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THE ENCYCLOPÆDIA BRITANNICA

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VOLUME XVI SLICE II

Lamennais, Robert de to Latini, Brunetto

Articles in This Slice

LAMENNAIS, HUGUES FÉLICITÉ ROBERT DE (1782-1854), French priest, and philosophical and political writer, was born at Saint Malo, in Brittany, on the 19th of June 1782. He was the son of a shipowner of Saint Malo ennobled by Louis XVI. for public services, and was intended by his father to follow mercantile pursuits. He spent long hours in the library of an uncle, devouring the writings of Rousseau, Pascal and others. He thereby acquired a vast and varied, though superficial, erudition, which determined his subsequent career. Of a sickly and sensitive nature, and impressed by the horrors of the French Revolution, his mind was early seized with a morbid view of life, and this temper characterized him throughout all his changes of opinion and circumstance. He was at first inclined towards rationalistic views, but partly through the influence of his brother Jean Marie (1775-1861), partly as a result of his philosophical and historical studies, he felt belief to be indispensable to action and saw in religion the most powerful leaven of the community. He gave utterance to these convictions in the *Réflexions sur l'état de l'église en France pendant le 18^{ième} siècle et sur sa situation actuelle*, published anonymously in Paris in 1808. Napoleon's police seized the book as dangerously ideological, with its eager recommendation of religious revival and active clerical organization, but it awoke the ultramontane spirit which has since played so great a part in the politics of churches and of states.

As a rest from political strife, Lamennais devoted most of the following year to a translation, in exquisite

French, of the *Speculum Monachorum* of Ludovicus Blosius (Louis de Blois) which he entitled *Le Guide spirituel* (1809). In 1811 he received the tonsure and shortly afterwards became professor of mathematics in an ecclesiastical college founded by his brother at Saint Malo. Soon after Napoleon had concluded the Concordat with Pius VII. he published, in conjunction with his brother, *De la tradition de l'église sur l'institution des évêques* (1814), a writing occasioned by the emperor's nomination of Cardinal Maury to the archbishopric of Paris, in which he strongly condemned the Gallican principle which allowed bishops to be created irrespective of the pope's sanction. He was in Paris at the first Bourbon restoration in 1814, which he hailed with satisfaction, less as a monarchist than as a strenuous apostle of religious regeneration. Dreading the *Cent Jours*, he escaped to London, where he obtained a meagre livelihood by giving French lessons in a school founded by the abbé Jules Carron for French émigrés; he also became tutor at the house of Lady Jerningham, whose first impression of him as an imbecile changed into friendship. On the final overthrow of Napoleon in 1815 he returned to Paris, and in the following year, with many misgivings as to his calling, he yielded to his brother's and Carron's advice, and was ordained priest by the bishop of Rennes.

The first volume of his great work, *Essai sur l'indifférence en matière de religion*, appeared in 1817 (Eng. trans. by Lord Stanley of Alderley, London, 1898), and affected Europe like a spell, investing, in the words of Lacordaire, a humble priest with all the authority once enjoyed by Bossuet. Lamennais denounced toleration, and advocated a Catholic restoration to belief. The right of private judgment, introduced by Descartes and Leibnitz into philosophy and science, by Luther into religion and by Rousseau and the Encyclopaedists into politics and society, had, he contended, terminated in practical atheism and spiritual death. Ecclesiastical authority, founded on the absolute revelation delivered to the Jewish people, but supported by the universal tradition of all nations, he proclaimed to be the sole hope of regenerating the European communities. Three more volumes (Paris, 1818-1824) followed, and met with a mixed reception from the Gallican bishops and monarchists, but with the enthusiastic adhesion of the younger clergy. The work was examined by three Roman theologians, and received the formal approval of Leo XII. Lamennais visited Rome at the pope's request, and was offered a place in the Sacred College, which he refused. On his return to France he took a prominent part in political work, and together with Chateaubriand, the vicomte de Villèle, was a regular contributor to the *Conservateur*, but when Villèle became the chief of the supporters of absolute monarchy, Lamennais withdrew his support and started two rival organs, *Le Drapeau blanc* and *Le Mémorial catholique*. Various other minor works, together with *De la religion considérée dans ses rapports avec l'ordre civil et politique* (2 vols., 1825-1826), kept his name before the public.

He retired to La Chênaie and gathered round him a host of brilliant disciples, including C. de Montalembert, Lacordaire and Maurice de Guérin, his object being to form an organized body of opinion to persuade the French clergy and laity to throw off the yoke of the state connexion. With Rome at his back, as he thought, he adopted a frank and bold attitude in denouncing the liberties of the Gallican church. His health broke down and he went to the Pyrenees to recruit. On his return to La Chênaie in 1827 he had another dangerous illness, which powerfully impressed him with the thought that he had only been dragged back to life to be the instrument of Providence. *Les Progrès de la révolution et de la guerre contre l'église* (1828) marked Lamennais's complete renunciation of royalist principles, and henceforward he dreamt of the advent of a theocratic democracy. To give effect to these views he founded *L'Avenir*, the first number of which appeared on the 16th of October 1830, with the motto "God and Liberty." From the first the paper was aggressively democratic; it demanded rights of local administration, an enlarged suffrage, universal freedom of conscience, freedom of instruction, of meeting, and of the press. Methods of worship were to be criticized, improved or abolished in absolute submission to the spiritual, not to the temporal authority. With the help of Montalembert, he founded the *Agence générale pour la défense de la liberté religieuse*, which became a far-reaching organization, it had agents all over the land who noted any violations of religious freedom and reported them to headquarters. As a result, *L'Avenir's* career was stormy, and the opposition of the Conservative bishops checked its circulation; Lamennais, Montalembert and Lacordaire resolved to suspend it for a while, and they set out to Rome in November 1831 to obtain the approval of Gregory XVI. The "pilgrims of liberty" were, after much opposition, received in audience by the pope, but only on the condition that the object which brought them to Rome should not be mentioned. This was a bitter disappointment to such earnest ultramontanes, who received, a few days after the audience, a letter from Cardinal Pacca, advising their departure from Rome and suggesting that the Holy See, whilst admitting the justice of their intentions, would like the matter left open for the present. Lacordaire and Montalembert obeyed; Lamennais, however, remained in Rome, but his last hope vanished with the issue of Gregory's letter to the Polish bishops, in which the Polish patriots were reproved and the tsar was affirmed to be their lawful sovereign. He then "shook the dust of Rome from off his feet." At Munich, in 1832, he received the encyclical *Mirari vos*, condemning his policy; as a result *L'Avenir* ceased and the *Agence* was dissolved.

Lamennais, with his two lieutenants, submitted, and deeply wounded, retired to La Chênaie. His genius and prophetic insight had turned the entire Catholic church against him, and those for whom he had fought so long were the fiercest of his opponents. The famous *Paroles d'un croyant*, published in 1834 through the intermediary of Sainte-Beuve, marks Lamennais's severance from the church. "A book, small in size, but immense in its perversity," was Gregory's criticism in a new encyclical letter. A tractate of aphorisms, it has the vigour of a Hebrew prophecy and contains the choicest gems of poetic feeling lost in a whirlwind of exaggerations and distorted views of kings and rulers. The work had an extraordinary circulation and was translated into many European languages. It is now forgotten as a whole, but the beautiful appeals to love and human brotherhood are still reprinted in every hand-book of French literature.

Henceforth Lamennais was the apostle of the people alone. *Les Affaires de Rome, des maux de l'église et de la société* (1837) came from old habit of religious discussions rather than from his real mind of 1837, or at most it was but a last word. *Le Livre du peuple* (1837), *De l'esclavage moderne* (1839), *Politique à l'usage du peuple* (1839), three volumes of articles from the journal of the extreme democracy, *Le Monde*, are titles of works which show that he had arrived among the missionaries of liberty, equality and fraternity, and he soon got a share of their martyrdom. *Le Pays et le gouvernement* (1840) caused him a year's imprisonment. He struggled through difficulties of lost friendships, limited means and personal illnesses, faithful to the last to his hardly won dogma of the sovereignty of the people, and, to judge by his contribution to Louis Blanc's *Revue du progrès* was ready for something like communism. He was named president of the "Société de la solidarité

républicaine," which counted half a million adherents in fifteen days. The Revolution of 1848 had his sympathies, and he started *Le Peuple constituant*; however, he was compelled to stop it on the 10th of July, complaining that silence was for the poor, but again he was at the head of *La Révolution démocratique et sociale*, which also succumbed. In the constituent assembly he sat on the left till the *coupe d'état* of Napoleon III. in 1851 put an end to all hopes of popular freedom. While deputy he drew up a constitution, but it was rejected as too radical. Thereafter a translation of Dante chiefly occupied him till his death, which took place in Paris on the 27th of February 1854. He refused to be reconciled to the church, and was buried according to his own directions at Père La Chaise without funeral rites, being mourned by a countless concourse of democratic and literary admirers.

During the most difficult time of his republican period he found solace for his intellect in the composition of *Une voix de prison*, written during his imprisonment in a similar strain to *Les paroles d'un croyant*. This is an interesting contribution to the literature of captivity; it was published in Paris in 1846. He also wrote *Esquisse de philosophie* (1840). Of the four volumes of this work the third, which is an exposition of art as a development from the aspirations and necessities of the temple, stands pre-eminent, and remains the best evidence of his thinking power and brilliant style.

There are two so-called *Œuvres complètes de Lamennais*, the first in 10 volumes (Paris, 1836-1837), and the other in 10 volumes (Paris, 1844); both these are very incomplete and only contain the works mentioned above. The most noteworthy of his writings subsequently published are: *Amschaspands et Darvands* (1843), *Le Deuil de la Pologne* (1846), *Mélanges philosophiques et politiques* (1856), *Les Évangiles* (1846) and *La Divine Comédie*, these latter being translations of the Gospels and of Dante.

Part of his voluminous correspondence has also appeared. The most interesting volumes are the following: *Correspondance de F. de Lamennais*, edited by E. D. Forgues (2 vols., 1855-1858); *Œuvres inédites de F. Lamennais*, edited by Ange Blaize (2 vols., 1866); *Correspondance inédite entre Lamennais et le baron de Vitrolles*, edited by E. D. Forgues (1819-1853); *Confidences de Lamennais, lettres inédites de 1821 à 1848*, edited by A. du Bois de la Villerabel (1886); *Lamennais d'après des documents inédits*, by Alfred Roussel (Rennes, 2 vols., 1892); *Lamennais intime, d'après une correspondance inédite*, by A. Roussel (Rennes, 1897); *Un Lamennais inconnu*, edited by A. Laveille (1898); *Lettres de Lamennais à Montalembert*, edited by E. D. Forgues (1898); and many other letters published in the *Revue bleue*, *Revue britannique*, &c.

A list of lives or studies on Lamennais would fill several columns. The following may be mentioned. A Blaize, *Essai biographique sur M. de Lamennais* (1858); E. D. Forgues, *Notes et souvenirs* (1859); F. Brunetière, *Nouveaux essais sur la littérature contemporaine* (1893); E. Faguet, *Politiques et moralistes*, ii. (1898); P. Janet, *La Philosophie de Lamennais* (1890); P. Mercier, S.J., *Lamennais d'après sa correspondance et les travaux les plus récents* (1893); A. Mollien et F. Duine, *Lamennais, sa vie et ses idées*; *Pages choisies* (Lyons, 1898); The Hon. W. Gibson, *The Abbé de Lammenais and the Liberal Catholic Movement in France* (London, 1896); E. Renan *Essais de morale et de critique* (1857); E. Schérer, *Mélanges de critique religieuse* (1859); G. E. Spuller, *Lamennais, étude d'histoire et de politique religieuse* (1892); Mgr. Ricard, *L'école menaisienne* (1882), and Sainte-Beuve, *Portraits contemporains*, tome i. (1832), and *Nouveaux Lundis*, tome i. p. 22; tome xi. p. 347.

LAMENTATIONS

(*Lamentations of Jeremiah*), a book of the Old Testament. In Hebrew MSS. and editions this little collection of liturgical poems is entitled איכה *Ah how!*, the first word of ch. i. (and chs. ii., iv.); cf. the books of the Pentateuch, and the Babylonian Epic of Creation (a far older example). In the Septuagint it is called Θρῆνοι, "Funeral-songs" or "Dirges," the usual rendering of Heb. קינות (Am. v. 1; Jer. vii. 29; 2 Sam. i. 17), which is, in fact, the name in the Talmud (*Baba Bathra* 15*a*) and other Jewish writings; and it was known as such to the Fathers (Jerome, *Cinoth*). The Septuagint (B) introduces the book thus: "And it came to pass, after Israel was taken captive and Jerusalem laid waste, Jeremiah sat weeping, and lamented with this lamentation over Jerusalem, and said...," a notice which may have related originally to the first poem only. Some Septuagint MSS., and the Syriac and other versions, have the fuller title *Lamentations of Jeremiah*. In the Hebrew Bible Lamentations is placed among the *Cetubim* or Hagiographa, usually as the middle book of the five *Megilloth* or Ferial Rolls (Canticles, Ruth, Lamentations, Ecclesiastes, Esther) according to the order of the days on which they are read in the Synagogue, Lamentations being read on the 9th of Ab (6th of August), when the destruction of the Temple is commemorated (*Mass. Sopherim* 18). But the Septuagint appends the book to Jeremiah (*Baruch* intervening), just as it adds Ruth to Judges; thus making the number of the books of the Hebrew Canon the same as that of the letters of the Hebrew alphabet, viz. twenty-two (so Jos. c. Ap. i. 8), instead of the Synagogal twenty-four (see *Baba Bathra* 14*b*).

External features and poetical structure.—These poems exhibit a peculiar metre, the so-called "limping verse," of which Am. v. 2 is a good instance:

"She is fállen, to ríse no móre—
Maid Iśraël!
Left lórn upón her lánd—
none raísing hér!"

A longer line, with three accented syllables, is followed by a shorter with two. Chs. i.-iii. consist of stanzas of three such couplets each; chs. iv. and v. of two like Am. v. 2. This metre came in time to be distinctive of elegy. The text of Lamentations, however, so often deviates from it, that we can only affirm the *tendency* of the poet to cast his couplets into this type (Driver). Some anomalies, both of metre and of sense, may be removed by judicious emendation; and many lines become smooth enough, if we assume a crasis of open vowels of the same class, or a diphthongal pronunciation of others, or contraction or silence of certain suffixes as in Syriac. The oldest elegiac utterances are not couched in this metre; *e.g.* David's (2 Sam. iii. 33 f. Abner; *ib.* i. 19-27 Saul

and Jonathan). Yet the refrain of the latter, *'Eik náf 'lu gíbborím*, "Ah how are heroes fallen!" agrees with our longer line. The remote ancestor of this Hebrew metre may be recognized in the Babylonian epic of Gilgamesh, written at least a thousand years earlier:—

Ea-báni íbri kuṭáni | *Nímru sha çéri*
"Eabani, my friend, my little brother! | Leopard of the Wild!"

and again:—

Kíki lúskut | *Kíki luqúl-ma*
Íbri shá arámmu | *Itémi ṭiṭṭish*
"How shall I be dumb? | How shall I bewail?
The friend whom I love | Is turned to clay!"

Like a few of the Psalms, Lamentations i.-iv. are alphabetical acrostics. Each poem contains twenty-two stanzas, corresponding to the twenty-two letters of the Hebrew alphabet; and each stanza begins with its proper letter. (In ch. iii. each of the three couplets in a stanza begins with the same letter, so that the alphabet is repeated thrice: cf. Psalm cxix. for an eight-fold repetition.) The alphabet of Lamentations ii. iii. iv. varies from the usual order of the letters by placing *Pe* before *Ain*. The same was doubtless the case in ch. i. also until some scribe altered it. He went no further, because the sense forbade it in the other instances. The variation may have been one of local use, either in Judea or in Babylonia; or the author may have had some fanciful reason for the transposition, such as, for example, that *Pe* following *Samech* (ספ) might suggest the word ספדו, "Wail ye!" (2 Sam. iii. 31). Although the oldest Hebrew elegies are not alphabetic acrostics, it is a curious fact that the word הידך, "Was he a coward?" (Sc. לבו; Is. vii. 4), is formed by the initial letters of the four lines on Abner (om. ו, line 3); and the initials of the verses of David's great elegy are הא המשכ אצא, which may be read as a sentence meaning, perhaps, "Lo, I the Avenger" (cf. Deut. xxxii. 41, 43) "will go forth!"; or the first two letters (א׳ה) may stand for הוי אחי, "Alas, my brother!" (Jer. xxii. 18; cf. xxxiv. 5). In cryptic fashion the poet thus registers a vow of vengeance on the Philistines. Both kinds of acrostic occur side by side in the Psalms. Psalm cx., an acrostic of the same kind as David's elegy, is followed by Psalms cxi. cxii., which are alphabetical acrostics, like the Lamentations. Such artifices are not in themselves greater clogs on poetic expression than the excessive alliteration of old Saxon verse or the strict rhymes of modern lyrics. (Alliteration, both initial and internal, is common in Lamentations.)

As the final piece, ch. v. may have suffered more in transmission than those which precede it—even to the extent of losing the acrostic form (like some of the Psalms and Nahum i.), besides half of its stanzas. If we divide the chapter into quatrains, like ch. iv., we notice several vestiges of an acrostic. The *Aleph* stanza (verses 7, 8) still precedes the *Beth* (verses 9, 10), and the *Ain* is still quite clear (verses 17, 18; cf. i. 16). Transposing verses 5, 6, and correcting their text, we see that the *Jod* stanza (verses 3, 4) precedes the *Lamed* (verses 6, 5), *Caph* having disappeared between them. With this clue, we may rearrange the other quatrains in alphabetical sequence, each according to its initial letter. We thus get a broken series of eleven stanzas, beginning with the letters א (verses 7, 8), ב (9, 10), ה (21, 22), ו (19, cf. Psalm cii. 13; and 20), ן (1, 2), ח (13, 14 ;חורים), י (3, 4), ל (6, 5 ;לצרים), נ (11, 12), ע (17, 18), and ש (15, 16), successively. An internal connexion will now be apparent in all the stanzas.

General subject and outline of contents.—The theme of Lamentations is the final siege and fall of Jerusalem (586 B.C.), and the attendant and subsequent miseries of the Jewish people.

In ch. i. we have a vivid picture of the distress of Zion, after all is over. The poet does not describe the events of the siege, nor the horrors of the capture, but the painful experience of subjection and tyranny which followed. Neither this nor ch. ii. is strictly a "dirge." Zion is not dead. She is personified as a widowed princess, bereaved and desolate, sitting amid the ruins of her former joys, and brooding over her calamities. From verse 11*c* to the end (except verse 17) she herself is the speaker:—

"O come, ye travellers all!
Behold and see
If grief there be like mine!"

She images her sorrows under a variety of metaphors (cf. ch. iii. 1-18); ascribing all her woes to Yahweh's righteous wrath, provoked by her sins, and crying for vengeance on the malicious rivals who had rejoiced at her overthrow.

