome of less diameter and leaving a ramp or berme round it of a few feet in width. Round the drum was an open passage for circumambulation, and the whole was enclosed by a massive stone railing with lofty gates on four sides. These railings and gateways are their principal architectural features; the rails are constructed as closely as possible after wooden patterns, and examples are still found at Sānchi and Buddh-Gayā[1]; what remained of the Bharahat stūpa was transferred to the Calcutta Museum, and portions of the Amrāvatī rail are now in the British and Madras museums. The uprights and cross bars of the rails were in many cases covered with elaborate carvings of scenes of the most varied kinds, and are illustrative of manners and customs as well as of the art of sculpture.

PLATE I.

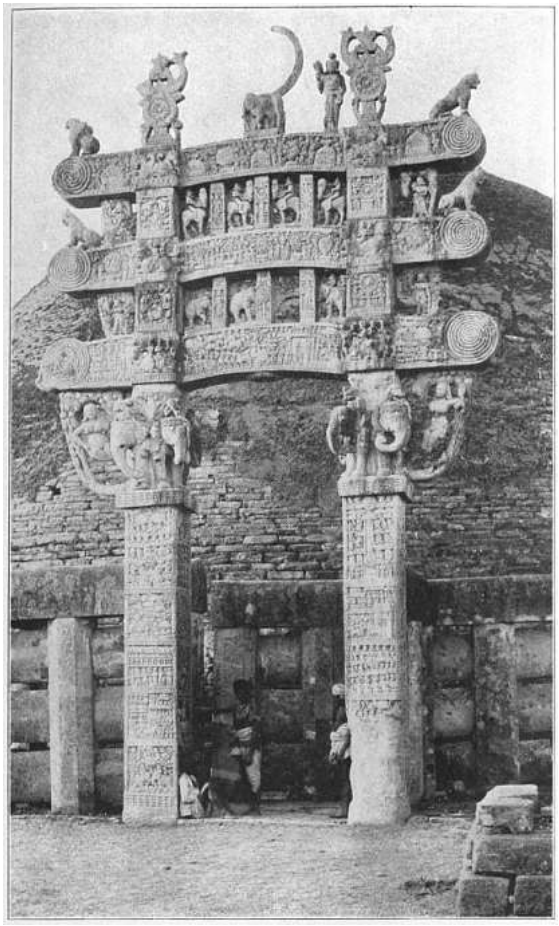
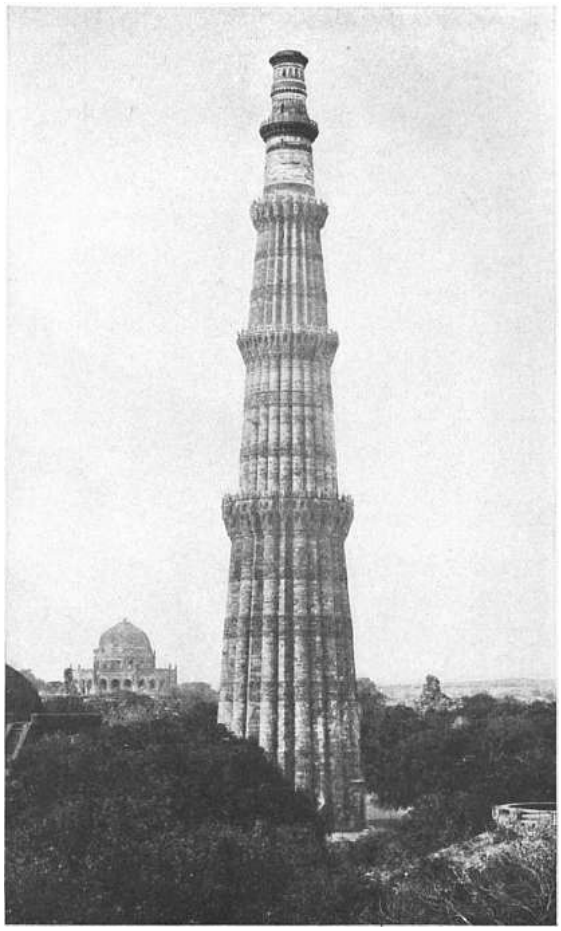


FIG. 8.—SĀNCHI NORTH GATEWAY.



*Photo, F. Frith & Co.*

FIG. 9.—THE KUTB MINAR NEAR DELHI.

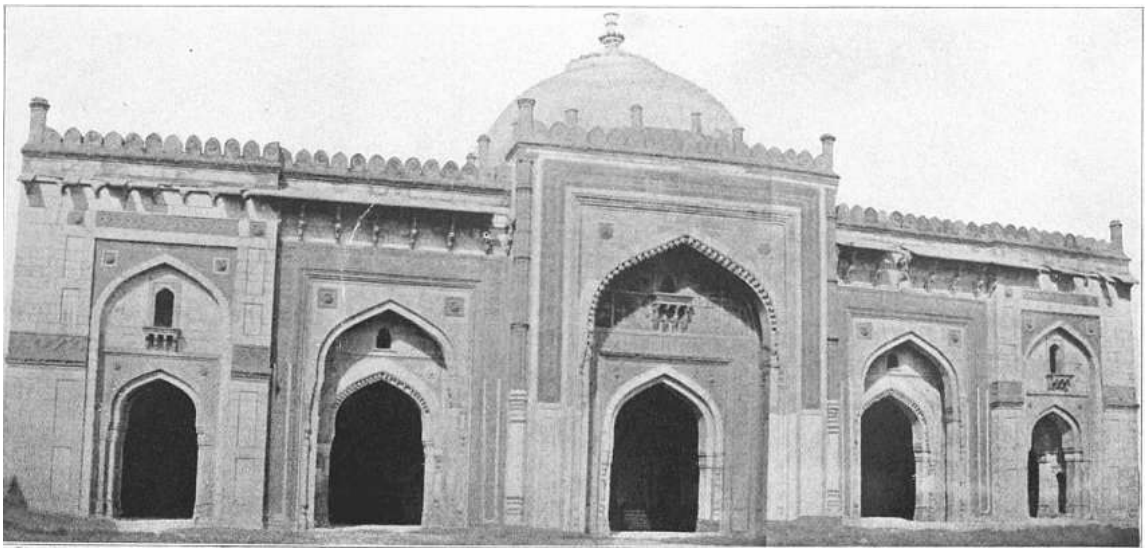


*Photo lent by the India Office.*

FIG. 10.—SHER SHAH'S MOSQUE AT DELHI.

PLATE II.

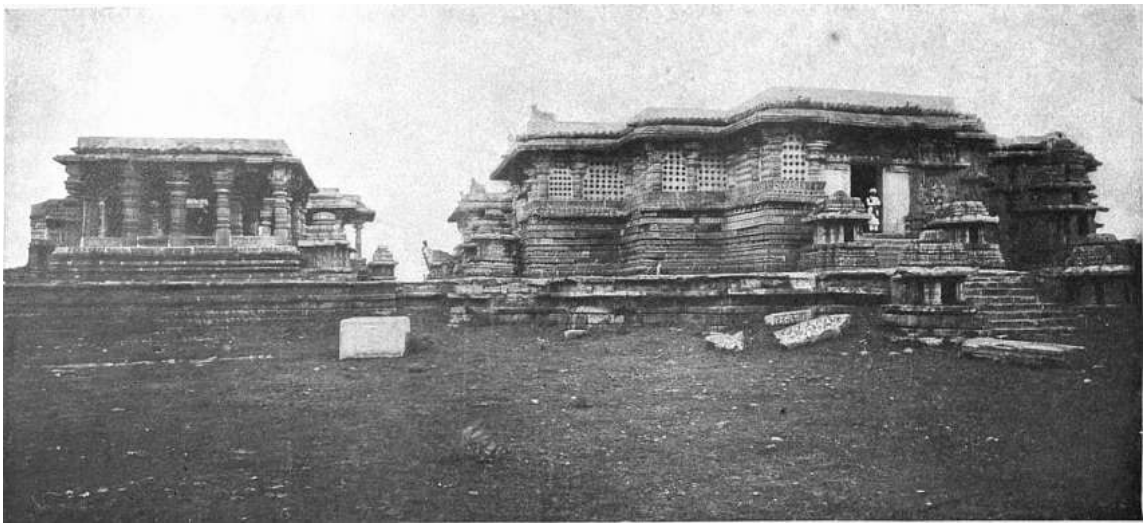


FIG. 11.—GREAT TEMPLE AT HALEBID.

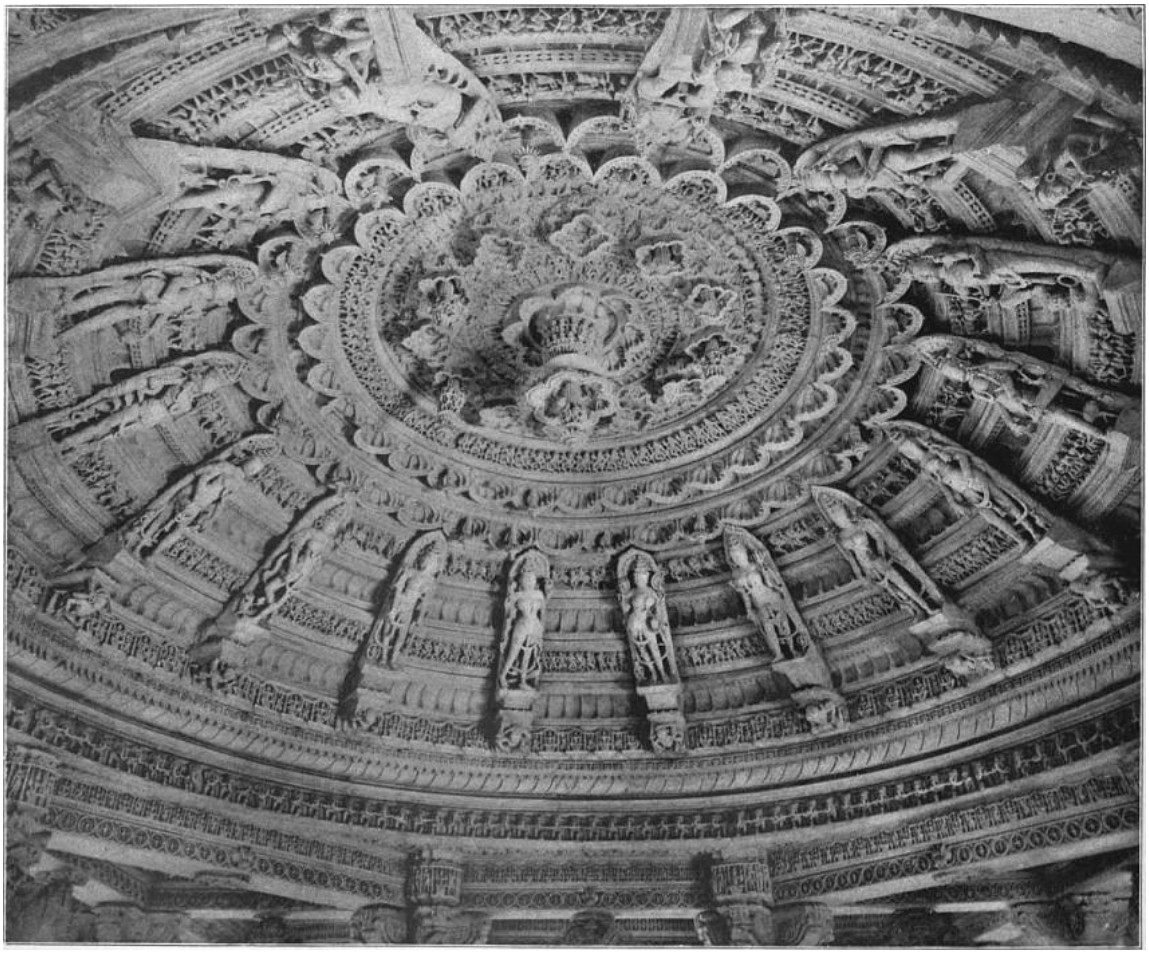


FIG. 12.—ROOF OF DOME OF VIMALA'S TEMPLE ON MOUNT ABU.

(*From Photographs kindly lent by the India Office.*)

The great stūpa at Sānchi in Bhopal is now the most entire of the class, as it still retains the gateways—styled *torans*—which must have been a feature of all stūpas, though perhaps mostly in wood (see Plate I. fig. 8). The whole of the superstructure of the Sānchi examples is essentially wooden in character, and we are astonished that it should have stood "for twenty centuries nearly uninjured." These torans reappear to this day in Japan as *tori-i* and in China as *p'ai-lus* or *p'ai-fangs*. The whole of the surfaces, inside and out, are carved with elaborate sculptures of much interest. A cast of the eastern toran from Sānchi is to be seen in the museums at S. Kensington, Edinburgh, Dublin, Paris and Berlin. On the southern one, an inscription appears to indicate that it was erected about 150 B.C.



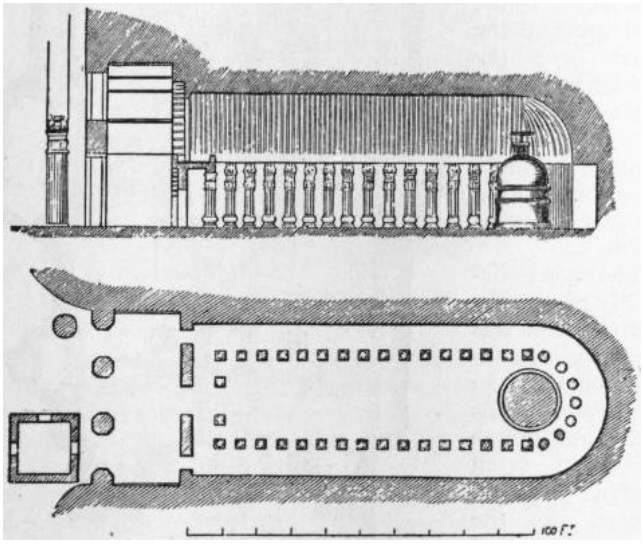


FIG. 1.—Cave at Kārli near Bombay. Section and plan.

The earlier cave temples are of about the same age as the stūpas; some of those in Behar bear inscriptions of Asoka and of his successor in the 2nd century B.C. And the earlier cave façades in western India indicate the identity of style and construction in the patterns from which both must have been copied. These Buddhist rock excavations are of two types: the chaitya or chapel caves, with vaulted roofs of considerable height, the earliest with wooden fronts and later with a screen wall left in the rock, but in both forms with a large horse-shoe shaped window over the entrance. The interior usually consisted of a nave, separated from the side aisles by pillars, and containing a chaitya or small stūpa at the inner and

circular end. The façades of these chaitya chapels were covered with sculpture—some of them very richly; and to protect them from the weather a screen was contrived and cut in the rock in front of the façade, with large windows in the upper half for the entrance of light. This mode of lighting by a great arch over the entrance has attracted considerable attention, as being admirably adapted for its purpose. As Fergusson remarked, “nothing invented before or since is lighted so perfectly, and the disposition of the parts or interior for an assembly of the faithful ... is what the Christians nearly reached in after-times but never quite equalled.”

The second type of rock excavations are known as vihāras or monasteries devoted to the residence of monks and ascetics. They usually consisted of a hall surrounded by a number of cells—the earliest with stone beds in them. In the later vihāras there was a shrine in the centre of the back wall containing a large image of the Buddha. In the Orissa caves, near Cuttach, we have a series of excavations that do not conform to these arrangements: they are early, dating as far back as the 2nd century B.C., but they belong to the Jain sect, which dates from the same age as the Buddhist.

On the north-west frontiers of India, about the Swāt and Yūsufzai districts, anciently known as Gandhāra, are found a remarkable class of remains, much ruined, but that must have abounded in sculptures belonging to the Buddhist cult. It is among these we find the first representations of Buddha and of the characters belonging to the Buddhist pantheon. The influence of classical art manifested in these images leaves no doubt that they were modelled after western patterns, carried thither by Greeks or brought from the Levant by Buddhist emissaries. The scenes depicted, however, have frequently an architectural setting in which we find represented façades with pillars fashioned with distinctly Corinthian capitals. These sculptures we can now assign with confidence, from dated epigraphs, to dates from the last years of the century B.C. till the 4th century A.D. One inscription of A.D. 47 is of a king Gondophernēs, who is mentioned in the legend of the apostle Thomas.

In the time of the great Gupta dynasty, from about A.D. 320 to 500, the architectural forms developed in variety and richness of decoration. To the columns were given higher square bases than before, and sometimes a sur-base; the capitals, which previously had a vase as the chief member, were developed by a foliaged ornament, springing from the mouth of the vase and falling down upon it from the four corners, and so lending strength to the neck whilst converting the round capital into a square support for the abacus. Often, too, a similar arrangement of foliage was applied to the early bases; and this form quite superseded the Persepolitan pillar, with its bell-shaped capital, which now disappeared from Indian art. The shafts were round or of sixteen or more sides; pilasters were ornamented on the shafts; and the spires of the temple were simple in outline and rose almost vertically at first and curving inwards towards the summit, which was always capped by a large circular fluted disk supporting a vase, whilst the surface of the tower was covered with a peculiar sort of horse-shoe diaper. This style prevailed all over Hindustan, and was continued with modifications varying with age and locality down almost to the Mahommedan conquest.

In Kashmir from the 8th century, if not earlier, till the Mahommedan conquest we find a style of architecture possessing a certain quasi-classical element which has little if any connexion with the art of the rest of India. The best-known example of this Kashmir style is the temple of Mārtand, about 3 m. east from Islāmābād or Anatnāg, the old capital. It stands in a court 220 ft. long by 142 ft. wide surrounded by the ruins of some eighty small cells, with a large entrance porch at the east end. The temple itself was 60 ft. long by 38 ft. wide, with two wings, and consisted of two apartments—a *naos* and *cella*. The trefoiled or cusped arch on the doors of the temple and cells is a striking peculiarity of the style, and may have been derived from the section of the Buddhist *chaitya*. It is used decoratively, however, rather than constructively. The pillars and pilasters of the portico and temple bear a close resemblance to some of the later forms of the Roman Doric, and have usually sixteen shallow flutes on the shafts, with numerous members in the base and capital. A triangular pediment surmounts the doorways, and on gable-ends or projecting faces are representations of double sloping roofs, much in the style of modern Kashmir wooden roofs, of which also many of the temple-roofs in Nepal are exaggerated examples. The Mārtand temple was, in all probability, built in the 8th century, between A.D. 725 and 760, and was erected as a temple of the Sun, one of whose names is Mārtand. For, till the 12th century at least, Sun-worship was quite prevalent in the north and west of India. At a remote village called Buniār is a much better preserved specimen of the style: and at Avantipur, Vāngath, Payer and Pāndrethan are other interesting examples of the style. That at Pāndrethan about 3 m. from Srinagar is a well-preserved little temple, built between A.D. 906 and 921, and perhaps exhibits the most clearly the characteristics of the style.

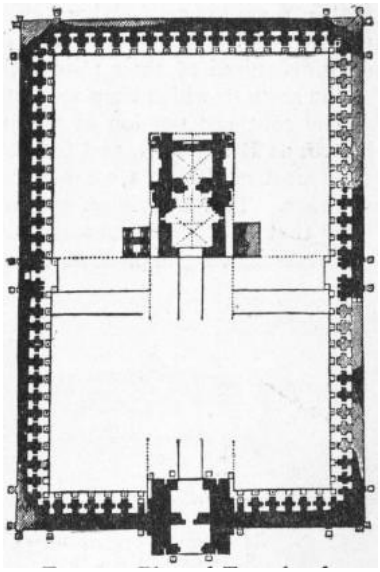


FIG. 2.—Plan of Temple of Mārtand.]



In the Himālayas the architecture is still largely wooden, raised on stone basements and is often picturesque. In the Nepal valley we meet with hemispherical chaityas or stūpas on low bases with lofty brick spires, and some of them of great antiquity, along with temples having three or four storeys divided by sloping roofs, and others in the modern Hindu style of northern India.

Fig. 3.—Temple of Pāndrethan.

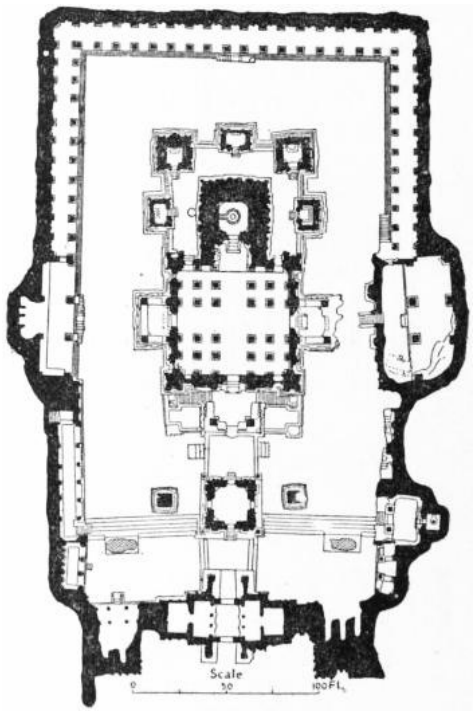
In South Kanara, especially at Mūdbidare (Mudbidri), there are also Jain temples and tombs with double and triple sloping roofs that resemble the native temples of Nepal, with which, however, they had no connexion. The whole style is closely in imitation of wooden originals, the forms of which have been derived from the local thatched dwellings of the district. The interiors of the Kanara temples are often very rich in carving, the massive pillars being carved like ivory or the precious metals. Associated with these and other temples are elegant, monolithic pillars placed on square bases, the shafts richly carved and the capitals widespreading, some of them supporting, on four very small colonnettes, a square roof elaborately modelled. These *stambhas* or pillars are the representatives of the early Buddhist *lāts* or columns raised at their temples, and bear emblems distinctive of the sects to which they respectively belong.

Fig. 4.—Kailās at Ellora.

The southern portion of the peninsula is peopled by a race known as Dravidians, and to the style of architecture practised over most of this area we may conveniently apply the name of the race. This Dravidian architecture was essentially different from that of other regions of India and is of one type. One of the best-known groups of monuments in this style is that of the “Seven Pagodas” or the Māmallapuram raths, on the seashore, south from Madras. These *raths* are each hewn out of a block of granite, and are rather models of temples than such. They are the earliest forms of Dravidian architecture and belong to the 7th century. To the same age belongs the temple of Kailāsanāth at Conjeeveram, and to the following century some of the temples in the south of the Bombay Presidency, and the famous monolithic temple of the Kailās at Ellora near Aurangābād.

Buildings in the Dravidian style are very numerous in proportion to the extent of the area in which they are found. The temples generally consist of a square base, ornamented externally by thin tall pilasters, and containing the cell in which the image is kept. In front of this may be added a *mantapam* or hall, or even two such. Over the shrine rises the spire, of pyramidal form, but always divided into storeys and crowned by a small dome, either circular or polygonal in shape. The cornices are of double curvature, whilst in other Indian styles they are mostly straight with a downward slope. Another feature of these temples, especially those of later date, is the *gopurams* or great gateways, placed at the entrances to the surrounding courts, and often on all four sides. In general design they are like the spires over the shrines, but about twice as wide as deep, and very frequently far more imposing than the temples themselves.

The style is distinctly of wooden origin, and of this the very attenuated pilasters on the outer walls and the square pillars of small section are evidences. As the contemporary northern styles are characterized by the prevalence of vertical lines, the Dravidian is marked by horizontal mouldings and shadows, and the towers and *gopurams* are storeyed. The more important temples are also surrounded by courts enclosing great corridors and




Reproduced, by permission of Mr John Murray,

pillared halls.

from Dr Burgess's *The Cave Temples of India*.

FIG. 5.—Plan of Kailās at Ellora.

One of the best examples of this style is the great temple at Tanjore. It would appear to have been begun on a definite plan, and not as a series of extensions of some small temple which, by accident, had grown famous and acquired wealth by which successively to enlarge its courts, as that at Tiruvallur seems to have grown by a series of accretions. The body of the Tanjore temple is of two storeys and fully 80 ft. high, whilst the sikhara or pyramidal tower rises in eleven storeys to a total height of 190 ft. This dominates the *gopurams* over the entrances to the court in which it stands, and to an outer court, added in front of the first, but which does not, as in other cases, surround it. The central shrine, so far as we know, was erected about A.D. 1025.

The Srirangam temple in Trichinopoly, the largest in India, is architecturally the converse of this: it is one of the latest in date, the fifth court having been left unfinished in the middle of the 18th century. The shrine is quite insignificant and distinguished only by a gilt dome, whilst proceeding outwards, the *gopurams* to each court are each larger and more decorative than the preceding. The successive independent additions, however, proved incompatible with any considered design or arrangement of parts.

Most of the Deccan was ruled by the Chalukya dynasty from early in the 6th century, and the style prevailing over this area, from the Tungabhadrā and Krishnā rivers to the Taptī and Mahānadī, may be styled, from them, as Chalukyan.



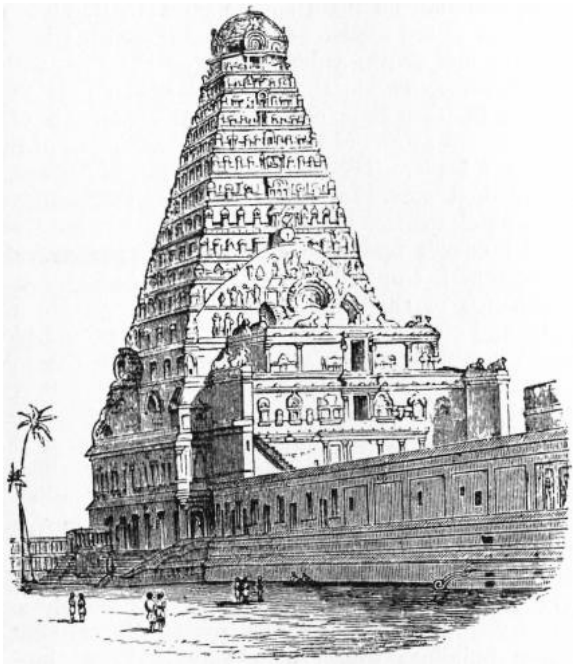


FIG. 6.—Temple at Tanjore.

The earliest temples in this style, however, are not very clearly marked off from the Dravidian and the more northern styles. Some of them have distinctly northern spires, others are closely allied to the southern style; and it was perhaps only gradually that the type acquired its distinctive characteristics. Till a late date we find temples with towers differing so little in form from Dravidian *vimānas* that, other details apart, they might readily be ascribed to that order.

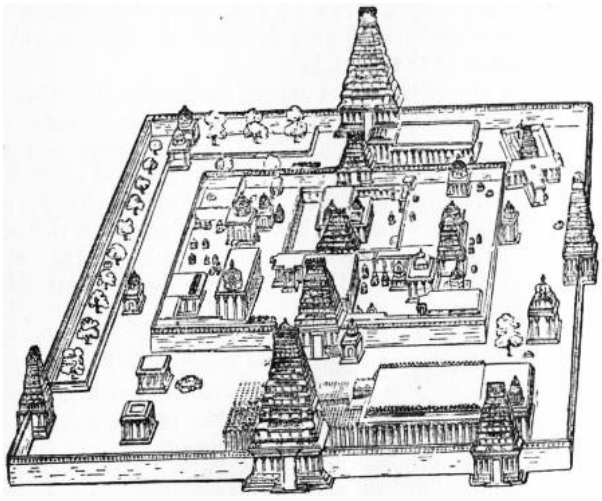


FIG. 7.—Temple at Tiruvallur, near Tanjore.

Among Chalukyan temples a prevalent form is that of three shrines round one central hall. The support

of the roofs of these halls is almost always after the Dravidian plan of four pillars, or multiples of four, in squares, so that larger domes were never attempted. Both in Dravidian and northern temples the projections on the walls are generally formed by increments of slight thickness added flatly to their faces, and, however thick, they are so placed as to leave the true corners of the shrines, &c., more or less recessed. In the Chalukyan temples the sides are often made prominent by increments placed over them, or the whole plan is star-shaped, the projecting angles having equal adjacent faces lying in a circle, as in the temple of Belūr in Mysore, built about A.D. 1120, and in others. The roofs are stepped and more or less pyramidal in form, with breaks corresponding to the minor angles made on the walls.

Some of the details of this style are very elaborate; in fact, many of the finer temples were completely overlaid with sculptural ornament. The pillars are markedly different from the earlier Dravidian forms: they are massive, richly carved, often circular and highly polished. Their capitals are usually spread out, with a number of circular mouldings immediately below; and under these is a square block, while the middle section of the shaft is richly carved with mouldings in the round. In many cases the capitals and circular mouldings have been actually turned in a sort of lathe. They are almost always in pairs of the same design, the whole effect being singularly varied and elegant.

The great temple at Halebīd (see Plate II. fig. 11), begun about A.D. 1250, was left unfinished at the Mahommedan conquest in 1310. It is a double temple, measuring 160 ft. by 122 ft., and is covered with an amazing amount of the richest sculpture. But the spires were never raised over the shrines. The Kedaresvara temple at Balagāmvi is perhaps one of the oldest of the style in Mysore, and there are other good examples at Kubattūr, Harnhalli, Arsikere, Harihar, Koravangala and elsewhere; but their plans vary greatly.

Coming now to Northern India, we find the Hindu architectural style more widely spread and more varied than in the south, but wanting somewhat in individuality. Examples of the same order, however, are to be found also far to the south in the Chalukyan area. The characteristic that first appeals to our notice is the curvilinear spires of the temples, and the absence of that exuberance of sculpture seen in the great Chalukyan temples of the South; whilst in many cases, as in the Jain temples, a greater central area has been obtained in the halls by arranging twelve columns so as to support a dome on an octagonal disposition of lintels. The shrines are square in plan and only slightly modified by additions to the walls of parallel projections; the walls were raised on a moulded plinth of some height, over which was a deep base, the two together rising, roughly, to about half the height of the walls. Over this is the panelled face devoted to figure sculptures in compartments, but the tall, thin pilasters of the southern style have disappeared. Above is the many-membered architrave and cornice supporting the roof and spire. The latter follow the vertical lines of the walls, presenting no trace of divisions into storeys or steps, but they vary in other details with the age.

In Rajputana and Western India a variety of this northern style has been known as the Jain order. Though used by the Hindus and Jains alike, it was employed in its most ornate form by the Jains in their famous temples on Mount Ābū and elsewhere. A striking feature of this style is the elaborately carved roofs over their corridors and the domes of their porches and halls (see Plate II. fig. 12). Nothing can exceed the delicacy and elaboration of details in these sculptured roofs and vaults. Combined with the diversified arrangement of the variously spaced and highly sculptured pillars supporting them, these convey an impression of symmetry and beauty that is highly pleasing.

Gujarāt must have been rich in splendid temples before the 12th century, but it was devastated so often by the Moslems that the more notable have all perished, though the once magnificent Sun Temple at Mudhera still witnesses, in its ruins, to the architectural style and grandeur of the period—the early part of the 11th century—when it was erected. A notable group of between thirty and forty temples in this style exists at Khajurāho in Bundelkhand. They belong to both the Hindu and the Jain cults, and mostly date from the 10th and 11th centuries. Many of them are covered, inside and out, with the richest sculpture, and may be regarded architecturally as “the most beautiful in form as well as the most elegant in detail” of the temples of Northern India. With these, the temples at Bhuvaneswar in Orissa exhibit this style at its best. The latter have the earlier form of spire, nearly perpendicular below, but curving inwards near the summit.

The temple of Kanārak, known as the “Black Pagoda” (see Plate III. fig. 13), which for its size is, externally at least, the most richly ornamented building in the world. It has lately been filled up with stones and sand, as the only method the Archaeological Survey could devise to prevent its threatened collapse.



In the later examples of the style the spire is still a square curvilinear pyramid, to the faces of which are added smaller copies of the same form, carrying up the offsets of the walls; and in some examples these are multiplied to an extraordinary extent.

The Mahommedan architecture, also known as Indian Saracenic, begins in India with the 13th century and varied much at different periods and under the various dynasties, imperial and local. The imperial rulers at Delhi, for the first three centuries, were Pathāns, and were succeeded in 1526 by Baber, who founded the Mogul dynasty. Under the earlier Pathān emperors the style of building was massive but profusely ornamented and of extreme beauty in its details. Among the examples of this style may be instanced the Qutb Minār at Delhi (see Plate I. fig. 9), one of the finest pillars in the world, built in the first quarter of the 13th century. It is still 240 ft. high and ornamented by projecting balconies and richly carved belts between; the three lower storeys are cut up by projecting vertical ribs that add to its beauty. Beside it the tomb of Altamsh is also profusely sculptured and of extreme beauty of detail, and other examples are seen in the eastern portion of the adjoining mosque, the tomb of Alā-ud-dīn Khilji, and the Alai Darwāza. After about 1320 the Pathān architecture is marked by a stern simplicity of design and a solemn gloom and nakedness, in marked contrast to the elaborate richness of ornamentation of the

preceding period. The tomb of Ghiyās-ud dīn Tughlak at New Delhi, with its sloping walls and massive solidity, is a typical example of this period, as is also the Kalān mosque at Delhi completed in 1386.

Early in the 15th century, however, a reaction had set in, and the later style was hardly less rich and much more appropriate for its purposes than the earlier in the end of the 12th and early 13th century. The façades of the mosques became more ornamental, were often encrusted with marble, and usually adorned with rich and beautiful sculpture. This was clearly a return to the elaborateness of the past, but with every detail fitted to its place and purpose and presenting one of the completest architectural styles of the world.

About the beginning of the 15th century several local dynasties arose, each of which developed a style more or less their own. Of the Shārki dynasty of Jaunpur only three great mosques in that city have come down to us, with several tombs. The cloisters surrounding the open courts of the mosques and the galleries within are closely allied to the Hindu style, being constructed with short square pillars having bracket capitals supporting lintels and roof of flat slabs. But the gateways and main features of the mosques are arched. The mosque itself consists of a central square hall covered by a lofty dome of the whole width of it, in front of which stands the great propylon or gate, of massive outline and rising to the full height of the central dome. This propylon had a large recessed arch between the two piers, in the lower portion of which was the entrance to the mosque, whilst the upper formed a pierced screen. On each side of the dome is a compartment divided into two storeys by a stone floor supported on pillars, and beyond this, on each side, is a larger apartment covered by a pointed ribbed vault. The ornamental work is bold and striking rather than delicate, and the *mihrābs* or *qiblas* are marked by severe simplicity, and form a link in the evolution of the later form under Mogul rule. These buildings afford a marked expression of strength combined with a degree of refinement that is rare in other styles. Other examples of this style are met with at Benares, Kanauj and places within the Jaunpur kingdom.

In 1401 Dilawar Khān assumed independence in Malwa, of which Māndu became the capital, and his son Hoshang adorned it with important buildings. They are of a modified form of the Pathān style of the 14th century. Among them the finest is the great Jama Masjid, which was finished by Mahmūd Shāh I. in 1454. It covers a nearly square area, 290 ft. from east to west by 275 ft. from north to south, exclusive of the porch on the east, which projects about 56 ft. Inside, the court is an almost exact square, surrounded by arches on each side, standing on plain square piers 10 ft. high, each of a single block of red sandstone; behind these are triple arcades on the north and south, a double one on the east, and on the west the mosque, having three great domes on its west side. This court, in its simple grandeur and expression of power, may be regarded as one of the very best specimens of this style to be found in India. The tombs and palaces of Māndu, mostly much ruined, it would occupy too much space to describe. But here, as elsewhere, the available materials have exercised a marked influence upon the architecture; the prevalence of a red sandstone is emphasized in the piers of the Jama Masjid, more than 300 of them being each of a single block of this material; and for more decorative purposes marble, both white and coloured, was freely used to revet the walls and piers. The style is strictly arcuate, without admixture of the general trabeate structural methods followed by the native Hindus; and while at Jaunpur and Ahmedābād, at the same period, we find the strong influence of native methods copied in the Mahommedan architecture, at Māndu the builders clung steadily to the pointed arch style, without any attempt, however, at groining.

The capital of the Bengal kingdom was at Gaur, which had been the metropolis of a native kingdom probably since the 9th century. As the country is practically without stone, the Hindu buildings would be chiefly of brick, but pillars, images and details were of hard potstone or hornblende; and these would afford materials for the Moslem conquerors. The construction of large buildings of brick required heavy piers for the arches and thicker walls than those constructed of stone. Then such piers and walls, when enriched by a facing of moulded or glazed tiles, would appear still heavier; and sometimes for tiles a casing of carved stone was substituted. Hence this style is a purely local one with short, heavy pillars faced with stone and supporting pointed brick arches and vaults. The use of brick further forced the builders to employ an arched style of their own and a mode of roofing in which a curvilinear form was given to the eaves descending at the corners of the structures. This form spread later up through Hindustan as far as the Punjab.

The capital at one time was moved to Pandua, north of Gaur, and there was built (1358-1368) the great Ādina mosque, 500 ft. in length by 285 in depth containing a large court surrounded by a thick wall of brick. The roof was supported by 266 stone pillars and covered by 378 domes, all of one form. Such a design has little architectural merit, but its size and the richness of its details make it an interesting study, and the same character belongs to most of the works of the Bengal Moslem rulers.

The Bahmanī dynasty, founded in 1347, had its capital at Gulbarga till 1428, when it was moved to Bīdar. During this period the city was adorned with important buildings of which the most notable now remaining is the great mosque, one of the most striking in India. It measures over all 216 ft. from east to west by 176 from north to south. It differs from all the great mosques in India in having the whole central area covered over as in the great mosque at Cordova—what in others would be an open court being roofed by sixty-three small domes. The light is admitted through the side-walls, which are pierced by great arches on all sides except the west. The study is plain and substantial, with but little ornament. The tombs of the kings are massive square-domed buildings, with handsome stone tracery on their outer walls, and are elaborately finished inside. At Bīdar, mosques, palaces and tombs were also erected, but most of them have perished, the great mosque in the fort being the only one fairly entire. The ten tombs of the later Bahmanī kings, 5 m. from the city, are of like pattern with those of Gulbarga and of considerable splendour. They are not much ornamented, but are structurally good and impressive by their massive proportions.

FIG. 13.—KANĀRAK TEMPLE OF SŪRYA, OR BLACK PAGODA, FROM THE EAST.

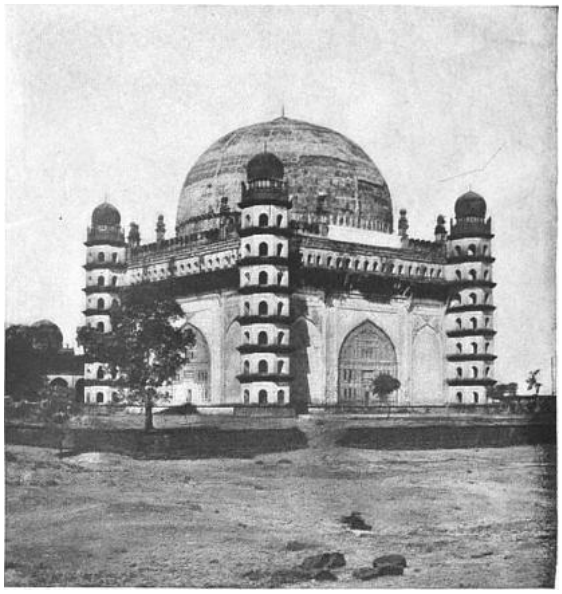


FIG. 14.—TOMB OF MAHOMMED ADIL SHĀH, BIJAPUR.

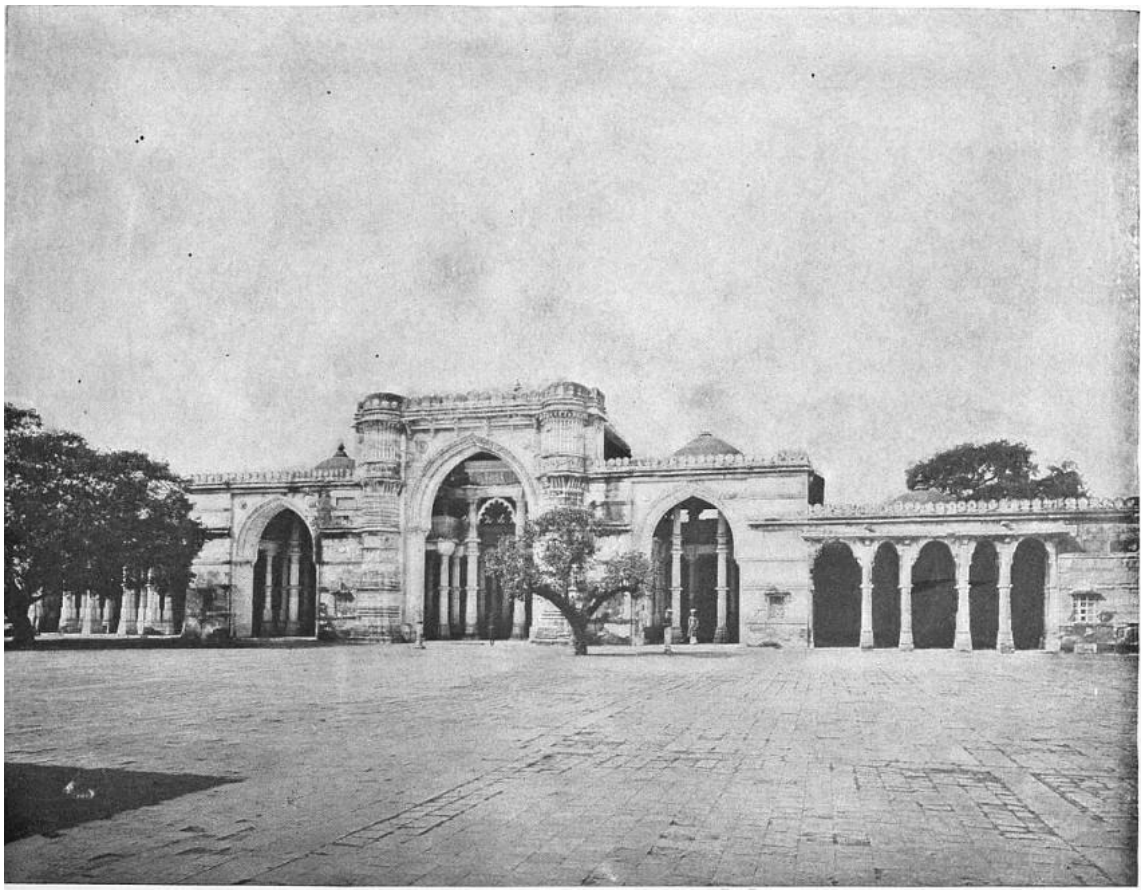
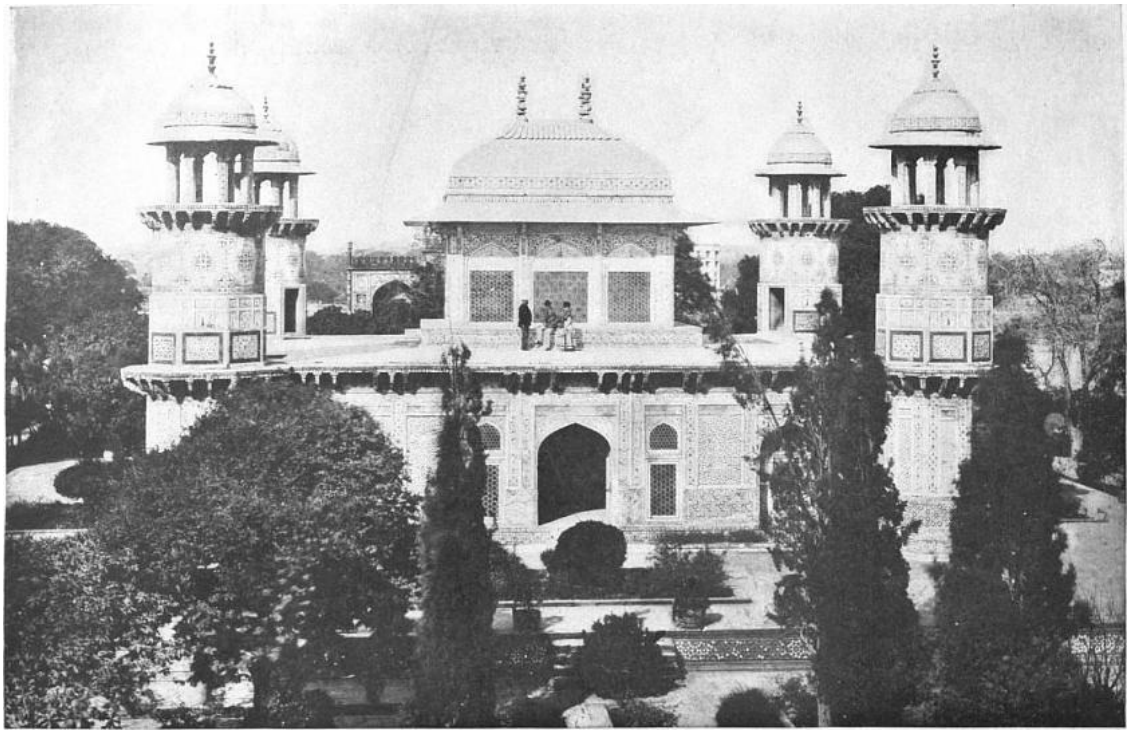


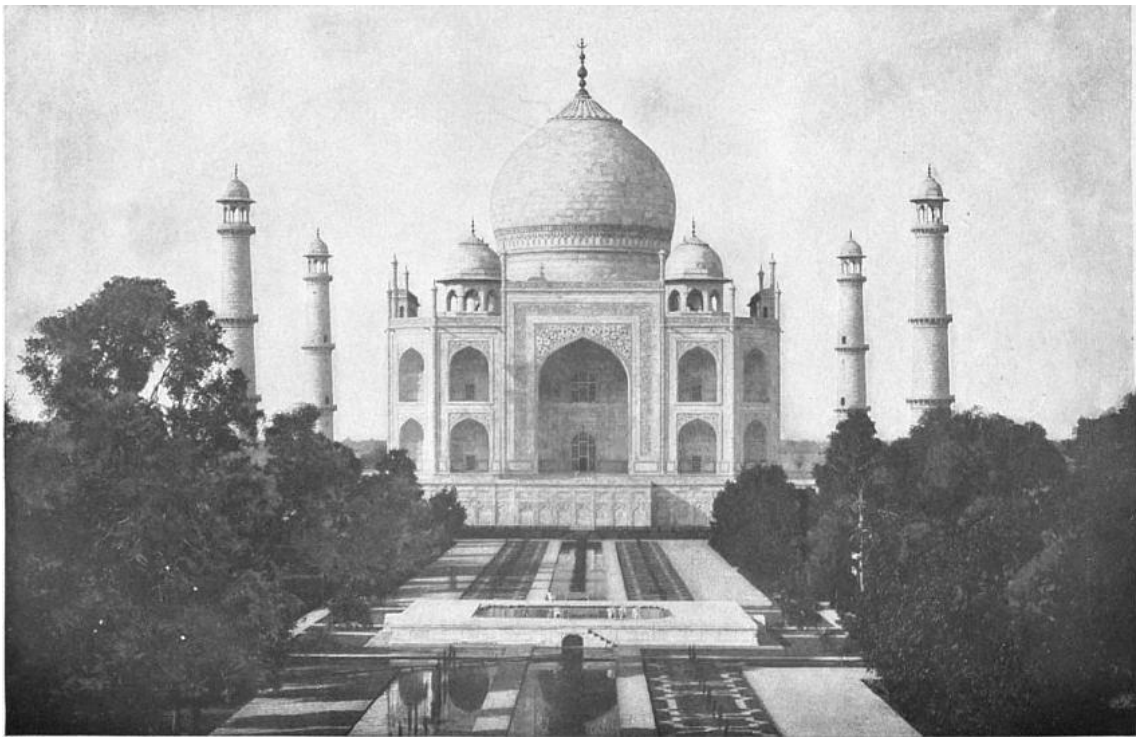
FIG. 15.—JAMA MASJID AT AHMEDĀBAD.

*From Photographs kindly lent by the India Office.*



*Photo, F. Frith & Co.*

FIG. 16.—TOMB OF PRINCE ITIMAD-UD-DAULA, AGRA.



*Photo, Johnston & Hoffmann.*

FIG. 17.—THE TAJ MAHAL, AGRA.

Of the various forms which the Moslem architecture assumed, "that of Ahmedābād," Fergusson has justly remarked, "may probably be considered as the most elegant, as it certainly is the most characteristic of all. No other form is so essentially Indian, and no one tells its tale with the same unmistakable distinctness." Under the Mahommedan rule the Hindu architects employed introduced forms and ornaments into the works they constructed for their rulers, superior in elegance to any the latter knew or could have invented. Hence there arose a style combining all the beauty and finish of the previous native art with a certain magnificence of conception which is deficient in their own works. The elevations of the mosques have usually been studiously arranged with a view to express at once the structural arrangements, and to avoid monotony of outline by the varied elevation of each division. The central portion of the façade was raised by a storey over the roof of the wings, and to the front of this was attached the minarets, in the earliest mosques forming only small turrets over the façade, but soon after they became richly carved towers of considerable height. The upper storey formed a gallery under the central dome which was supported on pillars connected by open stone trellis work, admitting a subdued light, and providing perfect ventilation (see Plate III. fig. 15). At first the façades were pierced by arched entrances, but at a later date a screen of columns formed an open front and the minarets were removed to the corners, no longer for the *mu'azzin*, but simply as architectural ornaments.

The tombs were pillared pavilions of varying dimensions, the central area over the grave covered by a

dome standing on twelve pillars. These pillars connected by screens of stone trellis work carved in ever-varying patterns, and round this there might be a verandah with twenty pillars in the periphery, or a double aisle with thirty-two in the outer square. And as these were irregularly spaced in order to allow the inner twelve to support the lintels of a regular octagon for the dome, the monotony of equal spacing was avoided. For further details and examples of this style, however, we must refer the reader to the published volumes of the archaeological survey of Western India relating to Ahmedābād and Gujarat.

The Adil Shāhi dynasty of Bijapur (1492-1686) was of foreign extraction and held the Shiah form of Islām, prevalent in Persia, whilst they largely employed Persian officers. This probably influenced their architecture and led to that largeness of scale and grandeur which characterized the style, differing markedly from that of the buildings of Agra and Delhi, but scarcely, if at all, inferior in originality of design and boldness of execution. There is no trace of Hindu forms or details; the style was their own, and was worked out with striking boldness and marked success. The mode in which the thrusts are provided for in the giant dome (see Plate III. fig. 14) of Mahommed Adil Shāh's tomb (A.D. 1650), by the use of massive pendentives, hanging the weight inside, has drawn the admiration of European architects. And this dome, rising to about 175 ft. from the floor, roofs over an area 130 ft. square, or 2500 sq. ft. larger than the Pantheon at Rome, where stability is secured only by throwing a great mass of masonry on the haunches. The Jami masjid, begun by Alī Adil Shāh, 1567, but never quite completed, is one of the finest mosques in India. The central area of the mosque proper is covered by a large dome, supported in the same way as that on Mahommed Shāh's tomb. This dome, like all the earlier ones in India, perhaps wants in outside elevation; but in the splendid Ibrāhīm Rauza and mosque we find the domes elevated above mere segments. In this latter group, erected about 1626, the domes are more elevated, and we have every detail of the structure covered with the most delicate and exquisitely elaborate carving, the windows filled with tracery, and the cornices supported by wonderfully rich brackets. In the tomb too—as if in defiance of constructional demands—the room, 40 ft. sq., is covered by a perfectly level stone roof, supported only by a cove projecting on each side from the walls.

The Indian Saracenic style of the Mogul dynasty began under the emperor Bāber, 1526; but one of the first and most characteristic examples that remain is the mosque of Sher Shāh (1541) near Delhi (see Plate I. fig. 10), and others exist at Rohtās. These earlier structures are interesting as the initial forms of the style, but are little known to Europeans. The emperor Akbar (1556-1605) built largely, and the style developed so vigorously during his reign that it would be difficult to enumerate the peculiarities of his numerous buildings. As in the Gujarāt and other styles, there is a combination of Hindu and Mahommedan features in his works which were never perfectly blended. Like their predecessors, the Pathāns, the Moguls were a tomb-building race, and those of the latter are even more splendid than those of the former, more artistic in design, and more elaborately decorated. The fine tomb of Akbar's father, Humāyūn, and the numerous structures at Fatehpur Sikri best illustrate the style of his works, and the great mosque there is scarcely matched in elegance and architectural effect; the south gateway is well known, and from its size and structure excels any similar entrance in India. And his tomb at Sikandra, near Agra, is a unique structure of the kind and of great merit.

Under Jahāngir the Hindu features vanished from the style; his great mosque at Lahore is in the Persian style, covered with enamelled tiles; his tomb near by (1630-1640) was made a quarry of by the Sikhs from which to build their temple at Amritsar. At Agra, the tomb of Itimād-ud-daula (see Plate IV. fig. 16), completed in 1628, built entirely of white marble and covered wholly by *pietra dura* mosaic, is one of the most splendid examples of that class of ornamentation anywhere to be found.

The force and originality of the style gave way under Shāh Jahān (1627-1658) to a delicate elegance and refinement of detail, illustrated in the magnificent palaces erected in his reign at Agra and Delhi, the latter once the most exquisitely beautiful in India. The most splendid of the Mogul tombs, and the most renowned building in India, is the far-famed mausoleum, the Taj Mahal at Agra (see Plate IV. fig. 17), the tomb of Mumtäz Mahal, the wife of Shāh Jahān. It is surrounded by a garden, as were almost all Moslem tombs. The extreme delicacy of the Taj Mahal, the richness of its material, and the complexity of its magnificent design have been dwelt on by writers of all countries. So also of the surpassingly pure and elegant Motī Masjid in the Agra fort, all of white marble: these are among the gems of the style. The Jama Masjid at Delhi is an imposing building, and its position and architecture have been carefully considered so as to produce a pleasing effect and feeling of spacious elegance and well-balanced proportion of parts. In his works Shāh Jahān presents himself as the most magnificent builder of Indian sovereigns.

In Aurangzeb's reign squared stone and marble gave way to brick or rubble with stucco ornament, and the decline of taste rapidly set in.

The buildings at Seringapatam and Lucknow are of still later date, and though in certain respects they are imposing, they are too often tawdry in detail.

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(J. Bs.)

1 The restoration of the shrine at Buddh-Gaya was begun in 1908 under the auspices of the Buddhist Shrine Restoration Society, of which the Tashi Lama was first president and the eldest son of the maharaja of Sikkim vice-president.

**INDIAN LAW.**—The law in force in British India may be conveniently divided into five heads: (1) The law expressly made for India by the British parliament, or by the sovereign. (2) English law in force in India though not expressly made for India. (3) The law made by persons or bodies having legislative authority in India. (4) Hindu law. (5) Mahommedan law. The first three of these are frequently described as Anglo-Indian law. They are with rare exceptions territorial, *i.e.* they apply generally, either to the whole of India, or to a given area, and to all persons within those limits. The last two are personal, *i.e.* they apply only to persons who answer a given description.

1. *The Law expressly made for India by the British Parliament or the Sovereign.*—There are in existence about 120 acts of parliament containing provisions relating to India. The greater portion of these provisions relate to what may be called constitutional law, such as, the power of the East India company, the transfer of these powers to the crown, the powers of the secretary of state, of the Indian council, of the council of the governor-general, and of the other councils in India, and so forth. The law made by the sovereign consists mainly of charters granted to the four high courts of Bengal, Madras, Bombay and the North-West Provinces. A great many charters were granted to the East India Company, and some of the earlier ones contained very important provisions as to the legislative and judicial authority to be exercised in India, but these provisions are now obsolete.

2. *The English Law in force in India though not made expressly for India.*—A considerable portion of the law of England, both statute law and common law, was introduced into India by the assumption that when courts of justice were established in India, to be presided over by English judges, it followed that they were to administer English law as it stood at the time of the granting of the charter so far as it was applicable. There has been considerable doubt as to when this assumption ceased, but the date generally assigned for this purpose is 1726. It only applied, however, to courts established before this date under the direct authority of the crown, that is to the charter courts of Calcutta, Madras and Bombay, and at a very early date (21 Geo. III. c. 70) the jurisdiction of these courts was limited, practically, to the inhabitants of the presidency towns and to suitors of European origin residing elsewhere. Moreover, even in the presidency towns, these courts were directed to apply to Hindus and Mahommedans their own laws in regard to all matters of inheritance and succession, family law and matters relating to religion or caste. In the territories outside the presidency towns where courts of justice were established by the East India company, acting under the authority of the emperor of Delhi, the only assumption that could be made as to the law to be administered was that it was the law already in existence. Acting on this assumption the company’s courts administered the Mahommedan criminal law which was the general law of the subjects of the Mogul emperor: the revenue system remained, as did also the existing relations of zemindar and ryot, *i.e.* of the cultivator and of the persons intermediate between the state and the cultivator. In regard to matters of family law, inheritance and succession, religion and caste the company’s courts were expressly enjoined to apply the Hindu law to the Hindus, and the Mahommedan law to the Mahommedans. Of course it was also the duty of these courts to recognize well-established local usages. Thus practically all the topics of litigation at that time likely to arise were provided for. It was as time went on, when by intercourse with Europeans new ideas, and with them new wants, sprang up in the native populations, that gaps came to be discovered in the law. To such cases the judges had been vaguely told that they were to apply “the rules of equity and good conscience,” which they naturally sought in the English law. The matters in which the notions of English law have most affected India are the power of completely separating the ownership of property from the enjoyment of it by means of trusts, the testamentary power, the creation of life estates, the substitution of one owner of property for another on the happening of some future event, the rules of evidence, criminal law, civil and criminal procedure and the subordination of the executive to the ordinary law. Upon all of these topics the law of India is mainly English. Not that the whole of it rests upon the slender authority above described. Much of it, as will appear presently, was introduced by the Indian legislatures; much of it also, although originally introduced by the courts, has since received legislative sanction.

3. *The Law made by Persons or Bodies in India having Legislative Authority.*—As a general proposition it would be true to say that wherever a British authority has legislated in India it has been largely influenced by the English law. The legislative authorities in India are very numerous. Those now existing are (1) the governor-general of India in council; (2) the governor of Madras in council; (3) the governor of Bombay in council; (4) the lieutenant-governor of Bengal in council; (5) the lieutenant-governor of the North-Western Provinces in council; (6) the lieutenant-governor of the Punjab in council; (7) the lieutenant-governor of Burma in council; (8) the lieutenant-governor of Eastern Bengal and Assam in council. No legislative enactments of any kind passed in India before 1793 are now in force. In Bengal in the year 1793 forty-eight regulations (as they were then called) were passed in a single day, and it was assumed that all previous legislation in Bengal was thereby superseded. Similar regulations were passed about the same

time, and the same assumption was made, in Madras and Bombay. As new territories were acquired by the government of India, the existing regulations were in some cases extended to them, but in other cases this was thought not to be convenient, and for these territories the governor-general in council issued general orders, not in the regular way of legislation but in exercise of his executive power. Hence the distinction between “regulation” and “non-regulation” provinces. Any doubt as to the validity of the orders so made was removed by the Indian Councils Act 1861. The term “regulations” was dropped after the passing of the 3 & 4 Will. IV. c. 85 (1833), and since that time the word “Acts” has been in use. Acts are referred to by the year of their enactment.

Several attempts at extensive legislation in India, intended apparently as a step towards a general codification of the law, have been made. The act of 1833 above mentioned directed the issue of a commission in India which was intended to survey the whole field of law and to suggest such alterations as appeared desirable. Of this commission Lord Macaulay was a member. It never attempted to perform the large task indicated in its appointment, but it produced a draft of the Penal Code (Act XIV. of 1860). It was not, however, until 22 years after Lord Macaulay left India that the Penal Code became law, and in the meantime the draft had been a good deal altered. The Penal Code is, undoubtedly, the most important, as it is also the most successful, effort of Indian legislation. It is to a large extent a reproduction of the English law of crimes. But there are some important differences; for whereas there are in English law no authoritative definitions of such important crimes as murder, manslaughter, assault and theft, and many kindred offences, the Penal Code seeks to define every crime with precision. Moreover, the Penal Code imports into the definition of nearly every crime, and, therefore, into the charge on which the accused is tried, words the purport of which is to describe the state of mind of the accused at the time the alleged act was committed, thereby making it necessary to ascertain at the trial what that state of mind was. This in England is not necessary to anything like the same extent. For example in England, in order to charge a man with manslaughter all that is necessary to allege is that A killed B. But in order to charge a man with culpable homicide it is necessary to state with much particularity what the accused intended, or what he knew to be likely to happen when he did the act; and this condition of mind must be proved at the trial. It is true that this proof is facilitated by certain presumptions, but nevertheless it sometimes presents considerable difficulty. On the other hand, in dealing with offences against property the authors of the Penal Code have cleared away entirely the difficulties which have long beset the English law as to how to deal with a man who, having become possessed of property, dishonestly misappropriates it. English lawyers have tried to squeeze as many of these cases as they can into the crime of larceny. The Penal Code simply makes dishonest misappropriation a crime in itself. (See further Criminal Law.)



In 1853 and again in 1861 commissions were appointed in England to draw up a body of laws for India “in preparing which the English law should be used as a basis,” but the only direct result of these two commissions was the Indian Succession Act (Act X. of 1865). But as Hindus and Mahommedans are excluded from the operation of this act its application is limited. The wills of Hindus are provided for by Act XXI. of 1870. Two important acts, however, were passed in India shortly after the attempt to legislate for India through commissions sitting in England came to an end, namely the Evidence Act (Act I. of 1872) and the Contract Act (Act IX. of 1872). Both these acts have been a good deal criticized. Two other important acts passed somewhat later are the Transfer of Property Act (Act IV. of 1882) and the Trusts Act (Act IV. of 1882). These acts are all substantially reproductions of the English law.

The law relating to land revenue has been the subject of innumerable regulations and acts of the Indian legislature. A description of the revenue systems prevailing in India will be found in the article on India. The law which governs the relation of ryots (*i.e.* cultivators) to those who for want of a better term we must call landlords has grown to a considerable extent out of the revenue system. The view which was at first taken of this relation was unfortunately affected by English notions of the relation of landlord and tenant, but this view has been considerably modified in favour of the tenant by recent legislation.

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4. *Hindu Law.*—The Hindu law is in theory of divine origin, and therefore unchangeable by human authority. Ask a Hindu where his law is to be found, and he will reply “In the Shasters.” The Shasters are certain books supposed to be divinely inspired, and all of great antiquity. They contemplate a state of society very unlike that of the present day, or that of many centuries back. It follows that these sacred writings, whilst they leave many of the legal requirements of the present day wholly unprovided for, contain many provisions which no Hindu even would now think of enforcing. Consequently, in spite of the theory, the law had to be changed. Legislation, which with us is the most potent as well as the most direct instrument of change, has had scarcely any effect on the Hindu law. Probably it never entered into the head of any Hindu before British rule was set up in India that any human agency could be entrusted with the power of making or changing the law; and although both the Indian legislatures and the British parliament have full power to legislate for Hindus upon all matters without any exception, they have, in fact, hardly ever exercised this power as regards the Hindu law. Custom is a less direct instrument of change than legislation, and operates more slowly and secretly, but its influence is very great. The custom which supplants the sacred law may indeed be as old or older than the sacred law, and its existence may be due to the divinely inspired law having failed to displace it; or the habits and necessities of the people may have engrafted the custom upon the sacred law itself. In either view there has been no difficulty in accepting custom where it varied from the sacred law. Indeed, the sacred books themselves recognize to some extent the operation of custom. Thus we find it said in the Laws of Manu (viii. 4, 1), “the king who knows the sacred law must inquire into the laws of castes, of districts, of gilds and of families, and thus settle the peculiar law of each.” It is to the

***Sources of Hindu Law.***

influence of custom that the divergence between the Hindu law of to-day and that of the Shasters is largely due. Another method by which law is developed, and one more subtle still, is interpretation; and it is one which in skilful hands may be used with considerable effect. Without any dishonesty, people very often find in the language of the law words sufficiently vague and comprehensive to cover the sense which they are looking for. The action of interpretation upon Hindu law differs accordingly as it took place before or after the British occupation. Formerly the only persons whose interpretation was accepted as authoritative were the writers of commentaries. But the Indian courts are very sparing in accepting modern commentaries as authoritative, though nevertheless they carefully record their own interpretations of the law, and these are always treated as authoritative. It follows, from the very nature of the influences thus brought to bear upon law, that not only have the sacred books been departed from, but that different results have been arrived at in different parts of India. The differences have led recent writers to speak of five schools of Hindu law, called respectively the Benares school, the Bengal or Gauriya school, the Bombay school or school of western India, the Dravida school or school of southern India and the Mithila school—the district last named being a very small one to the south of and adjoining Nepal. But it would be a great mistake to suppose that the differences between these so-called schools are comparable to each other in importance. As will appear presently, it would be much more correct to speak of two schools, that of Benares and that of Bengal—the other three being subdivisions of the first.

It will be convenient to give a short description of those of the sacred books which are actually in use in the Indian courts when they desire to ascertain the Hindu law. Of these by far the first in importance, as well as the first in date, is the one which we call the Laws of Manu. It has been translated by Professor Buhler, and forms vol. xxv. of the "Sacred Books of the East," edited by Professor Max Müller. If we examine it, we find that only about one-fourth of the book deals with matters which we should call legal, the rest being concerned with topics either purely religious or ceremonial. And of these topics only one, that relating to partition of family property, belongs to that portion of the Hindu law which is administered in the courts, and, as one would expect, what is said on this topic has been largely departed from under the influences above described. Very little is known as to the date of the Laws of Manu. They are probably much older than their present form, which Buhler places somewhere between 200 B.C. and A.D. 200. Of more interest than the exact date is the state of society which they disclose. The tribal and nomadic stage had passed away. Society had so far settled down as to possess a regular form of government under a king. The people were divided into four great castes, representing religion, war, commerce and agriculture and servitude. Justice is spoken of as administered by the king. Provision is made for the recovery of debts and the punishment of offences. There are rules relating to the pasture of cattle, trespass by cattle and the enclosure of cultivated fields. There was evidently considerable wealth in the shape of horses, carriages, clothes, jewelry and money. There is no mention of land in general as the subject of permanent private property, though no doubt the homestead and the pasture land immediately adjoining were permanently owned.

***Sacred Books.***

The (so-called) Smriti of Yajnavalkya was, no doubt, a work of considerable importance in its day, and is still sometimes referred to. It shows a somewhat more advanced state of society than the Laws of Manu. The occupier of land has a firmer hold upon it, and there seems to be even a possibility of transferring land by sale. The date of it has not been fixed, but it is thought to be later than the Laws of Manu.

The Smriti of Narada belongs to a still later period, perhaps to the 5th or 6th century of our era. It goes more into detail than the other two books just mentioned.



But far more important for practical purposes than these sacred books are the commentaries. These are not sacred. The most important of them all is that known as the Mitacshara. The author of it was named Vijnaneswara. His work is a commentary on the Smriti of Yajnavalkya, and it is supposed to have been written in the latter half of the 11th century. Only a portion of it is used by the law courts—that portion which relates to the partition of family property. The Mitacshara is an important authority for Hindus all over India, and in the greater part its authority is supreme. But there is one very important exception. In the district which is sometimes called Bengal Proper (from its correspondence with the ancient kingdom of Bengal, of which Gaur was the capital), and may be roughly described as the valley of the Ganges below Bhagalpur, the prevailing authority is a treatise called the Dayabhaga. It is, like the Mitacshara, as its name imports, a treatise on partition. The author of it was Jimutavahana. There does not appear to be any more distinct clue to its date than that this author wrote after the 12th century and before the 16th. The very important points of difference between the two commentaries will be stated hereafter. In western India there is a commentary of authority called the Vyavahara Mayukha. It belongs to the 16th century. Generally its authority is secondary to that of the Mitacshara, but in Gujrat its authority is to some extent preferred. In the south of India the Smriti Chandrika is a work of importance. It belongs to the 13th century. It generally follows the Mitacshara, but is fuller on some points. The Vivada Chintamani is used in the small district of Mithila. It is said to belong to the 15th century.

The joint family is by far the most important institution of Hindu society, and it is only through the joint family that we can form a proper conception of the Hindu law. It is the form in which the patriarchal system has survived in India. There is nowhere in Hindu literature, ancient or modern, a description of it as it has existed at any time. In its general features it has always been too universal and too well known to be described. In the Laws of Manu we find very little about it, but what we do find is of great interest. The subject is taken up with reference to a question which in every patriarchal system imperatively requires an answer. What is to be done when a break-up of the family is threatened by the death of the common ancestor? Upon this subject the author of the Laws of Manu says in chap. ix. v. 104: "After the death of the father and the mother, the brothers being assembled, may divide among themselves in equal shares the paternal estate, for they have no power over it while the parents live." Then in v. 105, "or the eldest son alone may take the whole paternal estate; the others shall live under him just as they lived under the father." And in v. III, "Either let them

***The joint family.***

thus live together, or apart if each desires to gain spiritual merit, for by their living separate merit increases, hence separation is meritorious."

We may put aside what is said about the mother which is probably a survival of polyandry, and is now obsolete, and fix our attention upon three important points: (1) Authority is attributed to the father during his life; (2) the same absolute authority is attributed to the eldest son upon the father's death, if the family remains undivided; (3) the sons are at liberty, are indeed recommended, to divide the property. Now, though there may be doubts as to how far this type of family was at any time the universal one, there cannot be any doubt that in those early times it largely prevailed, and that the modern Hindu joint family is directly derived from it. Moreover, it must be remembered that what is here discussed is not ownership, but managership. If the family remained undivided, the eldest son did not take the family property as owner; he only became the uncontrolled manager of it. So far as there was any notion of ownership of the family property, and it was in those early times quite rudimentary, it was in the nature of what we call corporate ownership. The property belonged not to the individual members of the family collectively, but to the family as a whole; to use a modern illustration, not to the members of a family as partnership property belongs to partners, but as collegiate property belongs to fellows of a college. Probably, however, in early times it never occurred to any one to look very closely into the nature of ownership, for until the question of alienation arises the difference between managership and ownership is not of very great importance; and this question did not arise until much later. When and under what circumstances Hindus first began to consider more carefully the nature of ownership we have no means of ascertaining. But we have very clear evidence that there was at one time a very warm controversy on the subject. Each of the two leading commentaries on Hindu law, the Mitacshara and the Dayabhaga, opens with a very long discussion as to when and how a son becomes entitled to be called an owner of the family property. Two conflicting theories are propounded. One is that the sons are joined with the father in the ownership in his lifetime; the other is that they only become owners when he dies, or relinquishes worldly affairs, which, according to Hindu ideas, like taking monastic vows, produces civil death. The author of the Mitacshara adopts the first of these views; the author of the Dayabhaga adopts the second; and this radical difference led to the great schism in the Hindu law. It follows that, according to the Dayabhaga view, the sons not being owners, the father is sole owner. He is both sole owner and uncontrolled manager. According to the Mitacshara view the father and the sons together are the owners, not as individuals, but as a corporation. But even this is not inconsistent with the father retaining his absolute control as manager. How far he has done so will be considered presently.

Hitherto, for the sake of simplicity, the position of father and son has alone been considered; but now take the case of several brothers living together with sons and grandsons. What is the nature of the ownership in this case, and in whom is it vested? Neither in the Dayabhaga nor in the Mitacshara is this question discussed directly, but each of these commentaries discloses the answer which its author would give to this question. According to the Mitacshara, of however many different branches, and of however many different members, a family may consist, they all form a single unity or corporation to which the family property belongs. Not that this is asserted in so many words; there is probably no Sanskrit word corresponding at all nearly to our word corporation. But this is the only language in which a modern lawyer can describe the situation. The members of the family are not partners; no one can separately dispose of anything, not even an undivided share. It is quite otherwise under the Dayabhaga. The property belongs to the members of the family, not as a corporation, but as joint owners or partners. Each is the owner of his undivided share; but not all the members of the Dayabhaga family have a share in the ownership; the sons whose fathers are alive are entirely excluded: the owners are those members of the family of any age who have no direct living ancestor.