The text has suffered much. Verse 5c read: בשבי (v. 18), "into captivity," צרים (v. 7), "adversaries." For verse 7, see Budde, V. 14: נשקד, read נקשר, "was bound." Verse 19*c* read: אבל להשיב נפש ולא מצאו כי בקשו "For they sought food to restore life, and found it not:" cf. Septuagint; and verses 11, 16. Verse 20: the incongruous כי מרו מריתי, "For I grievously rebelled," should be נכמרו רחמי, "My inwards burn"; Hos. xi. 8. Verses 21 f.: "All my foes heard, rejoiced That IT" (cf. Psalm ix. 13), "Thou didst. Bring Thou" (הבא את), "the Day Thou hast proclaimed; Let them become like me! Let the time" (עת; see Septuagint) "of their calamity come!"

Chapter ii.—"Ah how in wrath the Lord | Beclouds Bath-Sion!" The poet laments Yahweh's anger as the true cause which destroyed city and kingdom, suspended feast and Sabbath, rejected altar and sanctuary. He mentions the uproar of the victors in the Temple; the dismantling of the walls; the exile of king and princes (verses 1-9). He recalls the mourning in the doomed city; the children dying of hunger in the streets; the prophets deluding the people with vain hopes. Passers-by jeered at the fallen city; and all her enemies triumphed over her (verses 10-17). Sion is urged to cry to the Lord in protest against His pitiless work (verses 18-22).

Here too emendation is necessary. Verse 4a: הציב הצו, "He fixed His arrow," sc. on the string (Septuagint, ἐστερέωσεν); cf. Psalm xi. 2. Add at the end אפו (את) כלה, "He spent His anger:" see iv. 11; Ezek. vii. 8, xx. 8, 21. Verse 6: ויפרץ גדר משכנו, "And He broke down the wall of His dwelling-place" (Septuagint τὸ σκήνωμα αὐτοῦ; cf. Psalm lxxxiv. 7f., where מועד follows, as here). Is. v. 5; Psalms lxxx. 13, lxxxix. 41. Perhaps ויהרס, verses 2, 17. But Septuagint καὶ διεπέτασεν = ויפרש (i. 13, 17) = ויפרס (iv. 4) or even ויפרץ. Verse 9, perhaps: "He sunk (טבע)

her gates in the ground,—He shattered her bars; He made her king and her princes wander (אבר, Jer. xxiii. 1)—Among the nations without Torah" (cf. Ezek. vii. 26 f.). Verse 18: "Cry much" (רבת; or bitterly, מר, Zeph. i. 14) "unto the Lord, O Virgin Daughter of Zion!" Verse 19 is metrically redundant, and the last clauses do not agree with what follows. "For the life of thy children" was altered from "for what He hath done to thee" (על שעולל לך); and then the rest was added. The uniform gloom of this, the most dirge-like of all the pieces, is unrelieved by a single ray of hope, even the hope of vengeance; cf. chapters i. iii. iv. *ad fin.*

Chapter iii.—Here the nation is personified as a man (cf. Hos. xi. 1), who laments his own calamities. In view of i. 12-22, ii. 20-22, this is hardly a serious deviation from the strict form of elegy (*Klagelied*). Budde makes much of "the close external connexion with ch. ii." The truth is that the break is as great as between any two of these poems. Chapter ii. ends with a mother's lament over her slaughtered children; chapter iii. makes an entirely new beginning, with its abruptly independent "I am the Man!" The suppression of the Divine Name is intentional. Israel durst not breathe it, until compelled by the climax, verse 18: cf. Am. vi. 10. Contrast its frequency afterwards, when ground of hope is found in the Divine pity and purpose (verses 22-40), and when the contrite nation turns to its God in prayer (verses 55-66). The spiritual aspect of things is now the main topic. The poet deals less with incident, and more with the moral significance of the nation's sufferings. It is the religious culmination of the book. His poem is rather lyrical than narrative, which may account for some obscurities in the connexion of thought; but his alphabetic scheme proves that he *designed* twenty-two stanzas, not sixty-six detached couplets. There is something arresting in that bold "I am the Man"; and the lyrical intensity, the religious depth and beauty of the whole, may well blind us to occasional ruggedness of metre and language, abrupt transitions from figure to figure and other alleged blemishes, some of which may not have seemed such to the poet's contemporaries (*e.g.* the repetition of the acrostic word, far more frequent in Psalm cxix.); and some disappear on revision of the text.

Verse 5, perhaps: "He swallowed me up" (Jer. li. 34) "and begirt my head" (Septuagint) "with gloom" (אפלה Is. lviii. 10, cf. verse 6, yet cf. also הלאה, Neh. ix. 32). Verse 14: "all my people," rather *all peoples* (Heb. MSS. and Syr.). Verse 16*b*, rd. הפלישני, "He made me bore" (*i.e.* grovel) "in the ashes:" cf. Jer. vi. 26; Ezek. xxvii. 30. Verse 17*a* should be: ויזנח לעולם נפשי "And He cast off my soul for ever:" see verse 31; Psalm lxxxviii. 15. Verse 26: "It is good *to wait*" להחיל "*in silence*" (דומם Is. xlvii. 5); or "It is good *that he wait and be silent*" (כי יחיל ודמם; cf. verse 27). Verse 31, add נפשו, "his soul." The verse is a reply to 17*a*. Verses 34-36 render: "To crush under His feet ... Adonai *purposed* not" (Gen. xx. 10; Psalm lxvi. 18). Verse 39, חי (Gen. v. 5; or חיה Neh. ix. 29) is the necessary second verb: "Why doth a mortal complain?" (or "What ... lament?"). "Doth a man live by his sins?": Man "lives by" righteousness (Ezek. xxxiii. 19). For the wording, cf. Psalm lxxxix. 49. Verse 43*a*: "Thou didst encompass with" (rg. סבותה; Hos. xii. 1) "anger and pursue us." Syntax as verse 66a. Verse 49, rd. תפונה (cf. ii. 18 also). Verse 51: "Mine eye did hurt to herself" (לנפשה), "By weeping over my people:" Verse 48: ch. i. 16; Jer. xxxi. 15. Verse 52: "They quelled my life in the pit" (Sheol; Psalms xxx. 4, lxxxviii. 4, 7; verse 55); "They *brought me down to Abaddon*" (הרידוני אבדון; cf. Psalm lxxxviii. 12). Verse 58: "O plead, Lord, the cause of my soul! O redeem my life!"; cf. Psalm cxix. 154. If the prayer for vengeance begins here, Budde's "deep division in the middle of an acrostic letter-group" vanishes. Verse 59, rd. עותי, "my perverting;" inf. pi. c. suff. obj.; cf. verse 36. Verse 61*b* repeated by mistake from 60*b*. Perhaps: "Wherewith they dogged my steps:" שחרפו עקבתי: Psalm lxxxix. 51 f. Verse 63, rd. קומם, as usual, and נגינתם, as in verse 14 and Job xxx. 9. Verse 65: "Thou wilt give them madness" (cf. Arab. *gunûn*; *magnûn*, mad) "of heart; Thou wilt curse and consume them!" (תאר תכלם).

Chapter iv.

"Ah, how doth gold grow dim,—
The finest ore change hue!"

The poet shows how famine and the sword desolated Zion (verses 1-10). All was Yahweh's work; a wonder to the heathen world, but accounted for by the crimes of prophets and priests (Jer. xxiii. 11, 14, xxvi. 8, 20 ff., xxix. 21-23), who, like Cain, became homeless wanderers and outcasts (verses 11-16). Vainly did the besieged watch for succours from Egypt (Jer. xxxvii. 5 ff.); and even the last forlorn hope, the flight of "Yahweh's Anointed," King Zedekiah, was doomed to fail (verses 17-20; Jer. xxxix. 4 ff). Edom rejoiced in her ruin (Ezek. xxv. 12; xxxv. 15; Obad.; Psalm cxxxvii. 7); but Zion's sin is now atoned for (cf. Is. xl. 2), and she may look forward to the judgment of her foe (verses 21-22).

Verse 6*d*, perhaps: "And their ruin tarried not" (פירס ולא יחל); cf. Pro. xxiv. 22. Verse 7*d*: "Their body" (rd. נויחם) "was a sapphire:" see Ct. v. 14; Dn. x. 6. Verse 9: "Happier were the slain of the sword Than the slain of famine! For they" (Septuagint om.), "they passed away" (הלכו Septuagint; Psalm xxxix. 14) "with a stab" (Ju. ix. 54; Is. xiii. 15; Jer. li. 4), "Suddenly, in the field" (פתאם בש; Jer. xiv. 18). Verse 13, add היא after נביאיה; cf. Ju. xiv. 4; Jer. xxii. 16. Verse 17*c*: "While we watched" (Septuagint) "continually:" בצפותנו צפו. Verse 18: "Our steps were curbed" (צרו MSS.; see Pro. iv. 12; Job xviii. 7) "from walking In our open places" (before the city gates: Neh. viii. 1, 3); "The completion of our days drew nigh" (קרב יום מלאות ימינו; cf. Lev. viii. 33; Job xx. 22), "For our end was come" (Ezek. vii. 2, 6, &c.). Verse 21, Septuagint om. Uz (dittogr.?); "Settler in the Land!" (*i.e.* of Judah; cf. Ezek. xxxv. 10, xxxvi. 5. Perhaps יורשתי הא "Seizer of the Land").

Chapter v.—A sorrowful supplication, in which the speakers deplore, not the fall of Jerusalem, but their own state of galling dependence and hopeless poverty. They are still suffering for the sins of their fathers, who perished in the catastrophe (verse 7). They are at the mercy of "servants" (verse 8; cf. 2 Kings xxv. 24; Neh. v. 15: "Yea, even their 'boys' lorded it over the people"), under a tyranny of pashas of the worst type (verses 11 f.). The soil is owned by aliens; and the Jews have to buy their water and firewood (verses 2, 4; cf. Neh. ix. 36 f.). While busy harvesting, they are exposed to the raids of the Bedouins (verse 9). Jackals prowl among the ruins of Zion (verse 18; cf. Neh. iv. 3). And this condition of things has already lasted a very long time (verse 20).

Verses 5 f. transpose and read: "To adversaries" (לצרים) "we submitted, Saying" (לאמור), "'We shall be satisfied with bread'" (cf. Jer. xlii. 14); "The yoke of our neck they made heavy" (Neh. v. 15: הכבידו על העם); "We toil, and no rest is allowed us." Verse 13: "Nobles endured to grind, And princes staggered under logs" (חורים for בחורים, which belongs to verse 14; שרים for נערים. Eccl. x. 7; Is. xxxiv. 12; Neh. iv. 14; v. 7; vi. 17). Verse 19, "But Thou..." Psalm cii. 13 (ו fell out after preceding ו, verse 18). Verse 22, omit אם; dittogr. of following מא.

Authorship and date.—The tradition of Jeremiah's authorship cannot be traced higher than the Septuagint

version. The prefatory note there may come from a Hebrew MS., but perhaps refers to chapter i. only ("Jeremiah sang *this dirge*"). The idea that Lamentations was originally appended to Jeremiah in the Hebrew Canon, as it is in the old versions, and was afterwards separated from it and added to the other Megilloth for the liturgical convenience of the Synagogue, rests on the fact that Josephus (Ap. i. 1, 8) and, following him, Jerome and Origen reckon 22 books, taking Ruth with Judges and Lamentations with Jeremiah; whereas the ordinary Jewish reckoning gives 24 books, as in our Hebrew Bibles. There is no evidence that this artificial reckoning according to the number of letters in the Hebrew alphabet was ever much more than a fanciful suggestion. Even in the Septuagint the existing order may not be original. It appears likely that Lamentations was not translated by the same hand as Jeremiah (Nöldeke). Unlike the latter, the Septuagint Lamentations sticks closely to the Massoretic text. The two books can hardly have been united from the first. On the strength of 2 Chron. xxxv. 25, some ancient writers (*e.g.* Jerome *ad* Zech. xii. 11) held that Jeremiah composed Lamentations. When, however, Josephus (Ant. x. 5, 1) states that Jeremiah wrote an elegy on Josiah still extant in his day, he may be merely quoting a little too much of Chron. *loc. cit.*; and it is obvious that he need not mean our book (see Whiston's note). It is urged, indeed, that the author of Chronicles could not have imagined a prophet to have sympathized with such a king as Zedekiah so warmly as is implied by Lamentations iv. 20; and, therefore, he must have connected the passage with Josiah, the last of the good kings. However that may have been, the Chronicler neither says that Jeremiah wrote *all* the elegies comprised in *The Qinoth*, nor does he imply that the entire collection consisted of only five pieces. Rather, the contrary; for he implies that *The Qinoth* contained not only Jeremiah's single dirge on Josiah, but also the elegies of "all the singing men and singing women," from the time of Josiah's death (608) down to his own day (3rd century). The untimely fate of Josiah became a stock allusion in dirges. It is not meant that for three centuries the dirge-writers had nothing else to sing of; much less, that they sang of the fall of Jerusalem (presupposed by our book) before its occurrence. Upon the whole, it does not seem probable, either that the Chronicler mistook Lamentations iv. for Jeremiah's dirge on Josiah, or that the book he calls *The Qinoth* was identical with our Qinoth. Later writers misunderstood him, because—on the ground of certain obtrusive similarities between Jeremiah and Lamentations (see Driver, L.O.T. p. 433 f.), and the supposed reference in Lamentations iii. 53 ff. to Jeremiah xxxviii. 6 ff., as well as the fact that Jeremiah was the one well-known inspired writer who had lived through the siege of Jerusalem—they naturally enough ascribed this little book to the prophet. It is certainly true that the same emotional temperament, dissolving in tears at the spectacle of the country's woes, and expressing itself to a great extent in the same or similar language, is noticeable in the author(s) of Lamentations i.-iv. and in Jeremiah. And both refer these woes to the same cause, viz. the sins of the nation, and particularly of its prophets and priests.

This, however, is not enough to prove identity of authorship; and the following considerations militate strongly against the tradition. (i.) The language and style of Lamentations are in general very unlike those of Jeremiah (see the details in Nägelsbach and Löhr); whatever allowance may be made for conventional differences in the phraseology of elegiac poetry and prophetic prose, even of a more or less lyrical cast. (ii.) Lamentations i.-iv. show a knowledge of Ezekiel (cf. Lamentations ii. 4*c*; Ez. xx. 8, 21; Lam. ii. 14; Ez. xii. 24; xiii. 10, 14; Lam. ii. 15; Ez. xxvii. 3; xxviii. 12; Lam. iv. 20; Ez. xix. 4, 8) and of Is. xl.-lxvi. (Lam. i. 10, מחמדים; Is. lxiv. 10; Lam. i. 15; Is. lxiii. 2; Lam. ii. 1; Is. lxvi. 1; Lam. ii. 2*c*; Is. xliii. 28; Lam. ii. 13 *the 3 verbs*; Is. xl. 18, 25; Lam. ii. 15*c*; Is. lx. 15*b*; Lam. iii. 26 דומם; Is. xlvii. 5; Lam. iii. 30; Is. i. 6; Lam. iv. 14; Is. lix. 3, 10; Lam. iv. 15; Is. lii. 11; Lam. iv. 17*c*; Is. xlv. 20; Lam. iv. 22; Is. xl. 2). Jeremiah does not quote Ezekiel; and he could hardly have quoted writings of the age of Cyrus. (iii.) The coincidences of language between Lamentations and certain late Psalms, such as Psalms lxix., lxxiv., lxxx., lxxxviii., lxxxix., cxix., are numerous and significant, at least as a general indication of date. (iv.) The point of view of Lamentations sometimes differs from that of the prophet. This need not be the case in i. 21 f. where the context shows that the "enemies" are not the Chaldeans, but Judah's ill neighbours, Edom, Ammon, Moab and the rest (cf. iv. 21 f.; iii. 59-66 may refer to the same foes). Ch. ii. 9c may refer to popular prophecy ("*her* prophets"; cf. verse 14), which would naturally be silenced by the overwhelming falsification of its comfortable predictions (iv. 14 ff.; cf. Jer. xiv. 13; Ezek. vii. 26 f.; Psalm lxxiv. 9). But though Jeremiah was by no means disloyal (Jer. xxxiv. 4 f.), he would hardly have spoken of Zedekiah in the terms of Lam. iv. 20; and the prophet never looked to Egypt for help, as the poet of iv. 17 appears to have done. It must be admitted that Lamentations exhibits, upon the whole, "a poet (more) in sympathy with the old life of the nation, whose attitude towards the temple and the king is far more popular than Jeremiah's" (W. Robertson Smith); cf. i. 4, 10, 19, ii. 6, 7, 20*c*. (v.) While we find in Lamentations some things that we should not have expected from Jeremiah, we miss other things characteristic of the prophet. There is no trace of his confident faith in the restoration of both Israel and Judah (Jer. iii. 14-18, xxiii. 3-8, xxx.-xxxiii.), nor of his unique doctrine of the New Covenant (Jer. xxxi. 31-34), as a ground of hope and consolation for Zion. The only hope expressed in Lamentations i. is the hope of Divine vengeance on Judah's malicious rivals (i. 21 f.); and even this is wanting from ch. ii. Chapter iii. finds comfort in the thought of Yahweh's unfailing mercy; but ends with a louder cry for vengeance. Chapter iv. suggests neither hope nor consolation, until the end, where we have an assurance that Zion's punishment is complete, and she will not again be exiled (iv. 21 f.). The last word is woe for Edom. In chapter v. we have a prayer for restoration: "Make us return, O Yahweh, and we shall return!" (*i.e.* to our pristine state). Had Jeremiah been the author, we should have expected something more positive and definitely prophetic in tone and spirit. (The author of chapter iii. seems to have felt this. It was apparently written in view of chapter ii. as a kind of religious counterpoise to its burden of despair, which it first takes up, verses 1-20, and then dissipates, verses 21 ff.). (vi.) It seems almost superfluous to add that, in the brief and troubled story of the prophet's life after the fall of the city Jer. xxxix.-xliv.), it is difficult to specify an occasion when he may be supposed to have enjoyed the necessary leisure and quiet for the composition of these elaborate and carefully constructed pieces, in a style so remote from his ordinary freedom and spontaneity of utterance. And if at the very end of his stormy career he really found time and inclination to write anything of this nature, we may wonder why it was not included in the considerable and somewhat miscellaneous volume of his works, or at least mentioned in the chapters which relate to his public activity after the catastrophe.

Budde's date, 550 B.C., might not be too early for chapter v., if it stood alone. But it was evidently written as the close of the book, and perhaps to complete the number of five divisions, after the model of the Pentateuch; which would bring it below the date of Ezra (457 B.C.). And this date is supported by internal indications. The Divine forgetfulness has already lasted a very long time since the catastrophe ("for ever," verse 20); which seems to imply the lapse of much more than thirty-six years (cf. Zech. i. 12). The hill of Zion is still a deserted

site haunted by jackals, as it was when Nehemiah arrived, 445 B.C. (Neh. i. 3, ii. 3, 13, 17, iv. 3). And the conditions, political and economic, seem to agree with what is told us by Nehemiah of the state of things which he found, and which prevailed before his coming: cf. esp. Neh. v. 2-5 with Lamentations v. 2, 10, and Neh. v. 15 with Lamentations v. 5, 8. There is nothing in chapter i. which Nehemiah himself might not have written, had he been a poet (cf. Neh. i. 4). The narrative of Neh. xiii. throws light on verse 10; and there are many coincidences of language, *e.g.* "The Province" (of Judea), Neh. i. 3, cf. verse 1; "adversaries" (צרים), of Judah's hostile neighbours, verse 7, Neh. iv. 11; "made my strength stumble," verse 14, cf. Neh. iv. 4 (Heb.); the prayers, verses 21 f., Neh. iv. 4 f. (Heb. iii. 36 f.), are similar. The memory of what is told in Neh. iv. 5 (11), Ezra iv. 23 f., v. 5, may perhaps have suggested the peculiar term משבת, *stoppage*, *arrest*, verse 7. With verse 3 "Judah migrated from oppression; From greatness of servitude; She settled among the nations, Without finding a resting-place," cf. Neh. v. 18 end, Jer. xl. 11 f. The "remnant of the captivity" (Neh. i. 2 f.) became much attenuated (cf. verse 4), because all who could escape from the galling tyranny of the foreigner left the country (cf. verse 6). Verses 11, 19 (dearth of food), 20 (danger in the field, starvation in the house) agree curiously with Neh. v. 6, 9 f.

Chapters ii. and iv. can hardly be dated earlier than the beginning of the Persian period. They might then have been written by one who, as a young man of sixteen or twenty, had witnessed the terrible scenes of fifty years before. If, however, as is generally recognized, these poems are not the spontaneous and unstudied outpourings of passionate grief, but compositions of calculated art and studied effects, written for a purpose, it is obvious that they need not be contemporary. A poet of a later generation might have sung of the great drama in this fashion. The chief incidents and episodes would be deeply graven in the popular memory; and it is the poet's function to make the past live again. There is much metaphor (i. 13-15, ii. 1-4, iii. 1-18, iv. 1 ff.), and little detail beyond the horrors usual in long sieges (see Deut. xxviii. 52 ff.; 2 Kings vi. 28 f.) Acquaintance with the existing literature and the popular reminiscences of the last days of Jerusalem would supply an ample foundation for all that we find in these poems.

LITERATURE.—The older literature is fully given by Nägelsbach in Lange's *Bibelwerk A.T.* xv. (1868, Eng. trans., 1871, p. 17). Among commentaries may be noticed those of Kalkar (in Latin) (1836); O. Thenius in *Kurzgefasstes Exeg. Handbuch* (1855), who ascribes chapters ii. and iv. to Jeremiah (comp. K. Budde in *Z.A.T.W.*, 1882, p. 45); Vaihinger (1857); Neumann (1858); H. Ewald in his *Dichter*, vol. i. pt. ii. (2nd ed., 1866); Engelhardt (1867); Nägelsbach, *op. cit.* (1868); E. Gerlach, *Die Klagelied. Jer.* (1868); A. Kamphausen in Bunsen's *Bibelwerk* iii. (1868); C. F. Keil (1872) (Eng. trans., 1874); Payne Smith in *The Speaker's Commentary*; Reuss, *La Bible: poésie lyrique* (1879); T. K. Cheyne, at end of "Jeremiah," *Pulpit Commentary* (1883-1885); E. H. Plumptre, in Ellicott's *O.T. for English Readers* (1884); S. Oettli in Strack-Zöckler's *Kurzgef. Komm. A.T.* vii. (1889); M. Löhr (1891) and again *Handkommentar zum A.T.* (1893); F. Baethgen *ap.* Kautzsch, *Die Heilige Schrift d. A.T.* (1894); W. F. Adeney, *Expositor's Bible* (1895); S. Minocchi, *Le Lamentazioni di Geremia* (Rome, 1897); and K. Budde, "Fünf Megillot," in *Kurzer Hd.-Comm. zum A. T.* (1898).

For textual and literary criticism see also Houbigant, *Notae Criticae*, ii. 477-483 (1777); E. H. Rodhe, *Num Jeremias Threnos scripserit quaestiones* (Lundae, 1871); F. Montet, *Étude sur le livre des Lamentations* (Geneva, 1875); G. Bickell, *Carmina V. T. metrice*, 112-120 (1882), and *Wiener Zeitschrift für Kunde des Morgenlandes*, viii. 101 ff. (1894) (Cf. also his *Dichtungen der Hebräer*, i. 87-108, 1882); Merkel, *Über das A.T. Buch der Klagelieder* (Halle, 1889); J. Dyserinck, *Theologisch Tijdschrift*, xxvi. 359 ff. (1892); S. A. Fries, "Parallele zwischen Thr. iv., v. und der Makkabäerzeit," *Z.A.T.W.*, xiii. 110 ff. (1893) (chaps. iv. v. Maccabean; i.-iii. Jeremiah's); and on the other side Löhr, *Z.A.T.W.* xiv. 51 ff. (1894); *id. ib.*, p. 31 ff., *Der Sprachgebrauch des Buches der Klagelieder*; and Löhr, "Threni iii. und die jeremianische Autorschaft des Buches der Klagelieder," *Z.A.T.W.*, xxiv. 1 ff. (1904).

On the prosody, see (besides the works of Bickell and Dyserinck) K. Budde, "Das hebräische Klagelied," *Z.A.T.W.*, ii. 1 ff. (1882), iii. 299 ff. (1883), xi. 234 ff. (1891), xii. 31 ff. 261 ff. (1892); *Preussische Jahrbücher*, lxxiii. 461 ff. (1893); and C. J. Ball, "The Metrical Structure of Qinoth," *P.S.B.A.* (March 1887). (The writer was then unacquainted with Budde's previous labours.)

The following may also be consulted, Nöldeke, *Die A.T. Literatur*, pp. 142-148 (1868); Seinecke, *Gesch. des Volkes Israel*, ii. 29 ff. (1884); Stade, *Gesch.* p. 701, n. 1 (1887); Smend in *Z.A.T.W.* (1888), p. 62 f.; Steinthal, "Die Klagelieder Jer." in *Bibel und Rel.-philosophie*, 16-33 (1890); Driver, *L.O.T.* (1891), p. 428, "The Lamentations"; and Cheyne's article "Lamentations (Book)," in *Enc. Bibl.* iii.

(C. J. B.*)

LAMETH, ALEXANDRE THÉODORE VICTOR, COMTE DE

(1760-1829), French soldier and politician, was born in Paris on the 20th of October 1760. He served in the American War of Independence under Rochambeau, and in 1789 was sent as deputy to the States General by the nobles of the *bailliage* of Péronne. In the Constituent Assembly he formed with Barnave and Adrien Duport a sort of association called the "Triumvirate," which controlled a group of about forty deputies forming the advanced left of the Assembly. He presented a famous report in the Constituent Assembly on the organization of the army, but is better known by his eloquent speech on the 28th of February 1791, at the Jacobin Club, against Mirabeau, whose relations with the court were beginning to be suspected, and who was a personal enemy of Lameth. However, after the flight of the king to Varennes, Lameth became reconciled with the court. He served in the army as *maréchal-de-camp* under Luckner and Lafayette, but was accused of treason on the 15th of August 1792, fled the country, and was imprisoned by the Austrians. After his release he engaged in commerce at Hamburg with his brother Charles and the duc d'Aiguillon, and did not return to France until the Consulate. Under the Empire he was made prefect successively in several departments, and in 1810 was created a baron. In 1814 he attached himself to the Bourbons, and under the Restoration was appointed prefect of Somme, deputy for Seine-Inférieure and finally deputy for Seine-et-Oise, in which capacity he was a leader of the Liberal opposition. He died in Paris on the 18th of March 1829. He was the author of an important *History of the Constituent*

Assembly (Paris, 2 vols., 1828-1829).

Of his two brothers, Théodore Lameth (1756-1854) served in the American war, sat in the Legislative Assembly as deputy from the department of Jura, and became *maréchal-de-camp*; and Charles Malo François Lameth (1757-1832), who also served in America, was deputy to the States General of 1789, but emigrated early in the Revolution, returned to France under the Consulate, and was appointed governor of Würzburg under the Empire. Like Alexandre, Charles joined the Bourbons, succeeding Alexandre as deputy in 1829.

See F. A. Aulard, *Les Orateurs de l'Assemblée Constituante* (Paris, 1905); also M. Tourneux, *Bibliog. de l'histoire de Paris* (vol. iv., 1906, *s.v.* "Lameth").

LAMETTRIE, JULIEN OFFRAY DE (1709-1751), French physician and philosopher, the earliest of the materialistic writers of the Illumination, was born at St Malo on the 25th of December 1709. After studying theology in the Jansenist schools for some years, he suddenly decided to adopt the profession of medicine. In 1733 he went to Leiden to study under Boerhaave, and in 1742 returned to Paris, where he obtained the appointment of surgeon to the guards. During an attack of fever he made observations on himself with reference to the action of quickened circulation upon thought, which led him to the conclusion that psychical phenomena were to be accounted for as the effects of organic changes in the brain and nervous system. This conclusion he worked out in his earliest philosophical work, the *Histoire naturelle de l'âme*, which appeared about 1745. So great was the outcry caused by its publication that Lamettrie was forced to take refuge in Leiden, where he developed his doctrines still more boldly and completely, and with great originality, in *L'Homme machine* (Eng. trans., London, 1750; ed. with introd. and notes, J. Assézat, 1865), and *L'Homme plante*, treatises based upon principles of the most consistently materialistic character. The ethics of these principles were worked out in *Discours sur le bonheur*, *La Volupté*, and *L'Art de jouir*, in which the end of life is found in the pleasures of the senses, and virtue is reduced to self-love. Atheism is the only means of ensuring the happiness of the world, which has been rendered impossible by the wars brought about by theologians. The soul is only the thinking part of the body, and with the body it passes away. When death comes, the farce is over (*la farce est jouée*), therefore let us take our pleasure while we can. Lamettrie has been called "the Aristippus of modern materialism." So strong was the feeling against him that in 1748 he was compelled to quit Holland for Berlin, where Frederick the Great not only allowed him to practise as a physician, but appointed him court reader. He died on the 11th of November 1751. His collected *Œuvres philosophiques* appeared after his death in several editions, published in London, Berlin and Amsterdam respectively.

The chief authority for his life is the *Éloge* written by Frederick the Great (printed in Assézat's ed. of *Homme machine*). In modern times Lamettrie has been judged less severely; see F. A. Lange, *Geschichte des Materialismus* (Eng. trans. by E. C. Thomas, ii. 1880); Nérée Quépat (*i.e.* René Paquet), *La Mettrie, sa vie et ses œuvres* (1873, with complete history of his works); J. E. Poritzky, *J. O. de Lamettrie, Sein Leben und seine Werke* (1900); F. Picavet, "La Mettrie et la critique allemande," in *Compte rendu des séances de l'Acad. des Sciences morales et politiques*, xxxii. (1889), a reply to German rehabilitations of Lamettrie.

LAMIA, in Greek mythology, queen of Libya. She was beloved by Zeus, and when Hera robbed her of her children out of jealousy, she killed every child she could get into her power (Diod. Sic. xx. 41; Schol. Aristophanes, *Pax*, 757). Hence Lamia came to mean a female bogey or demon, whose name was used by Greek mothers to frighten their children; from the Greek she passed into Roman demonology. She was represented with a woman's face and a serpent's tail. She was also known as a sort of fiend, the prototype of the modern vampire, who in the form of a beautiful woman enticed young men to her embraces, in order that she might feed on their life and heart's blood. In this form she appears in Goethe's *Die Braut von Corinth*, and Keats's *Lamia*. The name Lamia is clearly the feminine form of Lamus, king of the Laestrygones (*q.v.*). At some early period, or in some districts, Lamus and Lamia (both, according to some accounts, children of Poseidon) were worshipped as gods; but the names did not attain general currency. Their history is remarkably like that of the malignant class of demons in Germanic and Celtic folk-lore. Both names occur in the geographical nomenclature of Greece and Asia Minor; and it is probable that the deities belong to that religion which spread from Asia Minor over Thrace into Greece.

LAMMAS (O. Eng. *hlammaesse*, *hlafmaesse*, from *hlaf*, loaf, and *maesse*, mass, "loaf-mass"), originally in England the festival of the wheat harvest celebrated on the 1st of August, O.S. It was one of the old quarter-days, being equivalent to midsummer, the others being Martinmas, equivalent to Michaelmas, Candlemas (Christmas) and Whitsuntide (Easter). Some rents are still payable in England at Lammastide, and in Scotland it is generally observed, but on the 12th of August, since the alteration of the calendar in George II.'s reign. Its

name was in allusion to the custom that each worshipper should present in the church a loaf made of the new wheat as an offering of the first-fruits.

A relic of the old “open-field” system of agriculture survives in the so-called “Lammas Lands.” These were lands enclosed and held in severalty during the growing of corn and grass and thrown open to pasturage during the rest of the year for those who had common rights. These commoners might be the several owners, the inhabitants of a parish, freemen of a borough, tenants of a manor, &c. The opening of the fields by throwing down the fences took place on Lammas Day (12th of August) for corn-lands and on Old Midsummer Day (6th of July) for grass. They remained open until the following Lady Day. Thus, in law, “lammas lands” belong to the several owners in fee-simple subject for half the year to the rights of pasturage of other people (*Baylis* v. *Tyssen-Amherst*, 1877, 6 Ch. D., 50).

See further F. Seebohm, *The English Village Community*; C. I. Elton, *Commons and Waste Lands*; P. Vinogradoff, *Villainage in England*.

LÄMMERGEYER (Ger. *Lämmergeier*, *Lamm*, lamb, and *Geier*, vulture), or bearded vulture, the *Falco barbatus* of Linnaeus and the *Gypaetus barbatus* of modern ornithologists, one of the grandest birds-of-prey of the Palaearctic region—inhabiting lofty mountain chains from Portugal to the borders of China, though within historic times it has been exterminated in several of its ancient haunts. Its northern range in Europe does not seem to have extended farther than the southern frontier of Bavaria, or the neighbourhood of Salzburg;[1] but in Asia it formerly reached a higher latitude, having been found even so lately as 1830 in the Amur region where, according to G. F. Radde (*Beitr. Kenntn. Russ. Reichs*, xxiii. p. 467), it has now left but its name. It is not uncommon on many parts of the Himalayas, where it breeds; and on the mountains of Kumaon and the Punjab, and is the “golden eagle” of most Anglo-Indians. It is found also in Persia, Palestine, Crete and Greece, the Italian Alps, Sicily, Sardinia and Mauritania.

In some external characters the lämmergeyer is intermediate between the families *Vulturidae* and *Falconidae*, and the opinion of systematists has from time to time varied as to its proper position. It is now generally agreed, however, that it is more closely allied with the eagles than with the vultures, and the sub-family *Gypaëtinae* of the *Falconidae* has been formed to contain it.

The whole length of the bird is from 43 to 46 in., of which, however, about 20 are due to the long cuneiform tail, while the pointed wings measure more than 30 in. from the carpal joint to the tip. The top of the head is white, bounded by black, which, beginning in stiff bristly feathers turned forwards over the base of the beak, proceeds on either side of the face in a well-defined band to the eye, where it bifurcates into two narrow stripes, of which the upper one passes above and beyond that feature till just in front of the scalp it suddenly turns upwards across the head and meets the corresponding stripe from the opposite side, enclosing the white forehead already mentioned, while the lower stripe extends beneath the eye about as far backwards and then suddenly stops. A tuft of black, bristly feathers projects beardlike from the base of the mandible, and gives the bird one of its commonest epithets in many languages. The rest of the head, the neck, throat and lower parts generally are clothed with lanceolate feathers of a pale tawny colour—sometimes so pale as to be nearly white beneath; while the scapulars, back and wing-coverts generally, are of a glossy greyish-black, most of the feathers having a white shaft and a median tawny line. The quill-feathers, both of the wings and tail, are of a dark blackish-grey. The irides are of a light orange, and the sclerotic tunics—equivalent to the “white of the eye” in most animals—which in few birds are visible, are in this very conspicuous and of a bright scarlet, giving it an air of great ferocity. In the young of the year the whole head, neck and throat are clothed in dull black, and most of the feathers of the mantle and wing-coverts are broadly tipped and mesially streaked with tawny or lightish-grey.

The lämmergeyer breeds early in the year. The nest is of large size, built of sticks, lined with soft material and placed on a ledge of rock—a spot being chosen, and often occupied for many years, which is nearly always difficult of access. Here in the month of February a single egg is usually laid. This is more than 3 in. in length by nearly 2½ in breadth, of a pale but lively brownish-orange. The young when in the nest are clad in down of a dirty white, varied with grey on the head and neck, and with ochraceous in the iliac region.

There is much discrepancy as to the ordinary food of the lämmergeyer, some observers maintaining that it lives almost entirely on carrion, offal and even ordure; but there is no question of its frequently taking living prey, and it is reasonable to suppose that this bird, like so many others, is not everywhere uniform in its habits. Its name shows it to be the reputed enemy of shepherds, and it is in some measure owing to their hostility that it has been exterminated in so many parts of its European range. But the lämmergeyer has also a great partiality for bones, which when small enough it swallows. When they are too large, it is said to soar with them to a great height and drop them on a rock or stone that they may be broken into pieces of convenient size. Hence its name ossifrage,[2] by which the Hebrew *Peres* is rightly translated in the Authorized Version of the Bible (Lev. xi. 13; Deut. xiv. 12)—a word corrupted into osprey, and applied to a bird which has no habit of the kind.

The lämmergeyer of north-eastern and south Africa is specifically distinct, and is known as *Gypaetus meridionalis* or *G. nudipes*. In habits it resembles the northern bird, from which it differs in little more than wanting the black stripe below the eye and having the lower part of the tarsus bare of feathers. It is the “golden eagle” of Bruce’s *Travels*, and has been beautifully figured by Joseph Wolf in E. Rüppell’s *Syst. Übers. der Vögel Nord-Ost-Afrika’s* (Taf. 1).

(A. N.)

1 See a paper by Dr Girtanner on this bird in Switzerland (*Verhandl. St-Gall. naturw. Gesellschaft*, 1869-1870, pp. 147-

244).

2 Among other crimes attributed to the species is that, according to Pliny (*Hist. Nat.* x. cap. 3), of having caused the death of the poet Aeschylus, by dropping a tortoise on his bald head! In the Atlas range the food of this bird is said to consist chiefly of the *Testudo mauritanica*, which "it carries to some height in the air, and lets fall on a stone to break the shell" (*Ibis*, 1859, p. 177). It was the ἄρπη and φήνη of Greek classical writers.