This was the nature of family ownership in its two principal forms, but the possibility that an individual member of the family could have something exclusively his own is clearly recognized in the Laws of Manu. Thus in chap. ix. v. 206, it is said, "Property acquired by learning belongs solely to him to whom it was given, likewise the gift of a friend, a present received in marriage, or with the honey mixture." And again in v. 208, "What the brother may acquire by his labour without using the patrimony, that acquisition made solely by his own effort he shall not share, unless by his own will, with his brothers"; and these texts, as we shall see presently, are still of practical application. Nowhere has a strict family system prevailed without some analogous measure of relief (see Sir H. Maine, *Early History of Institutions*, p. 110).

The modern Hindu joint family is a community the members of which are all descended from a common ancestor, and the wives and unmarried daughters of those who are married. Perhaps the wives and daughters might more correctly be said to belong to the family than to be members of it. In its complete form the family is said to be joint in food, worship and estate; and notwithstanding the divergence between the Mitacshara and Dayabhaga systems, the main external features of such a family are the same all over India. Every Hindu family has a common home. This does not mean that there is a single house in which all the members of the family continuously reside, but there is one house where the family gods remain, where the wants of all the members of the family are provided for, where the family worship is conducted, and to which every member of the family is at any time at liberty to resort. This is the real home of a Hindu. Any other residence, however long it may last, is looked upon as temporary. Here also the wives and children remain whilst the men are employed at a distance. With regard to the enjoyment of the family property there is no distinction, except such as the members of the family themselves choose to make. Everything is enjoyable in common. This is the same all over India. It is very necessary to distinguish between ownership and enjoyment. Although the ownership of the family property under the Mitacshara differs very materially (as explained above) from that under the Dayabhaga, the enjoyment in both cases is the same. There is one common fund out of which the wants of the family are supplied. No one is dependent upon his own contribution to the family fund. No one member can say to another, "You have consumed more than your share, and you must make it good." On the other hand, whatever is earned goes into the common stock. Though separate acquisition is possible, it is exceptional, and there is always

a presumption that the earnings of all the members belong to the common fund, so that if any member claims property as self-acquired he must establish his assertion by evidence as to how he acquired it, and that he did so "without using the patrimony." The accounts of the family are kept by the manager, who is usually the eldest male, and he also generally manages the property. But he is assisted and controlled by the other members of the family. No separate account is kept of what each member contributes or receives. The expenditure on behalf of the various members of the family is scarcely ever equal, but this inequality creates no debt between the members of the family. If any one Is dissatisfied he can protest, and if his protest is not listened to, there is only one remedy—he can demand a partition. The powers of the manager are those of an agent: it is very rare to find them formally expressed, and they must be gathered from the usual course of dealing, either amongst Hindus generally, or in the particular family to which the manager belongs; and it is the custom for all the adult male members of the family to be consulted in matters of serious importance. The alienation of land is always looked upon as a matter of special importance, and, except in cases of urgent necessity, requires the express assent of all the members of the family.

***Partition.***

If any member of a Hindu family who is one of the co-owners wishes for a partition, he can demand one, there never having been any compulsion on the members of a Hindu family to live in common. Of course in a Dayabhaga family there can only be a partition as between brothers, or the descendants of brothers; between a father and his sons there can be no partition, the sons not being owners. The father may, if he chooses to do so, distribute the property amongst his sons, and he sometimes does so; but this is a distribution of his own property, and not a partition. The father can distribute the property as he pleases. But the absolute power of the father in this respect has only been recently established. It used to be thought that, if the father made a distribution, he must give to each of his sons an equal share. It is now settled that the father is absolute. Under the Mitacshara, the ownership being vested in the father and sons, there can be a partition between father and sons, and the sons can always insist that, if a partition is made, their rights shall be respected. Whether, under the Mitacshara law, the sons have the right to demand a partition in opposition to their father has been much disputed. It is now generally considered that the sons have such a right.

In modern times if a partition takes place everything belonging to the family in common must be divided, even the idols. If there is only one idol, then each member of the family will be entitled to a "turn of worship," as it is called. It is, however, open to the members of the family to make any special arrangements either for retaining any portion of the property as joint, or as to the mode of carrying out of the partition, provided they can all agree to it. It is remarkable that in the Laws of Manu no such complete partition as can now be required is prescribed. A list of articles is given of considerable importance of which no partition could be claimed. In chap. ix. v. 219, it is said, "A dress, a vehicle, ornaments, cooked food, water and female slaves, property destined for pious uses and sacrifices, and a pasture ground" are all declared to be indivisible. Land and the right of way to the family house were also at one time indivisible. These things, therefore, must have been used in common after partition had taken place, which looks as if the family were not entirely broken up; and it is possible that they inhabited several houses within the same enclosure, as is sometimes seen at the present day. It is not always easy to subdivide property amongst the sharers, especially where they are numerous; and cases occur where a better division could be made by selling the whole or a portion of the property, and dividing the proceeds. This could always be done with the consent of all the sharers; and now by Act IV. of 1893 of the governor-general in council it can be done with the consent of a moiety in value of the sharers.

Rulers in India are apt to look upon their territories as private property, but there is no instance on record of the succession to the throne being considered as partible. On the contrary, in the families which now represent the small mediatized princes, the family property is frequently, by a special custom, considered to be impartible. The property descends to the eldest male, the younger members of the family getting allowances, generally in the form of temporary assignments of portions of the family property.

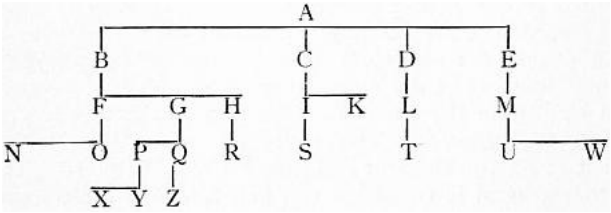
Of course only the family property can be divided, and if any of the members make a claim on the ground of self-acquisition to exclude anything from partition, this claim must be considered; and if it is upheld, that portion of the property must be excluded from partition. These claims sometimes give rise to a good deal of litigation, and are not always easy to determine. It must be borne in mind, however, that self-acquired property becomes family property as soon as it has once descended. Thus if a man by a separate trade earns Rs.10,000, and dies leaving two sons and the son of a third son, these persons form a joint family, and the Rs.10,000 is family property. So also family property which has been partitioned remains family property still. Thus if A, a bachelor, gets on partition a piece of land and afterwards marries and has sons, under the Mitacshara law the father and sons form a joint family as soon as the sons are born, and to this family the land belongs.

***Inheritance.***

When we come to deal with the question of what shares are taken on partition, it is convenient to follow the example of the Hindu commentators, and to treat the subject of inheritance in conjunction with it. The relative importance of these two subjects has not always been perceived, particularly by the early English writers on Hindu law. H. T. Colebrooke, the learned and accomplished translator of the Mitacshara and the Dayabhaga, published the two treatises together in one volume which he called *The Law of Inheritance*. But these treatises, although they deal incidentally with inheritance, are both described by their authors as treatises on partition only; and this, no doubt, is because the subject of inheritance, apart from partition, is of comparatively small importance. Inheritance is the transfer of ownership which occurs at and in consequence of a death. It follows from this that in a Mitacshara joint family there is no inheritance. The death of a member of the family makes no change in the ownership; not any more than the death, of a fellow in the ownership of a college, or of a shareholder in the ownership of a railway company. In a Dayabhaga family there is a case of inheritance whenever a member dies. The share of that member descends to his heir. But here, again, no perceptible change in

the affairs of the family is occasioned thereby. The enjoyment of the family property is no more affected thereby than by a death in a Mitacshara family. It is only when a partition takes place that the devolution of the shares by inheritance has to be traced. Inheritance, therefore, apart from partition, has not to be considered when we are dealing with family property under either system.

Let us now consider partition in a Mitacshara family. Of course the only persons who can claim a share are the members of the family. These, as has been said, are the male descendants of a common ancestor through males, their wives and daughters. But the females are entirely excluded from any share on a partition, and we have to consider the males only. The rule for ascertaining the share to which each member of the family is entitled can be best explained by the following diagram, which represents the male members of a Mitacshara family of whom A is the common ancestor:—




The whole family may be considered as forming one group, which may conveniently be called the group A; and it is evident on inspection that the family may be subdivided into a number of smaller groups each similarly organized, each group consisting of a man and his own male descendants. Thus besides the group A we have the group B, consisting of B and his descendants; the group C, consisting of C and his descendants; and so on. A group may die out altogether, as if U and W were to die childless, E and M being already dead. The rule of partition proceeds upon the supposition—not an unnatural one—that a family, when it breaks up, separates always into groups, and that the shares are moulded accordingly. For example, suppose that when the partition is made the surviving members of the family are N, O, S, T, X, Y, Z; then to find the shares we must go back to the common ancestor and reconstruct the pedigree. There were at first four groups, but at some time, it is immaterial when, by the death of E and all his descendants the groups have been reduced to three; hence the first step is to divide the property into three equal parts, assigning one to each group. The group B was originally represented by three smaller groups, but now by only two, the groups F and G, and to each of these we assign ½ of ⅓, or ⅙. And, of the ⅙ assigned to the group F, N will get $\frac{1}{12}$ and O will get $\frac{1}{12}$. The other ⅙ is divided between the groups P and Q, each group getting $\frac{1}{12}$. Then in the group P, X and Y will each get $\frac{1}{24}$, while Z, as the sole representative of the group Q, will get $\frac{1}{12}$. It may be noted in passing that this principle of division survives in the succession *per stirpes*, of which we find so many examples in other systems of law which had their origin in the patriarchal system. By a similar process we should find that S and T each got ⅓ of the property, they being the sole representatives of the groups C and D respectively. For the sake of simplicity we have taken a case where no example occurs of a father and son being both alive at the time of partition. But suppose P to be alive in addition to the persons mentioned above; then the group P gets $\frac{1}{12}$, and that group consists of three persons, P, X and Y. There is no precise rule as to how the partition was to be made in such a case in the older Hindu law, and it is rarely that a partition takes place between father and sons, but if there should be one it is always assumed that the shares are equal, *i.e.* in the case under consideration each would take $\frac{1}{36}$.

Turning now to a Dayabhaga family, we find that the property is vested, not in the family as a whole, but in certain individual members of it—that is to say, in those male members of the family who have no ancestor alive. And inasmuch as the undivided share of each member is his own, it follows that at his death inheritance will operate and it goes to his heirs. In order, therefore, to find what share each member takes on partition under the Dayabhaga, we must inquire into the history of the family and ascertain what share has become vested in each member of the family by the ordinary rules of inheritance. The rules of inheritance, as laid down in the Dayabhaga, are not very dissimilar to those which we find in other parts of the world. Everywhere we find that a man’s property is taken by his nearest relatives, but there are differences in the way in which proximity is reckoned. Everywhere also there is a preference given to males and the relatives through males over females and the relatives through females, but there are differences in the extent to which this preference is carried. The relatives of a man through males are called his agnates; the relatives of a man through females are called his cognates. In the Hindu law as at present administered there is no primogeniture, and a decided preference of males over females and of agnates over cognates. With regard to the question of proximity, the Dayabhaga lawyers deal with the matter in a very curious way. All Hindus, as is well known, offer some sort of sacrifice to their deceased relatives, and the person by whom the sacrifice is to be offered as well as the nature of the offering are very carefully prescribed. These sacrifices are said to confer a “spiritual benefit” upon the deceased, and this spiritual benefit is greater or less according to the nature of the offering and the person who offers it. Now the Dayabhaga lawyers say that the person whose offering confers the greatest spiritual benefit is entitled to succeed as heir. This being the theory, we must see what rules govern in India the offering of sacrifices to the dead.

The most important offering is that of the pinda, or rice cake, and the persons who are entitled to make this offering to the deceased are called his sapindas. The offering next in importance is that of the lepa, or fragments of the cake, the crumbs as we might call them, and the persons who make this offering are called sakulyas. The offering of least importance is the simple libation of water, and persons connected by this offering are called samonadacas. But who are sapindas, sakulyas and samonadacas respectively, and

of each class whose offering is most efficacious? Practically we shall find that this question is solved by rules of consanguinity not unlike those which we meet with elsewhere. First of all come the sons; their offering is most efficacious, so that they are the nearest heirs and all take equally. Then come the sons' sons; then the sons' sons' sons. Here we break off. The line of inheritance is not continued beyond the great-grandsons. There are other cases in which, as we shall see, there is a similar break when we get three degrees away from the propositus: nor is this peculiarity confined to the Hindu law. We find traces of a similar break in the Roman and in the Teutonic law. After the great-grandson comes the widow. It is difficult to establish her claim on the ground of spiritual benefit, and it rests upon authority rather than principle. The opinions of ancient writers on the subject are very conflicting. They are set forth at great length in the Dayabhaga, with a conclusion in favour of the widow. Probably the intrusion of the widow is connected with the fact that she could in early times by cohabitation with a brother, and in later times by adoption, procure an heir to her sonless husband. Next to the widow come the daughters and then the daughters' sons. Their position, again, may be referred to the notion which prevailed in early times, that a Hindu who had no son of his own might take one of his daughters' sons and make him his own. Then comes the father, then the mother, then the brothers, then the brothers' sons, and then the brothers' sons' sons. The sisters are excluded, but their sons succeed after the brothers' sons' sons; then come the brothers' daughters' sons. Then, leaving this generation, we go a step backward, and proceed to exhaust the previous generation in precisely the same way. It is only necessary to enumerate these in their order: father's father, father's mother, father's brothers, father's brothers' sons, father's brothers' sons' sons, father's sisters' sons, father's brothers' daughters' sons. Then going another step backwards we get father's father's father, father's father's mother, father's father's brothers, father's father's brothers' sons, father's father's sisters' sons, father's father's brothers' daughters' sons.



So far the line of succession is confined either strictly to male agnates, or to persons who may restore the broken line of male agnate relationship. But at this point, under the Dayabhaga, instead of exhausting the male agnates still further, as we might expect, we turn now to the cognates, *i.e.* the relatives of the deceased through the mother. It is said that these are also in some way sapindas. They are generally called bandhus. There is some difficulty in finding out the order in which they succeed, and since it is rare that an heir has to be sought outside the father's family, the question has not been much discussed. The question would have to be decided by the religious doctrine of spiritual benefit, and it is not improbable that Hindus who are accustomed to keep up sacrifices which confer the benefit would be able to say whose sacrifice was most efficacious. When all the sapindas both on the father's and mother's side are exhausted, we then go to the sakulyas, and practically these are found by continuing the enumeration of agnates upon the same principle as that already indicated through three generations lower and three generations higher. On failure of the sakulyas we should have to fall back upon the samonadacas, but probably all that can be said with certainty is that the sakulyas and samonadacas between them exhaust entirely the male agnates of the deceased. Where there are several persons whose offerings are equally efficacious, *i.e.* who stand in the same relationship to the deceased, they all take: the male descendants *per stirpes*, and the other relatives of the deceased *per capita*.

These, then, are the rules which govern the ascertainment of the shares of the members of a family on a partition. Neither in a Mitacshara family nor in a Dayabhaga family have they any effect so long as the family remains joint: it is partition, and partition only, which brings them into play, and it is to this event rather than death that Hindu lawyers attach the greatest importance. Nevertheless all property in India is not joint property. Under the Mitacshara as well as under the Dayabhaga separate property may be acquired, and then, of course, we have true inheritance, for which the law must provide. So far as regards the Dayabhaga, the rules which govern the inheritance of separate property are (as we should expect) precisely the same as those which govern the inheritance of a share, and it is therefore unnecessary to restate them. But it remains to lay down the rules of inheritance for separate property under the Mitacshara law. They are not based by Mitacshara writers upon any religious principle, as under the Dayabhaga, yet the result is not widely different. First come the sons, then the sons' sons, and then the sons' sons' sons. Then the widow, whose right has been disputed, but was long ago established; then the daughters, and then the daughters' sons. After these come the parents, and it is peculiar that of these the mother comes before the father, then the father's sons and then the father's sons' sons. Then we go back to the preceding generation, and follow the same order—the father's mother, the father's father, the father's father's sons, the father's father's sons' sons. After this we go back another generation, and again follow the same order—father's father's mother, father's father's father, father's father's brother, father's father's brother's son. From this point the statements of Hindu lawyers as to the order of succession are very scanty and vague. One thing is certain, that under the Mitacshara law no cognates (relations through females) are admitted until all the agnates (relations through males) are exhausted.

***Wills.***

So far we have considered intestate succession only, and the power of testamentary disposition is unknown to the true Hindu law. It was introduced by the decisions of the British courts of justice. By a will is meant a declaration by a man of his wishes as to the disposition of his property after his death, taking no effect during his life. A will is therefore by its very nature revocable. The general question whether a Hindu could dispose of his property by will arose in Bengal when Hindus began to attempt to dispose of their property after their death according to the English method. At that time there was a doubt whether the father was so completely absolute that he could dispose of his property to the exclusion of his sons, even in his lifetime. As soon as it was settled that he could do so, it was assumed that he could also make a will. It seems never to have been asked why it was that up to this time no Hindu had ever made a will, or to question the radically false assumption that the power of alienation *inter vivos* and the power of testamentary alienation necessarily go together. A long series of decisions confirmed by the legislature has, however, established that a Hindu in modern times can dispose of any property of which he is the sole owner. In other words, a Hindu can dispose by will of his self-acquired property, and under the Dayabhaga a Hindu can dispose by will of his share in

family property. But the courts which created the testamentary power have also limited it to disposition in favour of persons living at the time of the testator's decease, thus avoiding many of the fanciful dispositions of property to which testators in all countries are so prone. But, curiously enough, this restriction, salutary as it is, has also been based on the notion that a testamentary disposition is a gift from the testator to the object of his bounty.

***Debts.***

In almost all countries at an early stage of civilization some legal provision exists by which debtors can be compelled by their creditors to pay their debts, and by which, if they fail to do so, their property can be seized and applied to this purpose. But the extent to which this can be done varies very considerably. So long as the family system exists in its primitive vigour it acts as a protection to the family property against the extravagance of a single member, and we often find that even when the family system has almost, or completely disappeared, there is an unwillingness to deprive the future representatives of the family of their land and houses. Doubts, too, have arisen as to whether the same right which a creditor has against his living debtor can be exercised after the debtor's death against those who have succeeded to his property. In India these two considerations have been deeply affected by a principle enunciated by Hindu lawyers (traces of which we find in many Eastern countries), that a man who dies in debt suffers cruel tortures in a future state, and that it is the imperative duty of his own immediate dependants to deliver him from these tortures by discharging his liabilities. Whether this should be looked upon as a legal, or only as a purely religious duty, might be questionable: the courts have seized upon it as a basis for laying down in the broadest manner the just rule that those who take the benefit of succession must take the burdens also. The subject is one which has caused a great deal of litigation in India, and whilst some points have been clearly settled, others are still being slowly worked out. As the matter stands at present, it may be safely said that all separate property is liable for the debts of the owner, both in his lifetime and after his death in the hands of his heirs. The same may be said of the share in the family property of the member of a Dayabhaga family, of which share he is the owner. So also the family property under both the Dayabhaga and Mitacshara is liable as a whole for the debts incurred on behalf of the family as a whole. As regards the question of the liability of the family property for the separate debts of the members of a Mitacshara family, the courts have held that the sons must pay their father's debts. Of course illegality would be an answer to the claims of the creditors against the heirs, just as it would be an answer to the claim against the original debtor; but there is some authority for saying that a debt contracted for an immoral though not an illegal purpose would not be enforced against the heir. According to modern decisions also, if judgment and execution on a separate debt are obtained against the member of a Mitacshara family, the share which would fall to him upon a partition may by process of law be set apart and sold for the benefit of the creditor.



***Maintenance.***

The doctrine of what is called maintenance plays an important part in the Hindu law, and, as we shall see, it modifies considerably the rigour of the Hindu law in excluding from the succession females or persons suffering from mental or bodily infirmity. The right of maintenance under the Hindu law is the right which certain persons have to be maintained out of property which is not their own. The persons who in certain circumstances have this right are sons, widows, parents and unmarried daughters and sisters. The claim of the widow arises at the death of her husband; of a child at the death of its parent, and so forth. The claim is not for a bare subsistence only, but to such a provision as is suitable to the claimant having regard to his or her position in life. Of course the sons are generally heirs, and an heir can have no claim to maintenance; but a son excluded by any mental or bodily defect would have a right to maintenance. The girls are generally married in infancy, and after marriage they have no claim to maintenance from their own family. The most frequent claim is by the widow; and it is a very important one, because she can sometimes, through the assertion of this claim, put herself almost in the position of an heir. If a Hindu under the Dayabhaga dies leaving sons and a widow, the widow is entitled to maintenance, and whilst the family remains joint she can claim to be suitably maintained, in the family if she remains in her husband's house, or out of it if she goes elsewhere. But if a partition takes place she is entitled to have a share equal to that of the sons set aside for her use. She can even, if she thinks that the sons do not treat her properly, apply to the court to compel the sons to give her a separate share. This, of course, gives her a very strong position. Whether in a Mitacshara joint family the widow enjoying maintenance can in any case claim a share on partition is doubtful.

***Women's property.***

In some respects, and as regards some kinds of property, the ownership of women under the Hindu law differs from that of men. These differences depend on the source from which the property is derived. If a woman has inherited property from a male, or as a gift by her husband, or has obtained it as a share on partition, she does not own it in the same way as a man would do; she obtains only a kind of restricted ownership. She has the full enjoyment and management of it, but she cannot sell it, or give it away, or dispose of it by will; and at her death it goes not to her heirs but to the heirs of the person from whom she obtained it; her ownership simply comes to an end. If she obtained it by inheritance from a male, it will go on her death to the heirs of that male; if as a share on partition it will be divided amongst the other sharers; if as a gift from her husband, to the heirs of the husband. As regards property otherwise obtained she is in the same position as any other owner, but the rules of inheritance applicable to it are somewhat peculiar. It would be a mistake to look upon the restricted ownership of a woman as what the English lawyers call a life estate. There is no such thing as a remainder or reversion. The whole estate is vested in her. If we endeavoured to describe the position of affairs at her death in the technical language of the English law of real property, it would be more correct to say that there was a shifting use. The restriction of alienation is sometimes removed where there is a danger that the property might otherwise be lost, as for example when the property is likely to be sold for non-payment of government revenue, in which case a portion may, if necessary, be sold by the woman so as to save the remainder. So also a woman who has no other means of maintaining herself, or of providing for the performance of religious duties which are incumbent upon her, may sell so

much of the property as will produce the necessary funds. It would be difficult for a purchaser to know whether he would be safe in purchasing from a widow selling under necessity, and more difficult still to preserve evidence of the necessity in case the necessity were disputed. Of course the woman herself could not dispute the validity of the sales, but those who take after her might do so. Consequently it is not unusual to obtain the concurrence of the person who at the time of the purchase is entitled to succeed if the widow were dead, and it has been held that if this person concurs in the sale, no one else can dispute it on the ground that it was unnecessary.

***Husband and wife.***

The subject of marriage is dealt with at considerable length in the Laws of Manu, and it is clear that, as originally conceived, marriage under the Hindu law consisted in nothing more than the mere possession of the woman, however obtained, by the man with the intention of making her his wife. Eight kinds of marriage are enumerated, and to each kind is assigned a separate name. The first four kinds are merely different forms of gift of the girl by her father to the husband. The other four kinds are—obtaining possession of a girl by purchase, fraud, ravishment or consent of the girl herself. But the simple gift of the girl by her father without any bargain or recompense was even then considered the most reputable form of marriage, and it is now the only one in common use amongst orthodox Hindus. The sale of the daughter was even in those early times stigmatized as disgraceful, but it was valid; and even now, if there were an actual transfer of the girl by the father, it is scarcely probable that the courts would inquire whether any inducement was given for the transfer. The transaction takes place entirely between the father of the girl and the future husband; the girl has nothing to do but to obey. If the girl has no father, then it will be the duty of her nearest male relatives to dispose of her in marriage. If, however, the girl is not married when she attains puberty (which is very rare), then she may choose a husband for herself. The father cannot dispose of his son in marriage as he can of his daughter, nor is anything said about his consent in the matter; though in the case of a very young boy there can be no doubt that the consent of one or both parents is obtained. The marriage of very young boys is very common, and is certainly valid.

The ceremonies which precede and accompany a marriage are very numerous. By far the most important is that which consists in the bridegroom taking the bride’s hand and walking seven steps. Amongst Hindus generally the performance of this ceremony following upon a betrothal would be treated as conclusive evidence of a marriage, whilst the omission of it would, amongst orthodox Hindus, be almost conclusive that no marriage had yet taken place. But still any particular customs of the tribe or caste to which the parties belonged would always be considered, and it cannot be said that the completion or non-completion of this ceremony is universally conclusive as to the existence of a marriage. There may be communities of Hindus which require something more than this; there are certainly some which require something less, and others which require something altogether different. There are lower castes in some parts of India calling themselves Hindus in which the only ceremony accompanying a marriage is giving a feast to which the members of the two families are invited.

The marriage of Hindus is complete without consummation; and as girls are almost invariably married before the age of puberty, and sometimes long before, consummation is generally deferred, it may be, for several years. But all this time the parties are husband and wife, and if the husband dies the child becomes a widow. The condition of these child widows in India is certainly not an enviable one, for practically they can never hope to marry again. Whether the second marriage would be lawful was a disputed point in Hindu law until an act of the Indian Legislature (Act XV. of 1860) declared in favour of the opinion that the widow might remarry. But the social prejudice against remarriage is still very strong, and such a marriage rarely takes place. If the widow has inherited any property from her husband, she loses it by contracting a second marriage. There is no legal restraint upon the number of wives that a Hindu may marry, but polygamy is not practised so largely as is sometimes supposed.

Members of the three higher castes are forbidden to marry a woman of the same *gotra* as themselves. Literally a gotra means a cattle-yard, and the prohibition is considered to exclude marriage between all those who are descended from the same male ancestor through an uninterrupted line of males. This rule is said not to apply to Sudras. But there is another rule which applies to all Hindus, and prohibits the marriage of a man with a girl descended from his paternal or maternal ancestors within the sixth degree. The working out of the rule is a little peculiar, but the result is to give a rather wide rule of exclusion of both agnates and cognates. There is, however, this important exception to these rules of exclusion—that if a fit match cannot otherwise be procured, a man may marry a girl within the fifth degree on the father’s side and the third on the mother’s. Practically this reduces the limit of exclusion to that last stated, because no one but the parties themselves with whom the choice rested could say whether or no any other suitable wife was available to the husband.



A Hindu must also marry within his caste: a Brahmin must marry a Brahmin, a Rajput must marry a Rajput, and a Sudra must marry a Sudra. Whether there are any other representatives of the four original castes is very doubtful, and even the claim of the Rajputs to represent the military caste is disputed. Still the rule of prohibition is so far clear. But there are innumerable subdivisions of Hindus which are also called castes, and as a matter of fact these minor castes do not intermarry. How far such marriages would be lawful it is difficult to say. The matter is entirely one of custom. The ancient Hindu law furnishes no guide on the subject, because under the ancient law the intermarriages of persons of different castes, even the highest, though they were considered undesirable, were recognized as legal. Modern Hindus seem disposed to deny the validity of marriages between persons of different castes in either sense of the term.

Divorce, in the sense of a rupture of the marriage tie, is not known to the true Hindu law. But unchastity deprives a wife of all her rights except to a bare maintenance, and this without any legal proof. She cannot succeed her husband as his heir, and of course she cannot remarry. A little confusion has been caused by the fact that a Hindu husband sometimes goes through a private ceremony which is erroneously called a

divorce. But this is only done in order more effectually to bar an unchaste wife from succeeding to his property. Some very low castes are, however, said to allow a husband to divorce his wife, and even to allow the divorced wife to marry again. The single case in which a Hindu marriage can be dissolved by a court of law is by a proceeding under Act XXI. of 1860, which was passed to meet the difficulties which arise when one of the parties to a Hindu marriage becomes a Christian. In this case, if the convert after deliberation during a prescribed time refuses to cohabit any longer with the other party, the court may declare the marriage tie to be dissolved, and a woman whose marriage has been thus dissolved is declared capable of marrying again.

**Suttee.**

An interesting chapter in the history of the modern development of Hindu law is that of the practice of what we call Suttee, though, properly speaking, the native term (*Sati*) denotes, not a practice, but a person, *i.e.* a faithful wife. The practice in question is that of the widow burning herself with her husband when his body is burned after his death. This, according to Hindu ideas, is a laudable act of devotion on the part of the widow, and when Great Britain first began to administer the law in India it was not uncommon. The newcomers had not as yet taken upon themselves the responsibility of altering the law, but of course British officers did what they could to discourage the practice, and especially to prevent any pressure being put upon the widow to perform the sacrifice. They could also take advantage of any circumstance which would render the case an improper one for the performance of the sacrifice, as, for example, that compulsion had been put upon the widow, or that the burning did not take place with the body of the husband. But if the proceedings were according to Hindu notions regular, it was contrary to the principles on which the governor-general then acted to interfere, and British officers had frequently to stand by, and, by not interfering, to give a sort of sanction to the sacrifice. When later the servants of the East India company began to assume a more direct responsibility for the government of the country, many suggestions were made for legislative interference. But, acting on the salutary principle that it was unwise to interfere in any way with the religion of the people, the government abstained from doing so. In the meantime a considerable body of opinion against the practice had grown up amongst Hindus themselves, and at length the government thought it safe to interfere. By Regulation XVII. of 1829 widow-burning was declared to be a criminal offence. The measure produced no serious opposition. There was hardly a single prosecution under this Regulation; and from this time the practice of widow-burning has entirely disappeared from that part of India which is under British rule.

**Father and son.**

There are certain peculiarities in the relation of father and son in India which have given rise to the suggestion that there is no relationship between sonship and marriage, and that the notion of sonship in India is founded entirely on that of ownership—ownership of the mother and a consequent ownership of the child. But the arguments by which this view is supported do not appear to be sufficient. The rights of a father over his son, and of a husband over his wife are, it is true, so far like the rights of ownership that both are in the nature of rights *in rem*—that is, they are available against any person who infringes them; but it is contrary to established usage to speak of rights over a free person as rights of ownership, and no one is prepared to say that the wife or child are slaves of the father. There is no reason for abandoning in India the ordinary view, that sonship depends on marital cohabitation between the father and mother. There are undoubtedly in certain special and exceptional cases methods of acquiring sons otherwise than by marital cohabitation. But these contrivances can only be resorted to when there is no son by marriage, and the fiction which, as we shall see, is resorted to to conceal the true nature of these contrivances, would be entirely meaningless, as would most of the rules which regulate them, if sonship in general was based entirely on ownership. There were at one time more contrivances than there are now for supplying the want of male issue by marriage. At one time a son could be begotten for a man who was dead by cohabitation of his widow with a member of his family or perhaps even with a stranger. This is generally looked upon as a survival of polyandry. But this practice, though alluded to in the Laws of Manu as still subsisting, is now entirely obsolete. So there was a custom at one time by which a father could appoint a daughter to raise up male issue for him. The head of the family could also, if he had no son born in wedlock, accept as his own any child born in his house whose mother was not known or not married. So he could accept as his own the son of his wife born before marriage, or the son of his concubine. In the last three cases he may have been, and probably was, himself the father. But none of these contrivances for procuring a son is now in use. The only contrivance now employed for procuring a son, in the absence of one born in wedlock, is by taking into the family the son of another man who is willing to part with him. This is called adoption. There are two kinds of adopted sons: one called dattaka and the other kritrima. The former is in use all over India; the latter only in Mithila. The following rules apply to the dattaka born of adoption: A man can only adopt who is without issue capable of inheriting his property, of performing the funeral ceremonies for himself, and of making the necessary offerings to his ancestors. A woman cannot adopt. But by the authority of her husband, and acting on his behalf, she may select a son and receive him into the family. A man can adopt a son without his wife’s assent; nevertheless, the son when adopted becomes the son of both parents.

Hindus consider it a grievous misfortune that the line of male descent should be broken. The due performance of the sacrificial offerings to the dead is thereby interrupted. Probably this explains the great latitude given in some parts of India to the widow to adopt a son on behalf of her husband in case he has died sonless. There is a text which says, “Nor let a woman give or accept a son unless with the assent of her lord.” But the lawyers of western India do not consider that any express permission to adopt is necessary, and take it for granted that she always has that permission. In Southern India, also, the widow may adopt without express permission, but the sapindas must give their sanction to make the adoption valid. Elsewhere the words have received their natural interpretation, namely, that the husband must in some way indicate his intention that his widow should have authority to adopt. The only person to whom an authority to adopt can be given is the wife or widow; and no widow can be compelled to exercise her power to adopt if she does not wish to do so. The father has absolute power to give away his son in adoption even without the consent of his wife. But her consent is generally asked and obtained before the

son is given. After the father's death the widow may give a son in adoption. The rule which in former times rendered it necessary that the nearest male sapinda should be adopted is obsolete, and the adoption of a stranger is valid, although nearer relatives otherwise suitable are in existence. A man may adopt any child whose mother he could have married if she had been single; if he could not have done so, then he cannot adopt her child. The reason given in the text is that the adopted son must bear the resemblance of a son. This recalls the *dictum* of the Roman law—*adoptio naturam imitatur*. The adopted son and the adopting father must be of the same caste. The period fixed for adoption by the three higher castes is before the ceremony of upandyana, or investiture of the child with the thread which these castes always wear over the left shoulder. For Sudras, who have no thread, the period is prior to the marriage of the child. There has been much difference of opinion as to whether an only son can be given and received in adoption. It is now settled that the texts which discountenance this adoption do not constitute a prohibition which the law will enforce.

There is sometimes a difficulty in ascertaining whether or no an adoption has actually taken place. There must be a final giving and receiving of the child in adoption, and for Sudras nothing more is required. For the twice-born classes it is not finally settled whether any religious ceremony is actually necessary in order to render the adoption valid. But some religious ceremony in almost all cases accompanies the adoption, so that the absence of any such ceremony will always raise a suspicion that the adoption, though it may have been contemplated and some steps taken towards it, had not been finally completed. If an adoption were in itself invalid, no acquiescence and no lapse of time could make it valid—just as an invalid marriage could not be similarly validated. But acquiescence by the family would be strong evidence of the validity of an adoption, and the rules of limitation by barring any suit in which the question could be raised might render the adoption practically unassailable.

The kritrima adoption is altogether different; although the adopted son performs the ceremonies for his adopting father's family, and has a right to succeed, he is nevertheless not cut off from his own family. A person of any age may be adopted, and he must be old enough to be able to consent to the adoption, as without this consent it cannot take place. In this form a female can adopt, and no ceremonies are required.

AUTHORITIES.—HINDU LAW: J. D. Mayne, *Hindu Law* (London, 1892); Colebrooke's *Treatises on the Hindu Law of Inheritance* (Calcutta, 1810); Stokes's *Hindu Law Books* (Madras, 1865); West and Buhler, *A Digest of the Hindu Law of Inheritance* (Bombay, 1878); Jogendra Nath Bhattacharya, *A Commentary on Hindu Law* (Calcutta, 1894); Rajkumar Sarvadhikari, *Principles of the Hindu Law of Inheritance* (Calcutta, 1882); Gooroodass Banerjee, *The Hindu Law of Marriage and Stridhana* (Calcutta, 1896); Jogendra Chundar, *Principles of Hindu Law* (Calcutta, 1906).

5. *Mahommedan Law.*—The Mahommedan law is always spoken of by Mahommedans as a sacred law, and as contained in the Koran. But the Koran itself could not have supplied the wants even of the comparatively rude tribes to whom it was first addressed. Still less has it proved sufficient to satisfy the requirements of successive generations. No doubt the great veneration which Mahommedans have for the Koran has caused them to be less progressive than members of other religious creeds. But in human affairs some change is inevitable, and the law of the Koran, like other sacred laws, has had to undergo the supplementary and transforming influence of custom and interpretation, though not of legislation. This direct method of changing the law by human agency, natural and simple as it appears to us, is scarcely acknowledged by Orientals even in the present day, except in the rare instances in which it has been forced upon them by Western authority. But besides custom and interpretation, another influence of a special kind has been brought to bear upon Mahommedan law. Besides those utterances which the Prophet himself announced as the inspired message of God, whatever he was supposed to have said and whatever he was supposed to have done have been relied upon as furnishing a rule for guidance. This tradition (*sunna*) is only to be accepted if it can be traced up to a narrator at first hand, though it would be rash to say that the chain of evidence is always very strong. Mahommedans also, in support of a legal rule for which there is no direct authority, resort to the argument from analogy (*kiyas*). The principle involved in a rule for which authority can be quoted is extended so as to cover other analogous cases. There have also been accepted amongst Mahommedans, as authoritative, certain opinions on points of law delivered by those who were actual companions of the Prophet; these opinions are spoken of collectively under the name of *ijma*. Some of these methods of extending and modifying the law have produced changes which it would be very difficult to reconcile with a strict adherence to the language of the Koran (see the Introduction to the *Corps de Droit Ottoman*, by George Young; Oxford, 1905). The Mahommedans of India generally are Sunnites of the Hanafite school. The two principal authorities on Mahommedan law to which recourse is had by the courts in India are the Hedaya and the Futwa Alumgiri. The Hedaya was translated into English by Mr Hamilton. The Futwa Alumgiri was compiled under the orders of the emperor Aurungzib Alumgir. It is a collection of the opinions of learned Mahommedans on points of law. It has not been translated, but it forms the basis of the *Digest of Mahommedan Law* compiled by Neil Baillie. The Mahommedan law, like the Hindu law, is a personal law. It is essentially so in its nature. Persons of any other religion are to a large extent outside its pale. And in India, in civil matters, its application has been expressly limited to Mahommedans. At one time endeavour was made to administer the Mahommedan criminal law as the general territorial law of India, but it had constantly to be amended, and it was at length abolished and the penal code substituted. To be a Mahommedan, and so to claim to be governed by the Mahommedan law, it is necessary to profess the Mahommedan faith.

All that we find on the subject of intestate succession in the Koran are certain directions as to the shares which certain members of the family are to take in the estate of their deceased relative. So far as they go, these are rules of distribution—that is to say, they depend, not on consanguinity only, but on certain equitable considerations, by which rules founded on consanguinity are modified. But these latter rules, though nowhere laid down in the Koran, still play a large part in Mahommedan law. There can be no doubt that they represent the pre-existing

***Intestate succession.***

Arabian custom, which it was not the intention of the Prophet to displace, but only to modify. The claimants under these rules take whatever is left after the specific shares assigned by the Koran to individual members of the family have been satisfied; if in any case there are no such shares, they take the whole. The Arabic term for this class of heirs is *asabah*, which literally means persons connected by a ligament. The term used by English writers is "residuaries," but this description of them has the disadvantage that it entirely loses sight of the connexion on which the claim to succeed is based. They would be more correctly described as the "agnates" of the deceased, but the term "residuaries" is too firmly established to be displaced. Those persons who take a share of the property, under the specific rules laid down in the Koran, we call "sharers," and this word has acquired a technical meaning; it is not used to describe those who can claim a portion of the estate in any other way. It is hardly likely that females, or relatives through females, had any claim to the succession under any Arabian custom, nor, except so far as they are made sharers, are they recognized by the Koran as having a title to succeed. The proper description of this class of persons is zavi-ul-arham, *i.e.* "uterine kindred," and they have, in default of other heirs, established a claim to succeed. English writers have erroneously called them "distant kindred," but distance has nothing to do with the matter.



There is no right of primogeniture under Mahommedan law; there is a general preference of males over females, and if males and females take together as residuaries by an express provision of the Koran, each male takes as much as two females. Females are also expressly forbidden by the Koran to take more than two-thirds of the property; but in the application of these two rules the shares of the mother and the wife are not included. No person can claim to take any portion of the property who traces his relationship to the deceased through a living person, but this rule does not apply to brothers and sisters whose mother is alive. If several persons all stand in the same degree of relationship to the deceased, they take equally, *per caput* and not *per stirpem*.

It will now be convenient to state the rules for finding which of the agnates take as residuaries of the deceased. These are, in ordinary circumstances, the male agnates only, and the rule in question depends upon a classification of the male agnates which is common in other parts of the world. Every family consisting of several generations of male agnates may be broken up into groups, each of which has a separate common ancestor of its own. Thus, suppose A to be the person from whom the descent is to be traced. A belongs to a large group of persons, all of whom are males descended from a common ancestor D. But A and his or her own male descendants form a smaller group, which we may call the group A. This is the first class of male agnates of A. Then suppose A to be the son or daughter of B, excluding those who are descendants of A, and as such included in the first class, the remaining male descendants of B will form the second class of male agnates of A. In like manner we get a third class of male agnates of A who are descendants of C, excluding those who are descendants of A or B; and a fourth class of male agnates of A who are descendants of D, excluding those who are descendants of A, B, or C. This classification can obviously be carried through as many generations as we please. Mahommedan lawyers adopt this classification with only one difference. Between the first and second classes they interpose a class consisting entirely of the direct male ancestors, which they call the "root," so that the male descendants of A (the person whose heirs are in question) would be the first class of residuaries. B, C, D, &c., would be the second class of residuaries; the male descendants of B, other than the descendants of A, would be the third class of residuaries; the male descendants of C, other than the descendants of B and A, would be the fourth class of residuaries, and so on. In order to find the residuaries who are to succeed, we have only to take the classes in their order, and of the highest class which is represented to select the nearest to the deceased. If there are several who are equidistant, they will take equally *per caput*.

The sharers are, of course, those to whom a share is assigned by the Koran. They are (1) the father, (2) lineal male ancestors, whom Mahommedans call the "true grandfathers," (3) uterine half-brothers, *i.e.* the half-brothers by the mother, (4) daughters, (5) daughters of a son, or other direct male descendant, whom we call daughters of a son how low and soever, (6) the mother, (7) true grandmothers, *i.e.* female ancestors into whose line no male except a lineal male ancestor enters, (8) full sisters, (9) consanguine half-sisters, *i.e.* half-sisters by the father, (10) uterine half-sisters, (11) the husband, (12) the wives. The right to a share and the amount of it depends upon the state of the family. Under Mahommedan law not only, as elsewhere, the nearer relative excludes the more remote, but there are special rules of total or partial exclusion arising out of the equitable considerations upon which all rules of distribution are based.

These rules are best shown by taking the case of each member of the family in turn, and at the same time it will be useful to explain the general position of each member. First, the sons. They take no share, but they are first in the first class of residuaries, and their position is a very strong one; they exclude entirely sisters and daughters from a share, and they reduce considerably the shares of the husband, the widows, and the mother. The position of the other male descendants is very similar to that of the sons. They are not sharers; they are residuaries of the first class, and will take as such if the intermediate persons are dead. They reduce the shares of some of the sharers, but not to the same extent as the sons. The father is a residuary of the second class, and the first in that class. But he is also a sharer, and as such is entitled to a share of one-sixth. He can take in both capacities. The father's father is also a residuary of the second class, and he is a sharer, entitled to a share of one-sixth, but of course he cannot take either as sharer or residuary if the father is alive. The position of any true grandfather is analogous. An only daughter takes as sharer one-half of the property, two or more daughters take one-third between them. But sons exclude daughters from a share, and they would get nothing. Naturally this was considered unjust, and a remedy has been found by making the daughters what are called "residuaries in right of their brothers," each daughter taking half of what a son takes. The mother gets a share of one-sixth when there is a child of the deceased, or a child of any son how low and soever; also when there are two or more brothers or sisters. In any other case her share is one-third. If, however, the wife, or the husband (as the case may be), and the father are alive, the share of the mother is only one-third of what remains after deducting the share of the husband or the wife. The brother is never a sharer. He is a residuary of the

third class, and he excludes some sharers. The daughters of a son how low and soever get a share of two-thirds between them if there are several; if there is only one she gets one-half. But the daughters of a son are excluded by any direct male descendant who is nearer to the deceased than themselves, or at the same distance from him. If, however, they are excluded by a person who is at the same distance from the deceased as themselves, Mahommedan lawyers again say that they come in as residuaries in right of that person, each female as usual taking half as much as each male. Of course the daughters of a son may also be excluded by the daughters having exhausted the two-thirds allotted to females. A single sister takes a share of one-half; several sisters take two-thirds between them. Sisters are excluded from a share by any residuary of the first class, and their own brothers also exclude them, but in the latter case they take as residuaries in right of their brothers, each sister taking half what a brother takes. So, again, the sisters may be excluded from a share by the daughters or daughters of sons having exhausted the two-thirds allotted to females, and the residue would go to the nearest male agnate—that is, the uncle or the nephew of the deceased, or some more distant relative. To prevent this Mahommedan lawyers say that in this case the sisters are residuaries, basing their assertion upon a somewhat vague tradition. The share of the husband in the property of the wife is one-fourth if there are surviving children, one-half if there are none. The share of the widow in the property of her deceased husband is one-eighth if there are surviving children, one-fourth if there are not. The nearest true grandmother takes a share of one-sixth. If there are several equidistant, they take one-sixth between them. The uterine half-brothers take a share of one-third when there is only one, but they are excluded by any direct descendant and by any direct male ascendant. Uterine half-sisters are in the same position as uterine half-brothers. Consanguine half-brothers are residuaries of the same class as brothers, but only take in default of full brothers. Consanguine half-sisters take a share of two-thirds, or if there is only one she takes a share of one-half. But if there is a full sister also, the full sister takes one-half, and the consanguine sisters one-sixth between them. The consanguine half-sisters, like the full sisters, are excluded from a share by the children and the father of the deceased, and also by full brothers and consanguine brothers; but in the last case they come in again as residuaries, taking half what a brother takes.



The sharers must of course, unless excluded, be all satisfied before anything is taken by the residuaries. But the sharers may not only exhaust the property; there may not be enough to satisfy all the claimants. Thus, if a man died leaving a wife, a mother and two daughters, the shares are one-fourth, one-sixth and two-thirds, and the sum of the shares being greater than unity, they cannot all be satisfied. The difficulty is met by decreasing the shares rateably, in other words, by increasing the common denominator of the fractions so as to produce unity; hence the process is called the “increase.” The converse case arises when the shares of the sharers do not exhaust the property, but there are no residuaries to take what remains. It has been doubted whether the residue does not fall to the government as *bona vacantia*. But it is now settled that the surplus is to be divided rateably amongst the sharers in proportion to their shares. The process is called the “return.” The husband and the wife are excluded from the benefit of the return. If there are no sharers, the whole estate will go to the residuaries. If there are neither sharers nor residuaries, it will go to the (so-called) distant kindred. Their claim is strong on equitable grounds, as some of them are very near relations; such, for example, as a daughter’s children or a sister’s children. Nevertheless their claim has been doubted, and it must be admitted that there is no very clear ground upon which It can be based. They are not mentioned as sharers in the Koran, and it is not very clear how, as cognates, they could have been recognized by any ancient Arabian custom. However, their claim is now well established, and, in default of both sharers and residuaries, they succeed on a plan somewhat resembling that on which male agnates are classified as residuaries. If all the claimants fail the property goes to the government, but there is one peculiar case. Supposing a man dies leaving a widow, or a woman dies leaving a husband, and no other relative. There is then a residue and no one whatever to take it, as the husband and wife are excluded from the return. Strictly speaking, it would fall to the government as *bona vacantia*, but the claim is never made, and would now be considered as obsolete, the husband or wife being allowed to take the property.

Under Mahommedan law there are certain grounds upon which a person who would otherwise succeed as heir to a deceased person would be disqualified. These grounds are—(1) that the claimant slew the deceased by an act which, under Mahommedan law, would entail expiation or retaliation, and this would include homicide by misadventure; (2) that the claimant is a slave; (3) that he is an infidel, *i.e.* not of the Mahommedan faith. The second impediment cannot now have any application in India; the third has been removed by Act 21 of 1850. There is a rule of Mahommedan law that if two persons die in circumstances which render it impossible to determine which died first, as, for example, if both went down in the same ship, for the purposes of succession it is to be assumed that both died simultaneously.

***Testamentary succession.***

Mahommedan lawyers appear always to have recognized the validity of wills, and they are said to be recognized by a passage in the Koran. But the power of testamentary disposition is restricted within very narrow limits. It only extends to one-third of the property after the payment of debts and funeral expenses. There is no hint of this restriction in the Koran, and it rests upon tradition. If the one-third has been exceeded the legacies must be reduced rateably. The heirs, however, by assenting to the legacies, may render them valid even though they exceed the prescribed amount. There is no restriction as to the form of making a will; it may be either oral or written. A legacy cannot be given to an heir. Mahommedan law contains some very simple and wise provisions for preventing the reckless and often unjust dispositions of property which persons are apt to make upon the approach of death. A man who is “sick,” that is, who is suffering from illness which ends in death, can only give away one-third of his property; and if he has also made a will containing legacies, the gifts and the legacies must be added together in the computation of the disposable one-third. So long as slaves had a money value, the value of the slaves liberated by a man on his deathbed was also included, which reminds us of the *Lex Furia Caninia* of the Roman law. Another transaction by which the restriction on the testamentary power might be eluded is that called *mohabat*. By this is meant a transaction in the

form of a sale, but which, from the inadequacy of the price named, is obviously intended as a gift. If such a transaction is entered into during “sickness,” the loss to the estate would have to be reckoned in computing the disposable one-third. But the *mohabat* transaction takes precedence of legacies. Another obvious mode of eluding the restriction on the testamentary power is the acknowledgment by a man on his deathbed of a fictitious debt; and it would seem that such acknowledgments ought to have been put under restriction. But Mahommedans, like other Orientals, have a useful, though possibly a superstitious, dread of leaving the debts of a deceased person unpaid, and it is this, no doubt, which has prevented their questioning the deathbed acknowledgment of a debt, even though there is every reason to believe it to be fictitious. All that has been done is to prescribe that debts of health should be paid before debts of sickness, and that debts cannot be acknowledged by a sick man in favour of an heir.

***Administration.***

When a Mahommedan dies, the funeral expenses and the creditors must first be paid; then the legatees, then the claims of the sharers, and, lastly, those of the residuaries; or, if there are neither sharers nor residuaries, those of the (so-called) distant kindred. The administration of the estate need present no difficulties if there are no disputes, and if there is some one empowered to take possession of the property, to get in the debts, to satisfy the creditors, and distribute the assets amongst the various claimants; and such a person may be appointed by a Mahommedan in his will, who will perform these duties. He is called a *wasi*, and he is in a position very similar to an executor under English law. But if there is no *wasi*, even if there are no disputes, there may be a good deal of trouble. It would have been in accordance with the spirit of Mahommedan law, and with general principles of equity, if an officer of the courts established under British rule had been regularly empowered to take possession of the property, and to take such measures as were necessary to ensure all the claimants being satisfied in their proper order. But this view of their powers has not been taken by the courts in India; recently, however, they have been enabled by legislation to grant the power of administering the estate to a single person.

***Fictitious relationships.***

There is scarcely any part of Europe or Asia where the creation of fictitious relationships is altogether unknown. In many cases the object of the creation is simply to obtain an heir. This is the object of adoption amongst modern Hindus, and it is this, no doubt, which has led some persons to speak of Hindu adoption as a rudimentary will. But adoption, as such, has never obtained a footing in Mahommedan law. The fictitious relationships which that law recognizes are based upon a different idea. There was in early times a widespread notion that every man must belong to some family either as a freeman or a slave. The family to which a slave belongs is always that of his owner, and that of a freeman is generally indicated by his birth. But a liberated slave has no family, at least no recognized family; and as he cannot stand alone, it was necessary to attach him to some family. Now, just as in Roman law the freedman became a member of his master’s family under the relationship of *patronus* and *cliens*, so in Mahommedan law a liberated slave becomes a member of the master’s family under the relationship called *mawalat*. The object, of course, was to make the master’s family liable for the consequences of the wrongful acts of the freed slave. As a compensation for the liability undertaken by the master’s family, in default of residuaries of the slave’s own blood (who can only be his own direct descendants), the master’s family are entitled to succeed as what are called “residuaries for special cause.” Of course the relationship of master and slave cannot now be created, and it is scarcely probable that any case of inheritance could arise in which it came into question. The relationship of *mawalat* may, under Mahommedan law, also be created in a case where a freeman is converted to Islam. From a Mahommedan point of view he then stands alone, and would be required to attach himself to some Mahommedan family. The form of the transaction exactly indicates the nature of it. The party wishing to attach himself says to the person ready to receive him, “Thou art my kinsman, and shalt be my successor after my death, paying for me any fine or ransom to which I may be liable.” In this case also the family of the person who receives the convert is entitled, in default of other residuaries, to succeed to him as “residuaries for special cause.” But this transaction can have no meaning under English law, which does not recognize the joint responsibility of the family, and it is therefore also obsolete. In the case of *mawalat* the rights of the persons concerned are not reciprocal. The person received gains no right of inheritance in the family into which he enters, and incurs no responsibility for their acts. An important part may still be played in Mahommedan law by the creation of relationships by acknowledgment. Any such relationship may be created, provided that the parentage of the person acknowledged is unknown; a person of known parentage cannot be acknowledged. The age, sex and condition of the person acknowledged must also be such that the relationship is not an impossible one; for, as was said in the Roman law, *fictio naturam imitatur*. The relationship thus constituted is, in the ease of a father, mother, child, or wife, complete, and must be treated for all purposes as having a real existence. But in any other case the acknowledgment, although good as between the parties thereto, has no effect upon the rights of other parties. The acknowledgment which we have just been considering contemplates the possibility at any rate, and in most cases the certainty, that the relationship is entirely fictitious, and has no connexion with any rule of evidence in whatever sense the term is understood. But there is a rule of Mahommedan law that, in cases where the paternity of a child is in dispute, the acknowledgment of the child by the father is conclusive. Whether this would now be maintained in face of the Evidence Act 1870, which deals with cases of conclusive evidence, and expressly repeals all previously existing rules of evidence, may be doubtful.



***Marriage.***

Marriage is a transaction based upon consent between a man and a woman, or between persons entitled to represent them. The result of the transaction is that certain family relationships involving legal rights and duties are created by the law, and these are not wholly under the control of the parties. But as to some of them, to some extent they may be regulated by agreement, and it is customary amongst Mahommedans at the time of a marriage to come to such an agreement. The only condition necessary to the constituting of a valid marriage between persons of full age is the consent of the parties. It is, however, the practice to conclude the transaction in the presence of two males, or one male and two female witnesses; and the omission of this formality would always throw a

doubt upon the intention of the parties finally to conclude a marriage. It is even said that the absence of such witnesses would justify a judge in annulling the marriage. Minors of either sex may be given in marriage by their guardian, and the transaction will be irrevocable if the guardian be the father or any direct male ascendant. In any other case the marriage may be repudiated when the minor arrives at the age of puberty, but the repudiation is not effectual until confirmed by a judge of the civil court. A marriage may be conducted through agents. A woman can have only one husband; a man can have four wives; if he married a fifth the marriage would be annulled by a judge on the application of the woman. Mahommedans have a table of prohibited degrees within which parties cannot marry not very dissimilar to that in force in Great Britain. Nor can a man be married at the same time to two women nearly related to each other, as to two sisters. It is also considered that if a woman take a child to nurse she contracts a sort of maternity towards it, and that if a boy and girl are nursed by the same woman they become brother and sister, and, in a general way, it is said "that whatever is prohibited in consanguinity is prohibited in fosterage"; but it is doubtful whether the law goes so far. The widow, or a divorced woman, is not allowed to marry again during her *iddut*. This is a period of chastity which a woman is bound to observe in order to avoid confusion of issue. If she is pregnant it lasts until the child is born; if not, then in case of divorce it lasts through three periods of menstruation; if she is a widow it lasts for four months and ten days. A Mahommedan man cannot marry an idolatress, but Jews and Christians are not thereby excluded, because, although infidels, they are not idolatresses. A woman is forbidden by Mahommedan law to marry any one who is not a Mahommedan; but if the marriage took place in conformity with the Act of 1872 it might be valid, if it amounted to a repudiation by the woman of her Mahommedanism. It is important to remember, when considering the validity of a Mahommedan marriage, that a distinction is drawn between marriages which are simply void (*batil*) and those which can only be annulled by judicial decision (*farid*), for such a decision has no retrospective effect, so that the children already born are legitimate; and if no step is taken to obtain such a decision during the existence of the marriage, it cannot be questioned afterwards. What marriages are absolutely void, and what are only capable of being declared void, is not very clearly settled, but the evident leaning of Mahommedan law is against absolute invalidity, and there is strong authority for the opinion that no marriages are absolutely void except a marriage by a woman who has a husband living and such as are declared to be incestuous.

***Divorce.***

A Mahommedan has the absolute right to divorce his wife whenever he pleases without assigning any reason whatever for doing so. There are, however, very strong social reasons which have considerable influence in restraining the arbitrary exercise of the power. The power to divorce remains notwithstanding any formal promise by the husband not to exercise it, and it is even said that a divorce pronounced in a state of intoxication, or by a slip of the tongue, or under coercion, is valid. The divorce can, however, be revoked by the husband, but not after it has been three times pronounced, or after the *iddut* has been passed by the woman. Nor can the husband remarry his divorced wife unless she has been again married, and has been again divorced or become a widow, and the intermediate marriage must have been consummated. The power to divorce a wife may be entrusted by the husband to an agent acting on his behalf, and this contrivance is sometimes made use of to enable a woman's friends to rid her of her husband if he ill-treats her. The husband may even empower the wife to divorce herself. If the husband or the wife should happen to die whilst the divorce is still revocable, he or she will inherit; and even a triple repudiation pronounced during "sickness," that is death-sickness, will not deprive the woman of her inheritance if the *iddut* has not been passed. Of course there is nothing to prevent the husband and the wife from agreeing to a divorce, and to the terms on which it is to take place, and such an arrangement is very common. The treatment of the wife by the husband is not a ground upon which the marriage can be dissolved, but the impotence of the husband is a ground of dissolution. The courts in India consider that they have the power under Mahommedan law to grant a decree for the restitution of conjugal rights.

***Dower.***

Dower in Mahommedan law is in the nature of a gift from the husband to the wife on the marriage, like the *donatio propter nuptias* of the Roman law, or the *morgengabe* of Teutonic nations. It may be either "prompt," that is, payable at once, or the payment of it may be deferred, or it may be partly the one and partly the other. The amount of the dower and the time of payment ought to be settled by agreement before the marriage takes place; if this is not done there is some trouble in ascertaining the rights of the parties. It seems clear that a woman is entitled as a matter of right to what is called a "proper dower" if the dower is payable at once the woman may, before consummation, refuse herself to her husband unless it is paid; whether she can do so after consummation is doubtful. If the husband capriciously repudiates the wife before consummation, or the wife before consummation repudiates the husband for his misconduct, then half the dower agreed on must be paid. If it is her misconduct which has caused the repudiation, she is not entitled to anything. Deferred dower becomes payable on the dissolution of the marriage either by death or by divorce. Probably a judge, when called upon to dissolve or annul a marriage, could make reasonable stipulations as to the dower. The dower is the wife's own property, and, as the wife is entirely independent of the husband in regard to her property, she can sue him or his representatives for the dower like any other creditor. Mahommedans generally before marriage enter into a formal contract which regulates not only the dower, but various other matters under the control of the parties, such as the visits the wife is to pay or receive, the amount of liberty which she is to have and so forth.



***Pre-emption.***

The right of pre-emption under Mahommedan law is the right of a third person, in certain circumstances, to step in and take the place of a buyer, at the same price and on the same conditions as the buyer has purchased. It applies only to the purchase of real property, and it can only be exercised upon one of the three following grounds: (1) That the claimant is owner of property contiguous to that sold; (2) that he is a co-sharer in the property of which a share is being sold; (3) that he is a participator in some right over the property, such, for example, as a right of way over it. The claimant must announce his claim as soon as he hears of the sale, and he must

follow up this announcement by a further claim in the presence of witnesses and of the seller, or, if possession has been transferred, of the buyer.

Mahommedan law, so far as it is administered by the courts of British India for Sunnites of the Hanafite school—that is, for the great bulk of Mahommedans—has attained a fair degree of precision, owing to the care bestowed on their decisions by the judges of those courts, and the assistance derived from Mahommedan lawyers. But much difficulty is experienced as soon as we come to deal with Mahommedans of any other description. No doubt in India any clearly-established custom prevalent amongst a well-defined body of persons would be recognized, or any rule of law founded upon texts which they accepted as authoritative. But it is not always easy to determine when these conditions have been satisfied. And to allow Mahommedans to set up a standard of rights and duties different from that of the bulk of their correligionists without this proof would lead not only to confusion but injustice. There is the further difficulty that Mahommedan law, as applied to any Mahommedans except those of the Hanafite school, has as yet been comparatively little studied by modern lawyers, so that very little that is certain can be said about it. There is, however, a considerable body of Shiites in India whose legal system undoubtedly differs in some material particulars from that of the Sunnites. The Mahommedans of Oudh are generally Shiites, and Shiah families, mostly of Persian descent, are to be found in other parts of India. The following points seem clear. A marriage which the parties agree shall last for a fixed time, even for a few hours only, is a valid marriage, and at the expiration of the time agreed on the marriage ceases to exist. The relatives of the deceased, whether male or female, and whether tracing their connexion through males or females, may be sharers or residuaries. Both as sharers and residuaries the children can claim to take the place of their parents in the succession upon the principle of what we call representation. If there are parents or descendants of the deceased, and the sharers do not exhaust the property, the surplus is distributed amongst the sharers of that class in proportion to their shares. If the property is not sufficient to pay in full the shares of all the sharers, the shares do not abate rateably; *e.g.* as between daughters and the parents, or the husband, or the wife of the deceased the whole deduction is made from the daughters' share.

***Shiah System.***

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**INDIAN MUTINY, THE,** the great revolt of the Bengal native army in 1857, which led to the transference of Indian government from the East India company to the crown in 1858. The mediate cause of the Mutiny was the great disproportion between the numbers of British and native troops in India, which gave the sepoys an exaggerated notion of their power; its immediate causes were a series of circumstances which promoted active discontent with British rule.

During the century which elapsed between the victory of Plassey and the outbreak at Meerut, the East India company relied mainly on native troops with a stiffening of British soldiers—especially artillery—for the successful conduct of its wars. The warlike Hindu and Mahommedan races supplied excellent fighting material, when led by British officers, and the sepoy army took a distinguished part in every Indian battle, from Assaye to Gujarat. At the close of Lord Dalhousie's administration (1856) British India was held by some 233,000 native and some 45,000 British troops—roughly a proportion of 5 to 1. It was already clear to some of the men who knew India best that this was a dangerous state of things, though when the Mutiny broke out the relative numbers were 257,000 native to 36,000 British soldiers. It had long been a fundamental principle of Indian government that the sepoy would always be true to his salt—knowing, as Macaulay wrote in 1840, that there was not another state in India which would not, in spite of the most solemn promises, leave him to die of hunger in a ditch as soon as he had ceased to be useful. But the history of the sepoy army might have shown that this was an over-estimate of its loyalty. As early as 1764 it was necessary to stamp out mutiny by blowing thirty sepoys away from guns. In 1806 the family of Tippoo Sultan produced a dangerous mutiny at Vellore, which was nipped in the bud by the prompt action of Gillespie and his dragoons. In 1824 the 47th Bengal infantry refused to march when it was ordered for service in Burma, and after being decimated by British artillery was struck out of the army list. In 1844, after the disasters of the Afghan war had shaken the prestige of British arms in India, no less than seven native regiments broke into open mutiny over grievances both real and fancied; and this time the old stern measures were not adopted to stamp out military disobedience. Lord Ellenborough often said that a general mutiny of the native army was the only real danger with which the British empire in India was threatened, and his warning was solemnly repeated by Sir Charles Napier. A still more explicit warning was uttered by General Jacob, who declared in 1853 that the normal state of the Bengal army was a state of mutiny, and wrote to *The Times* as follows: "There is more danger to our Indian empire from the state of the Bengal army, from the feeling which there exists between the native and the European, and thence spreads throughout the length and breadth of the land, than from all other causes combined. Let government look to this; it is a serious and most important truth."

***Disaffection in the Native Army.***

The causes which, in the middle of the 19th century, were thus tending to sap the long-tried fidelity of the sepoy army were partly military and partly racial. The professional conditions of the sepoy's career,

***Its causes in 1857.***

especially in Bengal, were no longer so tempting as they had been in the first generations of the company's rule. The pay and privileges of the sepoy were steadily being diminished, and the increased demands made on the army by the great extension of the company's territory were by no means grateful to the average Bengal sepoy. Owing to the silladar system, under which the Indian sowar provided his own horse and provender in return for a monthly wage, the Indian cavalry were almost to a man in debt, and therefore favoured any attempt to upset the existing régime, and with it to wipe out the money-lender and his books; and the general enlistment order passed in July 1856, for the purposes of the war in Persia, made the Hindu sepoys afraid of losing caste by crossing the sea.

The Indian government failed to take sufficient account of the social and religious feelings of their native soldiers, whilst a rigid insistence on the principle of seniority had greatly diminished the efficiency of the British regimental officers. Out of 73 mutinous regiments, only four colonels were found worthy of other commands. At the same time, there were deeper reasons for discontent with British rule, which specially affected, the classes from which the Bengal sepoys were drawn. Chief among these was Dalhousie's policy of annexation, which brought under British dominion such small states as Satara, Nagpur and Jhansi, and finally the kingdom of Oudh. The insistence on the right of lapse, *i.e.* the refusal to allow an adopted, son to inherit a native throne, and the threat of annexation on purely humanitarian grounds seriously alarmed the native princes of India, besides creating a class of malcontents, among whom the Nana Sahib, the adopted heir of the peshwa, made himself most infamous. The annexation of Oudh, which was the chief recruiting ground of the Bengal army, probably caused wider disaffection in the ranks of that army than any other act or omission of the government. There can also be little doubt that the social reforms of Lord Dalhousie and his predecessors had disturbed men's minds in Bengal. Thus the Brahmans were offended at the prohibition of suttee and female infanticide, the execution of Brahmans for capital offences, the re-marriage of widows, the spread of missionary effort and the extension of Western education. The Mahommedan zemindars were injured by the reassessment of the land revenue, which was carried through in the interests of the ryots, and the power of the zemindars was formidable, while that of the ryots was negligible; though it must be remembered that the peasantry as a whole gave no assistance to the mutineers. To all these causes must be added—not least important in dealing with orientals—the widespread feeling since the Afghan disaster that the star of the company was in the descendant, and that there was truth in the old prophecy that the British would rule in India for a bare century from Plassey (1757). Bazaar rumours of British reverses in the Crimea and in Persia increased the temptations for a general rising against the dominant race.

To this accumulation of inflammatory materials a spark was put in 1857 by an act of almost incredible folly on the part of the military authorities in India. The introduction of the Minié rifle, with its greased cartridges, was accompanied by no consideration of the religious prejudices of the Bengal sepoys, to whom, whether Hindus or Mahommedans, the fat of cows and pigs was anathema. It was easy for agitators to persuade the sepoys that the new cartridges were greased with the fat of animals sacred to one creed or forbidden to another, and that the British government was thus engaged in a deep-laid plot for forcing them to become Christians by first making them outcasts from their own religions. The growth of missionary enterprise in India lent colour to this theory, which was supported by the fact that no precautions had been taken to grease the Indian cartridges with a neutral fat, such as that of sheep and goats. The researches of Mr G. W. Forrest in the Indian government records have shown that the sepoys' fears of defilement by biting the new cartridges had a considerable foundation in fact. At a court-martial in 1857 Colonel Abbott, inspector general of ordnance, gave evidence that "the tallow might or might not have contained the fat of cows." No attempt, in fact, had been made to exclude the fat of cows and pigs, and apparently no one had realized that a gross outrage was thus being perpetrated on the religious feelings of both Hindu and Mahommedan sepoys. The low-caste natives employed in the arsenals knew what grease was actually being employed, and taunted the Brahman sepoys with the loss of caste that would follow their use of the new cartridges. Refusals to accept the suspected cartridges were soon heard in the Bengal army. The numerous agitators who had their own reasons for fomenting mutiny rose to the occasion, and In the first months of 1857 the greater part of the Bengal presidency was seething with sedition. At this time took place the mysterious distribution of chapatis, small cakes of unleavened bread, which had previously been known in connexion with the mutiny at Vellore (1806). "From village to village, from district to district, through hill-land and lowland, the signal—unexplained at the time, inexplicable still—sped; and in village after village, in district after district, the spreading of the signal was followed by the Increased excitement of the people."

***The greased cartridges.***

The first signs of the approaching trouble were displayed at the great military station of Barrackpur, 16 m. from Calcutta, in January 1857. The minds of the native regiments quartered there were maddened by rumours of the defilement which the new Minié cartridges would entail upon them, and incendiary fires broke out in the lines. The trouble was allayed by the tact of General Hearsey, who reported the incident to the Indian government on the 24th of January. A fortnight later he wrote, as the result of his inquiries, "We have at Barrackpur been dwelling upon a mine ready for explosion." At Berhampur, 100 m. to the north, on the 27th of February, the 19th Bengal infantry refused on parade to take their percussion caps, on the ground that to bite the new cartridges would defile them. The absence of any European troops made it impossible to deal with this act of mutiny on the spot. The defaulting regiment was marched down to Barrackpur for punishment. On the 29th of March, two days before its arrival, a sepoy named Manghal Pandi, from whom the mutineers afterwards came to be spoken of as "Pandies," drunk with bhang and enthusiasm, attempted to provoke a mutiny in the 34th Bengal infantry, and shot the adjutant, but Hearsey's personal courage suppressed the danger. Two days later the 19th were publicly disbanded, but no further punishment was attempted. This was partly due to Lord Canning's personal inclination to temper justice with mercy, but partly also to the fact that there was no adequate European force at hand to execute a severer sentence. Bengal had been recklessly depleted of white troops, and there was only

one European regiment between Calcutta and Dinapur, a distance of 400 m. Canning sent at once for more British troops from Burma. Meantime new accounts of refusals to use even the old cartridges came from distant parts of Hindostan, from Umballa under the very eyes of Anson, the commander-in-chief, and from Lucknow, the capital of the newly annexed kingdom of Oudh. Lord Canning, the governor-general, who had at first hoped that he had only to deal with isolated cases of disaffection, at last recognized that the plague was epidemic, and that only stern measures could stay it. But before he could take the necessary steps, there reached Calcutta the news of the outbreak at Meerut and the capture of Delhi.

***The outbreak at Meerut.***

Meerut, 25 m. from Delhi, was an important military station, under the command of Colonel Archdale Wilson: the district was commanded by General Hewitt, one of the old and inefficient officers whom the rigid system of seniority had placed in so many high commands. At Meerut were quartered, besides one regiment of native cavalry and two of native infantry, a strong force of British troops, horse, foot and guns. Nevertheless, 85 men of the native cavalry regiment, driven to despair by the persistent rumours of the danger to their caste, refused on the 24th of April to accept their cartridges. For this offence they were condemned to ten years' imprisonment with hard labour on the roads, and on the 9th of May they were publicly stripped of their uniforms and marched off to gaol. The next day was a Sunday; and in the evening, whilst the British troops were parading for church, the native cavalry armed themselves, galloped to the gaol and released their comrades. Almost simultaneously the two infantry regiments shot down their officers and broke into open revolt. The badmashes, or criminal class, broke forth from their quarter and began to burn and plunder the dwellings of the British. A few of the mutineers took part in this work; but the great majority of them, fearing the vengeance of the British troops, hastened to move off, rather a mob than an army, upon the Delhi road. There is a general agreement that if a man like Gillespie or Nicholson had been in command of the station, the strong force at his disposal would have enabled him to strike such a deadly blow at the fleeing mutineers as might have stamped out the Mutiny. But Hewitt was too old and Wilson was lacking in initiative; the opportunity was lost, and no attempt was made to do more than clear the cantonments.



***The Revolt of Delhi.***

So many of the chief actors in the Mutiny on the native side carried their secrets into dishonoured graves that it is impossible to know exactly what schemes the household of the king of Delhi had concerted with the disaffected sepoys. But when the mutineers reached Delhi they were at once joined by the city mob and the king's guards in proclaiming a revival of the Mogul empire. For a few hours the native troops of the British garrison awaited the turn of events; but when it became apparent that the British troops from Meerut were afraid to move, there was a general flame of revolt, and Delhi at once became the headquarters of the Mutiny. Most of the British officers and residents were massacred then or afterwards. The great magazine was gallantly defended for a time by nine Britons under Lieutenant Willoughby, and was blown up by them when all hope of relief had vanished. A young telegraph clerk sent the news to Umballa, continuing to signal until he was cut down at his post. Before the authorities in Calcutta and Lahore could take any steps to deal with the long-prophesied danger, the whole of the North-West Provinces were in revolt. Fortunately the two men on whom the chief responsibility fell in this great crisis were equal to their task. Canning in Calcutta, John Lawrence in the Punjab, were men indeed equal to any burden; and the stress of the Mutiny, ending once and forever the bad old system of seniority, brought to the front so many subordinates of dauntless gallantry and soldierly insight that a ring of steel was rapidly drawn round the vast territory affected. Lawrence saw that the surest way to prevent the Mutiny from spreading from the sepoy army of Bengal to the recently conquered fighting races of the Punjab was to hurl the Sikh at the Hindu; instead of taking measures for the defence of the Punjab, he acted on the old principle that the best defence is attack, and promptly organized a force for the reduction of Delhi, with the ardent co-operation of born leaders like John Nicholson, Neville Chamberlain and Herbert Edwardes. Anson, the commander-in-chief, died of cholera before he had had a chance to act on Lawrence's telegram, "Clubs, not spades, are trumps." He was succeeded by Sir Henry Barnard in command of the Delhi field force, then amounting to about 3000 British troops with 22 field guns, in addition to a few Gurkhas and Punjab native troops. The loyalty of the independent Sikh chiefs, headed by Patiala, and the stern measures which had been taken with the sepoy regiments enabled Lawrence to reinforce this little army with every available man and gun from the Punjab, in addition to Sikh and Pathan levies. It was to the insight of Lawrence and the splendid organization of the Punjab province—the spoilt child of the Indian government, as it had been called in allusion to the custom of sending thither the best of the Indian officials and soldiers—that the reduction of Delhi and the limitation of the outbreak were due. Meantime Canning was manfully playing his part at Calcutta. In the hour of danger he was undismayed, as in the hour of victory he was just and merciful. He telegraphed for reliefs from every available quarter, fortunately being able to divert the troops then on their way to China. The native armies of Bombay and Madras remained loyal, and the former in particular—thanks to Lord Elphinstone—furnished valuable reinforcements. Sir Colin Campbell, a veteran soldier whose laurels had been won in many battles from the Peninsula to the Crimea, was despatched from England to take command of the army in India. But even before he could arrive, the outspread of the Mutiny had already been checked by the gallantry and skill of a mere handful of Britons and their faithful native allies.

***The Siege of Delhi.***

Canning and Lawrence, at opposite ends of the disaffected districts, alike perceived that Delhi was the centre of peril, and that all other considerations must be subordinated to striking a decisive blow at that historic city. Both flung to the winds the European rules of warfare, which highly trained officers like Wilson had allowed to hamper their movements. "Make as short work as possible of the rebels," wrote Canning. "Where have we failed when we acted vigorously?" asked Lawrence. Though the nominal commanders of the army which captured Delhi were in turn Barnard, Reed and Wilson, the policy thus stated by Canning and Lawrence was really carried out by their subordinates—Baird Smith, Nicholson and Chamberlain. The Meerut

troops, at last roused from their inaction, joined Barnard on the 7th of June, after a successful affair with the mutineers, and the next day the action of Badli-ki-Serai enabled the British force to occupy the famous Ridge, which they never abandoned till the final assault. At first the British troops, outnumbered by more than three to one by the mutinous regiments alone, were rather besieged than besiegers. Baird Smith indeed urged an immediate assault upon Delhi, on the ground that audacity is the best policy in Indian warfare; but it was not until the arrival of Nicholson on the 7th of August with the last Punjab reinforcements that the force was strong enough, in the opinion of its commander, to take offensive action. On the 14th of September, after three days of artillery preparation, the assault was delivered, under Nicholson's leadership. Two practicable breaches had been made by the siege guns, and a party of engineers under Home and Salkeld blew in the Kashmir gate. The assault was successful, in so far as a firm lodgment was made in the city, though the loss of Nicholson was a heavy price to pay for this success. Wilson actually thought of retreating; but Baird Smith and Chamberlain insisted on perseverance, and the city was captured after six days' hard fighting. The mutineers were completely cowed; the king of Delhi was taken and reserved for trial; and his sons were shot by Captain Hodson, after unconditional surrender, an act which has since been the theme of much reprobation, but which commended itself at the time to Hodson's comrades as wise and justifiable. The siege of Delhi, which was the turning-point of the Mutiny, had lasted for more than three months, during which thirty minor actions had been fought in the almost intolerable heat of the Indian midsummer.

***The Massacre at Cawnpore.***

The stern determination of the British troops, which alone made possible the reduction of Delhi with so inadequate a force, was intensified, if possible, by the ghastly story of Cawnpore. That important military station, lying on the Ganges on the confines of Oudh, was under the command of Sir Hugh Wheeler, an old but still efficient and experienced officer. It was garrisoned by about 3000 native troops, with a mere handful of white soldiers. When the news of the Meerut outbreak reached Wheeler, who had already noted many symptoms of disaffection in his own station, he was placed in a very difficult position. Under his care was a large body of non-combatants—women and children in great numbers among them. To occupy the one defensible position in the station, the magazine by the river with its vast military stores and its substantial masonry walls, would have involved steps which Wheeler regarded as certain to precipitate an outbreak. It was then thought that, if the sepoys mutinied, they would march off to Delhi, and Wheeler contented himself by throwing up a rude entrenchment round the hospital barracks, where he thought that the Europeans would be safe during the first tumult of a rising. All might have fallen out as he anticipated, had it not been that the Nana Sahib, the adopted heir of the late peshwa, was rajah of Bithur in the neighbourhood. This young Mahratta, since known to universal execration as the arch-villain of the Mutiny, was secretly burning with a sense of injury received from the Indian government. He was also ambitious; and when, on the 4th of June, the Cawnpore garrison broke into open mutiny, he prevailed on them to stay and help him to carve a new kingdom out of the company's territory, instead of throwing in their lot with the Delhi empire. From the 6th to the 27th of June the handful of British soldiers, who composed the garrison of a fortification that could not have resisted a serious assault for a single hour, held out with the greatest gallantry in hope of relief. When this hope had died away, they surrendered to the Nana on his solemn promise that all their lives should be spared and that they should have a safe conduct to Allahabad. The Nana, partly urged by his native cruelty, partly, no doubt, by the wish to commit his followers beyond all possibility of composition, massacred the entire garrison in the boats which should have taken it down the river, reserving only some two hundred women and children for a later death. These poor victims were confined in a house known as the Bibigarh. On the 15th of July, when Havelock's avenging army was within a march of Cawnpore, they were all hacked to death and their bodies—some still faintly breathing—were thrown down the adjacent well which is to-day one of the most famous monuments of British rule in India. No single act of the Mutiny elicited such a storm of fierce anger among the British, both those who were fighting in India and those who supported them at home; for none was a more terrible vengeance taken, though the Nana himself escaped from his pursuers.



***The Defence of Lucknow.***

Meanwhile Lucknow, the capital of Oudh, was the scene of a historic defence. It was the headquarters of Sir Henry Lawrence, one of the most far-seeing of Indian statesmen, who was well aware of the mutinous state of the native army. On the 18th of April he warned Lord Canning of some manifestations of discontent, and asked permission to transfer certain mutinous corps to another province. On the 1st of May the 7th Oudh infantry refused to bite the cartridge, but on the 3rd they were disarmed by other regiments. When the news of the outbreak at Meerut reached Lucknow, Sir Henry Lawrence recognized the gravity of the crisis and summoned from their homes two bodies of pensioners, one of sepoys and one of artillerymen, to whose loyalty, and to that of the Sikh sepoys, the successful defence of the residency was largely due. This position was immediately fortified. On the 30th of May the native troops broke into mutiny. On the 4th of June there was a mutiny at Sitapur, a large and important station 51 m. from Lucknow. This was followed by another at Fyzabad, one of the most important cities in the province, and outbreaks at Daryabad, Sultanpur and Salon. Thus in the course of ten days English authority in Oudh practically vanished. On the 30th of June Sir Henry Lawrence ordered a reconnaissance in force from Lucknow, which met the enemy at Chinhat; but the native sepoys and artillerymen turned traitors, and Sir Henry was forced to retreat to the residency, where the siege now began. The first attack was repulsed on the 1st of July, when the separate position of the Machchhi Bhawan was evacuated, and all the troops concentrated in the residency. The entrenchments surrounding this building covered some 60 acres of ground, and included a number of detached houses and buildings, knit together by ditches and stockades. In a military sense the position was indefensible. The garrison consisted of 1720 fighting men, of whom 712 were native troops, 153 civilian volunteers, and the remainder were British officers and men. This small force had to defend 1280 non-combatants. At the very beginning of the siege Sir Henry Lawrence was fatally wounded by a shell, and died on the 4th of July, thus depriving the defence of its guiding spirit. The command then developed upon General Inglis, who met the incessant attacks of the enemy with counter-sorties. On the 21st of July news was received that

General Havelock was advancing, had defeated the Nana, and was master of Cawnpore; but it was still more than two months before even the first relief of Lucknow was achieved. During those two months every device was employed, by direct assault and by mining operations, to reduce the garrison, who held out nobly, meeting assault with sortie and mine with countermine. But the loyalty of the native troops began to waver as the weeks dragged by and no sign of relief appeared. On the 23rd of September, however, the sound of distant guns in the direction of Cawnpore was heard, and on the 25th General Havelock's relieving force entered Lucknow. During the 87 days of the siege the strength of the garrison had diminished to 982, and many of these were sick and wounded. Against these were arrayed six thousand trained soldiers and a vast host of undisciplined rabble. For nearly three months their heavy guns and musketry had poured an unceasing fire into the residency entrenchment from a distance of only 50 yds. During the whole time the British flag flew defiantly on the roof of the residency. The history of the world's sieges contains no more brilliant episode.

***First Relief of Lucknow.***

On the 5th of June the troops at Benares mutinied, but were disarmed by Neill; and on the 6th of June the 6th native infantry at Allahabad mutinied and shot down their officers, but the fort was held until the arrival of Neill, who promptly restored order. On the 30th of June Sir Henry Havelock, who had been appointed to the command of the relieving column, arrived at Allahabad from Calcutta, and on the 7th of July he set out for the relief of Lucknow. His force consisted of some two thousand men all told, of whom three-quarters were British. On the 12th of July he fought the action of Fatehpur, and gained his first victory, though the irregular cavalry misbehaved and were subsequently disarmed. On the 15th the village of Aong was captured, and on the 16th the Nana's force was utterly shattered in the battle of Cawnpore. In nine days Havelock had marched 126 m. and fought three general actions under a broiling sun in the hottest season of the year; but the women and children whom it had been his object to save had already been massacred. Leaving Neill in command at Cawnpore, Havelock started out again on the 29th of July with ten light guns and 1500 men in the desperate attempt to relieve Lucknow, which was 53 m. away. On the 29th he gained two victories at Unao and Busherutgunge, but considering himself too weak to advance, he fell back two marches upon Mangalwar. This decision was badly received by his troops, who were burning to avenge their countrywomen, and by General Neill, whom Havelock was obliged to reprimand for insubordination. Being slightly reinforced, he advanced on the 5th of August, and again turned the enemy out of Busherutgunge, but was again obliged by cholera to retreat to Mangalwar; and on receipt of news from Neill that the enemy were assembling at Bithur, he returned to Cawnpore, and abandoned for the time the attempt to relieve Lucknow. On the 16th of August he defeated the mutineers at Bithur. At this point General Havelock was joined by Sir James Outram, who would have superseded him in the command had not Outram himself, with unequalled generosity, proposed to accompany Havelock only in his civil capacity as chief commissioner of Oudh and to serve under him as a volunteer. On the 21st of September Havelock started on his second attempt to relieve Lucknow, and won the victory of Mangalwar. On the 23rd another victory was gained at Alam Bagh, and news reached the force of the fall of Delhi. From Alam Bagh there were four possible routes of advance to the residency, and Outram considered that the route chosen by Havelock, lying through the streets of Lucknow, involved unnecessary losses to the troops. Neill was killed in the streets, and the little force lost in all 535 officers and men; but on the 26th of September it entered the residency, and the first relief of Lucknow was accomplished.

***Second Relief of Lucknow.***

But the two thousand men who had thus entered the residency entrenchment under Havelock and Outram, though sufficient to reinforce the garrison and save it from destruction, were not strong enough to cut their way back to safety, hampered with the women and children and wounded, amounting to 1500 souls, and the siege now recommenced upon a larger scale. Havelock's task, however, was accomplished, and Outram now took command of the residency. A detachment had been left in the Alam Bagh, which was short of provisions; some attempts were made to open up communication with it, but without success. Subsequently it was reinforced from Cawnpore. Upon the fall of Delhi the troops before that city were freed for the operations in Oudh, and on the 24th of September a column of 2790 men under Colonel Greathed left Delhi. On the 29th a successful action was fought at Bulandshahr, and on the 10th of October the column reached Agra. Here they were surprised by the enemy, but drove them off with considerable loss. On the 14th of October the column left Agra under Colonel Hope Grant, and on the 26th reached Cawnpore, where news was received that the commander-in-chief was coming to take command of the operations. Sir Colin Campbell had been sent out from England to suppress the Mutiny, and had assumed command of the Indian army on the 17th of August, but could not immediately proceed to the front. It was his first task to reorganize the administrative and transport departments; only on the 27th of October did he leave Calcutta. On the 3rd of November he reached Cawnpore, and on the 12th marched upon Lucknow under the guidance of Thomas Henry Kavanagh, who had made his way from the residency disguised as a native for that purpose. Campbell had with him 4500 men with whom to raise a siege maintained by 60,000 trained soldiers occupying strong positions. On the 12th of November the force reached the Alam Bagh, and on the 14th advanced upon Lucknow, proceeding on this occasion across the open plain by the Dilkusha and Martinière instead of through the narrow and tortuous streets of Lucknow. On the 16th the Sikandra Bagh was stormed; on the following day Campbell joined hands with Outram and Havelock, and the relief of Lucknow was finally accomplished.



***Capture of Lucknow.***

Sir Colin Campbell now decided to withdraw the garrison and women and children from the residency, and to hold Lucknow by a strong division operating outside the city. The residency was evacuated on the night of the 22nd of November; but the success of the operations was marred by the death of Havelock. On his return to Cawnpore Campbell found that General Windham was being attacked at that place by the Gwalior contingent. On the 6th of December he defeated the Gwalior contingent in the battle of Cawnpore, though he had only 5000 men against the enemy's 25,000. His next task was to clear his line of communications with Delhi and the

Punjab, and this he accordingly undertook. Lord Canning now decided that the next step should be the reduction of Lucknow, on the ground that it, like Delhi, was a rallying point of the Mutiny, and that its continuance in the hands of the enemy would mean a loss of prestige. General Franks' column advanced to Lucknow from the eastern frontier of Oudh, defeating the enemy in four actions. Meanwhile Outram had held his own at the Alam Bagh for over three months with only 4000 men against 120,000 rebels. An offer of help from Nepal had been accepted in July, and now Jung Bahadur, the prime minister of Nepal, was advancing with 10,000 Gurkhas to aid in the operations against Lucknow; but the lateness of his arrival delayed the opening of the siege until the 2nd of March 1858. The Martinière was captured on the 9th of March and the Begum Kothi on the 11th. On the 14th the Imambara was stormed, and the Kaisar Bagh, and on the 16th the residency was once more in British possession. The enemy were thoroughly routed, but Campbell lost the opportunity of pushing the victory home by forbidding Outram to cross the bridge in pursuit if he thought he would lose a "single man," and by sending the cavalry away from the environs of the city at the critical moment. Upon the fall of Lucknow Lord Canning's Oudh proclamation was issued, confiscating almost the entire lands of the province, and ensuring only their lives to those rebels who should submit at once. Outram considered the terms of this proclamation dangerously severe, and Lord Ellenborough, president of the board of control, thus criticized it in a hasty despatch, the publication of which necessitated his own resignation. It was afterwards acknowledged that the Oudh proclamation, interpreted as Canning meant it should be, was a wise piece of statesmanship. After the fall of Lucknow Canning insisted that Sir Colin Campbell should take immediate action against the rebels in Oudh and Rohilkhand, and a number of petty and harassing operations were carried out by detached columns; but Campbell moved too slowly to bring his guerrilla opponents to book, and the rebellion was really brought to a conclusion by Sir Hugh Rose's brilliant campaign in Central India.

***The Central India Campaign.***

Though the two great princes of Central India, Sindhia and Holkar, wisely and fortunately remained true to the British, troops belonging to both of them joined the mutineers. The Gwalior contingent of Sindhia's army mutinied in the middle of June, and on the 1st of July Holkar's troops revolted at Indore, and the resident, Henry Durand, was forced to leave the residency. The rani of Jhansi also rose in rebellion, to become known as "the best man upon the side of the enemy." The rising in this quarter received little attention until January 1858, when Sir Hugh Rose was given the command of two brigades, to act in concert with Sir Colin Campbell, and he immediately began a campaign which for celerity and effectiveness has rarely been equalled in India. His principle was to go straight for the enemy wherever he found him, and pursue him until he had exterminated him. He was hampered by none of that exaggerated respect for the rebels which earned Sir Colin Campbell the nickname of Old Khabardhar (Old Take-Care); but carried to an extreme the policy of audacity. Advancing from Bombay Sir Hugh Rose relieved Saugor on the 3rd of February, after it had been invested by the rebels for upwards of seven months. On the 3rd of March he forced the pass of Madanpur, and took the whole of the enemy's defences in rear, throwing them into panic. On the 21st he began the siege of Jhansi, the stronghold of the mutineers in Central India, with a garrison of 11,000 men. During the course of the siege Tantia Topi, the most capable native leader of the Mutiny, arrived with a fresh force of 20,000 men, and threatened the British camp; but Sir Hugh Rose, with a boldness which only success could justify, divided his force, and while still maintaining the siege of the fort, attacked Tantia Topi with only 1500 men and completely routed him. This victory was won on the 1st of April, and two days later Sir Hugh carried Jhansi by assault. On the 1st of May the battle of Kunch was fought and won in a temperature of 110° in the shade, many of the combatants on both sides being struck down by heat apoplexy. On the 22nd of May the battle of Kalpi was won, though the European troops were hampered by defective ammunition and Sir Hugh himself here received his fifth sunstroke. In five months he had beaten the enemy in thirteen general actions and sieges, and had captured some of the strongest forts in India. News now arrived that the rebel army under Tantia Topi and the rani of Jhansi had attacked Sindhia, whose troops had gone over to the rebels and delivered Gwalior into their hands. Sir Hugh marched against Gwalior at once, captured the Morar cantonments on the 16th of June, and carried the whole of the Gwalior positions by assault on the 19th, thus restoring his state to Sindhia within ten days of taking the field. This was the crowning stroke of the Central India campaign, and practically put an end to the Mutiny, though the work of stamping out its embers went on for many months, and was only completed with the capture and execution of Tantia Topi in April 1859.

***Not a national rising.***

The Indian Mutiny was in no sense a national rising. The great mass of the people in the affected districts either stood neutral, waiting with the immemorial patience of the East to accept the yoke of the conqueror, or helped the British troops with food and service, in many cases also sheltering British fugitives to the best of their ability. The attempt to throw off the British yoke was confined to a few disaffected ex-rulers and their heirs, with their numerous clansmen and hangers-on, besides the badmashes and highwaymen who saw their way to profit by the removal of the British administration under which their peculiar talents found no safe outlet. The Bengal native army was their tool, which circumstances put into their hands at the psychological moment when British power seemed to be at its lowest point. But the fighting races of the Punjab saw no reason for casting in their lot with the mutineers, and the great majority of the independent princes who had nothing of which to complain, like Patiala in the Punjab, Holkar and Sindhia in central India, preserved a loyal or at least an interested friendship. The Sikhs showed their appreciation of Lawrence's admirable administration by keeping faith with their recent conquerors, and the Gurkhas of Nepal did yeoman service for their fathers' enemies. The lack of any central principle or common interest was shown in the divided counsels and sporadic action of the mutineers and their allies, which made them an easy prey to the solid and audacious British forces.



The chief result of the Indian Mutiny was to end the government of India by the East India company. It was felt that a system of administration which could permit such a catastrophe was no longer desirable. On the 2nd of August 1858 the queen signed the act which transferred the government of India to the

***The result of the Mutiny.***

crown. On the 1st of November Lord Canning, now viceroy of India, published the noble proclamation in which the change was announced, and a full amnesty was offered to all the rebels who had not been leaders in the revolt or were not guilty of the murder of British subjects. Even before the fall of Delhi, Canning had been adversely criticized—"Clemency Canning" he was scornfully called—for announcing his intention to discriminate between the guilt of various classes of mutineers. But a wiser view soon prevailed, and the natives of India at large gratefully accepted the queen's proclamation as the charter of their lives and liberties.

See G. W. Forrest, *History of the Indian Mutiny* (1904), and *Selections from State Papers* (1897); T. R. E. Holmes, *History of the Indian Mutiny* (1898); *Kaye and Malleson's History of the Indian Mutiny* (1864-1888); R. S. Rait, *Life of Lord Gough* (1903); Sir W. Lee-Warner, *Life of Lord Dalhousie* (1904); Sir H. Cunningham, *Lord Canning* ("Rulers of India" series), (1890); Sir Owen Tudor Burne, *Clyde and Strathnairn* (1895); Lord Roberts, *Forty-One Years in India* (1898); and Sir Evelyn Wood's articles in *The Times* in the autumn of 1907.

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**INDIAN OCEAN,** the ocean bounded N. by India and Persia; W. by Arabia and Africa, and the meridian passing southwards from Cape Agulhas; and E. by Farther India, the Sunda Islands, West and South Australia, and the meridian passing through South Cape in Tasmania. As in the case of the Atlantic and Pacific Oceans, the southern boundary is taken at either 40° S., the line of separation from the great Southern Ocean, or, if the belt of this ocean between the two meridians named be included, at the Antarctic Circle. It attains its greatest breadth, more than 6000 m. between the south points of Africa and Australia, and becomes steadily narrower towards the north, until it is divided by the Indian peninsula into two arms, the Arabian Sea on the west and the Bay of Bengal on the east. Both branches meet the coast of Asia almost exactly on the Tropic of Cancer, but the Arabian Sea communicates with the Red Sea and the Persian Gulf by the Straits of Bab-el-Mandeb and Ormuz respectively. Both of these, again, extend in a north-westerly direction to 30° N. Murray gives the total area, reckoning to 40° S. and including the Red Sea and Persian Gulf, as 17,320,550 English square miles, equivalent to 13,042,000 geographical square miles. Karstens gives the area as 48,182,413 square kilometres, or 14,001,000 geographical square miles; of these 10,842,000 square kilometres, or 3,150,000 geographical square miles, about 22% of the whole, lie north of the equator. For the area from 40° S. to the Antarctic Circle, Murray gives 9,372,600 English square miles, equivalent to 7,057,568 geographical square miles, and Karstens 24,718,000 square kilometres, equivalent to 7,182,474 geographical square miles. The Indian Ocean receives few large rivers, the chief being the Zambezi, the Shat-el-Arab, the Indus, the Ganges, the Brahmaputra and the Irawadi. Murray estimates the total land area draining to the Indian Ocean at 5,050,000 geographical square miles, almost the same as that draining to the Pacific. The annual rainfall draining from this area is estimated at 4380 cubic miles.

*Relief.*—Large portions of the bed still remain unexplored, but a fair knowledge of its general form has been gained from the soundings of H.M.S. "Challenger," the German "Gazelle" Expedition, and various cable ships, and in 1898 information was greatly added to by the German "Valdivia" Expedition. A ridge, less than 2000 fathoms from the surface, extends south-eastwards from the Cape. This ridge, on which the Crozet Islands and Kerguelen are situated, is directly connected with the submarine plateau of the Antarctic. From it the depth increases north-eastwards, and the greatest depression is found in the angle between Australia and the Sunda Islands, where "Wharton deep," below the 3000-fathom line, covers an area of nearly 50,000 sq. m. Immediately to the north of Wharton deep is the smaller "Maclear deep," and the long narrow "Jeffreys deep" off the south of Australia completes the list of depressions below 3000 fathoms in the Indian Ocean. The 2000-fathom line approaches close to the coast except (1) in the Bay of Bengal, which it does not enter; (2) to the south-west of India along a ridge on which are the Laccadive and Maldive Islands; and (3) in the Mozambique Channel, and on a bank north and east of Madagascar, on which are the Seychelles, Mascarene Islands and other groups.

*Islands.*—Like the Pacific, the Indian Ocean contains more islands in the western than in the eastern half. Towards the centre, the Maldive, Chagos and Cocos groups are of characteristic coral formation, and coral reefs occur on most parts of the tropical coasts. There are many volcanic islands, as Mauritius, the Crozet Islands, and St Paul's. The chief continental islands are Madagascar, Sokotra and Ceylon. Kerguelen, a desolate and uninhabited island near the centre of the Indian Ocean at its southern border, is noteworthy as providing a base station for Antarctic exploration.

*Deposits.*—The bottom of the Bay of Bengal, of the northern part of the Arabian Sea, of the Red Sea and the Persian Gulf, and of the narrow coastal strips on the east and west sides of the ocean, are chiefly covered by blue and green muds. Off the African coasts there are large deposits of Glauconitic sands and muds at depths down to 1000 fathoms, and on banks where coral formation occurs there are large deposits of coral muds and sands. In the deeper parts the bed of the ocean is covered on the west and south by Globigerina ooze except for an elongated patch of red clay extending most of the distance from Sokotra to the Maldives. The red clay covers a nearly square area in the eastern part of the basin bounded on two sides by the Sunda Islands and the west coast of Australia, as well as two strips extending east and west from the southern margin of the square along the south of Australia and nearly to Madagascar. In the northern portion of the square, north and east of Wharton deep, the red clay is replaced over a large tract by Radiolarian ooze.

*Temperature.*—The mean temperature of the surface water is over 80° F. in all parts north of 13° S., except in the north-west of the Arabian Sea, where it is somewhat lower. South of 13° S. temperature falls uniformly and quickly to the Southern Ocean. Between the depths of 100 and 1000 fathoms temperature is

high in the north-west, and in the south centre and south-west, and low in the north-east, the type of distribution remaining substantially the same. At 1500 fathoms temperature has become very uniform, ranging between 35° and 37° F., but still exhibiting the same type of distribution, though in a very degenerate form.

*Salinity.*—The saltest surface water is found in (*a*) the Arabian Sea and (*b*) along a belt extending from West Australia to South Africa, the highest salinity in this belt occurring at the Australian end. South of the belt salinity falls quickly as latitude increases, while to the north of it, in the monsoon region, the surface water is very fresh off the African coast and to the north-east. Little is known with certainty about the distribution of salinity in the depths, the number of trustworthy observations available being still very small. Probably the northern and north-eastern region, within the monsoon area, contains relatively fresh water down to very considerable depths.

*Circulation.*—North of the equator the surface circulation is under the control of the monsoons, and changes with them, the currents consisting chiefly of north-east and south-west drifts in the open sea, and induced streams following the coasts. During the northern summer the south-west monsoon, which is sufficiently strong to bring navigation practically to a standstill except for powerful steamers, sets up a strong north-easterly drift in the Arabian Sea, and the water removed from the east African coast is replaced by the upwelling of cold water from below; this is one of the best illustrations of this action extant. Along the line of the equator the *Indian counter-current* flows eastwards all the year round, acting as compensation to the great *Equatorial current* flowing westwards between the parallels of 7° and 20° S. The equatorial current, on meeting the northern extremity of Madagascar, sends a branch southwards along the east coast of that island, sometimes called the *Mascarene current*. When the main equatorial current reaches the African coast a minor stream is sent northwards to the source of the Indian counter-current, but the discharge is chiefly by the *Mozambique current*, which south of Cape Corrientes becomes the *Agulhas current*, one of the most powerful stream currents of the globe. On the west coast of Madagascar and on the banks of the African coast south of 30° S., reaction currents or “back-drifts” move in the opposite direction along the flanks of the Agulhas current; these back-drifts are of great importance to navigation. On clearing the land south of the Cape the waters of the Agulhas current meet those of the *west wind drift* of the Southern Ocean, and mingle with them in such a manner as to produce, by interdigitation, alternate strips of warm and cold water, which are met with at great distances south-west and south of the Cape. Between South Africa and Australia the waters form a part of the great west wind drift. The waters of this drift are, in general, of very low temperature, but it is remarkable that the interdigitation just mentioned continues far to the eastward, at least as far as Kerguelen. This fact is probably due partly to the actual intrusion of warm water from the Mascarene current east of Madagascar, and partly to the circumstance that the different temperatures of the waters are so compensated by their differences of salinity that they have almost precisely the same specific gravity *in situ*. The west wind drift sends a stream northwards along the west coast of Australia, the *West Australia current*, the homologue of the Benguela current in the South Atlantic. The principal feature in the circulation in the depths of the Indian Ocean is a slow movement of Antarctic water northwards along the bottom to take the place of that removed from the surface by evaporation, and by currents in the lower latitudes. Little is known beyond the bare fact that such movement does take place.

(H. N. D.)



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**INDIANOLA,** a city and the county-seat of Warren county, Iowa, U.S.A., about 18 m. S. by E. of Des Moines. Pop. (1890) 2254; (1900) 3261; (1905) 3396; (1910) 3283. It is served by the Chicago, Burlington & Quincy and the Chicago, Rock Island & Pacific railways. Indianola is the seat of Simpson College (coeducational, Methodist Episcopal, 1867), with a college of liberal arts, an academy, a school of education, a school of business, a school of shorthand and typewriting, a conservatory of music, a school of oratory, a school of art and a military academy. In 1908 the college had 32 instructors and 905 students. The city lies in a rich farming region, and has a considerable trade in butter and eggs, vegetables and fruits, and in coal, lumber and live stock from the surrounding country. Indianola was laid out and was selected as the county-seat in 1849, and building began in the following year; it was incorporated as a town in 1864, and was chartered as a city of the second class in 1884.

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**INDIANS, NORTH AMERICAN.** The name of “American Indians” for the aborigines of America had its origin in the use by Columbus, in a letter (February 1493) written soon after the discovery of the New World, of the term *Indios* (*i.e.* natives of India) for the hitherto unknown human beings, some of whom he brought back to Europe with him. He believed, as did the people of his age in general, that the islands which he had discovered by sailing westward across the Atlantic were actually a part of India, a mistaken idea which later served, to suggest many absurd theories of the origin of the aborigines, their customs, languages, culture, &c. From Spanish the word, with its incorrect connotation, passed into French (*Indien*), Italian and Portuguese (*Indio*), German (*Indianer*), Dutch (*Indiane*), &c. When the New World came to be known as *America*, the natives received, in English especially, the name “American Indians,” to distinguish them from the “Indians” of south-eastern Asia and the East Indies. The appellation “Americans” was for a long time used in English to designate, not the European colonists, but the aborigines, and when, in 1891, Dr

***The name “American Indians.”***

D. G. Brinton published his notable monograph on the Indians he entitled it *The American Race*, recalling the early employment of the term. The awkwardness of such a term as “American Indian,” both historically and linguistically, led Major J. W. Powell, the founder of the Bureau of American Ethnology, to put forward as a substitute “Amerind,” an arbitrary curtailment which had the advantage of lending itself easily to form words necessary and useful in ethnological writings, *e.g.* pre-Amerind, post-Amerind, pseudo-Amerind, Amerindish, Amerindize, &c. Purists have objected strenuously to “Amerind,” but the word already has a certain vogue in both English and French. Indeed, Professor A. H. Keane does not hesitate, in *The World’s Peoples* (London, 1908), to use “Amerinds” in lieu of “American Indians.” Other popular terms for the American Indians, which have more or less currency, are “Red race,” “Red men,” “Redskins,” the last not in such good repute as the corresponding German *Rothäute*, or French *Peaux-rouges*, which have scientific standing. The term “American Indians” covers all the aborigines of the New World past and present, so far as is known, although some European writers, especially in France, still seek to separate from the “Redskins” the Aztecs, Mayas, Peruvians, &c., and some American authorities would (anatomically at least) rank the Eskimo as distinct from the Indian proper. When the name “Indian” came to be used by the European colonists and their descendants, they did not confine it to “wild men,” but applied it to many things that were wild, strange, non-European in the new environment (see *Journ. Amer. Folk-Lore*, 1902, pp. 107-116; *Handbook of Amer. Inds.*, 1907, pt. i. pp. 605-607). Thus more than one hundred popular names of plants in use in American English (*e.g.* “Indian corn,” “Indian pink,” &c.) contain references to the Indian in this way; also many other things, such as “Indian file,” “Indian ladder,” “Indian gift,” “Indian pudding,” “Indian summer.” The Canadian-French, who termed the Indian *sauvage* (*i.e.* “savage”), remembered him linguistically in *botte sauvage* (moccasin), *traîne sauvage* (toboggan). The term “Siwash,” in use in the Chinook jargon of the North Pacific coast, and also in the English of that region, for “Indian” is merely a corruption of this Canadian-French appellation. In the literature relating to the Pacific coast there is mention even of “Siwash Indians.” Throughout Canada and the United States the term “Indian” occurs in hundreds of place-names of all sorts (“Indian River,” “Indian Head,” “Indian Bay,” “Indian Hill,” and the like). There are besides these *Indiana* and its capital *Indianapolis*. In Newfoundland “Red Indian,” as the special term for the Beothuks, forms part of a number of place-names. Pope’s characterization of the American aborigine,

> “Lo! the poor Indian, whose untutor’d mind
> Sees God in clouds, or hears Him in the wind,”

is responsible for the creation in the mind of the people of a “Mr Lo,” who figures in newspaper lore, cartoons, &c. The reputations, deserved and undeserved, of certain Indian tribes north of Mexico have been such that their names have passed into English or into the languages of other civilized nations of Europe as synonyms for “ruffian,” “thug,” “rowdy,” &c. Recently “les Apaches” have been the terror of certain districts of Paris, as were the “Mohocks” (Mohawks) for certain parts of London toward the close of the 18th century.

***Popular fallacies.***

The North American Indians have been the subject of numerous popular fallacies, some of which have gained world-wide currency. Here belongs a mass of pseudo-scientific and thoroughly unscientific literature embodying absurd and extravagant theories and speculations as to the origin of the aborigines and their “civilizations” which derive them (in most extraordinary ways sometimes), in recent or in remote antiquity, from all regions of the Old World—Egypt and Carthage, Phoenicia and Canaan, Asia Minor and the Caucasus, Assyria and Babylonia, Persia and India, Central Asia and Siberia, China and Tibet, Korea, Japan, the East Indies, Polynesia, Greece and ancient Celtic Europe and even medieval Ireland and Wales. Favourite theories of this sort have made the North American aborigines the descendants of refugees from sunken Atlantis, Tatar warriors, Malayo-Polynesian sea-farers, Hittite immigrants from Syria, the “Lost Ten Tribes of Israel,” &c., or attributed their social, religious and political ideas and institutions to the advent of stray junks from Japan, Buddhist votaries from south-eastern Asia, missionaries from early Christian Europe, Norse vikings, Basque fishermen and the like.

Particularly interesting are the theories of “Welsh (or white) Indians” and the “Lost Ten Tribes.” The myth of the “Welsh Indians,” reputed to be the descendants of a colony founded about A.D. 1170 by Prince Madoc (well known from Southey’s poem), has been studied by James Mooney (*Amer. Anthrop.* iv., 1891, 393-394), who traces its development from statements in an article in *The Turkish Spy*, published in London about 1730. At first these “Welsh Indians,” who are subsequently described as speaking Welsh, possessing Welsh Bibles, beads, crucifixes, &c., are placed near the Atlantic coast and identified with the Tuscaroras, an Iroquoian tribe, but by 1776 they had retreated inland to the banks of the Missouri above St Louis. A few years later they were far up the Red river, continuing, as time went on, to recede farther and farther westward, being identified successively with the Mandans, in whose language Catlin thought he detected a Welsh element, the Moqui, a Pueblos tribe of north-eastern Arizona, and the Modocs (here the name was believed to re-echo Madoc) of south-western Oregon, until at last they vanished over the waters of the Pacific Ocean. The theory that the American Indians were the “Lost Ten Tribes of Israel” has not yet entirely disappeared from ethnological literature. Many of the identities and resemblances in ideas, customs and institutions between the American Indians and the ancient Hebrews, half-knowledge or distorted views of which formed the basis of the theory, are discussed, and their real significance pointed out by Colonel Garrick Mallery in his valuable address on “Israelite and Indian: A Parallel in Planes of Culture” (*Proc. Amer. Assoc. Adv. Sci.* vol. xxxviii., 1889, pp. 287-331). The whole subject has been discussed by Professor H. W. Henshaw in his “Popular Fallacies respecting the Indians” (*Amer. Anthrop.* vol. vii. n.s., 1905, pp. 104-113).



Of ways of classifying the races of mankind and their subdivisions the number is great, but that which measures them by their speech is both ancient and convenient. The multiplicity of languages among the American Indians was one of the first things that struck the earliest investigators of a scientific turn of

***Linguistic stocks.***

mind, no less than the missionaries who preceded them. The Abbé Hervas, the first serious student of the primitive tongues of the New World, from the classificatory point of view, noted this multiplicity of languages in his *Catalogo delle lingue conosciute e notizia della loro affinità e diversità* (Cesena, 1784); and after him Balbi, Adelung and others. About the same time in America Thomas Jefferson, who besides being a statesman was also a considerable naturalist (see *Amer. Anthrop.* ix. n.s., 1907, 499-509), was impressed by the same fact, and in his *Notes on the State of Virginia* observed that for one "radical language" in Asia there would be found probably twenty in America. Jefferson himself collected and arranged (the MSS. were afterwards lost) the vocabularies of about fifty Indian languages and dialects, and so deserves rank among the forerunners of the modern American school of comparative philologists. After Jefferson came Albert Gallatin, who had been his secretary of the treasury, as a student of American Indian languages in the larger sense. He had also himself collected a number of Indian vocabularies. Gallatin's work is embodied in the well-known "Synopsis of the Indian Tribes within the United States East of the Rocky Mountains, and in the British and Russian Possessions in North America," published in the *Transactions and Collections of the American Antiquarian Society* (ii. 1-422) for 1836. In this, really the first attempt in America to classify on a linguistic basis the chief Indian tribes of the better-known regions of North America, Gallatin enumerated the following twenty-nine separate divisions: Adaize, Algonkin-Lenape, Athapascas, Atnas, Attacapas, Blackfeet, Caddoes, Catawbas, Chahtas, Cherokees, Chetimachas, Chinooks, Eskimaux, Fall Indians, Iroquois, Kinai, Koulischen, Muskhogee, Natches, Pawnees, Queen Charlotte's Island, Salish, Salmon River (Friendly Village), Shoshonees, Sioux, Straits of Fuca, Utchees, Wakash, Woccons. These do not all represent distinct linguistic stocks, as may be seen by comparison with the list given below; such peoples as the Caddo and Pawnee are now known to belong together, the Blackfeet are Algonkian, the Catawba Siouan, the Adaize Caddoan, the Natchez Muskogian, &c. But the monograph is a very good first attempt at classifying North American Indian languages.

Gallatin's coloured map of the distribution of the Indian tribes in question is also a pioneer piece of work. In 1840 George Bancroft, in the third volume of his *History of the Colonization of the United States*, discussed the Indian tribes east of the Mississippi, listing the following eight families: Algonquin, Catawba, Cherokee, Huron-Iroquois, Mobilian (Choctaw and Muskhogee), Natchez, Sioux or Dahcota, Uchee. He gives also a linguistic map, modified somewhat from that of Gallatin. The next work of great importance in American comparative philology is Horatio Hale's monograph forming the sixth volume (Phila., 1846), *Ethnography and Philology*, of the publications of the "United States Exploring Expedition, during the years 1838, 1839, 1840, 1842, under the Command of Charles Wilkes, U.S. Navy," which added much to our knowledge of the languages of the Indians of the Pacific coast regions. Two years later Gallatin published in the second volume of the *Transactions of the American Ethnological Society* (New York) a monograph entitled "Hale's Indians of North-west America, and Vocabularies of North America," in which he recognized the following additional groups: Arrapahoes, Jakon, Kalapuya, Kitunaha, Lutuami, Palainih, Sahaptin, Saste, Waiilatpu. In 1853 he contributed a brief paper to the third volume of Schoolcraft's *Information Respecting the History, Condition and Prospects of the Indian Tribes of the United States*, adding to the "families" already recognized by him the following: Cumanches, Gros Ventres, Kaskaias, Kiaways, Natchitoches, Towiacks, Ugaljachmutzi. Some modifications in the original list were also made. During the period 1853-1877 many contributions to the classification of the Indian languages of North America, those of the west and the north-west in particular, were made by Gibbs, Latham, Turner, Buschmann, Hayden, Dall, Powers, Powell and Gatschet. The next important step, and the most scientific, was taken by Major J. W. Powell, who contributed to the *Seventh Annual Report of the Bureau of Ethnology, 1885-1886* (Washington, 1891) his classic monograph (pp. 1-142) on "Indian Linguistic Families of America North of Mexico." In 1891 also appeared Dr D. G. Brinton's *The American Race: A Linguistic Classification and Ethnographic Description of the Native Tribes of North and South America* (New York, p. 392). With these two works the adoption of language as the means of distinction and classification of the American aborigines north of Mexico for scientific purposes became fixed. Powell, using the vocabulary as the test of relationship or difference, enumerated, in the area considered, 58 separate linguistic stocks, or families of speech, each "as distinct from one another in their vocabularies and apparently in their origin as from the Aryan or the Scythian families" (p. 26).

The 58 distinct linguistic stocks of American Indians north of Mexico, recognized by Powell, were as follows: (1) Adaizan; (2) Algonquian; (3) Athapascan; (4) Attacapan; (5) Beothukan; (6) Caddoan; (7) Chimakuan; (8) Chimarikan; (9) Chimmesyan; (10) Chinookan; (11) Chitimachan; (12) Chumashan; (13) Coahuiltecan; (14) Copehan; (15) Costanoan; (16) Eskimauan; (17) Esselenian; (18) Iroquoian; (19) Kalapooian; (20) Karankawan; (21) Keresan; (22) Kiowan; (23) Kitunahan; (24) Koluschan; (25) Kulanapan; (26) Kusan; (27) Lutuamian; (28) Mariposan; (29) Moquelumnan; (30) Muskhogean; (31) Natchesan; (32) Palaihnihan; (33) Piman; (34) Pujunan; (35) Quoratean; (36) Salinan; (37) Salishan; (38) Sastean; (39) Shahaptian; (40) Shoshonean; (41) Siouan; (42) Skittagetan; (43) Takilman; (44) Tañoan; (45) Timuquanan; (46) Tonikan; (47) Tonkawan; (48) Uchean; (49) Waiilatpuan; (50) Wakashan; (51) Washoan; (52) Weitspekan; (53) Wishoskan; (54) Yakonan; (55) Yanan; (56) Yukian; (57) Yuman; (58) Zuñian.

This has been the working-list of students of American Indian languages, but since its appearance the scientific investigations of Boas, Gatschet, Dorsey, Fletcher, Mooney, Hewitt, Hale, Morice, Henshaw, Hodge, Matthews, Kroeber, Dixon, Goddard, Swanton and others have added much to our knowledge, and not a few serious modifications of Powell's classification have resulted. With Powell's monograph was published a coloured map showing the distribution of all the linguistic stocks of Indians north of Mexico. Of this a revised edition accompanies the *Handbook of American Indians North of Mexico*, published by the Bureau of American Ethnology in 1907-1910, now the standard book of reference on the subject. The chief modifications made in Powell's list are as follows: The temporary presence in a portion of south-west Florida of a new stock, the Arawakan, is now proved. The Adaizan language has been shown to belong to the Caddoan family; the Natchez to the Muskogian; the Palaihnian to the Shastan; the Piman to the

Shoshonian. The nomenclature of Powell's classification has never been completely satisfactory to American philologists, and a movement is now well under way (see *Amer. Anthrop.* vii. n.s., 1905, 579-593) to improve it. In the present article the writer has adopted some of the suggestions made by a committee of the American Anthropological Society in 1907, covering several of the points in question.

In the light of the most recent and authoritative researches and investigations the linguistic stocks of American aborigines north of Mexico, past and present, the areas occupied, earliest homes (or original habitats), number of tribes, subdivisions, &c., and population, may be given as follows:—



| Stock. | Area. | Earliest Home. | Tribes, &c. | Population. |
|---|---|---|---|---|
| 1. Algonkian. | Most of N. and E. North America, between lat. 35° and 55°; centred in the region of the Great Lakes and Hudson's Bay. | N. of the St Lawrence and E. of Lake Ontario (Brinton); N.W. of the Great Lakes (Thomas). | Some 50-60, with many minor groups. | About 90,000, of which some 50,000 in Canada. |
| 2. Arawakan. | Within the territory of the Calusas in S.W. Florida. | Central South America. | Small colony from Cuba. | Extinct about end of 16th century. |
| 3. Atakapan. | Louisiana and N.E. Texas. | In part of S.W. or N.E. Texas. | 2. | Practically extinct; in 1885 4 individuals living in Louisiana, and 5 in Texas. |
| 4. Athabaskan. | Interior of Alaska and Canada; W. of Hudson's Bay and N. of the Algonkian; also represented in Oregon, California, Arizona, New Mexico, Texas, and northern Mexico. | Interior of Alaska or N.W. Canada. | Some 50, with numerous minor groups. | About 54,000, of which some 20,000 in Canada. |
| 5. Beothukan. | Newfoundland. | Some part of Newfoundland or Labrador. | Local settlements only. | Extinct; last representatives died in 1829. |
| 6. Caddoan. | Country between the Arkansas and Colorado rivers in Louisiana, Texas, &c., particularly on the Red River and its affluents; later also in Kansas, Nebraska Dakota, and Oklahoma | On the lower Red River, or, perhaps, somewhere to the S.W. | Some 12-15. | About 2000. |
| 7. Chemakuan. | On the N.W. shore of Puget Sound, Washington; also on Pacific coast near Cape Flattery. | Some part of N.W. Washington. | 2. | About 200. |
| 8. Chimarikan. | In N. California, on Trinity river, N.W. of the Copehan. | Somewhere in N. California. | 1. | Practically extinct; in 1903 only nine individuals reported living. |
| 9. Chinookan. | On the lower Columbia river, from the Cascades to the Pacific Ocean; on the coast, N. to Shoalwater Bay and S. to Tillamook Head, in Washington and Oregon. | N. of the Columbia, in W. Washington. | Some 10 or 12 with numerous villages. | About 300. |
| 10. Chitimachan. | Part of S.E. Louisiana. | Region of Grand Lake and river, Louisiana. | 1. | Nearly extinct; in 1881 only 50 individuals surviving. |
| 11. Chumashan. | In S.W. California, S. of the Salinan and Mariposan; in the basins of the Sta Maria, Sta Inez, lower Sta Clara,&c., on the coast, and the northern Sta. Barbara Islands. | Somewhere in S.W. California. | 7 or more dialects, with many settle ments. | Nearly extinct; only 15-20 individuals still living. |
| 12. Copehan (Wintun). | In central N. California, W. of the Pujunan; W. of the Coast | Somewhere in N. California. | 2 chief divisions, with many | About 130 at various villages, and as |

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|---|---|---|---|---|
| | range, from San Pablo and Suisun Bays N. to Mount Shasta. | | small settlements. | many on Round Valley Reservation. |
| 13. Costanoan. | In the coast region of central California, N. of the Salinan; from about San Fransisco S. to Point Sur and Big Panoche Creek, and from the Pacific Ocean to the San Joaquin river. | Somewhere in central California. | No true tribes, but 15-20 settlements. | Nearly extinct; only 25-30 individuals still living. |
| 14. Eskimoan. | Greenland and some of the Arctic islands, the whole northern coast N. of the Algonkian and Athabaskan, from the straits of Belle Isle to the end of the Aleutian Islands; also in extreme N.E. Asia W. to the Anadyr river; in E. North America in earlier times possibly considerably farther south. | Interior of Alaska (Rink); in the region W. of Hudson's Bay (Boas); preferably the latter. | 9 well-marked groups, with 60-70 "settlements," &c. | About 28,000, of which there are in Greenland 11,000 Alaska 13,000, Canada 4500, and Asia 1200. |
| 15. Esselenian. | On the coast of W. California, S. of Monterey, N. of the Salinan. | Somewhere in W. or central California. | Many small settlements. | Extinct; last speaker of language died about 1890. |
| 16. Haidan (Skittagetan). | The Queen Charlotte Islands, off the N.W. coast of British Columbia, and part of the Prince of Wales Archipelago, Alaska. | Interior of Alaska or N.W. Canada. | 2 dialects; about 25 chief "towns," and many minor settlements. | About 900, of which 300 are in Alaska. |
| 17. Iroquoian. | The region about Lakes Erie and Ontario (Ontario, New York, Pennsylvania, Ohio, &c.), and on both banks of the St Lawrence, on the N. to beyond the Saguenay, on the S. to Gaspé; also represented in the S.E. United States by the Toscarora, Cherokee, &c. (now chiefly in Oklahoma). | Somewhere between the lower St Lawrence and Hudson's Bay (Brinton, Hale); in S. Ohio and Kentucky (Boyle, Thomas). | Some 15 chief tribes with many minor subdivisions. | About 40,000, of which 10,000 are in Canada; of those in the United States 28,000 are Cherokee. |
| 18. Kalapuyan. | In N.W. Oregon in the valley of the Willamette, above the Falls. | Somewhere in N.W. Oregon. | About 15-18, with minor divisions. | Only some 140 individuals still living. |
| 19. Karankawan. | On the Texas coast, from Galveston to Padre Island. | Somewhere in S. Texas. | 5-6, with minor divisions. | Extinct probably in 1858; a few survived later, possibly, in Mexico. |
| 20. Keresan. | In N. central New Mexico, on the Rio Grande and its tributaries, the Jemez, San José, &c. | Somewhere in the New Mexico-Arizona region. | 17 "villages" (pueblos); earlier more. | 3990, in 6 pueblos (some 150 at Isleta). |
| 21. Kiowan. | On the upper Arkansas and Canadian rivers, in Colorado, Kansas, Oklahoma, &c.; formerly on the head-waters of the Platte, and still earlier on the upper Yellowstone and Missouri, in S.W. Montana. | At the foot of the Rocky Mountains in S.W. Montana. | 1. | 1219 in Oklahoma. |
| 22. Kitunahan. | In S.E. British Columbia, N. Idaho, and part of N.W. Montana. | Somewhere E. of the Rocky Mountains in Montana or Alberta. | 2 chief divisions and 3 others. | About 1100; half in Canada and half in the United States. |
| 23. Koluschan (Tlingit). | On the coast and adjacent islands of S. Alaska, from 55° to 60° N. lat.; also some in Canada. | Somewhere in the interior of Alaska or N.W. Canada. | Some 12-15. | About 2000. |

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| 24. Kulanapan (Pomo). | On the coast in N.W. California (Sonoma, Lake and Mendocino counties), W. of the Yukian. | Somewhere in N.W. California. | About 30 local divisions, &c.; no true tribes. | About 1000. |
| 25. Kusan. | On the coast of central Oregon, on Coos Bay and Coos and Coquille rivers, S. of the Yakonan; now mostly on Siletz Reservation. | Somewhere inland from Coos Bay, Oregon. | 4, earlier more. | About 50. |
| 26. Lutuamian (Klamath). | In the region of the Klamath and Tule lakes, Lost and Sprague rivers, &c., in Oregon (chiefly) and N.E. California; now on Klamath Reservation, Oregon, with a few also in Oklahoma. | In S. Oregon, N. of the Klamath lakes. | 2, with local subdivisions. | 1034; of these 755 Klamath, and 279 Modoc (56 in Oklahoma). |
| 27. Mariposan (Yokuts). | In S. central California, in the valley of the San Joaquin, on the Tule, Kaweah, King's rivers, &c.; E. of the Salinan, S. of the Moquelumnan. | Somewhere in central California. | 30-40 groups with special dialects. | About 150, at Tule river reservation, &c. |
| 28. Moquelumnan (Miwok). | In central California, in three sections: the main area on the W. slope of the Sierras, from the Cosumnes river on the N. to the Fresno on the S.; a second on the N. shore of San Francisco Bay, and a third (small) S. of Clear Lake on the head-waters of Putah Creek. | Somewhere in central California. | 7 dialects, no true tribes; about 20 local groups with numerous minor ones. | Several hundred; much scattered. |
| 29. Muskogian (Muskhogean). | In the Gulf States, E. of the Mississippi, most of Mississippi, Alabama and Georgia, part of Tennessee, S. Carolina, Florida and Louisiana; now mostly in Oklahoma. | Somewhere W. of the lower Mississippi. | About 12, with many minor divisions. | About 40,000; of these 38,000 in Oklahoma, 1000 in Mississippi, 350 in Florida, and a few in Louisiana. |
| 30. Pakawan (Coahuiltecan). | On both banks of the Rio Grande in Texas and Mexico, from its mouth to beyond Laredo; at one time possibly E. to Antonio, and W. to the Sierra Madre. | Some part of N.E. Mexico. | 20-25, some very small. | Practically extinct; in 1886 about 30 individuals still living, mostly on the Mexican side of the Rio Grande. |
| 31. Pujunan (Maidu). | In N.E. California, E. of the Sacramento river, between the Shastan and Moquelumnan. | N.E. California. | No true tribes; several larger and very many smaller local divisions, "villages," &c. | About 250 full-bloods. |
| 32. Quoratean (Karok). | In extreme N.W. California, on the Klamath river, &c.; W. of the Shastan. | Somewhere in N. California. | Many "villages," &c. | In 1889 some 600; much reduced since; possibly 300. |
| 33. Sahaptian. | In the region of the Columbia and its tributaries, in parts of Washington, Idaho and Oregon; between lat. 44° and 47°, and from the Cascades to the Bitter Root Mountains. | Somewhere in the region of the Columbia, or farther N. | 5-7. | About 4200. |
| 34. Salinan. | On the Pacific coast of S.W. California, from above S. Antonio, to below S. Louis Obispo; W. of the Mariposan. | Somewhere in S.W. California. | 2 or 3 larger divisions; no true tribes. | Practically extinct; in 1884 only 10-12 individuals living. |
| 35. Salishan. | A large part of S. British | Central or N. British | Some 60-65, of | About 15,000 in |

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| | Columbia and Washington, with parts of Idaho and Montana; also part of Vancouver Island, and outliers in N. British Columbia (Bilqula), and S.W. Oregon. | Columbia. | which a number are merely local divisions. | Canada, and some 6300 in the United States. |
| 36. Shastan. | In N. California and S. Oregon, in the basins of the Pit and Klamath rivers, on Rogue river and to beyond the Siskiyou Mountains; S. of the Lutuamian. | In N. California or Oregon. | 6 or more linguistic divisions. | Less than 40 Shasta full-bloods; some 1200 Achomawi. |
| 37. Shoshonian. | In the W. part of the United States; most of the country between lat. 35° and 45° and long. 105° and 120°, with extensions N., S., and S.E. outside this area; represented also in California, and in Mexico by the Piman, Sonoran and Nahuatlan tribes. | Foot-hills and plains E. of the Rocky Mountains in N.W. United States or Canada, but residence in Plateau region long-continued. | Some 12-15 in the United States; many more in Mexico, ancient and modern. | In the United States, some 24,000. |
| 38. Siouan. | In the basin of the Missouri and the upper Mississippi; from about N. lat. 33° to 53° and, at the broadest, from 89° to 110° W. long.; also represented in Wisconsin (Winnebago), Louisiana, the Carolinas, and Virginia (formerly). | In the Carolina-Virginia region. | Some 20 large and many minor ones. | About 38,000; of which some 1400 in Canada. |
| 39. Takelman. | In S.W. Oregon, in the middle valley of Rogue river, on the upper Rogue, and to about the California line or beyond. | In some part of S. Oregon. | 2. | Practically extinct; perhaps 6 speakers of the language alive. |
| 40. Tanoan. | In New Mexico, on the Rio Grande, &c., from lat. 33° to 36°; also a settlement with the Moqui in N.E. Arizona, and another on the Rio Grande at the boundary line, partly in Mexico. | Some part of New Mexico. | Some 14-15 pueblos. | About 4200 in 12 pueblos. |
| 41. Timuquan. | In Florida, from the N. border and the Ocilla river to Lake Okeechobee, perhaps farther N. and S. | Some part of Florida. | Some 60 or more settlements. | Extinct in 18th century. |
| 42. Tonikan. | In part of E. Louisiana and part of Mississippi; in Avoyelles parish, La., &c. | Somewhere in the Louisiana-Mississippi region. | 3. | Practically extinct; in 1886 some 25 individuals living at Marksville, La. |
| 43. Tonkawan. | In S.E. Texas, N.W. of the Karankawan; remnants now in Oklahoma. | Somewhere in S. or W. Texas. | 1. | Nearly extinct; in 1884 only 78 individuals living; in 1905 but 47, with Ponkas, in Oklahoma. |
| 44. Tsimshian (Chimmesyan). | In N.W. British Columbia, on the Nass and Skeena rivers, and the adjacent islands and coast S. to Millbank Sound; also (since 1887) on Annette Island, Alaska. | On the headwaters of the Skeena river. | 3 main and several minor divisions. | About 3200 in Canada, and 950 in Alaska. |
| 45. Wailatpuan. | A western section (Molala) in the Cascade region between Mounts Hood and Scott, in Washington and Oregon; an eastern (Cayuse) on the | In Oregon, S. of the Columbia river. | 2. | Language practically extinct; 405 Cayuse (in 1888 only 6 spoke their mother tongue) |

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| | headwaters of the Wallawalla, Umatilla and Grande Ronde rivers. | | | are still living; in 1881 about 20 Molalas. |
| 46. Wakashan (Kwakiutl-Nootka). | Most of Vancouver Island (except some ⅔ of the E. coast) and most of the coast of British Columbia from Gardner channel to Cape Mudge; also part of extreme N.W. Washington. | Somewhere in the interior of British Columbia. | 3 main divisions, with more than 50 "tribes." | 4765, of which 435 are in the United States. |
| 47. Washoan. | In E. central California and the adjoining part of Nevada, in the region of Lake Tahoe and the lower Carson valley. | In N.W. Nevada. | 1. | About 200, in the region of Carson, Reno, &c. |
| 48. Weitspekan (Yurok). | In N.W. California, W. of the Quoratean. | In N. California or S. Oregon. | 6 divisions; no true tribes. | A few hundreds; in 1870 estimated at 2000 or more. |
| 49. Wishoskan (Wiyot). | In N.W. California, in the coast region, S. of the Weitspekan. | In N. California. | 3-5 divisions; no true tribes. | Nearly extinct. |
| 50. Yakonan. | In W. Oregon, in the coast region and on the rivers from the Yaquina to the Umpqua. | W. central Oregon. | 4 chief divisions, with numerous villages. | About 300, on the Siletz Reservation |
| 51. Yanan. | In central N. California in the region of Round Mountain. &c., S. of the Shastan. | Somewhere farther E. | 1. | Practically extinct; in 1884 but 35 individuals living. |
| 52. Yuchian. | In E. Georgia, on the Savannah river from above Augusta down to the Ogeechee, and also on Chatahoochee river; remnants now in Oklahoma. | Somewhere E. of the Chatahoochee. | 1. | About 500, with Creeks in Oklahoma. |
| 53. Yukian. | In N.W. California, E. of the Copehan, with a N. and a S. section; in the Round Valley region. | N. or central California. | 5 divisions; no true tribes. | About 250. |
| 54. Yuman. | In the extreme S.W. of the United States (lower Colorado and Gila valley), part of California, most of Lower California, and a small part of Mexico. | N.W. Arizona. | 9-10. | In the United States about 4800. |
| 55. Zuñian. | In N.W. New Mexico, on the Zuñi river. | Some part of the New Mexico-Arizona region. | 1. | 1500. |

Of these 55 different linguistic stocks 5 (Arawakan, Beothukan, Esselenian, Karankawan and Timuquan) are completely extinct, the Arawakan, of course, in North America only; 13 (Atakapan, Chimarikan, Chitimachan, Chumashan, Costanoan, Kusan, Pakawan, Salinan, Takelman, Tonikan, Tonkawan, Wishoskan, Yakonan) practically extinct; while the speakers of a few other languages or the survivors of the people once speaking them (*e.g.* Chemakuan, Chinookan, Copehan, Kalapuyan, Mariposan, Washoan, Yukian), number about 200 or 300, in some cases fewer. Of the Wailatpuans, although some individuals belonging to the stock are still living, the language itself is practically extinct. The distribution of the various stocks reveals some interesting facts. Among these are the stretch of the Eskimoan along the whole Arctic coast and its extension into Asia; the immense areas occupied by the Athabaskan and the Algonkian, and (less notably) the Shoshonian and the Siouan; the existence of few stocks on the Atlantic slope (from Labrador to Florida, east of the Mississippi, only 8 are represented); the great multiplicity of stocks in the Pacific coast region, particularly in Oregon and California; the extension of the Shoshonian, Yuman and Athabaskan southward into Mexico, the Shoshonian in ancient, the Athabaskan in modern times; the existence of an Arawakan colony in south-western Florida, a 16th-century representative in North America of a South American linguistic stock. Some stocks, *e.g.* Atakapan, Beothukan, Chemakuan, Chimarikan, Chitimachan, Kiowan, Kitunahan, Lutuamian, Takelman, Tonkawan, Wailatpuan, Yanan, Yuchian, Zuñi, &c., were not split up into innumerable dialects, possessing at most but two, three or four, usually fewer. Of the larger stocks, the Athabaskan, Algonkian, Shoshonian, Siouan, Iroquoian, Salishan, &c., possess many dialects often mutually unintelligible. In marked contrast with this is the case of the Eskimoan stock, where, in spite of the great distance over which it has extended, dialect variations are at

a minimum, and the people “have retained their language in all its minor features for centuries” (Boas). As to the reason for the abundance of linguistic stocks in the region of the Pacific (from Alaska to Lower California, west of long. 115°, there are 37: Eskimoan, Koluschan, Athabaskan, Haidan, Tsimshian, Wakashan, Salishan, Kitunahan, Chimakuan, Chinookan, Sahaptian, Wailatpuan, Shoshonian, Kalapuyan, Yakonan, Kusan, Takelman, Lutuamian, Quoratean, Weitspekan, Wishoskan, Shastan, Yanan, Chimarikan, Yukian, Copehan, Pujunan, Washoan, Kulanapan, Moquelumnan, Mariposan, Costanoan, Esselenian, Salinan, Chumashan, Yuman) there has been much discussion. Of these no fewer than 18 are confined practically to the limits of the present state of California. Dialects of Athabaskan, Shoshonian and Yuman also occur within the Californian areas, thus making, in all, representatives of 21 linguistic stocks in a portion of the continent measuring less than 156,000 sq. m. In explanation of this great diversity of speech several theories have been put forward. One is to the effect that here, as in the region of the Caucasus in the Old World, the multiplicity of languages is due to the fact that tribe after tribe has been driven into the mountain valleys, &c., by the pressure of stronger and more aggressive peoples, who were setting forth on careers of migration and conquest. Another view, advocated by Horatio Hale in 1886 (*Proc. Amer. Assoc. Adv. Sci.*; also *Proc. Canad. Inst.*, Toronto, 1888), is that this great diversity of human speech is due to the language-making instinct of children, being the result of “its exercise by young children accidentally isolated from the teachings and influence of grown companions.” A pair of young human beings, separating thus from the parent tribe and starting social life in a new environment by themselves, would, according to Mr Hale, soon produce a new dialect or a new language. This theory was looked upon with favour by Romanes, Brinton, and other psychologists and ethnologists. Dr R. B. Dixon (*Congr. intern. des. Amér.*, Quebec, 1906, pp. 255-263), discussing some aspects of this question, concludes “that the great linguistic and considerable cultural complexity of this whole California-Oregon region is due to progressive differentiation rather than to the crowding into this restricted area of remnants of originally discrete stocks.” How far two dialects of one stock can go in the way of such differentiation without becoming absolutely distinct is illustrated by the Achomawi branches of the Shastan family of speech, which Dr Dixon has very carefully investigated.

The test of vocabulary is not the only means by which the languages of the North American aborigines might be classified. There are peculiarities of phonetics, morphology, grammar, sentence-structure, &c., which suggest groupings of the linguistic stocks independent of their lexical content. Some languages are harsh and consonantal (*e.g.* the Kootenay and others of the North Pacific region), some melodious and vocalic, as are certain of the tongues of California and the south-eastern United States. Some employ reduplication with great frequency, like certain Shoshonian dialects; others, like Kootenay, but rarely. A few, like the Chinook, are exceedingly onomatopoeic. Some, like the northern languages of California, have no proper plural forms. Of the Californian languages the Pomo alone distinguishes gender in the pronoun, a feature common to other languages no farther off than Oregon. The high development and syntactical use of demonstratives which characterize the Kwakiutl are not found among the Californian tongues. A few languages, like the Chinook and the Tonika, possess real grammatical gender. Some languages are essentially prefix, others essentially suffix tongues; while yet others possess both prefixes and suffixes, or even infixes as well. In some languages vocalic changes, in others consonantal, have grammatical or semantic meaning. In certain languages tense, mood and voice are rather weakly developed. In some languages syntactical cases occur (*e.g.* in certain Californian tongues), while in many others they are quite unknown. Altogether the most recent investigations have revealed a much greater variety in morphological and in grammatical processes than was commonly believed to exist, so that the general statement that the American Indian tongues are all clearly and distinctly of the “incorporating” and “polysynthetic” types needs considerable modification. Using criteria of phonetics, morphology, grammar, &c., some of the best authorities have been able to suggest certain groups of North American Indian languages exhibiting peculiarities justifying the assumption of relationship together. Thus Dr Franz Boas (*Mem. Intern. Congr. Anthrop.*, 1893, pp. 339-346, and *Ann. Archaeol. Rep. Ontario*, 1905, pp. 88-106) has grouped the linguistic stocks of the North Pacific coast region as follows: (1) Tlingit (Koluschan) and Haida; (2) Tsimshian; (3) Wakashan (Kwakiutl-Nootka), Salish, Chemakum; (4) Chinook. In the same region the present writer has suggested a possible relationship of the Kootenay with Shoshonian. In the Californian area Dr R. B. Dixon and Dr A. L. Kroeber have made out these probable groups among the numerous language stocks of that part of the United States: (1) Chumashan and Salinan; (2) Yurok (Weitspekan), Wishoskan, Athabaskan, Karok (Quoratean), Chimarikan; (3) Maidu (Pujunan), Lutuamian, Wintun (Copehan), Yukian, Pomo (Kulanapan), Costanoan, Esselenian, Yokuts (Mariposan), Shoshonian, Shastan, Moquelumnan and possibly Washoan; (4) Yanan; (5) Yuman. Suggestions of even larger groups than any of these have also been made. It may be that, judged by certain criteria, the Kootenay, Shoshonian, Iroquoian and Siouan may belong together, but this is merely tentative. It is also possible, from the consideration of morphological peculiarities, that some if not all of the languages of the so-called “Palaeo-Asiatic” peoples of Siberia, as Boas has suggested (*Science*, vol. xxiii., n.s., 1906, p. 644), may be included within the American group of linguistic stocks. Indeed Sternberg (*Intern. Amer.-Kongr.* xiv., Stuttgart, 1904, pp. 137-140) has undertaken to show the relationship morphologically of one of these languages, the Giliak (of the island of Saghalin and the region about the mouth of the Amur), to the American tongues, and its divergence from the “Ural-Altaic” family of speech. Here, however, more detailed investigations are needed to settle the question.



***General character of Indian languages.***

At one time the opinion was widely prevalent that primitive languages changed very rapidly, sometimes even within a generation, and the American Indian tongues were rather freely used as typical examples of such extreme variation. The error of this view is now admitted everywhere, and for the speech of the New World aborigines Dr Franz Boas states (*Hndb. Amer. Ind.* pt. i., 1907, p. 759): “There is, however, no historical proof of the change of any Indian language since the time of the discovery comparable with that of the language of England between the 10th and 13th centuries.” Another statement that has obtained currency, appearing even in otherwise reputable quarters sometimes, is to the effect that some of the vocabularies of American Indian languages consist of but a few hundred words, one being indeed so scanty that its speakers could not converse by night, since darkness prevented resort to the use of

gesture. This is absolutely contrary to fact, for the vocabularies of the languages of the American Indians are rich, and, according to the best authority on the subject, “it is certain that in every one there are a couple of thousand of stem words and many thousand words, as that term is defined in English dictionaries” (Boas). The number of words in the vocabulary of the individual Indian is also much greater than is generally thought to be the case. It was long customary, even in “scientific” circles, to deny to American Indian tongues the possession of abstract terms, but here again the authority of the best recent investigators is conclusive, for “the power to form abstract ideas is, nevertheless, not lacking, and the development of abstract thought would find in every one of the languages a ready means of expression” (Boas). In this connexion, however, it should be remembered that, in general, the languages of the American aborigines “are not so well adapted to generalized statements as to lively descriptions.” The holophrastic terms characteristic of so many American Indian languages “are not due to a lack of power to classify, but are rather expressions of form of culture, single terms being intended for those ideas of prime importance to the people” (Boas). This consideration of American primitive tongues in their relation to culture-types opens up a comparatively new field of research, and one of much evolutional significance.

As a result of the most recent and authoritative philological investigations, the following may be cited as some of the chief characteristics of many, and in some cases, of most of the languages of the aborigines north of Mexico.