LAMOIGNON, a French family, which takes its name from Lamoignon, a place said to have been in its possession since the 13th century. One of its several branches is that of Lamoignon de Malesherbes. Several of the Lamoignons have played important parts in the history of France and the family has been specially distinguished in the legal profession. Guillaume de Lamoignon (1617-1677), attained eminence as a lawyer and became president of the parlement of Paris in 1658. First on the popular, and later on the royalist side during the Fronde, he presided at the earlier sittings of the trial of Fouquet, whom he regarded as innocent, and he was associated with Colbert, whom he was able more than once to thwart. Lamoignon tried to simplify the laws of France and sought the society of men of letters like Boileau and Racine. Having received rich rewards for his public services, he died in Paris on the 10th of December 1677. Guillaume's second son, Nicolas de Lamoignon (1648-1724), took the surname of Basville. Following his hereditary calling he filled many public offices, serving as intendant of Montauban, of Pau, of Poitiers and of Languedoc before his retirement in 1718. His administration of Languedoc was chiefly remarkable for vigorous measures against the Camisards and other Protestants, but in other directions his work in the south of France was more beneficent, as, following the example of Colbert, he encouraged agriculture and industry generally and did something towards improving the means of communication. He wrote a *Mémoire*, which contains much interesting information about his public work. This was published at Amsterdam in 1724. Lamoignon, who is called by Saint Simon, "the king and tyrant of Languedoc," died in Paris on the 17th of May 1724. Chrétien François de Lamoignon (1735-1789) entered public life at an early age and was an actor in the troubles which heralded the Revolution. First on the side of the parlement and later on that of the king he was one of the assistants of Loménie de Brienne, whose unpopularity and fall he shared. He committed suicide on the 15th of May 1789.

LAMONT, JOHANN VON (1805-1879), Scottish-German astronomer and magnetician, was born at Braemar, Aberdeenshire, on the 13th of December 1805. He was sent at the age of twelve to be educated at the Scottish monastery in Regensburg, and apparently never afterwards returned to his native country. His strong bent for scientific studies was recognized by the head of the monastery, P. Deasson, on whose recommendation he was admitted in 1827 to the then new observatory of Bogenhausen (near Munich), where he worked under J. Soldner. After the death of his chief in 1835 he was, on H. C. Schumacher's recommendation, appointed to succeed him as director of the observatory. In 1852 he became professor of astronomy at the university of Munich, and held both these posts till his death, which took place on the 6th of August 1879. Lamont was a member of the academies of Brussels, Upsala and Prague, of the Royal Society of Edinburgh, of the Cambridge Philosophical Society and of many other learned corporations. Among his contributions to astronomy may be noted his eleven zone-catalogues of 34,674 stars, his measurements, in 1836-1837, of nebulae and clusters, and his determination of the mass of Uranus from observations of its satellites (*Mem. Astron. Soc.* xi. 51, 1838). A magnetic observatory was equipped at Bogenhausen in 1840 through his initiative; he executed comprehensive magnetic surveys 1849-1858; announced the magnetic decennial period in 1850, and his discovery of earth-currents in 1862. His *Handbuch des Erdmagnetismus* (Berlin, 1849) is a standard work on the subject.

See *Allgemeine Deutsche Biographie* (S. Günther); V. J. Schrift, *Astr. Gesellschaft*, xv. 60; *Monthly Notices Roy. Astr. Society*, xl. 203; *Nature*, xx. 425; *Quart. Journal Meteor. Society*, vi. 72; *Proceedings Roy. Society of Edinburgh*, x. 358; *The Times* (12 Aug., 1879); Sir F. Ronalds's *Cat. of Books relating to Electricity and Magnetism*, pp. 281-283; *Royal Society's Cat. of Scientific Papers*, vols. iii. vii.

LAMORICIÈRE, CHRISTOPHE LÉON LOUIS JUCHAULT DE (1806-1865), French general, was born at Nantes on the 11th of September 1806, and entered the Engineers in 1828. He served in the Algerian campaigns from 1830 onwards, and by 1840 he had risen to the grade of *maréchal-de-camp* (major-general). Three years later he was made a general of division. He was one of the most distinguished and efficient of Bugeaud's generals, rendered special service at Isly (August 14, 1844), acted temporarily as governor-general of Algeria, and finally effected the capture of Abd el-Kader in 1847. Lamoricière took some part in the political events of 1848, both as a member of the Chamber of Deputies and as a military commander. Under the régime of General Cavaignac he was for a time minister of war. From 1848 to 1851 Lamoricière was one of the most conspicuous opponents of the policy of Louis Napoleon, and at the *coup d'état* of the 2nd of December 1851 he was arrested and exiled. He refused to give in his allegiance to the emperor

Napoleon III., and in 1860 accepted the command of the papal army, which he led in the Italian campaign of 1860. On the 18th of September of that year he was severely defeated by the Italian army at Castelfidardo. His last years were spent in complete retirement in France (he had been allowed to return in 1857), and he died at Prouzel (Somme) on the 11th of September 1865.

See E. Keller, *Le Général de Lamoricière* (Paris, 1873).

LA MOTHE LE VAYER, FRANÇOIS DE (1588-1672), French writer, was born in Paris of a noble family of Maine. His father was an *avocat* at the parlement of Paris and author of a curious treatise on the functions of ambassadors, entitled *Legatus, seu De legatorum privilegiis, officio et munere libellus* (1579) and illustrated mainly from ancient history. François succeeded his father at the parlement, but gave up his post about 1647 and devoted himself to travel and *belles lettres*. His *Considérations sur l'éloquence française* (1638) procured him admission to the Academy, and his *De l'instruction de Mgr. le Dauphin* (1640) attracted the attention of Richelieu. In 1649 Anne of Austria entrusted him with the education of her second son and subsequently with the completion of Louis XIV.'s education, which had been very much neglected. The outcome of his pedagogic labours was a series of books comprising the *Géographie*, *Rhétorique*, *Morale*, *Économique*, *Politique*, *Logique*, and *Physique du prince* (1651-1658). The king rewarded his tutor by appointing him historiographer of France and councillor of state. La Mothe Le Vayer died in Paris. Modest, sceptical, and occasionally obscene in his Latin pieces and in his verses, he made himself a *persona grata* at the French court, where libertinism in ideas and morals was hailed with relish. Besides his educational works, he wrote *Jugement sur les anciens et principaux historiens grecs et latins* (1646); a treatise entitled *Du peu de certitude qu'il y a en histoire* (1668), which in a sense marks the beginning of historical criticism in France; and sceptical *Dialogues*, published posthumously under the pseudonym of Orosius Tubero. An incomplete edition of his works was published at Dresden in 1756-1759.

See Bayle, *Dictionnaire critique*, article "Vayer"; L. Étienne, *Essai sur La Mothe Le Vayer* (Paris, 1849).

LA MOTTE, ANTOINE HOUDAR DE (1672-1731), French author, was born in Paris on the 18th of January 1672. In 1693 his comedy *Les Originaux* proved a complete failure, which so depressed the author that he contemplated joining the Trappists, but four years later he again began writing operas and ballets, *e.g.* *L'Europe galante* (1697), and tragedies, one of which, *Inès de Castro* (1723), was produced with immense success at the Théâtre Français. He was a champion of the moderns in the revived controversy of the ancients and moderns. Madame Dacier had published (1699) a translation of the *Iliad*, and La Motte, who knew no Greek, made a translation (1714) in verse founded on her work. The nature of his work may be judged from his own expression: "I have taken the liberty to change what I thought disagreeable in it." He defended the moderns in the *Discours sur Homère* prefixed to his translation, and in his *Réflexions sur la critique* (1716). Apart from the merits of the controversy, it was conducted on La Motte's side with a wit and politeness which compared very favourably with his opponent's methods. He was elected to the Academy in 1710, and soon after became blind. La Motte carried on a correspondence with the duchesse du Maine, and was the friend of Fontenelle. He had the same freedom from prejudice, the same inquiring mind as the latter, and it is on the excellent prose in which his views are expressed that his reputation rests. He died in Paris on the 26th of December 1731.

His *Œuvres du théâtre* (2 vols.) appeared in 1730, and his *Œuvres* (10 vols.) in 1754. See A. H. Rigault, *Histoire de la querelle des anciens et des modernes* (1859).

LAMOUREUX, CHARLES (1834-1899), French conductor and violinist, was born at Bordeaux on the 28th of September 1834. He studied at the Pau Conservatoire, was engaged as violinist at the Opéra, and in 1864 organized a series of concerts devoted to chamber music. Having journeyed to England and assisted at a Handel festival, he thought he would attempt something similar in Paris. At his own expense he founded the "Société de l'Harmonie Sacrée," and in 1873 conducted the first performance in Paris of Handel's *Messiah*. He also gave performances of Bach's *St Matthew Passion*, Handel's *Judas Maccabaeus*, Gounod's *Gallia*, and Massenet's *Eve*. In 1875 he conducted the festival given at Rouen to celebrate the centenary of Boïeldieu. The following year he became *chef d'orchestre* at the Opéra Comique. In 1881 he founded the famous concerts associated with his name, which contributed so much to popularize Wagner's music in Paris. The performances of detached pieces taken from the German master's works did not, however, satisfy him, and he matured the project to produce *Lohengrin*, which at that time had not been heard in Paris. For this purpose he took the Eden Theatre, and on the 3rd of May 1887 he conducted the first performance of Wagner's opera in the French

capital. Owing to the opposition of the Chauvinists, the performance was not repeated; but it doubtless prepared the way for the production of the same masterpiece at the Paris Opéra a few years later. Lamoureux was successively second *chef d'orchestre* at the Conservatoire, first *chef d'orchestre* at the Opéra Comique, and twice first *chef d'orchestre* at the Opéra. He visited London on several occasions, and gave successful concerts at the Queen's Hall. Lamoureux died at Paris on the 21st of December 1899. *Tristan und Isolde* had been at last heard in Paris, owing to his initiative and under his direction. After conducting one of the performances of this masterpiece he was taken ill and succumbed in a few days, having had the consolation before his death of witnessing the triumph of the cause he had so courageously championed.

LAMP (from Gr. λαμπάς, a torch, λάμπειν, to shine), the general term for an apparatus in which some combustible substance, generally for illuminating purposes, is held. Lamps are usually associated with lighting, though the term is also employed in connexion with heating (*e.g.* spirit-lamp); and as now employed for oil, gas and electric light, they are dealt with in the article on Lighting. From the artistic point of view, in modern times, their variety precludes detailed reference here; but their archaeological history deserves a fuller account.

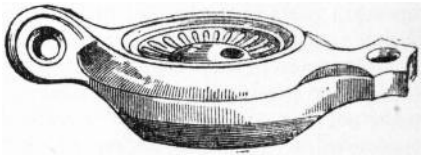


Fig. 1.

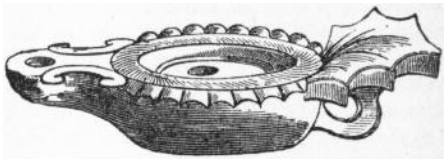


Fig. 2.

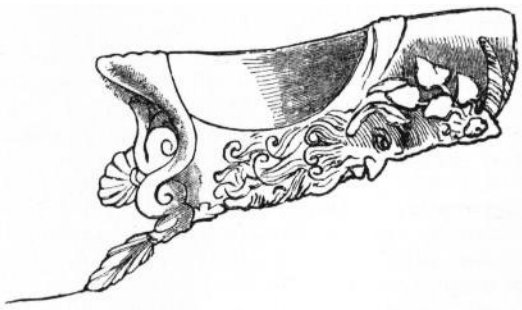


Fig. 3.

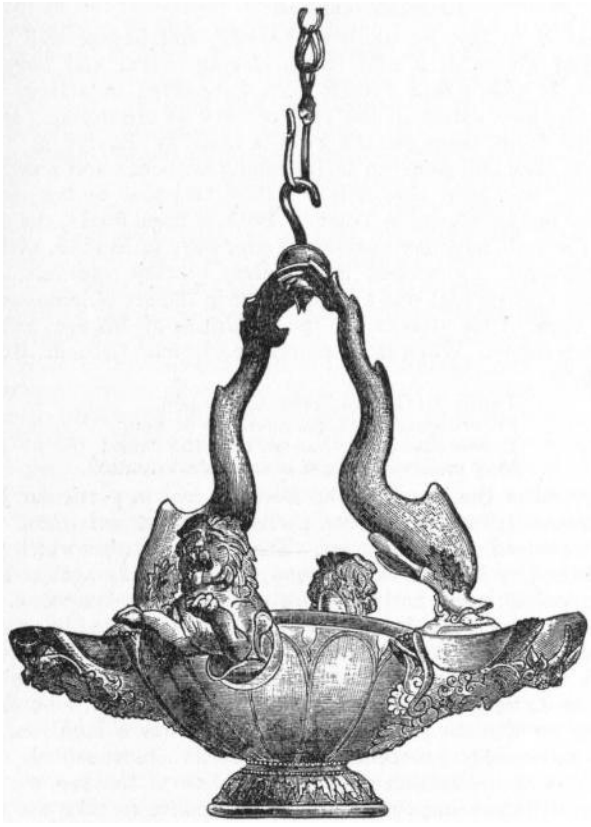


Fig. 4.—Bronze Lamp in British Museum.

Ancient Lamps.—Though Athenaeus states (xv. 700) that the lamp (λύχνος) was not an ancient invention in Greece, it had come into general use there for domestic purposes by the 4th century B.C., and no doubt had long before been employed for temples or other places where a permanent light was required in room of the torch of Homeric times. Herodotus (ii. 62) sees nothing strange in the "festival of lamps," Lychnokaie, which was held at Sais in Egypt, except in the vast number of them. Each was filled with oil

so as to burn the whole night. Again he speaks of evening as the time of lamps (περὶ λύχνων, vii. 215). Still, the scarcity of lamps in a style anything like that of an early period, compared with the immense number of them from the late Greek and Roman age, seems to justify the remark of Athenaeus. The commonest sort of domestic lamps were of terra-cotta and of the shape seen in figs. 1 and 2 with a spout or nozzle (μυκτήρ) in which the wick (θρυαλλίς) burned, a round hole on the top to pour in oil by, and a handle to carry the lamp with. A lamp with two or more spouts was δίμυξος, τρίμυξος, &c., but these terms would not apply strictly to the large class of lamps with numerous holes for wicks but without nozzles. Decoration was confined to the front of the handle, or more commonly to the circular space on the top of the lamp, and it consisted almost always of a design in relief, taken from mythology or legend, from objects of daily life or scenes such as displays of gladiators or chariot races, from animals and the chase. A lamp in the British Museum has a view of the interior of a Roman circus with spectators looking on at a chariot race. In other cases the lamp is made altogether of a fantastic shape, as in the form of an animal, a bull's head, or a human foot. Naturally colour was excluded from the ornamentation except in the form of a red or black glaze, which would resist the heat. The typical form of hand lamp (figs. 1, 2) is a combination of the flatness necessary for carrying steady and remaining steady when set down, with the roundness evolved from the working in clay and characteristic of vessels in that material. In the bronze lamps this same type is retained, though the roundness was less in keeping with metal. Fanciful shapes are equally common in bronze. The standard form of handle consists of a ring for the forefinger and above it a kind of palmette for the thumb. Instead of the palmette is sometimes a crescent, no doubt in allusion to the moon. It would only be with bronze lamps that the cover protecting the flame from the wind could be used, as was the case out of doors in Athens. Such a lamp was in fact a lantern. Apparently it was to the lantern that the Greek word *lampas*, a torch, was first transferred, probably from a custom of having guards to protect the torches also. Afterwards it came to be employed for the lamp itself (λύχνος, *lucerna*). When Juvenal (*Sat.* iii. 277) speaks of the *aenea lampas*, he may mean a torch with a bronze handle, but more probably either a lamp or a lantern. Lamps used for suspension were mostly of bronze, and in such cases the decoration was on the under part, so as to be seen from below. Of this the best example is the lamp at Cortona, found there in 1840 (engraved, *Monumenti d. inst. arch.* iii. pls. 41, 42, and in Dennis, *Cities and Cemeteries of Etruria*, 2nd ed. ii. p. 403). It is set round with sixteen nozzles ornamented alternately with a siren and a satyr playing on a double flute. Between each pair of nozzles is a head of a river god, and on the bottom of the lamp is a large mask of Medusa, surrounded by bands of animals. These designs are in relief, and the workmanship, which appears to belong to the beginning of the 5th century B.C., justifies the esteem in which Etruscan lamps were held in antiquity (Athenaeus xv. 700). Of a later but still excellent style is a bronze lamp in the British Museum found in the baths of Julian in Paris (figs. 3, 4, 5). The chain is attached by means of two dolphins very artistically combined. Under the nozzles are heads of Pan (fig. 3); and from the sides project the foreparts of lions (fig. 5). To what extent lamps may have been used in temples is unknown. Probably the Erechtheum on the acropolis of Athens was an exception in having a gold one kept burning day and night, just as this lamp itself must have been an exception in its artistic merits. It was the work of the sculptor Callimachus, and was made apparently for the newly rebuilt temple a little before 400 B.C. When once filled with oil and lit it burned continuously for a whole year. The wick was of a fine flax called Carpasian (now understood to have been a kind of cotton), which proved to be the least combustible of all flax (Pausanias i. 26. 7). Above the lamp a palm tree of bronze rose to the roof for the purpose of carrying off the fumes. But how this was managed it is not easy to determine unless the palm be supposed to have been inverted and to have hung above the lamp spread out like a reflector, for which purpose the polished bronze would have served fairly well. The stem if left hollow would collect the fumes and carry them out through the roof. This lamp was refilled on exactly the same day each year, so that there seems to have been an idea of measuring time by it, such as may also have been the case in regard to the lamp stand (λύχνειον) capable of holding as many lamps as there were days of the year, which Dionysius the Sicilian tyrant placed in the Prytaneum of Tarentum. At Pharae in Achaia there was in the market-place an oracular statue of Hermes with a marble altar before it to which bronze lamps were attached by means of lead. Whoever desired to consult the statue went there in the evening and first filled the lamps and lit them, placing also a bronze coin on the altar. A similar custom prevailed at the oracle of Apis in Egypt (Pausanias vii. 22. 2). At Argos he speaks of a chasm into which it was a custom continued to his time to let down burning lamps, with some reference to the goddess of the lower world, Persephone (ii. 22. 4). At Cnidus a large number of terra-cotta lamps were found crowded in one place a little distance below the surface, and it was conjectured that there must have been there some statue or altar at which it had been a custom to leave lamps burning at night (Newton, *Discoveries at Halicarnassus, &c.*, ii. 394). These lamps are of terra-cotta, but with little ornamentation, and so like each other in workmanship that they must all have come from one pottery, and may have been all brought to the spot where they were found on one occasion, probably the funeral of a person with many friends, or the celebration of a festival in his honour, such as the *parentalia* among the Romans, to maintain which it was a common custom to bequeath property. For example, a marble slab in the British Museum has a Latin inscription describing the property which had been left to provide among other things that a lighted lamp with incense on it should be placed at the tomb of the deceased on the kalends, nones and ides of each month (*Mus. Marbles*, v. pl. 8, fig. 2). For birthday presents terra-cotta lamps appear to have been frequently employed, the device generally being that of two figures of victory holding between them a disk inscribed with a good wish for the new year: ANNV NOV FAVSTV FELIX. This is the inscription on a lamp in the British Museum, which besides the victories has among other symbols a disk with the head of Janus. As the torch gave way to the lamp in fact, so also it gave way in mythology. In the earlier myths, as in that of Demeter, it is a torch with which she goes forth to search for her daughter, but in the late myth of Cupid and Psyche it is an oil lamp which Psyche carries, and from which to her grief a drop of hot oil falls on Cupid and awakes him. Terra-cotta lamps have very frequently the name of the maker stamped on the foot. Clay moulds from which the lamps were made exist in considerable numbers.