1. Tendency to express ideas with great graphic detail as to place, form, &c.

2. “Polysynthesis,” a device making possible, by the use of modifications of stems and radicals and the employment of prefixes, suffixes, and sometimes infixes, &c., the expression of a large number of special ideas. By such methods of composition (to cite two examples from Boas) the Eskimo can say at one breath, so to speak, “He only orders him to go and see,” and the Tsimshian, “He went with him upward in the dark and came against an obstacle.” The Eskimo *Takusariartorumagaluarnerpâ?* (“Do you think he really intends to go to look after it?”) is made up from the following elements: *Takusar*(*pâ*), “he looks after it”; *iartor* (*poq*), “he goes to”; *uma* (*voq*), “he intends to”; (*g*) *aluar* (*poq*), “he does so, but”; *nerpoq*, “do you think he.” The Cree “word” “*kekawewechetushekamikowanowow*” (“may it,” *i.e.* the grace of Jesus Christ, “remain with you”) is resolvable into: *Kelawow* (here split into *ke* at the beginning and *-owow* as terminal), “you” (pl.); *ka* = sign of futurity (first and second persons); *we* = an optative particle; *weche* = “with”; *tusheka* = verbal radical, “remain”; *mik* = pronominal particle showing that the subject of the verb is in the third person and the object in the second, “it-you”; *owan* = verbal possessive particle, indicating that the subject of the verb is something inanimate belonging to the animate third person, “his-it.” The Carrier (Athabaskan) *lekœnahweshœndœthœnœzkrok*, “I usually recommence to walk to and fro on all fours while singing,” which Morice calls “a simple word,” is built up from the following elements: *le* = “prefix expressing reciprocity, which, when in connexion with a verb of locomotion, indicates that the movement is executed between two certain points without giving prominence to either”; *kœ* = particle denoting direction toward these points; *na* = “iterative particle, suggesting that the action is repeated”; *hwe* = particle referring to the action as being in its incipient stage; *shœn* = “song” (when incorporated in a verb it “indicates that singing accompanies the action expressed by the verbal root”); *dœ* = “a particle called for by *shœn*, said particle always entering into the composition of verbs denoting reference to vocal sounds”; *thœ* = the secondary radical of the uncomposite verb *thîzkret* inflected from *thi* for the sake of euphony with *nœz*; *nœz* = “the pronominal element of the whole compound” (the *n* is demanded by the previous *hwe*, *œ* marks the present tense, and *z* marks the first person singular of the third conjugation); *krok* = “the main radical, altered here by the usitative from the normal form *kret*, and is expressive of locomotion habitually executed on four feet or on all fours.”

3. Incorporation of noun and adjectives in verb, or of pronouns in verb. From the Kootenay language of south-eastern British Columbia the following examples may be given: Natl*tlam*kine = “He carries (the) *head* in (his) hand”; Howanko*tlam*kine = “I shake (the) head in (my) hand”; Witl*wum*ine = “(His) *belly* is large”; Tlit*kat*ine = “He has no tail”; Matlna*ktleti*ne = “He opens his eyes.” In these expressions are incorporated, with certain abbreviations of form, the words *aqktlam*, “head”; *aqkowum*, “belly”; *aqkat*, “tail”; *aqkaktletl*, “eyes.” In some languages the form for the noun incorporated in the verb is entirely different from that in independent use. Of pronominal incorporation these examples are from the Kootenay: Nupqan*ap*ine = “*He* sees *me*”; *Ho*nupqan*is*ine = “*I* see *you*”; Tshatlipitl*is*ine = “*He* will kill *you*”; Tshatlitqan*awas*ine = “*He* will bite *us*”; Tshatltsukwat*is*ine = “*He* is going to seize *you*”; *Him*tshatltlpatl*nap*ine = “*You* will honour *me*.” For incorporation of adjectives these examples will serve: Honite*nus*tik = “I paint (my face),” literally, “1 make it *red*” (*kanohos*, “red”; the radical is *nōs* or *nūs* for *nōhōs*); Ho*witl*keine = “I shout,” literally, “I talk *big*”; Ho*witlk*aine = “I am *tall* (*big*).” In some languages the pronouns denoting subject, direct object and indirect object are all incorporated in the verb.

4. The formation of nouns of very composite character by the use of stems or radicals and prefixes, suffixes, &c., of various sorts, the intricacy of such formations exceeding often anything known in the Indo-European and Semitic languages. Often the component parts are “clipped,” or changed by decapitation, decaudation, syncopation, &c., before being used in the compound. The following examples from various Indian languages will illustrate the process:—Kootenay: *Aqkinkanuktlamnam* = “crown of head,” from *aq* (prefix of uncertain meaning), *kinkan* = “top,” *tlam* = “head,” *-nam* (suffix = “somebody’s”). Tlingit: *Kanyiqkuwate* = “aurora,” literally, “fire (*kan*)-like (*yiq*)-out-of-doors (*ku*)-colour (*wate*).”

5. The development of a great variety of forms for personal and demonstrative pronouns. In the latter, sometimes, the language distinguishes “visibility and invisibility, present and past, location to the right, left, front and back of, and above and below the speaker” (Boas). According to Morice (*Trans. Canad. Inst.*, 1889-1890, p. 187), the Carrier language of the Athabaskan stock has no fewer than seventeen possessive pronouns of the third person.

6. Indistinctness of demarcation between noun and verb; in some languages the transitive and in others the intransitive only is really verbal in form.

7. The use of the intransitive verb as a means of expressing ideas which in European tongues, *e.g.*,

would be carried by adjectives. In the Carrier language almost all adjectives are “genuine verbs” (Morice).

8. The expression of abstract nouns in a verbalized form. Thus Cree (Algonkian) generally says, in preference to using the abstract noun *pimatisewin*, “life,” the periphrastic verb *āpimatisenanewuk*, literally “that they (indefinite as to person) live.” So far is this carried sometimes that Horden (*Cree Grammar*, London, 1881, p. 5) says: “I have known an Indian speak a long sentence, on the duties of married persons to each other, without using a single noun.”

As an interesting example of a long word in American-Indian languages may be mentioned the Iroquois *taontasakonatiatawitserakninonseronniontonhatieseke*. This “word,” which, as Forbes (*Congr. intern. d. Amer.*, Quebec, 1906, p. 103) suggests, would serve well on the signboard of a dealer in novelties, is translated by him, “Que plusieurs personnes viennent acheter des habits pour d’autres personnes avec de quoi payer.” Not so formidable is *deyeknonhsedehrihadasterasterahetakwa*, a term for “stove polish,” in use on the Mohawk Reservation near Brantford, Ontario.

The literature in the native languages of North America due to missionary efforts has now reached large proportions. Naturally Bible translations have been most important. According to Wilberforce Eames (*Handbook of Amer. Inds.*, 1907, pt. i. pp. 143-145), “the Bible has been printed in part or in whole in 32 Indian languages north of Mexico. In 18 one or more portions have been printed; in 9 others the New Testament or more has appeared; and in 5 languages, namely, the Massachuset, Cree, Labrador Eskimo, Santee Dakota and Tukkuthkutchin, the whole Bible is in print.” Of the 32 languages possessing Bible translations of some sort 3 are Eskimoan dialects, 4 Athabaskan, 13 Algonkian, 3 Iroquoian, 2 Muskogian, 2 Siouan, 1 Caddoan, 1 Sahaptian, 1 Wakashan, 1 Tsimshian, 1 Haidan. Translations of the Lord’s Prayer, hymns, articles of faith and brief devotional compositions exist now in many more languages and dialects. A goodly number of other books have also been made accessible in Indian versions, *e.g.* Bunyan’s *Pilgrim’s Progress* (Dakota, 1857), Baxter’s *Call to the Unconverted* (Massachuset, 1655), Goodrich’s *Child’s Book of the Creation* (Choctaw, 1839), Thomas à Kempis’s *Imitation of Christ* (Greenland Eskimo, 1787), Newton’s *The King’s Highway* (Dakota, 1879), &c. The “Five Civilized Tribes,” who are now full-fledged citizens of the state of Oklahoma, possess a mass of literature (legal, religious, political, educational, &c.) published in the alphabet adapted from the “Cherokee Alphabet” invented by Sequoyah about 1821, “which at once raised them to the rank of a literary people.”

Of periodicals in Indian languages there have been many published from time to time among the “Five Civilized Tribes.” Of the *Cherokee Advocate*, Mooney said in 1897-1898, “It is still continued under the auspices of the Nation, printed in both languages (*i.e.* Cherokee and English), and distributed free at the expense of the Nation to those unable to read English—an example without parallel in any other government.” More or less ephemeral periodicals (weekly, monthly, &c.) are on record in various Algonkian, Iroquoian, Siouan and other languages, and the Greenland Eskimo have one, published irregularly since 1861. Wilberforce Eames (*Handbook of Amer. Inds.*, 1907, pt. i. p. 389) chronicles 122 dictionaries (of which more than half are still in MSS.) of 63 North American-Indian languages, belonging to 19 different stocks.

The following linguistic stocks are represented by printed dictionaries (in one or more dialects): Algonkian, Athabaskan, Chinookan, Eskimoan, Iroquoian, Lutuamian, Muskogian, Salishan, Shoshonian, Siouan. There exists a considerable number of texts (myths, legends, historical data, songs, grammatical material, &c.) in quite a number of Indian languages that have been published by scientific investigators. The Algonkian (*e.g.* Jones’s *Fox Texts*, 1908), Athabaskan (*e.g.* Goddard’s *Hupa Texts*, 1904, Matthews’s *Navaho Legends*, 1897, &c.), Caddoan (*e.g.* Miss A. C. Fletcher’s *Hako Ceremony*, 1900), Chinookan (Boas’s *Chinook Texts*, 1904, and *Kathlamet Texts*, 1901), Eskimoan (texts in Boas’s *Eskimo of Baffin Land*, &c., 1901, 1908: and Thalbitzer’s *Eskimo Language*, 1904, Barnum’s *Innuit Grammar*, 1901), Haidan (Swanton’s *Haida Texts*, 1905, &c.), Iroquoian (texts in Hale’s *Iroquois Book of Rites*, 1883, and Hewitt’s *Iroquoian Cosmology*, 1899), Lutuamian (texts in Gatschet’s *Klamath Indians*, 1890), Muskogian (texts in Gatschet’s *Migration Legend of the Creeks*, 1884-1888), Salishan (texts in various publications of Boas and Hill-Tout), Siouan (Riggs and Dorsey in various publications), Tsimshian (Boas’s *Tsimshian Texts*, 1902), Wakashan (Boas’s *Kwakiutl Texts*, 1902-1905), &c.

The question of the direction of migration of the principal aboriginal stocks north of Mexico has been reopened of late years. Not long ago there seemed to be practical agreement as to the following views.

***Migrations of Indian stocks.***

The Eskimo stock had reached its present habitats from a primitive home somewhere in the interior of north-western Canada or Alaska; the general trend of the Athabaskan migrations, and those of the Shoshonian tribes had been south and south-east, the first from somewhere in the interior of north-western Canada, the second from about the latitude of southern British Columbia; the Algonkian tribes had moved south, east and west from a point somewhere between the Great Lakes and Hudson Bay; the Iroquoian stock had passed southward and westward from some spot to the north-east of the Great Lakes; the Siouan tribes, from their primitive home in the Carolinas, had migrated westward beyond the Mississippi; some stocks, like the Kitunahan, now found west of the Rocky Mountains, had dwelt formerly in the plains region to the east. Professor Cyrus Thomas, however, of the Bureau of American Ethnology, discussing primary Indian migrations in North America (*Congr. intern. d. Amér.*, Quebec, 1906, i. 189-204), rejects the theory that the Siouan stock originated in the Carolinas, and adopts for them an origin in the region north of Lake Superior, whence he also derives the Iroquoian stock, whose primitive home Dr David Boyle (*Ann. Archaeol. Rep. Ontario*, 1905, p. 154), the Canadian ethnologist, would place in Kentucky and southern Ohio. Another interesting contribution to this subject is made by Mr P. E. Goddard (*Congr. intern. des. Amér.*, Quebec, 1906, i. 337-358). Contemplating the distribution of the tribes belonging to the Athabaskan stock in three divisions, viz. a northern (continuous and very extensive), a Pacific coast division (scattered through Washington, Oregon, California), and a southern division which occupies a large area in Arizona, New Mexico, Colorado, Kansas, Texas and Mexico, Mr Goddard suggests that the intrusion of non-Athabaskan peoples into a region once completely in the possession of the Athabaskan

stock is the best explanation for the facts as now existing not explicable from assimilation to environment, which has here played a great rôle. It is possible also that a like explanation may hold for the conditions apparent in some other linguistic stocks. Many Indian tribes have been forcibly removed from their own habitats to reservations, or induced to move by missionary efforts, &c. Thus, in the state of Oklahoma are to be found representatives of the following tribes: Apache, Arapaho, Caddo, Cherokee, Cheyenne, Chickasaw, Choctaw, Comanche, Creek, Iowa, Kansa, Kickapoo, Kiowa, Miami, Missouri, Modoc, Osage, Oto, Ottawa, Pawnee, Peoria, Ponca, Potawatomi, Quapaw, Sac and Fox, Seminole, Seneca, Shawnee, Tonkawa, Wichita, Wyandot, &c.; these belong to 10 different linguistic stocks, whose original habitats were widely distant from one another in many cases.

Some of the American-Indian linguistic stocks (those of California especially) hardly know real tribal divisions, but local groups or settlements only; others have many large and important tribes.

The tabular alphabetical list given in the following pages contains the names of the more important and more interesting tribes of American aborigines north of Mexico, and of the stocks to which they belong, their situation and population in 1909, the degree of intermixture with whites or negroes, their social, moral and religious condition, state of progress, &c., and also references to the best or the most recent literature concerning them.

Up to the date of their publication references to the literature concerning the tribes of the stocks treated will be found in Pilling's bibliographies: Algonquian (1891), Athabascan (1892), Chinookan (1893), Eskimoan (1887), Iroquoian (1888), Muskhogean (1889), Salishan (1893), Siouan (1887) and Wakashan (1894). See also the *Handbook of American Indians North of Mexico* (Washington, 1907-1910); and the sumptuous monograph of E. S. Curtis, *The North American Indian* (N.Y., vols. i.-xx., 1908), with its remarkable reproduction of Indian types.



| Tribe. | Stock. | Situation, Population, &c. | Degree of Intermixture. | Condition, Progress, &c. | Authorities. |
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| Abnaki. | Algonkian. | At Becancour, Quebec, 27; at St François du Lac and Pierreville, 330. Decreasing. | Probably no pure blood left. | As civilized as the neighbouring whites. All Catholics. | Maurault, *Hist. des Abénaquis* (Quebec, 1866); Jack, *Trans. Canad. Inst.*, 1892-1893. |
| Acnomawi (Pit river Indians). | Shastan. | N.E. California. About 1100 in the Pit river region; also 50 or 60 on the Klamath Reservation, Oregon. | Little. | Progress very slow; influence of schools felt. Klamath Achomawi under Methodist influence. | Powers, *Contrib. N. Amer. Ethnol.*, vol. iii., 1877; various writings of Dr R. B. Dixon, *American Anthropologist*, 1905-1908, &c. |
| Aleuts. | Eskimoan. | Aleutian Islands and part of Alaska. About 1600. Decreasing. | About 50% are mixed bloods. | "Decaying." Once converted to Greek Orthodox church. Methodist mission at Unalaska. | Works (in Russian) of Veniaminov, 1840-1848; Golder, *Journ. Amer. Folk-Lore*, 1905-1907; Chamberlain, *Dict. Relig. and Ethics* (Hastings, vol. i., 1908). |
| Amalecites (Maliseets). | Algonkian. | 106 at Viger (Cacouna, Quebec); 702 in various parts of W. New Brunswick. Apparently increasing. | Probably few pure bloods. | Fairly good. At Viger industrially unsettled. Catholics. | Writings of S. T. Rand; Chamberlain (M.), *Maliseet Vocabulary* (Cambridge, 1899). |
| Apache. | Athabaskan. | In Arizona, 4879; New Mexico, 1244; Oklahoma, 453. Not rapidly decreasing as formerly thought. | Considerable Spanish blood due to captives, &c. | Marked improvement here and there. Catholic and Lutheran missions. | Cremony, *Life among the Apaches* (1868); Bourke, *9th Ann. Rep. Bur. Ethnol.*, 1887-1888, and *Journ. Amer. Folk-Lore*, 1890; Hrdlička, *American Anthropologist*, 1905. |
| Arapaho. | Algonkian. | 358 at Ft. Belknap Reservation, Montana; 873 at Wind river Reservation, Wyoming; 885 in Oklahoma. Holding their | Some Spanish (Mexican) blood in places. | Oklahoma Arapaho American citizens; progress elsewhere. Mennonite missions chiefly; also Dutch Reformed. | Writings of Kroeber and Dorsey, *Bull. Amer. Mus. Nat. Hist.*, 1900-1907, and *Publ. Field Columb. Mus.*, 1903; Scott, *Amer. Anthrop.*, 1907. |

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| Assiniboin. | Siouan. | In Montana, 1248; Alberta, 971; Saskatchewan, 420. | Some little. | In Canada “steady advance,” elsewhere good. Alberta Assiniboins are Methodists; in Montana Catholic and Presbyterian missions on reservations. | Maclean, Canadian *Savage Folk* (Toronto, 1890); McGee, *15th Ann. Rep. Bur. Ethnol.*, 1893-1894. |
| Babines. | Athabaskan. | 530 on Babine Lake, Bulkley river, &c., in central British Columbia. | Little, if any. | Conservative. Little progress. Reached by Catholic mission of Stuart Lake, B.C. | Morice, *Anthropos*, 1906-1907, and *Ann. Arch. Rep. Ontario*, 1905, and other writings. |
| Bannock. | Shoshonian. | About 500 at Ft. Hall, and 78 at Lemhi Agency, Idaho. | Little. | Considerable improvement morally and industrially. | Hoffman, *Proc. Amer. Philos. Soc.*, 1886; Mooney, *14th Ann. Rep. Bur. Ethnol.*, 1892-1893; Lowie, *Anthrop. Pap. Amer. Mus. Nat. Hist.*, 1909. |
| Beaver. | Athabaskan. | About 700 on Peace river, a western affluent of Lake Athabaska. | Very little. | Rather stationary. | See Babines. |
| Bilqula (Bellacoola). | Salishan. | 287 on Dean Inlet, Bentinck Arm, Bellacoola river, &c., coast of central British Columbia. Decreasing. | Little. | Not very encouraging. Mission influence not yet strongly felt. | Boas, *Rep. Brit. Assoc. Adv. Sci.* 1891, and *Mem. Amer. Mus. Nat. Hist.*, 1898. |
| Blackfeet (Siksika). | Algonkian. | About 824 in Alberta, Canada. Decreasing. | Little. | Steadily improving morally and financially. Anglicans, 237; Catholics, 260; pagans, 327. | Maclean, *Canadian Savage Folk* (Toronto, 1890), and other writings; Grinnell, *Blackfoot Lodge - Tales* (N.Y., 1903), and other writings; Wissler, *Ann. Arch. Rep. Ontario*, 1905; Schultz, *My Life as an Indian* (N.Y., 1907); Wissler, *Anthrop. Pap. Amer. Mus. Nat. Hist.*, 1908. |
| Bloods. | Algonkian. | 1168 near Ft. Macleod, Alberta. Probably decreasing somewhat. | Little. | All able-bodied Indians will soon be self-supporting. Presbyterians, 150; Catholics, 150; the rest pagan. | See Blackfeet. |
| Caddo. | Caddoan. | 550 in Oklahoma. Increasing slightly. | Considerable French blood. | Citizens of United States. Catholic, Methodist and Presbyterian missions. | Mooney, *14th Ann. Rep. Bur. Ethnol.*, 1892-1893; writings of Fletcher, Dorsey, &c. |
| Cariboo-Eaters. | Athabaskan. | 1700 in the region E. of Lake Athabaska, N.W. Canada. | Little, if any. | Little progress. | See Babines. |
| Carriers. | Athabaskan. | 970 between Tatla Lake and Ft. Alexandria, central British Columbia. | Little. | Semi-sedentary and naturally progressive as Indians; improvements beginning to be marked. Under influence of | Morice, *Proc. Canad. Inst.*, 1889, *Trans. Canad. Inst.*, 1894, *Hist. of Northern Inter. of British Columbia* (Toronto, 1904), and other writings. See Babines. |

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| | | | | Catholic mission at Stuart Lake, B.C. | |
| Catawba. | Siouan. | About 100 on the Catawba river, York county, South Carolina. Decreasing. | Much mixed with white blood. | Slowly adopting white man's ways. Chiefly farmers. | Mooney, *Siouan Tribes of the East* (Washington, 1894); Gatschet, *American Anthropologist*, 1900; Harrington, ibid., 1908. |
| Cayuga. | Iroquoian. | 179 on the Iroquois Reservations in New York State; 1044 with the Six Nations in Ontario; also some with the Seneca in Oklahoma and with Oneida in Wisconsin. | Some English admixture. | Canadian Cayuga steadily improving; they are "pagan." | See Six Nations. |
| Cayuse. | Wailatpuan. | 405 on Umatilla Reservation, Oregon. | About ¼ are of mixed blood, chiefly French. | Conditions improving, Good work of Catholic and Presbyterian missions. | Mowry, *Marcus Whitman* (1991): Lewis, *Mem. Amer. Anthrop. Assoc.* 1906. |
| Chehalis. | Salishan. | 182 on Puyallup Reservation, Washington. Perhaps increasing slightly. | No data. | Gradually improving and generally prosperous. Congregational mission. | Gibbs, *Contrib. N. Amer. Ethnol.*, vol. iii., 1877; Eells, *Hist. of Ind. Missions on the Pacific Coast* (N.Y., 1882), and other writings. |
| Chemehuevi. | Shoshonian. | About 300 on the Colorado Reservation; a few elsewhere in Arizona and California. | No data. | Some improvement. Missions of the Presbyterians and of the Church of the Nazarene. | See Ute. |
| Cherokee. | Iroquoian. | About 28,000, of which 1489 are in North Carolina and the rest in Oklahoma. | Not more than ¼ are of approximately pure blood. | Oklahoma Cherokee citizens of the United States, and making excellent progress. Various religious faiths. | Royce, *5th Ann. Rep. Bur. Ethnol.*, 1883-1884; Mooney, 7th Rep., 1885-1886, and especially *19th Rep.*, 1897-1898. |
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| Cheyenne. | Algonkian. | 1440 northern Cheyenne in Montana, 1894 southern Cheyenne in Oklahoma. Former increasing, latter decreasing. | Some white blood, from captives, &c. | Southern Cheyenne citizens of United States; Mennonite mission doing good work. Northern Cheyenne making progress as labourers, &c.; Mennonite and Catholic missions. | Mooney, *14th Ann. Rep. Bur. Ethnol.*, 1892-1893; Dorsey, *Publ. Field Columb. Mus.*, 1905; Grinnell, *Intern. Congr. Americanists*, 1902-1906; *Journ. Amer. Folk-Lore*, 1907-1908; *Amer. Anthrop.*, 1902-1906; Mooney and Petter, *Mem. Amer. Anthrop. Assoc.*, 1907. |
| Chickahominy. | Algonkian. | Some 220 on Chickahominy river, Virginia. | No pure bloods left. Considerable negro admixture. | Fishers and Farmers. | Tooker, *Algonquian Series* (N.Y., 1900); Mooney, *Amer. Anthrop.*, 1907. |
| Chickasaw. | Muskogian. | 5558 in Oklahoma. | Large admixture of white blood. | American citizens and progressing well. Various religious faiths. | Speck, *Journ. Amer. Folk-Lore*, 1907, and *Amer. Anthrop.*, 1907. |
| Chilcotin. | Athabaskan. | About 450 on Chilcotin river, in S. central British | Little. | Fairly laborious, but clinging to native customs, though | Writings of Morice (see Carriers); Farrand, *Mem. Amer. Mus.* |

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| | | Columbia. | | making progress. Catholic mission influence. | *Nat. Hist.*, 1900. |
| Chilkat. | Koluschan. | About 700 at head of Lynn Canal, Alaska. Decreasing. | No data. | Little progress. | Emmons and Boas, *Mem. Amer. Mus. Nat. Hist.*, 1908. |
| Chinook. | Chinookan. | About 300 in Oregon. Decreasing. | Some little. | Stationary or "worse." | Boas, *Chinook Texts* (Washington, 1894), and other writings; Sapir, *Amer. Anthrop.*, 1907. |
| Chipewyan. | Athabaskan. | About 3000 in the region S. of Lake Athabaska, N.W. Canada. | Some Canadian-French admixture. | Coming to be more influenced by the whites. Reached by Catholic missions. | Writings of Petitot, Legoff, Morice (see Babines), &c.; Morice, *Anthropos*, 1900-1907, and *Ann. Arch. Rep. Ontario*, 1905. |
| Chippewa (Ojibwa). | Algonkian. | About 18,000 in Ontario, Manitoba, &c.; nearly the same number in the United States (Michigan, Wisconsin, Minnesota, N. Dakota). | Much French and English admixture in various regions. | Good progress. Many Indians quite equal to average whites of neighbourhood. Among the Canadian Chippewa the Methodists, Catholics and Anglicans are well represented; among those in the United States the Catholics and Episcopalians chiefly, also Methodists, Lutherans, &c. A number of native ministers. | Warren, *Minn. Hist. Soc. Coll.*, 1885; Blackbird, *Ottawa and Chippewa Indians* (1887); W. Jones, *Ann. Arch. Rep. Ontario*, 1905; Hugolin, *Congr. int. d. Amér.* (Quebec, 1906); P. Jones, *Hist. Ojebway Inds.* (1861). |
| Choctaw. | Muskogian. | 17,529 in Oklahoma; 1356 in Mississippi and Louisiana. | Large element of white and some negro blood. | Citizens of United States, making good progress. Various religious faiths. | Gatschet, *Migration Legend of Creeks* (1884-1888); Speck, *Amer. Anthrop.*, 1907. |
| Clayoquot. | Wakashan. | 224 in the region of Clayoquot Sound, Vancouver Island. Decreasing. | No data. | Rather stationary, but beginning to improve. Influence of Catholic mission and industrial school. | See Nootka. |
| Clallam. | Salishan. | 354 on Puyallup Reservation, Washington. | Little. | Improving, but suffering from white contact. Congregationalist mission. | Eells in *Ann. Rep. Smiths. Inst.*, 1887, and other writings. |
| Colville. | Salishan. | 316 at Colville Agency, Washington. Decreasing slightly. | Some Canadian-French, &c. | Improving. | See Chehalis. |
| Comanche. | Shoshonian. | 1408 in Oklahoma. Now holding their own. | Some due to Spanish (Mexican) captives, &c. | Good progress, in spite of white impositions. | Mooney, *14th Ann. Rep. Bur. Ethnol.*, 1892-1893. |
| Cowichan. | Salishan. | About 1000 on E. coast of Vancouver Island, and on islands in Gulf of Georgia. | Little. | Industrious; steady progress. Catholic and Methodist missions, chiefly former. | Hill-Tout, *Rep. Brit. Assoc. Adv. Sci.*, 1902, and *Trans. R, Anthrop. Inst.*, 1907; Boas, *Rep. Brit. Assoc. Adv. Sci.*, 1889. |
| Cree. | Algonkian. | About 12,000 in Manitoba, and | Large element of French, | Slow but steady progress (except | Writings of Petitot, Lacombe, Horden, |

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| | | some 5000 in Saskatchewan, Alberta, Keewatin, &c. | Scottish and English blood. | with a few bands). Catholics, Methodists and Anglicans strongly represented by missions and church members; many Presbyterians also. | Bell, Watkins, Evans, Young, &c.; Lacombe. *Dict. de la langue des Cris* (1876); Russell. *Explor. in the Far North* (1898); Stewart, *Ann. Arch. Rep. Ontario*, 1905; Maclean, *Canad. Sav. Folk* (1890). |
| Creek. | Muskogian. | 11,000 in Oklahoma. | Large element of white blood; some negro. | American citizens, making good progress. Various religious faiths. | Gatschet, *Migration Legend of the Creeks* (1884-1888); Speck, *Mem. Amer. Anthrop. Assoc.*, 1907. |
| Crows (Absaroka). | Siouan. | 1804 at Crow Agency, Montana. | Little. | Improving industrially and financially. Morals still bad. | Simms, *Publ. Field Columb. Mus.*, 1903; Schultz, *My Life as an Indian* (N.Y., 1907). |
| Dakota (Santee, Yankton, Teton—Sioux). | Siouan. | About 18,000 in South and 4400 in North Dakota; 3200 in Montana; 900 in Minnesota. Seemingly decreasing. | Considerable white blood, varying with different sections. | Capable of and making good progress. Episcopal, Catholic, Congregational missions with good results. | Writings of Dorsey, Riggs, Eastman, &c. Riggs, *Contrib. N. Amer. Ethnol.*, vol. vii., 1890, and vol. ix., 1893; Wissler, *Journ. Amer. Folk-Lore*, 1907; Eastman, *Indian Boyhood* (1902). |
| Delaware. | Algonkian. | In Oklahoma, 800 with Cherokee and 90 with Wichita; 164 with Six Nations in Ontario. | Considerable. | Oklahoma, Delaware, U.S. citizens, and progressing; Canadians making also good progress. | Brinton, *Lenápé and their Legends* (Phila., 1885), and *Essays of an Americanist* (1890); Nelson, *Indians of New Jersey* (1894). |
| Dog-Ribs. | Athabaskan. | About 1000 in the region E. of the Hares, to Back river, N. W. Canada. | Little. | "Wild and indolent," not yet much under white influence. | See Chipewyans, Carriers. |
| Eskimo (Greenland). | Eskimoan. | West coast, 10,500; East coast, 500. Slowly increasing. | Large element of white blood, estimated already in 1855 at 30%. | More or less "civilized" and "Christian" as result of Moravian missions. | Writings of Rink, Holm, Nansen, Peary. Rink, *Tales and Trad. of the Eskimo* (Lond., 1875) and *Eskimo Tribes* (1887); Nansen, *Eskimo Life* (1893); Thalbitzer, *Eskimo Language* (1904). |
| Eskimo (Labrador). | Eskimoan. | About 1300. | Considerable on S.E. coast. | Much improvement due to Moravian and (later) other Protestant missions. | Packard, *Amer. Naturalist*, 1885; Turner, *11th Ann. Rep. Bur. Ethnol.*, 1889-1890. 461 |
| Eskimo (central regions). | Eskimoan. | About 2500. | Little. | Not much improvement except here and there. Some reached by Episcopalian mission. | Boas, *6th Ann. Rep. Bur. Ethnct.*, 1884-1885, and *Bull. Amer. Nat. Hist.*, 1901 and 1908. |
| Eskimo (Mackenzie, &c.). | Eskimoan. | About 1500. | Little. | Not much improvement. Reached by Catholic missions. | Petitot, *Les Grands Esquimaux* (1887), *Monographie des Esquimaux Tchiglit* (Paris, 1876) and other writings; Stefánsson, *Harper's Magazine*, 1908-1909. |

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| Eskimo (Alaska). | Eskimoan. | About 12,000, exclusive of Aleuts. | Considerable on certain parts of coast. | Much improvement in parts since introduction of reindeer in 1892. Presbyterian, Methodist, Catholic, Moravian, Baptist, Swedish Evangelical, Quaker, Congregational, Lutheran missions now at work. | Dall, *Contrib. N. Amer. Ethnol.*, vol. i., 1877; Murdoch, *9th Ann. Rep. Bur. Ethnol.*, 1887-1888; and Nelson, *18th Rep.*, 1896-1897; Barnum, *Innuit Gramm, and Dict.* (1901). |
| Eskimo (N.E. Asia). | Eskimoan. | About 1200. | Little. | Little improvement. | Hooper, *Tents of the Tuski* (1853); Dali, *Amer. Naturalist* (1881). See Eskimo (Alaska). |
| Flatheads. | Salishan. | 615 at Flathead Agency, Montana. | Considerable. | Continued Improvement. Catholic missions. | McDermott, *Journ. Amer. Folk-Lore*, 1901; Ronan, *Flathead Indians* (1890). |
| Gosiute. | Shoshonian. | About 200 in Utah. | Little. | Some improvement in last few years. | Chamberlin, *Proc. Acad. Nat. Sci. Phila.*, 1908. See Paiute, Ute. |
| Grosventres (Atsina). | Algonkian. | 558 at Ft. Belknap Agency, Montana. | Little. | Law-abiding, industrious and fast becoming more moral. Catholic, chief mission influence, also Presbyterian. | Kroeber, *Anthrop. Pap. Amer. Mus. Nat. Hist.*, 1907-1908. |
| Haida. | Haidan. | About 600 on Queen Charlotte Is., and 300 in Alaska. Decreasing. | Some little. | Now "gradually advancing along the lines of civilization." Mission influences Methodists and Anglican, with much success, especially former. | Swanton, *Contrib. to Ethnol. of the Haida* (1905) and other writings; Boas, *Rep. Brit. Assoc. Adv. Sci.*, 1889; Newcombe, *Congr. intern. des Amér.* (Quebec, 1906). |
| Hankut'qin. | Athabaskan. | About 400 on the Yukon, above the Kotlo, in Alaska. | Little, if any. | Not yet much under white or missionary influence. | See Babines. |
| Hares. | Athabaskan. | About 600 W. of Gt. Bear Lake to Eskimo country, in N.W. Canada. | Little. | "Wild and indolent," with little improvement. Reached by Catholic missions. | See Babines, Carriers, Chipewyan. |
| Havasupai. | Yuman. | 166 N. of Prescott in N.W. Arizona. Decreasing. | Little. | "Good workers"; not yet distinctly under mission influence. | James, *Indians of the Painted Desert Region* (Boston, 1903); Dorsey, *Indians of the South-west* (1903). |
| Hidatsa. | Siouan. | 467 near Ft. Berthold, N. Dakota. | Little. | Making good progress. Congregational and Catholic missions. | Matthews, *Ethnogr. and Philol. of the Hidatsa* (1877); McGee, *15th Ann. Rep. Bur. Ethnol.*, 1893-1894; Pepper and Wilson, *Mem. Amer. Anthrop. Assoc.*, 1908. |
| Hupa. | Athabaskan. | 420 in Hoopa Valley, N.E. California. | Little. | Self-supporting by agriculture and stock-raising, Presbyterian and Episcopal missions with good results. | Goddard, *Life and Culture of the Hupa* (1903), *Hupa Texts* (1904), and other writings. |
| Hurons of | Iroquoian. | 466 at Lorette, near | No pure-bloods | Practically civilized. All | Gérin, *Rep. Brit. Assoc.* |

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| Lorette. | | the city of Quebec. Increasing, but losing somewhat by emigration. | left. | Catholics, except one Anglican and six Presbyterians. | *Adv. Sci.*, 1900. |
| Iowa. | Siouan. | 246 in Kansas; 88 in Oklahoma. Holding their own. | Considerable. | In 1906 “accomplished more on their allotments than at any time heretofore.” One regular missionary. | Dorsey, *Trans. Anthrop. Soc. Wash.*, 1883, and *15th Ann. Rep. Bur. Ethnol.*, 1893-1894; also *11th Rep.* |
| Iroquois (of Caughnawaga). | Iroquoian. | 2075 at Caughnawaga, in S.W. Quebec (largely Mohawk). Increasing. | Few, if any, pure-bloods left. | Practically civilized and making fair progress. Chiefly Catholics, but there is a Methodist school. | *Ann. Rep. Dept. Ind. Aff. Canada*, 1907. |
| Iroquois (of Lake of Two Mountains). | Iroquoian. | 395 at Lake of Two Mountains, Quebec. | Few, if any, pure-bloods left. | Practically civilized and making fair progress. Catholics and Methodists represented. | Cuoq, *Lexique de la langue iroquoise* (1882), and other writings. |
| Iroquois (of St Régis). | Iroquoian. | 1449 at St Régis, Quebec; 1208 at St Regis, New York. | Few pure-bloods left. | Practically all civilized and making fair progress. | *Ann. Rep. Dept. Ind. Aff. Canada*, 1907. |
| Iroquois (of Watha). | Iroquoian. | About 65 at Watha (formerly Gibson), near the southern end of Lake Muskoka, Ontario. | Considerable. | Industrious and progressive. Influence of Methodist mission. | *Ann. Rep. Dept. Ind. Aff. Canada*, 1907. |
| Iroquois (of St Albert). | Iroquoian. | 94 near St Albert, Alberta (“Michel’s band”). | “Indians only in name,” no pure-bloods left. | Practically civilized; outlook promising. Catholics. | Chamberlain, *Amer. Anthrop.*, 1904. |
| Jicarilla (Apache). | Athabaskan. | 784 in New Mexico. Decreasing. | Little. | Improvement during past few years. | Mooney, *Amer. Anthrop.* 1898. See Apache. |
| Kaibab. | Shoshonian. | About 100 in S.W. Utah. Decreasing. | Little. | “Destitute,” but gaining somewhat. | See Paiute, Ute. |
| Kaigani. | Haidan. | About 300 in S. Alaska. | See Haida. | See Haida. | See Haida. |
| Kaiyuhkho’tenne | Athabaskan. | About 1500 on the Yukon (between the Anvik and Koyukuk) in W. Alaska. | Little. | Up to the present influenced more by the Eskimo than by the whites. | See Babines, Carriers. Also Chapman, *Congr. inter, d. Amér.* (Quebec, 1906). |
| Kalapooia. | Kalapuyan. | About 125 at Grande Ronde, Oregon, and a few also on the Siletz Reservation. | Not much. | Continued improvement. | Powell, *7th Ann. Rep. Bur. Ethnol.*, 1885-1886; Gatschet, *Journ. Amer. Folk-Lore*, 1899; Lewis, *Mem. Amer. Anthrop. Assoc.*, 1906. |
| Kalispel (Pend d’Oreille). | Salishan. | 826 on the Flathead Reservation, Montana; 98 at Colville Agency, Washington. | Considerable. | Continued improvement. Catholic missions. | Giorda, *Kalispel Dictionary* (1877-1879). See Cheha 462 |
| Kansa (Kaw). | Siouan. | 207 in Oklahoma. | About half are mixed blood. | American citizens, making fair progress. | Dorsey, *11th Ann. Rep. Bur. Ethnol.*, 1889-1890, and 15th Rep., 1893-1894; Hay, *Trans. Kans. State Hist. Soc.*, 1906. |

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| Kickapoo. | Algonkian. | 188 in Kansas; 204 in Oklahoma; about 400 in Mexico. | Considerable. | Progress hampered by liquor, &c. | Mooney, *14th Ann. Rep. Bur. Ethnol.*, 1892-1893; Lutz, *Trans. Kansas Hist. Soc.* 1906. |
| Kawia (Cahuilla). | Shoshonian. | About 150 in southern California. | Little. | Progress good. Nominally Catholics, result of Californian missions. | Barrows, *Ethnobotany of the Coahuilla Indians* (1900); Kroeber, *Ethnography of the Cahuilla* (1908). |
| Kiowa. | Kiowan. | 1219 in Oklahoma. | Some white blood from captives, &c. | Citizens of the U.S., making fair progress. Catholic, Methodist, Presbyterian. &c. mission influences. | Mooney. *14th Ann. Rep. Bur. Ethnol.*, 1892-1893, and *17th Rep.*, 1895-1896. |
| Kitksan. | Tsimshian. | About 1100 on upper Skeena river in central British Columbia. | Little. | Making good progress. | See Tsimshian. |
| Klamath. | Lutuamian. | 761 at Klamath Agency, Oregon. | Little. | Mostly self-supporting. Methodist mission, but poor work done. | Gatschet, *The Klamath Indians* (Washington, 1890); Dorsey, *Amer. Anthrop.*, 1901. |
| Klekatat. | Sahaptian. | About 300 merged with Yakima and other tribes on Yakima Reservation, Washington. | Considerable. | Late reports indicate much bad influence of whites. | Lyman, *Proc Amer. Antiq. Soc.*, 1904; Lewis, *Mem. Amer. Anthrop. Soc.*, 1906. |
| Konkau (Concow). | Pujunan. | 171 at Round Valley, California. | Little. | Gradually improving. | See Maidu. |
| Kootenay. | Kitunahan. | In S.E. British Columbia; 220 at St Mary's; 59 al Tobacco Plains; 82 at Columbia Lakes; 170, lower Kootenay. At Flathead Agency, Montana, 565. Holding their own, or increasing. | A little French and English. | Good, especially upper Kootenay; continued progress. Kootenay in U.S. not so progressive. Catholic missions with good results. | Boas. *Rep. Brit. Assoc. Adv. Sci.*, 1889; Chamberlain, *ibid.*, 1892 (and other writings), *Ann. Arch. Rep. Ontario*, 1905; Schultz, *My Life as an Indian* (N.Y., 1907). |
| Koyukukho'tenne. | Athabaskan. | About 500 on the Koyukuk and Yukon, above the 'Kaiyuhkho'tenne in Alaska. | Little, if any. | Little progress noted. | See Babines, Carriers, Chipewyan. |
| Kwakiute. | Wakashan. | About 2000 in Vancouver Island and British Columbia. Decreasing. | Considerable in places. | Improvement recently. Anglican and Methodist missions —former counting 469; latter, 19 members; rest, "pagans." | Boas, *Rep. Brit. Assoc. Adv. Sci.*, 1889, 1890, 1896. Rep. *U.S. Nat. Mus.*, 1895, and other writings; Boas and Hunt, *Mem. Amer. Mus. Nat. Hist.*, 1902. |
| Lillooet (Statliumh). | Salishan. | About 900 in S.W. British Columbia, on Fraser river, Douglas and Lillooet Lakes, &c. | Considerable in places. | Getting along well generally. Catholic and Anglican missions. | Boas, *Ethnogr. Album* (N.Y., 1890); Hill-Tout, *Journ. Anthr. Inst.*, 1905; Teit, *Mem. Amer. Mus. Nat. Hist.*, 1906. |
| Lummi. | Salishan. | 418 at Tulalip Agency, Washington. | Considerable. | Suffering from white contact. | See Chehalis. |
| Maidu. | Pujunan. | In N.E. California. | Not much. | Few and scattered. | Dixon, *Bull. Amer. Mus.* |

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| | | About 250 full-bloods. | | | *Nat. Hist.*, 1902-1905; *Journ. Amer. Folk-Lore*, 1900-1907. |
| Makah. | Wakashan. | 400 on Makah, 25 on Ozette Reservation, Washington. | Considerable. | Progress good. | Swan. *The Indians of Cape Flattery* (Washington, 1870); Dorsey, *Amer. Antiquarian*, 1901. |
| Mandan. | Siouan. | 264 at Ft. Berthold. N. Dakota. Beginning to increase again. | Considerable. | Making some progress. Catholic and Protestant mission influences. | Will and Spindle. *The Mandans* (1906); Dorsey in *11th* and *15th Reps. Bur. Ethnol.* |
| Maricopa. | Yuman. | 344 at Pima Agency Arizona. Decreasing slightly. | No data. | Progress in 1906 excellent. Catholic mission school. | See Yuma. |
| Maskegon (Swampy Cree). | Algonkian. | About 2500 in Manitoba, Keewatin, Saskatchewan. | Considerable in certain regions. | Generally law-abiding, but improvident; some making good progress. | Simms in *Journ. Amer. Folk-Lore*, 1906; Stewart in *Ann. Arch. Rep. Ontario*, 1905. |
| Masset. | Haidan. | 360 at Masset, Q. Charlotte Is. | See Haida. | See Haida. | See Haida. |
| Menominee. | Algonkian. | About 1600, of which 1364 under superintendency of Green Bay, Wisconsin. | Considerable. | Making gradual progress, with noticeable improvement in many respects. Catholic church has many members. | Hoffman in *14th Ann. Rep. Bur. Ethnol.*, 1892-1893. |
| Miami. | Algonkian. | 129 in Oklahoma. 240 in Indiana, a few elsewhere; total about 400. | Considerable French blood, about 50%. | American citizens; intelligent, thrifty and progressive. | Pilling, *Bibl. of Algon. Lang.* (1891). |
| Micmac. | Algonkian. | 2114 in Nova Scotia, 288 in Prince Edward Island, 1000 in New Brunswick, 591 in Quebec. | Large element of French; some Scottish and English blood. | Progress good; not degenerating nor decreasing. All Catholics. | Writings of Dr S. T. Rand, especially *Micmac Legends* (1894); Pacifique and Prince, *Congr. intern. des Amér. Quebec*, 1906; Leland *Algonquin Legends* (1885); Leland and Prince, *Kuloskap* (1902). |
| Mission Indians. | Yuman; Shoshonian. | About 3000 in S. California. | Considerable in some sections. | Self-supporting; some individuals remarkably able and industrious. Catholics nominally. | Writings of Miss C. G. du Bois, *Journ. Amer. Folk-Lore* and *Amer. Anthrop.*, 1900-1908, &c. See Kawia. |
| Mississagua. | Algonkian. | At Alnwick, 249; at the river Credit, 267; Rice Lake, 90; Mud Lake, 190; Scugog, 35. Increasing slightly. | Considerable. | Fairly good generally; some at the Credit very successful farmers, competing with whites. Methodists chiefly. | Chamberlain, *Journ. Amer. Folk-Lore*, 1888, and *Language of the Mississagas of Skugog* (Phila., 1892); Burnham, *Ont. Hist. Soc. Pap. and Rec.*, 1905. |
| Modoc. | Lutuamian. | 52 in Oklahoma, 229 on Klamath Reservation, Oregon. Apparently decreasing slowly, or holding their own. | Little. | Generally industrious and moral. Methodist mission. | Miller, *My Life Among the Modocs* (1873); Gatschet, *Amer. Anthrop.*, 1894. See Klamath. |

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| Mohave. | Yuman. | About 1600 in Arizona. | Little. | Good; industrious but restless. Presbyterian and Church of the Nazarene missions. | Bourke, *Journ. Amer. Folk-Lore*. 1889; Kroeber, *Amer. Anthrop.*, 1902. See Yuman. 463 |
| Mohawk. | Iroquoian. | 1762 with Six Nations, Grand river, Ont., 1320, Bay of Quinte, Ont., slight increase. The "Iroquois" at Caughnawaga, &c., are largely Mohawks. | Considerable English and French. | See Six Nations. | Forbes, *Congr. intern. d. Amér.*, Quebec, 1906; Brant-Sero, *Man* (London, 1901). See Six Nations. |
| Montagnais. | Algonkian. | About 2000 in N.E. Quebec, N. shore of St Lawrence and St John, &c. | Large element of French blood. | At St John, "energetic, hard working and provident"; others suffering from liquor, &c. Catholic missions. | Chambers, *The Ouananiche* (1896); Chamberlain, *Ann. Arch. Rep. Ontario*, 1905; David, *Congr. int. d. Amér.*, Quebec, 1906. |
| Moqui (Hopi). | Shoshonian. | About 2000 in N.E. Arizona. | Little. | Still "pagan," but "dry-farming" experts. At Oraibi two factions, progressives and conservatives. Mennonite mission. | Bourke, *Snake Dance Among the Moquis* (1884); Hough, *Amer. Anthrop.*, 1898; Dersey and Voth, *Field Columb. Mus. Publ.*, 1901-1902. Also the numerous monographs of Dr. J. W. Fewkes in *Rep. Bur. Ethnol. Amer. Anthrop., Journ. Amer. Folk-Lore*, 1894-1908. |
| "Moravians." | Algonkian. | 329 on river Thames, Ontario, Canada. | Considerable. | Generally industrious and very law-abiding. All Methodists. | *Ann. Rep. Dept. Ind. Aff. Canada*, 1907. |
| Munsee. | Algonkian. | 118 on river Thames, Ontario, Canada; also a few with the Stockbridges in Wisconsin and the Chippewa in Kansas. | Considerable. | Fairly industrious; progress slow. | *Ann. Rep. Dept. Ind. Aff. Canada*, 1907. |
| Nahané. | Athabaskan. | About 1000 in N.W. British Columbia, N. and S. of Stikeen river, and E. to beyond the Rockies. | Not much. | Have suffered much from white contact. Reached by Catholic missions from Stuart Lake. | Writings of Petitot, Morice, &c., especially the latter in *Trans. Canad. Inst.*, 1894, *Proc. Canad. Inst.*, 1889. See Carriers. |
| Nascapee. | Algonkian. | Some 2500 in N.E. Quebec, Labrador, &c. | Not very much. | Improvement not marked. Catholic mission influence. | Turner, *11th Ann. Rep. Bur. Ethnol.*, 1889-1890; Chamberlain, *Ann. Arch. Rep. Ontario*, 1905. |
| Navaho. | Athabaskan. | About 29,000 in Arizona and New Mexico, about 8000 in the latter state. Increasing in number. | Much Spanish (Mexican) blood. | Have made remarkable progress racially and individually. Catholic, Presbyterian, &c., missions. | Writings of Dr. W. Matthews, especially *Navaho Legends* (Boston, 1897), *The Night Chant* (N.Y., 1902). |
| Nespelim. | Salishan. | 191 at Colville Agency, Washington. | Considerable. | Suffering from liquor and white contact. | See Chehalis. |
| Nez Percés. | Sahaptian. | 83 at Colville Agency, | Amount uncertain. | Of a high intellectual type (seen in | Packard, *Journ. Amer. Folk-Lore*, 1891; |

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| | | Washington, 1534 under Ft. Lapwai superintendency, Idaho. Decreasing. | | children); suffering much from disease and white contact. About 60% Catholics and 15% Presbyterians. | McBeth, *The Nez Percés since Lewis and Clark* (New York, 1908); Spinden, *Mem. Amer. Anthrop. Assoc.*, 1908. |
| Nipissing. | Algonkian. | 239 on Lake Nipissing, Ontario. Increasing. | Little. | Improving. | *Ann. Rep. Dept. Ind. Aff. Canada*, 1907. |
| Niska (Nasqa). | Tsimshian. | About 800 in Nass river region in W. British Columbia. Decreasing. | Little. | Making good progress. | Boas, *Rep. Brit. Assoc. Adv. Sci.*, 1895, 1896, and *Indianische Sagen* (Berlin, 1895). See Tsimshian. |
| Nisqualli. | Salishan. | 146 in W. Washington. | Considerable. | Suffering from white contact, liquor, &c. | Gibbs, *Contrib. N. Amer. Ethnol.*, vol. i., 1877, and *Niskwalli Dictionary*, ibid. |
| Nootka. | Wakashan. | 2133 (including Clayoquot) on Vancouver Island, B.C. Decreasing slowly. | Considerable in places. | Industrious and law-abiding; evil from white contact increasing. Catholic and Presbyterian missions. | Sproat, *Scenes and Studies of Savage Life* (1868); Boas, *Rep. Brit. Assoc.*, 1890, and *Indianische Sagen* (1895). |
| Okanagan. | Salishan. | 824 in the Kamloops-Okanagan Agency, British Columbia; 527 on Colville Reservation, Washington. | Considerable in places. | Industrious and law-abiding. Catholic, and in Canada Catholic and Anglican churches largely represented. | Boas, *Rep. Brit. Assoc.*, 1889; Teit, *Mem. Amer. Mus. Nat. Hist.*, 1900. |
| Omaha. | Siouan. | 1128 in Nebraska. | Much white blood. | Good progress in many respects; improvidence, &c., still causing trouble. Presbyterian mission. | Dorsey, *3rd Ann. Rep. Bur. Ethnol.*, 1881-1882, and *13th Rep.*, 1891-1892, and other writings. Also writings of Miss A. C. Fletcher. See Ponca. |
| Oneida. | Iroquoian. | 777 on river Thames, Ontario, and 350 with Six Nations in Ontario; 2151 in Wisconsin; 286 in New York. Increasing. | Large element of white blood. | Canadian Oneidas at Delaware full citizens. All progressing excellently and self-supporting. U.S. Oneidas citizens. | Bloomfield, *The Oneidas* (N.Y., 1907). See Six Nations. |
| Onondaga. | Iroquoian. | 350 with the Six Nations, Ontario; 553 in New York. | Large element of white blood. | Not so advanced in U.S. as Tuscarora. | Clark, *Onondaga* (Syracuse, 1849); writings of Beauchamp, de Cost Smith, M. R. Harrington, &c. See Six Nations. |
| Osage. | Siouan. | 1994 in Oklahoma. | Very much white blood; half are mixed-bloods. | U.S. citizens and making good progress. Baptists and Catholics represented. | Dorsey (J. O.), *6th Ann. Rep. Bur. Ethnol.*, 1884-1885; Brewster, *Trans. Kans. State Hist. Soc.*, 1906; Dorsey (G. A.), *Publ. Field Columb. Mus.*, 1904; Speck, *Trans. Arch. Dept. Univ. of Penn.* (Phila., 1907). |
| Oto. | Siouan. | About 390 with the Missouri in Oklahoma. | Considerable. | Making good progress. | See Osage. |

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| Ottawa. | Algonkian. | About 750 on Manitoulin and Coburn Islands, Ontario; 2750 in Michigan; 197 in Oklahoma. | Considerable French and English blood. | Canadian Ottawa industrious and law-abiding, and many in the U.S. as civilized as average whites about them. Catholic and Protestant missions. | Blackbird, *Ottawa and Chippewa Indians* (1887). See Pilling's *Bibliography of the Algonkian Languages*, 1891. |
| Paiute. | Shoshonian. | 6500 to 7000 chiefly in Nevada (about 600 in Utah; 350 in Arizona). | No data. | Peaceable, moral and industrious; "have steadily resisted the vices of civilization." Catholic and Protestant missions. | Mooney in *14th Ann. Rep. Bur. Ethnol.*, 1892-1893. See U 464 |
| Pamunkey. | Algonkian. | About 140 in King William county, Virginia. | All mixed-bloods; some negro mixture. | Fishermen and small farmers. | Pollard, *The Pamunkey Indians of Virginia* (Washington, 1894). |
| Panamint. | Shoshonian. | About 100 in the Panamint Valley, S.E. California. | No data. | Stationary. | Coville, *Amer. Anthrop.*, 1892. |
| Papago. | Piman. | 4991 in Arizona; about 1000 in Mexico. | Little. | Making very good progress recently. Catholic mission. | McGee in Coville and Macdougal, *Des. bot. lab.*, 1903; Bandelier, *Arch. Inst. Papers*, 1890. See Pima. |
| Passamaquoddy. | Algonkian. | About 350 in Maine. | Considerable French and English. | With Penobscots have representative in Maine legislature. | Leland, Algonq. *Leg. of New England* (Boston, 1885); Brown, *Trans. R. Soc. Canada*, 1889; Prince, *Proc. Amer. Philos. Soc.*, 1897; Leland and Prince, *Kuloskap* (Boston, 1902). |
| Pawnee. | Caddoan. | 649 in Oklahoma. Decreasing. | Considerable. | Citizens of U.S. Special progress recently in agriculture. Methodist mission. | Writings of Dunbar, Grinnell, Dorsey, Fletcher, &c.; Grinnell, *Pawnee Hero-Stories* (1889); Dorsey, *Traditions of the Skidi Pawnee* (Boston, 1904), and *Pawnee Mythology* (1906); Fletcher, *22nd Ann. Rep. Bur. Etnnol.*, 1900-1901. |
| Penobscot. | Algonkian. | About 410 in Maine. | Considerable. | See Passamaquoddy. | See Passamaquoddy. |
| Peoria. | Algonkian. | 192 with Kaskaskia, Wea and Piankaskaw in Oklahoma. | No pure-bloods left. | American citizens and progressing well. | See Pilling, *Bibliography of the Algonquian Languages* (1891). |
| Piegan. | Algonkian. | 482 near Macleod, Alberta; 2072 at Blackfoot Agency, Montana. | Considerable. | Improvement slow in Montana; in Alberta, "noticeable advance along all lines." Methodist and Anglican missions in Alberta. | See Blackfeet. |
| Pima. | Shoshonian. | 3936 in Arizona; more in Mexico. Increasing slightly. | Considerable. | Making good progress recently. Catholic and Protestant missions. | Russel, *Amer. Anthrop.*, 1903, *Journ. Amer. Folk-Lore*, 1901, and *26th Ann. Rep. Bur. Amer. Ethnol.*, 1904-1905; Dorsey, *Indians of the South-west* (1903); *Hrdlicka, Amer. Anthrop.*, 1904; Kroeber, *Univ. Calif. Publ.*, 1907. |

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| Pomo. | Kulanapan. | About 1000 in N.E. California. | Little. | Progress good. | Barrett, *Ethnography of the Pomo* (1908). |
| Ponca. | Siouan. | 570 in Oklahoma. | Considerable. | U.S. citizens, making good progress. | Dorsey (J. O.), *Cegiha Language* (1890), O*maha and Ponka Letters* (1891), &c.; Dorsey (G. A.), *Field Columb. Mus. Publ.*, 1905; Boas, *Congr. int. d. Amér.*, Quebec, 1906. |
| Potawatomi. | Algonkian. | 179 on Walpole Island, Ontario; 1740 in Oklahoma. | Considerable. | Canadian Potawatomi are law-abiding and industrious. American Potawatomi citizens making progress. | See Pilling, *Bibliography of the Algonquian Languages* (1891). |
| Pueblos. | Keresan. | 3990 in 6 pueblos in N. central New Mexico. | Larger element of white blood than other Pueblos Indians, but not great. | Majority nominally Catholics. | Writings of Bandelier, Hodge, Lummis, Stevenson, &c. Stevenson, *11th Ann. Rep. Bur. Ethnol.*, 1889-1890; Dorsey, *Indians of the South-west* (1903); Bandelier, *Archaeol. Inst. Papers*, 1881, 1883, 1892. |
| Pueblos. | Shoshonian. | See Moqui. | See Moqui. | See Moqui. | See Moqui. |
| Pueblos. | Tanoan. | About 4200 in 12 pueblos in New Mexico. | Have not favoured intermixture. Amount little. | Nominally Catholics for most part. At San Juan notable evidences of thrift, less elsewhere. | Writings of Bandelier, Lummis, Fewkes, &c. See Pueblos (Keresan) and Moqui. |
| Pueblos. | Zuñian. | 1500 in Western New Mexico. | Have not favoured white intermixture. | Practically all are "pagans." Substantial progress lately in several ways. | Bandelier, *Journ. Amer. Ethnol. and Archaeol.*, 1892; Fewkes, ibid., 1891; Stevenson, *5th Ann. Rep. Bur. Ethnol.*, 1883-1884, and *23rd Rep.*, 1901-1902; Cushing, *2nd Rep.*, 1880-1881, *4th Rep.*, 1882-1883, *13th Rep.*, 1891-1892, and *Zuñi Folk-Tales* (N.Y., 1901), and other writings. |
| Puyallup. | Salishan. | 486 at the Puyallup Agency, Washington. | Considerable. | Suffering from white contact; future not bright. | See Chehalis. |
| Quapaw. | Siouan. | 292 in Oklahoma. | Considerable. | Majority are intelligent, thrifty and progressive. Catholic missions. | Dorsey (J. O.), *11th Ann. Rep. Bur. Ethnol.*, 1889-1890, *13th Rep.* 1891-1892, and other writings. |
| Quileute. | Chemakuan. | 232 at Neah Bay Agency, N.W. Washington. | Considerable. | Progress good. | See Clallam. |
| Quinaielt. | Salishan. | 142 at Puyallup Agency in N.W. Washington. | Considerable. | See Nisqualli. | Farrand, *Mem. Amer. Mus. Nat. Hist.*, 1902; Conard, *Open Court*, 1905. |
| Sacs and Foxes (Sauk, &c.). | Algonkian. | 343 in Iowa; 630 in Oklahoma; 90 in Kansas. | Considerable. | Continued improvement; conservative opposition less. | Lasley, *Journ. Amer. Folk-Lore*, 1902; Jones, ibid., 1901, and *Fox Texts* (1907); |

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| | | | | Catholic missions. | Owen, *Folk-Lore of the Musquaki* (1904). |
| Sanspoil. | Salishan. | 126 at Colville Agency, Washington. | Considerable. | Improving. | See Chehalis. |
| Sarcee. | Athabaskan. | 205 S.W. of Calgary, Alberta. | More than many other tribes of this stock. | Making good material progress lately. Anglican mission. | Maclean, *Canad. Savage Folk* (1890); Goddard, *Congr. int. d. Amér.*, 1906; Morice, *ibid.* and *Ann. Arch. Rep. Ontario*, 1905; Simms, *Journ. Amer. Folk-Lore*, 1904. |
| Sekané (Sikani). | Athabaskan. | About 450 on Finlay and Parsnip rivers and W. to forks of Tatla Lake in N. central British Columbia. | Little. | Not so progressive as Carriers &c. Reached by Catholic mission from Stuart Lake. | Morice, Anthropos, 1906, 1907, and Ann. Arch. Rep. Ontario, 1905, and other writings. See Babines, Carı 465 |
| Seminole. | Muskogian. | 2132 in Oklahoma; 350 in Florida. | Much white and some negro blood. | Oklahoma Seminoles American citizens. | MacCauley, *5th Ann. Rep. Bur. Ethnol.*, 1887; Coe, *Red Patriots* (1898). See Creek. |
| Seneca. | Iroquoian. | 383 in Oklahoma; 2742 in New York; 215 with Six Nations, on Grand river, Ontario. | Considerable. | See Six Nations. | Sanborn, *Seneca Indians* (1862); Hubbard, *An Account of Sa-go-ye-wat-ha*, or *Red Jacket and his People* (Albany, 1886). See Six Nations. |
| Shawnee. | Algonkian. | 574 in Oklahoma. | Considerable. | Progress good. Catholic and Protestant missions. | See Pilling, *Bibl. of Algon. Lang.* (1891). Also Harvey, *Shawnee Indians* (1855). |
| Shoshonee. | Shoshonian. | About 1000 in Idaho; 242 in Nevada; 793 in Wyoming. | Amount of admixture not large. | Progress good in the last few years. Catholic and Protestant Episcopal missions. | Culin, *Bull. Free Mus. Sci. and Art* (Phila., 1901); Dorsey, *Indians of the South-west* (1903). See Ute. |
| Shuswap (Sequapamuq). | Salishan. | About 1000 in the S. interior of British Columbia; also 52 within the Kootenay area at the Columbia Lakes. | Considerable in places. | Industrious and law-abiding. Catholic and Protestant missions. | Boas, *Rep. Brit. Assoc. Adv. Sci.*, 1890, and *Ethnogr. Album* (N.Y., 1900); Dawson, *Trans. Roy. Soc. Canada*, 1891; Boas, *Indianische Sagen* (1895). |
| Siletz. | Indians of several stocks. | 483 on Siletz Reservation, Oregon. | Considerable. | Progress good. | Dorsey, *Journ. Amer. Folk-Lore*, 1890, and *Amer. Anthrop.*, 1889. |
| Six Nations (Canada). | Iroquoian. | On Grand River Reservation, Ontario; Cayuga, 1044; Mohawk, 1762; Oneida, 350; Onondaga, 350; Seneca, 215; Tuscarora, 397. Total, 4118. | Large admixture of white blood. | Generally capable and industrious, and steadily improving; many, both in U.S. and Canada, equal to whites. The Canadian Cayuga and Onondaga are "pagans." Many Christian faiths represented. | Boyle, *Ann. Arch. Rep. Ontario*, 1898 and 1905, and *Journ. Anthr. Inst.*, 1900; Hale, *Iroquois Book of Rites* (Phila., 1883); Wilson, *Trans. Roy. Soc. Can.*, 1885. See also under tribal names. |
| Six Nations (New York). | Iroquoian. | In New York State; Cayuga, 179; Oneida, 286; Onondaga, 553; Seneca, 2742; | Large admixture of white blood. | Improvement varying with tribes; Tuscarora said to be best. Various religious faiths. | Beauchamp, *Bull. N.Y. State Mus.*, 1897-1907, *The Iroquois Trail* (1892), and other writings; Smith, |

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| | | Tuscarora, 356. Total, 4116. | | | *2nd Ann. Rep. Bur. Ethnol.*, 1880-1881; Hewitt, *21st Ann. Rep. Bur. Ethnol.*, 1899-1900, and other writings. See also under tribal names. |
| Skiqomic. | Salishan. | About 150 in the Howe Sd. and Burrard Inlet region of British Columbia. | Some Canadian-French admixture. | "Probably the most industrious and orderly band of Indians in the province." Catholic mission. | Hill-Tout, *Rep. Brit. Assoc. Adv. Sci.*, 1900; Boas, ibid., 1894. |
| Slavé. | Athabaskan. | About 1100 in the region W. of Gt. Bear Lake, from Ft. Simpson to Ft. Norman in N.W. Canada. | No certain data; but some admixture now going on. | No marked progress, but white influence being felt. Catholics and Episcopal missions. | Various writings of Petitot and Morice; the latter in *Anthropos*, 1906-1907; Bompas, *Mackenzie River* (London, 1888); Bell, *Journ. Amer. Folk-Lore*, 1901. |
| Snaimuq (Nanaimo). | Salishan. | About 160 on reserve near Nanaimo Harbour, B.C. | No data. | Making good progress recently. Catholic mission. | Boas, *Rep. Brit. Assoc. Adv. Sci.*, 1889, and *Amer. Anthrop.*, 1889. |
| Songish (Lkungen). | Salishan. | About 200 in S.E. Vancouver Island, B.C. | No data. | Industrious and mostly well-off. Catholic mission. | Boas, *Rep. Brit. Assoc.*, 1890; Hill-Tout, *Journ. Roy. Anthrop. Inst.*, 1907. |
| Spokan. | Salishan. | 91 in Idaho; 133 in Montana; 434 in Washington. | Considerable. | Improving. | Writings of Rev. M. Eells. See Chehalis. |
| Tahltan. | Athabaskan. | 220 in the N. Interior of British Columbia, at mouth of Tahltan river. | Little. | Making good progress. | Teit, *Boas Anniv. Vol.* (N.Y., 1906). |
| Ten'a. | Athabaskan. | About 2000 on the Yukon, between Tanara and Koserefsky in Alaska. | Little. | Not yet much influenced by whites. Catholic mission. | Jetté, *Congr. int. des Amér.* 1906; *Man*, 1907; *Journ. Anthr. Inst.*, 1907. |
| Thompson Indian (Ntlakapamuk). | Salishan. | About 1770 in the Thompson river region, S. central British Columbia. | Not very much. | Making good progress. Catholic and Protestant missions. | Teit and Boas, *Mem. Amer. Mus. Nat. Hist.*, 1900; Teit, *Trad. of Thompson Inds.* (Boston, 1898); Hill-Tout, *Salish and Déné* (London, 1907). |
| Tlingit. | Koluschan. | About 2000 in S. Alaska. | Considerable in places. | Not marked generally. Greek Orthodox and other missions. | Krause, *Die Tlinkit Indianer* (Berlin, 1885); Boas, *Indianische Sagen* (Berlin, 1905); Bogoras, *Amer. Anthrop.*, 1902; Swanton, *26th Ann. Rep. Bur. Amer. Ethnol.*, 1904-1905; Emmons, *Mem. Amer. Mus. Nat. Hist.*, 1903. |
| Tonkawa. | Tonkawan. | 47 in Oklahoma. | No data. | "Contented and enjoying life." | Mooney, *Globus*, 1902. |
| Tsimshian (Proper). | Tsimshian. | About 2000 in northern British Columbia. | Not large. | Making good progress. Anglican and other missions. | Boas, *Rep. Brit. Assoc. Adv. Sci.*, 1889, and *Indianische Sagen* (Berlin, 1895); von der |

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| | | | | | Schulenburg, *Die Sprache der Zimshian-Indianer* (1894); Wellcome, Metlakatla (1887). |
| Tuscarora. | Iroquoian. | 397 on Six Nation Reservation, Ontario; 356 with Six Nations, New York. | Considerable. | Making good progress in both Canada and New York. | See Six Nations. |
| Tutchonekut'qin. | Athabaskan. | About 1000 on the Yukon from Deer river to Ft. Selkirk, in Alaska. | Little. | Little progress. | See Babines, Carriers, Chipewyan. |
| Uinta Ute. | Shoshonian. | 435 in Utah. | Little. | See Ute. | See Ute. |
| Umatilla. | Sahaptian. | 207 in Oregon. | Some. | Making progress. Catholic and Presbyterian missions. | See Nez Percés. |
| Uncompaghre Ute. | Shoshonian. | 493 in Utah. | Little. | See Ute. | See Ute. |
| Ute. | Shoshonian. | 845 in Colorado; 1245 in Utah. | Not much. | Some progress recently. Catholic and Protestant missions. | Culin, *Bull. Free Mus. Sci. and Art* (Phila., 1901); Kroeber, *Journ. Amer. Folk-Lore*, 1901, and *Amer. Anthrop.*, 1906. 466 |
| Walapai. | Yuman. | 513 in Arizona. Decreasing. | Little. | Self-supporting, but poor morally. | James, *Indians of the Painted Desert Region* (Boston, 1903). |
| Wallawalla. | Sahaptian. | 579 in Oregon. | Some. | Not so satisfactory recently, but progressing. | See Nez Percés. |
| Wichita. | Caddoan. | 441 in Oklahoma. | Probably considerable. | Citizens of U.S., making good progress. Catholic and Protestant missions. | Dorsey, *Mythology of the Wichita* (Washington, 1904) and other writings. |
| Winnebago. | Siouan. | 1070 in Nebraska; 1285 in Wisconsin. | Considerable. | Many good citizens of U.S. and progressing. Suffering from liquor and the mescal bean to some extent. | Thwaites, *Coll. State Hist. Soc. Wisconsin*, 1892; Fletcher, *Journ. Amer. Folk-Lore*, 1890; McGee. *15th Ann. Rep. Bur. Ethnol.*, 1893-1894. |
| Wyandot. | Iroquoian. | 385 in Oklahoma; 1 at Anderdon, Ontario, Canada. | No pure-bloods left, hardly a half-blood. | More white than Indian. | Powell, *1st Ann. Rep. Bur. Ethnol.*, 1879-1880; Connelley, *Ann. Arch. Rep. Ontario*, 1905, and *Wyandott Folk-Lore* (Topeka, 1899); Merwin, *Trans. Kansas State Hist. Soc.*, 1906. |
| Yakima. | Sahaptian. | About 1500 in Washington. | Considerable. | Late reports indicate bad influence of whites. | Pandosy, *Gramm. and Dict. of Yakima* (1862); Lewis, *Mem. Amer. Anthrop. Assoc.*, 1906. |
| Yellowknives. | Athabaskan. | About 500 N.E. of Great Slave Lake in N.W. Canada. | Not much. | No practical advance as yet. | Writings of Petitot, Morice, &c. Petitot, *Autour du Grand Lac des Esclaves* (1891), and *Monographie des Déné-Dindjié* (1876). See Carriers, |

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| | | | | | Chipewyan. |
| YUMA. | Yuman. | 807 at Fort Yuma Agency, California, and a few at San Carlos, Arizona. | Some Spanish (Mexican) blood. | Progress good. Catholic and Protestant missions. | Gatschet, *Ztschr. v. Ethnologie* (1893); Trippell, *Overland Monthly*, 1889; Dorsey, *Indians of the South-west* (1903). See Mission Indians. |
| ZUÑI. | Zuñian. | See Pueblos. | Zuñian. | See Pueblos. | See Pueblos (Zuñian). |

From the tables it will be seen that the American Indians in some parts of North America are not decreasing, but either holding their own or even increasing; also that thousands of them are now to all intents and purposes the equals in wealth, thrift, industry and intelligence of the average white man and citizens with him in the same society. In certain regions of the continent small tribes have been annihilated in the course of wars with other Indians or with the whites, and others have been decimated by disease, famine, &c.; and over large areas the aboriginal population, according to some authorities, has vastly diminished. Thus Morice estimates that the Athabaskan population at present in Canada (about 20,000) is less than one-seventh of what it was a century or more ago; Hill-Tout thinks the Salishan tribes (*c.* 15,000) number not one-fifth of their population a hundred years ago, and equally great reductions are claimed for some other peoples of the North Pacific region; Kroeber thinks probable an Indian population in California of 150,000 before the arrival of the whites, as compared with but 15,000 now; by some the arid regions of the south-west are supposed to have sustained a very large population in earlier times; certain of the Plains tribes are known to have lost much in population since contact with the whites. But under better care and more favourable conditions generally some tribes seem to be taking on a new lease of life and are apparently beginning to thrive again. A considerable portion of the "disappearance" of the Indian is through amalgamation with the whites. Undoubtedly, in some parts of the country, exaggerated ideas prevalent in the early colonial period as to the numbers of the native population have interfered with a correct estimate of the aborigines past and present. Mooney thinks that the Cherokee "are probably about as numerous now as at any period in their history" (*Hndb. Amer. Inds.*, 1907, pt. i. p. 247), and this is perhaps true also of some other tribes east of the Mississippi. Major J. W. Powell was of opinion that the Indian population north of Mexico is as large to-day as it was at the time of the discovery. This, however, is not the view of the majority of authorities. The total number of Indians in Canada (*Ann. Rep. Dept. Ind. Aff.*, 1907) for 1907 is given as 110,345, as compared with 109,394 for the previous year, not including the Micmac in Newfoundland and the Indians and Eskimo in that part of Labrador belonging to Newfoundland. In 1903 the figures were 108,233. The gain may be largely due to more careful enumeration of Indians in the less well-known parts of the country, but there is evidently no marked decrease going on, but rather a slight increase in Ontario, Quebec, New Brunswick, &c. In the United States (exclusive of Alaska, which counts about 30,000) the Indian population (*Ann. Rep. Ind. Aff.*, 1906) is estimated at 197,289, no including the "Five Civilized Tribes," of whose numbers (94,292) some 65,000 can be reckoned as Indians—a total of 382,000. The figures of 197,289, according to the report, show an increase in population "due mainly to increase in number of Indians reported from California."