FIG. 5.

(A. S. M.)

LAMP-BLACK, a deep black pigment consisting of carbon in a very fine state of division, obtained by the imperfect combustion of highly carbonaceous substances. It is manufactured from scraps of resin and pitch refuse and inferior oils and fats, and other similar combustible bodies rich in carbon, the finest lamp-black being procured by the combustion of oils obtained in coal-tar distillation (see Coal-Tar). Lamp-black is extensively used in the manufacture of printing ink, as a pigment for oil painting and also for "ebonizing" cabinet work, and in the waxing and lacquering of leather. It is the principal constituent of China ink.

LAMPEDUSA, a small island in the Mediterranean, belonging to the province of Girgenti, from which it is about 112 m. S.S.W. Pop. (1901, with Linosa—see below) 2276. Its greatest length is about 7 m., its greatest width about 2 m.; the highest point is 400 ft. above sea-level. Geologically it belongs to Africa, being situated on the edge of the submarine platform which extends along the east coast of Tunisia, from which (at Mahadia) it is 90 m. distant eastwards. The soil is calcareous; it was covered with scrub (chiefly the wild olive) until comparatively recent times, but this has been cut, and the rock is now bare. The valleys are, however, fairly fertile. On the south, near the only village, is the harbour, which has been dredged to a depth of 13 ft. and is a good one for torpedo boats and small craft.

The island was, as remains of hut foundations show, inhabited in prehistoric times. Punic tombs and Roman buildings also exist near the harbour. The island is the Lopadusa of Strabo, and the Lipadosa of Ariosto's *Orlando Furioso*, the scene of the landing of Roger of Sicily and of his conversion by the hermit. A thousand slaves were taken from its population in 1553. In 1436 it was given by Alfonso of Aragon to Don Giovanni de Caro, baron of Montechiaro. In 1661, Ferdinand Tommasi, its then owner, received the title of prince from Charles II. of Spain. In 1737 the earl of Sandwich found only one inhabitant upon it; in 1760 some French settlers established themselves there. Catherine II. of Russia proposed to buy it as a Russian naval station, and the British government thought of doing the same if Napoleon had succeeded in seizing Malta. In 1800 a part of it was leased to Salvatore Gatt of Malta, who in 1810 sublet part of it to Alessandro Fernandez. In 1843 onwards Ferdinand II. of Naples established a colony there. There is now an Italian penal colony for *domicilio coatto*, with some 400 convicts (see B. Sanvisente, *L'Isola di Lampedusa eretta a colonia*, Naples, 1849). Eight miles W. is the islet of Lampione. Linosa, some 30 m. to the N.N.E., measures about 2 by 2 m., and is entirely volcanic; its highest point is 610 ft. above sea-level. Pop. (1901) about 200. It has landing-places on the S. and W., and is more fertile than Lampedusa; but it suffers from the lack of springs. Sanvisente says the water in Lampedusa is good. A few fragments of undoubtedly Roman pottery and some Roman coins have been found there, but the cisterns and the ruins of houses are probably of later date (P. Calcara, *Descrizione dell' isola di Linosa*, Palermo, 1851, 29).

(T. As.)

LAMPERTHEIM, a town in the grand-duchy of Hesse-Darmstadt, 8 m. N. from Mannheim by the railway to Frankfort-on-Main via Biblis, and at the junction of lines to Worms and Weinheim. It contains a Roman Catholic church and a fine Evangelical church, and has chemical and cigar factories. Pop. (1900) 8020.

LAMPETER (*Llanbedr-pont-Stephan*), a market town, municipal borough and assize town of Cardiganshire, Wales, on the right bank of the Teifi, here crossed by an ancient stone bridge. Pop. (1901) 1722. Lampeter is a station on the so-called Manchester-and-Milford branch line of the Great Western railway. Though of ancient origin, the town is entirely modern in appearance, its most conspicuous object being the Gothic buildings of St David's College, founded in 1822, which cover a large area and contain a valuable library of English, Welsh and foreign works (see Universities). The modernized parish church of St Peter, or Pedr, contains some old monuments of the Lloyd family. North of the town are the park and mansion of Falcondale, the seat of the Harford family.

The name of Llanbedr-pont-Stephan goes to prove the early foundation of the place by St Pedr, a Celtic missionary of the 6th century, while one Stephen was the original builder of the bridge over the Teifi. As an important outpost in the upper valley of the Teifi, Lampeter possessed a castle, which was demolished by Owen Gwynedd in the 12th century. In 1188 the town was visited by Archbishop Baldwin on his way from Cardigan to Strata-Florida Abbey, and the Crusade was vigorously preached at this spot. Lampeter was first incorporated under Edward II., but the earliest known charter dates from the reign of Henry VI., whereby the principal officer of the town, a portreeve, was to be appointed annually at the court-leet of the manor. The town was subsequently governed under a confirmatory charter of 1814, but in 1884 a new charter was obtained, whereby

the corporation was empowered to consist of a mayor, 4 aldermen and 12 councillors. Although only a small agricultural centre, Lampeter has since 1886 become the assize town of Cardiganshire owing to its convenient position. Until the Redistribution Act of 1885 Lampeter formed one of the group of boroughs comprising the Cardigan parliamentary district.

LAMPOON, a virulent satire either in prose or verse; the idea of injustice and unscrupulousness seems to be essential to its definition. Although in its use the word is properly and almost exclusively English, the derivation appears to be French. Littré derives it from a term of Parisian argot, *lamper*, to drink, greedily, in great mouthfuls. This word appears to have begun to be prevalent in the middle of the 17th century, and Furetière has preserved a fragment from a popular song, which says:—

Jacques fuyant de Dublin
Dit à Lauzun, son cousin,
"Prenez soin de ma couronne,
J'aurai soin de ma personne,
Lampons! lampons!"

—that is to say, let us drink heavily, and begone dull care. Scarron speaks of a wild troop, singing *leridas* and *lampons*. There is, also, a rare French verb, *lamponner*, to attack with ridicule, used earlier in the 17th century by Brantôme. In its English form, lampoon, the word is used by Evelyn in 1645, "Here they still paste up their drolling lampoons and scurrilous papers," and soon after it is a verb,—"suppose we lampooned all the pretty women in Town." Both of these forms, the noun and the verb, have been preserved ever since in English, without modification, for violent and reckless literary censure. Tom Brown (1663-1704) was a past master in the art of lampooning, and some of his attacks on the celebrities of his age have a certain vigour. When Dryden became a Roman Catholic, Brown wrote:—

Traitor to God and rebel to thy pen,
Priest-ridden Poet, perjured son of Ben,
If ever thou prove honest, then the nation
May modestly believe in transubstantiation.

Several of the heroes of the *Dunciad*, and in particular John Oldmixon (1673-1742), were charged without unfairness with being professional lampooners. The coarse diatribes which were published by Richard Savage (1697-1743), mainly against Lady Macclesfield, were nothing more nor less than lampoons, and the word may with almost equal justice be employed to describe the coarser and more personal portions of the satires of Churchill. As a rule, however, the lampoon possessed no poetical graces, and in its very nature was usually anonymous. The notorious *Essay on Woman* (1764) of John Wilkes was a lampoon, and was successfully proceeded against as an obscene libel. The progress of civilization and the discipline of the law made it more and more impossible for private malice to take the form of baseless and scurrilous attack, and the lampoon, in its open shape, died of public decency in the 18th century. Malice, especially in an anonymous form, and passing in manuscript from hand to hand, has continued, however, to make use of this very unlovely form of literature. It has constantly reappeared at times of political disturbance, and the French have seldom failed to exercise their wicked wit upon their unpopular rulers. See also PASQUINADE.

(E. G.)

LAMPREY, a fish belonging to the family *Petromyzontidae* (from πέτρος and μύζω, literally, stone-suckers), which with the hag-fishes or *Myxinidae* forms a distinct subclass of fishes, the *Cyclostomata*, distinguished by the low organization of their skeleton, which is cartilaginous, without vertebral segmentation, without ribs or real jaws, and without limbs. The lampreys are readily recognized by their long, eel-like, scaleless body, terminating anteriorly in the circular, suctorial mouth characteristic of the whole sub-class. On each side, behind the head, there is a row of seven branchial openings, through which the water is conveyed to and from the gills. By means of their mouth they fasten to stones, boats, &c., as well as to other fishes, their object being to obtain a resting-place on the former, whilst they attach themselves to the latter to derive nourishment from them. The inner surface of their cup-shaped mouth is armed with pointed teeth, with which they perforate the integuments of the fish attacked, scraping off particles of the flesh and sucking the blood. Mackerel, cod, pollack and flat-fishes are the kinds most frequently attacked by them in the sea; of river-fish the migratory *Salmonidae* and the shad are sometimes found with the marks of the teeth of the lamprey, or with the fish actually attached to them. About fifteen species are known from the coasts and rivers of the temperate regions of the northern and southern hemispheres. In Great Britain and Europe generally three species occur, viz. the large spotted sea-lamprey (*Petromyzon marinus*), the river-lamprey or lampern (*P. fluviatilis*), and the small lampern or "pride" or "sand-piper" (*P. branchialis*). The first two are migratory, entering rivers in the spring to spawn; of the river-lamprey, however, specimens are met with in fresh water all the year round. In North America about ten species of lamprey occur, while in South America and Australasia still others are found. Lampreys, especially the sea-lamprey, are esteemed as food, formerly more so than at

present; but their flesh is not easy of digestion. Henry I. of England is said to have fallen a victim to this, his favourite dish. The species of greatest use is the river-lamprey, which as bait is preferred to all others in the cod and turbot fisheries of the North Sea. Yarrell states that formerly the Thames alone supplied from 1,000,000 to 1,200,000 lamperns annually, but their number has so much fallen off that, for instance, in 1876 only 40,000 were sold to the cod-fishers. That year, however, was an unusually bad year; the lamperns, from their scarcity, fetched £8, 10s. a thousand, whilst in ordinary years £5 is considered a fair price. The season for catching lamperns closes in the Thames about the middle of March. The origin of the name lamprey is obscure; it is an adaptation of Fr. *lamproie*, Med. Lat. *lampreda*; this has been taken as a variant of another Med. Lat. form *Lampetra*, which occurs in ichthyological works of the middle ages; the derivation from *lambere petras*, to lick stones, is a specimen of etymological ingenuity. The development of lampreys has received much attention on the part of naturalists, since Aug. Müller discovered that they undergo a metamorphosis, and that the minute worm-like lamperns previously known under the name of *Ammocoetes*, and abundant in the sand and mud of many streams, were nothing but the undeveloped young of the river-lampreys and small lamperns. See Cyclostomata.

LAMPROPHYRES (from Gr. λαμπρός, bright, and the terminal part of the word porphyry, meaning rocks containing bright porphyritic crystals), a group of rocks containing phenocrysts, usually of biotite and hornblende (with bright cleavage surfaces), often also of olivine and augite, but not of felspar. They are thus distinguished from the porphyries and porphyrites in which the felspar has crystallized in two generations. They are essentially “dike rocks,” occurring as dikes and thin sills, and are also found as marginal facies of plutonic intrusions. They furnish a good example of the correlation which often exists between petrographical types and their mode of occurrence, showing the importance of physical conditions in determining the mineralogical and structural characters of rocks. They are usually dark in colour, owing to the abundance of ferro-magnesian silicates, of relatively high specific gravity and liable to decomposition. For these reasons they have been defined as a *melanocrate* series (rich in the dark minerals); and they are often accompanied by a complementary *leucocrate* series (rich in the white minerals felspar and quartz) such as aplites, porphyries and felsites. Both have been produced by differentiation of a parent magma, and if the two complementary sets of rocks could be mixed in the right proportions, it is presumed that a mass of similar chemical composition to the parent magma would be produced.

Both in the hand specimens and in microscopic slides of lamprophyric rocks biotite and hornblende are usually conspicuous. Though black by reflected light they are brown by transmitted light and highly pleochroic. In some cases they are yellow-brown, in other cases chestnut-brown and reddish brown; in the same rock the two minerals have strikingly similar colour and pleochroism. Augite, when it occurs, is sometimes green, at other times purple. Felspar is restricted to the ground mass; quartz occurs sometimes but is scarce. Although porphyritic structure is almost universal, it is sometimes not very marked. The large biotites and hornblendes are not sharply distinct from those of intermediate size, which in turn graduate into the small crystals of the same minerals in the ground mass. As a rule all the ingredients have rather perfect crystalline forms (except quartz), hence these rocks have been called “panidiomorphic.” In many lamprophyres the pale quartz and felspathic ingredients tend to occur in rounded spots, or *ocelli*, in which there has been progressive crystallization from the margins towards the centre. These spots may consist of radiate or brush-like felspars (with some mica and hornblende) or of quartz and felspar. A central area of quartz or of analcite probably represents an original miarolitic cavity infilled at a later period.

There are two great groups of lamprophyres differing in composition while retaining the general features of the class. One of these accompanies intrusions of granite and diorite and includes the minettes, kersantites, vogesites and spessartites. The other is found in association with nepheline syenites, essexites and teschenites, and is exemplified by camptonites, monchiquites and alnoites. The complementary facies of the first group is the aplites, porphyrites and felsites; that of the second group includes bostonites, tinguaites and other rocks.

The *granito-dioritic-lamprophyres* (the first of these two groups) are found in many districts where granites and diorites occur, *e.g.* the Scottish Highlands and Southern Uplands, the Lake district, Ireland, the Vosges, Black Forest, Harz, &c. As a rule they do not proceed directly from the granite, but form separate dikes which may be later than, and consequently may cut, the granites and diorites. In other districts where granites are abundant no rocks of this class are known. It is rare to find only one member of the group present, but minettes, vogesites, kersantites, &c., all appear and there are usually transitional forms. For this reason these rock species must not be regarded as sharply distinct from one another. The group as a whole is a well-characterized one and shows few transitions to porphyries, porphyrites and other dike types; its subdivisions, however, tend to merge into one another and especially when they are weathered are hard to differentiate. The presence or absence of the four dominant minerals, orthoclase, plagioclase, biotite and hornblende, determines the species. Minettes contain biotite and orthoclase; kersantites, biotite and plagioclase. Vogesites contain hornblende and orthoclase; spessartites, hornblende and plagioclase. Each variety of lamprophyre may and often does contain all four minerals but is named according to the two which preponderate. These rocks contain also iron oxides (usually titaniferous), apatite, sometimes sphene, augite and olivine. The hornblende and biotite are brown or greenish brown, and as a rule their crystals even when small are very perfect and give the micro-sections an easily recognizable character. Green hornblende occurs in some of these rocks. The augite builds eumorphic crystals of pale green colour, often zonal and readily weathering. Olivine in the fresh state is rare; it forms rounded, corroded grains; in many cases it is decomposed to green or colourless hornblende in radiating nests (pilite). The plagioclase occurs as small rectangular crystals; orthoclase may have similar shapes or may be fibrous and grouped in sheaflike aggregates which are narrow in the middle and spread out towards both ends. If quartz is present it is the last product of crystallization and the only mineral devoid of idiomorphism; it fills up the spaces between the other ingredients of the rock. As all lamprophyres are prone to alteration by weathering a great abundance of secondary minerals is usually found in them; the principal are calcite and

other carbonates, limonite, chlorite, quartz and kaolin.

Ocellar structure is common; the ocelli consist mainly of orthoclase and quartz, and may be a quarter of an inch in diameter. Another feature of these rocks is the presence of large foreign crystals or xenocrysts of felspar and of quartz. Their forms are rounded, indicating partial resorption by the solvent action of the lamprophyric magma; and the quartz may be surrounded by corrosion borders of minerals such as augite and hornblende produced where the magma is attacking the crystal. These crystals are of doubtful origin; they are often of considerable size and may be conspicuous in hand-specimens of the rocks. It is supposed that they did not crystallize in the lamprophyre dike but in some way were caught up by it. Other enclosures, more certainly of foreign origin, are often seen, such as quartzite, schists, garnetiferous rocks, granite, &c. These may be baked and altered or in other cases partly dissolved. Cordierite may be formed either in the enclosure or in the lamprophyre, where it takes the shape of hexagonal prisms which in polarized light break up into six sectors, triangular in shape, diverging from the centre of the crystal.

The second group of lamprophyric dike rocks (*the camptonite, monchiquite, alnoite series*) is much less common than those above described. As a rule they occur together, and there are transitions between the different sub-groups as in the granito-dioritic lamprophyres. In Sweden, Brazil, Portugal, Norway, the north of Scotland, Bohemia, Arkansas and other places this assemblage of rock types has been met with, always presenting nearly identical features. In most cases, though not in all, they have a close association with nepheline or leucite syenites and similar rocks rich in alkalies. This indicates a genetic affinity like that which exists between the granites and the minettes, &c., and further proof of this connexion is furnished by the occasional occurrence in those lamprophyres of leucite, haüyne and other felspathoid minerals.

The camptonites (called after Campton, New Hampshire) are dark brown, nearly black rocks often with large hornblende phenocrysts. Their essential minerals in thin section are hornblende of a strong reddish-brown colour; augite purple, pleochroic and rich in titanium, olivine and plagioclase felspar. They have the porphyritic and panidiomorphic structures described in the rocks of the previous group, and like them also have an ocellar character, often very conspicuous under the microscope. The accessory minerals are biotite, apatite, iron oxides and analcite. They decompose readily and are then filled with carbonates. Many of these rocks prove on analysis to be exceedingly rich in titanium; they may contain 4 or 5% of titanium dioxide.

The monchiquites (called after the Serra de Monchique, Portugal) are fine-grained and devoid of felspar. Their essential constituents are olivine and purplish augite. Brown hornblende, like that of the camptonites, occurs in many of them. An interstitial substance is present, which may sometimes be a brown glass, but at other times is colourless and is believed by some petrographers to be primary crystalline analcite. They would define the monchiquites as rocks consisting of olivine, augite and analcite; others regard the analcite as secondary, and consider the base as essentially glassy. Some monchiquites contain haüyne; while in others small leucites are found. Ocellar structure is occasionally present, though less marked than in the camptonites. A special group of monchiquites rich in deep brown biotite has been called fourchites (after the Fourche Mountains, Arkansas).

The alnoites (called after the island of Alnö in Norway) are rare rocks found in Norway, Montreal and other parts of North America and in the north of Scotland. They contain olivine, augite, brown biotite and melilite. They are free from felspar, and contain very low percentages of silica.

The chemical composition of some of these rocks will be indicated by the analyses of certain well-known examples.

	SiO_2	TiO_2	Al_2O_3	Fe_2O_3	FeO	MgO	CaO	Na_2O	K_2O
I.[1]	52.70	1.71	15.07	8.41	...	7.23	5.33	3.12	4.81
II.	52.12	1.20	13.52	2.56	4.53	6.36	5.78	2.34	5.36
III.	45.15	...	15.39	2.76	5.64	6.38	8.83	2.67	2.77
IV.	54.67	...	12.68	11.68	2.13	6.11	4.96	3.85	3.65
V.	41.96	4.15	15.36	3.27	9.89	5.01	9.47	5.15	0.19
VI.	43.74	2.80	14.82	2.40	7.52	6.98	10.81	3.06	2.90
VII.	29.25	2.54	8.80	3.92	5.42	17.66	17.86	0.77	2.45

In addition to the oxides given these rocks contain small quantities of water (combined and hygroscopic), CO_2, S, MnO, P_2O_5, Ca_2O_3, &c.

(J. S. F.)

1 I. Minette (Weiler, Alsace). II. Kersantite (Neubrunn, Thuringia). III. Vogesite (Castle Mountain, Montana). IV. Spessartite (Waldmichael, Spessart). V. Camptonite (Campton Falls). VI. Monchiquite (Ria do Ouro, Serra de Tingua). VII. Alnöite (Alnö, Sweden).

LAMPSACUS, an ancient Greek colony in Mysia, Asia Minor, known as Pityusa or Pityussa before its colonization by Ionian Greeks from Phocaea and Miletus, was situated on the Hellespont, opposite Callipolis (Gallipoli) in Thrace. It possessed a good harbour; and the neighbourhood was famous for its wine, so that, having fallen into the hands of the Persians during the Ionian revolt, it was assigned by Artaxerxes I. to Themistocles to provide him with wine, as Percote did with meat and Magnesia with bread. After the battle of Mycale (479 B.C.), Lampsacus joined the Athenians, but, having revolted from them in 411, was reduced by force. It was defended in 196 B.C. against Antiochus the Great of Syria, after which its inhabitants were received as allies of Rome. Lampsacus was the chief seat of the worship of Priapus, a gross nature-god closely connected with the culture of the vine. The ancient name is preserved in that of the modern village of Lapsaki, but the Greek town possibly lay at Chardak immediately opposite Gallipoli.

See A. L. Castellan, *Lettres sur la Morée, l'Hellespont, &c.* (Paris, 1820); Choiseul Gouffier, *Voyage pittoresque dans l'empire ottoman* (1842).

LAMPSTAND, a pillar, tripod or figure extending to the floor for supporting or holding a lamp. The lampstand (*lampadère*) is probably of French origin; it appears to have been in use in France before the end of the 17th century.

LANARK, a royal, municipal and police burgh, and county town of Lanarkshire, Scotland, standing on high ground about half a mile from the right bank of the Clyde, 31 m. S.E. of Glasgow by the Caledonian railway. Pop. (1901) 6440. It is a favourite holiday resort, being the point from which the falls of the Clyde are usually visited. The principal buildings are the town hall, the county buildings, the assembly rooms, occupying the site of an old Franciscan monastery, three hospitals, a convalescent home, the Smyllum orphanage and the Queen Victoria Jubilee fountain. The industries include cotton-spinning, weaving, nail-making and oilworks, and there are frequent markets for cattle and sheep. Lanark is a place of considerable antiquity. Kenneth II. held a parliament here in 978, and it was sometimes the residence of the Scottish kings, one of whom, William the Lion (d. 1214), granted it a charter. Several of the earlier exploits of William Wallace were achieved in the neighbourhood. He burned the town and slew the English sheriff William Hezelrig. About 1 m. N.W. are Cartland Craigs, where Mouse Water runs through a precipitous red sandstone ravine, the sides of which are about 400 ft. high. The stream is crossed by a bridge of single span, supposed to be Roman, and by a three-arched bridge, designed by Thomas Telford and erected in 1823. On the right bank, near this bridge, is the cave in which Wallace concealed himself after killing Hezelrig and which still bears his name. Lanark was the centre of much activity in the days of the Covenanters. William Lithgow (1582-1645), the traveller, William Smellie (1697-1763), the obstetrician and Gavin Hamilton (1730-1797), the painter, were born at Lanark. The town is one of the Falkirk district group of parliamentary burghs, the other constituents being Airdrie, Hamilton, Falkirk and Linlithgow.

New Lanark (pop. 795), 1 m. S., is famous in connexion with the socialist experiments of Robert Owen. The village was founded by David Dale (1739-1806) in 1785, with the support of Sir Richard Arkwright, inventor of the spinning-frame, who thought the spot might be made the Manchester of Scotland. In ten years four cotton mills were running, employing nearly 1400 hands. They were sold in 1799 to a Manchester company, who appointed Owen manager. In the same year he married Dale's daughter. For many years the mills were successfully conducted, but friction ultimately arose and Owen retired in 1828. The mills, however, are still carried on.

There are several interesting places near Lanark. Braxfield, on the Clyde, gave the title of Lord Braxfield to Robert Macqueen (1722-1799), who was born in the mansion and acquired on the bench the character of the Scottish Jeffreys. Robert Baillie, the patriot who was executed for conscience' sake (1684), belonged to Jerviswood, an estate on the Mouse. Lee House, the home of the Lockharts, is 3 m. N.W. The old castle was largely rebuilt in the 19th century. It contains some fine tapestry and portraits, and the Lee Penny—familiar to readers of Sir Walter Scott's *Talisman*—which was brought from Palestine in the 14th century by the Crusading knight, Sir Simon Lockhart. It is described as a cornelian encased in a silver coin. Craignethan Castle on the Nethan, a left-hand tributary joining the Clyde at Crossford, is said to be the original of the "Tillietudiem" of Scott's *Old Mortality*.

LANARKSHIRE, a south-western county of Scotland, bounded N. by the shires of Dumbarton and Stirling, E. by Linlithgowshire, Mid-Lothian and Peeblesshire, S. by Dumfriesshire and W. by the counties of Ayr, Renfrew and Dumbarton. Its area is 879 sq. m. (562,821 acres). It may be described as embracing the valley of the Clyde; and, in addition to the gradual descent from the high land in the south, it is also characterized by a gentle slope towards both banks of the river. The shire is divided into three wards, the Upper, comprising all the southern section, or more than half the whole area (over 330,000 acres); the Middle, with Hamilton for its chief town, covering fully 190,000 acres; and the Lower, occupying the northern area of about 40,000 acres. The surface falls gradually from the uplands in the south to the Firth of Clyde. The highest hills are nearly all on or close to the borders of Peeblesshire and Dumfriesshire, and include Culter Fell (2454 ft.) and Lowther Hill (2377). The loftiest heights exclusively belonging to Lanarkshire are Green Lowther (2403), Tinto (2335), Ballencleuch Law (2267), Rodger Law (2257), Dun Law (2216), Shiel Dod (2190), Dungrain Law (2186) and Comb Law (2107). The principal rivers are the Clyde and its head waters and affluents (on the right, the Medwin, Mouse, South Calder, North Calder and Kelvin; on the left, the Douglas, Nethan, Avon, Rotten Calder and Cart). There are no lochs of considerable size, the few sheets of water in the

north—Woodend Reservoir, Bishop Loch, Hogganfield Loch, Woodend Loch, Lochend Loch—mainly feeding the Monkland and the Forth and Clyde Canals. The most famous natural features are the Falls of Clyde at Bonnington, Corra, Dundaff and Stonebyres.

Geology.—The southern upland portion is built up of Silurian and Ordovician rocks; the northern lower-lying tracts are formed of Carboniferous and Old Red Sandstone rocks. Ordovician strata cross the county from S.W. to N.E. in a belt 5-7 m. in breadth which is brought up by a fault against the Old Red and the Silurian on the northern side. This fault runs by Lamington, Roberton and Crawfordjohn. The Ordovician rocks lie in a synclinal fold with beds of Caradoc age in the centre flanked by graptolitic shales, grits and conglomerates, including among the last-named the local "Haggis-rock"; the well-known lead mines of Leadhills are worked in these formations. Silurian shales and sandstones, &c., extend south of the Ordovician belt to the county boundary; and again, on the northern side of the Ordovician belt two small tracts appear through the Old Red Sandstone on the crests of anticlinal folds. The Old Red Sandstone covers an irregular tract north of the Ordovician belt; a lower division consisting of sandstone, conglomerates and mud-stones is the most extensively developed; above this is found a series of contemporaneous porphyrites and melaphyres, conformable upon the lower division in the west of the county but are not so in the east. An upper series of sandstones and grits is seen for a short distance west of Lamington. Lanark stands on the Old Red Sandstone and the Falls of Clyde occur in the same rocks. Economically the most important geological feature is the coal basin of the Glasgow district. The axis of this basin lies in a N.E.-S.W. direction; in the central part, including Glasgow, Airdrie, Motherwell, Wishaw, Carluke, lie the coal-measures, consisting of sandstones, shales, marls and fireclays with seams of coal and ironstone. There are eleven beds of workable coal, the more important seams being the Ell, Main, Splint, Pyotshaw and Virtuewell. Underlying the coal-measures is the Millstone Grit seen on the northern side between Glenboig and Hogganfield—here the fireclays of Garnkirk, Gartcosh and Glenboig are worked—and on the south and south-east of the coal-measures, but not on the western side, because it is there cut out by a fault. Beneath the last-named formation comes the Carboniferous Limestone series with thin coals and ironstones, and again beneath this is the Calciferous Sandstone series which in the south-east consists of sandstones, shales, &c., but in the west the greater part of the series is composed of interbedded volcanic rocks—porphyrites and melaphyres. It will be observed that in general the younger formations lie nearer the centre of the basin and the older ones crop out around them. Besides the volcanic rocks mentioned there are intrusive basalts in the Carboniferous rocks like that in the neighbourhood of Shotts, and the smaller masses at Hogganfield near Glasgow and elsewhere. Volcanic necks are found in the Carluke and Kilcadzow districts, marking the vents of former volcanoes and several dikes of Tertiary age traverse the older rocks. An intrusion of pink felsite in early Old Red times has been the cause of Tinto Hill. Evidences of the Glacial period are abundant in the form of kames and other deposits of gravel, sand and boulder clay. The ice in flowing northward and southward from the higher ground took an easterly direction when it reached the lower ground. In the lower reaches of the Clyde the remains of old beaches at 25, 50 and 100 ft. above the present sea-level are to be observed.

Climate and Agriculture.—The rainfall averages 42 in. annually, being higher in the hill country and lower towards the north. The temperature for the year averages 48° F., for January 38° and for July 59°. The area under grain has shown a downward tendency since 1880. Oats is the principal crop, but barley and wheat are also grown. Potatoes and turnips are raised on a large scale. In the Lower Ward market-gardening has increased considerably, and the quantity of vegetables, grapes and tomatoes reared under glass has reached great proportions. An ancient industry in the vale of the Clyde for many miles below Lanark is the cultivation of fruit, several of the orchards being said to date from the time of Bede. The apples and pears are of good repute. There has been a remarkable extension in the culture of strawberries, hundreds of acres being laid down in beds. The sheep walks in the upper and middle wards are heavily stocked and the herds of cattle are extensive, the favoured breeds being Ayrshire and a cross between this and "improved Lanark." Dairy-farming flourishes, the cheeses of Carnwath and Lesmahagow being in steady demand. Clydesdale draught-horses are of high class. They are supposed to have been bred from Flanders horses imported early in the 18th century by the 5th duke of Hamilton. Most of the horses are kept for agricultural work, but a considerable number of unbroken horses and mares are maintained for stock. Pigs are numerous, being extensively reared by the miners. The largest farms are situated in the Upper Ward, but the general holding runs from 50 to 100 acres. More than 21,000 acres are under wood.

Other Industries.—The leading industries are those in connexion with the rich and extensive coal and iron field to the east and southeast of Glasgow; the shipbuilding at Govan and Partick and in Glasgow harbour; the textiles at Airdrie, Blantyre, Hamilton, Lanark, New Lanark, Rutherglen and Glasgow; engineering at Cambuslang, Carluke, Coatbridge, Kinning Park, Motherwell and Wishaw, and the varied and flourishing manufactures centred in and around Glasgow.

Communications.—In the north of the county, where population is most dense and the mineral field exceptionally rich, railway facilities are highly developed, there being for 10 or 12 m. around Glasgow quite a network of lines. The Caledonian Railway Company's main line to the south runs through the whole length of the shire, sending off branches at several points, especially at Carstairs Junction. The North British Railway Company serves various towns in the lower and middle wards and its lines to Edinburgh cross the northwestern corner and the north of the county. Only in the immediate neighbourhood of Glasgow does the Glasgow and South Western system compete for Lanarkshire traffic, though it combines with the Caledonian to work the Mid-Lanarkshire and Ayrshire railway. The Monkland Canal in the far north and the Forth and Clyde Canal in the north and north-west carry a considerable amount of goods, and before the days of railways afforded one of the principal means of communication between east and west.

Population and Administration.—The population amounted in 1891 to 1,105,899 and in 1901 to 1,339,327, or 1523 persons to the sq. m. Thus though only tenth in point of extent, it is much the most populous county in Scotland, containing within its bounds nearly one-third of the population of the country. In 1901 there were 104 persons speaking Gaelic only, and 26,905 speaking Gaelic and English. The chief towns, with populations in 1901, apart from Glasgow, are Airdrie (22,288), Cambuslang (12,252), Coatbridge (36,991), Govan (82,174), Hamilton (32,775), Kinning Park (13,852), Larkhall (11,879), Motherwell (30,418), Partick (54,298), Rutherglen (17,220), Shettleston (12,154), Wishaw (20,873). Among smaller towns are Bellshill, Carluke, Holytown, Lanark, Stonefield, Tollcross and Uddingston; and Lesmahagow and East Kilbride are populous villages and mining centres. The county is divided into six parliamentary divisions:—North-east, North-west, Mid and South Lanark, Govan and Partick each returning one member. The royal burghs are Glasgow, Lanark and Rutherglen; the municipal and police burghs Airdrie, Biggar, Coatbridge, Glasgow, Govan, Hamilton, Kinning Park, Lanark,

Motherwell, Partick, Rutherglen and Wishaw. Glasgow returns seven members to Parliament; Airdrie, Hamilton and Lanark belong to the Falkirk group and Rutherglen to the Kilmarnock group of parliamentary burghs. Lanarkshire is a sheriffdom, whose sheriff-principal is confined to his judicial duties in the county, and he has eight substitutes, five of whom sit constantly in Glasgow, and one each at Airdrie, Hamilton and Lanark. The shire is under school-board jurisdiction, many schools earning grants for higher education. For advanced education, besides the university and many other institutions in Glasgow there are a high school in Hamilton, and technical schools at Coatbridge and Wishaw. The county council expends the "residue" grant in supporting lectures and classes in agriculture and agricultural chemistry, mining, dairying, cookery, laundry work, nursery and poultry-keeping, in paying fees and railway fares and providing bursaries for technical students, and in subsidizing science and art and technical classes in day and evening schools. A director of technical education is maintained by the council. Lanark, Motherwell and Biggar entrust their shares of the grant to the county council, and Coatbridge and Airdrie themselves subsidize science and art and evening classes and continuation schools.

History.—At an early period Lanarkshire was inhabited by a Celtic tribe, the Damnonii, whose territory was divided by the wall of Antoninus between the Forth and Clyde (remains of which are found in the parish of Cadder), but who were never wholly subjugated by the Romans. Traces of their fortifications, mounds and circles exist, while stone axes, bronze celts, querns and urns belonging to their age are occasionally unearthed. Of the Romans there are traces in the camp on Beattock summit near Elvanfoot, in the fine bridge over the Mouse near Lanark, in the road to the south of Strathaven, in the wall already mentioned and in the coins and other relics that have been dug up. After their departure the country which included Lanarkshire formed part of the kingdom of Strathclyde, which, in the 7th century, was subdued by Northumbrian Saxons, when great numbers of the Celts migrated into Wales. The county once embraced a portion of Renfrewshire, but this was disjoined in the time of Robert III. The shire was then divided into two wards, the Over (with Lanark as its chief town) and the Nether (with Rutherglen as its capital). The present division into three wards was not effected till the 18th century. Independently of Glasgow, Lanarkshire has not borne any part continuously in the general history of Scotland, but has been the scene of several exciting episodes. Many of Wallace's daring deeds were performed in the county, Queen Mary met her fate at Langside (1568) and the Covenanters received constant support from the people, defeating Claverhouse at Drumclog (1679), but suffering defeat themselves at Bothwell Brig (1679).

See W. Hamilton, *Description of the Sheriffdoms of Lanark and Renfrew*, Maitland Club (1831); C. V. Irving and A. Murray, *The Upper Ward of Lanarkshire* (Glasgow, 1864); *The Clydesdale Stud Book* (Glasgow); W. A. Cowan, *History of Lanark* (Lanark, 1867); *Extracts from the Records of the Burgh of Lanark* (Glasgow, 1893).

LANCASHIRE, a north-western county of England, bounded N.E. by Westmorland, E. by Yorkshire, S. by Cheshire, W. by the Irish Sea and N.W. by Cumberland. The area is 1880.2 sq. m., the county being the sixth in size in England. The coast is generally flat, and broken by great inlets, with wide expanses of sandy foreshore at low tide. The chief inlets, from N. to S., are—the estuary of the river Duddon, which, with the river itself, separates the county from Cumberland; Morecambe Bay; and the estuaries of the Ribble and the Mersey. Morecambe Bay receives the rivers Crake and Leven in a common estuary, and the Kent from Westmorland; while the Lune and the Wyre discharge into Lancaster Bay, which is only partially separated from Morecambe Bay by the promontory of Red Nab. Morecambe Bay also detaches from the rest of the county the district of Furness (*q.v.*), extending westward to the Duddon, and having off its coast the island of Walney, 8 m. in length, and several small isles within the strait between Walney and the mainland. The principal seaside resorts and watering-places, from S. to N., are Southport, Lytham, St Anne's-on-the-Sea, Blackpool, Fleetwood and Morecambe; while at the head of Morecambe Bay are several pleasant villages frequented by visitors, such as Arnside and Grange. Of the rivers the Mersey (*q.v.*), separating the county from Cheshire, is the principal, and receives from Lancashire the Irwell, Sankey and other small streams. The Ribble, which rises in the mountains of the West Riding of Yorkshire, forms for a few miles the boundary with that county, and then flows S.W. to Preston, receiving the Hodder from the N. and the Calder and Darwen from the S. Lancashire has a share in two of the English districts most famous for their scenery, but does not include the finest part of either. Furness, entirely hilly except for a narrow coastal tract, extends N. to include the southern part of the Lake District (*q.v.*); it contains Coniston Lake and borders Windermere, which are drained respectively by the Leven and Crake, with some smaller lakes and such mountains as the Old Man and Wetherlam. Another elevated district, forming part of a mountainous chain stretching from the Scottish border, covered by the name of Pennine uplands in its broader application, runs along the whole eastern boundary of the main portion of the county, and to the south of the Ribble occupies more than half the area, stretching west nearly to Liverpool. The moorlands in the southern district are generally bleak and covered with heather. Towards the north the scenery is frequently beautiful, the green rounded elevated ridges being separated by pleasant cultivated valleys variegated by woods and watered by rivers. None of the summits of the range within Lancashire attains an elevation of 2000 ft., the highest being Blackstone Edge (1523 ft.), Pendle Hill (1831 ft.) and Boulsworth Hill (1700 ft.).