***Population, &c.***

The financial condition of the Indians of the Dominion of Canada for the year ending March 31, 1907, is indicated in the following table:—

| | Total Amount of Real and Personal Property. | Total Income for the Year. |
|---|---|---|
| Ontario | $7,566,125 | $1,426,690 |
| Quebec | 1,781,330 | 915,783 |
| N. Brunswick | 189,701 | 109,892 |
| N. Scotia | 151,949 | 76,603 |
| P. E. I. | 6,370 | 15,374 |
| Manitoba | 2,102,044 | 348,966 |
| B. Columbia | 7,475,719 | 1,501,456 |
| Sask | 7,721,532 | 548,533 |
| Alberta | 5,154,789 | 211,839 |
| Total | $30,129,659 | $5,155,052 |

The total amounts earned during the year were: from agriculture, $1,337,948; wages and miscellaneous industries, $714,125; fishing, $544,487; hunting and trapping, $630,633. Of these hunting and trapping show a decided decrease over 1906. The Indian Trust Fund amounts to $5,157,566.59. The total appropriation in connexion with the Indians of the Dominion for all purposes for the year 1906-1907 was $1,055,010 and the actual expenditure some $114,000 less. The total amount of sales of lands for the benefit of Indian tribes was $422,086.13. The balance to the credit of the Indian savings account for the funding of the annuities and earnings of pupils at industrial schools, together with collections from Indians for purchase of cattle and for ranching expenses, was $51,708.92.

According to the *Report of the Commissioner of Indian Affairs* the total amount of trust funds held by the United States government for the Indians, in lieu of investment, amounted to $36,352,950.97, yielding for

1906 interest at 4 and 5% of $1,788,237.23. The total incomes of the various tribes from all sources for the year ending June 30, 1906, was $6,557,554.39, including interest on trust funds, treaty agreement and obligations, gratuities, Indian money, proceeds of labour, &c.



***Physical characteristics.***

While the general constitution of the American aborigines north of Mexico is such as to justify their designation as one "American race," whose nearest congener is to be found in the "Mongolian race" of eastern Asia, &c., there is a wide range in variation within the American tribes with respect to particular physical characteristics. Some authorities, like Dr Hrdlička (*Handb. Amer. Inds. N. of Mex.*, 1907, pt. i. p. 53), separate the Eskimo from the "Indians," regarding them as "a distinct sub-race of the Mongolo-Malay," but this is hardly necessary if, with Boas (*Ann. Archaeol. Rep. Ontario*, 1905, p. 85), we "consider the inhabitants of north-eastern Asia and of America as a unit divided into a great many distinct types but belonging to one and the same of the large divisions of mankind." Upon the basis of differences in stature and general bodily conformation, colour of skin, texture and form of hair, shape of nose, face and head, &c., some twenty-one different physical "types" north of Mexico have been recognized.

Although the variation in stature, from the short people of Harrison Lake (average 1611 mm.) to the tall Sioux (average 1726 mm.), Eastern Chippewa (average 1723 mm.), Iroquois (average 1727 mm.), Omaha and Winnebago (average 1733 mm.) and other tribes of the Plains and the regions farther east, is considerable, the North American Indian, on the whole, may be termed a tall race. The stature of women averages among the tall tribes about 92%, and among the short tribes about 94% of that of the men.

The proportion of statures (adult males) above 1730 mm. in certain Indian tribes (Boas) is as follows: Apache and Navaho, 25.3; Arapaho, 45.9; Arikara, 15.2; British Columbia (coast), 28.8; British Columbia (interior), 16.4; California (south), 32.7; Cherokee (eastern), 21.0; Cherokee (western), 40.7; Cheyenne, 72.2; Chickasaw, 23.8; Chinook, 36.2; Choctaw, 32.6; Coahuila, 14.2; Comanche, 27.1; Cree, 33.4; Creek, 53.6; Crow, 51.3; Delaware, 41.1; Eskimo (Alaska), 5.9; Eskimo (Labrador), 0.0; Flathead, 18.9; Harrison Lake, B.C., 1.0; Hupa, 18.7; Iroquois, 52.1; Kiowa, 41.3; Klamath, 20.0; Kootenay, 26.0; Micmac and Abnaki, 45.7; Ojibwa (eastern), 42.7; Ojibwa (western), 427; Omaha and Winnebago, 54.9; Oregon (south), 5.1; Ottawa and Menominee, 30.6; Paiute, 22.1; Pawnee, 39.0; Puget Sound and Makah, 6.5; Round Valley, Cal., 3.3; Sahaptin, 28.2; Shuswap, 15.9; Sioux, 50.8; Taos, 18.5: Ute, 124; Zuñi and Moqui, 1.9.

Very notable is the percentage of tall statures among the Cheyenne, Creek, Crow, Iroquois, &c. The form of the head (skull) varies considerably among the Indian tribes north of Mexico, running from the dolichocephalic eastern Eskimo with a cephalic index of 71.3 on the skull to the brachycephalic Aleuts with 84.8. Several tribes practising deformation of the skull (mound-builders, Klamath, &c.) show much higher brachycephaly.

The percentage of cephalic indices above 84 (on the heads of living individuals) among certain Indian tribes (Boas) is as follows: Apache, 87.6; Arapaho, 5.0; Arikara, 24.6; Blackfeet, 6.2; Caddo, 47.2; Cherokee, 20.0; Cheyenne, 10.4; Chickasaw, 14.4; Comanche, 65.3; Cree, 4.9; Creek, 25.0; Crow, 12.0; Delaware 12.0; Eskimo, (Alaska), 10.6; Harrison Lake, B.C., 88.8; Iroquois, 15.4; Kiowa, 25.0; Kootenay, 19.1; Mandan, 4.5; Micmac and Abnaki, 7.0; Mohave, 86.5: Montagnais, 21.7; Moqui, 54.3; Navaho, 49.4; Ojibwa (eastern), 26.6; Ojibwa (western), 10.2; Omaha, 23.0; Oregon (south), 50.9; Osage, 79.1; Ottawa and Menominee, 24.7; Pawnee, 4.8; Pima, 9.6; Round Valley, Cal., 4.8; Sahaptin, 57.4; Shuswap, 59.9; Sioux, 9.6; Taos, 6.0; Ute, 8.9; Wichita, 96.0; Winnebago, 66.8; Zuñi, 41.4.

The Apache, Mohave, Navaho, Osage, Sahaptin, Wichita and Winnebago practised skull-deformation, which accounts in part for their high figures. The brachycephalic tendency of the Caddo, Moqui, Shuswap and Zuñi is marked; the Comanche, with an average cephalic index of 84.6 and the Harrison Lake people with one of 88.8, are noteworthy in this respect. As in the case of stature, so in the case of head-form, there seems to have been much mingling of types, especially in the Huron-Algonkian region, the Great Plains and the North Pacific coast.

The North American Indian may be described in general as brown-skinned (of various shades, with reddish tinge, sometimes dark and chocolate or almost black in colour) with black hair and eyes varying from hazel brown to dark brown. Under good conditions of food, &c., the Indian tends to be tall and mesocephalic as to head-form, and well-proportioned and symmetrical in body. The ideal Indian type can be met with among the youth of several different tribes (Plains Indians, Algonkians, Iroquoians, Muskogians and some of the tribes of the south-western United States). Beauty among the aborigines of America north of Mexico has been the subject of brief studies by Dr R. W. Shufeldt and Dr A. Hrdlička (*Boas Anniv. Vol.*, New York, 1906, pp. 38-42).

***Race mixture.***

The extent to which the red and white races have mixed their blood in various parts of North America is greater than is generally thought. The Eskimo of Greenland have intermarried with the Danes, and their kinsmen of Labrador with the English settlers and "summerers." The eastern Algonkian Indians in New England and Acadia have now considerable French, English and Scottish blood. Many of the Canadian Iroquois are more than half French, many of the Iroquois of New York half English. The Cherokee, an Iroquoian people of the Carolinas, have some admixture of Scottish and German blood, to which Mooney would attribute some, at least, of their remarkable progress. In the state of Oklahoma, which has absorbed the old "Indian Territory," the results of race-amalgamation are apparent in the large number of mixed bloods of all shades. In spite of the romance of Pocahontas, the intermarriages of the two races in the Virginian region seem not to have been very common or very important. Nor does there appear to have been much intermarriage between Spaniards and Indians in the south Atlantic region, though in Texas, &c., there was a good deal. In New France, in spite of the efforts of some recent Canadian-French writers to minimize the fact, intermixture between whites, and Indians began early and continued to be extensive. In parts of New Brunswick, Quebec, Ontario, some of the northern American states and regions of the Canadian north-west, there are Indian villages and white settlements where hardly a single individual of absolutely pure blood can now be

found. In the veins of some of the “Iroquois” of Caughnawaga and New York state to-day flows blood of the best colonial stock (Rice, Hill, Williams, Stacey, &c., captives adopted and married within the tribe). In the great Canadian north-west, and to a large extent also in the tier of American states to the south, the blood of the Indian, through the mingling of French, Scottish and English traders, trappers, employees of the great fur companies, pioneer settlers, &c., has entered largely and significantly into the life of the nation, the half-breed element playing a most important rôle in social, commercial and industrial development.

In 1879, besides those whose mixed blood had not been remembered and those who wished to forget it, there were, according to Dr Havard (*Rep. Smiths. Inst.*, 1879), at least 22,000 *métis* in the United States and 18,000 in Canada (*i.e.* in the north-west in each case). When the province of Manitoba entered the Canadian Confederation it numbered within the borders some 10,000 mixed-bloods, one of whom, John Norquay, afterwards became its premier. In the Columbia river region and British Columbia some intermixture has taken place, originating in the conditions due to the establishment of trading-posts, the circumstances of the early settlement of the country, &c.—this has been both French and English and Scottish. Farther north in Alaska the Russian occupation led to not a little intermixture, both with the Aleuts, &c., and the coast Indians. In some parts of the far north intermixture of the whites with the Athabaskans is just beginning. In Canada no prohibition of marriage between whites and Indians exists, but such unions are forbidden by law in the states of Arizona, Oregon, North Carolina and South Carolina.

A considerable number of the chiefs and able men of the various Indian tribes of certain regions in recent times have had more or less white blood—Iroquois, Algonkian, Siouan, &c.—who have sometimes worked with and sometimes against the whites. In the case of some tribes there have been “pure blood” and “mixed blood” factions. Some tribes have frowned upon miscegenation; even the Pueblos (except Laguna, which is Keresan) have never intermarried with the whites. Both in Canada and the United States strains of Indian blood run in the veins of prominent families. Some of the “first families of Virginia” are proud to descend from Pocahontas, the Algonkian “Princess,” who married the Englishman Rolfe. In Maine may still be discovered perhaps those whose line of life goes back to the Baron de St Casteins and his Abnaki bride, while in Ontario and New York are to be met those who trace their ancestry back to the famous Iroquois Joseph Brant and his half-English wife. In the early history of Pennsylvania and Ohio were noted the Montours, descendants of a French nobleman who about 1665 had a son and two daughters by a Huron woman in Canada. In 1817 Captain John S. Pierce, U.S.A., brother of President Franklin Pierce, married the fair Josette la Framboise, who had at least a quarter Indian (Ottawa) blood. In the latter part of the 18th century a young Irish gentleman married Neengai, daughter of the Michigan Ojibwa chief Waubojeeg, and of the daughters born to them one married a Canadian Frenchman of reputation in the early development of the province of Ontario, another the Rev. Mr McMurray, afterwards Episcopal archdeacon of Niagara, and a third Henry R. Schoolcraft, the ethnologist.



Several Indians, some full-blood, others with more or less white blood in their veins, have rendered signal service to ethnological science. These deserve special mention: Francis la Flesche, an Omaha, a graduate of the National University Law School. D.C., holding a position in the Office of Indian Affairs; Dr William Jones, a Sac and Fox, in the service of the Field Museum, Chicago, a graduate of Harvard and of Columbia (Ph.D.); and J. N. B. Hewitt, a Tuscarora, ethnologist in the Bureau of American Ethnology, Washington, D.C. In some regions considerable intermixture between negroes and Indians (*Science*, New York, vol. xvii., 1891, pp. 85-90) has occurred, *e.g.* among the Mashpee and Gay Head Indians of Massachusetts, the remnants of the Pequots in Connecticut, the Shinnecocks and the Montauks, &c., of Long Island; the Pamunkeys, Mattaponies and some other small Virginian and Carolinian tribes. In earlier times some admixture of negro blood took place among the Seminoles, although now the remnants of that people still in Florida are much averse to miscegenation. Of the tribes of the Muskogian stock who kept large numbers of negro slaves the Creeks are said to have about one-third of their number of mixed Indian-negro blood. Sporadic intermixture of this sort is reported from the Shawnee, the Minnesota Chippewa, the Canadian Tuscarora, the Caddo, &c., in the case of the last the admixture may be considerable. It is also thought probable that many of the negroes of the whole lower Atlantic coast and Gulf region may have strains of Indian blood. The mythology and folk-lore of the negroes of this region may have borrowed not a little from the Indian, for as Mooney notes (*19th Rep. Bur. Amer. Ethnol.*, 1900, pp. 232-234), “in all the southern colonies Indian slaves were bought and sold and kept in servitude and worked in the fields side by side with negroes up to the time of the Revolution.” When Dr John R. Swanton visited the Haida recently the richest man among the Skidegate tribe was a negro. Some of the Plains tribes and some Indians of the far west, however, have taken a dislike to the negro.

The leader in the “Boston Massacre” of March 5, 1770, was Crispus Attucks, of Framingham, Mass., the son of a negro father and a Natick Indian mother. The physical anthropology of the white-Indian half-blood has been studied by Dr Franz Boas (*Pop. Sci. Monthly*, New York, 1894).

***Culture, arts, industries, &c.***

The culture, arts and industries of the American aborigines exhibit marked correspondence to and dependence upon environment, varying with the natural conditions of land and water, wealth or poverty of the soil, abundance or scarcity of plant and animal life subsidiary to human existence, &c. Professor O. T. Mason (*Handb. of Amer. Inds. N. of Mexico*, 1907, pt. i. pp. 427-430; also *Rep. Smiths. Inst.*, 1895, and *Pop. Sci. Monthly*, 1902) recognizes north of Mexico twelve “ethnic environments,” in each of which there is “an *ensemble* of qualities that impressed themselves on their inhabitants and differentiated them.”

These twelve “ethnic environments” are:—

(1) *Arctic* (*Eskimo*); (2) *Yukon-Mackenzie* (practically *Athabaskan*); (3) *Great Lakes and St Lawrence* (*Algonkian-Iroquoian*); (4) *Atlantic Slope* (*Algonkian*, *Iroquoian*, *Siouan*, &c.); (5) *Gulf Coast*, embracing region from Georgia to Texas (*Muskogian* and a number of smaller stocks); (6) *Mississippi Valley* (largely *Algonkian* and “*mound-builders*”); (7) *Plains*, including the country from the neighbourhood of the Rio Grande to beyond the Saskatchewan on the north, and from the Rocky Mountains to the fertile lands west

of the Mississippi (*Algonkian*, *Siouan*, *Shoshonian*, *Kiowan*, *Caddoan*); (8) *North Pacific Coast*, from Mount St Elias to the mouth of the Columbia river (*Koluschan*, *Haidan*, *Tsimshian*, *Wakashan*, *Salishan*); (9) *Columbia-Fraser region* (*Salishan*, *Sahaptian*, *Chinookan*, &c.); (10) *Interior Basin* between Rocky Mountains and Sierras (*Shoshonian*); (11) *California-Oregon* ("the Caucasus of North America," occupied by more than twenty-five linguistic stocks); (12) *Pueblos region*, basin of Rio Grande, Pecos, San Juan and Colorado (*Pueblos-Keresan*, *Tanoan*, *Zuñian*, &c.; on the outskirts predatory *Shoshonian*, *Athabaskan* tribes; to the south-west, *Yuman*, &c.).

In the Arctic environment the Eskimo have conquered a severe and thankless climate by the invention and perfection of the snow-house, the dog-sled, the oil-lamp (creating and sustaining social life and making extensive migrations possible), the harpoon and the kayak or skin-boat (the acme of adaptation of individual skill to environmental demands). In the region of the Mackenzie especially the older and simpler culture of the Athabaskan stock has been much influenced by the European "civilization" of the Hudson's Bay Company, &c., and elsewhere also by contact with Indian tribes of other stocks, for the Athabaskans everywhere have shown themselves very receptive and ready to adopt foreign elements of culture. The culture-type of the North Pacific coast, besides being unique in some respects, stands in certain relations to the culture of the Palaeo-Asiatic tribes of north-eastern Asia who belong properly with the American race. The culture of the Great Plains, which has been studied by Drs Wissler (*Congr. intern. d. Amér.*, Quebec, 1906, vol. ii. pp. 39-52) and Kroeber (*ibid.* pp. 53-63), is marked by the presence of a decided uniformity in spite of the existence within this area of several physical types and a number of distinct linguistic stocks. Here the *tipi* and the camp-circle figure largely in material culture; innumerable ceremonies and religious practices (*e.g.* the "sun-dance") occur and many societies and ceremonial organizations exist. The buffalo and later the horse have profoundly influenced the culture of this area, in which Athabaskan (Sarcee), Kitunahan, Algonkian, Siouan, Shoshonian, Kiowan tribes have shared. In some respects the Plains culture is quite recent and the result of "giving and taking" among the various peoples concerned. Some of them merely abandoned an earlier more sedentary life to hunt the buffalo on the great prairies.

The culture of the Mississippi valley region (including the Ohio, &c.) is noteworthy in pre-Columbian and immediately post-Columbian times for the development of "mound-building," with apparently sedentary life to a large extent. In this Algonkian, Iroquoian and Siouan tribes have participated. In the region of the Great Lakes and on the Atlantic slope occurred the greatest development of the Algonkian and Iroquoian stocks, particularly in social and political activities, expressed both generally, as in the leagues and alliances (especially the famous "Iroquois League"), and individually in the appearance of great men like Hiawatha, Tecumseh, &c. The Gulf region is remarkable for the development in the southern United States of the Muskogian stock (Creek, Choctaw, Chickasaw, &c.), to which belonged the "civilized tribes" now part of the state of Oklahoma. In this area also, toward the west, are to be met religious ideas and institutions (*e.g.* among the Natchez) suggestive of an early participation in or connexion with the beginnings of a culture common to the Pueblos tribes and perhaps also to the ancestors of the civilized peoples of ancient Mexico. In some other respects the culture of this area is noteworthy. In the east also there are evidences of the influence of Arawakan culture from the West Indies. The Pueblos region has been the scene of the development of sedentary "village" life on the largest scale known in North America north of Mexico, and of arts, industries and religious ideas (rain-cult especially) corresponding, as Professor J. W. Fewkes (*Rep. Smiths. Inst.*, 1895, pp. 683-700) has shown, most remarkably to their environment. The arid interior basin is the characteristic area of the great Shoshonian stock, here seen at its lowest level, but advancing with the Piman and other Sonoran and Nahuatlan tribes till in ancient Mexico it attained the civilization of the Aztecs. The California-Oregon area is remarkable for the multiplicity of its linguistic stocks and also for the development of many local culture-types. Within the limits of California alone Dr Kroeber (*Univ. of Calif. Publ. Amer. Arch. and Ethnol.* vol. ii., 1904, pp. 81-103) distinguishes at least four types of native culture.

On account of climatic conditions, in part at least, the development of agriculture in North America has not reached with many Indian tribes a high state of development, although its diffusion is much greater than is generally believed. In the south-eastern part of the United States beans, squashes, pumpkins and some other gourds and melons, potatoes, Indian corn, tobacco, a variety of the sunflower, &c., were cultivated, the growing of beans, squashes and pumpkins extending as far north as Massachusetts and the Iroquois country, in which latter also tobacco was cultivated, as the tribal name ("Tobacco Nation") of the Tionontati indicates. The cultivation of Indian corn extended from Florida to beyond 50° N. and from the Atlantic to far beyond the Mississippi, and, to judge from the varieties found in existence, must have been known to the Indians for a very long period. In the arid region of Arizona and New Mexico a special development of agriculture occurred, made possible by the extensive use of irrigation in pre-Columbian and in more recent times. Here Indian corn, melons, beans, cotton, &c., were cultivated before the arrival of the Spaniards. For religious purposes the Zuñi appear to have selectively produced a great variety of colours in the ears of corn. Where women had much to do with agricultural operations they greatly influenced society and religious and mythological ideas. Hunting and fishing, as might be expected in an extensive and varied environment like the North American continent, exhibit a great range from simple individual hand-capture to combined efforts with traps and nets, such as the communal nets of the Eskimo, the buffalo and deer "drives" of the Plains and other Indians, with which were often associated brush-fences, corrals, "pounds," pitfalls, &c., advantage taken of a natural *cul-de-sac*, &c. A great variety of traps, snares, &c., was used (see Mason in *Amer. Anthrop.*, 1899) and the dog was also of great service with certain tribes, although no special variety of hunting-dogs (except in a few cases) appears to have been developed. The accessory implements for the chase (spear, bow and arrow, harpoon, club, &c.) underwent great variation and specialization. The throwing-stick appears in the north among the Eskimo and in the south-west among the Pueblos. In the Muskogian area the blow-gun is found, and its use extended also to some of the Iroquoian tribes (Cherokee, &c.). In part of this area vegetable poisons were used to capture fish. In the New England region torch-fishing at night was in vogue. With the tribes of the Great Plains in particular the hunt developed into a great social event, and often into a more or less marked ceremonial or religious institution, with its own appropriate preliminary and subsequential rites, songs, formulae, taboos and fetishes, &c., as seen *e.g.* among certain tribes of the Caddoan stock in very

interesting fashion.

The art of transportation and navigation among the American aborigines north of Mexico has received special treatment from Mason (*Rep. U.S. Nat. Mus.*, 1894) and Friederici, in his recent monograph *Die Schiffahrt der Indianer* (Stuttgart, 1907). On land some of the Indian tribes made use of the dog-sled and the toboggan in winter, while the dog-*travois* was early met with in the region of the Great Plains. The Eskimo made special use of the dog-sled, but never developed snow-shoes to the same extent as did the Athabaskan and Algonkian tribes; with the last and with the Iroquoian tribes came the perfection of the skin-shoe or moccasin. In the south and south-west appear sandals. In North America the cradle, as pointed out by Professor Mason (*Rep. U.S. Nat. Mus.*, 1894), has undergone great variation in response to environmental suggestion. No wheeled vehicle and no use of an animal other than the dog for means of transportation is known among the aborigines north of Mexico, men, women and children, women especially, having been the chief burden-bearers. Among the types of boats in use are the seal-skin *kayak* and *umiak* (woman's boat) of the Eskimo; the bull-boat or coracle (raw-hide over willow frame) of the Missouri and the buffalo-region; the dug-out of various forms and degrees of ornamentation in divers regions from Florida to the North Pacific coast; bark-canoes (birch, elm, pine, &c.) in the Algonkian, Iroquoian and Athabaskan areas, reaching a high development in the region of the Great Lakes; the peculiar bark-canoe of the Beothuks in the form of two half ellipses; the bark-canoe of the Kootenay (a similar type occurs on the Amur in north-eastern Asia), noteworthy as having both ends pointed under water; the plank-canoes of the Santa Barbara region; the basketry-boats (*coritas*) of the lower Colorado and in south central California; the *balsas* of tule rushes, &c., in use on the lakes and streams of California and Nevada. In various parts of the country log-rafts of a more or less crude sort were in use. No regular sail is reported from North America, although from time to time skins, blankets, &c., were used by several tribes for such purposes.

Since the appearance of Morgan's monograph on the *Houses and House-life of the American Aborigines* (Washington, 1881) our knowledge of the subject has been materially increased by the studies and researches of Boas, Fewkes, Mindeleff, Dorsey, Matthews, Murdoch, Willoughby and others. The dwellings in use among the aborigines north of Mexico varied from the rude brush huts of the primitive Shoshonian tribes, and the still earlier caves, to the communal dwellings of the Iroquois and the Pueblos stocks of New Mexico and Arizona. The principal types are as follows:

Crude brush shelters and huts of the lowest Shoshonian tribes, the Apache (more elaborate), &c.; the *hogan* or earth-lodge of the Navaho, and the earth-lodges of certain Caddoan and Siouan tribes farther north, with similar structures even among the Aleuts of Alaska; the grass-lodge of the Caddoan tribes, still in use among the Wichita; the semi-subterranean earth-covered lodges of parts of California, &c.; the roofed pits of various styles in use in the colder north, &c.; the Eskimo snow-house and wooden *karmak*; the elaborately carved and painted wooden houses of Pacific coast region (Tlingit, Haida, Nootka, &c.), some of which were originally built on platforms and entered by log-ladders; the simple wooden house of northern California; the dome-shaped bark wigwams of the Winnebago and the conical ones of many of the Algonkian tribes; the skin tents or tipis of many of the Plains peoples; the mat tents of the Nez Percé, Kootenay, &c., and the mat houses of the South Atlantic region; the circular wigwam of bark or mats banked up at the base, of the Ohio-Mississippi valley; the palmetto-house of certain Louisiana Indians; the pile-dwellings of the ancient Floridians. Communal houses of divers types were found among the Mohegans, Iroquois, &c., but are especially illustrated by the so-called *pueblos* of the south-western United States, out of which grew probably the elaborate structures of ancient Mexico. Some tribes appear to have had simple and ruder summer dwellings and more elaborate or better constructed winter houses. The Eskimo have sometimes temporary hunting-lodges; the Comanches brush-shelters for summer and lodges of buffalo-skin for winter; with some tribes temporary dwellings were erected for the use of those cultivating the land. Many tribes had their "village-houses" for social purposes, like the *kashim* of the Eskimo. Special tipis or houses for shamans, "medicine-men," &c., were common in many parts of North America. Secret societies had their own lodges and the so-called "men's-house." The houses of the North American Indians are the subject of a monograph by E. Sarfert (*Arch. f. Anthr.*, 1908, pp. 119-215).

The art of fire-making was known to all the aborigines north of Mexico, two methods being widespread, that with flint and pyrites and that by reciprocating motion of wood on wood. For the latter several varieties of apparatus were in use, the simple two-stick apparatus was very common; the Eskimo have a four-part fire-drill and the Iroquois a weighted drill with spindle whorl. The skill displayed in fire-making by some Indians is very great, and the individual parts of the apparatus have in certain regions been highly specialized. The subject of fire-making apparatus and the kindred topic of illumination have been specially treated by Dr Walter Hough (*Rep. U.S. Nat. Mus.*, 1890, pp. 531-587; *Rep. Smiths. Inst.*, 1901-1902). The camp-fire, the torch and the Eskimo lamp represent the employment of fire for artificial light among the aborigines. Fire and smoke were used for signalling by the Plains tribes, &c., and fire-ceremonies form an important part ("new-fire," "fire-dance") of the ritual observances of not a few peoples, especially in the region from Florida to the Rio Grande. In metal-working there is up to the present no convincing evidence of the use of fire (heat only being employed to facilitate the cold-hammering processes by which the metals, copper, silver, gold and iron were manufactured into weapons, implements and ornaments) in metallurgy north of Mexico. The tools used were few and the processes simple, as Cushing (*Amer. Anthrop.*, vol. vii., 1894) has proved by actual experiment. The only metal actually mined in large quantities was copper in the region of Lake Superior, whence came most of that employed in the east and south. In Alaska was a source of copper for the North Pacific coast. No special process of hardening copper other than by hammering was known to the Indians. The gold objects of most interest come from mounds in Florida and a few also from those in the Ohio valley. Galena was used to make simple ceremonial objects by the Indians of the Mississippi valley and the "mound-builders."

The art of sculpture in wood, stone, bone and ivory is best represented by the wooden masks, utensils, house-carvings and totem-poles of the Indians of the North Pacific coast, the stone pipes, ornaments and images of various sorts of the "mound-builders" and other Indians of the Mississippi valley, the carvings of the people of the Floridian pile-dwellings, and the remarkable ivory carvings, sometimes minute, of the Eskimo. Noteworthy also are the slate-sculpture of the Haida, and the work in bone, ivory and deer and

mountain goat horn of the British Columbian Indians. The Indians of the region south of the Great Lakes were expert in the manufacture of tobacco-pipes of great variety, among the most interesting being the Catlinite pipes of the Sioux of Minnesota, &c. Soapstone served some of the Eskimo to make lamps and some Indian tribes for other purposes. Pottery appears to have been unknown in certain regions, but flourished remarkably in the Mississippi valley and the Pueblos region of the south-west, where specialization in form and decoration occurred, and ceramic objects of all sorts were manufactured in abundance. The pottery of the Iroquoian and Algonkian tribes of the north-east was, as a rule, rather crude and undeveloped. In many places the relation of ceramic art to basketry is in evidence. Basketry, of which Professor O. T. Mason has recently made a detailed study in his *Aboriginal American Basketry* (Washington and New York, 1902, 1904), and related arts were carried on (especially by women) with great variety of form, decoration, material, &c., over a large portion of the continent. In North America basketry is "*the* primitive art," and here "the Indian women have left the best witness of what they could do in handiwork and expression." The most exquisite and artistic basketry in the world comes from an utterly uncivilized tribe in California. The relation of basketry to symbolism and religion is best observable among the Hopi or Moqui of Arizona. The appreciation of white men for the products of Indian skill and genius in basketry finds full expression in G. W. James's *Indian Basketry* (1900). Weaving is exemplified in the goat's hair blanket of the Chilkat Indians (Koluschan) of Alaska, and similar products; also in the manufactures of buffalo-hair, &c., of the Indians of the Great Plains and Mississippi valley and the textile art of a higher type known to the Pueblos tribes and by some of them taught to the Navaho. Famous are the "Navaho blankets," less so the "Chilkat."

Feather-work and the utilization of bird-skins and feathers for dresses, hats, ornaments, &c., are known from many parts of the continent. In the Arctic regions bird-skins with the feathers on were used to make dresses; the Algonkian tribes of Virginia, &c., had their bird-skin "blankets" and "turkey robes"; the tribes of the North Pacific coast used feathers for decorative purposes of many kinds, as did Indians in other regions also; feather head-dresses and ornaments were much in use among the Plains tribes, &c.; with the Pueblos Indians eagle and turkey feathers were important in ritual and ceremony; some of the tribes of the south-east made fans of turkey feathers. Beads made from various sorts of shell, rolled copper ("mound-builders," &c.), seeds, ivory (Eskimo) and the teeth of various animals are pre-Columbian, like the turquoise-beads of the Pueblos, and they were put to a great variety of uses. Wampum was manufactured by many Algonkian and Iroquoian tribes, who also later produced fine specimens of work with the glass beads introduced by the whites. These glass beads made their way over most of the continent, soon driving out in many sections the older art in shell, &c. European-made wampum-beads affected native art in the 17th century. In the regions where the porcupine abounded its quills were used for purposes of ornamentation on articles of dress, objects of bark, &c., some of the Algonkian and Iroquoian tribes producing beautiful work of this sort.



Besides face and body painting, employed for various purposes and widespread over the continent, particularly in ceremonial observances, during war-time, in courting, mourning, &c., painting found expression among the North American aborigines most fully in the products of the wood art of the Indians of the North Pacific coast (masks, utensils, houses, totem-poles, furniture, &c.), in the more or less ceremonial and symbolic paintings on skins, tipi-covers and the like of some of the Plains tribes (*e.g.* Kiowa, Sioux) and in ceramic art, notably in the remarkable polychrome pottery of the Pueblos tribes. Among several Pueblos tribes of Arizona and New Mexico (also the Navaho and Apache and of a ruder sort among some of the Plains tribes, *e.g.* Cheyenne, Arapaho, Blackfeet) "dry-painting," most highly developed in the sacred ceremonies of the Navaho, is practised and is evidently of great antiquity. The pictures of deities, natural phenomena, animals and plants are made of powdered sandstone of various colours, &c.

Pictography among the aborigines north of Mexico varied from the rude petroglyphs of some of the Shoshonian tribes to the incised work on ivory, &c., of the Eskimo and the paintings on buffalo and other animal skins by some of the Plains tribes, the work of the Pueblos Indians, &c., the nearest approach to hieroglyphics in North America outside of Mexico. Some Indian tribes (*e.g.* the Kootenay) seem not at all given to pictography, while many others have practised it to an almost limitless extent. The pictography and picture-writing of the North American Indians have been the subject of two detailed monographs by Mallery (*4th Ann. Rep. Bur. Ethnol.*, 1882-1883, pp. 3-256; *10th Rep.*, 1888-1889, pp. 1-1290), and the graphic art of the Eskimo has received special treatment by Hoffman (*Rep. U.S. Nat. Mus.*, 1895). Some have argued that this ivory pictography of the Eskimo is of recent origin and due practically to the introduction of iron by the whites, but Boas thinks such a theory refuted by the resemblance of the Eskimo graphic art in question to the birch-bark art of the neighbouring Indian tribes. No real "hieroglyphs," much less any system of writing of an alphabetic nature, have been discovered north of Mexico; the alleged specimens of such, turning up from time to time, are frauds of one sort or another.

The music and song of the American Indians north of Mexico have been studied since the time of Baker (*Über die Musik der Nordamerikanischen Wilden*, Leipzig, 1882) by Boas, Fillmore, Curtis, Fletcher, Stumpf, Cringan (*Ann. Arch. Rep. Ont.*, 1902, 1905), &c. According to Miss Fletcher (*Indian Story and Song*, 1900; also *Publ. Peab. Mus.*, 1893), "among the Indians music envelops like an atmosphere every religious tribal and social ceremony, as well as every personal experience," and "there is not a phase of life that does not find expression in song"; music, too, is "the medium through which man holds communion with his soul and with the unseen powers which control his destiny." Music, in fact, "is coextensive with tribal life," and "every public ceremony as well as each important act in the career of an individual has its accompaniment of song." Moreover, "The music of each ceremony has its peculiar rhythm, so also have the classes of songs which pertain to individual acts: fasting and prayer, setting of traps, hunting, courtship, playing of games, facing and defying death." In structure the Indian song "follows the outline of the form which obtains in our own music," and "the compass of songs varies from 1 to 3 octaves." Among some of the tribes with highly developed ceremonial observances "men and women, having clear resonant voices and good musical intonation, compose the choirs which lead the singing in ceremonies and are paid for the services." A peculiar development of music among the Eskimo is seen in the "nith-songs," by which controversies are settled, the parties to the dispute "singing at" each other till the public laughter, &c., proclaim one the victor. Among the American Indians songs belonging to

individuals, societies, clans, &c., are met with, which have to be purchased by others from the owners, and even slight mistakes in the rendition of singing, dancing, &c., are heavily penalized. Musical contests were also known (*e.g.* among the Indians of the Pacific coast). The development of the "tribal song" among the Iroquoian peoples is seen in Hale's *Iroquois Book of Rites* (1881). Songs having no words, but merely changeless vocables, are common. As Dr Boas has pointed out, the genius of the American Indian has been devoted more to the production of songs than to the invention of musical instruments. The musical instruments known to the aborigines north of Mexico, before contact with the whites, according to Miss Fletcher (*Handb. of Amer. Inds.*, 1907, pt. i. p. 960), were drums of great variety in size and form, from the plank or box of some of the tribes of the North Pacific coast to the shaman's drums of the Algonkian and Iroquoian peoples; whistles of bone, wood, pottery, &c. (often employed in ceremonies to imitate the voices of birds, animals and spirits); flageolet or flute (widely distributed and used by young men in courtship among the Siouan tribes); the musical bow (found among the Maidu of California and important in religion and sorcery). Rattles of gourd, skin, shell, wood, &., are universal, and among some of the tribes of the south-west "notched sticks are rasped together or on gourds, bones or baskets to accentuate rhythm." From the rattle in the Pueblos region developed a sort of ball of clay or metal.

So far as is known, the primitive culture of the aborigines of North America is fundamentally indigenous, being the reactions of the Indian to his environment, added to whatever rude equipment of body and of mind was possessed by the human beings who at some remote epoch reached the new world from the old, if, indeed, America was not, as Ameghino, on the basis of the discoveries of fossil anthropoids and fossil man in southern South America, maintains, the scene of origin of man himself.

***Culture of Indians essentially indigenous.***

Professor A. H. Keane (*Internat. Monthly*, vol. v., 1902, pp. 338-357), Stewart Culin (*Proc. Amer. Assoc. Adv. Sci.* vol. lii., 1903, pp. 495-500) and Dr Richard Andree (*Stzgsb. d. anthrop. Ges. in Wien*, 1906, pp. 87-98) all agree as to the general autochthony of aboriginal American culture. The day of the argument for borrowing on the ground of mere resemblances in beliefs, institutions, implements, inventions, &c., is past. An admirable instance of the results of exact scientific research in this respect is to be found in Dr Franz Boas's discussion (*Proc. U.S. Nat. Mus.*, 1908, pp. 321-344) of the needle-cases of the Alaskan Eskimo, which were at first supposed to be of foreign (Polynesian) origin. Other examples occur in Mr Culin's study of American Indian games, where, for the first time, the relation of certain of them in their origin and development, and sometimes also in their degeneration and decay, is made clear. The independent origin in America of many things which other races have again and again invented and re-invented in other parts of the world must now be conceded.

The extreme north-western region of North America has recently been shown to be of great importance to the ethnologists. The investigations in this part of America and among the more or less primitive peoples of north-eastern Asia, carried on by the Jesup North Pacific expedition in 1897-1902, have resulted in showing that within what may be called the "Bering Sea culture-area" transmissions of culture have taken place from north-eastern Siberia to north-western America and vice versa. The only known example, however, of the migration of any people one way or the other is the case of the Asiatic Eskimo, who are undoubtedly of American origin, and it seems probable, in the language of Dr Boas, the organizer of the Jesup expedition and the editor of its publications, that "the Chukchee, Koryak, Kamchadal and Yukaghir must be classed with the American race rather than with the Asiatic race," and possibly also some of the other isolated Siberian tribes; also that, "in a broad classification of languages, the languages of north-eastern Siberia should be classed with the languages of America" (*Proc. Intern. Congr. Amer.*, New York, 1902, pp. 91-102). It appears, further, that the arrival of the Eskimo on the Pacific coast (this, although not recent, is comparatively late) from their home in the interior, near or east of the Mackenzie, "interrupted at an early period the communication between the Siberian and Indian tribes, which left its trace in many cultural traits common to the peoples on both sides of the Bering Sea."

This establishment of the essential unity of the culture-type (language, mythology, certain arts, customs, beliefs, &c.) of the "Palaeo-Asiatic" peoples of north-eastern Siberia and that of the American Indians of the North Pacific coast, as demonstrated especially by the investigations of Jochelson, Bogoras, &c., is one of the most notable results of recent organized ethnological research. No such clear proof has been afforded of the theory of Polynesian influence farther south on the Pacific coast of America, believed in, more or less, by certain ethnologists (Ratzel, Mason, &c.). This theory rests largely upon resemblances in arts (clubs, masks and the like in particular), tattooing, mythic *motifs*, &c. But several things here involved, if not really American in origin, are so recent that they may perhaps be accounted for by such Hawaiian and other Polynesian contact as resulted from the establishment of the whale and seal-fisheries in the 18th century.

Between the Indians of North America and those of South America few instances of contact and intercommunication, or even of transference of material products and ideas, have been substantiated. It is by way of the Antilles and the Bahamas that such contact as actually occurred took place. In 1894 (*Amer. Anthrop.* vol. vii. p. 71-79) Professor W. H. Holmes pointed out traces of Caribbean influences in the ceramic art of the Florida-Georgia region belonging to the period just before the Columbian discovery. The decorative designs in question, paddle-stamp patterns, &c., akin to the motives on the wooden and stone stools from the Caribbean areas in the West Indies, have been found as far north as 36° in North Carolina and as far west as 84° in Tennessee and 89° in south-eastern Alabama. But the evidence does not prove the existence of Carib colonies at any time in any part of this region, but simply the migration from the West Indies to the North American coast of certain art features adopted by the Indians of the Timuquan and Muskogian Indians and (later) in part by the Cherokee. More recently (1907) Dr F. G. Speck, in a discussion of the aboriginal culture of the south-eastern states (*Amer. Anthrop.* vol. ix., n.s., pp. 287-295), cites as proof of Antillean or Caribbean influence in addition to that indicated by Holmes, the following: employment of the blow-gun in hunting, use of hammock as baby-cradle, peculiar storage-scaffold in one corner of house, plastering houses with clay, poisoning fish with vegetable juices. It is possible also that the North American coast may have been visited from time to time by small bodies of natives from the West Indies in search of the mythic fountain of youth (*Bimini*), the position of which had shifted from the

Bahamas to Florida in its movement westward. Indeed, just about the time of the advent of the Europeans in this part of the world a number of Indians from Cuba, on such a quest, landed on the south-western shore of Florida, where they were captured by the Calusas, among whom they seem to have maintained a separate existence down to 1570 or later. This Arawakan colony, indicated on the map of linguistic stocks of American Indians north of Mexico, published by the Bureau of American Ethnology in 1907, is the only one demonstrated to have existed, but there may have been others of a more temporary character. In the languages of this region there are to be detected perhaps a few loan-words from Arawakan or Cariban dialects. The exaggerated ideas entertained by some authorities concerning the "mound-builders" of the valley of the Ohio and Mississippi and their alleged "civilization" have led them to assume, without adequate proof, long-continued relations of the tribes inhabiting this part of the country in the past with the ancient peoples of Yucatan and Mexico, or even an origin of their culture from beyond the Gulf. But since these mounds were in all probability wholly the work of the modern Indians of this area or their immediate ancestors, and the greater part, if not all, of the art and industry represented therein lies easily within the capacity of the aborigines of North America, the "Mexican" theory in this form appears unnecessary to explain the facts. In its support stress has been laid upon the nature of some of the copper implements and ornaments, particularly the types of elaborate repoussé work from Etowah, Georgia, &c. That the repoussé work was not beyond the skill of the Indian was shown by Cushing in his study of "Primitive Copper Working" (*Amer. Anthrop.* vol. vii. pp. 93-117), who did not consider the resemblance of these mound-specimens to the art of Mexico proof of extra-North American origin. Holmes (*Handb. of Inds. N. of Mex.*, 1907, pt. i. p. 343) points out that the great mass of the copper of mounds came from the region of Lake Superior, and that had extensive intercourse between Mexico or Central America and the mound-country existed, or colonies from those southern parts been present in the area in question, artifacts of undoubtedly Mexican origin would have been found in the mounds in considerable abundance, and methods of manipulation peculiar to the south would have been much in evidence. The facts indicate at most some exotic influence from Mexico, &c., but nothing far-reaching in its effects.

In the lower Mississippi valley the culture of certain peoples has been thought to contain elements (*e.g.* the temples and other religious institutions of the Natchez) suggestive of Mexican or Central American origin, either by inheritance from a common ancient source or by later borrowings. When one reaches the Pueblos region, with its present and its extinct "village culture," there is considerable evidence of contact and inter-influence, if not perhaps of common origin, of culture-factors. Dr J. Walter Fewkes, a chief authority on the ethnic history of Arizona, New Mexico and the outlying areas of "Pueblos culture," especially in its ceremonial aspects, has expressed the opinion (*Amer. Anthrop.* vol. vii. p. 51) that "it is not improbable that both Mexican and Pueblos cultures originated in a region in northern Mexico, developing as environment permitted in its northern and southern homes." Unfavourable milieu in the north prevented the culture of the Pueblos Indians and the Cliff-dwellers, their ancestors, reaching the height attained in Mexico and Central America, represented by temple-architecture, ornamentation of buildings, hieroglyphs, &c. Strong evidence of Pueblos-Mexican relationship Dr Fewkes sees (*Proc. Wash. Acad. Sci.*, 1900) in the great serpent cult of Tusayan, the "New Fire" and other Pueblos ceremonials of importance; also in the mosaic objects (gorgets, ear-pendants, breast-ornaments, &c.) from Pueblos ruins in Arizona, some of the workmanship of which equals that of similar character in old Mexico. The arid region of the south-western United States and part of northern Mexico may well have been a centre for the dispersion of such primitive, institutions and ideas as reached their acme in the country of the Aztecs. But of the Pueblos languages, the Moqui or Hopi of north-eastern Arizona is the only one showing undoubted, though not intimate, relationship with the Nahuatl of ancient Mexico. The Shoshonian family, represented in the United States by the Shoshonees, Utes, Comanches and other tribes, besides the Moqui, includes also the numerous Sonoran tribes of north-western Mexico, as well as the Nahuatl-speaking peoples farther south, some of the outliers having wandered even to Costa Rica (and perhaps to Panama). This linguistic unity of the civilized Aztecs with the rude Utes and Shoshones of the north is one of the most interesting ethnological facts in primitive America. Change of environment may have had much to do with this higher development in the south. Besides the Shoshonian, the Coahuiltecan and the Athabaskan are or have been represented in northern Mexico, the last by the Apaches and Tobosos. From the period of the Spanish colonization of New Mexico down to about the last quarter of the 19th century (and sporadically later, *e.g.* the attack in 1900 on the Mormon settlement in Chihuahua), these Indians have hovered around the Mexican border, &c., their predatory expeditions extending at one time as far south as Jalisco. In the far west the Yuman family of languages belongs on both sides of the border.

***Religion, Mythology, &c.***

In the popular mind the religion of the North American Indian consists practically of belief in the "Great Spirit" and the "Happy Hunting Grounds." But while some tribes, *e.g.* of the Iroquoian and Caddoan stocks appear to have come reasonably near a pantheistic conception tending toward monism and monotheism, not a little of present Indian beliefs as to the "Great Spirit," "God" and "Devil," "Good Spirit" and "Evil Spirit," &c., as well as concerning moral distinctions in the hereafter, can reasonably be considered the result of missionary and other influences coming directly or indirectly from the whites. The central idea in the religion and mythology of the aborigines north of Mexico is what Hewitt (*Amer. Anthrop.*, 1902) has proposed to term *orenda*, from "the Iroquois name of the fictive force, principle or magic power which was assumed by the inchoate reasoning of primitive man to be inherent in every body and being of nature and in every personified attribute, property or activity belonging to each of these and conceived to be the active cause or force or dynamic energy involved in every operation or phenomenon of nature, in any manner affecting or controlling the welfare of man." The *orendas* of the innumerable beings and objects, real and imagined, in the universe differed immensely in action, function, power, &c., and in like manner varied were the efforts of man by prayers, offerings and sacrifices, ceremonies and rites of a propitiatory or sympathetic nature to influence for his own welfare the possessor of this or that *orenda*, from the "high gods" to the least of all beings. Corresponding to the Iroquoian *orenda* is the *wakanda* of the Siouan tribes, some aspects of which have been admirably treated by Miss Fletcher in her "Notes on Certain Beliefs concerning Will Power among the Siouan Tribes" (*Science*, vol. v., n.s., 1897). Other parallels of *orenda* are Algonkian *manito*, Shoshonian *pokunt*, Athabaskan *cæn*. As Hewitt points out, these Indian

terms are not to be simply translated into English by such expressions as “mystery,” “magic,” “immortal,” “sorcery,” “wonderful,” &c. Man, indeed, “may sometimes possess weapons whose *orenda* is superior to that possessed by some of the primal beings of his cosmology.”

The main topics of the mythology of the American Indians north of Mexico have been treated by Powell in his “Sketch of the Mythology of the North American Indians” (*First Ann. Rep. Bur. Ethnol.*, 1879-1880), and Brinton in his *American Hero Myths* (1876), *Myths of the New World* (1896) and *Religions of Primitive Peoples* (1900). Widespread is the idea of a culture-hero or demi-god (sometimes one of twins or even quadruplets) who is born of a human virgin, often by divine secret fecundation, and, growing up, frees the earth from monsters and evil beings, or re-fashions it in various ways, improves the breed and perfects the institutions of mankind, then retires to watch over the world from some remote resting-place, or, angered at the wickedness of men and women, leaves them, promising to return at some future time. He often figures in the great deluge legend as the friend, helper and regenerator of the human race. A typical example of these culture-heroes is the Algonkian character who appears as Nanabozho among the Ojibwa, Wisaketchak among the Cree, Napiw among the Blackfeet, Wisaka among the Sacs and Foxes, Glooscap (Kuloskap) among the Micmac, &c. (see *Journ. Amer. Folk-Lore*, 1891, and *Handbook of Amer. Inds.*, 1907), whose brother is sometimes represented as being after death the ruler of the spirit world. The Iroquoian correspondent of Nanabozho is Tehoronhiawakhon; the Siouan, in many respects, Ictinike. Among many tribes of the North Pacific coast region the culture-hero appears as the “transformer,” demi-god, human or animal in form (coyote, blue-jay, raven, &c.), the last often being tricksters and dupers of mankind and the rest of creation as well. This trickster and buffoon (also liar) element appears also in the Iroquoian and Algonkian culture-heroes and has received special treatment by Brinton (*Essays of an Americanist*, 1890). On the whole, the Algonkian and Iroquoian culture-hero is mainly actuated by altruistic motives, while the “transformer” of the Indians of the North Pacific coast region is often credited with producing or shaping the world, mankind and their activities as they now exist for purely egotistic purposes. Other noteworthy heroes, “reformers,” &c., among the North American Indians are the subject of legends, like the Iroquoian “Good Mind and Bad Mind,” the Algonkian (Musquaki) “Hot Hand and Cold Hand,” the Zuñian “Right Hand and Left Hand”; and numerous others, including such conceptions as the antagonism and opposition of land and water (dry and wet), summer and winter, day and night, food and famine, giants and pigmies, &c. In the matter of the personification of natural phenomena, &c., there is considerable variation, even among tribes of approximately the same state of culture. Thus, *e.g.* as Hewitt notes (*Handbook of Amer. Inds.*, 1907, pt. i. p. 970), while with the Iroquoian and eastern Algonkian tribes “the Thunder people, human in form and mind and usually four in number, are most important and staunch friends of man”; in the region of the Great Lakes and westward “this conception is replaced by that of the Thunder bird.”



The Pawnee Indians of the Caddoan stock seem both individually and tribally to possess a deep religious sense expressing itself alike in moods of the person and in ceremonies of a general popular character. This is evident, alike from Miss Fletcher’s description (*Amer. Anthrop.*, 1899, pp. 83-85) of a venerable priest of that tribe, Tahiroossawichi, and from her detailed account of “The Hako: A Pawnee Ceremony” (*Twenty-second Ann. Rep. Bur. Ethnol.*, 1900-1901, pp. 5-372). This Hako ceremony, the original stimulus for which was probably desire for offspring, and then to ensure friendship and peace between groups of persons belonging to different clans, gentes or tribes, had no fixed or stated time and “was not connected with planting or harvesting, hunting or war or any tribal festival,” although the Indians take up the Hako, with its long series of observances and its hundred songs, “in the spring when the birds are mating, or in the summer when the birds are nesting and caring for their young, or in the fall when the birds are flocking, but not in the winter when all things are asleep; with the Hako we are praying for the gift of life, of strength, of plenty and of peace, so we must pray when life is stirring everywhere,”—these are the words of the Indian hieragogue.

In the arid region of the south-western United States there has grown up, especially among the Moqui, as may be read in the numerous monographs of Dr J. Walter Fewkes (and briefly in the *Report of the Smithsonian Institution for* 1905), a system of religious ceremonials and sympathetic magic, the object of which is to ensure the necessary rainfall and through this the continued life and prosperity of the people. Here everything is conceived as really or symbolically related to sun, water, rain. The Moqui are essentially a religious people, and their mythology, in which the central figures are the “earth mother” and the “sky father,” has been described as “a polytheism largely tinged with ancestor-worship and permeated with fetishism.” Part of their exceedingly intricate, complex and elaborate ritual is the so-called “snake dance,” which has been written of by Bourke (*The Snake Dance of the Moquis*, 1884), Fewkes and others.

In the Gulf region east of the Mississippi, “sun worship,” with primitive “temples,” appears among some of the tribes with certain curious myths, beliefs, ceremonies, &c. The Natchez, *e.g.* according to Dr Swanton (*Amer. Anthrop.*, 1907), were noteworthy on account of “their highly developed monarchical government and their possession of a national religion centring about a temple, which reminds one in many ways of the temples of Mexico and Central America.” They seem to have had “an extreme form of sun-worship and a highly developed ritual.” A simpler form of sun-worship is found among the Kootenay of British Columbia (*Rep. Brit. Assoc.*, 1889, 1892). With the Yuchi occur some Algonkian-like myths of the deluge, &c.

The best data as to the religion and mythology of the Iroquoian tribes are to be found in the writings of Hewitt, especially in his monograph on “Iroquoian Cosmology” (*Twenty-first Ann. Rep. Bur. Ethnol.*, 1899-1900, pp. 127-339), In the creation-myths several instances of European influence are pointed out. Mother-earth and her life are the source, by transformation and evolution, of all things. The first beings of Iroquoian mythology (daylight, earthquake, winter, medicine, wind, life, flower, &c.) “were not beasts, but belonged to a rather vague class of which man was the characteristic type,”—later come beast-gods. According to Hewitt the Iroquoian term rendered in English “god” signifies really “disposer, controller,” for to these Indians “god” and “controller” are synonymous; and so “the reputed controller of the operations of nature received worship and prayers.” Creation-legends in great variety exist among the

North American aborigines, from simple fiat actions of single characters to complicated transformations accomplished with the aid of other beings. The specific creation legend often follows that of the deluge.

Perhaps the most remarkable of all North American creation stories is that of the Zuñi as recorded by Cushing (*Thirteenth Ann. Rep. Bur. Ethnol.*, 1891-1892) in his "Outlines of Zuñi Creation Myths." Here the principal figure is "Awonawilona, the maker and container of all," and the growth-substance the "fogs of increase," which he evolved by his thinking in the pristine night. The long tale of the origin of the sun, the earth and the sky, and the taking form of "the seed of men and all creatures" in the lowest of the four caves or wombs of the world and their long journey to light and real life on the present earth is a wonderful story of evolution as conceived by the primitive mind, an aboriginal epic, in fact.

In the mythology and religion of the Algonkian tribes (particularly the Chippewa, &c.) is expressed "a firm belief in a cosmic mystery present throughout all nature, called *manitou*." This *manitou* "was identified with both animate and inanimate objects, and the impulse was strong to enter into personal relation with the mystic power; it was easy for an Ojibwa to associate the *manitou* with all forms of transcendent agencies, some of which assumed definite characters and played the rôle of deities" (Jones). There were innumerable *manitous* of high or low degree. The highest development of this conception was in *Kitchi Manitou* (Great Manitou), but whether this personification has not been considerably influenced by teachings of the whites is a question. The chief figure in the mythology of the Chippewa and related tribes is Nanabozho, who "while yet a youth became the creator of the world and everything it contained; the author of all the great institutions in Ojibwa society and the founder of the leading ceremonies" (Jones, *Ann. Arch. Rep. Ontario*, 1905; *Journ. Amer. Folk-Lore*, 1902, &c.). It is to this character that some of the most human of all Indian myths are attached, *e.g.* the Micmac legend of the origin of the crowing of babies and the story of Nanabozho's attempt to stick his toe into his mouth after the manner of a little child. Nanabozho is also the central figure in the typical deluge legend of the Algonkian peoples of the Great Lakes (*Journ. of American Folk-Lore*, 1891), which, in some versions, is the most remarkable myth of its kind north of Mexico.

The best and most authoritative discussion of the religions and mythological ideas of the Eskimo is to be found in the article of Dr Franz Boas on "The Folk-Lore of the Eskimo" (*Journ. Amer. Folk-Lore*, 1904, pp. 1-13). The characteristic feature of Eskimo folk-lore is the hero-tales, treating of visits to fabulous tribes, encounters with monsters, quarrels and "wars," shamanism, witchcraft, &c., and generally of "the events occurring in human society as it exists now," the supernatural playing a more or less important rôle, but the mass of folk-lore being "thoroughly human in character." In Eskimo myths there appears to be "a complete absence of the idea that transformations or creations were made for the benefit of man during a mythological period, and that these events changed the general aspect of the world," quite in contrast with the conceptions of many Indian tribes, particularly in the region of the North Pacific, where the "transformer" (sometimes trickster also), demi-god, human or animal (coyote, raven, blue-jay, &c.), plays so important a part, as may be seen from the legends recorded in Dr Boas's *Indianische Sagen der nord-pacifischen Küste Amerikas* (Berlin, 1895) and other more recent monographs. In Eskimo folk-lore the field of animal tales is quite limited, and Dr Boas is of opinion that the genuine animal myth "was originally foreign to Eskimo folk-lore," and has been borrowed from the Indians. Perhaps the most prominent character in Eskimo mythology is Sedna, the old woman, who is mistress of the lower world beneath the ocean (*Amer. Anthrop.*, 1900). The highest being conceived of by the Athabaskans of Canada was, according to Morice (*Ann. Arch. Rep. Ontario*, 1905, p. 204), "a real entity, which they feared rather than loved or worshipped." The way of communicating with the unseen was through "personal totems," revealed usually in dreams. The Hupa, an Athabaskan people of California, are reported by Goddard as possessing a deep religious sense. But the most remarkable mythology of any Athabaskan tribe is that of the Navaho, which has been studied in detail under some of its chief aspects by Dr Washington Matthews in his valuable monographs, *Navaho Legends* (1897) and *The Night Chant* (1902). According to Dr Matthews, the Navaho "are a highly religious people having many well-defined divinities (nature gods, animal gods and local gods), a vast mythic and legendary lore and thousands of significant formulated songs and prayers, which must be learned and repeated in the most exact manner; they have also hundreds of musical compositions; the so-called dances are ceremonies which last for nine nights and parts of ten days, and the medicine-men spend many years of study in learning to conduct a single one properly." The most prominent and revered of the deities of the Navaho is *Estsanatlehi*, the "woman who rejuvenates herself," of whom it is believed that she grows old, and then, at will, becomes young again.



The numerous Indian tribes subjected to the environment of the Great Plains have developed in great detail some special religious observances, ceremonial institutions, secret societies, ritual observances, &c. The mental life of these Indians was profoundly influenced by the buffalo and later not a little by the horse. Various aspects of Plains culture have recently been discussed by Goddard, Kroeber, Wissler, Dorsey, Fletcher, Boas, &c., from whose investigations it would appear that much intertribal borrowing has taken place. Among some of the Algonkian (Arapaho, Blackfeet, Cheyenne, &c.), Siouan (Ponka, *e.g.*) Caddoan, Shoshonian, Kiowan and perhaps Kitunahan stocks the "sun-dance" in some form or other prevailed at one time or another. According to Wissler (*Amer. Anthrop.*, 1908, p. 205), this ceremony, as now practised by many tribes, "is the result of a gradual accumulation both of ceremonies and ideas,"—the torture feature, *e.g.*, "seems to have been a separate institution among the Missouri river tribes, later incorporated in their sun-dance and eventually passed on to other tribes." Some other complicated ceremonials have apparently grown up in like manner. As ceremonies that are quite modern, having been introduced during the historical period, Dr Wissler instances "the Ghost dance, Omaha dance, Woman's dance, Tea dance and Mescal eating," of which all, except the Ghost dance, "flourish in almost all parts of the area under various names, but with the same essential features and songs." Other interesting ceremonies of varying degrees of importance and extent of distribution are those of "the medicine-pipe, buffalo-medicine, sweat-lodge, puberty-rites, medicine-tipis, war-charms, &c." Interesting also are the "medicine bundles," or "arks" as they were once mistakenly called.

The "Ghost dance," the ceremonial religious dance of most notoriety to-day, "originated among the Paviotso (its prophet was a young Paiute medicine man, Wovoka or 'Jack Wilson') in Nevada about 1888, and spread rapidly among other tribes until it numbered among its adherents nearly all the Indians of the

interior basin, from Missouri river to or beyond the Rockies" (Mooney). Wovoka's doctrine was that a new dispensation was at hand, and that "the Indians would be restored to their inheritance and united with their departed friends, and they must prepare for the event by practising the songs and dance ceremonies which the prophet gave them." East of the Rocky Mountains this dance soon came to be known as the "Ghost dance" and a common feature was hypnotic trances. The Sioux outbreak of 1890-1891 was in part due to the excitement of the "Ghost dance." According to Mooney, "in the Crow dance of the Cheyenne and Arapaho, a later development from the Ghost dance proper, the drum is used, and many of the ordinary tribal dances have incorporated Ghost dance features, including even the hypnotic trances." The doctrine generally "has now faded out and the dance exists only as a social function." A full account of this "dance," its chief propagators, the *modi operandi* of its ceremonies and their transference, and the results of its prevalence among so many Indian tribes, is given in Mooney's detailed monograph on "The Ghost Dance Religion and the Sioux Outbreak of 1890" (*Fourteenth Ann. Rep. Bur. Ethnol.*, 1892-1893).

In reference to "Messiah doctrines" among the aborigines of North America, Mooney calls attention to the fact that "within the United States every great tribal movement (*e.g.* the conspiracy of Pontiac, the combination of Tecumseh, &c.) originated in the teaching of some messianic prophet." In primitive America the dance has figured largely in social, religious and artistic activities of all kinds, and one of its most interesting developments has occurred among the Plains Indians, where "the Mandan and other Siouan tribes dance in an elaborate ceremony, called the Buffalo dance, to bring game when food is scarce, in accordance with a well-defined ritual" (Hewitt). Among other noteworthy dances of the North American aborigines may be mentioned the calumet dance of several tribes, the scalp dance, the "Green-corn dance" of the Iroquois, the *busk* (or *puskitau*) of the Creeks (in connexion with "new fire" and regeneration of all things), the "fire dance" of the Mississaguas, &c.

The Californian area, remarkable in respect to language and culture in general presents also some curious religious and mythological phenomena. According to Kroeber, "the mythology of the Californians was characterized by unusually well-developed and consistent creation-myths, and by the complete lack not only of migration but of ancestor traditions." The ceremonies of the Californian Indians "were numerous and elaborate as compared with the prevailing simplicity of life, but they lacked almost totally the rigid ritualism and extensive symbolism that pervade the ceremonies of most America." The most authoritative discussions of the religion and mythology of the Californian Indians are those of Dr Dixon and Dr Kroeber, the latter especially in the *University of California Publications in American Archaeology and Ethnology* for 1904-1907.

The shamans, "medicine-men," &c., of the American Indians are of all degrees from the self-constituted *angekok* of the Eskimo to those among tribes of higher culture who are chosen from a special family or after undergoing elaborate preliminaries of selection and initiation. The "medicine-men" of several tribes have been described with considerable detail. This has been done for the "Midēwiwin, or Grand Medicine Society of the Ojibwa" by Hoffman (*Seventh Ann. Rep. Bur. Ethnol.* pp. 143-300); for the "Medicine-men of the Apache" by Bourke (*Ninth Ann. Rep.* pp. 443-603) and for those of the Cherokee by Mooney (*Seventh Ann. Rep.* pp. 301-397), while a number of the chief facts concerning American Indian shamans in general have been gathered in a recent article by Dr R. B. Dixon (*Journ. Amer. Folk-Lore*, 1908, pp. 1-12). In various parts of the continent and among diverse tribes the shaman exercises functions as "healer, sorcerer, seer, priest and educator." These functions among the tribes of lower culture are generally exercised by one and the same individual, but, with rise in civilization, the healer-sorcerer and shaman-sorcerer disappear or wane in power and influence as the true priest develops. The priestly character of the shaman appears among the Plains tribes in connexion with the custody of the "sacred bundles" and the keeping of the ceremonial myths, &c., but is more marked among the Pueblos, Navaho, &c., of the south-west, while "a considerable development of the priestly function may also be seen among the Muskogi, particularly in the case of the Natchez, with their remarkable cult and so-called temple." The reverent character of the best "priests" or shamans among the Pawnee and Omaha has been emphasized by Miss A. C. Fletcher and Francis la Flesche. The class-organization of the shamans reaches its acme in the *midé* societies of the Chippewa and the priest-societies of the Pueblos Indians (Moqui, Zuñi, &c.).

***Games.***

The games of the American aborigines north of Mexico have been made the subject of a detailed monograph by Culin, "Games of the North American Indians" (*Twenty-fourth Ann. Rep. Bur. Ethnol.*, 1902-1903, pp. 1-846), in which are treated the games of chance, games of dexterity and minor amusements of more than 200 tribes belonging to 34 different linguistic stocks. According to Culin, "games of pure skill and calculation, such as chess, are entirely absent." There are more variations in the materials employed than in the object or methods of play and in general the variations do not follow differences in language. The type known as "dice game" is reported here from among 130 tribes belonging to 30 stocks; the "hand-game" from 81 tribes belonging to 28 stocks. The centre of distribution of North American Indian games, which, with the exception of a few post-Columbian additions, are all autochthonous, Culin finds in the south-west—"there appears to be a progressive change from what appears to be the oldest forms of existing games from a centre in the south-western United States, along lines north, north-east and east." Similar changes radiating southward from the same centre are likewise suggested. He is of opinion that, outside of children's games as such and the kinds of minor amusements common in all civilizations, the games of the North American Indians, as they now exist, "are either instruments of rites or have descended from ceremonial observances of a religious character," and that "while their common and secular object appears to be purely a manifestation of the desire for amusement or gain, they are performed also as religious ceremonies, as rites pleasing to the gods to secure their favour, or as processes of sympathetic magic, to drive away sickness, avert other evil, or produce rain and the fertilization and reproduction of plants and animals or other beneficial results." He also believes that these games, "in what appears to be their oldest and most primitive manifestations are almost exclusively divinatory." This theory of the origin of games in divination, which receives considerable support from certain facts in primitive America, needs, however, further proof. So, too, with Mr Culin's further conclusion that "behind both ceremonies and games there existed some widespread myth from which both derived their impulse," that myth being the one which discloses the primal

gamblers as those curious children, the divine Twins, the miraculous offspring of the sun, who are the principal personages in many Indian mythologies. These eternal contenders "are the original patrons of play, and their games are the games now played by men."



**Social organization, customs, &c.**

It was formerly thought that "totemism" and real "gentile organization" prevailed over all of North America. But it now appears that in several sections of the country such beliefs and institutions were unknown, and that even within the limits of one and the same stock one tribe did, while another did not, possess them. Matriarchal ideas and the corresponding tribal institutions were also once regarded as the primal social condition of all Indian tribes, having been afterwards in many cases replaced by patriarchal ideas and institutions. Since the appearance of Morgan's famous monograph on *Ancient Society* (New York, 1878) and his *Systems of Consanguinity and Affinity in the Human Family* (Washington, 1871), the labours of American ethnologists have added much to our knowledge of the sociology of the American Indians. Forms of society among these Indians vary from the absolute democracy of the Athabaskan Ten'a of Alaska, among whom, according to Jetté (*Congr. int. d. Amér.*, Quebec, 1886), there exist "no chiefs, guides or masters," and public opinion dominates ("every one commands and all obey, if they see fit"), to the complicated systems of some of the tribes of the North Pacific coast regions, with threefold divisions of chiefs, "nobles," and "common people" (sometimes also, in addition, slaves), secret and "totemic" organizations, religious societies, sexual institutions ("men's houses," &c.), and other like divisions; and beyond this to the development along political and larger social lines of alliances and confederations of tribes (often speaking entirely different languages) which have played an important rôle in the diffusion of primitive culture, such as the Powhatan confederacy of Virginia and the Abnaki confederacy of the North Atlantic region; the confederacy of the Chippewa, Ottawa and Potawatomi of the Great Lakes; the Huron confederacy of Ontario; the Dakota alliance of the north-west; the Blackfoot confederacy of the Canadian north-west; the Caddoan confederacy of the Arkansas region; the Creek confederacy of the South Atlantic country. The acme of federation was reached in the great "League of the Iroquois," whose further development and expansion were prevented by the coming of the Europeans and their conquest of primitive North America. According to Morgan (*League of the Iroquois*, New York, 1851) and Hale (*Iroquois Book of Rites*, 1881), who have written about this remarkable attempt, by federation of all tribes, to put an end to war and usher in the reign of universal peace, its formation under the inspiring genius of Hiawatha took place about 1459. But J. N. B. Hewitt, himself an Iroquois, offers reasons (*Amer. Anthrop.*, 1892) for believing that the correct date of its founding lies between 1559 and 1570.

Tribes like the Kootenay (*Rep. Brit. Assoc.*, 1892) have no totems and secret societies, nor do they seem to have ever possessed them. This may also be said of some of the Salishan tribes, though others of the same stock have complicated systems. The Klamath Indians (Lutuamian stock) "are absolutely ignorant of the gentile or clan system as prevalent among the Haida, Tlingit and Eastern Indians of North America; matriarchate is also unknown among them; every one is free to marry within or without the tribe, and the children inherit from the father" (Gatschet). In all parts of California indeed, according to Kroeber (*Handbook of Amer. Inds.*, 1907, pt. i. p. 191), "both totemism and a true gentile organization were totally lacking." Nor does it appear that either personal or communal totemism is a necessary attribute of clan and gentile organizations where such do exist. The Heiltsuk of British Columbia have animal totems, while the Kwakiutl do not, although both these tribes belong to the same Wakashan stock. Among the Iroquoian tribes, according to Hewitt (*Handbook*, p. 303), the primary unit of social and political organization, termed in Mohawk *ohwachira*, is "the family, comprising all the male and female progeny of a woman and of all her female descendants in the female line and of such other persons as may be adopted into the *ohwachira*." The head of the *ohwachira* is "usually the oldest woman in it," and it "never bears the name of a tutelary or other deity." The clan was composed of one or more of such *ohwachiras*, being "developed apparently through the coalescence of two or more *ohwachiras* having a common abode." From the clan or gens developed the government of the tribe, and out of that the Iroquois confederation.

The power of the chief varied greatly among the North American aborigines, as well as the manner of his selection. Among the Eskimo, chiefs properly understood hardly have existed; nearly everywhere the power of all sorts of chiefs (both war and peace) was limited and modified by the restraints of councils and other advisers. Age, wealth, ability, generosity, the favour of the shaman, &c., were qualifications for the chieftainship in various parts of the continent. Women generally seem to have had little or no direct voice in government, except that they could (even among some of the Athabaskan tribes) sometimes become chiefs, and, among the Iroquois, were represented in councils, had certain powers and prerogatives (including a sort of veto on war), &c. Many tribes had permanent peace-chiefs and temporary war-chiefs. According to Hewitt (*Handb. of Amer. Inds.*, 1907, pt. i. p. 264), "In the Creek confederation and that of the Iroquois, the most complex aboriginal government north of Mexico, there was, in fact, no head chief. The first chief of the Onondaga federal roll acted as the chairman of the federal council, and by virtue of his office he called the federal council together. With this all pre-eminence over the other chiefs ended, for the governing power of the confederation was lodged in the federal council. The federal council was composed of the federal chiefs of the several component tribes; the tribal council consisted of the federal chiefs and sub-chiefs of the tribe." The greatest development of the power of the chief and his tenure of office by heredity seems to have occurred among the Natchez and certain other tribes of the lower Mississippi and Gulf region. Among the Plains tribes, in general, non-inheritance prevailed, and "any ambitious and courageous warrior could apparently, in strict accordance with custom, make himself a chief by the acquisition of suitable property and through his own force of character" (Hewitt).