Along the sea-coast from the Mersey to Lancaster there is a continuous plain formerly occupied by peat mosses, many of which have been reclaimed. The largest is Chat Moss between Liverpool and Manchester. In some instances these mosses have exhibited the phenomenon of a moving bog. A large district in the north belonging to the duchy of Lancaster was at one time occupied by forests, but these have wholly disappeared, though their existence is recalled in nomenclature, as in the Forest of Rossendale, near the Yorkshire boundary somewhat south of the centre.

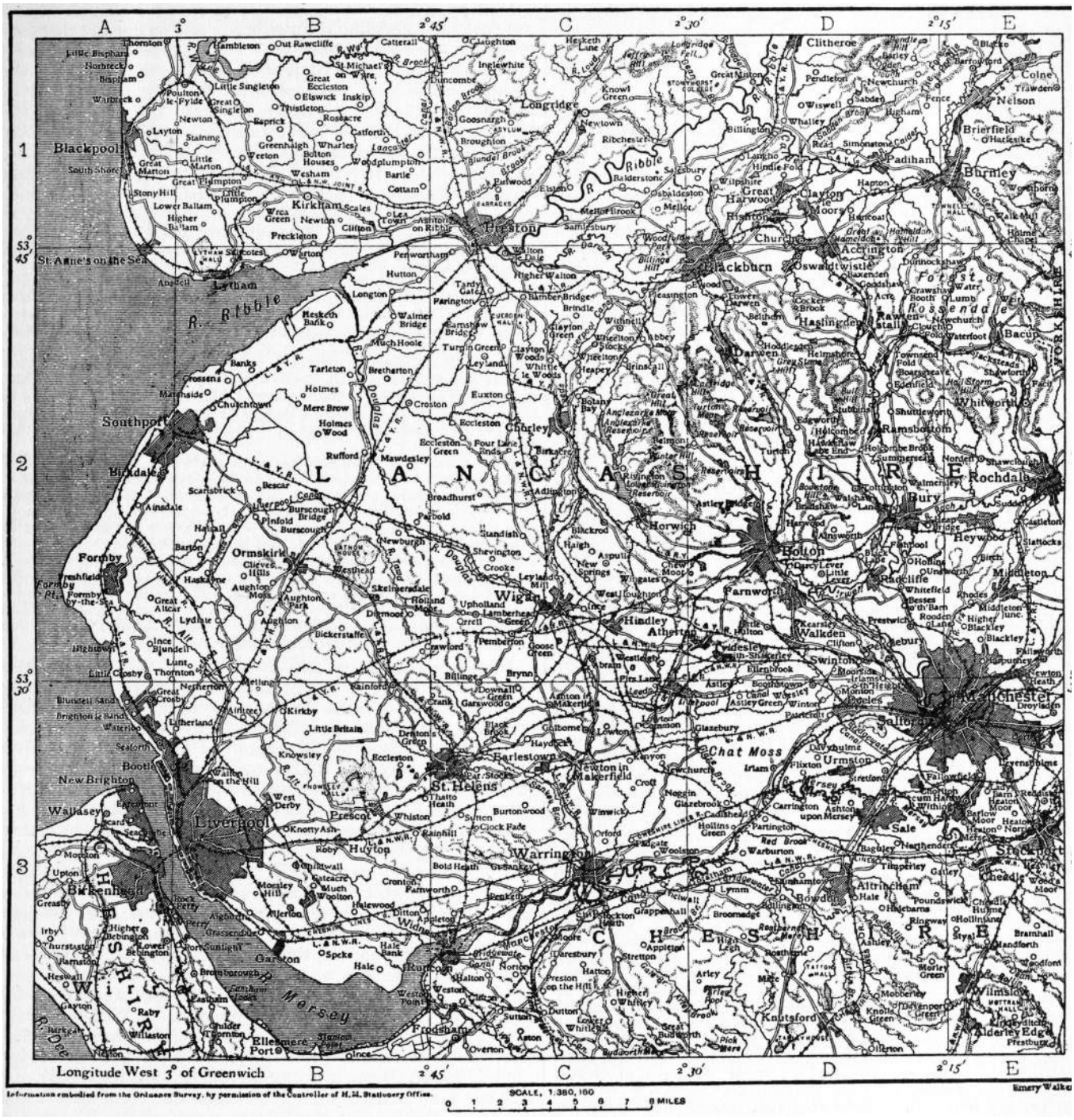
Geology.—The greater part of Lancashire, the central and eastern portions, is occupied by Carboniferous rocks; a broad belt of Triassic strata fringes the west and south; while most of the detached northern portion is

made up of Silurian and Ordovician formations. The Carboniferous system includes the great coal-field in which are gathered all the principal manufacturing towns, Colne, Burnley, Blackburn, Chorley, Wigan, Bolton, Preston, Oldham, Rochdale and Manchester. In the centre of the coal-field is an elevated moorland tract formed of the grits and shales of the Millstone Grit series. Part of the small coal-field of Ingleton also lies within the county. Between these two coal basins there is a moderately hilly district in which grits and black shales predominate, with a broad tract of limestone and shales which are well exposed in the quarries at Clitheroe and at Longridge, Chipping, Whalley and Downham. The limestone again appears in the north at Bolton-le-Sands, Burton-in-Kendall, Grange, Ulverston and Dalton-in-Furness. Large pockets of rich iron ore are worked in the limestone in the Furness district. The belt of Trias includes the Bunter sandstone and conglomerate, which ranges from Barrow-in-Furness, through Garstang, Preston, Ormskirk, Liverpool, Warrington and Salford; and Keuper marls, which underlie the surface between the Bunter outcrop and the sea. On the coast there is a considerable development of blown sand between Blackpool and Lytham and between Southport and Seaforth. North of Broughton-in-Furness, Ulverston and Cartmel are the Silurian rocks around Lakes Windermere and Coniston Water, including the Coniston grits and flags and the Brathay flags. These rocks are bounded by the Ordovician Coniston limestone, ranging north-east and south-west, and the volcanic series of Borrowdale. A good deal of the solid geology is obscured in many places by glacial drift, boulder clay and sands.

The available coal supply of Lancashire has been estimated at about five thousand millions of tons. In 1852 the amount raised was 8,225,000 tons; in 1899 it was 24,387,475 tons. In the production of coal Lancashire vies with Yorkshire, but each is about one-third below Durham. There are also raised in large quantities—fireclay, limestone, sandstone, slate and salt, which is also obtained from brine. The red hematitic iron obtained in the Furness district is very valuable, but is liable to decrease. The district also produces a fine blue slate. Metals, excepting iron, are unimportant.

Climate and Agriculture.—The climate in the hilly districts is frequently cold, but in the more sheltered parts lying to the south and west it is mild and genial. From its westerly situation and the attraction of the hills there is a high rainfall in the hilly districts (*e.g.* at Bolton the average is 58.71 in.), while the average for the other districts is about 35. The soil after reclamation and drainage is fertile; but, as it is for the most part a strong clayey loam it requires a large amount of labour. In some districts it is more of a peaty nature, and in the Old Red Sandstone districts of the Mersey there is a tract of light sandy loam, easily worked, and well adapted for wheat and potatoes. In many districts the ground has been rendered unfit for agricultural operations by the rubbish from coal-pits. A low proportion (about seven-tenths) of the total area is under cultivation, and of this nearly three-fourths is in permanent pasture, cows being largely kept for the supply of milk to the towns, while in the uplands many sheep are reared. In addition to the cultivated area, about 92,000 acres are under hill pasturage. A gradual increase is noticeable in the acreage under oats, which occupy more than seven-tenths of the area under grain crops, and in that under wheat, to the exclusion of the cultivation of barley. Of green crops the potato is the chief.

Industries and Trade.—South Lancashire is the principal seat of the cotton manufacture in the world, the trade centring upon Manchester, Oldham and the neighbouring densely populated district. It employs upwards of 400,000 operatives. The worsted, woollen and silk manufactures, flax, hemp and jute industries, though of less importance, employ considerable numbers. Non-textile factories employ about 385,000 hands. The manufacture of machines, appliances, conveyances, tools, &c., are very important, especially in supplying the needs of the immense weaving and spinning industries. For the same purpose there is a large branch of industry in the manufacture of bobbins from the wood grown in the northern districts of the county. Of industries principally confined to certain definite centres there may be mentioned—the manufacture of iron and steel at Barrow-in-Furness, a town of remarkably rapid growth since the middle of the 19th century; the great glass works at St Helens; the watch-making works at Prescot and the leather works at Warrington. Printing, bleaching and dyeing works, paper and chemical works, india-rubber and tobacco manufactures are among the chief of the other resources of this great industrial region. Besides the port of Liverpool, of worldwide importance, the principal ports are Manchester, brought into communication with the sea by the Manchester Ship Canal opened in 1894, Barrow-in-Furness and Fleetwood, while Preston and Lancaster have docks and a considerable shipping trade by the rivers Lune and Ribble respectively. The sea fisheries, for which Fleetwood and Liverpool are the chief ports, are of considerable value.



Communications.—Apart from the Manchester Ship Canal, canal-traffic plays an important part in the industrial region. In 1760 the Sankey canal, 10 m. long, the first canal opened in Britain (apart from very early works), was constructed to carry coal from St Helens to Liverpool. Shortly afterwards the duke of Bridgewater projected the great canal from Manchester across the Irwell to Worsley, completed in 1761 and bearing the name of its originator. The Leeds and Liverpool canal, begun in 1770, connects Liverpool and other important towns with Leeds by a circuitous route of 130 m. The other principal canals are the Rochdale, the Manchester (to Huddersfield) and the Lancaster, connecting Preston and Kendal. A short canal connects Ulverston with Morecambe Bay. A network of railways covers the industrial region. The main line of the London and North Western railway enters the county at Warrington, and runs north through Wigan, Preston, Lancaster and Carnforth. It also serves Liverpool and Manchester, providing the shortest route to each of these cities from London, and shares with the Lancashire and Yorkshire company joint lines to Southport, to Blackpool and to Fleetwood, whence there is regular steamship communication with Belfast. The Lancashire and Yorkshire line serves practically all the important centres as far north as Preston and Fleetwood. All the northern trunk lines from London have services to Manchester and Liverpool. The Cheshire Lines system, worked by a committee of the Great Northern, Great Central and Midland companies, links their systems with the South Lancashire district generally, and maintains lines between Liverpool and Manchester, both these cities with Southport, and numerous branches. Branches of the Midland railway from its main line in Yorkshire serve Lancaster, Morecambe, and Heysham and Carnforth, where connexion is made with the Furness railway to Ulverston, Barrow, Lake Side, Coniston, &c.

Population and Administration.—The area of the ancient county is 1,203,365 acres. Its population in 1801 was 673,486; in 1891, 3,926,760; and in 1901, 4,406,409. The area of the administrative county is 1,196,753 acres. The distribution of the industrial population may be best appreciated by showing the parliamentary divisions, parliamentary, county and municipal boroughs and urban districts as placed among the four divisions of the ancient county. In the case of urban districts the name of the great town to which each is near or

adjacent follows where necessary. The figures show population in 1901.

Northern Division.—This embraces almost all the county N. of the Ribble, including Furness, and a small area S. of the Ribble estuary. It is considerably the largest of the divisions. *Parliamentary divisions*, from N. to S.—North Lonsdale, Lancaster, Blackpool, Chorley. *Parliamentary, county and municipal boroughs*—Barrow-in-Furness (57,586; one member); Preston (112,989; two members). *Municipal boroughs*—Blackpool (county borough; 47,348), Chorley (26,852), Lancaster (40,329; county town), Morecambe (11,798). *Urban districts*—Adlington (4523; Chorley), Bispham-with-Norbreck (Blackpool), Carnforth (3040; Lancaster), Croston (2102; Chorley), Dalton-in-Furness (13,020), Fleetwood (12,082), Fulwood (5238; Preston), Grange (1993), Heysham (3381; Morecambe), Kirkham (3693; Preston), Leyland (6865; Chorley), Longridge (4304; Preston), Lytham (7185), Poulon-le-Fylde (2223; Blackpool). Preesall-with-Hackinsall (1423; Fleetwood), St Anne's-on-the-Sea (6838, a watering-place between Blackpool and Lytham), Thornton (3108; Fleetwood), Ulverston (10,064, in Furness), Withnell (3349; Chorley).

North-Eastern-Division.—This lies E. of Preston, and is the smallest of the four. *Parliamentary divisions*—Accrington, Clitheroe, Darwen, Rossendale. *Parliamentary, county and municipal boroughs*—Blackburn (127,626; two members); Burnley (97,043; one member). *Municipal boroughs*—Accrington (43,122), Bacup (22,505), Clitheroe (11,414), Colne (23,000), Darwen (38,212), Haslingden (18,543, extending into South-Eastern division), Nelson (32,816), Rawtenstall (31,053). *Urban districts*—Barrowford (4959; Colne), Brierfield (7288; Burnley), Church (6463; Accrington), Clayton-le-Moors (8153; Accrington), Great Harwood (12,015; Blackburn), Oswaldtwistle (14,192; Blackburn), Padiham (12,205; Burnley), Rishton (7031; Blackburn), Trawden (2641; Colne), Walton-le-Dale (11,271; Preston).

South-Western Division.—This division represents roughly a quadrant with radius of 20 m. drawn from Liverpool. *Parliamentary divisions*—Bootle, Ince, Leigh, Newton, Ormskirk, Southport, Widnes. *Parliamentary boroughs*—the city and county and municipal borough of Liverpool (684,958; nine members); the county and municipal boroughs of St Helens (84,410; one member); Wigan (60,764; one member), Warrington (64,242; a part only of the parliamentary borough is in this county). *Municipal boroughs*—Bootle (58,566), Leigh (40,001), Southport (county borough; 48,083), Widnes (28,580). *Urban districts*—Abram (6306; Wigan), Allerton (1101; Liverpool), Ashton-in-Makerfield (18,687), Atherton (16,211), Billinge (4232; Wigan), Birkdale (14,197; Southport), Childwall (219; Liverpool), Formby (6060), Golborne (6789; St Helens), Great Crosby (7555; Liverpool), Haydock (8575; St Helens), Hindley (23,504; Wigan), Huyton-with-Roby (4661; St Helens), Ince-in-Makerfield (21,262), Lathom-and-Burscough (7113; Ormskirk), Litherland (10,592; Liverpool), Little Crosby (563; Liverpool), Little Woolton (1091; Liverpool), Much Woolton (4731; Liverpool), Newton-in-Makerfield (16,699), Ormskirk (6857), Orrell (5436; Wigan), Prescot (7855; St Helens), Rainford (3359; St Helens), Skelmersdale (5699; Ormskirk), Standish-with-Langtree (6303; Wigan), Tyldesley-with-Shakerley (14,843), Upholland (4773; Wigan), Waterloo-with-Seaforth (23,102; Liverpool).

South-Eastern Division.—This is of about the same area as the South-Western division, and it constitutes the heart of the industrial region. *Parliamentary divisions*—Eccles, Gorton, Heywood, Middleton, Prestwich, Radcliffe-cum-Farnworth, Stretford, Westhoughton. *Parliamentary boroughs*—the city and county of a city of Manchester (543,872; six members); with which should be correlated the adjoining county and municipal borough of Salford (220,957; three members), also the county and municipal boroughs of Bolton (168,215; two members), Bury (58,029; one member), Rochdale (83,114; one member), Oldham (137,246; two members), and the municipal borough of Ashton-under-Lyne (43,890). Part only of the last parliamentary borough is within the county, and this division also contains part of the parliamentary boroughs of Stalybridge and Stockport. *Municipal boroughs*—Eccles (34,369), Heywood (25,458), Middleton (25,178), Mossley (13,452). *Urban districts*—Aspull (8388; Wigan), Audenshaw (7216; Ashton-under-Lyne), Blackrod (3875; Wigan), Chadderton (24,892; Oldham), Crompton (13,427; Oldham), Denton (14,934; Ashton-under-Lyne), Droylsden (11,087; Manchester), Failsworth (14,152; Manchester), Farnworth (25,925; Bolton), Gorton (26,564; Manchester), Heaton Norris (9474; Stockport). Horwich (15,084; Bolton), Hurst (7145; Ashton-under-Lyne), Irlam (4335; Eccles), Kearsley (9218; Bolton), Lees (3621; Oldham), Levenshulme (11,485; Manchester), Littleborough (11,166; Rochdale), Little Hulton (7294; Bolton), Little Lever (5119; Bolton), Milnrow (8241; Rochdale), Norden (3907; Rochdale), Prestwich (12,839; Manchester), Radcliffe (25,368; Bury), Ramsbottom (15,920; Bury), Royton (14,881; Oldham), Stretford (30,436; Manchester), Swinton-and-Pendlebury (27,005; Manchester), Tottington (6118; Bury), Turton (12,355; Bolton), Urmston (6594; Manchester), Wardle (4427; Rochdale), Westhoughton (14,377; Bolton), Whitefield or Stand (6588; Bury), Whitworth (9578; Rochdale), Worsley (12,462; Eccles).

Lancashire is one of the counties palatine. It is attached to the duchy of Lancaster, a crown office, and retains the chancery court for the county palatine. The chancery of the duchy of Lancaster was once a court of appeal for the chancery of the county palatine, but now even its jurisdiction in regard to the estates of the duchy is merely nominal. The chancery of the county palatine has concurrent jurisdiction with the High Court of Chancery in all matters of equity within the county palatine, and independent jurisdiction in regard to a variety of other matters. The county palatine comprises six hundreds.

Lancashire is in the northern circuit, and assizes are held at Lancaster for the north, and at Liverpool and Manchester for the south of the county. There is one court of quarter sessions, and the county is divided into 33 petty sessional divisions. The boroughs of Blackburn, Bolton, Burnley, Liverpool, Manchester, Oldham, Salford and Wigan have separate commissions of the peace and courts of quarter sessions; and those of Accrington, Ashton-under-Lyne, Barrow-in-Furness, Blackpool, Bolton, Bury, Clitheroe, Colne, Darwen, Eccles, Heywood, Lancaster, Middleton, Mossley, Nelson, Preston, Rochdale, St Helens, Southport and Warrington have separate commissions of the peace only. There are 430 civil parishes. Lancashire is mainly in the diocese of Manchester, but parts are in those of Liverpool, Carlisle, Ripon, Chester and Wakefield. There are 787 ecclesiastical parishes or districts wholly or in part within the county.

Manchester and Liverpool are each seats of a university and of other important educational institutions. Within the bounds of the county there are many denominational colleges, and near Clitheroe is the famous Roman Catholic college of Stonyhurst. There is a day training college for schoolmasters in connexion with University College, Liverpool, and a day training college for both schoolmasters and schoolmistresses in connexion with Owens College, Manchester. At Edgehill, Liverpool, there is a residential training college for schoolmistresses which takes day pupils, at Liverpool a residential Roman Catholic training college for schoolmasters, and at Warrington a residential training college (Chester, Manchester and Liverpool diocesan) for schoolmistresses.