Among the North American aborigines the position of woman and her privileges and duties varied greatly from the usually narrow limits prescribed by the Athabaskans, according to Morice (*Congr. int. d. Amér.*, Quebec, 1906), to the socially high status reached among some of the Iroquoian tribes in particular. In the North Pacific coast region the possession of slaves is said to have been a cause of a relatively higher position of woman there than obtained among neighbouring tribes. The custom of adoption both of children and captives also resulted advantageously to woman. The rôle and accomplishments of woman in primitive North America are treated with some detail in Mason's *Woman's*

*Share in Primitive Culture* (1894). The form of the family and the nature of marriage varied considerably among the North American aborigines, as also did the ceremonies of courtship and the proceedings in divorce, &c. With some tribes apparently real purchase of brides occurred, but in many cases the seeming purchase turns out to be merely "a ratification of the marriage by means of gifts." Great differences in these matters are found within the limits of one and the same stock (*e.g.* Siouan). Female descent, *e.g.*, prevailed among the Algonkian tribes of the south-east but not among those of the north and west; and the case of the Creeks (Muskogian) shows that female descent is not necessarily the concomitant of a high social status of woman. Among the Zuñi, where the man is adopted as a son by the father of his wife, "she is thus mistress of the situation; the children are hers, and she can order the husband from the house should occasion arise" (Lowie and Farrand). With many tribes, however, the husband could divorce his wife at will, but Farrand and Lowie in their discussion of Indian marriage (*Handb. of Amer. Inds.*, 1907, pt. i. p. 809) report on the other hand the curious fact that among the Wintun of California "men seldom expel their wives, but slink away from home, leaving their families behind." In the case of divorce, the children generally go with the mother. From a survey of the available data Lowie and Farrand conclude that "monogamy is thus found to be the prevalent form of marriage throughout the continent," varied from to polygamy, where wealth and other circumstances dictated it. In California, *e.g.*, polygamy is rare, while with some of the Plains tribes it was quite common. Here again differences of note occurred within the same stock, *e.g.* the Iroquois proper could not have more than one wife, but the Huron Indian could. The family itself varied from the group of parents and children to the larger ones dictated by social regulations among the eastern tribes with clan organizations, and the large "families" found by Swanton (*Amer. Anthrop.*, 1905) among certain tribes of the North Pacific coast, where relations and "poor relations," servants and slaves entered to swell the aggregate. Exogamy was widely prevalent and incest rare. Cousin-marriages were frequently tabooed.

With many of the North American aborigines the giving of the name, its transference from one individual to another, its change by the individual in recognition of great events, achievements, &c., and other aspects of nominology are of significance in connexion with social life and religious ceremonies, rites and superstitions. The high level attained by some tribes in these matters can be seen from Miss Fletcher's description of "A Pawnee Ritual used when changing a Man's Name" (*Amer. Anthrop.*, 1899). Names marked epochs in life and changed with new achievements, and they had often "so personal and sacred a meaning," that they were naturally enough rendered "unfit for the familiar purposes of ordinary address, to a people so reverently inclined as the Indians seem to have been." The period of puberty in boys and girls was often the occasion of elaborate "initiation" ceremonies and rites of various kinds, some of which were of a very trying and even cruel character. Ceremonial or symbolic "killings," "new-births," &c., were also in vogue; likewise ordeals of whipping, isolation and solitary confinement, "medicine"-taking, physical torture, ritual bathings, painting of face or body, scarification and the like. The initiations, ordeals, &c., gone through by the youth as a prelude to manhood and womanhood resembled in many respects those imposed upon individuals aspiring to be chiefs, shamans and "medicine-men." Many facts concerning these rites and ceremonies will be found in G. Stanley Hall's *Adolescence* (1904) and in the articles on "Ordeals" and "Puberty Customs" in the *Handbook of American Indians North of Mexico* (1907-1910). In the method of approach to the supernatural and the superhuman among the North American aborigines there is great diversity, and the powers and capacities of the individual have often received greater recognition than is commonly believed. Thus, as Kroeber (*Amer. Anthrop.*, 1902, p. 285) has pointed out, the Mohave Indians of the Yuman stock have as a distinctive feature of their culture "the high degree to which they have developed their system of dreaming and of individual instead of traditional connexion with the supernatural." For the Omaha of the Siouan stock Miss A. C. Fletcher (*Proc. Amer. Assoc. Adv. Sci.*, 1895, 1896; *Journ. Anthr. Inst.*, 1898) has shown the appreciation of the individual in the lonely "totem" vigil and the acquisition of the personal *genius*.



***Contact of races.***

From the Indians of North America the white man has borrowed not only hosts of geographical names and many common terms of speech, but countless ideas and methods as to food, medicines, clothes and other items in the conduct of life. Even to-day, as G. W. James points out in his interesting little volume, *What the White Race may learn from the Indian* (Chicago, 1908), the end of the instruction of the "lower" race by the "higher" is not yet. The presence of the Indians and the existence of a "frontier" receding ever westward as the tide of immigration increased and the line of settlements advanced, have, as Prof. Turner has shown (*Ann. Rep. Amer. Hist. Assoc.*, 1893), conditioned to a certain extent the development of civilization in North America. Had there been no aborigines here, the white race might have swarmed quickly over the whole continent, and the "typical" American would now be much different from what he is. The fact that the Indians were here in sufficient numbers to resist a too rapid advance on the part of the European settlers made necessary the numerous frontiers (really "successive Americas"), which began with Quebec, Virginia and Massachusetts and ended with California, Oregon, British Columbia, Yukon and Alaska. The Indians again are no exception to the rule that one of the fundamentally important contributions of a primitive people to the culture-factors in the life of the race dispossessing them consists of the trails and camping-places, water-ways and trade-routes which they have known and used from time immemorial. The great importance of these trails and sites of Indian camps and villages for subsequent European development in North America has been emphasized by Prof. F. J. Turner (*Proc. Wisconsin State Histor. Soc.*, 1889 and 1894) and A. B. Hulbert (*Historic Highways of America*, New York, 1902-1905). It was over these old trails and through these water-ways that missionary, soldier, adventurer, trader, trapper, hunter, explorer and settler followed the Indian, with guides or without. The road followed the trail, and the railway the road.

The fur trade and traffic with the Indians in general were not without influence upon the social and political conditions of the European colonies. In the region beyond the Alleghanies the free hunter and the single trapper flourished; in the great north-west the fur companies. In the Mackenzie region and the Yukon country the "free hunter" is still to be met with, and he is, in some cases, practically the only representative of his race with whom some of the Indian tribes come into contact. J. M. Bell (*Journ. Amer. Folk-Lore*, xvi., 1903, 74), from personal observation, notes "the advance of the barbarous border

civilization,—the civilization of the whaler on Hudson's Bay, of the free trader on the Athabasca Lake and river, of the ranchers and placer miners on the Peace and other mountain rivers," and observes further (p. 84) that "the influx of fur-traders into the Mackenzie River region, and even to Great Bear Lake within the last two years, since my return, has, I believe, very much altered the character of the Northern Indians." In many parts of North America the free trapper and solitary hunter were often factors in the extermination of the Indian, while the great fur companies were not infrequently powerful agents in preserving him, since their aims of exploiting vast areas in a material way were best aided by alliance or even amalgamation. The early French fur companies, the Hudson's Bay Company, the North-West Company, the American Fur Company, the Missouri Fur Company, the Russian-American Company, the Alaska Commercial Company, &c., long stood with the Indians for the culture of the white man. For two centuries, indeed, the Hudson's Bay Company was ruler of a large portion of what is now the Dominion of Canada, and its trading-posts still dot the Indian country in the far north-west. The mingling of races in the region beyond the Great Lakes is largely due to the fact that the trading and fur companies brought thither employés and dependants, of French, Scottish and English stock, who intermarried more or less readily with the native population, thus producing the mixed-blood element which has played an important rôle in the development of the American north-west. The fur trade was a valuable source of revenue for the early colonists. During the colonial period furs were sometimes even legal tender, like the wampum or shell-money of the eastern Indians, which, according to Mr Weeden (*Econ. Hist. of New England*), the necessities of commerce made the European colonists of the 17th century adopt as a substitute for currency of the Old World sort.

In their contact with the Indians the Europeans of the New World had many lessons in diplomacy and statecraft. Alliances entered upon chiefly for commercial reasons led sometimes to important national events. The adhesion of the Algonkian tribes so largely to the French, and of the Iroquoian peoples as extensively to the English, practically settled which was ultimately to win in the struggle for supremacy in North America. If we believe Lewis H. Morgan, "the Iroquois alliance with the English forms the chief fact in American history down to 1763."

The whites in their turn have influenced greatly the culture, institutions and ideas of the American aborigines. The early influence of the Scandinavians in Greenland has had its importance exaggerated by Dr Tylor (*Journ. Anthrop. Inst.*, 1879). French influence in Canada and Acadia began early and was very marked, affecting the languages (several Algonkian dialects have numerous loan-words, as have the Iroquois tongues still spoken in Quebec) and the customs of the Indians. French authorities, missionaries and traders seemed to get into more sympathetic relations with the Indians, and the intermarriage of the races met with practically no opposition. Hence the French influence upon many tribes can be traced from the Atlantic past the Great Lakes and over the Plains to the Rocky Mountains and even beyond, where the trappers, *voyageurs, coureurs des bois* and missionaries of French extraction have made their contribution to the modern tales and legends of the Canadian north-west and British Columbia. In one of the tales of the North Pacific coast appears *Shishé Tlé* (*i.e.* Jesus Christ), and in another from the eastern slope of the Rockies *Mani* (*i.e.* Mary). Another area of French influence occurs in Louisiana, &c. The English, as a rule, paid much less attention than did the French to the languages, manners and customs and institutions of the aborigines and were in general less given to intermarriage with them (the classical example of Rolfe and Pocahontas notwithstanding), and less sympathetically minded towards them, although willing enough, as the numerous early educational foundations indicate, to improve them in both mind and body. The supremacy of the English-speaking people in North America made theirs the controlling influence upon the aborigines in all parts of the country, in the Pacific coast region to-day as formerly in the eastern United States, where house-building, clothing and ornament, furniture, weapons and implements have been modified or replaced. Beside the Atlantic, the Micmac of Nova Scotia now has its English loan-words, while among the Salishan tribes of British Columbia English is "very seriously affecting the purity of the native spech" (Hill-Tout), and even the Athabaskan Nahané are adding English words to their vocabulary (Morice).

The English influence on tribal government and land-tenure, culminating in the incorporation of so many of the aborigines as citizens of Canada and the United States, began in 1641. The first royal grants both in New England and farther south made no mention of the native population of the country, and the early proprietors and settlers were largely left to their own devices in dealing with them, the policy of extinguishing their titles to land being adopted as needed. Later on, of course, due recognition was had of the fact that certain parts of America were inhabited by "heathen," "savages," &c., and the chiefs of many of the tribes were looked upon as rulers with prerogatives of princes and royal personages (*e.g.* the "Emperor" Powhatan and the "Princess" Pocahontas, "King" Philip, the "Emperor" of the Creeks, &c.). The method of dealing with the Indian "tribes" by the Federal government as autonomous groups through treaties, &c., lasted till 1871, when, by act of Congress, "simple agreements" were favoured in lieu of "solemn treaties."



Meanwhile no consistent purpose was shown in dealing with the Indian problem. At one time the American policy was to concentrate all the Indians on three great reservations, an expansion of the plan adopted early in the 19th century which set aside the former "Indian country" (afterwards restricted to the Indian Territory). The sentiment in regard to great reservations, however, gradually weakened, till in 1878 it was proposed to concentrate the Indians on smaller reservations; but the entire reservation system became increasingly unpopular, and finally in 1887 Congress enacted the Land Severalty Law, paving the way for abolition of the reservation and agency system; at the same time it emphasized the government policy of gradually (the reservation system was a preliminary step in the way of bringing the Indians more under government control) bringing about the cessation of all "tribes" as independent communities and securing their ultimate entrance upon citizenship with the white population. This certainly was far removed from the declaration of the Virginia Assembly in 1702 that "no Indian could hold office, be a capable witness, or hunt over patented land"; and at this time also, "an Indian child was

classed as a mulatto, and Indians, like slaves, were liable to be taken on execution for the payment of debt." As Miss Fletcher (*Handb. of Amer. Inds.*, 1907, pt. i. p. 501) notes, the ordinance of Congress passed in 1787 respecting the duty of the United States to the Indian tribes, which was confirmed by the act of 1789, was reaffirmed in the organizing acts of Alabama, Colorado, Dakota, Idaho, Illinois, Iowa, Kansas, Michigan, Minnesota, Mississippi, Montana, Nebraska, Nevada, Oregon, Wisconsin and Wyoming.

The Land Severalty Law of 1887 (amended 1890) provided for the survey of reservations and the allotment to each person of a tract ranging from 40 to 160 acres, the remainder being sold to white settlers. The process of dividing the Indian lands into individual allotments and disposing of the remainder for the benefit of the tribe or the nation has been very successful in many cases. This policy has culminated in a recent decision of the United States Supreme Court, by virtue of which all Indians living upon their own allotments were declared to be citizens, on the same terms and subject to the same laws as the whites.

During the period 1609-1664, from the visit of Hudson to the surrender of New Amsterdam to the English, the Dutch exercised not a little influence upon the aborigines of the present state of New York and some of the regions adjoining. Hudson's harsh treatment of the natives caused the Dutch trouble later on. Through their trading-post of Fort Orange (now Albany) they came into contact with both Iroquoian and Algonkian tribes, carrying on an extensive trade in furs with some of them, including the New England Pequots. They sided with the Iroquois against the northern Algonkian tribes, but also aided the Mohegans against the Mohawks. Farther south they helped the Senecas against the Munsees. Their quarrels with the English involved many of the Indian tribes on one side or the other. They have been generally condemned for their readiness to furnish the Indians with fire-arms and intoxicating liquors, though some of these actions were doubtless performed by individual traders and settlers only and cannot be charged to a deliberate policy of the government. The modern title of *Kora*, given by the Canadian Iroquois to the governor-general (also to the king of England), is a corruption of *Corlaer*, the name of a trusted Dutch manager of Rensselaerwyck (cf. the Iroquois name for the French governor, *Onontio* = Montmagny).

German influence among the American Indians north of Mexico has made itself felt among the Eskimo (particularly in Labrador), the Delawares and Mohegans, the Iroquois and the Cherokee, where the Moravian missionaries did much good work. They influenced the Indians for peace and good conduct during the great wars. In Labrador the dress, habitations and beliefs of the Eskimo have been considerably modified. It is said by some that Sequoyah, the inventor of the "Cherokee alphabet," had for father a German settler.

The great influence of the Spaniards upon the American Indians has been treated by Blackmar in his *Spanish Institutions in the South-west*, and by Lummis, Bourke, Hodge and other authorities. The results of Spanish contact and control are seen in the loan-words in the various languages of the region, the consequences of the introduction of domestic animals (horse, mule, sheep, goat, fowls), the perfection of the arts involved in the utilization of wool, the planting of wheat, the cultivation of peaches and other exotic fruits. The difference between the Navaho and their close kinsmen the Apache may be largely attributed to changes wrought by the coming of the Spaniards. The "Mission Indians" of California represent another great point of contact. In California thousands and thousands of Indians were converted and brought under the control of the able and devoted missionaries of the Catholic Church, only to become more or less utterly helpless when Spanish domination ceased and the missions fell into decay. Traces of Spanish influence may be found as far north as the Saskatchewan, where personal names implying origin from a Mexican captive occur; and there is not a little Spanish blood in some of the tribes of the Great Plains, who often took with them from their border raids, or acquired from other tribes, many white prisoners from Mexico, &c.

In Alaska the influence of Russian sailors, traders and settlers during the period of occupancy was considerable, as was also that of the priests and missionaries of the Greek Church, but much of what was thus imposed upon the aborigines has now been modified or is being submerged by the more recent influences of the English-speaking settlers, miners, &c., and the efforts of the American government to educate and improve them. The influence of the Russians extended even to California, as the name "Russian River" would indicate, and Friederici (*Schiffahrt der Indianer*, 1907, p. 46) even thinks that to them is due the sporadic occurrence in that region of skin-boats. It was through the Russians that the Alaskan Eskimo received tobacco. Some Russian words have crept into certain of the Indian languages. It has been said that the Russian authorities from time to time transported a few Indians over-sea to Kamchatka, &c.

The general question of the relations of the Europeans in North America with the Indians has been treated by various authors, one of the most recent being Friederici, whose *Indianer und Amerikaner* (Brunswick, 1900) is perhaps a little too prejudiced.

***Indian wars.***

The contact between the races in North America has had its darker side, seen in the numerous conflicts and "wars" that have marked the conquest of the continent by the whites and the resistance of the weaker people to the inevitable triumph of the stronger. The following sketch of the warlike relations of various Indian stocks with the European colonists and their descendants brings out the principal facts of historic interest.

*Eskimoan.*—The history of warfare between the European colonists (and their descendants) and the North American aborigines begins with the conflict of Eskimo and Northmen in Greenland, the last phase of which, in the first half of the 15th century, ended in the destruction of the European settlements and the loss of knowledge of the Eskimo to the Old World till they were rediscovered by Frobisher in 1576 and Davis in 1585. Then came a new series of small conflicts in which the whites have been the chief aggressors—whalers, sealers and other adventurers. In the extreme north-west the Aleuts were very harshly treated by the Russians, and one of the most recent deeds of brutality has been the reported extermination, by irresponsible whalers, of the Eskimo of Southampton Island in Hudson's Bay.

*Algonkian and Iroquoian.*—Southward, along the Atlantic coast, the period of actual settlement by the

whites in large numbers was preceded by numerous conflicts with the Algonkian Indians in which all too often the whites (adventurers, fishermen, &c.) were principally at fault, the natives being sometimes carried off as slaves to Spain and elsewhere in Europe. When Champlain, very shortly after the founding of Quebec, decided to help his Algonkian neighbours against their Iroquoian enemies, an alliance was entered upon which had much to do with the final defeat of France in North America. The battle fought and won by Champlain near Ticonderoga in 1609 made the Iroquois the lasting antagonists of the French, and, since the former held a large portion of what is now the state of New York, the latter were effectually prevented from annihilating or destroying the English colonies to the south. The Iroquois alliance with the English in New York was preceded by one with the Dutch. Another result of the feud between the Iroquois and the French was the destruction of the confederacy of the Hurons, themselves a people of Iroquoian stock, established in the region between Lakes Ontario, Erie and Huron, over a large portion of what is now the province of Ontario, although the antagonism between Hurons and Iroquois had existed even before the coming of Cartier and the inevitable conflict had already begun. As an outcome of Champlain's visit to the country of the Hurons in 1615 the Jesuit missionaries had established themselves among these Indians and for thirty-five years laboured with a devotion and sacrifice almost unparalleled in the history of the continent. The struggle ended in the campaign of 1648-1649, in which the Iroquois destroyed the Huron settlements and practically exterminated the people, the French priests in many cases having suffered martyrdom in the most cruel fashion at the hands of the savage conquerors. Such of the Hurons as succeeded in escaping took refuge in some of the safer French settlements or found shelter among friendly Indian tribes farther west. Some of these refugees have their descendants among the Hurons of Lorette to-day and among the Wyandots of Oklahoma. The *Tionontati* (Tobacco Nation) Hurons continued the struggle for some time longer, a battle being fought in 1659 on the Ottawa above Montreal, in which the Iroquois were victorious and the Huron chief slain. As late as 1747-1748 some of the Hurons, who had taken refuge in the west, under Orontony, a wily and unscrupulous chief, who was offended at certain actions of the French, entered into a conspiracy with many Algonkian tribes of the region to destroy the French posts at Detroit, &c., which, however, proved unsuccessful, the plot being revealed through the treachery of a Huron woman. A notable event in the French-Iroquois wars was the attack on Montreal in 1689. After the coming of Frontenac as governor of Canada the wars between the French and English involved some of the Indian tribes more and more, on one side or the other, the *Mohawks* especially, who took part against the French, being famous for their raids from the region of Ohio to far into New Brunswick. During the French war and the American War of Independence the Algonkian and Iroquoian Indians serving on both sides were in part or wholly responsible for numerous massacres and other acts of barbarity, though the whites sometimes showed themselves fully the equals of the savages they condemned.



In New England the most notable conflicts were "the *Pequot* war" of 1637-1638 and "King Philip's war" of 1675-1676, the latter resulting in the overthrow of a powerful confederacy, which at one time threatened the very existence of the colony, and the practical extermination of the Indians concerned, after great havoc had been wrought by them in the white settlements. New England also suffered much from Indian "wars" instigated by the French, and at Caughnawaga and other Iroquois settlements in French Canada there is much white blood resulting from the adoption of captives taken away (*e.g.* at Marlboro and Deerfield, Mass., in 1703-1704) in raids on New England villages. Celebrated in the annals of war are the Algonkian chiefs Tecumseh (Shawnee), who aided the British in the war of 1812, and Pontiac (Ottawa), whose remarkable conspiracy of 1763 has been studied by Parkman; of noted Iroquoian chiefs and warriors may be mentioned Joseph Brant, who fought for the British in the War of Independence, and Logan, ill-famed for his barbarities perpetrated against the border settlements on the Ohio, 1775-1780, &c.

In Virginia the future of the English colony was not absolutely assured much before 1620. From the founding of Jamestown in 1607 until about 1616 the colony was in more or less danger of extinction by starvation or destruction at the hands of the Indians. The most famous and romantic of the Indian wars of Virginia was that in which Captain John Smith was concerned in the days of Powhatan and Opechancanough, when his rescue by Pocahontas is said to have taken place. Under Opechancanough massacres of the English settlers took place in 1622 and 1644 in particular, while intermittent hostilities continued between these dates, many hundreds of whites being slain by the Powhatan Indians and their confederates of Algonkian stock. As a result of wars with the English and also with other Indian tribes, many of the Algonkian peoples of Virginia, like some of the Iroquoian peoples farther south, were by the end of the 17th century greatly reduced in numbers. In the Carolinian region the Iroquoian *Cherokee* warred against the English colonists from 1759 until the War of Independence, and continued their struggle then against the Americans until 1794. After their forcible removal west of the Mississippi in 1838-1839 no serious hostilities occurred, with the exception of a conflict between the whites and a portion of the Cherokee, who had earlier moved into eastern Texas while that state was under the Mexican régime. The *Tuscarora* were in frequent conflict with the English, particularly in the "Tuscarora war" of 1713-14.

Of Algonkian tribes farther west the *Cheyenne* began conflicts with the whites about 1840, made their first incursion into Mexico in 1853, and between 1860 and 1878-1879, according to Mooney, "they were prominent in border warfare ... and have probably lost more in conflict with the whites than any other tribe of the plains in proportion to their number." They participated in the "Sitting Bull war" of 1876.

The *Chippewa* of the north-western United States in the latter half of the 18th century and till the close of the war of 1812 kept up warfare with the border settlements, but have been generally peaceful since 1815, when a treaty was made. The only serious outbreak among the *Cree*, who have been generally friendly to the whites from the period of first contact, occurred during the Riel "rebellion" of 1885, but was soon settled. In the latter part of the 18th century (up to the treaty of Greenville, 1795) the *Delawares* took a prominent part in opposing the advance of the whites. The *Kickapoos* were concerned in the Indian plot to destroy the fort at Detroit in 1712, and a hundred years later they aided the English against the Americans; in 1832 numbers of them helped Black Hawk in his war against the whites. The *Micmac* were long hostile to the English, being prominent as aids to the French in the New England wars, and it was not

until about 1779 or long after the French cession that conflicts between these Indians and the whites came to an end. The *Mississaguas* fought with the Iroquois against the French about 1750, having soon become friendly with the English and remaining so. The *Ottawa* were prominent in the wars of the region about Detroit from 1750 till 1815. Pontiac, whose "conspiracy" of 1763 is noted in American history, was an Ottawa chief. The *Penobscot*, as friends of the French, continued their attacks on the English settlements till about 1750. The *Sacs* and *Foxes* appear early in the 18th century as antagonists of the French (a rare thing among Algonkian peoples) and they were the instigators of the nearly successful attack on Detroit in 1712. In the war of 1812 most of these Indians sided with the British. Black Hawk, the chief figure in the "war" of 1831-1832, was a Sac and Fox chief, who endeavoured to engage all the Indian tribes of the region in a general alliance against the whites. The *Shawnees* were prominent in the border warfare of the Ohio region, and their famous chief Tecumseh fought for the British in the war of 1812.

*Athabaskan.*—The Athabaskan tribes of the far north, with the exception of occasional disputes with the traders and settlers, have generally been of a peaceful disposition, and "wars" with the whites have not been recorded to any extent. The warlike members of this stock have been the Apache and the Navaho. The Apache from the middle of the 16th century have given evidence of their instinct for raids and depredations on the frontiers of civilization. In recent times the most noteworthy outbreaks were those under Cochise, Victorio, Geronimo, Nana, Nakaidoklini, &c., between 1870 and 1886, in which several hundred whites in Mexico and New Mexico were killed and much property destroyed. As late as 1900 some of the hostile Apaches, who had escaped to the mountains, made a raid on the Mormon settlers in Chihuahua, Mexico. The Navaho, when New Mexico passed into the possession of the United States in 1849, had long been in the habit of committing depredations upon the white settlements and the Pueblos. These "wars" continued till 1863, when "Kit" Carson completely defeated them and the greater part of the tribe were made prisoners. Since their release in 1867 they have thriven in peace, although occasionally serious trouble has threatened, as, *e.g.*, in November 1905.

*Caddoan.*—The *Caddo* proper were friendly to the French and helped them against the Spaniards in the wars of the 18th century. After the annexation of Texas the Indians were badly treated and some of them made answer in kind; in 1855 a massacre of the Indians was proposed by the whites. Since their forced march to Oklahoma in 1859 they have been at peace. The *Arikara* had a brief conflict with the United States authorities in 1823, as a result of the killing of some traders. In the wars of the 18th century the *Kichai* adhered to the cause of the French. The *Pawnee* seem never to have warred against the United States, in spite of much provocation at times.

*Californian Stocks.*—Such "wars" as are recorded, for the most part between the minor Californian stocks and the whites, have been largely directly or indirectly instigated by the latter for various purposes of gain. The Lutuamian stock is remarkable as furnishing both the *Klamath*, who have always kept peace with the whites, and the *Modoc*, who are well known through the "Modoc war" of 1872-73 under the leadership of their chief, Kintpuash or "Captain Jack."

*Kiowan.*—The Indians of the Kiowan stock joined with the Comanche, Apache, &c., in the border wars in Texas and Mexico, and, according to Mooney, "among all the prairie tribes they were noted as the most predatory and bloodthirsty, and have probably killed more white men in proportion to their numbers than any other." They have been on their present reservation since 1868, and the only outbreak of importance latterly occurred in 1874-75, when they joined with the Comanche, Cheyenne, &c.

*Muskogian.*—This stock has furnished some of the most warlike Indians of the continent. The *Chickasaw* were friendly to the English, or rather hostile to the French, in the 18th century (war of 1736-40), and their action practically settled the question of the extension of French power in this region. The *Choctaw* aided the French in the wars of the 18th century, and a few Indians of this tribe participated in the "Creek War" of 1813-14. The *Creeks* or *Muskogees* are famous on account of the terrible war of 1813-14 in which they sustained overwhelming defeat. Earlier they were hostile to the Spaniards in Florida, and during the 18th century were generally friendly to the English, particularly in the "Apalachee war" of 1703-08, when they served under Governor Moore of Carolina. Another Muskogian people, the *Seminole*, are remembered for the long and bloody "Seminole War" in Florida, 1835-45, in which many atrocities were committed.



*Sahaptian.*—The Indians of this stock have been generally very friendly to the whites, and the only notable "war" occurred in 1877, when the *Nez Percés*, under their famous chief, Joseph, resisted being confined to their reservation in Idaho. Joseph displayed wonderful generalship; he defeated the American troops several times, and finally executed a most remarkable retreat, over 1000 m., in an attempt to reach Canadian territory. This was foiled within a short distance of the boundary, and the entire force surrendered to Colonel Miles on October 5, 1877.

*Shoshonian.*—North of Mexico this great stock has developed several warlike peoples. Trouble with the *Bannock* occurred in 1877-78, resulting from the encroachment of the whites at the time of the Nez Percés war, the killing of several settlers, scarcity of food, &c. The outbreak was ended by a campaign under General Howard in which many Indians, men, women and children, were killed and some one thousand taken prisoners. The *Comanche*, through a long period of more than 150 years after the Spanish occupation, kept up a continual series of raids and depredations upon the settlements of the whites in Mexico, &c. Their general friendly attitude towards Americans in later years did not extend to the Texans, with whom for more than thirty years they indulged in savage warfare. They often entered into warlike alliance with the Apache, the Kiowa, &c. After the outbreak of 1874-75 they settled down for good. The leader in this "war" was Quana Parker, a half-blood Comanche, who, after the matter was settled, accepted broadly the new order of things and became "the most prominent and influential figure among the three confederated tribes" (Mooney). The *Paiute*, *Shoshonees* (*Snakes*) and *Utes* have figured in several more or less temporary outbreaks since 1865.

*Siouan.*—This great stock has had its celebrated antagonists of the whites as well as its famous combatants of other Indian tribes. The *Dakota* (or *Sioux*) were unfriendly to the French for aiding their enemies, the Chippewa, and after the fall of French power in America in 1763, they allied themselves with

the English and assisted them in the War of Independence and the war of 1812, with few exceptions. After the treaty of peace in 1815 various minor troubles occurred, but in 1862 the Indians in Minnesota rose under Chief Little Crow and committed terrible barbarities against the settlers, some 800 whites being killed before the revolt was put down. The gold-fever of the whites in Dakota, where the Indians had settled down, precipitated a formidable outbreak in 1876 under the leadership of Sitting Bull, Crazy Horse, Spotted Tail and other chiefs. The most notable event of this "war" was the so-called "massacre" (properly cutting-off) of General Custer and his cavalry at the battle of Little Bighorn on June 25, 1876. When the "Ghost Dance" was prevalent among so many Indian tribes of the Plains in 1890-1891 another serious rising of the Sioux took place, which was put down by General Miles. Sitting Bull was killed (December 15, 1890); and resistance to an attempt to disarm a large party of Indians at Wounded Knee Creek, near the Pine Ridge Agency, resulted (December 29) in a deplorable massacre, in which many women and children were killed. The story of these Sioux outbreaks and the guiltiness of the whites with respect to them has been told authoritatively by Mooney (*14th Ann. Rep. Bur. Ethnol.*, 1892-1893). At one time these troubles threatened to involve the Canadian Indians of the region adjacent. The *Catawba* of South Carolina, in the wars of the 18th century, aided the English against the French, the Tuscaroras (war of 1713-14) and the Lake tribes. They sided with the Americans during the War of Independence. The *Osage* were friendly with the French early in the 18th century and fought with them against the Sacs and Foxes at Detroit in 1714.

*Pueblos.*—After the Spanish conquest of the Pueblos Indians of Arizona and New Mexico the most remarkable effort of the natives to throw off the foreign yoke was in the general revolt of 1680 under the leadership of Popé of San Juan. At that time among the Moqui (Shoshonian) the missionaries were killed, the churches laid in ruins, &c., and similar events occurred elsewhere in the Pueblos region. For this the Spaniards subsequently took ample vengeance. The Pueblos Indians in general have never taken too kindly to the whites; and to-day at the Moqui pueblo of Oraibi there exist a "Hostile" and a "Friendly" faction, the first bitterly opposed to the Caucasian and all his ways, the latter more liberal-minded, but Indian none the less. An open rupture nearly took place in 1906.

In Canada, since the organization of the Dominion in 1867, Indian wars have been unknown, and Indian outbreaks of any sort rare. In 1890 an outbreak of the Kootenays was threatened, but it amounted to nothing—the present writer traversed all parts of the Kootenay country in 1891 in perfect safety. Occasional "risings" have been reported from the Canadian North-West and British Columbia, but have amounted to little or nothing. In the matter of war it should be noted that some Indian stocks nave been essentially peaceful, and have resorted to force only when driven beyond endurance or treated with outrageous injustice. Again, within the same stock one tribe has shown itself peaceable, another quite warlike (*e.g.* Klamath and Modoc, both Lutuamian; the Hares and the Apache, both Athabaskan). Probably the amount and extent of wars existing north of Mexico in Pre-Columbian times were not as large as is generally stated. The introduction of fire-arms, European-made weapons, the horse, &c., and the development of ideas of property made possible through these, doubtless stimulated intertribal disputes and increased the actual number of warlike enterprises. Over a large portion of the continent "wars" were nearly always initiated and carried out by a portion only of the tribe, which often had its permanent "peace party."

***Missions and Education.***

The missionary labours of the various Christian churches among the North American aborigines have been ably summarized by Mooney in the *Handbook of American Indians North of Mexico* (pt. i. 1907, pp. 874-909). Besides the famous *Relation des Jésuites* (ed. Thwaites, 1896-1901) there are now special mission histories for the Baptists, Congregationalists, Episcopalians, Lutherans, Mennonites, Methodists, Moravians, Mormons, Presbyterians, Quakers, Roman Catholics (also the various orders, &c.), who have all paid much attention to Christianizing and civilizing the Indians. To-day "practically every tribe officially recognized within the United States is under the missionary influence of some religious denomination, workers of several denominations frequently labouring in the same tribe." Something of the same sort might be said of the Indians of Canada, whose religion (that of 76,319 out of 110,345 altogether reported, is known) is given as follows in the *Report of the Department of Indian Affairs* for 1907: Roman Catholics 35,682; Anglicans 15,380; Methodists 11,620; Presbyterians 1527; Baptists 1103; Congregationalists 18; and other denominations 597; besides 10,347 pagans. All the Indians of Nova Scotia, New Brunswick, and Prince Edward Island, are Catholics; in Quebec there are but 678 Protestants (mostly Methodist); in Ontario there are 6173 Catholics to 1030 Baptists, 4626 Methodists, 5306 Anglicans, 18 Congregationalists and 34 Presbyterians. The Indians of British Columbia number 11,529 Catholics, 4304 Anglicans, 3277 Methodists and 431 Presbyterians; those of Manitoba, 1780 Catholics, 1685 Methodists, 382 Presbyterians and 3103 Anglicans; those of Saskatchewan and Alberta 4249 Catholics, 1527 Methodists, 719 Presbyterians, 2549 Anglicans. In some of the tribes and settlements both in Canada and in the United States missionary activities, the influence of individual white men, &c., have led to a great diversity of religious faith, sometimes within comparatively limited areas. Thus in the Mistawasis band of Cree, belonging to the Carlton Agency, province of Saskatchewan, numbering but 129, there are 6 Anglicans, 86 Presbyterians and 37 Catholics; in the Oak River band of Sioux in Manitoba there are 60 Anglicans, 1 Presbyterian, 13 Methodists, 4 Catholics and 195 pagans out of a total of 273. Among the "Six Nations" and the larger Indian peoples of Oklahoma all the leading Christian sects, besides the Salvation Army, the Christian Scientists, the Mormons and the "New Thought" movement are represented. There are also the "Navaho New Faith," the "Shaker Church" of Washington, &c. The history of missionary labours in North America among the aborigines contains stories of disappointment and disaster as well as chronicles of success. Some peoples, like the Timuquans, the Apalachee, the Pakawan tribes, &c., have been converted only to disappear altogether; other great attempts at colonization or "reduction," like the missions of Huronia and California, succeeded for the time on a grand scale, but have fallen victims sooner or later to the fortunes of war, the changes of politics, or their own mechanism and its inherent weaknesses and defects. But the thousands of good church-members, including many ministers of the Gospel, in Canada and the United States, coming from scores of different tribes and many

distinct stocks, no less than the general good conduct of so many Indian nations, are a remarkable tribute to the work done by Catholic and Protestant missionaries alike all over the broad continent from the Mexican border to the snows of Greenland and the islands of the Arctic. The martyrdom of the Jesuits among the fierce Iroquois, the zeal of Duncan at Metlakahtla, the fate of the Spanish friars in the Pueblos rebellion of 1680 under Popé, the destruction of the Huron missions in 1641-1649 and of those of the Apalachee in 1703, the death of Whitman at the hands of the Cayuse in 1847, are but a few of the notable events of mission history. The following brief accounts of missionary labours among one or two of the chief Indian stocks and in a few of the chief areas of the continent will serve to indicate their general character.



*Californian Indians.*—Beginning with the foundation by Father Junipero Serra in 1769 of San Diego de Alcalá, and ending with that of San Francisco Solano in 1823, there were established, from beyond San Francisco Bay to the River Colorado, twenty-three missions of the Catholic faith among the Indians of California, whose direct influence lasted until the "secularization" of the missions and the expulsion of the friars by the Mexican government in 1834. In that year the missions counted 30,650 Indians and produced 122,500 bushels of wheat and corn. They possessed also 424,000 cattle, 62,500 horses and mules, 321,900 sheep, goats, hogs, &c. The mission-buildings of brick and stone contained besides religious houses and chapels, school-rooms and workshops for instruction in arts and industries, and were surrounded by orchards, vineyards and farms. Here Indians of diverse linguistic stocks were "reduced" and "civilized," and their labour fully utilized by the mission-fathers. But, in the words of Mooney (*Handb. of Amer. Inds.* pt. i., 1907, p. 895), "Despite regular life, abundance of food and proper clothing according to the season, the Indian withered away under the restrictions of civilization supplemented by epidemic diseases introduced by the military garrisons or the seal-hunters along the coast. The death-rate was so enormous, in spite of apparent material advancement, that it is probable that the former factor alone would have brought about the extinction of the missions within a few generations." Some of the missions had but a few hundred Indians, some, however, as high as three thousand. Kroeber thinks that their influence was "probably greater temporally than spiritually." After the "secularization" of the missions decay soon set in, which the American occupation of California later on did nothing to remedy, and the native population rapidly decreased. When the supervision of the missionaries no longer sustained them the Indians fell to pieces and the practical results of seventy years of labour and devotion were lost. In 1908 there remained of the "Mission Indians" less than 3000 individuals (belonging to the Shoshonian and Yuman stocks), whose condition was none too satisfactory, the only human relics of the huge attempt at the "reduction" of the Indian that was planned and carried out in California.

*Iroquoian.*—The French missions among the Hurons began in 1615-1616 with Father le Caron of the Recollect order; those of the Jesuits with Father Brebœuf in 1626. These missions flourished, in spite of wars and other adverse circumstances, till the invasion of the Huron country in Ontario by the Iroquois in 1641 and again in 1649 brought about their destruction and the dispersal of the Hurons who were not slain or carried off as prisoners by the victors. Some took refuge among neighbouring friendly tribes; others settled finally at Lorette near Quebec, &c. The Wyandots, now in Oklahoma, are another fragment of the scattered Hurons. The Hurons of Lorette numbered in 1908, 1 Anglican, 6 Presbyterians and 459 Catholics. The Wyandots of Oklahoma are largely Protestants. The mission among the Mohawks of New York was established in 1642 by Father Jogues (afterwards martyred by the Indians), and in 1653 the church at Onondaga was built, while during the next few years missions were organized among the Oneida, Cayuga and Seneca, to cease during the warlike times of 1658-66, after which they were again established among these tribes. The mission of St François Xavier des Pré (La Prairie), out of which came the modern Caughnawaga, was founded in 1669, and here gathered many Christian Iroquois of various tribes—Mohawk especially. About this time the Iroquois settlement on the Bay of Quinté, Ontario, was formed by Christian Mohawks, Cayugas, &c. The Lake of the Two Mountains mission dates from 1720, that of St Regis from 1756. Another mission at Oswegatchie, founded in 1748, was abandoned in 1807. The Episcopal missions among the Iroquois began early in the 18th century, the Mohawks being the first tribe influenced, about 1700. The extension of the work among the other Iroquoian tribes was aided by Sir William Johnson in the last half of the century and by Chief Joseph Brant, especially after the removal of those of the Iroquois who favoured the British to Canada at the close of the War of Independence. In 1776 the Congregationalists established a mission among the New York Oneida, and later continued their labours also among the Oneida of Wisconsin. The Congregational mission among the New York Seneca began in 1831. In 1791-1798, at the request of Chief Cornplanter, the Pennsylvania Quakers established missions among the Oneida, Tuscarora and Seneca. The Moravian missions among the New York Onondaga were established under the Rev. David Zeisberger about 1745. The Methodist missions among the Ontario Iroquois date from 1820. Of the "Six Nations" Indians of the Grand river, Ontario, the Cayuga and Onondaga are still "pagan," the others being Anglican, Methodist and other denominations, including Seventh Day Adventists, Salvation Army, &c. Among the New York Iroquois great variety of religious faith also exists, the Presbyterians (largest), Methodists, Episcopalians and Baptists being all represented. The Iroquois of Caughnawaga and St Regis are mainly Catholic; at Caughnawaga there is, however, a Methodist school.

*Muskogian.*—Several tribes of this stock came under the influence of the missions established by the Spanish friars along the Atlantic coast after the founding of St Augustine in 1565. The missionaries in this region were chiefly Franciscans, who succeeded the Jesuits. They were very successful among the Apalachee, but these Indians were constantly subject to attack by the Yamasi, Creek, Catawba and other savage peoples, and in 1703-1704 they were destroyed or taken captive, and the missions came to an end. A few of the survivors were gathered later at Pensacola for a time. In the early part of the 18th century French missions were established among the Choctaw, Natchez, &c., and the Jesuits laboured among the Alibamu from 1725 till their expulsion in 1764. From 1735 to 1739 the Moravians (beginning under Spangenberg) had a mission school among the Yamacraw, a Creek tribe near Savannah. In 1831 a Presbyterian mission was established among the Choctaw on the Yalabusha river in northern Mississippi, to which went in 1834 the Rev. Cyrus Byington, the Eliot mission over which he presided there and in the Indian Territory till 1868 being one of great importance. After the removal of the Indians to the Indian

Territory more missions were established among the Choctaw, the Creek and the Seminole, &c. The work was much interfered with by the Civil War of 1861-65, but the mission work was afterwards reorganized. The Baptist missions among the Choctaw began in 1832 and among the Creek in 1839. The "Choctaw Academy," a high school, at Great Crossings, Kentucky, chiefly for young men of the Choctaw and Creek nations, was founded in 1819 and continued for twenty-four years. In 1835 a Methodist mission was established among the Creek, but soon abandoned, to be reorganized later on. Among the Indians of Oklahoma, the Catholic and Mormon churches and practically all the Protestant denominations, including the Salvation Army and the Christian Scientists, are now represented by churches, schools, missions, &c. The missionaries among the Muskogian tribes during the last half of the 18th century, as may be seen from Pilling's *Bibliography of the Muskhogean Languages* (1889), furnished many able students of Indian tongues, whose researches have been of great value in philology. This is true likewise of labourers in the mission-field among the Algonkian, Iroquoian, Athabaskan, Siouan and Salishan tribes and among the Eskimo. The celebrated "Eliot Bible," the translation (1663) of the scriptures into the language of the Algonkian Indians of Massachusetts, made by the Rev. John Eliot (*q.v.*), is a monument of missionary endeavour and prescientific study of the aboriginal tongues. In his work Eliot, like many other missionaries, had the assistance of several Indians. The names of such mission-workers as Egede, Kleinschmidt, Fabricius, Erdmann, Kohlmeister, Bruyas, Zeisberger, Dencke, Rasles, Gravier, Mengarini, Giorda, Worcester, Byington, Wright, Riggs, Dorsey, Williamson, Voth, Eells, Pandosy, Veniaminov, Barnum, André, Mathevet, Thavenet, Cuoq, Sagard, O'Meara, Jones, Wilson, Rand, Lacombe, Petitot, Maclean, Hunter, Horden, Kirkby, Watkins, Tims, Evans, Morice, Hall, Harrison, Legoff, Bompas, Peck, &c., are familiar to students of the aboriginal tongues of America.

When in 1900 the withdrawal by the United States of government aid to denominational schools occurred, it compelled some of the weaker churches to give up such work altogether, and interfered much with the activities of some of the stronger ones. According to the statistics given by Mooney (*Handb. of Amer. Inds.*, 1907, pt. i. p. 897) the Catholic Church had in 1904 altogether, under the care of the Jesuits, Franciscans and Benedictines, &c., and the sisters of the orders of St Francis, St Anne, St Benedict, St Joseph, Mercy and Blessed Sacrament, "178 Indian churches and chapels served by 152 priests; 71 boarding and 26 day schools with 109 teaching priests, 384 sisters and 138 other religious or secular teachers and school assistants." The Catholic mission work is helped by "the Preservation Society, the Marquette League and by the liberality of Mother Katharine Drexel, founder of the order of the Blessed Sacrament for negro and Indian mission work." The corresponding statistics for the chief Protestant churches were as follows:—

| Denomination. | Missions and Churches. | Missionaries. | Schools. |
|---|---|---|---|
| Baptist | 14 | 15 | 4 |
| Congregationalist | 10 | 12 | 5 |
| Episcopalian | 14 | 28 | 17 |
| Friends | 10 | 15 | 1 |
| Mennonite | 5 | 6 | 0 |
| Methodist | | 40 | 1 |
| Moravian | 3 | 3 | 0 |
| Presbyterian | 101 | 69 | 32 |
| Total | 157 | 188 | 60 |

This is exclusive of Alaska, where Greek Orthodox (18 ministers in 1902), Roman Catholics (12 Jesuits and lay brothers and 11 sisters of St Anne in 1903), Moravians (5 mission stations with 13 workers and 21 native assistants among the Eskimo in 1903), Episcopalians (31 workers, white and native, 13 churches, 1 boarding and 7 day schools in 1903), Presbyterians (a dozen stations and several schools), Baptists, Methodists (several stations), Swedish Evangelical (several stations), Friends (several missions), Congregationalists (mission school) and Lutherans (orphanage), all are labouring.



Before the advent of the whites the children of the North American aborigines "had their own systems of education, through which the young were instructed in their coming labours and obligations, embracing not only the whole round of economic pursuits—hunting, fishing, handicraft, agriculture and household work—but speech, fine art, customs, etiquette, social obligations and tribal lore" (Mason). Parents, grandparents, the elders of the tribe, "priests," &c., were teachers, boys coming early under the instruction of their male relatives and girls under that of their female relatives. Among some tribes special "teachers" of some of the arts existed and with certain of the more developed peoples, such as some of the Iroquoian and Siouan tribes, both childhood and the period of puberty received special attention. Playthings, toys and children's games were widespread. Imitation of the arts and industries of their elders began early, and with not a few tribes there were "secret societies," &c., for children and fraternities of various sorts, which they were allowed to join, thus receiving early initiation into social and religious ideas and responsibility in the tribal unit. Corporal punishment was little in vogue, the Iroquois *e.g.* condemning it as bad for the soul as well as the body. Appeals to the feelings of pride, shame, self-esteem, &c., were commonly made. As the treatment of the youth at puberty by the Omaha *e.g.* indicates, there was among some tribes distinct recognition of individuality, and the young Indian acquired his so-called "totem" or "guardian spirit" individually and not tribally. In some tribes, however, the tribal consciousness overpowered altogether children and youth. With the Indian, as with all other young human beings, "unconscious absorption" played its important rôle. Parental affection among some of the peoples north of Mexico reached as high a degree as with the whites, and devices for aiding, improving and amusing infants and children were innumerable. Some of the "beauty makers," however, amounted to rather serious deformations, though often no worse than those due to the corset, the use of uncouth foot-wear, premature factory labour, &c., in civilized countries.

Interesting details of Indian child-life and education are to be found in books like Eastman's *Indian*

*Boyhood* (1902), Jenks' *Childhood of Jishib the Ojibwa* (1900), Spencer's *Education of the Pueblo Child* (1889), La Flesche's *The Middle Five* (1901), Stevenson's *Religious Education of the Zuñi Child* (1887), and in the writings of Miss A. C. Fletcher, J. O. Dorsey, J. Mooney, W. M. Beauchamp, &c., besides the accounts of missionaries and travellers of the better sort.

Outside of missions proper there were many efforts made by the colonists to educate the Indians. It is an interesting fact, emphasized by James in his *English Institutions and the American Indian* (1894), that several institutions still existing, and now of large influence in the educational world of the United States and Canada, had their origin in whole or in part in the desire to Christianize and to educate the aborigines, which object was mentioned in charters (*e.g.* Virginia in 1606 and again in 1621), &c. Sums of money were also left for the purposes of educating Indian children and youth, many of whom were sent over to England for that purpose, by colonists who adopted them (one such was Sampson Occum, minister and author of the hymn, "Awaked by Sinai's Awful Sound"). In 1618 Henrico College in Virginia was founded, where Indian youth were taught religion, "civility" and a trade. It was succeeded by the College of William and Mary (founded in 1691 with the aid of a benefaction of Robert Boyle), where Indian youth were boarded and received their education for many years. The great university of Harvard has long outgrown "the Indian college at Cambridge," whose single graduate Cheeshateaumuck, took his degree in 1665, but died afterwards of consumption. But its original charter provided for all things "that may conduce to the education of the English and Indian youth of this country in knowledge and godliness." Since Cheeshateaumuck's time, doubtless, there have been graduates of Harvard who could boast of Indian blood in their veins (*e.g.* recently William Jones, the ethnologist), but they have been few and far between. Dartmouth College, at Hanover, New Hampshire, founded in 1754, really grew out of Wheelock's Indian school at Lebanon, Connecticut—at this period there were several such schools in New England, &c. In the royal charter, granted to Dartmouth in 1769, is the provision "that there be a College erected in our said Province of New Hampshire, by the name of Dartmouth College, for the education and instruction of Youth of the Indian Tribes in this Land, in reading, writing and all parts of Learning which shall appear necessary and expedient for civilizing and christianizing children of pagans, as well as in all liberal Arts and Sciences, and also of English Youth and any other." The college of New Jersey long served as one of the institutions for the education of Indian youth. A glimpse of Indians at Princeton is given by Collins (*Princeton Univ. Bull.*, 1902) in his account of the attempt to confer an academic education, at the end of the 18th century, upon Thomas Killbuck and his cousin, George Bright-eyes, son of a Delaware chief, and a descendant of Taimenend, eponym of the political "Tammany." It would seem that at this period the states and Congress were in the habit of granting moneys for the education of individual Indians at various institutions.

At the present time the most noteworthy institutions for the education of the Indian in the United States are the Chilocco Indian Industrial school, under government auspices, in Kay county, Oklahoma, near Arkansas city, Kansas; the Carlisle school (government) at Carlisle, Pa.; and the Hampton Normal and Agricultural Institute (private, but subsidized by the government), at Hampton, Va.

The Chilocco school is, in many respects, a model institution for Indian youth of both sexes, devoted to "agriculture and attendant industries." It was opened in 1884 with 186 pupils, and in 1906 the attendance was 685 out of an enrolment of 700. There are 35 buildings, and the corps of instruction, &c., consists of "a superintendent, 51 principal employés and 20 minor Indian assistants." The Carlisle school, "the first non-reservation school established by the government," whose origin is due to "the efforts of General R. H. Pratt, when a lieutenant in charge of Indian prisoners of war at St Augustine, Florida, from May 11, 1875, to April 14, 1878," was opened in November 1879 with 147 Indians, including 11 Florida prisoners; it had in 1906 an enrolment of over 1000 pupils of both sexes, under both white and Indian teachers, and an average attendance of 981. In 1906 there were in attendance members of 67 tribes, representing at least 22 distinct linguistic stocks. According to J. H. Dortch (*Handb. of Amer. Inds.*, 1907, pt. i. p. 207), "since the foundation of the school nearly every tribe in the United States has had representatives on its rolls." The following statistics, cited by Mr Dortch, indicate both the success of the school in general and of the "outing system" (pupils are allowed to work in temporary homes, but keeping in close touch with the school), which "has come to be a distinctive feature not only of the Carlisle school but of the Indian school service generally":

| | |
|---|---|
| Admitted during 25 years | 5,170 |
| Discharged during 25 years | 4,210 |
| On rolls during fiscal year 1904 | 1,087 |
| Outings, fiscal year 1904 (girls 426, boys 498) | 924 |
| Outings during 21 years (girls 3214, boys 5118) | 8,332 |
| Students' earnings 1904 | $34,970 |
| Students' earnings during 15 years | $352,951 |

The staff of the school consists of a superintendent, 75 instructors, clerks, &c. It has graduated "a large number of pupils, many of whom are filling responsible positions in the business world, and especially in the Indian service, in which, during the fiscal year 1903, 101 were employed in various capacities from teachers to labourers, drawing a total of $46,300 in salaries." The Carlisle football team competes with the chief white colleges and universities.

The Hampton Institute was established in 1868 by General S. C. Armstrong and trains both Negroes and Indians, having admitted the latter since 1878. It is partly supported by the government of Virginia and by the United States government, the latter paying $167 a year for 120 Indian pupils, boys and girls (in 1906 there were in attendance 112, of whom 57 were girls and 55 boys), belonging to 33 different tribes, representing 13 distinct linguistic stocks. The following extract from the report of the principal for 1905-1906 is of interest: "Fifteen catechists among the Sioux still hold their own. There are two field-matrons and seven camp-school teachers, all coming into close touch with the more ignorant of the people. Four

are physicians getting their living from their white patients and doing more or less missionary work among their own people. William Jones has his degrees of A.M. and Ph.D., and is doing valuable ethnological work for the Carnegie Institution, Columbia University and the American Museum of Natural History in New York. James Murie is assisting in similar work for the Field Museum in Chicago. Hampton has but one Indian lawyer. There are about 50 students holding positions pretty steadily in government schools. About 40 boys have employment at government agencies, 20 being employed as clerks and interpreters, either at the agencies or at the schools. Ten boys are working in machine shops at the north and three are in the navy. A fair proportion are working on their farms; some have accumulated quite a little stock, and five are prosperous cattlemen, seven boys have stores of their own and make a good living from them." The Indian Department has now adopted the policy of giving industrial training and household economy the chief place in education, varying the instruction to suit the environment in which the boy or girl is to grow up and live and not mixing the needs of Alaska with those of California, or those of Dakota with those of Florida.

In Canada the most notable institutions for the education of the Indians are the Mohawk Institute at Brantford, Ontario; the Mount Elgin Institute at Muncey, Ontario; the Brandon Industrial school at Brandon, Manitoba; the Qu'Appelle Industrial school at Lebret, Saskatchewan.

The Mohawk Institute is the oldest, having been founded in 1831 by the "New England Company," which began its work among the Canadian Iroquois in 1822. It is undenominational, aided by a government grant, and had in 1907 an average attendance of 106 out of an enrolment of 111 of both sexes. The Mount Elgin Industrial Institute was founded by the Methodist Missionary Society in 1847, and had an attendance for 1907 of 104 of both sexes. The Brandon Industrial school, under Methodist auspices, had in 1907 an attendance of 104 of both sexes. The Qu'Appelle Industrial school, under Roman Catholic auspices, had an average attendance of 210 of both sexes. All these schools receive government aid. As in the United States, Indian teachers and assistants are often employed when fitted for such labours.

The first appropriation by the Congress of the United States for the general education of the Indians was made in 1819, when the sum of $10,000 was assigned for that and closely allied purposes, and by 1825 there were 38 schools among the Indians receiving government aid, but government schools proper date from 1873 (contract schools are four years older), the order of their institution being day schools, reservation boarding schools, then non-reservation boarding schools. In 1900 the contract schools were practically abandoned and the Indian appropriation devoted to government schools altogether. Latterly some departure from this policy has occurred, following a decision of the Supreme Court. In less than a century the expenditure for Indian education increased from an annual outlay of $10,000 to one of about $5,000,000, to which must be added the expenditures from private sources, which are considerable.

Exclusive of Alaska, there were in the United States in 1906, according to the report of the Commissioner of Indian Affairs, 324 Indian schools (government 261, mission 48, contract 15), with an enrolment of 30,929 and an average attendance of 25,492 pupils, costing the government annually $3,115,953. Of the government schools 25 were non-reservation and 90 reservation boarding schools, and 146 day schools; of the mission schools 45 boarding and 3 day; of the contract schools 8 boarding and 6 public. The schools of a denominational character belonged as follows: 29 to the Catholic Church, 5 to the Presbyterian, 4 to the Protestant Episcopal, 2 to the Congregational, 2 to the Lutheran, and 1 each to the Evangelical Lutheran, Reformed Presbyterian, Methodist, Christian Reformed and Baptist. Besides there were in all 446 public schools on or near reservations which Indians could attend.

In Canada, according to the report of the Department of Indian Affairs for 1907, there was a total of 303 Indian schools (day 226, boarding 55, industrial 22), of which 45 were undenominational, 91 Church of England, 106 Roman Catholic, 44 Methodist and 1 Salvation Army. The total enrolment of pupils was 9618, with an average attendance of 6138. In several cases Indians attend white schools, not being counted in these statistics. The total amount appropriated for Indian schools during the year 1906-1907 was $356,277.

***Indian talent and capacity.***

The intelligence of the American Indians north of Mexico ranges from a minimum with the lowest of the Athabaskan tribes of extreme north-western Canada and the lowest of the Shoshonian tribes of the south-western United States to a maximum with the highest developed members of the Muskogian and Iroquoian stocks (both the Cherokee branch and the Iroquois proper). It must be remembered, however, that the possibilities of improvement by change of environment are very great, as is shown by the fact that the Hupa of California and the Navaho of Arizona and New Mexico (also the cruel and cunning Apaches) belong to the Athabaskan family, while the Shoshonian includes many of the "civilized nations" of ancient Mexico and, in particular, the famous Aztecs. One way of judging of the intellectual character of the various stocks of North American aborigines is from the "great men" they have produced during the historical periods of contact with the whites. Many of these stocks have, of course, not had occasion for the development of great men, their small numbers, their isolation, their lack of historical experience, their long residence in an unfavourable environment, their perpetual and unrestricted democracy, &c., are some of the sufficient explanations for this state of affairs, as they would be in any other part of the world. The Eskimoan, Athabaskan, Koluschan, Wakashan (and other tribes of the North Pacific coast), Salishan and Shoshonian (except in Mexico) stocks, together with the numerous small or unimportant stocks of the Oregon-California and Gulf-Atlantic regions, have not produced any great men, although members of many tribes have been individually of not a little service to the intruding race in pioneer times and since then, or have been highly esteemed by them on account of their abilities or character, &c. Here might be mentioned perhaps Sacajawea (see *Out West*, xxiii. 223), the Indian woman who acted as guide and helper of the Lewis and Clark expedition and saved the journals at the risk of her life (she has now a statue erected to her memory in Seattle); Louise Sighouin, the Sahaptian convert of whom the missionary de Smet thought so much; Catherine Tekatawitha, the "Iroquois saint," &c.

The following list will serve to indicate some of the "great men" of the Indian race north of Mexico and the stocks to which they have belonged; in it are included also some products of the contact of the two cultures:—

1. *Algonkian.*—In politics and in oratory, as well as in combat, this stock has produced notable characters, the conflict with the whites and the Iroquois doubtless serving to stimulate native genius. Among Algonkian notables may be mentioned "King Philip" and Powhatan; Pontiac and Tecumseh; Black Hawk; Sampson Occum; George Copway; Francis Assickinack, &c.

2. *Athabaskan.*—The possibilities of this stock have been recently illustrated by the Apaches, who, on the one hand, have produced Geronimo, the chief who from 1877 to 1886 gave the United States authorities such trouble, and, on the other, Dr Carlos Montezuma, a full-blood Indian, who, after receiving a good education, served the government as physician at several Indian agencies, and in 1908 was practising his profession in Chicago and teaching in the College of Physicians and Surgeons and the Post-Graduate Medical School. From these southern Athabaskans much is to be expected under favouring conditions.

3. *Iroquoian.*—Here, as among the Algonkian tribes, circumstances favoured the development of men of great ability. Of these may be mentioned: Hiawatha, statesman and reformer (fl. c. 1450), the chief mover in the formation of the great "League of the Iroquois"; Captain Joseph Brant; "Red Jacket"; Oronhyatekha (d. 1906), the head of the Independent Order of Foresters, an important secret charitable society, a physician, and a man of remarkable power as an organizer.

4. *Sahaptian.*—A remarkable Indian character was Nez Percé Joseph, the leader of his people in the troubles of 1877. In 1905, at the general assembly of the Presbyterian Church, a delegate representing both whites and Indians was Mark Arthur (b. 1873), a full-blood Nez Percé and since 1900 the successful pastor (fully ordained) of the church at Lapwai, Idaho, the oldest Presbyterian church west of the Rocky Mountains.

5. *Siouan.*—The most famous Indian of Siouan stock is "Sitting Bull" (d. 1890), medicine-man and chief. Miss Angel de Cora, a Winnebago, was in 1908 instructor in art at the Carlisle school.

Another, not always just or fair, method of gauging the intelligence of the North American Indians is by their ability to assimilate the culture of the whites and to profit by the contact of the two races. Curiously enough, some of the tribes at one time considered lowest in point of general intellectual equipment have shown not a little of this ability, and there is a marked difference in this respect between tribes belonging to one and the same stock. The Athabaskan stock *e.g.* shows such variations, or rather perhaps this stock in general exhibits a tendency to adopt the culture of other peoples, thus some of the Athabaskan tribes in Alaska have acquired elements of culture from the Eskimo; the Takulli have been influenced by the Tsimshian, and Nahané by the Tlingit, the Chilcotin by the Salish, the Sarcee by the western Algonkian tribes, and in the extreme south the Navaho by the Pueblos Indians. The Salishan stock has largely this same characteristic. Of these two peoples Mr C. Hill-Tout (*The Salish and Déné*, London, 1907, p. 50) says: "It would be difficult indeed to find two peoples more susceptible to foreign influences, more receptive of new ideas and more ready and willing to adopt and carry them out." In the relations established between them and the whites not enough advantage in the proper way has been taken of this "philoneism," which ought to have been the basis of their acquisition of our culture, or such aspects of it as suited them best. And perhaps there are other stocks of which, if we knew them well, similar things might be said. Of the Indians of the Shoshonian stock the Paiutes of Nevada and Arizona have shown themselves capable of making themselves necessary to the whites (farmers, &c.) of that region, and not falling victims to the "vices of civilization." Although they still retain their primitive *wickiups* (or rush huts), they seem actually to have improved in health, wealth and character from association with the "superior" race, a rare thing in many respects among the lower Indian tribes of North America. This improvement of the Paiutes causes us not to be surprised when we find the more cultured Moquis and the "civilized" Aztecs of ancient Mexico to belong to the same Shoshonian stock. Acculturation by borrowing has played an important rôle in the development of North American Indian ideas and institutions. This is well illustrated by the history of the Plains Indians, with their numerous intertribal societies, their temporary and their permanent alliances, federations, &c. If ways and means for the transfer of elements of culture indicate intelligence, some of these tribes must rank rather high in the scale. The Algonkian, Iroquoian and Muskogian stocks, both in the case of individuals and in the case of whole tribes (or their remnants), have exhibited great ability in the directions indicated. Of the Caddoan stock the Pawnees seem gifted with considerable native ability expressing itself particularly in the matter of religion (the Hupas, of the Athabaskan stock, seem also to have "a religious sense"). Some tribes of the Siouan stock have, both in the case of individuals and as peoples, given evidence of marked intelligence, especially in relation to psychic phenomena and the treatment of adolescent youth. In their culture, their ceremonies and ritual proceedings, as well as in their material arts, the Pueblos Indians of the south-western United States show, in many ways, their mental kinship with the creators and sustainers of the civilization of ancient Mexico and Central America. From the table of Indian tribes it will be seen that aborigines of the most diverse stocks have shown themselves capable of assimilating white culture and of adapting themselves to the new set of circumstances. Progress and improvement are not at all confined to any one stock.



***Syllabaries.***

A very interesting fact in the history of the education of the aborigines north of Mexico is the success of the attempt to enable them to read and write their own language by means of specially prepared syllabaries, "alphabets," &c. The first of these, the still existing "Micmac hieroglyphics," so-called, was the work of Father le Clercq in 1665, improved by Father Kauder in 1866; one of the most recent, the adaptation of the "Cree syllabary" of Evans by Peck to the language of the Eskimo of Cumberland Sound. The basis of many of the existing syllabaries is "the Cree syllabary," or "Evans Syllabary," invented about 1841 by the Rev. James Evans, a Methodist missionary in the Hudson's Bay region from the study of the shorthand systems current at that time. This syllabary and

modifications of it are now in use (with much printed literature) for both writing and printing among many tribes of the Algonkian, Athabaskan (modified by Morice for the Carriers, by Kirkby and others for Chipewyan, Slavé, &c.), Eskimo (modified by Peck), Siouan (Cree syllabary used by Canadian Stonies) stocks. Among the Salishan tribes of the Thompson river region, the Shushwap, Okanagan, &c., a stenographic modification (reproduced by mimeograph) by Father le Jeune of the Duployan system of shorthand has been used with great success. But the most remarkable of all these syllabaries is one more of Indian than missionary origin, in its application at least, the well-known "Cherokee alphabet" of Sequoyah, an uneducated Cherokee half-blood, who got part of his idea from an old spelling-book though his characters did not at all correspond to English sounds—at first 82, later 86 syllables were represented. Invented about 1821 the "Cherokee alphabet" was first used for printing in 1827, and has been in constant use since then for correspondence and for various literary purposes. The effect of this invention is thus described by Mooney (*Myths of the Cherokee*, 1902):—

> "The invention of the alphabet had an immediate and wonderful effect on Cherokee development. An account of the remarkable adaptation of the syllabary to the language, it was only necessary to learn the characters to be able to read at once. No school-houses were built and no teachers hired, but the whole Nation became an academy for the study of the system, until, in the course of a few months, without school or expense of time or money, the Cherokee were able to read and write in their own language. An active correspondence began to be carried on between the Eastern and Western divisions, and plans were made for a national press, with a national library and museum to be established at the capital, New Echota. The missionaries, who had at first opposed the new alphabet on the ground of its Indian origin, now saw the advisability of using it to further their own work."

In spite of absurdities of form and position in the characters of this syllabary, it serves its purpose so well that, as Pilling informs us (*Amer. Anthrop.*, 1893), "a few hours of instruction are sufficient for a Cherokee to learn to read his own language intelligibly," and in two and a half months the Cherokee child "acquires the art of reading and writing fluently in these rude characters." The success of the "Cree syllabary" was also astonishing, and in 1890, according to Maclean (*Canad. Sav. Folk*, p. 283), "few Cree Indians can be found who are not able to read the literature printed in the syllabic characters." Here again, "an Indian with average intelligence can memorize the whole in a day, and in less than one week read fluently any book written upon this plan," and many Indians learn to read fluently "with no other teachers but the Indians around the camp-fires." Morice reports equal success with his syllabary: "Through it Indians of common intelligence have learnt to read in one week's leisurely study before they had any primer or printed matter of any kind to help them on. We even know of a young man who performed the feat in the space of two evenings." Le Jeune's experience with the Shuswap and Thompson Indians is the same. The creation of a "literary" class among so many Indian tribes within a comparatively brief period is certainly a very interesting result, and one which gives evidence of native intelligence among children and adults alike (*Amer. Journ. Psychol.*, 1905).

> For a general list of authorities on the American aborigines, see bibliography under AMERICA, section 3, *Ethnology*. The literature on the subject, already vast, is continually increasing, and it is impossible to enumerate every contribution made by the large number of expert anthropologists working in this field. The chief works of a special nature have already been cited in the text.
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> (A. F. C.)

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**INDICATOR** (from Lat. *indicare*, to point out), that which points out or records. In engineering, the word is specifically given to a mechanical device for registering the pressure of the working fluid in an engine cylinder during a stroke of the piston, the record so provided being termed the "indicator diagram" (see STEAM-ENGINE). In chemistry, the word is generically applied to re-agents or chemicals which detect usually small quantities or traces of other substances; it is, however, more customarily restricted to re-agents which show whether a substance or solution is acid, alkaline or neutral, the character being revealed in a definite colour change. 

Here we shall only deal with indicators in this last restricted sense. They were first systematically employed in analytical chemistry by Robert Boyle, who used the aqueous extracts of the coloured principles present in red-cabbage, violets and cornflowers. The indicator most in use to-day is litmus (*q.v.*), whose solution is turned red by an acid, and blue by an alkali. Several synthetic indicators are employed in acidimetry and alkalimetry. The choice is not altogether arbitrary, for experiments have shown that some are more suitable for acidimetry, while others are only applicable in alkalimetry; moreover, the strength of the acids and bases employed may exert a considerable influence on the behaviour of the indicator.

The following are well-known synthetic indicators: hacmoid, obtained from resorcin and sodium nitrite, resembles litmus. Phenolphthalein, obtained by condensing phenol with phthalic anhydride, is colourless both in acid and in neutral solution, but intensely red in the presence of alkali; the colour change is very sharp with strong bases, but tardy with weak ones, and consequently its use should be restricted to acidimetry when a strong base can be chosen, or to alkalimetry when a strong base is present. α-Naphtholphthalein has also been used (*Biochem. Zeit.*, 1910, p. 381). Methyl orange, which is the sodium salt of the acid helianthin, obtained by diazotizing sulphanilic acid and coupling with dimethylaniline, is yellow in neutral and alkaline solutions, but red in acid; the change is only sharp with strong acids. Para-nitrophenol, obtained in the direct nitration of phenol, yields a colourless solution in the presence of acids, and an intense yellow with alkalis. Of more recent introduction are: alizarin red, I.W.S. (alizarin mono-

sulphonic acid), claimed by G. E. Knowles (*Abst. J.C.S.*, 1907, ii. 389) to be better than methyl orange in alkalimetry; 3-amino-2-methylquinoline, used by O. Stark (*ibid.* 1907, i. 974) in ammonia estimations; para-nitrobenzeneazo-a-naphthol, shown by J. T. Hewitt (*Analyst*, 1908, 33, p. 85) to change from purple to yellow when alkalis are titrated with weak acids; para-dimethylaminoazobenzene-ortho-carboxylic acid, proposed by E. Rupp and R. Loose (*Ber.*, 1908, 41, p. 3905) as very serviceable in the estimation of weak bases, such as the alkaloids or centinormal ammonia; the "resorubin" of M. Barberio (*Gazzetta*, 1907, ii. 577), obtained by acting with nitrous acid on resorcin, which forms a violet, blue or yellow coloration according as the solution is neutral, alkaline or acid. Mention may be made of E. Linder's (*J. Soc. Chem. Ind.*, 1908, 27, p. 485) suggestion to employ metanil yellow, obtained by coupling diazotized meta-aminobenzenesulphonic acid with diphenylamine for distinguishing mineral from organic acids, a violet coloration being produced in the presence of the former.

*Theory of Indicators.*—The ionic theory of solutions permitted the formulation of a logical conception of the action of indicators by W. Ostwald which for many years held its ground practically unchallenged; and even now the arguments originally advanced hold good, except for certain qualifications rendered necessary by more recent research. In the language of the ionic theory, an acid solution is one containing free hydrions, and an alkaline solution is one containing free hydroxidions. A neutral solution contains hydrions and hydroxidions in equal concentration; this is a consequence of the fact that pure water itself undergoes a certain dissociation, and several different methods show that in the purest water obtainable the concentration of the free hydrions and hydroxidions is $10^{-7}$ at 24°. Moreover, the law of mass-action (see Chemical Action) demands that the product of the concentrations of the hydrions and hydroxidions in any solution is constant at a given temperature, and we see from the above values that this constant is $10^{-14}$. It follows, therefore, that the acidity or alkalinity of any solution can be expressed both in terms of hydrion or hydroxidion concentration. Many researches have been directed to classify acid and alkaline solutions according to the concentration of the hydrion. Conductivity determinations show that the maximum concentration of hydrion occurs in 5.8 - N nitric acid, where it has a value of about 2 - N, and the minimum occurs in 6.7 - N potassium hydroxide, where its value is $5 \times 10^{-15}$, that of the hydroxidion being about 2 - N. These figures apply to a temperature of 24°. Bearing in mind the concentration of the ions in a neutral solution, it is seen that a scheme of seven grades of "neutrality," differing by successive powers of ten, may be formulated. The concentration of hydrion and hydroxidion in any solution may be determined by several independent methods, and it is therefore a simple matter to prepare solutions of definite ionic concentrations and to test these with the object of obtaining a list of indicators according to their sensitiveness. It is found that litmus responds to concentrations of $10^{-6}$H· and $10^{-6}$OH′, a result which shows this dye to be the best indicator of true neutrality. Methyl orange responds to between $10^{-4}$H· and $10^{-5}$H·; para-nitrophenol to between $10^{-5}$H· and $10^{-6}$H·; and phenolphthalein to between $10^{-5}$OH′ and $10^{-6}$OH′. Salm (*Zeit. Elektrochem.*, 1904, 10, p. 341) gives a list of twenty-seven indicators classified on this principle. Other papers bearing on this subject are Friedenthal, ibid., p. 113; Salessky, ibid., p. 204; Fels, ibid., p. 208; Scholtz, ibid., p. 549; M. Handa, *Ber.*, 1909, 42, p. 3179.

The actual mechanism by which the indicator changes colour with varying concentrations of hydrion or hydroxidion is now to be considered. Ostwald formulated his ionization theory which assumes the change to be due to the transition of the non-dissociated indicator to the ionized condition, which are necessarily of different colours. On this theory, an indicator must be weakly basic or acid, for if it were a strong acid or base high dissociation would occur when it was in the free state, and there would be no change of colour when the solution was neutralized. Take the case of a weakly acid indicator such as phenolphthalein. The presence of an acid depresses the very slight dissociation of the indicator, and the colour of the solution is that of the non-dissociated molecule. The addition of an alkali, if it be strong, brings about the formation of a salt of phenolphthalein, which is readily ionized, and so reveals the intense red coloration of the anion; a weak base, however, fails to give free ions. An acid indicator of medium strength is methyl orange. When free this substance is ionized and the solution shows an orange colour, due to a mixing of the red of the non-dissociated molecule and the yellow of the ionized molecule. Addition of hydrions lessens the dissociation and the solution assumes the red colour, while a base increases the dissociation and so brings about the yellow colour. If the alkaline solution be titrated with a strong acid, the hydrions present in a very small amount of the acid suffices to reverse the colour; a weak acid, however, must be added in considerable excess of the quantity properly required to neutralize the solution, owing to its weak dissociation. This indicator is therefore only useful when strong acids are being dealt with, while its strongly acid nature renders it serviceable for both strong and weak bases.

It seems, however, that in addition to a change in the ionic condition of an indicator, there are cases where the coloration is associated with tautomeric change. For example, J. T. Hewitt (*Analyst*, 1908, 33, p. 85) regards phenolphthalein and similar indicators as obeying the following equilibrium in solution,

$$O : X_u{\cdot}H \rightleftarrows X_v{\cdot}O{\cdot}H \rightleftarrows X_v{\cdot}O' + H{\cdot},$$

$X_u$ and $X_v$, being isomeric. This indicates the presence of two tautomeric forms, one being of a quinonoid structure, and an ionized molecule. A similar view is advanced by A. Hantzsch and F. Hilscher (*Ber.*, 1908, 41, p. 1187) who find that helianthin is quinonoid when solid, whilst in solution there is an equilibrium between an aminoazo- and sulphonic acid-form; on the other hand, the sodium salt, methyl orange, is a sulphonate under both conditions.

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**INDICTMENT** (from Anglo-Fr. *enditement*, *enditer*, to charge; Lat. *in*, against, *dictare*, declare), in English law, a formal accusation in writing laid before a grand jury and by them presented on oath to a court of competent jurisdiction. The accusation is drawn up in the form of a "bill" of indictment, prepared

by the officer of the court or the legal adviser of the prosecution, engrossed on parchment, and sent before the grand jury. The grand jury hear in private the witnesses in support of the accusation (whose names are endorsed on the back of the bill), and, if satisfied that a prima facie case has been made out, find the bill to be a true bill and return it to the court as such. If otherwise, the jury ignore the bill and return to the court that they find “no true bill.” Indictments differ from presentments, which are made by the grand jury on their own motion and their own knowledge; and from informations, which are instituted on the suggestion of a public officer without the intervention of a grand jury.

An indictment lies for “all treasons and felonies, for misprision of treasons and felonies and for all misdemeanours of a public nature at common law.” And if a statute prohibit a matter of public grievance or command a matter of public convenience all acts or omissions in disobedience to the command or prohibition of the statute are treated as misdemeanours at common law, and unless the statute otherwise provides are punishable on indictment. In other words, the ordinary common law remedy in respect of criminal offences is by indictment of the accused and trial before a petty jury; and except in the case of informations for misdemeanour and summary proceedings by a court of record for “contempt of court” it is the only remedy, except where a statute creates another remedy, *e.g.* by trial before a court of summary jurisdiction.



The form of an indictment is still in the main regulated by the old common law rules of pleading, which as to civil pleadings were often amended during the 19th century, and finally abolished under the Judicature Acts.

An indictment may consist of one or more counts charging different offences. Each count consists of three parts: (1) the commencement, (2) the statement, (3) the conclusion. The formal commencement runs thus: “Surrey to wit.” The first count begins “The jurors for our Lord the King (*i.e.* the grand jurors) upon their oath present that, &c.”; and the subsequent counts begin, the “jurors aforesaid on their oath aforesaid do further present.” The first words, which are placed in the margin of the document, are the “venue,” *i.e.* the county or district over which extends the jurisdiction of the court before which the indictment is found. Subject to certain statutory exceptions it is necessary to prove that the acts or omissions alleged to constitute the offence occurred within that area. The conclusion consists of the words following: “against the form of the statute (or statutes) in that case made and provided, and against the peace of our Lord the King, his crown and dignity.” Where the offence is statutory the whole phrase is used; where it is at common law only the second part is used. A formal conclusion is not now essential to the validity of the indictment, but from inveterate habit is in continued use. The statement sets forth the circumstances alleged to constitute the offence, *i.e.* the accusation made. There are still in force a number of rules as to the proper elements in the statement; but in substance it is only necessary to set forth the facts alleged against the accused with accuracy and sufficient precision as to the time and place and circumstances of the alleged offence, and to indicate whether felony or misdemeanour are charged, and so to frame the statement as to indicate a definite offence for which a lawful sentence may be imposed.

The following example illustrates the form of the statement:—

> “That A. B. on the first day of June in the year of our Lord 1906 one oak tree of the value of five pounds the property of C. D. then growing in a certain park of the said C. D. situate in the parish of E. in the county of F. feloniously did steal take and carry away contrary to the statute, &c.”

Only one offence should be stated in one count; and separate and distinct felonies should not be charged in the same indictment. If they are, the court makes the prosecution choose one upon which to proceed. This rule is altered by statute in certain cases: *e.g.* by allowing a limited number of separate thefts, or receivings of stolen property to be included in the same indictment. Misdemeanours and felonies may not be included in the same indictment because of the difference of procedure on the trial; but any number of misdemeanours may be included in different counts of the same indictment, subject to the right of the court to order separate trials or to quash the indictment if it is rendered vexatious by the agglomeration of charges.

There is no general limitation of the time within which indictments may lawfully be preferred; but various limitations have been fixed by statute for certain offences, *e.g.* in the case of certain forms of treason, of riot, of night poaching and of corrupt and illegal practices at elections. In this respect English law differs from European law, in which limitations of time for prosecution are the rule and not the exception.

Until the mitigation of the draconic severity of the English law in the early part of the 19th century, little or no power existed of amending defective statements or indictments, and the courts *in favorem vitae* insisted strictly on accurate pleading and on proof of the offences exactly as charged. Since 1827 numerous enactments have been passed for getting rid of these technicalities, which led to undeserved acquittals, and since 1851 the courts have had power to disregard technical objections to the form of indictment and to amend in matters not essential in case of variance between the indictment and the evidence. These changes apply to ordinary offences; but for the most part do not touch charges of treason, as to which the old law in the main still applies. At the present time the looseness of pleading in criminal cases is carried almost too far; for while there is no danger in such looseness when times are quiet and when law is administered by the judges of the High Court in England, yet when crimes of a certain character are committed in times of great political excitement and the law is administered by an inferior judiciary, there may be some danger of injustice if the strictness of pleading and procedure is too much relaxed. In the Criminal Code drafted by Sir James Fitz James Stephen and revised by a judicial commission (Lord Blackburn and Lords Justices Lush and Barry), it was proposed to substitute for the old form of indictment a statement of the particulars of the offence with a reference to the section of the code defining the offence.

The law of Ireland as to indictments is in substance the same as that of England; but is to a certain extent expressed in different statutes.

In Scotland the terms indictment or criminal letters are used to express the *acte d'accusation*. But except in the case of high treason there is no grand jury, and the indictment is filed like an English criminal information by the lord advocate or one of his deputies: and it is only by order of the court of justiciary that a prosecution can be instituted without the general or particular assent of the lord advocate. By the Criminal Procedure Scotland Act 1887 the form of Scots indictments is much simplified. They are drawn in the second and not in the third person.

In those of the British colonies in which by settlement or statute the English criminal law runs, the form of indictment is substantially the same, and is found by a grand jury as in England. But in certain colonies, *e.g.* the Australian states, an indictment by a public officer without the intervention of a grand jury has been adopted. In India and British Asiatic possessions the procedure is regulated by the Indian Procedure Code or its adaptations. In South Africa indictments are framed under Roman Dutch law as modified by local legislation.

In the United States prosecution or indictment by a grand jury is the rule: the form of indictment is the same, substituting the state or commonwealth of the United States for references to the king, and the conclusions "against the form of the statute" and "against the peace" are still in use.

(W. F. C.)

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**"INDIES, LAWS OF THE,"** in the colonial history of Spain, a general term designative either (1) of certain codifications of legislation for the colonies listed below, and especially the compilation of 1680; or (2) of the whole body of colonial law, of which those compilations were but a selection, and which was made up of a multitude of royal *cédulas*, orders, letters, ordinances, provisions, instructions, *autos*, dispatches, pragmatics and laws—all emanating from the crown (or crown and cortes) and all of equal force—that were passed through various departments of government to various officers and branches of the colonial administration, or between the different departments of government in Spain. The transfer of Spanish law to Ultramar began with the first days of the Conquest; and especially the civil law was translated with comparatively slight alteration. Many things, however, peculiar to colonial conditions—the special relations of the crown and the papacy in America, the *repartimientos* and *encomiendas* ("divisions of lands" and "commendations," a system of patronage, or modified slavery) of the Indians, the development of African slavery, questions of natural and international law, the spread of discovery and establishment of new settlements and administrative areas, the sales and grants of public lands, the working of the mines—necessitated the organization of a great mass of special law, made up of a body of general doctrine and a vast quantity of administrative applications, *la matéria de Indias*—to which references are already found in the time of Ferdinand. The general doctrine was applicable everywhere in Ultramar, and the difficult and inconstant communication between the provinces, and other considerations, early counselled some work of codification. The first efforts to this end were begun in Mexico in 1525; a volume was published in 1563, and other inadequate compilations in 1596 and 1628, and finally the great *Recopilación de Leyes de las Reinos de las Indias* of 1680. This code has enjoyed great fame, and in some ways even extravagant praise. The greatest praise that has been given it is that its dominant spirit through and through is not the mercantile aim but the political aim—the principle of civilization; and this praise it deserves. It had various defects, however, of an administrative nature; and as time passed its basic doctrines—especially its minute administrative strangulation of colonial political life, and its monopolistic economic principles—became fatally opposed to conditions and tendencies in the colonies. Two centuries in formation, the code of 1680—continually altered by supplementary interpretation and application—was only one century in effect; for in the seventeen-sixties Charles III. began, in a series of liberal decrees, to break down the monopolistic principles of colonial commerce. This change came too late to save the mainland colonies in America, but its remarkable effects were quickly seen in the aggrandizement of Cuba. It is in the history of this colony (as also in Porto Rico and the Philippines) that one must follow the later history of the Laws of the Indies (see Cuba).



Of the *Recopilación* of 1680, five editions were issued by the government, the last in 1841 (Madrid, 4 vols.); and there are later, private editions approved by the government. See also J. M. Zomora y Coronado, *Biblioteca de legislacion Ultramarina* (Madrid, 1844-1849, 6 vols., with appendices often bound as vol. 7); J. Rodriguez San Pedro, *Legislacion Ultramarina concordada*, covering 1837-1868 (12 vols., Madrid, 1865-1868, vols. 10-12 being a supplement); the *Boletin oficial del Ministerio de Ultramar*, covering 1869-1879; and M. Fernandez Martin, *Compilacion legislativa del gobierno y administracion civil de Ultramar* (Madrid, 1886-1894); the gap of 1879-1886 can be filled for Cuba by the series of *Reales Ordenes ... publicadas en la Gaceta de la Habana* (annual, Havana, 1857-1898, covering 1854-1898).

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**INDIGO** (earlier *indico*, from Lat. *indicum*, the Indian substance or dye; the Sans. name was *niti*, from *nila*, dark blue, and this through Arab. *al-nil*, *annil*, gives "aniline") one of the most important and valuable of all dyestuffs. Until comparatively recently it was obtained exclusively from the aqueous extract of

certain plants, principally of the genus *Indigofera* which belongs to the natural order Leguminosae. Small quantities are also obtained from *Lonchocarpus eyanescens* (west coast of Africa), *Polygonum tintorium* (China) and the woad plant *Isatis tinctoria*. The latter is of historical interest, since up to the middle of the 17th century it was the only blue dyestuff used by dyers in England and on the adjoining continent; at the present time woad is still cultivated in Europe, but serves merely as a ferment in the setting of the fermentation indigo vat or so-called “woad vat” used in wool dyeing.

The bulk of the natural indigo which is brought into the market comes from India, while smaller quantities are imported from Java, Guatemala and other places. The plant from which indigo is made in Bengal is the *Indigofera sumatrana*, which is reared from seed sown about the end of April or the beginning of March. By the middle of June the plant has attained a height of from 3 to 5 ft., and it is at this period that the first manufacturing begins, a second crop being obtained in August. The indigo is contained in the leaf of the plant in the form of a colourless glucoside, known as indican, $C_{14}H_{17}O_6N{\cdot}3H_2O$. This substance is soluble in water and by the joint action of an enzyme, contained in the leaf, and atmospheric oxygen it yields indigotine, the colouring matter of indigo. It is on these facts that the manufacturing of indigo from the plant is based.

The plant is cut early in the morning and transported to the factory in bullock carts. Here it is steeped in water in steeping vats having a capacity of about 1000 cub. ft. for periods varying, according to circumstances, from nine to fourteen hours, when the liquid—the colour of which varies from a bright orange to an olive green—is run into the beating vats which lie at a lower level. The beating, the object of which is to bring the liquor as freely as possible into contact with the air, was formerly done by striking the surface with bamboo sticks, but is now effected either by means of a paddle wheel or by forcing a current of air from a steam blower or a compressor through the liquid. When the beating is finished, the precipitated indigo is allowed to settle, the supernatant liquid being drawn off and run to waste. The indigo mud thus obtained, which is known as mal, is strained, boiled for a short period for the purpose of sterilizing, formed into bars, cut into blocks of about 3 in. cube and dried.[1] The actual amount of colouring matter yielded by the leaf is but small, averaging, according to Ch. Rawson, 0.5%, but the yield from the whole plant is considerably less, since the stalks and twigs contain practically no colour.

Since the introduction on a large scale of synthetic indigo efforts have been made in India and in Java to place the cultivation of the plant and the manufacture of the natural product on a more scientific basis. But although many important improvements have been achieved from the agricultural as well as from the manufacturing point of view, resulting no doubt in the retention of a portion of the industry, the synthetic product has gained the upper hand and is likely to retain it.

Natural indigoes vary considerably in composition, containing in some qualities as much as 90% and in others as little as 20% of colouring matter. The blue colouring matter which indigo contains is known as indigotine, but there are usually also present in small quantities other colouring matters such as indigo red or indirubrine, a yellow colour known as kaempferol, indigo green and indigo brown, as well as indigo gluten and more or less mineral matter.

The bulk of the indigo which now comes into the European market is prepared synthetically from coal tar. The following figures indicate the values of the imports into England of natural and synthetic indigo, and are taken from the official Board of Trade returns:—

| | Natural Indigo. | Synthetic Indigo. |
|---|---|---|
| 1899 | £986,090 | .. |
| 1900 | 542,089 | .. |
| 1901 | 788,820 | .. |
| 1902 | 498,043 | £143,613 |
| 1903 | 262,775 | 110,970 |
| 1904 | 316,070 | 83,397 |
| 1905 | 116,902 | 121,269 |
| 1906 | 111,455 | 147,325 |
| 1907 | 151,297 | 158,481 |
| 1908 | 136,882 | 134,052 |

During the period 1899-1908, the average price of indigo had declined from a fraction under 3s. to about 2s. 2½d. per lb. At first sight it might appear that the use of indigo in England was rapidly declining, but this does not necessarily follow when it is borne in mind that London was formerly the distributing centre of natural indigo for the continent and America.

*Chemistry.*—Our knowledge of the chemistry of indigo is largely derived from the classical researches of A. von Baeyer and his collaborators. In 1841 Erdmann and Laurent observed that on oxidation indigo yielded isatin; and in 1848 Fritzsche obtained aniline by distilling the dyestuff with potash. In 1870 A. v. Baeyer and Knop succeeded in preparing indigotine by heating isatin with phosphorus trichloride, acetyl chloride and phosphorus. In the same year, C. Engler and A. Emmerling obtained small quantities of the dyestuff by heating nitroacetophenone with soda-lime and zinc dust, while in 1875 M. v. Nencki prepared it by the oxidation of indol by ozone. Indol had been previously obtained from albuminoids by means of the pancreas ferment. It was not, however, until 1880 that v. Baeyer, who had been at work on the subject since 1865, was able to obtain indigotine from more or less easily accessible coal tar derivatives of known constitution. The most important of these synthetic processes due to the researches of v. Baeyer was the production of the dyestuff from ortho-nitrophenylpropiolic acid (see Propiolic Acid), which yields indigotine on being treated with caustic soda and a reducing agent such as grape sugar or xanthate of soda. Although used in small quantities in calico printing, it never attained any commercial importance as a means of producing indigo, the cost of production being far too high.

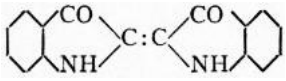
Many synthetic processes of preparing indigotine have since been devised, but the one which stands out

pre-eminently from a technical point of view and the one which ultimately led to the commercial success of the synthetic product is that of Heumann who showed in 1890 that indigotine can be prepared by melting phenylglycocoll (phenylglycine), $C_6H_5{\cdot}NH{\cdot}CH_2{\cdot}COOH$, with caustic alkalis. The yield was at first very unsatisfactory. It was subsequently found, however, that by starting with phenylglycocoll-ortho-carboxylic acid, the yield was sufficiently good to render the process a practical success. The starting-point for the manufacture of synthetic indigo is naphthalene, $C_{10}H_8$, which is oxidized, by heating with concentrated sulphuric acid in the presence of a little mercury, to phthalic anhydride, $C_6H_4(CO)_2O$, which is then converted into ortho-aminobenzoic acid, $C_6H_4(NH_2)(CO_2H)$, by treatment with an alkaline hypochlorite. This acid is then condensed with monochloracetic acid to form phenylglycocoll-ortho-carboxylic acid, $C_6H_4(NH{\cdot}CH_2{\cdot}CO_2H)(CO_2H)$, which on being melted with caustic alkali yields indoxylic acid, $C_6H_4\langle\begin{smallmatrix}C(OH)\\NH\end{smallmatrix}\rangle C{\cdot}CO_2H$, and this readily loses carbon dioxide and passes over into indoxyl, $C_6H_4\langle\begin{smallmatrix}C(OH)\\NH\end{smallmatrix}\rangle CH$. By alkaline oxidation indoxyl is converted into indigotine.

The patent literature of processes for bringing about the conversion of the phenylglycine or its carboxylic acid into indoxylic acid, indoxyl and indigotine is enormous; a circumstance due to the fact that the efficiency of this operation controls the price of the synthetic dyestuff. Caustic soda has been practically given up, being replaced partly or wholly by caustic potash; in addition, alkaline earths, sodamide, nitrides, alkali carbides, &c., have been used. In 1906, Meister, Lucius and Brüning patented the addition of lead and sodium to a mixture of caustic potash and soda; the Basler Chemische Fabrik use a mixture of caustic potash and soda at 210°-260°; Léon Lilienfeld added slaked lime or magnesia to the fused alkali, with a subsequent heating in a current of ammonia at 150°-300°, and in 1908 patented a process wherein the melt is heated under greatly reduced pressure; this gave a yield of 80-90%.

Synthetic indigo comes into the market chiefly in the form of a 20% paste but is also sold in the solid state in the form of a powder.

Indigotine, $C_{16}H_{10}N_2O_2$, is a derivative of indol and its constitution is



It can be prepared in an almost pure state by extracting good qualities of Bengal or Java indigo or synthetic indigo with boiling nitrobenzene, from which it crystallizes on cooling in dark blue crystals having a metallic sheen. When heated in an open vessel it readily volatilizes, yielding a violet vapour which condenses on cooling in the form of crystals. Indigotine is also soluble in boiling aniline oil, quinoline, glacial acetic acid and chloroform, but is insoluble in water, dilute acids and alkalis and ordinary solvents like alcohol, ether, &c. By nitric acid and many other oxidizing agents it is readily converted into isatin, $C_8H_5NO_2$. Heated with concentrated sulphuric acid it yields a disulphonic acid, $C_{16}H_8N_2O_2(SO_3H)_2$, the sodium salt of which finds application as an acid colour in wool dyeing under the name of Indigo carmine.[2] By the action of reducing agents, indigotine is converted into *indigo white*, $C_{16}H_{12}N_2O_2$, which is readily soluble in alkalis or milk of lime with a yellow colour. On exposing the alkaline solution to the air the indigo white is rapidly oxidized back to indigotine, and on these two reactions the application of indigo in dyeing and printing is based. (See DYEING and TEXTILE PRINTING.)

Various halogen (chlorine and bromine) substitutive derivatives of indigotine have been introduced which, while not differing essentially from ordinary indigo in their properties, produce for the most part redder shades in dyeing. They are claimed to be faster and brighter colours. It has been shown by Friedländer (Ber., 1909, 42, p. 765) that the reddish violet colouring matter obtained from the colour-yielding glands of the mollusc *Murex brandaris*, by means of which the famous Tyrian purple of the ancients was dyed, is a dibromindigo, $C_{16}H_8Br_2N_2O_2$. A new departure in the synthetic dyestuffs belonging to the indigo group was inaugurated by the discovery in 1906 by P. Friedländer of thioindigo red, a derivative of thionaphthen, which is formed from phenylthioglycol-ortho-carboxylic acid, $C_6H_4\langle\begin{smallmatrix}CO_2H\\S{\cdot}CH_2CO_2H\end{smallmatrix}$. This substance, on boiling with alkali and then with dilute acid yields thioindoxyl, $C_6H_4\langle\begin{smallmatrix}CO\\S\end{smallmatrix}\rangle CH_2$, which is converted by alkaline oxidation into thioindigotin, having the constitution $C_6H_4\langle\begin{smallmatrix}CO\\S\end{smallmatrix}\rangle C{:}C\langle\begin{smallmatrix}CO\\S\end{smallmatrix}\rangle C_6H_4$. The new dyestuff is therefore analogous to indigotine, from which it differs by having the imino groups replaced by sulphur atoms. Thioindigo red can be readily crystallized from boiling benzene, and forms reddish brown crystals possessing a metallic reflex. Thioindigo scarlet, $C_6H_4\langle\begin{smallmatrix}CO\\S\end{smallmatrix}\rangle C{=}C\langle\begin{smallmatrix}CO\\C_6H_4\end{smallmatrix}\rangle NH$, is also obtained synthetically. Both products come into the market in the form of pastes and are used in dyeing like indigo (see DYEING).

(E. K.)

1 For a full account of the manufacture of indigo in northern Behar see Ch. Rawson, *Journ. Soc. Dyers and Colourists* (July 1899).

2 Although bright shades of blue are produced with this derivative, they are not fast.

**INDIUM** (symbol In, atomic weight 114.8), a metallic chemical element, included in the sub-group of the periodic classification of the elements containing aluminium, gallium and thallium. It was first

discovered in 1863 by F. Reich and Th. Richter (*Journ. für prak. Chem.*, 1863, 89, p. 444) by means of its spectrum. It occurs naturally in very small quantities in zinc blende, and is best obtained from metallic zinc (which contains a small quantity of indium) by treating it with such an amount of hydrochloric acid that a little of the zinc remains undissolved; when on standing for some time the indium is precipitated on the undissolved zinc. The crude product is freed from basic zinc salts, dissolved in nitric acid and the nitric acid removed by evaporation with sulphuric acid, after which it is precipitated by addition of ammonia. The precipitated indium hydroxide is converted into a basic sulphite by boiling with excess of sodium bisulphite, and then into the normal sulphite by dissolving in hot sulphurous acid. This salt on strong ignition leaves a residue of the trioxide, which can be converted into the metal by heating in a current of hydrogen, or by fusion with sodium (C. Winkler, *Journ. für prak. Chem.*, 1867, 102, p. 273). Indium is a soft malleable metal, melting at 155° C. Its specific gravity is 7.421 and its specific heat 0.05695 (R. Bunsen).

*Indium oxide*, $In_2O_3$, is a yellow powder which is formed on ignition of the hydroxide. It is readily reduced on heating with carbon or hydrogen, and does not pass into an insoluble form when ignited. The *hydroxide*, $In(OH)_3$, is prepared, as a gelatinous precipitate, by adding ammonia to any soluble indium salt. It is readily soluble in caustic potash, but insoluble in ammonia.

Three chlorides of indium are known: the *trichloride*, $InCl_3$, a deliquescent salt, formed by heating a mixture of the oxide and carbon in a current of chlorine; the *dichloride*, $InCl_2$, obtained by heating the metal in hydrochloric acid gas; and the *monochloride*, InCl, which is prepared by distilling the vapour of the dichloride over metallic indium. The mono- and dichlorides are decomposed by water with the formation of the trichloride, and separation of metallic indium. *Indium Sulphate*, $In_2(SO_4)_3$, is obtained as a white powder very soluble in water by evaporating the trioxide with sulphuric acid. Concentration of the aqueous solution in a desiccator gives a deposit of crystals of a very deliquescent salt, $H_2In_2(SO_4)_4{\cdot}8H_2O$. An *indium ammonium alum*, $In_2(S0_4)_3{\cdot}(NH_4)_2S0_4{\cdot}24H_20$ is known.

The atomic weight of indium has been determined by C. Winkler and by R. Bunsen by converting the metal into its oxide. Thiel (*Ber.*, 1904, 37, p. 1135) obtained the values 115.08 and 114.81 from analyses of the chloride and bromide, whilst F. C. Mathers (*Abst. J.C.S.*, 1907, ii. 352) obtained 114.88 and 114.86. Indium salts can be recognized by the dark blue colour they give in the flame of the Bunsen burner; and by the white beads of metal and the yellow incrustation formed when heated on charcoal with sodium carbonate.

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**INDIVIDUALISM** (from Lat. *individualis*, that which is not divided, an individual), in political philosophy, the theory of government according to which the good of the state consists in the well-being and free initiative of the component members. From this standpoint, as contrasted with that of the various forms of socialism (*q.v.*) which subordinate the individual to the community, the community as such is an artificial unity. Individualism is, however, by no means identical with egoism, though egoism is always individualistic. An individualist may also be a conscientious altruist: he is by no means hostile to or aloof from society (any more than the socialist is necessarily hostile to the individual), but he is opposed to state interference with individual freedom wherever, in his opinion, it can be avoided. The practical distinction in modern society is necessarily one of degree, and both “individualism” and “socialism” are very vaguely used, and generally as terms of reproach by opponents. Every practical politician of whatever party must necessarily combine in his programme individualistic and socialist principles. Extreme individualism is pure anarchy: on the other hand Thomas Hobbes, a characteristic individualist, vigorously supported absolute government as necessary to the well-being of individuals. Moreover it is conceivable under given circumstances that an individualist might logically advocate measures (*e.g.* compulsory military service) which conflict with individual freedom. In practice individualism is chiefly concerned to oppose the concentration of commercial and industrial enterprise in the hands of the state and the municipality. The principles on which this opposition is based are mainly two: that popularly elected representatives are not likely to have the qualifications or the sense of responsibility required for dealing with the multitudinous enterprises and the large sums of public money involved, and that the health of the state depends on the exertions of individuals for their personal benefit.



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**INDO-ARYAN LANGUAGES.** “Indo-Aryan” is the name generally adopted for those Aryans who entered India and settled there in prehistoric times, and for their descendants. It distinguishes them from the other Aryans who settled in Persia and elsewhere, just as the name “Aryo-Indian” signifies those inhabitants of India who are Aryans, as distinguished from other Indian races, Dravidians, Mundas and so on. A synonym of “Aryo-Indian” is “Gaudian” or “Gaurian,” based on a Sanskrit word for the non-Dravidian parts of India proper. These two words refer to the people from the point of view of India, while “Indo-Aryan” looks at them from the wider aspect of Indo-European ethnology and philology. The general history of the Aryan languages is treated in the articles Indo-European Languages and Aryan. Here we propose to offer a brief review of the special course of their development in India.

Most of the Indo-Aryans branched off from the common Aryan stock in the highlands of Khokand and Badakshan, and marched south into what is now eastern Afghanistan. Here some of them settled, while others entered the Punjab by the valley of the river Kabul. This last migration was a gradual process extending over several centuries, and at different epochs different tribes came in, speaking different dialects of the common language. The literary records of the latest times of this invasion show us one Indo-Aryan tribe complaining of the unintelligible speech of another, and even denying to it the right of common Aryan-hood.

*The Piśāca Languages.*—Before proceeding farther, it is advisable to discuss the fate of another small group of languages spoken in the extreme north-west of India. After the great fission which separated the main body of the Indo-Aryans from the Iranians, but before all the special phonetic characteristics of Iranian speech had developed, another horde of invaders crossed the Hindū Kush from the Pāmirs, journeying directly south. They occupied the submontane tract, including the country round Chitral and Gilgit, Kashmir and Kafiristan. Some even followed the course of the Indus as far as Sind, and formed colonies there and in the western Punjab. Here they mingled with the Indo-Aryans who had come down the Kabul valley, and to a certain extent infected the local dialect with their idioms. How far their influence extended over the rest of India is undecided, and will probably never be known, but traces of it have been detected by some inquirers even in the dialects of modern Marathi. Those who remained behind in the hill country, the whole of which is popularly known as Dardistan, were isolated by the inhospitable nature of their home and by their own savage character. They seem to have had customs allied to cannibalism, and in later Indian literature legends grew around them as a race of demons called *Piśācas*, ὠμοφάγοι, who spoke a barbaric tongue called *Paiśācī*. This language appears now and then in the Sanskrit drama, and Sanskrit philologists wrote still-extant grammatical notices of its peculiarities. These show that it possessed an extremely archaic character, and the same fact is prominent in the Piśāca languages of the present day. Some words which were spoken in the oldest time are preserved with hardly a change of letter, while in India proper the corresponding forms have either disappeared altogether or have been so changed as to be hardly recognizable at first sight. The principal modern Piśāca languages are three or four spoken in Kafiristan, Khōwar of Chitral, Shīnā of Gilgit, Kāshmīrī, and Kōhistānī. The last two are border tongues, much mixed with the neighbouring languages of India proper. The only one which has any literature is Kashmiri (*q.v.*). The rest are entirely uncultivated. Their general character may be described as partly Indian and partly Iranian, although they have in their isolated position developed some phonetic laws of their own.

*Indo-Aryan Classification.*—The oldest specimens of Indo-Aryan speech which we possess very closely resemble the oldest Iranian (see Persia: *Language*). There are passages in the Iranian Avesta which can be turned into good Vedic Sanskrit by the application of a few simple phonetic laws. It is sufficient for our present purposes to note that after the separation the development of the two old forms of speech went on independently and followed somewhat different lines. This is most marked in the treatment of a nexus of two consonants. While modern Iranian often retains the nexus with little or no alteration, modern Indo-Aryan prefers to simplify it. For instance, while the old Aryan *sth* becomes *s$^{i}$t* or *ist* in modern Persian, it becomes *tth* or *th* in modern Indo-Aryan. Similarly *bhr* becomes *b$^{i}$r* in the former, but *bbh* or *bh* in the latter. Thus:—

| Old Indo-Aryan. | Old Iranian. | Modern Persian. | Hindī. |
|---|---|---|---|
| *sthāna-* | *stāna-* | *s$^{i}$tān* or *istān* | *thānā*, a place. |
| *bhrātar-* | *brātar-* | *b$^{i}$rādar* | *bhāī*, a brother. |

The earliest extant literary record of Indo-Aryan languages is the collection of hymns known as the Rig-Veda. As we have it now, we may take it as representing, on the whole, the particular vernacular dialect spoken in the east of the Punjab and in the upper portion of the Gangetic Doab where it was compiled. The tribe which spoke this dialect spread east and south, and their habitat, as so extended, between the Punjab and the modern Allahabad and reaching from the Himalaya to the Vindhya Hills in the south, became known to Sanskrit geographers as the *Madhyadēśa* or "*Midland*," also called *Āryāvarta*, or the "home of the Aryans." The language spoken here received constant literary culture, and a refined form of its archaic dialect became fixed by the labours of grammarians about the year 300 B.C., receiving the name of *Saṃskṛta* (Sanskrit) or "purified," in contradistinction to the folk-speech of the same tract and to the many Indo-Aryan dialects of other parts of India, all of which were grouped together under the title of *Prākṛta* (Prakrit) or "natural," "unpurified." Sanskrit (*q.v.*) became the language of religion and polite literature, and thus the Midland, the native land of its mother dialect, became accepted as the true pure home of the Indo-Aryan people, the rest being, from the point of view of educated India, more or less barbarous. In later times, the great *lingua franca* of India, Hindostani, also took its origin in this tract.

Round the Midland, on three sides—west, south and east—lay a country inhabited, even in Vedic times, by other Indo-Aryan tribes. This tract included the modern Punjab, Sind, Gujarat, Rajputana with the country to its east, Oudh and Behar. Rajputana belongs geographically to the Midland, but it was a late conquest, and for our present purposes may be considered as belonging to the Outer Band. The various Indo-Aryan dialects spoken over this band were all more closely related to each other than was any of them to the language of the Midland. In fact, at an early period of the linguistic history of India there must have been two sets of Indo-Aryan dialects,—one the language of the Midland and the other that of the Outer Band.[1] Hoernle was the first to suggest that the dialects of the Outer Band represent on the whole the language of the earlier Indo-Aryan immigrants, while the language of the Midland was that of the latest comers, who entered the Punjab like a wedge and thrust the others outwards in three directions.



As time went on, the population of the Midland expanded and forced the Outer Band into a still wider circuit. The Midland conquered the eastern Punjab, Rajputana with Gujarat (where it reached the sea) and

Oudh. With its armies and its settlers it carried its language, and hence in all these territories we now find mixed forms of speech. The basis of each is that of the Outer Band, but the body is that of the Midland. Moreover, as we leave the Midland and approach the external borders of this tract, the influence of the Midland language grows weaker and weaker, and traces of the original Outer language become more and more prominent. In the same way the languages of the Outer Band were forced farther and farther afield. There was no room for expansion to the west, but to the south it flowed over the Maratha country, and to the east into Orissa, into Bengal and, last of all, into Assam.

The state of affairs at the present day is therefore as follows: There is a Midland Indo-Aryan language (Western Hindi) occupying the Gangetic Doab and the country immediately to its north and south. Round it, on three sides, is a band of mixed languages, Panjabi (of the central Punjab), Gujarati, Rajasthani (of Rajputana and its neighbourhood), and Eastern Hindi (of Oudh and the country to its south). Beyond these again, there is the band of Outer Languages (Kashmiri, with its Pisaca basis), Lahnda (of the western Punjab), Sindhi (here the band is broken by Gujarati), Marathi, Oriya (of Orissa), Bihari, Bengali and Assamese. There are also, at the present day, Indo-Aryan languages in the Himalaya, north of the Midland. These belong to the Intermediate Band, being recent importations from Rajputana. The Midland language is therefore now enclosed within a ring fence of Intermediate forms of speech.

We have seen that the word “Prakrit” means “natural” or “vernacular,” as opposed to the “purified” literary Sanskrit. From this point of view every vernacular of India, from the earliest times, is a Prakrit. The Rig-Veda itself, composed long before the birth of “purified” Sanskrit, can only be considered as written in an old vernacular, and its language, together with the other contemporary Indo-Aryan dialects which never attained to the honour of “purification,” may be called the *Primary* Prakrits of India. If we compare literary Sanskrit with classical Latin (see Brandreth, “The Gaurian compared with the Romance Languages,” *Journal of the Royal Asiatic Society* xi. (1879), 287; xii. (1880), 335), then these Primary Prakrits correspond to the old Italic dialects contemporary with and related to the literary language of Rome. They were synthetic languages with fairly complicated grammars, no objection to harsh combinations of consonants, and several grammatical forms strange to the classical speech. In the course of centuries (while literary Sanskrit remained stereotyped) they decayed into *Secondary* Prakrits. These still remained synthetic, and still retained the non-classical forms of grammar, but diphthongs and harsh combinations of consonants were eschewed. They now corresponded to the post-classical Italic dialects. Just as Sanskrit (and the Primary Prakrits) knew of a city called Kauśāmbī, which was known as Kōsambī to the Secondary Prakrits, so the real Umbrian name of the poet known to literature as Plautus was Plot(u)s. Again, as the Latin *lactuca* became *lattuca*, so the Primary Prakrit *bhakta-* became the Secondary *bhatta-*. In India, the dislike to harsh consonantal sounds, a sort of glottic laziness, finally led to a condition of almost absolute fluidity, each word of the Secondary Prakrits ultimately becoming an emasculated collection of vowels hanging on to an occasional consonant. This weakness brought its own Nemesis and from, say, A.D. 1000 we find in existence the series of modern Indo-Aryan vernaculars, or, as they may be called, *Tertiary* Prakrits, closely corresponding to the modern Romance languages. Here we find the hiatus between contiguous vowels abolished by the creation of new diphthongs, declensional and conjugational terminations consisting merely of vowels becoming worn away, and new languages appearing, no longer synthetic, but analytic, and again reverting to combinations of consonants under new forms, which had existed three thousand years ago, but which two thousand years of attrition had caused to vanish.

It is impossible to fix any approximate date for the change from the Primary to the Secondary Prakrits. We see sporadic traces of the secondary stage already occurring in the Rig-Veda itself, of which the canon was closed about 1000 B.C. At any rate Secondary Prakrits were the current vernacular at the time of the emperor Asoka (250 B.C.). Their earliest stage was that of what is now called *Pāli*, the sacred language of the Buddhists, which forms the subject of a separate article (see Pali). A still later and more abraded stage is also discussed under the head of Prakrit. This stage is known as that of the Prakrit *par excellence*. When we talk of Prakrit without any qualifying epithet, we usually mean this later stage of the Secondary Prakrits, when they had developed beyond the stage of Pāli, but before they had reached the analytic stage of the modern Indo-Aryan vernaculars. The next, and final, stage of the Secondary Prakrits was that of the *Apabhraṁśas*. The word *Apabhraṁśa* means “corrupt” or “decayed,” and was applied to the vernaculars in contrast to the Prakrit *par excellence*, which had in its turn (like Sanskrit and Pali) become stereotyped by being employed for literature. It is these *Apabhraṁśas* which are the direct parents of the modern vernacular. The following is a list of the Indo-Aryan vernaculars, showing, when known, the names of the *Apabhraṁśas* from which they are sprung, and the number of speakers of each in the year 1901:—

| *Apabhraṁśa.* | Modern Language. | Number of Speakers. |
|---|---|---|
| | *A. Language of the Midland.* | |
| Śaurasēna | Western Hindī | 40,714,925 |
| | *B. Intermediate Languages.* | |
| Āvanta | Rājasthānī | 10,917,712 |
| ” | Pahārī Languages | 3,124,681 |
| Gaurjara | Gujarātī | 9,439,925 |
| Śaurasēna | Pañjābī | 17,070,961 |
| Ardhamāgadha | Eastern Hindī | 22,136,358 |
| | *C. Outer Languages.* | |
| | (*a*) *North-Western Group.* | |
| Unknown | Kāshmīrī (with a Piśāca basis) | 1,007,957 |
| ” | Kōhistānī (with a Piśāca basis) | (unknown) |
| ” | Lahndā or Western Pañjābī | 3,337,917 |

| | | |
|---|---|---|
| Vrācaḍa | Sindhī | 3,494,971 |
| | (*b*) *Southern Language.* | |
| Māhārāṣṭra | Marāṭhī | 18,237,899 |
| | (*c*) *Eastern Group.* | |
| Māgadha | Bihārī | 34,579,844 |
| ” | Oṛiyā | 9,687,429 |
| ” | Bengali | 44,624,048 |
| ” | Assamese | 1,350,846 |
| | Total More than | 219,725,473 |

Of these, the Pahāṛī languages are offshoots of Rājasthānī imported into the Himalaya. Kōhistānī includes the mixed dialects of the Swat and Indus Kohistans. The census of 1901 did not extend to these tracts. A full account of the *Apabhraṁśas* will be found in the article PRAKRIT.

Although the modern Indo-Aryan vernaculars are not derived from Sanskrit, and though all, or nearly all, are not derived from the language of the Rig-Veda, nevertheless, as these are almost the only sources of our information as to what the Primary Prakrits of India were, and as all Primary Prakrits were related to these two and were in approximately the same stage of phonetic development, they afford a convenient means for carrying out historical investigation into the origin of all the modern Indo-Aryan vernaculars to its legitimate conclusion. At the same time they are not always trustworthy guides, and sometimes fail to explain forms derived from other ancient contemporary dialects, the originals of which were unknown to the Vedic and classical literature. A striking example is the origin of the very common locative suffix -*ē*. This can be traced through the *Apabhraṁśa* -*hi* to the Pali -*dhi*. There all Indian clues cease, and it is not till we recognize its relationship to the Greek -θι that we understand that it is an ancient Indo-European termination kept alive in India by some of the Primary Prakrits, but ignored both by the dialect of the Rig-Veda and by literary Sanskrit. With this reservation, a short comparison of Sanskrit with the Secondary and Tertiary Prakrit developments will be of interest. As the Pali and Prakrit stages are fully treated under their proper heads, very brief references to them will be sufficient. 489

*A. Vocabulary.*—The ground of all the vocabularies of the modern Indo-Aryan vernaculars is, of course, the vocabulary of Aryan India in the Vedic period. Thousands of words have descended from the earliest times and are still in existence, after passing through certain changes subject to well-known phonetic laws. As many of these laws are the same for every language, it follows that a large stock of words, which principally differ in inflection, is common to all these modern forms of speech. These words, which natives believe to be derived from Sanskrit itself, are called by them *tadbhava*, *i.e.* “having ’that’ (sc. Sanskrit, or, more correctly, the Primary Prakrit) for its origin.” As the language of the Midland is derived from the old dialect of which Sanskrit is the “polished” form, it is approximately true to say that it is derived from that form of speech, and its native vocabulary (allowing for phonetic development) may be said to be the same as that of Sanskrit. But the farther we go from the Midland, the more examples we meet of a new class of words which natives of India call *dēśya* or “country-born.” Most of these are really also *tadbhavas*, descendants of the old Primary Prakrit dialects spoken outside the Midland, of whose existence native scholars took no account. Finally, owing to the ever-present influence of literary Sanskrit, words are, and have been for many generations, borrowed direct from that language. Some of these borrowed words are due to the existence of Sanskrit as the language of religion. Their use is paralleled by the employment of Greek and Latin words for religious technical terms in all the languages of Europe. Others are technical terms of arts and sciences, but most of those which we meet are simply employed for the sake of fine language, much as if some purist were to insist on employing *hlāford* instead of “lord” in writing English. These Sanskrit words are known as *tatsama* or “the same as ‘that’ (sc. Sanskrit).” The number of *tatsamas* employed varies much. In languages such as Panjabi which have little or no literature, and in the speech of the peasantry all over India, they are few in number. In the modern literary Bengali a false standard of literary taste has led to their employment in overwhelming numbers, and the homely vigorous home-speech, which is itself capable of expressing every idea that the mind of man can conceive, flounders about awkwardly enough under the weight of its borrowed plumes. The native vocabulary of the modern Indo-Aryan vernaculars is thus made up of *tadbhavas*, *dēśyas* and *tatsamas*.

The Dravidian languages of southern India have also contributed a small quota to the Indo-Aryan vocabulary. Most of the words have been given a colour of contempt in the process of borrowing. Thus the word *pillā*, a cub, is really the Dravidian *pillai*, a son. But the most important accretion from outside comes from Persian, and (through Persian) from Arabic. This is due to Mahommedan influence. In the Mogul courts Persian was for long the language of politeness and literature, and words belonging to it filtered into all stages of society. The proportion of these Persian words varies greatly in the different languages. In some forms of Western Hindī they have almost monopolized the vocabulary, while in others, such as Bengali and Marathi, the number is very few. Instances of borrowing from other languages are of small importance.

*B. Phonetics.*—The alphabet of the Indo-Aryan languages is, on the whole, the same as that of Sanskrit (*q.v.*), and the system of transliteration adopted for that language is also followed for them.[2] Some new sounds have, however, developed in the Secondary and Tertiary Prakrits. New signs will be used for them, and will be explained in the proper places. Sanskrit knew only long *ē* and *ō*, but already in the Secondary Prakrits we find a corresponding short pair, *e* and *o*, of which the use is considerably extended in the tertiary stage. The Sanskrit diphthongs *āi* and *āu* disappeared in the secondary stage, *ē* and *ō* being substituted for them respectively. On the other hand, in the same stage, we frequently come across pairs of vowels, such as *aï*, *aü*, with a hiatus between the two members. In the tertiary stage, these pairs have been combined into new diphthongs *ai* and *au*, shorter in pronunciation than *āi* and *āu*. The pronunciation of *āi* and *ai* may be compared with that of the English “aye” and “I” respectively. In the languages of the Outer Band, there is again a tendency to weaken this new *ai* to *ē*, and the new *au* to *ō*. All the tertiary languages weaken a short final vowel. In most it is elided altogether in prose, but in some of those of the Outer Band (Kashmiri, Sindhi and Bihari) it is half pronounced. Some of the Outer languages have also

developed a new *a*-sound, corresponding to that of *a* in the German *Mann*. The stress-accent of classical Sanskrit has as a rule been preserved throughout. In the tertiary stage it generally resolves itself into falling on the ante-penultimate, if the penultimate is short. If the latter is long it takes the accent. In the eastern-languages there is a tendency to throw the accent even farther back. There is also everywhere a tendency to lighten the pronunciation of a short vowel after an accented syllable, so that it is barely audible. Thus, *cál*$^{a}$*tā* for *cálatā*. In some dialects, *e.g.* the Urdu form of Western Hindi, this "imperfect" vowel has altogether disappeared, as in *cáltā*.

The tertiary languages have on the whole preserved the consonantal system of the secondary stage, preferring, however, as a rule, to simplify double consonants, with compensatory lengthening of the preceding vowel. Thus, for Sanskrit *hasta-*, a hand, we have Secondary Prakrit *hattha-*, Tertiary *hāth*. Some tertiary languages have both *hatth* and *hāth*: others (like Gujarati) have only *hāth*: while others (like Panjabi) have only *hatth*. In the extreme north-west, Sindhi and Lahnda, under the influence of the Pisaca languages, simplify the double consonant without compensatory lengthening, so that we have *hath*. Again, many languages of the Outer Band show a tendency to avoid aspiration, so that Kashmiri, Marathi, Bengali and others have *hāt*. It is well known that the Iranian languages change *s* to *h*. The Tertiary Prakrits of the Outer Band find analogous difficulty in pronouncing a sibilant. The north-western languages change it to *h* as in Persian. Marathi changes *s* to *ś* before palatal sounds, and the same change occurs in Bengali in the case of every uncompounded sibilant. Eastern Bengali and Assamese go farther. Here *s* is again sounded almost like *h*. On the other hand, in the Midland, *s* rarely becomes *h* and then only when medial. In the Outer languages the palatal consonants are also liable to change; *j* and *jh* approach the sound of *z*, and *c* and *ch* often become *ts*, or, in the East, a simple *s*. Thus, the Midland cākar. a servant, is pronounced *tsākar* in Marathi, and the Midland *māch*, a fish, is sounded *más* in Marathi, Bengali and Assamese.

*C. Declension.*—In the latest stage of the Secondary Prakrits the neuter gender begins to disappear, and in the tertiary stage, except in Gujarati and Marathi, it is nearly altogether wanting. Elsewhere we only come across occasional relics of its employment. In some of the tertiary languages grammatical gender, as distinct from sexual gender, has disappeared as entirely as it has in English. The dual number had already fallen into disuse in the Secondary Prakrits. In the secondary stage we see a gradual simplification of grammatical form and a disappearance of case endings. The complicated Sanskrit system is more and more superseded by the simple uniformity of the declension of *a*-bases. One by one the case endings were discarded, and cases were confounded with one another till at length in *Apabhramśa* only one or two forms remained for each number. In the tertiary stage there remain in most languages only two cases, which we may call the nominative and the oblique. The latter can be employed for any case except the nominative, but the sense is usually defined by the aid of help-words called postpositions.[3] It is a linguistic rule that languages in which the genitive precedes the governing noun prefer suffixes to prefixes and vice versa;[4] and, as the genius of the Indo-Aryan languages does require the genitive to be prefixed, these help-words take the form of suffixes. In the Midland they are still separate words, but in the Outer Band each has in general become incorporated with the main word to which it is attached. Thus, the Midland *ghōṛā*, a horse, has its oblique form *ghōṛē*, genitive *ghōṛē ker*, but Bengali has oblique form *ghōṛā*, genitive *gkōṛār* contracted from *ghōṛā + (k)ar*. The ground principles of declension in all tertiary languages are the same, but as each employs different postpositions the systems of declension vary considerably. Marathi is the only true Indo-Aryan language which has preserved anything more than sporadic relics of the old system of case terminations.

*D. Conjugation.*—Two tenses, the present and the imperative, of the old synthetic system of conjugation have survived in all the Tertiary Prakrits, and in some of them we also find the ancient future. All other tenses are now made periphrastically, mostly with the aid of participles to which auxiliary verbs may or may not be added. The participles employed are all survivals of the old participles of the present, of the past and (in some languages) of the future. The past and future participles are passive in their origin, and hence tenses formed with these participles must be construed passively. Thus, instead of "I struck him" we must say, either "he was struck by me," or else (impersonally) "it was struck by me with reference to him." So, for an intransitive verb we have, either "I am gone," or "it is gone by me." In the language of the Midland this is quite simple and clear, but in those of the Outer Band the subject (in the instrumental, or as it is usually called "agent" case) is indicated by means of pronominal suffixes attached to the participle or auxiliary verb; thus (Bengali) *mārila + am*, struck + by-me, becomes *mārilām*, I struck. In such cases all memory of the passive meaning of the participle is lost by the eastern languages, and it, together with the appropriate pronominal suffixes, becomes in appearance and in practical use an ordinary past tense conjugated as in Latin or in Sanskrit. It is an instance of reversion to the original type; first synthetic, then analytic, and then again a new synthetic conjugation. In the other languages of the Outer Band, the memory of the passive nature of the participle is retained, although the conjugation is as synthetic as in the East, and the subject has to be put into the "agent" case.



Authorities.—No work has yet been published dealing with Indo-Aryan subjects as a whole, although several have been written which treat of one or more stages of their development. For the general question of the Piśāca languages, the reader may consult G. A. Grierson's *The Piśāca Languages of North-Western India* (London, 1906). For the different languages of this group, see G. W. Leitner, *Dardistan* (Lahore, 1877); J. Biddulph, *Tribes of the Hindoo Koosh*, (Calcutta, 1880); D. J. O'Brien, *Grammar and Vocabulary of the Khowār Dialect* (Lahore, 1895); J. Davidson, *Notes on the Bashgali (Kāfir) Language* (Calcutta, 1901). For the linguistic conditions of Vedic times, the Introduction to J. Wackernagel's *Altindische Grammatik* (Göttingen, 1896) gives much useful information in a convenient form. For the literature concerning Pāli and Prakrit, see under those heads. The following are the principal works dealing with the general question of the Tertiary Prakrits: J. Beames, *Comparative Grammar of the Modern Aryan Languages of India* (1872-1879); A. F. R. Hoernle, *A Grammar of the Eastern Hindi compared with the other Gaudian Languages* (1880); R. G. Bhandarkar, "The Phonology of the Prakrits of Northern India," in the *Journal of the Royal Asiatic Society* (Bombay Branch), vol. XVII., ii., 99-182 (see also the same author's series of papers on cognate subjects in vol. XVI. of the same *Journal*); and G. A. Grierson's essays "On the Phonology of the Modern Indo-Aryan Vernaculars" in the *Zeitschrift der deutschen morgenländischen Gesellschaft*, vols. xlix., 1. (1895-1896), 393, 1; "On the Radical and

Participial Tenses of the Modern Indo-Aryan Vernaculars" in the *Journal of the Asiatic Society of Bengal*, vol. lxiv. (1895), part i., 352; and "On certain Suffixes in the Modern Indo-Aryan Vernaculars" in the *Zeitschrift für vergleichende Sprachforschung* (1903), p. 473. The general subject of this article is discussed at greater length in chapter vii. of the *Report on the Census of India, 1901* (Calcutta, 1903). The volumes of the *Linguistic Survey of India* also contain much detailed information, summed up at length in the introductory volume.

(G. A. Gr.)

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1 Attempts have been made to discover dialectic variations in the Veda itself, and, as originally composed in various parts of the Punjab widely distant from each other, the hymns probably did contain many such. But they have been edited by compilers whose home was in the Midland, and now their language is fairly uniform throughout. In the time of Asōka (250 B.C.) there were at least two dialects, an eastern and a western, as well as another in the extreme north-west. The grammarian Patañjali (150 B.C.) mentions the existence of several dialects.

2 The Nāgarī (see Sanskrit) and allied alphabets, when employed for modern Indo-Aryan languages or for Prakrit, are transliterated in this work according to the following system:—

a ā i ī u ū ṛ ṝ e ē ai āī o ō au āū ṁ (*anusvāra*) ∞ (anunāsika) ḥ (*visarga*).
k kh g gh rc
c (ts) ch (tsh) j (dz) jh (dzh) ñ
ṭ ṭh ḍ (ṛ) ḍh (ṛh) ḷ ḷh ṇ
t th d dh n
p ph b bh m
y r l v (w)
ś ṣ s h.

Special sounds employed by particular languages are described in the articles in which reference is made to them. Here we may mention *å*, sounded like the *aw* in "law," and *ä, ö, ü*, pronounced as in German.

3 The origin of the postpositions is discussed in the article Hindostani.

4 See P. W. Schmidt in *Mitteilungen der Wiener Anthropologischen Gesellschaft*, xxxiii. 381.

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**INDO-CHINA, FRENCH.**[1] The geographical denomination of French Indo-China includes the protectorates of Annam, Tongking and Cambodia, the colony of Cochin-China and part of the Laos country. In 1900 the newly-acquired territory of Kwang-Chow Bay, on the coast of China, was placed under the authority of the governor-general of Indo-China. Cochin-China, a geographical definition which formerly included all the countries in the Annamese empire—Tongking, Annam and Cochin-China—now signifies only the French colony, consisting of the "southern provinces" originally conquered from Annam, having Saigon as its capital. In its entirety French Indo-China, the eastern portion of the Indo-Chinese peninsula, lies between 8° 30′ and 230 25′ N. and 100° and 109° 20′ E. It is bounded N. by China, on which side the frontiers have been delimited; E. and S.E. by the Gulf of Tongking and the China Sea; W. by the Gulf of Siam and Siam, and N.W. by Burma. The area is estimated at about 290,000 sq. m., with a population of 17¼ millions, of whom 75 or 80% are Annamese. The French inhabitants number about 13,000.

The configuration of the country is determined by two rivers of unequal importance—the Mekong and the Song-Koi—and a continuous chain of mountains, an offshoot of the great Chinese group of Yun-nan, which, making a double curve, forms an immense S. South and west of this mountain chain the country forms part of the Mekong basin. To the north and north-east of the chain the valley of the Song-Koi, or Red river, constitutes almost the whole of Tongking, of which its delta represents the most fertile and populous if not the largest portion. The small mountainous provinces of Lang-Son, That-Ke and Kao-Bang, however, belong geographically to the Si-Kiang basin. On the east the small province of Mon-Kay, on the borders of Kwang-Tung, forms a little basin enclosed between the mountains and the sea; on the south the province of Thanh-Hoa, although crossed by the small river Song-Ma, forms the extremity of the Red river delta and belongs to it, the two rivers being united at some distance from the sea by a natural channel formed by the junction of a northern branch of the Song-Ma with a southern branch of the Song-Koi. The Red river descends from the mountains of Yun-nan, rising near Tali-fu between deep and inaccessible gorges, and becomes navigable only on its entry into Tongking. Means have been taken to render it available to steam launches, and in consequence of an agreement between the state and the Compagnie des Correspondances Fluviales a service of steamers is provided from its mouth to Lao-Kay. Near Hung-Hoa the Red river receives its two chief tributaries, the Black river from the plateaus of the west—the land pf the Muongs—and the Clear river, one of the largest of whose tributaries issues from the Ba-Be lakes. The Black river is navigable for a considerable distance, the Clear river only from Tuyen-Kwang. Between the basins of the Song-Koi and the Mekong the chain of mountains, crowned by tolerably extensive plateaus, covers, with its ramifications and transverse spurs, a vast extent of country little known, although several trade-routes traverse it, thus placing the Laos country in communication with Tongking and Annam. In about 19° N. the mountain-ridge approaches the sea and runs parallel to the coast, presenting on its eastern side a steep declivity which encloses a narrow littoral, in places only a mile or two broad, between the base of its cliffs and the shore. This coast-belt constitutes the habitable and cultivable portion of Annam proper, and consists of alluvial matter accumulated at the mouths of mountain streams, and marshes and swamps enclosed between land and sea by sand ridges heaped up by wind and tide. The high valleys and plateaus originally belonged to the empire, the limits of which, although invaded

and occupied by Siamese, formerly extended to the banks of the Mekong. The western slopes form part of the French Laos possessions. The Mekong valley includes Laos, Cambodia and the greater part of Cochin-China. The Mekong (*q.v.*) is one of the largest rivers of south-eastern Asia, having a course 1900 m. in length. Its mouths, six in number, communicate by means of a navigable canal with the Saigon river (fed by the Don-Nai and the two Vaico rivers), which is navigable by the largest warships, rendering Saigon the most important natural port of Indo-China.

*Geology.*—The deltaic tracts of the Mekong and Red river are composed of alluvium (generally silicious clay) deposited by the rivers. The mountains from which this soil is derived are granitic in formation, the framework being almost always schists of ancient date, dislocated, folded and occasionally rounded into hills 1000 to 1300 ft. in height, belonging to the Devonian period. Above these schists lie—more especially in the north and south of Tongking—marbles and other highly crystalline limestones, upon which rest, unconformably in places (Nong-Son, Ke-Bao, Hon-Gáy), Carboniferous formations. In the upper part of the Red river valley rich deposits of coal have been found between Yen-Bay and Hai-Duong, in a considerable tract of Tertiary rock. Limestone occurs also in the valley of the Mekong, forming an extensive *massif* in the district of Lakhon and in the basins of the Nam-Ka-Dinh and Nam-Hin-Bun. These limestones appear to be Carboniferous. In the region south of Lakhon the rock is Triassic, and gold has been found in several districts. The natives collect it in very small quantities by a washing process. In the lateral valleys of the Mekong copper and tin are found. On the course of the Nam-Paton, a tributary of the Nam-Hin-Bun, the natives work a moderately productive tin-mine. Layers of spiegeleisen, limonite and other iron ores are numerous in the Laos states, in which also antimony occurs.

*Climate.*—The climate of Indo-China is that of an inter-tropical country, damp and hot. But the difference between the southern and northern regions is marked, as regards both temperature and meteorology. Cochin-China and Cambodia have very regular seasons, corresponding with the monsoons. The north-easterly monsoon blows from about the 15th of October to the 15th of April, within a day or so. The temperature remains almost steady during this time, varying but slightly from 78.8° to 80.6° F. by day to 68° by night. This is the dry season. From the 15th of April to the 15th of October the monsoon reverses, and blows from the south-west. The season of daily rains and tornadoes commences. The temperature rises from 80.6° to 84.2°, at which it remains day and night. April and May are the hottest months (from 86° to 93.2°). The damp unwholesome heat sometimes produces dysentery and cholera. The climate of Annam is less regular. The north-easterly monsoon, which is “the ocean-wind,” brings the rains in September. The north-easterly gales lower the temperature below 59°. September is the month in which the typhoon blows. During the dry season—June, July and August—the thermometer oscillates between 86° and 95°. The nights, however, are comparatively cool. Tongking has a winter season—October to May. The temperature, lowered by fog and the rains, does not rise above 75.2° and descends to 50° over the delta, and to 44.6° and even 42.8° in the highlands, where white frost is occasionally seen. The summer, on the other hand, is scorching. The wind veers to the south-east and remains there until October. The temperature rises to over 83°; often it reaches and continues for several days at 95° or even more. The nights are distressingly airless. The Laos country in the interior and lying at a high altitude is cooler and drier. Its deep valleys and high hills vary its climate.



*Fauna and Flora.*—From the populous cultivated districts wild animals, once plentiful, have retired towards the wooded and mountainous districts. The wild life of Laos includes fairly numerous herds of elephants, the rhinoceros (one- and two-horned rhinoceros horn is employed as a “medicine”), tiger, panther, brown bear, tree-bear, monkeys and rats, among which are the musk rat, the palm rat and the *nu-khi*, or rat found in the rice-fields of the highlands, in which its ravages are considerable. In mountain districts the leopard, wild boar and deer are found, and in the neighbourhood of habitations the tiger-cat and ichneumon. The buffalo is commonly found wild in Laos as a domesticated animal it also holds a prominent place. The zebu bull is used for transport purposes. Attempts to acclimatize the Arab horse and to introduce sheep from Aden and China have failed. There is, however, an indigenous race of horses, excellent in spite of their small size—the horses of Phu-Yen. Among birds the woodcock, peacock and numerous species of duck inhabit the woods and marshes. The goose and guinea-fowl appear, as also the turkey, to have become easily acclimatized. Reptiles (apart from the caimans of the Mekong, which attain a length of over 30 ft., and are much appreciated by the Annamese as food) are extremely numerous and varied in species. The rivers are rich in fish. The sole is found in the rivers of Tongking. The Mekong is fished for two species peculiar to it—the *pa-beuk* and the *pa-leun*, which attain a length of nearly 6 ft. All varieties of mosquitoes, ants and leeches combine to render the forests bordering the Mekong impracticable. Peculiar species of grubs and caterpillars destroy the cotton and coffee plantations of Cochin-China. The silkworm may be said to be indigenous in Tongking, where there are several thousand acres of mulberry trees.

The flora is inter-tropical, and comprises nearly all the trees known in China and Japan. The bamboo is utilized in building and a variety of other ways. Formerly the teak was believed not to exist in the forests of Indo-China, but it was found some years ago in considerable abundance, and plantations of it have been made. Certain hard woods are used for marqueterie and other ornamental work. Rubber is also exploited. Cotton, previously cultivated in Cochin-China and Cambodia, gives excellent results in Laos. Tea, of which there are a certain number of plantations in the highlands of Tongking and Annam, grows wild in Upper Laos, and in quality closely resembles the Pou-eurl or Pueul variety noted in Yun-nan. Cocoa, coffee and cotton are cultivated in Tongking and Cambodia. Cinnamon and cardamoms are gathered in Laos and Annam. Ground nuts, sesame, sugar canes, pepper, jute, tobacco and indigo are also grown. The area under rice, which is incomparably the most important crop, is approximately 1,750,000 acres. All European fruits and vegetables have been introduced into Tongking, and with certain exceptions—the grape, for example—succeed perfectly. Measures taken to secure the monopoly of opium have notably increased the cultivation of the poppy.

*People.*—The population of French Indo-China falls into five chief divisions—the Annamese, forming the bulk of the population in Annam, Tongking and Cochin-China and four-fifths of that of the whole country; the Khmers or Cambodians; the Chains of southern Annam; the Thais, including the Laotians; and the

autochthonous tribes classed by the other inhabitants as Mois or Khas (“savages”). Driven into the interior by the now dominant races, these older people have mixed and blended with the peoples whom they found there, and new tribes have arisen, intermingled with fugitives from China, Annam and even Siam. In the north of Tongking people of Laos origin occur—the Thōs round Kaobang, the Muongs in the mountains bordering the Red river. When mixed, with Chinese the Muongs and the Thōs are known as the Hung-dans, Māns and Miens. The Muongs are bigger and stronger than the Annamese, their eyes often almost straight. They have square foreheads, large faces and prominent cheek-bones. In the centre and south of the Indo-Chinese mountain chain are found, under a multiplicity of names—Phon-tays, Souis, Bah-nan, Bolovens, Stiengs, Mors, Kongs, &c.—people of Malayan origin mixed with all the races of Indo-China. Laos is inhabited by an essentially miscellaneous population—falling into three main groups—the Thais; various aboriginal peoples classed as Khās; and the Moos and Yaos, tribes of Chinese origin.

*Religions.*—The Annamese religion is a somewhat vague and very tolerant Buddhism, which in practice resolves itself chiefly into the worship of ancestors. Certain ceremonies performed in Cambodia resemble distantly the Brahminical cult. The Roman Catholic religion has been introduced by missionaries. The course of its history has not been free from catastrophes and accidents. There is an apostolical vicariate in Cochin-China, one in Cambodia and several mission stations in Tongking. Two of these missions are mainly conducted by Spanish priests.

*Administration.*—Before taking its present form the governmental organization of Indo-China underwent many changes. Originally Cochin-China, the only French possession in the peninsula, was a colony directly administered, like other colonies, by the ministry of marine, and its earliest governors were admirals. Later, as further conquests were effected, Tongking and Cambodia were subjected to the régime of a protectorate somewhat ill-defined, and placed under the authority of residents-general. The seat of the resident-general of Tongking was at Hanoi; of Cambodia, at Pnom-Penh. The government of the colonies having been transferred (1889) from the ministry of marine to the ministry of commerce, and in 1894 to the newly created ministry of the colonies, the control of the residencies passed gradually into the hands of civil agents. Cochin-China, which already by the decree of the 8th of February 1880 had been endowed with a colonial council, had a municipality, a chamber of commerce, and even a deputy in the French parliament. There had thus been three distinct states, each with its own ruler and government. But by the decrees of the 17th of October and the 3rd of November 1887 the unity of Indo-China was determined. By decree of October the post of director of the interior of Cochin-China was done away with and replaced by that of lieutenant-governor under the immediate authority of a governor-general. The functions and powers of the latter official were, however, but vaguely defined before the decree of the 21st of April 1891, which conferred on M J. M. A. de Lanessan, appointed governor-general, the most extensive powers. The residents-general of Tongking, Annam and Cambodia, and the lieutenant-governor of Cochin-China, as well as the military authorities, were placed under him. But this change of policy, which put an end to the system of expeditions and minor military operations, and restricted the power of the residents whilst restoring to the mandarins a share of authority, was unwelcome to numerous interests, which, combining, secured the abrupt recall of M de Lanessan on the 29th of December 1894. The decree of the 21st of April 1891 was not, however, revoked, but the powers it conferred were restricted. After the appointment of M Doumer, successor to M Rousseau, who died on the 10th of December 1896, this decree was again put in force on the former scale, and in 1898 it was supplemented by the decrees of the 3rd and 31st of July, which definitely established the political and financial unity of Indo-China. The governor-general is the sole intermediary between the Indo-Chinese Union and the home government, the powers of which, with few restrictions, are delegated to him. As supreme administrative and military authority, he directly controls the civil services, and, though prohibited from commanding in the field, disposes of the land and sea forces in the country. His diplomatic negotiations with foreign powers must be carried on under the authorization and surveillance of the home authorities. The governor-general is assisted by the Superior Council of Indo-China, which meets monthly, and as reorganized by the decree of the 8th of August 1898 is composed as follows: the governor-general (president); the general commanding as head of the troops; the rear-admiral commanding the naval squadron of the Far East; the lieutenant-governor of Cochin-China; the residents superior of Tongking, Annam, Cambodia and Laos; the director-general of finances; the director of the *contrôle financier*; the head of the judicial service of Indo-China; the director-general of the customs and excise of Indo-China; the directors-general of agriculture, forests and commerce; of public works; of posts and telegraphs; of health; and of public instruction; the treasurer-general of Indo-China; the director of the school of medicine at Hanoi; the president of the colonial council of Cochin-China; the presidents of the chambers of commerce of Saigon, Hanoi and Hai-Phong; the presidents of the united chambers of commerce and agriculture of Annam and Cambodia; the presidents of the chambers of agriculture of Tongking and Cochin-China; four influential natives; the chief of the cabinet and the governor-general’s secretary. This list sufficiently indicates the departmental services, by means of which the general government is carried on. The Superior Council meets not only at Hanoi, the seat of the government, but also at Saigon, Hué and Pnom-Penh. It delegates its powers to a “permanent commission” consisting of thirteen of its members, and dispensing with the attendance of the local authorities of regions other than those in which the place of meeting is situated. The Superior Council meets annually to receive the general budget and the local budgets which “must be accepted by the governor-general at a session of the Superior Council.”[2] It must also be consulted on the distribution of military credits, and on the credits to be devoted to public works. The *contrôle financier*, which scrutinizes and sanctions all measures of the public services involving outlay of money, is dependent on the ministry of the colonies. Its returns have to be communicated to the governor-general.



The governor-general is also assisted by a “council of defence,” comprising the chief military and naval authorities.

*Justice.*—The whole of Indo-China is, in principle, subject to French justice, represented by a court of appeal and a certain number of tribunals. Before 1898 the administration of justice was not centralized.

There was a court of appeal at Hanoi, and another at Saigon. But the decree of the 8th of August 1898 established one court of appeal for French Indo-China: two chambers sitting at Saigon and the other two at Hanoi. Three tribunals of commerce are established at Saigon, Hanoi and Hai-Phong. There are courts of first instance at Saigon, My-Tho, Vinh-Long, Ben-Tre, Chau-Doc, Kantho, Soc-Trang, Tra-vinh, Long-Xuyen for Cochin-China, at Pnom-Penh for Cambodia, and at Hanoi and Hai-Phong for Tongking. These courts are supplemented by *juges de paix* in Cochin-China, and there are *juges de paix* at Nam-Dinh (Tongking) and Tourane; elsewhere in the protectorates the residents perform judicial functions. There are criminal courts at Saigon, My-Tho, Vinh-Long and Long-Xuyen in Cochin-China, at Hanoi in Tongking and at Pnom-Penh in Cambodia. In Cochin-China Annamese law is administered in the French courts in suits between natives, but native tribunals have been superseded. In Annam-Tongking, outside the sphere of the French tribunals, the natives are subject to Annamese justice, represented in each province by a mandarin, called the *An Sat*, and in Cambodia the natives are subject to the native tribunals. At the same time, whenever a French subject or European or other foreigner is a party in an affair, French justice only is competent.

*Public Works.*—The order of the 9th of September 1898 placed the public works of Indo-China under the "direct authority of the governor-general as regards works entered to the general budget account." There is a director of public works in Indo-China at Saigon, a director of engineering in the other countries. In 1895 a "special service" was created in Tongking to consider railway business.

*Posts and Telegraphs.*—The country is divided into two sections for the purposes of this service, the one comprising Annam, Tongking and Upper Laos, the other Cochin-China, Cambodia and Lower Laos. The post and telegraph offices in Indo-China number about three hundred. Tourane communicates by submarine cable with Amoy in China, thence with Vladivostok and Europe.

*The Army—Land Force.*—The military services are under the authority of a general of division commanding in chief. The European troops in 1907 comprised four regiments of colonial infantry with 22 batteries of artillery (10 in Tongking and 12 in Cochin-China). The native troops, numbering over 18,000, comprised four regiments of Tongkingese *tirailleurs* (sharp-shooters), two of Annamese, a battalion of Cambodian and a battalion of Chinese *tirailleurs*, a squadron of Annamese *chasseurs* or light horse and two companies of engineers.

*Sea Force.*—Indo-China is protected by the naval division of the Far East. In addition five gunboats are stationed at Saigon and a third-class cruiser and some minor vessels at Hai-Phong.

The *Policing* of the country is performed by natives (the *garde indigène*) under European officers and by the *gendarmerie coloniale*, which is reinforced by native auxiliaries.

*Money, &c.*—The monetary unit is the *piastre*, which is of variable value, having fallen from 4.50 francs to 2.40 francs and fluctuating round that figure. The chief native coin is the *sapek* of zinc or tin, six hundred of which strung together form a *ligature*, a tenth of which is called a *tien*. The piastre is worth 2700 sapeks. The unit of weight, the *picul*, equals 60.4 kilos. (about 133 lb); the *thuoc-moe* equals .425 metre (about 17 in.).

*Education.*—The Annamese are intelligent and have old intellectual and artistic traditions. In consequence the promotion of education has been assigned to a special council (*Conseil de perfectionnement de l'enseignement*) selected from Frenchmen and Asiatics particularly qualified for membership. Among its preoccupations are the reconstitution of the schools of Chinese characters in Cochin-China, the remodelling of the programmes of the triennial examinations in Annam and Tongking (see ANNAM) with a view to completing them with a summary knowledge of French and science, the improvement of the teaching given in the pagodas in Cambodia and Laos, and the foundation of a university comprising classes for natives. In 1906, in Cochin-China, where the largest sum (£45,000 in 1906) is devoted to instruction, 22,500 children received a French education.

*Finance.*—The unification of the budget brought about by M Doumer (decree of the 31st of July 1898) specially contributed to that of the government. The financial scheme is based on the political. Just as a single central government directs the various local governments, so in addition to the general budget, comprising the revenue and expenditure of the supreme government, there are several local budgets, including the revenue and expenditure incidental to the individual provinces.

The general budget in 1899 and 1904 is summarized below:—

| | *Receipts.* | *Expenditure.* |
|---|---|---|
| 1899 | £1,968,770 | £1,639,800 |
| 1904 | 2,809,851 | 2,797,031 |

While direct taxes, *e.g.* the poll-tax and land tax or (in Cambodia) the tax on products, are the main sources of revenue for the local budgets, those for the general budget are the indirect taxes: (1) customs (£619,616 in 1904); (2) "régies" and other indirect taxes (£1,733,836 in 1904), these including the excise on alcohol, the monopoly of the purchase and sale of salt, and the monopoly of the purchase, manufacture and sale of opium.

The chief items of expenditure in 1904 were the following:—

| | |
|---|---|
| Public Works | £385,680 |
| Customs and "régies" | 618,654 |
| Naval and Military Services | 527,663 |
| Loans[3] | 417,421 |

*Shipping.*—The following table shows the total tonnage of shipping entered and cleared at the ports of

French Indo-China in 1905 and its distribution over the countries of the Union:—

| Country. | Tonnage. | |
|---|---|---|
| | Entered. | Cleared. |
| Cochin-China | 1,117,054 | 1,007,510 |
| Tongking | 242,119 | 348,947 |
| Annam | 28,065 | 26,406 |
| Cambodia | 2,520 | 2,012 |
| Total | 1,389,758 | 1,384,875 |



Over half the tonnage was French (698,178 tons entered); the United Kingdom came second (284,277 tons); Germany, third (205,615 tons).

*Commerce.*—The value of the trade of French Indo-China increased from £6,796,000 in 1896 to £16,933,000 in 1905, its average annual value for the years 1896-1905 being £12,213,000.

The following table shows the movement of commerce in 1905:

| | Imports. | Exports. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| France | 4,314,586 | 1,233,295 | 5,547,881 |
| French colonies | 163,568 | 76,855 | 240,423 |
| Foreign countries | 5,704,257 | 5,440,156 | 11,144,413 |
| Total | 10,182,411 | 6,750,306 | 16,932,717 |

In 1905 the principal foreign countries from which goods were imported were:

| | | |
|---|---|---|
| Hong Kong | for | £2,473,882[4] |
| Singapore | ” | 598,449 |
| China and Japan | ” | 1,473,704 |
| Burma and Siam | ” | 289,542 |
| The British Isled | ” | 141,381 |
| The United States | ” | 126,425 |

The principal countries to which goods were exported were:

| | | |
|---|---|---|
| Hong Kong | for | £1,706,597[4] |
| China and Japan | ” | 497,288 |
| Singapore | ” | 360,510 |
| Burma and Siam | ” | 80,071 |
| The British Isles | ” | 55,539 |

The principal imports were:

| | | |
|---|---|---|
| Wheat | for | £214,156 |
| Rice | ” | 226,755 |
| Raw opium | ” | 271,582 |
| Raw cotton | ” | 167,020 |
| Wine | ” | 340,027 |
| Pit coal | ” | 206,221 |
| Petroleum | ” | 388,163 |
| Gold | ” | 203,369 |
| Iron and steel | ” | 353,214 |
| Tin | ” | 526,428 |
| Cotton thread | ” | 672,040 |
| Jute tissues | ” | 254,255 |
| Cotton tissues | ” | 922,250 |
| Silk tissues | ” | 241,113 |
| Paper | ” | 344,633 |
| Metal-work | ” | 1,170,576 |
| Arms, powder and ammunition | ” | 170,882 |

The principal exports were:

| | | |
|---|---|---|
| Dried fish, salt and smoked | for | £151,415 |
| Rice | ” | 2,848,389 |
| Pepper | ” | 214,297 |
| Pit coal | ” | 182,077 |
| Tin | ” | 553,914 |
| Cotton thread | ” | 421,162 |

The customs tariff is substantially the same as that of France, severe import duties being levied on foreign goods. French goods pay no import duty and goods exported thither are exempt from export duty, with the exception of sugar, which is regulated by special legislation, and of various other colonial products (*e.g.* coffee, cocoa, tea, vanilla, pepper) which pay half the duty applicable to similar foreign products according to the minimum tariff. Goods from French colonies pay no import duty. About 53% of the imports, comprising nearly all manufactured goods of European origin, come from France. China, Japan and Singapore are the other chief sources of imports. The Bank of Indo-China (capital £1,440,000) besides receiving deposits and discounting bills, issues bank-notes and has, till 1920, the privilege of

lending money on security.

*Communications.*—The railway communications of French Indo-China comprise lines from Hai-Phong to Lao-Kay, continued thence via the Nam-Te valley to Yun-nan; from Hanoi northward to Lang-Son and south to Vinh; from Tourane to Kwang-Tri via Hué and from Kan-Tho (Cochin-China) to Khanh-Hoa (Annam) via My-Tho, Saigon, Bien-Hoa and Jiring with branches to Phan-Tiet and Phan-Rang. The three last are the completed sections of a line which will unite Tongking with Cochin-China. The towns in the deltas of the Mekong and Red river are united by a network of canals. The mandarin road following the coast line of Annam connects Tongking with Cochin-China, but the easiest means of communication between these two territories is by sea, the voyage from Saigon to Tourane lasting three days, that from Tourane to Hai-Phong, thirty hours.

*History*—The beginning of French influence in Indo-China dates from 1787, when a treaty was concluded between Gia-long, king of Annam (*q.v.*), and the king of France, whereby Tourane and the island of Pulo-Condore were ceded to the latter. The successors of Gia-long were averse from French influence and instituted persecutions of the Christian missionaries and natives, which led, in the reign of Tu-duc in 1858, to the arrival at Tourane of a French and Spanish fleet. The capture of that town was followed early in 1859 by the storming of Saigon, which Rigault de Genouilly, the French admiral, chose as his base of operations. The French and Spanish were, however, too few to take the offensive, and were forced to submit to a blockade, conducted by the Annamese general Nguyen Tri Phuong, at the head of 20,000 troops. It was not till February 1861 that reinforcements under Admiral Charner reached Saigon, and the Annamese were defeated and My-Tho taken. A revolt against Tu-duc in Tongking, and the stoppage of the rice supplies from Cochin-China, obliged the king to submit, in 1862, to a treaty by which three provinces of Cochin-China were ceded and other concessions accorded to France. However, it was only after further military operations that Tu-duc consented to the ratification of the treaty. In 1863 Admiral de la Grandière was appointed governor of Cochin-China and in the same year France established her protectorate over Cambodia. It was under La Grandière that the exploration of Mekong was undertaken (see Garnier, M. J. F.) and that in 1867 the three provinces of Cochin-China left to Annam were annexed. French intervention in Tongking, which began with the expedition of François Garnier to Hanoi in 1873, culminated after a costly and tedious war (see Tongking) in the treaties of 1883 and 1884, whereby Annam and Tongking passed under the protectorate of France. The latter treaty, though its provisions were subsequently much modified, remains theoretically the basis of the present administration of Annam.

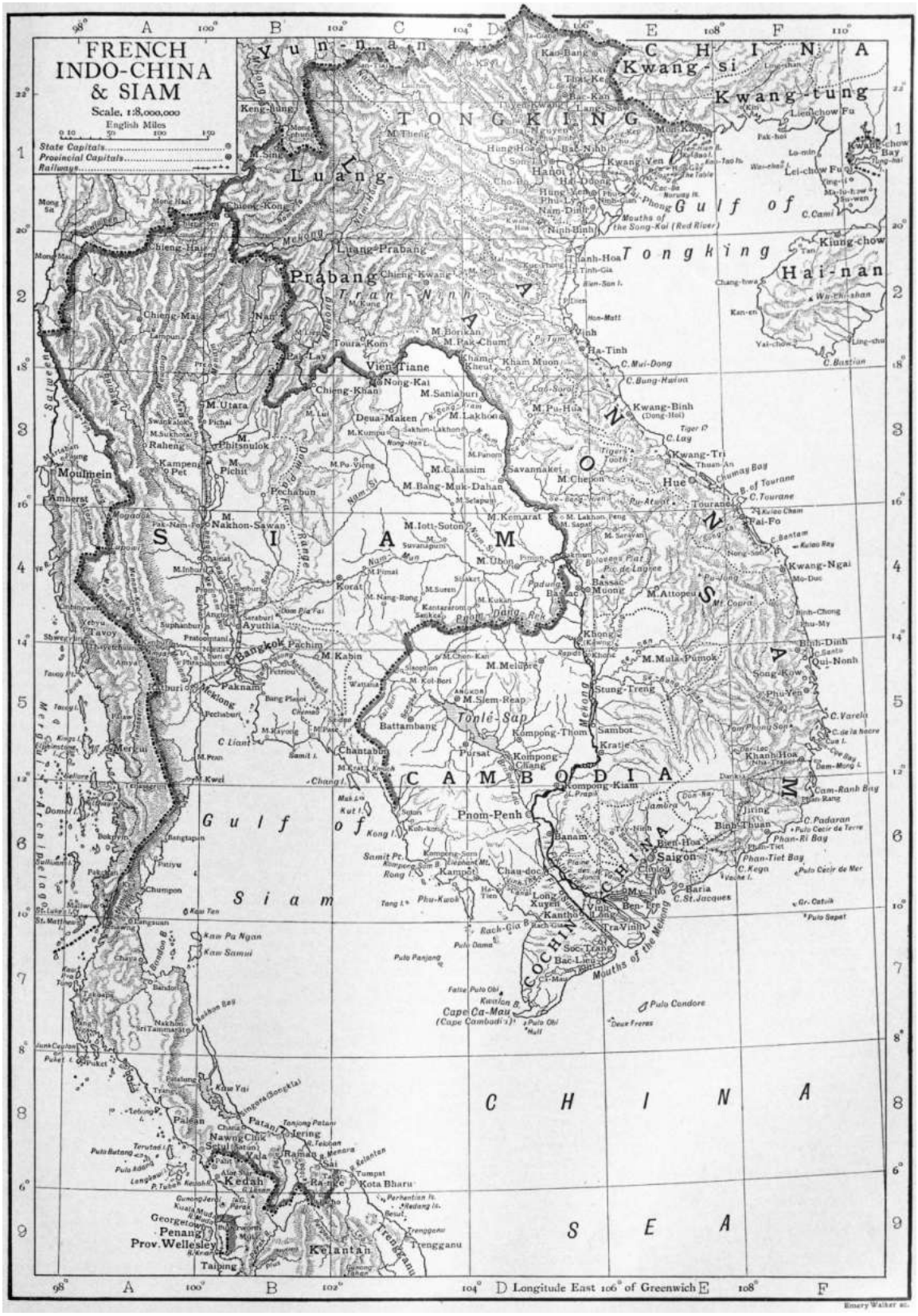
From 1884 onwards the history of Indo-China may be divided into two distinct periods, characteristic of the political conception and governmental system adopted by the French government. In the first period, 1884-1891, the French agents in Tongking and Indo-China generally proceeded under cover of the treaty of 1884 with the definite conquest and annexation of Tongking and also Annam. Cochin-China itself openly designed to seize the southern provinces of Annam, upon the borders of which it lay. This policy, momentarily checked by the war with China, was vigorously, even violently, resumed after the treaty of Tientsin (June 1885). The citadel of Hué was occupied in July 1885 by General de Courcy. The Annamese government forthwith decided upon rebellion. An improvised attack upon the French troops was led by the ministers Thu-yēt and Thu-ong. The revolt was promptly suppressed. The regent Thu-yēt and the king Ham-N'ghi (crowned in August 1884) fled. At this time the French government, following a very widespread error, regarded Tongking and Annam as two distinct countries, inhabited by populations hostile to each other, and considered the Tongkingese as the oppressed vassals of the Annamese conqueror. To conquer Annam, it was said, would liberate Tongking. This misconception produced the worst consequences. With the flight of the king civil war commenced in Annam. The people of Tongking, whose submission the court of Hué had not dared to demand, began to rise. Taking advantage of this state of anarchy, pirates of the Black Flag, Chinese deserters and Tongkingese rebels devastated the country. The occupation of Tongking became a prolonged warfare, in which 25,000 French, compelled to guard innumerable posts, had to oppose an intangible enemy, appearing by night, vanishing by day, and practising brigandage rather than war. The military expenditure, met neither by commerce, which had become impossible, nor taxation, which the Annamese could not pay nor the French receive, resulted in heavy deficits. The resident-general, Paul Bert, who hoped to gain the confidence of the mandarins by kindness and goodwill, did not succeed in preventing, or even moderating, the action of the military régime. Than-quan, Hon-Koi, Lao-Kay, Pak-Lun and Kao-Bang were occupied, but the troops were driven back to the delta and almost invested in the towns. Disappointed in his hopes and worn out rather by anxiety than work, Paul Bert succumbed to his troubles in November 1886, seven months after his arrival in the country. His successors possessed neither the strength nor the insight necessary to grapple with the situation. M. Constans, however, appointed "provisional" governor-general after the death of M. Filippini, succeeded to a certain extent in reviving commerce in the towns of the delta. MM. Richaud, Bihourd and Piquet, successors of M. Constans, were all powerless to deal with the uninterrupted "bush-fighting" and the augmentation of the deficit, for no sooner was the latter covered by grants from the mother country than it began to grow again. At the close of the financial year in 1890 France had paid 13,000,000 francs. In April 1891 the deficit again approached the sum of 12,000,000 francs. The rebels held almost all the delta provinces, their capitals excepted, and from Hanoi itself the governor-general could see the smoke of burning villages at the very gates of his capital.



At this point a complete change of policy took place. M. de Lanessan, a Paris deputy sent on a mission in the course of 1887, made himself acquainted, with the government and the court of Hué. He recognized the absolute falsity of the story which represented the Tongkingese as the oppressed subjects of the Annamese. He demonstrated the consanguinity of the populations, and after intercourse with the regents, or ministers, of Hué he realized that the pacification of the country depended upon harmonious relations being established between the general government and the court. Appointed governor-general with the fullest powers on the 21st of April 1891, he presented himself at Hué, concluded with the *comat* an

agreement based on the principle of a “loyal protectorate,” and reassured the court, up to this point uneasy under menace of annexation. The *comat* shortly issued a proclamation under the great royal seal, never hitherto attached to any of the public acts imposed upon the king by the governors, who had been unaware of its existence. In this proclamation the king ordered all his subjects to obey the governor-general and to respect him, and commanded rebels to lay down arms. The effect was immediate—disorders in the delta ceased. The pirates alone, in revolt against the king of Annam and all authority, continued their brigandage. But the governor-general instituted four “military districts,” the commanders of which were commissioned to destroy the pirates. At the same time he placed a force of native police, the *linh co*, at the disposal of the mandarins, hitherto regarded with suspicion and intentionally deprived of all means of action. Order was restored within the delta. In the mountainous districts infested by pirates roads were opened and posts established. The chief haunts of the pirates were demolished, and during 1893 the foremost pirate chiefs gave in their submission. The Indo-Chinese budget regained its balance. On the Chinese frontier agreements were concluded with Marshal Sou, in command of the Chinese forces, regarding the simultaneous repression of piracy in both countries. But on the Mekong difficulties arose with the Siamese. For centuries Siam had occupied the right bank of the Mekong, and her troops had crossed the river and occupied the left bank. Luang-Prabang was in the hands of the Siamese, who had also established posts at Stung-treng and elsewhere. Friction occurred between the French agents and Siamese soldiery. After the death of Inspector Crosgurin on the 5th of June 1893 the French government occupied Stung-treng and Khong. France demanded explanations and redress at Bangkok, but the court refusing concessions, an ultimatum was presented to the king by M. Pavie, French minister to Siam. The terms of the ultimatum not having been complied with within the given time, the French flotilla, consisting of the gunboats “L’Inconstant” and “La Comète,” crossed the bar of the Menam on 13th July 1893, forced the entrance of the channel, and anchored at Bangkok, before the French legation. A second ultimatum was then presented. It contained the following conditions:—First the occupation of Chantabun by the French until the Siamese should have entirely evacuated the left bank of the Mekong; secondly, the Siamese to be interdicted from maintaining military forces at Battambang, Siem-Reap, and generally from establishing fortified positions within 15½ m. of the right bank of the Mekong; thirdly, Siam to be interdicted from having armed boats on the great lake Tonle-Sap. This agreement was executed immediately, the Laotians being eager parties to it. On the 29th of September 1893 the king of Luang-Prabang made his submission to the French government, and besought it to use its influence with the court of Siam for the return to their families of the sons of princes and mandarins then in schools at Bangkok. The Siamese evacuated the left bank of the Mekong, and France took possession of Laos, a treaty, on the basis of the ultimatum, being signed on the 1st of October 1893. The disputes to which this affair with Siam had given rise between France and Great Britain were amicably settled by an agreement concluded on the 15th of January 1896. This “declaration,” virtually ratifying the treaty concluded in 1893 between France and Siam, settled the limits of the zones of influence of the two contracting powers in the north of the Mekong regions and on the frontiers of Siam and Burma. Great Britain resigned to France the regions of the Muong-Sing which she had previously occupied. The great part of Siam included in the Menam basin was declared neutral, so also the Me-ping basin in the north, Meklong Pechaburi and Bang Pa Kong rivers in the south. The neutral zone, 15½ m. wide on the right bank of the Mekong, was formally recognized.

In 1904, by a new Franco-Siamese treaty setting aside that of 1893, Chantabun was evacuated and the neutral zone renounced in return for the cession of the provinces of Bassac and Melupré and the district of Dansai (comprising the portion of Luang Prabang on the right bank of the Mekong) and the maritime district of Krat. By a further convention in 1907 Siam ceded the provinces of Battambang, Siem-Reap and Sisophon, and received in return the maritime province of Krat and the district of Dansai ceded in 1904. At the same time France abandoned all designs on territory of Siam by giving up certain areas obtained for the purposes of railway building on the right bank of the Mekong.




(Click to enlarge.)

After the recall of M. de Lanessan in 1894 (see above), and before his successor, M. Rousseau, was able to acquaint himself fully with the condition of the country, military expeditions began again and the deficit soon reappeared. Tranquillity, however, being restored, attention was given to public works. On the 12th of October 1895 M. Rousseau left to ask parliament to vote a loan of 100,000,000 francs. On the vols., of February 1896 a law was passed authorizing a loan of 80,000,000 francs, and on the 14th of March 1896 an office for the financial control of the government-general of Indo-China was established. In the interval a French company had obtained from China a concession to prolong the railway from Langson to Lungchow on a tributary of the Canton river. M. Rousseau, who died on the 10th of December 1896, was replaced by M. Dourner, previously minister of finance, under whose government was realized, as has been before stated, the union of Indo-China. On the 20th of December 1898 M. Doumer obtained from parliament authorization to contract a loan of 200,000,000 francs, the proceeds of which were appropriated to the construction of railway lines.

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(J. M. A. DE L.; R. TR.)

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1 See also ANNAM, CAMBODIA, COCHIN-CHINA, KWANG-CHOW BAY, LAOS, TONGKING.

2 This does not apply to the budget of Cochin-China, which is voted by the colonial council and approved by the governor-general alone.

3 This does not include the expenditure on account of the 3% loan of £8,000,000, which is inscribed in a special account. The debt of the government-general of Indo-China is composed as follows:—

| | Nominal Capital. | Nominal Capital in circulation on Jan. 1, 1907. |
|---|---|---|
| 2½ % Loan of 1896 (Annam-Tongking) | £3,678,000 | £3,342,800 |
| 3½ % Loan of £8,000,000 issued from 1899 to 1905 | 8,748,260 | 8,640,060 |
| Total | £12,426,260 | £11,982,860 |

4 The transit trade between Hong Kong and Yun-nan via Tongking is of considerable importance (see TONGKING).



**INDO-EUROPEAN LANGUAGES.** The Indo-European (I.E.) languages are a family of kindred dialects spread over a large part of Europe, and of Asia as far as India.

The main branches so far identified fall easily into two groups of four. These groups are distinguished from one another by the treatment of certain original guttural sounds, *k(c)*, *g*, *kh*, *gh*, which one group shows as consonants, while the other converts them into sibilants. The variation is well shown in the word for "hundred": Gr. ἑ-κατόν, Lat. *centum*, Old Irish *cēt*; Sanskrit *śatam*, Zend *satēm*, Lithuanian *szimtas*, Old Bulgarian (Old ecclesiastical Slavonic) *sŭto*. In the first three the consonant is a hard guttural (the Romans said *kentum*, not *sentum*), in the others it is a sibilant (the Lithuanian *sz* is the English *sh*).

The first group (generally known as the *centum*-group) is the Western and entirely European group, the second (generally known as the *satem*-group) with one exception lies to the east of the *centum*-group and much its largest part is situated in Asia. To the *centum*-group belong (1) Greek; (2) the Italic languages, including Latin, Oscan, Umbrian and various minor dialects of ancient Italy; (3) Celtic, including (*a*) the Q-Celtic languages, Irish, Manx and Scotch Gaelic, (*b*) the P-Celtic, including the language of ancient Gaul, Welsh, Cornish and Breton: the differentiation, which exists also in the Italic languages, turning upon the treatment of original *kw* sounds, which all the Italic languages save Latin and the little-known Faliscan and the (*b*) group of the Celtic languages change to *p*. With these go (4) the Germanic or Teutonic languages, including (*a*) Gothic, (*b*) the Scandinavian languages, Swedish, Danish, Norwegian, Icelandic—differentiated in historical times out of a single language, Old Norse,—(*c*) West Germanic, Including English and Frisian, Low Frankish (from which spring modern Dutch and Flemish), Low and High German.

To the *satem*-group belongs (1) Aryan or Indo-Iranian, including (*a*) Sanskrit, with its descendants, (*b*) Zend, and (*c*) Old Persian, from which is ultimately descended Modern Persian, largely modified, however, by Arabic words. This group is often divided into two sub-groups, *Indo-Aryan*, including the languages of India, and *Iranian*, used as a general title for Zend and Old Persian as the languages of ancient Iran. Although the sounds of Indo-Aryan and Iranian differ considerably, phrases of the earliest form of the one can be transliterated into the other without change in vocabulary or syntax. (2) To the west of these lies Armenian, which is so full of borrowed Iranian words that only in 1875 was it successfully differentiated by Hübschmann as an independent language. It is probably related to, or the descendant of, the ancient Phrygian, which spread into Asia from Thrace by the migration of tribes across the Hellespont. Of ancient Thracian unfortunately we know very little. (3) North of the Black Sea, and widening its borders in all directions, comes the great Balto-Slavonic group. In this there are two branches somewhat resembling the division between Indo-Aryan and Iranian. Here three small dialects on the south-east coast of the Baltic form the first group, Lithuanian, Lettish and Old Prussian, the last being extinct since the 17th century. The Slavonic languages proper themselves fall into two groups: (*a*) an Eastern and Southern group, including Old Bulgarian, the ecclesiastical language first known from the latter part of the 9th century A.D.; Russian in its varieties of Great Russian, White Russian and Little Russian or Ruthenian; and Servian and Slovene, which extend to the Adriatic. (*b*) The western group includes Polish with minor dialects, Czech or Bohemian, also with minor languages in the group, and Sorb. In the *satem* division is also included (4) Albanian, which like Armenian is much mixed with foreign elements—Latin, Greek, Turkish and Slavonic. The relation between it and the ancient Illyrian is not clear.

Besides the languages mentioned there are many others now extinct or of which little is known—*e.g.* Venetic, found in clearly written inscriptions with a distinctive alphabet in north-eastern Italy; Messapian, in the heel of Italy, which is supposed to have been connected with the ancient Illyrian; and possibly also the unknown tongue which has been found recently on several inscriptions in Crete and seems to have been the language of the pre-Hellenic population, the finds apparently confirming the statement of Herodotus (vii. 170) that the earlier population survived in later times only at Praesos and Polichne. Names of deities worshipped by the Aryan branch are reported to have been discovered in the German excavations at Boghaz-Keui (anc. *Pteria*, *q.v.*) in Cappadocia; names of kings appear in widely separated areas elsewhere in Asia,[1] and a language not hitherto known has recently been found in excavations in Turkestan and christened by its first investigators Tocharish.[2] So far as yet ascertained, Tocharish seems to be a mongrel dialect produced by an intermixture of peoples speaking respectively an I.E. language and a language of an entirely different origin. The stems of the words are clearly in many cases I.E., but the terminations are no less clearly alien to this family of languages. It is remarkable that some of its words, like *ku*, "dog," have a hard *k*, while the other languages of this stock in Asia, so far as at present known, belong to the *satem*-group, and have in such words replaced the *k* by a sibilant.

Till the latter part of the 18th century it was the universal practice to refer all languages ultimately to a Hebrew origin, because Hebrew, being the language of the Bible, was assumed, with reference to the early chapters of Genesis, to be the original language. Even on these premises the argument was unsound, for the same authority also recorded a confusion of tongues at Babel, so that it was unreasonable to expect that languages thus violently metamorphosed could be referred so easily at a later period to the same original. The first person to indicate very briefly the existence of the Indo-European family, though he gave it no distinctive name, was Sir William Jones in his address to the Bengal Oriental Society in 1786. Being a skilled linguist, he recognized that Sanskrit must be of the same origin as Greek, Latin, Teutonic (Germanic) and possibly Celtic (*Asiatic Researches*, i. p. 422; *Works* of Sir W. Jones, i. p. 26, London, 1799). Unfortunately Sir William Jones's views as to the relationship of the languages were not adopted for many years by later investigators. He had said quite definitely, "No philologer could examine them all three (Sanskrit, Greek and Latin) without believing them to have sprung from some common source, which perhaps no longer exists." Friedrich Schlegel, who learnt Sanskrit from Alexander Hamilton in Paris nearly twenty years later, started the view that Sanskrit, instead of being the sister, was the mother of the other languages, a mistake which, though long since refuted in all philological works, has been most persistent.

Curiously enough the history of the names given to the family is obscure. The earliest known occurrence of the word "Indo-European" is in an article in the *Quarterly Review* for 1813[3] by Dr Thomas Young. The term has been in use in English and in French almost continuously since that date. But a glance at Dr Young's article will show that he included under Indo-European many languages like Basque, Etruscan and Arabian (his term for Semitic), which certainly do not belong to this family of languages at all; and if the term is taken to mean, as it would seem to imply, all the languages spoken in India and Europe, it is undoubtedly a misnomer. There are many languages in India, as those of the Dravidians in Southern India and those of Northern Assam, which do not belong to this family. On the other hand there are many languages belonging to the family which exist outside both India and Europe—Zend, Old Persian, Armenian, Phrygian, to say nothing of languages recently discovered. The term most commonly used in Germany is "Indo-Germanic." This was employed by Klaproth as early as 1823. It is said not to have been invented by him, but by whom and when it was invented is not quite ascertained.[4] It is an attempt to name  the family by its most easterly and most westerly links. At the time when it was invented it had not yet been settled whether Celtic was or was not a member of this family. But in any case the term would not have been wrong, for members of the Germanic stock have been settled for above a thousand years in Iceland, the most westerly land of Europe, and for the last four centuries have increasingly dominated the continent of America. As has been pointed out by Professor Buck of Chicago (*Classical Review*, xviii. p. 400), owing to the German method of pronouncing *eu* as *oi*, the word "Indo-Germanic" is easier for a German to pronounce than "Indo-European." Attempts to discover a more accurate and less ponderous term, such as "Indo-Celtic" or "Celtindic," have not met with popular favour. Aryan (*q.v.*) is conveniently brief, but is wanted as the proper term for the most easterly branch of the family. What is wanted is a term which does not confuse ethnological and linguistic ideas. Not all speakers of any given language are necessarily of the same stock. In ancient Rome Latin must have been spoken by many slaves or sons of slaves who had no Latin blood in their bodies, though a slave if manumitted by his master might be the father or grandfather of a Roman citizen with full rights. Plautus and Terence were both aliens, the one an Umbrian, the other an African. The speakers of modern English are even a more multifarious body. A possible name for the family, implying only the speaking of a language of the stock without any reference to racial or national characteristics, could be obtained from the name for man, so widely though perhaps not altogether universally diffused throughout the family—Sanskrit *vīras*, Lithuanian *wyras*, Lat. *vir*, Irish *fer*, Gothic *waír*, &c. If the speakers of these languages were called collectively *Wiros*, no confusion with ethnological theories need arise.

It is customary to talk of the roots, stems and suffixes of words in the Indo-European languages. These languages are distinguished from languages like Chinese by the fact that in the great majority of words suffixes can be separated from roots. But the distinction between them and the so-called agglutinative languages is one of degree rather than of kind. In the agglutinative languages, or at any rate in some of them, some of the post-fixed elements have still an independent value. In the Indo-Germanic languages no one can say what the meaning of the earliest suffixes was. Suffixes which have developed in individual languages or individual sections of this family of languages can often be traced, *e.g.* the often quoted *-hood* in English words like "manhood," or the English *-ly* in "manly," which has gradually extended till it is actually attached to its own parent *like* in "likely." But all recent investigation goes to show that before the Indo-European languages separated they possessed words with all the characteristics which we recognize in substantives like the Latin *dominus* or verbs like the Greek δείκνυται. Or, to put the same fact in

another way, by the comparative method it is impossible to reach a period when the speakers of Indo-European languages spoke in roots. A “root” is only a convenient philological abstraction; it is merely the remnant which is left when all the elements that can be analysed are taken away; it is therefore only a kind of greatest common measure for a greater or smaller body of words expressing modifications of the same idea. Thus, though by no means the earliest form of the word, the English *man* might be taken as the “root” from which are derived by various suffixes *manhood*, *manly*, *mannish*, *manful*, *manned* (past tense), *manned* (participle), *unman*, *mannikin*, &c. How far the suffixes which can be traced back to Indo-European times (*i.e.* to a time before the separation of the languages) had existence as separate entities it is impossible to say. From what we see of the later history of the languages it is much more probable that both forms and signification were very largely the result of analogy. For in the making of new words analogy plays a much larger part than any reference to general principles of formation or composition. New words are to a large extent, even in modern times, the invention of persons unskilled in the history of language.

The first to point out that the term Indo-European (or Indo-Germanic) was not used uniformly in one sense was Professor Kretschmer in his *Einleitung in die Geschichte der griechischen Sprache* (Göttingen, 1896), pp. 9 ff. It is in fact used in three senses. (1) Indo-European is treated as preceding and different from all its descendants, a single uniform speech without dialects. But, strictly, no such language can exist, for even individual members of the same family differ from one another in pronunciation, vocabulary, sentence formation, etc. Thus it appears impossible to ascertain what the Indo-European term for the numeral 1 was, since different languages show at least four words for this, three of them presenting the same root with different suffixes: (*a*) Sanskrit *eka* (= *οι-qu̯o-); (*b*) Zend *aeva*, Old Persian *aiva*, Greek οι-(ϝ)ο-ς (= *οι-u̯o-); (*c*) Greek οἰνή, “ace,” Latin *unus* (older *oenus*), Old Irish *oen*, Gothic *ains*, Lithuanian *vénas* (where the initial *v* has no more etymological signification than the *w* which now begins the pronunciation of the English *one*), Old Bulgarian *inŭ*; (*d*) Greek ἑῖς, ἕν (= **sem-s*). But the Indo-European community must have had a word for the numeral since the various languages agree in forms for the numerals 2 to 10, and the original Indo-European people seem to have been able to count at least as far as 100. On the other hand, if the Indo-European language must have had dialects, the line of differentiation between it and its descendants becomes obliterated. (2) But even when a word is found very widely diffused over the area of the Indo-European languages, it is not justifiable to conclude that therefore the word must have belonged to the original language. The dispersion of the Indo-European people over the areas they now inhabit, or inhabited in the earliest times known to history, must have been gradual, and commerce or communication between different branches must have always existed to some extent; the word might thus have been transmitted from one community to another. When a word is found in two branches which are geographically remote from one another and is not found in the intermediate area, the probability that the word is original is somewhat stronger. But even in this case the originality of the word is by no means certain, for (*a*) the intervening branch or branches which do not possess the word may merely have dropped it and replaced it by another; (*b*) the geographical position which the branches occupy in historical times may not be their original position; the branches which do not possess the word may have forced themselves into the area they now occupy after they had dropped the word; (*c*) if the linguistic communities which possess the word have a seaboard and the intervening communities have not, the possibility of its transmission in connexion with early sea-borne commerce must be considered. At the dawn of European history the Phoenicians and the Etruscans are great seafarers; at a later time the Varangians of the North penetrated to the Mediterranean and as far as Constantinople; in modern times sea-borne commerce brought to Europe words from the Caribbean Indians like *potato* and *tobacco*, and gave English a new word for man-eating savages—*cannibal*. Thus with Kretschmer we must distinguish between what is common Indo-European and what is original Indo-European in language. (3) A word may exist in several of the languages, and may have existed in them for a very long time, and yet not be Indo-European. Hehn (*Das Salz*, ed. 2, 1901) rejects *salt* as an Indo-European word because it is not found in the Aryan group, though in this case he is probably wrong, (*a*) because, as has been shown by Professor Johannes Schmidt, its irregular declension (*sal-d*, genitive *sal-nes*) possesses characteristics of the oldest Indo-European words; (*b*) because the great plains of Iran are characterized by their great saltness, so that the Aryan branch did not pass through a country where salt was unknown, although, according to Herodotus (i. 133), the Persian did not use salt to season his food. Since Kretschmer wrote, this argument has been used very extensively by Professor A. Meillet of Paris in his *Dialectes indo-européens* (Paris, 1908). In this treatise he brings forward arguments from a great variety of facts to show that in the original Indo-European language there were dialects, the Aryan, Armenian, Balto-Slavonic and Albanian, as we have seen, forming an oriental group with novel characteristics developed in common, although in various other characteristics they do not agree. Similarly Italic, Celtic and Germanic form a Western group, while Greek agrees now with the one group now with the other, at some points being more intimately connected with Italic than with any other branch, at others inclining more towards the Aryan. This grouping, however, is by no means exclusive, members of either group having characteristics in common with individuals of the other group which they do not share with the other languages of their own group (Meillet, p. 131 ff.).

From all this it is clear that in many cases it must be extremely uncertain what is original Indo-European and what is not. Some general characteristics can, however, be predicated from what is handed down to us in the earliest forms of all or nearly all the existing languages. (1) The noun had certainly a large number of distinct cases in the singular: nominative, accusative, genitive, ablative, locative, instrumental, dative.[5] In the plural, however, there was less variety, the forms for dative and ablative being from the earliest times identical. In the dual, the oblique cases cannot be restored with certainty, so little agreement is there between the languages. In the locative-singular the ending *-i* seems to have been of the nature of a post-position, because in various languages (notably in Sanskrit) forms appear without any suffix. In the locative plural also the difference between the *-su* of Sanskrit and early Lithuanian (Slavonic *-chu*) on the one hand, and of -σι in Greek on the other, seems to be best explained by supposing that the *-u* and *-i* are postpositions, a conclusion which is strengthened by the Greek rule that -σ- between vowels disappears. In the instrumental singular and plural it is noticeable that there are two suffixes—one, represented in Germanic and Balto-Slavonic only, beginning with the sound *-m*, the other, surviving in

most of the other languages for the plural, going back to an Indo-European form beginning with *-bh*. Professor Hirt of Leipzig has argued (*Idg. Forschungen*, v. pp. 251 ff.) that *-bh-* originally belonged to the instrumental plural (cf. the Lat. *filiabus*, *omnibus*, &c.), and the forms with *-m-* to the dative and ablative. But this is merely a conjecture, which has no linguistic facts in its favour, for the *-bi* of the Latin dative *tibi*, which has parallel forms in many other languages, belongs to the pronouns, which show in their declension many differences from the declension of the noun (cf. also Brugmann, *Grundriss* (ed. 2), ii. 2, p. 120). (2) The adjective agrees with its noun in gender, number and case, thus introducing a superfluous element of agreement which is not found, *e.g.* in most of the agglutinative languages. Thus in phrases like the Greek ἡ καλὴ κόρη or the Latin *illa pulchra puella* the feminine gender is expressed three times, with no advantage, so far as can be detected, over the modern English, *that fair maid*, where it is not obviously expressed at all. In this respect and also in the employment of the same case endings for the plural as well as the singular, in the plural after a syllable expressing plurality, the agglutinative languages have a distinct superiority over the Indo-European languages in their earliest forms. Some languages, like English and Modern Persian, have practically got rid of inflexion altogether and the present difficulty with it; others, like modern German, as the result of phonetic and analogical changes have even intensified the difficulty. (3) In the personal pronouns, especially those of the first and second persons, there is widely spread agreement, but more in the singular than in the plural. Forms corresponding to the English *I* and *thou*, the Latin *ego* and *tu*, are practically universal. On the other hand the demonstrative pronouns vary very considerably. (4) The system of numerals (subject to slight discrepancies, as that regarding 1 mentioned above) is the same, at least up to 100. (5) In the verb there were at first two voices, the active and the middle, and three moods, the indicative, the subjunctive and the optative. It has been suggested by Professors Oertel and Morris in *Harvard Studies*, xvi. (p. 101, n. 3) that the similarity which exists between the earliest Greek and the earliest Aryan in the moods is the result of a longer common life between those two branches. But of this there is no proof, and the great difference in the treatment of the sounds by these two branches (see below) militates very strongly against the supposition. The tense forms indicated originally not relations in time but different kinds of action. The distinctive forms are the present, the perfect, and the aorist. The present indicated that an action was in progress or continuous, the aorist on the other hand regarded the action as a whole and, as it were, summed it up. The aorist has sometimes been said to express instantaneous action, and so it does. But this is not the essence of the aorist; the aorist may be used also of a long continued action when it is regarded as a whole. Greek shows this very clearly. In Athenian official inscriptions it was usual to fix the date of the record by stating at the commencement who was the chief magistrate (archon) of the year. This was expressed by the imperfect (ἦρχε). But when reference was made to a past archonship, that was expressed by the aorist (ἦρξε). The same characteristic is evident also in prohibitions; thus, in Plato's *Apology of Socrates*, μὴ θορυβήσητε is "Do not begin to make a disturbance," μὴ θορυβεῖτε is "Do not keep on making a disturbance." These points are most easily illustrated from Greek, because Greek, better than the other languages, has kept the distinctive usages of both moods and tenses. The perfect as distinguished from the other forms expresses either repetition of the action, emphasis, or the state which results from the action expressed by the verb. Different languages regard this last in different ways. Sometimes the state resulting from the action is so characteristic that the perfect is almost an independent verb. Thus in Greek κτάομαι is "I acquire," but κέκτημαι (the perfect) is "I possess," the result of the action of acquiring. On the other hand the perfect may mean that the action has come to an end. This is specially common in Latin, as in Cicero's famous announcement of the execution of the Catilinarian conspirators,—*Vixerunt* ("They have lived" = "They are no more"). But it is by no means confined to Latin. The pluperfect, the past of the perfect, is a late development and can hardly be reckoned Indo-European. In Greek the forms clearly arise from adding aorist endings to a perfect stem. The forms of Latin are not yet completely explained—but it is certain that the specially Latin meaning expressing something that was past at a time already past (relative time) is a late growth. When Homeric Greek wishes to express this meaning it uses most frequently the aorist, but also the imperfect as well as the pluperfect, the notion of relative time being derived from the context. In the earliest Latin the pluperfect is not uncommonly used with the value of the aorist perfect. As regards the future it is difficult to say how far it was an original form. Some languages, like Germanic, preserve no original form for the future. When the present is found not to be distinctive enough, periphrastic forms come in. In other languages, like Latin and Greek, there is constant confusion between subjunctive and future forms. It is impossible to distinguish by their form between δείξω (future) and δείξω (subjunctive), between *regam* (future) and regam (subjunctive). A special future with a suffix *-si̯o-* (*syo*) is found only with certainty in the Aryan group and the Baltic languages. The future perfect is, strictly speaking, only a future made from a perfect stem; in the Latin sense it is certainly a late development, and even in early Latin, *videro* has occasionally no different meaning from *videbo*. The imperative, which was originally an exclamatory form to the verb, of the same kind as the vocative was to the noun, and which consisted simply of the verb stem without further suffixes, developed, partly on the analogy of the present and partly with the help of adverbs, a complete paradigm. The infinitives of all the languages are noun cases, generally stereotyped in form and no longer in touch with a noun system, though this, *e.g.* in early Sanskrit, is not always true. The participles differ only from other adjectives in governing the same case as their verb; and this is not an early distinction, for in the earliest Sanskrit all verbal nouns may govern the same case as their verb.

The system here sketched in the barest outline tended steadily to fall into decay. The case system was not extensive enough to express even the commonest relations. Thus there was no means of distinguishing by the cases between starting from outside and starting from inside, ideas which, *e.g.* Finnish regards as requiring separate cases; without a preposition it was impossible to distinguish between *on* and *in*, though to the person concerned there is much difference, for example between being on a river and in a river. There are other difficulties of the same kind. These had to be got over by the use of adverbs. But no sooner had the adverbs become well established for the purpose of defining these local relations than the meaning was felt to exist more in the adverb than in the case ending. For this syntactical reason, as well as for mechanical reasons arising from accent (*q.v.*), the case system in some languages fell more and more into desuetude. In Sanskrit it has been kept entire, in Balto-Slavonic the only loss has been the disappearance of the original genitive and its replacement by the ablative. In Latin the locative has been confused with the genitive and the ablative, and the instrumental with the ablative. The loss of the locative

as an independent case had not long preceded historical times, because it survives in Oscan, the kindred dialect of the neighbouring Campania. Greek has confused ablative with genitive, except for one small relic recently discovered on an inscription at Delphi; in the consonant stems it has replaced the dative by the locative form and confused in it dative, locative and instrumental meanings. In some other members of the family, *e.g.* Germanic, the confusion has gone still farther.

The fate of the verb is similar, though the two paradigms do not necessarily decay at the same rate. Thus Latin has modified its verb system much more than its noun system, and Greek, while reducing seriously its noun forms, shows a very elaborate verb system, which has no parallel except in the Aryan group. From the syntactical point of view, however, the Greek system is much superior to the Aryan, which has converted its perfect into a past tense in classical Sanskrit, and to a large extent lost grip of the moods. The decay in Aryan may be largely attributed to the power, which this group developed beyond any other, of making compounds which in practice took the place of subordinate sentences to a large extent. The causes for the modifications which the Latin verb system has undergone are more obscure, but they are shared not only by its immediate neighbours the other Italic dialects, but also to a great degree by the more remote Celtic dialects.

The origin and spread of the Indo-European languages has long been, and remains, a vexed question. No sooner had Bopp laid the foundation of Comparative Philology in his great work, the first edition of which appeared in 1833-1835, than this question began to be seriously considered. The earlier writers agreed in regarding Asia as the original home of the speakers of these languages. For this belief there were various grounds,—statements in the Biblical record, the greater originality (according to Schlegel) of Sanskrit, the absurd belief that the migrations of mankind always proceeded towards the west. The view propounded by an English philologist, Dr R. G. Latham, that the original home was in Europe, was scouted by one of the most eminent writers on the subject—Victor Hehn—as lunacy possible only to one who lived in a country of cranks. Latham's view was first put forward in 1851, and in half a century opinion had almost universally come over to his side. Max Müller indeed to the last held to the view that the home was "somewhere in Asia," and Professor Johannes Schmidt of Berlin, in a paper read before the Oriental Congress at Stockholm in 1889, argued for a close contact between early Indo-European and Assyrian civilization, from the borrowing of one or two words and the existence of duodecimal elements in the Indo-European numeral system side by side with the prevalent decimal system—the dozen, the gross, the long hundred (120), &c. At 60 the systems crossed, and 60 was a very characteristic element in Assyrian numeration, whence come our minutes and seconds and many other units.[6]



Even before Latham a Belgian geologist, d'Omalius d'Halloy, in 1848 had raised objections to the theory of the Asiatic origin of the Indo-Europeans, but his views remained unheeded. In 1864 he brought three questions before the *Société d'anthropologie* of Paris: (1) What are the proofs of the Asiatic origin of Europeans? (2) Have not inflectional languages passed from Europe to Asia rather than from Asia to Europe? (3) Are not the speakers of Celtic languages the descendants of the autochthonous peoples of Western Europe? (Reinach, *op. cit.* p. 38). Broca in replying to d'Omalius emphasized the fact which has been too often forgotten in this controversy, that race and language are not necessarily identical. In 1868 Professor Benfey of Göttingen argued for the south-east of Europe as the original home, while Ludwig Geiger in 1871 placed it in Germany, a view which in later times has had not a few supporters.

Truth to tell, however, we are not yet ready to fix the site of the original home. Before this can be done, many factors as yet imperfectly known must be more completely ascertained. The prehistoric conditions of Northern, Western, Central and South-eastern Europe have been carefully investigated, but important new discoveries are still continually being made. Investigation of other parts of Europe is less complete, and prehistoric conditions in Asia are at present very imperfectly known. In Western Europe two prehistoric races are known, the palaeolithic and the neolithic. The former, distinguished by their great skill in drawing figures of animals, especially the horse, the reindeer, and the mammoth, preceded the period of the Great Ice Age which rendered Northern Europe to the latitude of London and Berlin uninhabitable for a period, the length of which, as of all geological ages, cannot definitely be ascertained. For the present purpose, however, this is of less importance, because it is not claimed that the Indo-European stock is of so great antiquity. But when the ice again retreated it must have been long before Northern Europe could have maintained a population of human beings. The disappearance of the surface ice must have been followed by a long period when ice still remained underground, and the surface was occupied by swamps and barren tundras, as Northern Siberia is now. When a human population once more occupied Northern Europe it is impossible to estimate in years.

The problem may be attacked from the opposite direction. How long would it have taken for the Indo-European stock to spread from its original home to its modern areas of occupation? Some recent writers say that it is unnecessary to carry the stock back farther than 2500 B.C.—a period when the civilizations of Egypt and Mesopotamia were already ancient. Wherever the original home was situated, this date is probably fixed too low. The discussion, moreover, is in danger not only of moving in one vicious circle but in two. (*a*) The term "Indo-European stock" necessarily implies race, but why might not the language have been from the earliest times at which we can trace it the language of a mixed race? (*b*) It is usual to assume that the Indo-European stock was tall and blond, in fact much as the classical writers describe the early Germans. But the truth of this hypothesis is much more difficult to demonstrate. In most countries known to the ancients where blond hair prevailed, at the present day dark or brown hair is much more in evidence. Moreover the colour of fair hair often varies from childhood to middle life, and the flaxen hair of youth is very frequently replaced by a much darker shade in the adult. It has been often pointed out that many of Homer's heroes are *xanthoi*, and it is frequently argued that ξανθός means blond. This, however, is anything but certain, even when Vacher de Lapouge has collected all the passages in ancient writers which bear upon the subject. When Diodorus (v. 32) wishes to describe the children of the Galatae, by whom apparently he means the Germans, he says that their hair as children is generally *white*, but as they grow up it is assimilated to the colour of their fathers. The ethnological argument as to long-headed and short-headed races (dolichocephalic and brachycephalic) seems untrustworthy, because in countries described as dolichocephalic short skulls abound and vice versa. Moreover this classification, to which

much more attention has been devoted than its inventor Retzius ever intended, is in itself unsatisfactory. The relation between the length and breadth of the head without consideration of the total size is clearly an unsatisfactory criterion. It is true that to the mathematician ¾ or ⅝ or ⁹⁄₁₂ are of identical value, but, if it be also generally true that mental and physical energy are dependent on the size and weight of the brain, then the mere mathematical relation between length and breadth is of less importance than the size of the quantities. Anthropologists appear now to recognize this themselves.

The argument from physical geography seems more important. But here also no certain answer can be obtained till more is known of the conditions, in early times, of the eastern part of the area. According to Ratzel[7] the Caspian was once very much larger than it is now, and to the north of it there extended a great area of swamp, which made it practically impossible for the Indo-European race to have crossed north of the Caspian from either continent to the other. At an early period the Caspian and Black Sea were connected, and the Sea of Marmora and the Dardanelles were represented by a river which entered the Aegean at a point near the island of Andros. While the northern Aegean was still land divided only by a river, it is clear that migration from south-eastern Europe to Asia Minor, or reversely, might have taken place with ease. Even in much later times the Dardanelles have formed no serious barrier to migration in either direction. At the dawn of history, Thracian tribes crossed it and founded, it seems, the Phrygian and Armenian stock in Asia Minor; the Gauls at a later time followed the same road, as did Alexander the Great a generation earlier. At the end of the middle ages, Asia sent by way of the Dardanelles the invading Turks into Europe. The Greeks, a nation of seafarers, on the other hand reached Asia directly across the Aegean, using the islands, as it were, as stepping-stones.

Though much more attention has been devoted to the subject by recent writers than was earlier the practice, it is doubtful whether migration by sea has even now been assigned its full importance. The most mysterious people of antiquity, the Pelasgians, do not seem to be in all cases the same stock, as their name appears merely to mean “the people of the sea,” Πελασγοί representing an earlier πελαγς-κοι, where πελαγς is the weak form of the stem of πέλαγος, “sea,” and -κοι the ending so frequent in the names of peoples. A parallel to the sound changes may be seen in μίσγω, for *μίγ-σκω, by the side of μίγ-νυμι. As time goes on, evidence seems more and more to tend to confirm the truth of the great migrations by sea, recorded by Herodotus, of Lydians to Etruria, of Eteocretans both to east and west. An argument in favour of the original Indo-Europeans being seated in north-western Germany has been developed by G. Kossinna (*Zeitschrift für Ethnologie*, 1902, pp. 161-222) from the forms and ornamentation of ancient pottery. It has certainly not been generally received with favour, and as Kossinna himself affirms that the classification of prehistoric pottery is still an undeveloped science, his theory is clearly at present unequal to the weight of such a superstructure as he would build upon it. As the allied sciences are not prepared with an answer, it is necessary to fall back upon the Indo-European languages themselves. The attempt has often been made to ascertain both the position of the original home and the stage of civilization which the original community had reached from a consideration of the vocabulary for plants and animals common to the various languages of the Indo-European family. But the experience of recent centuries warns us to be wary in the application of this argument. If we cut off all past history and regard the language of the present day as we have perforce to regard our earliest records, two of the words most widely disseminated amongst the Indo-European people of Europe are *tobacco* and *potato*. Without historical records it would be impossible for us to discover that these words in their earliest European form had been borrowed from the Caribbean Indians. Most languages tend to adopt with an imported product the name given to it by its producers, though frequently misunderstanding arises, as in the case of the two words mentioned, the *potato* being properly the yam, and *tobacco* being properly the pipe, while *petum* or *petun* (cp. *petunia*) was the plant.[8]

The first treatise in which an attempt was made to work out the primitive Indo-European civilisation in detail was Adolphe Pictet’s *Les Origines indo-européennes ou les Aryas primitifs* (1859-1863). The idyllic conditions in which, according to Pictet, early Indo-European man subsisted were accepted and extended by many enthusiastic successors. The father, the protector of the family (*pater* from *pā*, protect), and the mother (*mater* from *mā*, to produce) were surrounded by their children (Skt. *putra*), whose name implied that they kept everything clean and neat. The daughter was the milkmaid (Skt. *duhitā* from *duh*, milk), while the brother (Skt. *bhrātār*), derived from the root of *ferre*, “bear,” was the natural protector of his sister, whose name, with some hesitation, is decided to mean “she who dwells with her brother,” the notion of brother and sister marriage being, however, summarily rejected (ii. p. 365). The uncle and aunt are a second father and mother to the family, and for this reason *nepos*, Skt. *napāt*, is both nephew and grandson. The life of such families was pastoral but not nomad; there was a farmstead where the women were busied with housewifery and butter-making, while the men drove their flocks afield. The ox, the horse, the sheep, the goat and the pig were domesticated as well as the dog and the farmyard fowls, but it was in oxen that their chief wealth consisted. Hence a cow was offered to an honoured guest, cows were the object of armed raids upon their neighbours, and when a member of the family died, a cow was killed to accompany him in the next world. Even the phenomena of nature to their naive imaginations could be represented by cows: the clouds of heaven were cows whose milk nourished the earth, the stars were a herd with the sun as the bull amongst them, the earth was a cow yielding her increase. Before the original community, which extended over a wide area with Bactria for its centre, had broken up, agriculture had begun, and barley, if not other cereals, and various leguminous plants were cultivated. Oxen drew the plough and the wagon. Industry also had developed with the introduction of agriculture; the carpenter with a variety of tools appears to construct farm implements, buildings and furniture, and the smith is no less busy. Implements had begun with stone, but by this time were made of bronze if not of iron, for the metals gold, silver, copper, tin were certainly known. Spinning and weaving had also begun; pottery was well developed. The flocks and herds and agriculture supplied food with plenty of variety; fermented liquors, mead, probably wine and perhaps beer, were used, not always in moderation. A great variety of military weapons had been invented, but geographical reasons prevented navigation from developing in Bactria. Towns existed and fortified places. The people were organized in clans, the clans in tribes. At the head of all, though not in the most primitive epoch, was the king, who reigned not by hereditary right, but by election. Though money had not yet been invented, exchange and barter flourished; there were borrowers and lenders, and property passed from father to son. Though we have no definite information as

to their laws, justice was administered; murder, theft and fraud were punished with death, imprisonment or fine (*Résumé général* at end of vol. ii.).

Further investigation, however, did not confirm this ideally happy form of primitive civilization. Many of Pictet's etymologies were erroneous, many of his deductions based on very uncertain evidence. No recent writer adopts Pictet's views of the Indo-European family. But his list of domesticated animals is approximately correct, if domestication is used loosely simply of animals that might be kept by the Indo-European man about his homestead. Even at the present day domestication means different things in the case of different animals. A pig is not domesticated as a dog is; in areas like the Hebrides or western Ireland, where cattle and human beings share the two ends of the same building, domestication means something very different from the treatment of large herds on a farm extending to many hundreds of acres. In other respects the height of the civilization was vastly exaggerated. That the Indo-European people were agricultural as well as pastoral seems highly probable. But as Heraclides says of the Athamanes (*Fragmenta hist. Graec.* ii. 219), the women were the agriculturists, while the men were shepherds. Agriculture begins on a very small scale with the dibbling by means of a pointed stick of a few seeds of some plant which the women recognize as useful either for food or medicine, and is possible only when the people have ceased to be absolutely nomad and have fixed settlements for continuous periods of some length. The pastoral habit is broken down in men only by starvation, if the pasture-lands become too cramped through an excessive increase of population or are seized by a conqueror. As has been well said, "of all the ordinary means of gaining a livelihood—with the exception perhaps of mining—agriculture is the most laborious, and is never voluntarily adopted by men who have not been accustomed to it from their childhood" (Mackenzie Wallace, Russia, new ed. i. p. 266, in relating the conversion of the Bashkir Tatars to agriculture). Even the plough, in the primitive form of a tree stump with two branches, one forming the handle, the other the pole, was developed, and to this period may belong the representations in rock carvings in Sweden and the Alps of a pair of oxen in the plough (S. Müller, *Nordische Altertumskunde*, i. 205; Dechelette, *Manuel d'archéologie*, ii. pp. 492 ff.). The Indo-European civilization in its beginnings apparently belongs to the chalcolithic period (sometimes described by the barbarous term of Italian origin *eneolithic*) when copper, if not bronze had come in, but the use of stone for many purposes had not yet gone out. While primitive Indo-European man apparently knew, as has been said, the horse, ox, sheep, goat, pig and dog, it is to be observed that in their wild state at least these animals do not all affect the same kind of area. The horse is an animal of the open plain; the foal always accompanies the mother, for at first its neck is too short to allow it to graze, and the mare, unlike the cow, has no large udder in which to carry a great supply of milk. The cow, on the other hand, hides her calf in a brake when she goes to graze, and is more a woodland animal. The pig's natural habitat is the forest where beech mast, acorns, or chestnuts are plentiful. The goat is a climber and affects the heights, while the sheep also prefers short grass to the richer pastures suited to kine. To collect and tame all those animals implies control of an extensive and varied area.

What of the trees known to primitive Indo-European man? On this the greater part of the arguments regarding the original home have turned. The name for the *beech* extends through a considerable number of Indo-European languages, and it has generally been assumed that the beech must have been known from the first and therefore must have been a tree which flourished in the original home. Now the habitat of the beech is to the west of a line drawn from Königsberg to the Crimea. The argument assumes that its distribution was always the same. But nothing is more certain than that in different ages different trees succeed one another on the same soil. In the peat mosses of north-east Scotland are found the trunks of vast oaks which have no parallel among the trees which grow in the same district now, where the oak has a hard struggle to live at all, and where experience teaches the planter that coniferous trees will be more successful. On the coast of Denmark in the same way the conifer has replaced the beech since the days of the "kitchen middens," from which so much information as to the primitive inhabitants of that area has been obtained. But with regard to the names of trees there are two serious pitfalls which it is difficult to avoid. (*a*) It is common to give a tree the name of another which in habit it resembles. In England the oriental plane does not grow freely north of the Trent; accordingly, farther north the sycamore, which has a leaf that a casual observer might think similar, has usurped the name of the plane. (*b*) In the case of the beech (Lat. *fagus*), the corresponding Greek word φηγός does not mean *beech* but *oak*, or possibly, if one may judge from the magnificent trees of north-west Greece, the chestnut. It has been suggested that the word is connected with the verb φαγεῖν to eat, so that it was originally the tree with edible fruit and could thus be specialized in different senses in different areas. If, however, Bartholomae's connexion of the Kurd *būz*, "elm" (*Idg. Forschungen*, ix. 271) be correct, there can be no relation between φαγεῖν and φηγός, but the latter comes from a root **bhāugʰ*, in which the *g* would become *z* among the *satem* languages. The birch is a more widely spread tree than the beech, growing as luxuriantly in the Himalayas as in western Europe, but notwithstanding, the Latin *fraxinus*, which is almost certainly of the same origin, means not *birch* but *ash*, while the word akin to ash (Gr. ὀξύη) appears in Latin without the *k* suffix as *os-* in Latin *ornus*, "mountain ash," for an earlier **osinos*, cp. Old Bulgarian *jasenŭ* (the *j* has no etymological value), Welsh and Cornish *onnen*, from an original Celtic **onna* from **os-nā*. One of the most widely spread tree names is the word *tree* itself, which appears in a variety of forms, Gr. δρῦς, Goth *triu*; Skt. *dāru*, δόρυ, &c., which is sometimes as in Greek specially limited to the oak, while the Indian *deodar* (*deva-dāru*) is a conifer. O. Schrader, who in his remarkable book, *Sprachvergleichung und Urgeschichte* (1883, 3rd ed., 1906-1907), locates the original home in southern Russia, would allow the original community (ii. p. 178) to be partly within, partly without the beech line. The only other tree the name of which is widely spread is the willow: the English *with*, *withy*, Lat. *vitex*, Gr. ἰτέα for ϝιτέα, Lithuanian *wýtis*, Zend *vaêti*. Otherwise the words for trees are limited to a small number of languages, and the meaning in different languages is widely different, as Gr. ἐλάτη, "pine," Old High German *linta*, "linden," with which go the Latin *linter*, "boat," and Lithuanian *lentà*, "board." The lime tree and the birch do not exist in Greece, and the Latin *betula* is a borrowing from Gaulish (Irish *bethe*), the native word *fraxinus*, as we have seen, being used for the *ash*. The equation of the Latin *taxus*, "yew," with Gr. τόξον, "bow," is no doubt correct; Schrader's equation of Skt. *dhanvan*, "bow," with the German *tanne*, "fir," must, if correct, show at least a change of material, for no wood is less well adapted for a bow than fir. The only conclusion that can be drawn with apparent certainty from the names of trees is that the original settlements were not in the southern

peninsulas of Europe.

Some of the names for cultivated plants are widely spread, but like the names of trees do not always indicate the same thing. This is not surprising if we consider that the word *corn*, within the Teutonic languages alone, means wheat in England, oats in Scotland, rye in Germany, barley in Sweden, maize in the United States of America. Thus the Skt. *yáva* means corn or barley, in Zend corn (modern Persian *jav*, barley, but in the language of the Ossetes *yeu*, *yau* is millet), the Gk. ζειά is spelt, the Lithuanian *jawaí* corn, the Irish *éorna* barley (Schrader, *Sprachvergleichung*[3] ii. p. 188). The word bere or barley itself is widely spread in Europe—Latin *far*, spelt, Goth, *barizeins*, "of barley," Old Norse *barr*, Old Slav, *bŭrŭ*, a kind of millet (*ibid.*). But the original habitat of the cultivated grain plants has not yet been clearly established, and circumstances of many kinds may occasion a change in the kind of grain cultivated, provided another can be found suitable to the climate. In early England it is clear that the prevalent crop was *barley*, for *barn* is the *bere-ern* or barley-house.

The earliest tree-fruits found in Europe are apparently those discovered by Edouard Piette as Mas d'Azil in a stratum which he places between palaeolithic and neolithic. They included nuts, plums, birdcherry, sloe, &c., and along with them was a little heap of grains of wheat. If Piette's observations are correct, this find must go back to a date long preceding the fruits found by Heer in the pile-dwellings of Switzerland. Here also cherry-stones were found, though the modern cherry is said to have been imported first by Lucullus in the first century B.C. from Cerasus in Pontus, whence its name. In the pile-dwellings a considerable number of apples were found. They were generally cut up into two or three pieces, apparently to be dried for winter use. In all probability they were wild apples of the variety *Pirus silvatica*, which is found across the whole of Central Europe from north to south (Buschan, *Vorgeschichtliche Botanik*, p. 166). The original habitat of the apple is uncertain, but it is supposed to be indigenous at any rate south of the Black Sea (Schrader, *Reallexikon*, s.v. *Apfelbaum*). The history of the name is obscure; it is often connected with the Campanian town Abella, which Virgil (*Aeneid*, vii. 740) calls *malifera*, "apple-bearing." Here also the material for fixing the site of the original habitat is untrustworthy. 500

The attempt has been made to limit the possible area by a consideration of three animals which are said not to occur in certain parts of it—(*a*) the eel, which is said not to be found in the Black Sea; (*b*) the honey bee, which is not found in that part of Central Asia drained by the Oxus and Jaxartes; (*c*) the tortoise, which is not found in northern areas. From evidence collected by Schrader from a specialist at Bucharest (*Sprachvergleichung*,[3] ii. p. 147) eels are found in the Black Sea. The argument, therefore, for excluding the area which drains into the Black Sea from the possible habitat of the primitive Indo-European community falls to the ground. Honey was certainly familiar at an early age, as is shown by the occurrence of the word **medhu*, Skt. *mádhu*, Gr. μέθυ (here the meaning has shifted from mead to wine), Irish *mid*, English *mead*, Old Slav, *medŭ*, Lithuanian *medùs* honey, *midùs* mead. Schrader, who is the first to utilize the name of the tortoise in this argument, points out (*op. cit.* p. 148) that forms from the same root occur in both a *centum* and a *satem* language—Gr. χελύς, χελώνη, Old Slav. *žĭly*, *želŭvĭ*—but that while it reaches far north in eastern Europe, it does not pass the 46th parallel of latitude in western Europe. This argument would make not only the German site for the original home which is supported by Kossinna and Hirt impossible, but also that of Scandinavia contended for by Penka.

From the foregoing it will be seen that the arguments for any given area are not conclusive. In the great plain which extends across Europe north of the Alps and Carpathians and across Asia north of the Hindu Kush there are few geographical obstacles to prevent the rapid spread of peoples from any part of its area to any other, and, as we have seen, the Celts and the Hungarians, &c., have, in the historical period, demonstrated the rapidity with which such migrations could be made. Such migration may possibly account for the appearance of a people using a *centum* language so far east as Turkestan. But our information as to Tocharish is still too fragmentary to decide the question. It is impossible here to discuss at any length the relations between the separate Indo-European languages, a subject which has formed, from somewhat different points of view, the subject of Kretschmer's *Einleitung in die Geschichte der griechischen Sprache* and Meillet's *Les Dialectes indo-européennes*.

BIBLIOGRAPHY.—Besides the articles on the separate languages in this Encyclopaedia the following works are the most important for consultation: K. Brugmann (phonology and morphology) and B. Delbrück (syntax), *Grundriss der vergleichenden Grammatik der indogermanischen Sprachen* (1886-1900), ed. 2, vol. i. (1897); of vol. ii. two large parts, including the stem formation and inflexion of the noun, the pronoun and the numerals, have been published in 1906 and 1909. A shorter work by Brugmann, *Kurze vergleichende Grammatik der indogermanischen Sprachen*, dealing mainly with Sanskrit, Greek, Latin, Germanic and Slavonic, appeared in three parts in 1902-1903. A good but less elaborate work is A. Meillet, *Introduction à l'étude comparative des langues indo-européennes* (1903, 2nd ed. 1908). For the ethnological argument: W. Z. Ripley, *The Races of Europe* (1900); G. Sergi, *The Mediterranean Race* (English edition, 1901). Other works, now largely superseded, which deal with this argument are K. Penka, *Origines Ariacae* (1883), and *Die Herkunft der Arier* (1886), and I. Taylor, *The Origin of the Aryans*, N.D. (1890). The ethnologists are no more in agreement than the philologists. For the arguments mainly from the linguistic side see especially O. Schrader, *Sprachvergleichung und Urgeschichte* (3rd ed., 2 vols., 1906-1907)—the second edition was translated into English by Dr F. B. Jevons under the title *Prehistoric Antiquities of the Aryan Peoples* (1890); *Reallexikon der indogermanischen Altertumskunde* (1901); M. Much, *Die Heimat der Indogermanen* (1902, 2nd ed. 1904); E. de Michelis, *L'Origine degli Indo-europei* (1903); H. Hirt, *Die Indogermanen* (2 vols., 1905-1907); S. Feist, *Europa im Lichte der Vorgeschichte und die Ergebnisse der vergleichenden indogermanischen Sprachwissenschaft*, 1910, in W. Sieglin's *Quellen und Forschungen zur alten Geschichte und Geographie*. Important for special sections of this question are S. Müller, *Nordische Altertumskunde* (2 vols., 1897-1898), and *Urgeschichte Europas* (1905); V. Hehn, *Kulturpflanzen und Haustiere* (1870), 7th ed. edited by O. Schrader, with contributions on botany by A. Engler (1902); J. Hoops, *Waldbäume und Kulturpflanzen im germanischen Altertum* (1905). Delbrück has devoted a special monograph to the I.-E. names of relationships, from which he shows that the I.-E. family was patriarchal, not matriarchal (*Die idg. Verwandtschaftsnamen*, 1889). E. Meyer, from Tocharish being a *centum* language, has revived with reserve the hypothesis of the Asiatic origin (*Geschichte des Altertums*,[2] I. 2, p. 801).

1 E. Meyer, *Sitzungsberichte der Berliner Akademie* (1908, pp. 14 ff.), and more fully in *Kuhn's Zeitschrift* (xlii. pp. 17 ff.); also *Geschichte des Altertums* (i. 2, 2nd ed. pp. 807 ff.).

2 Sieg und Siegling, "Tocharisch, die Sprache der Indoskythen" (*Sitzb. d. Berl. Ak.* 1908, pp. 915 ff.).

3 No. xix. p. 255, "Another ancient and extensive class of languages, united by a greater number of resemblances than can well be altogether accidental, may be denominated the Indo-European, comprehending the Indian, the West Asiatic, and almost all the European languages."

4 Leo Meyer, "Über den Ursprung der Namen Indogermanen, Semiten und Ugrofinner," in the *Göttinger gelehrte Nachrichten, philologisch-historische Klasse*, 1901, pp. 454 ff.

5 The vocative is not strictly speaking a case at all, for it stands outside the syntax of the sentence. It was originally an exclamatory form consisting of the bare stem without case suffix. In the plural the nominative is used to supply the lacking vocative form.

6 For the history of the controversy see the excellent summary in Salomon Reinach's *L'Origine des Aryens: Historie d'une controverse* (1892). Max Müller's latest views are contained in his *Biographies of Words and the Home of the Aryas* (1888). See Schmidt's *Die Urheimat der Indogermanen und das europäische Zahlsystem* (1890).

7 "Geographische Prüfung der Tatsachen über den Ursprung der Völker Europas" (*Berichte der k. sächsischen Ges. d. Wissenschaften*, 1900, pp. 34 ff.).

8 See the essay on "Evolution and the Science of Language," in *Darwin and Modern Science* (1909), p. 524 f.

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