History.—The district afterwards known as Lancashire was after the departure of the Romans for many years apparently little better than a waste. It was not until the victory of Æthelfrith, king of Deira, near Chester in 613 cut off the Britons of Wales from those of Lancashire and Cumberland that even Lancashire south of the Ribble was conquered. The part north of the Ribble was not absorbed in the Northumbrian kingdom till the reign of Ecgfrith (670-685). Of the details of this long struggle we know nothing, but to the stubborn resistance made by the British leaders are due the legends of Arthur; and of the twelve great battles he is supposed to have fought against the English, four are traditionally, though probably erroneously, said to have taken place on the river Douglas near Wigan. In the long struggle for supremacy between Mercia and Northumbria, the country between the Mersey and Ribble was sometimes under one, sometimes under the other kingdom. During the 9th century Lancashire was constantly invaded by the Danes, and after the peace of Wedmore (878) it was included in the Danish kingdom of Northumbria. The *A.S. Chronicle* records the reconquest of the district between the Ribble and Mersey in 923 by the English king, when it appears to have been severed from the kingdom of Northumbria and united to Mercia, but the districts north of the Ribble now comprised in the county belonged to Northumbria until its incorporation with the kingdom of England. The names on the Lancashire coast ending in *by*, such as Crosby, Formby, Roby, Kirkby, Derby, show where the Danish settlements were thickest. William the Conqueror gave the lands between the Ribble and Mersey, and Amounderness to Roger de Poictou, but at the time of Domesday Book these had passed out of his hand and belonged to the king.

The name Lancashire does not appear in Domesday; the lands between the Ribble and Mersey were included in Cheshire and those north of the Ribble in Yorkshire. Roger de Poictou soon regained his lands, and Rufus added to his possessions the rest of Lonsdale south of the Sands, of which he already held a part; and as he had the Furness fells as well, he owned all that is now known as Lancashire. In 1102 he finally forfeited all his lands, which Henry I. held till, in 1118, he created the honour of Lancaster by incorporating with Roger's forfeited lands certain escheated manors in the counties of Nottingham, Derby and Lincoln, and certain royal manors, and bestowed it upon his nephew Stephen, afterwards king. During Stephen's reign the history of the honour presents certain difficulties, for David of Scotland held the lands north of the Ribble for a time, and in 1147 the earl of Chester held the district between the Ribble and Mersey. Henry II. gave the whole honour to William, Stephen's son, but in 1164 it came again into the king's hands until 1189, when Richard I. granted it to his brother John. In 1194, owing to John's rebellion, it was confiscated and the honour remained with the crown till 1267. In 1229, however, all the crown demesne between the Ribble and Mersey was granted to Ranulf, earl of Chester, and on his death in 1232 came to William Ferrers, earl of Derby, in right of his wife Agnes, sister and co-heir of Ranulf. The Ferrers held it till 1266, when it was confiscated owing to the earl's rebellion. In 1267 Henry III. granted the honour and county and all the royal demesne therein to his son Edmund, who was created earl of Lancaster. His son, Earl Thomas, married the heiress of Henry de Lacy, earl of Lincoln, and thus obtained the great estates belonging to the de Lacys in Lancashire. On the death of Henry, the first duke of Lancaster, in 1361, the estates, title and honour fell to John of Gaunt in right of his wife Blanche, the duke's elder daughter, and by the accession of Henry IV., John of Gaunt's only son, to the throne, the duchy and honour became merged in the crown.

The county of Lancaster is first mentioned in 1169 as contributing 100 marks to the Royal Exchequer for defaults and fines. The creation of the honour decided the boundaries, throwing into it Furness and Cartmel, which geographically belong to Westmorland; Lonsdale and Amounderness, which in Domesday had been surveyed under Yorkshire; and the land between the Ribble and Mersey. In Domesday this district south of the Ribble was divided into the six hundreds of West Derby, Newton, Warrington, Blackburn, Salford and Leyland, but before Henry II.'s reign the hundreds of Warrington and Newton were absorbed in that of West Derby. Neither Amounderness nor Lonsdale was called a hundred in Domesday, but soon after that time the former was treated as a hundred. Ecclesiastically the whole of the county originally belonged to the diocese of York, but after the reconquest of the district between the Ribble and Mersey in 923 this part was placed under the bishop of Lichfield in the archdeaconry of Chester, which was subdivided into the rural deaneries of Manchester, Warrington and Leyland. Up to 1541 the district north of the Ribble belonged to the archdeaconry of Richmond in the diocese of York, and was subdivided into the rural deaneries of Amounderness, Lonsdale and Coupland. In 1541 the diocese of Chester was created, including all Lancashire, which was divided into two archdeaconries: Chester, comprising the rural deaneries of Manchester, Warrington and Blackburn, and Richmond, comprising the deaneries of Amounderness, Furness, Lonsdale and Kendal. In 1847 the diocese of Manchester was created, which included all Lancashire except parts of West Derby, which still belonged to the diocese of Chester, and Furness and Cartmel, which were added to Carlisle in 1856. In 1878 by the creation of the diocese of Liverpool the south-eastern part of the county was subtracted from the Manchester diocese.

No shire court was ever held for the county, but as a duchy and county palatine it has its own special courts. It may have enjoyed palatine jurisdiction under Earl Morcar before the Conquest, but these privileges, if ever exercised, remained in abeyance till 1351, when Henry, duke of Lancaster, received power to have a chancery in the county of Lancaster and to issue writs therefrom under his own seal, as well touching pleas of the crown as any other relating to the common laws, and to have all *Jura Regalia* belonging to a county palatine. In 1377 the county was erected into a palatinate for John of Gaunt's life, and in 1390 these rights of jurisdiction were extended and settled in perpetuity on the dukes of Lancaster. The county palatine courts consist of a chancery which dates back at least to 1376, a court of common pleas, the jurisdiction of which was transferred in 1873 by the Judicature Act to the high court of justice, and a court of criminal jurisdiction which in no way differs from the king's ordinary court. In 1407 the duchy court of Lancaster was created, in which all questions of revenue and dignities affecting the duchy possessions are settled. The chancery of the duchy has been for years practically obsolete. The duchy and county palatine each has its own seal. The office of chancellor of the duchy and county palatine dates back to 1351.

Lancashire is famed for the number of old and important county families living within its borders. The most intimately connected with the history of the county are the Stanleys, whose chief seat is Knowsley Hall. Sir John Stanley early in the 15th century married the heiress of Lathom and thus obtained possession of Lathom and Knowsley. In 1456 the head of the family was created a peer by the title of Baron Stanley and in 1485 raised to the earldom of Derby. The Molyneuxes of Sephton and Croxteth are probably descended from William de Molines, who came to England with William the Conqueror, and is on the roll of Battle Abbey. Roger de Poictou gave him the manor of Sephton, and Richard de Molyneux who held the estate under Henry II. is undoubtedly

an ancestor of the family. In 1628 Sir Richard Molyneux was advanced to the peerage of Ireland by the title of Viscount Maryborough, and in 1771 Charles, Lord Maryborough, became earl of Sefton in the peerage of Ireland. His son was created a peer of the United Kingdom as Baron Sefton of Croxteth. The Bootle Wilbrahams, earls of Lathom, are, it is said, descended from John Botyll of Melling, who was alive in 1421, and from the Wilbrahams of Cheshire, who date back at least to Henry III.'s reign. In 1755 the two families intermarried. In 1828 the title of Baron Skelmersdale was bestowed on the head of the family and in 1880 that of earl of Lathorn. The Gerards of Bryn are said to be descended from an old Tuscan family, one of whom came to England in Edward the Confessor's time, and whose son is mentioned in Domesday. Bryn came into this family by marriage early in the 14th century. Sir Thomas Gerard was created a baronet by James I. in 1611, and in 1876 a peerage was conferred on Sir Robert Gerard. The Gerards of Ince were a collateral branch. The Lindsays, earls of Crawford and Balcarres, are representative on the female side of the Bradshaighs of Haigh Hall, who are said to be of Saxon origin. Other great Lancashire families are the Hoghtons of Hoghton Tower, dating back to the 12th century, the Blundells of Ince Blundell, who are said to have held the manor since the 12th century, now represented by the Weld-Blundells, the Tyldesleys of Tyldesley, now extinct, and the Butlers of Bewsey, barons of Warrington, of whom the last male heir died in 1586.

At the close of the 12th and during the 13th century there was a considerable advance in the importance of the towns; in 1199 Lancaster became a borough, in 1207 Liverpool, in 1230 Salford, in 1246 Wigan, and in 1301 Manchester. The Scottish wars were a great drain to the county, not only because the north part was subject to frequent invasions, as in 1322, but because some of the best blood was taken for these wars. In 1297 Lancashire raised 1000 men, and at the battle of Falkirk (1298) 1000 Lancashire soldiers were in the vanguard, led by Henry de Lacy, earl of Lincoln. In 1349 the county was visited by the Black Death and a record exists of its ravages in Amounderness. In ten parishes between September 1349 and January 1350, 13,180 persons perished. At Preston 3000 died, at Lancaster 3000, at Garstang 2000 and at Kirkham 3000. From the effects of this plague Lancashire was apparently slow to recover; its boroughs ceased to return members early in the 14th century and trade had not yet made any great advance. The drain of the Wars of the Roses on the county must also have been heavy, although none of the battles was fought within its borders; Lord Stanley's force of 5000 raised in Lancashire and Cheshire virtually decided the battle of Bosworth Field. The poverty of the county is shown by the fact that out of £40,000 granted in 1504 by parliament to the king, Lancashire's share was only £318. At the battle of Flodden (1513) the Lancashire archers led by Sir Edward Stanley almost totally destroyed the Highlanders on the right Scottish wing and greatly contributed to the victory. Under the Tudors the county prospered; the parliamentary boroughs once more began to return members, the towns increased in size, many halls were built by the gentry and trade increased.

In 1617 James I. visited Lancashire, and in consequence of a petition presented to him at Hoghton, complaining of the restrictions imposed upon Sunday amusements, he issued in 1618 the famous *Book of Sports*. Another of James's works, the *Daemonologie*, is closely connected with the gross superstitions concerning witches which were specially prevalent in Lancashire. The great centre of this witchcraft was Pendle Forest, in the parish of Whalley, and in 1612 twelve persons from Pendle and eight from Samlesbury were tried for witchcraft, nine of whom were hanged. In 1633 another batch of seventeen witches from Pendle were tried and all sentenced to be executed, but the king pardoned them. This was the last important case of witchcraft in Lancashire.

In the assessment of ship money in 1636 the county was put down for £1000, towards which Wigan was to raise £50, Preston £40, Lancaster £30, and Liverpool £25, and these figures compared with the assessments of £140 on Hull and £200 on Leeds show the comparative unimportance of the Lancashire boroughs. On the eve of the Great Rebellion in 1641 parliament resolved to take command of the militia, and Lord Strange, Lord Derby's eldest son, was removed from the lord lieutenancy. On the whole, the county was Royalist, and the moving spirit among the Royalists was Lord Strange, who became Lord Derby in 1642. Manchester was the headquarters of the Parliamentarians, and was besieged by Lord Derby in September 1642 for seven days, but not taken. Lord Derby himself took up his headquarters at Warrington and garrisoned Wigan. At the opening of 1643 Sir Thomas Fairfax made Manchester his headquarters. Early in February the Parliamentarians from Manchester successfully assaulted Preston, which was strongly Royalist; thence the Parliamentarians marched to Hoghton Tower, which they took, and within a few days captured Lancaster. On the Royalist side Lord Derby made an unsuccessful attack on Bolton from Wigan. In March a large Spanish ship, laden with ammunition for the use of parliament, was driven by a storm on Rossall Point and seized by the Royalists; Lord Derby ordered the ship to be burned, but the parliament forces from Preston succeeded in carrying off some of the guns to Lancaster castle. In March Lord Derby captured the town of Lancaster but not the castle, and marching to Preston regained it for the king, but was repulsed in an attack on Bolton. In April Wigan, one of the chief Royalist strongholds in the county, was taken by the parliament forces, who also again captured Lancaster, and the guns from the Spanish ship were moved for use against Warrington, which was obliged to surrender in May after a week's siege. Lord Derby also failed in an attempt on Liverpool, and the tide of war had clearly turned against the Royalists in Lancashire. In June Lord Derby went to the Isle of Man, which was threatened by the king's enemies. Soon after, the Parliamentarians captured Hornby castle, and only two strongholds, Thurland castle and Lathom house, remained in Royalist hands. In the summer, after a seven weeks' siege by Colonel Alexander Rigby, Thurland castle surrendered and was demolished. In February 1644 the Parliamentarians, under Colonel Rigby, Colonel Ashton and Colonel Moore, besieged Lathom house, the one refuge left to the Royalists, which was bravely defended by Lord Derby's heroic wife, Charlotte de la Trémoille. The siege lasted nearly four months and was raised on the approach of Prince Rupert, who marched to Bolton and was joined on his arrival outside the town by Lord Derby. Bolton was carried by storm; Rupert ordered that no quarter should be given, and it is usually said at least 1500 of the garrison were slain. Prince Rupert advanced without delay to Liverpool, which was defended by Colonel Moore, and took it after a siege of three weeks. After the battle of Marston Moor Prince Rupert again appeared in Lancashire and small engagements took place at Ormskirk, Upholland and Preston; in November Liverpool surrendered to the Parliamentarians. Lathom house was again the only strong place in Lancashire left to the Royalists, and in December 1645 after a five months' siege it was compelled to surrender through lack of provisions, and was almost entirely destroyed. For the moment the war in Lancashire was over. In 1648, however, the Royalist forces under the duke of Hamilton and Sir Marmaduke Langdale marched through Lancaster to Preston, hoping to reach Manchester; but near Preston were defeated by Cromwell in person. The remnant retreated through Wigan towards Warrington, and after being again defeated at Winwick surrendered at Warrington. In 1651 Charles II. advanced through Lancaster, Preston and

Chorley on his southward march, and Lord Derby after gathering forces was on his way to meet him when he was defeated at Wigan. In 1658, after Cromwell's death, a Royalist rebellion was raised in which Lancashire took a prominent part, but it was quickly suppressed. During the Rebellion of 1715 Manchester was the chief centre of Roman Catholic and High Church Toryism. On the 7th of November the Scottish army entered Lancaster, where the Pretender was proclaimed king, and advanced to Preston, at which place a considerable body of Roman Catholics joined it. The rebels remained at Preston a few days, apparently unaware of the advance of the government troops, until General Wills from Manchester and General Carpenter from Lancaster surrounded the town, and on the 13th of November the town and the rebel garrison surrendered. Several of the rebels were hanged at Preston, Wigan, Lancaster and other places. In 1745 Prince Charles Edward passed through the county and was joined by about 200 adherents, called the Manchester regiment and placed under the command of Colonel Townley, who was afterwards executed.

The first industry established in Lancashire was that of wool, and with the founding of Furness abbey in 1127 wool farming on a large scale began here, but the bulk of the wool grown was exported, not worked up in England. In 1282, however, there was a mill for fulling or bleaching wool in Manchester, and by the middle of the 16th century there was quite a flourishing trade in worsted goods. In an act of 1552 Manchester "rugs and frizes" are specially mentioned, and in 1566 another act regulated the fees of the aulnager who was to have his deputies at Manchester, Rochdale, Bolton, Blackburn and Bury; the duty of the aulnagers was to prevent "cottons, frizes and rugs" from being sold unsealed, but it must be noted that by cottons is not meant what we now understand by the word, but woollen goods. The 17th century saw the birth of the class of clothiers, who purchased the wool in large quantities or kept their own sheep, and delivered it to weavers who worked it up into cloth in their houses and returned it to the employers. The earliest mention of the manufacture of real cotton goods is in 1641, when Manchester made fustians, vermilions and dimities, but the industry did not develop to any extent until after the invention of the fly shuttle by John Kay in 1733, of the spinning jenny by James Hargreaves of Blackburn in 1765, of the water frame throstle by Richard Arkwright of Bolton in 1769, and of the mule by Samuel Crompton of Hall-in-the-Wood near Bolton in 1779. So rapid was the development of the cotton manufacture that in 1787 there were over forty cotton mills in Lancashire, all worked by water power. In 1789, however, steam was applied to the industry in Manchester, and in 1790 in Bolton a cotton mill was worked by steam. The increase in the import of raw cotton from 3,870,000 lb in 1769 to 1,083,600,000 in 1860 shows the growth of the industry. The rapid growth was accompanied with intermittent periods of depression, which in 1819 in particular led to the formation of various political societies and to the Blanketeers' Meeting and the Peterloo Massacre. During the American Civil War the five years' cotton famine caused untold misery in the county, but public and private relief mitigated the evils, and one good result was the introduction of machinery capable of dealing with the shorter staple of Indian cotton, thus rendering the trade less dependent for its supplies on America.

During the 18th century the only town where maritime trade increased was Liverpool, where in the last decade about 4500 ships arrived annually of a tonnage about one-fifth that of the London shipping. The prosperity of Liverpool was closely bound up with the slave trade, and about one-fourth of its ships were employed in this business. With the increase of trade the means of communication improved. In 1758 the duke of Bridgewater began the Bridgewater canal from Worsley to Salford and across the Irwell to Manchester, and before the end of the century the county was intersected by canals. In 1830 the first railway in England was opened between Manchester and Liverpool, and other railways rapidly followed.

The first recorded instance of parliamentary representation in Lancashire was in 1295, when two knights were returned for the county and two burgesses each for the boroughs of Lancaster, Preston, Wigan and Liverpool. The sheriff added to this return "There is no city in the county of Lancaster." The boroughs were, however, excused one after another from parliamentary representation, which was felt as a burden owing to the compulsory payment of the members' wages. Lancaster ceased to send members in 1331 after making nineteen returns, but renewed its privileges in 1529; from 1529 to 1547 there are no parliamentary returns, but from 1547 to 1867 Lancaster continued to return two members. Preston similarly was excused after 1331, after making eleven returns, but in 1529 and from 1547 onwards returned two members. Liverpool and Wigan sent members in 1295 and 1307, but not again till 1547. To the writ issued in 1362 the sheriff in his return says: "There is not any City or Borough in this County from which citizens or burgesses ought or are accustomed to come as this Writ requires." In 1559 Clitheroe and Newton-le-Willows first sent two members. Thus in all Lancashire returned fourteen members, and, with a brief exception during the Commonwealth, this continued to be the parliamentary representation till 1832. By the Reform Act of 1832 Lancashire was assigned four members, two for the northern and two for the southern division. Lancaster, Preston, Wigan and Liverpool continued to send two members, Clitheroe returned one and Newton was disfranchised. The following new boroughs were created: Manchester, Bolton, Blackburn, Oldham, returning two members each; Ashton-under-Lyne, Bury, Rochdale, Salford and Warrington, one each. In 1861 a third member was given to South Lancashire and in 1867 the county was divided into four constituencies, to each of which four members were assigned; since 1885 the county returns twenty-three members. The boroughs returned from 1867 to 1885 twenty-five members, and since 1885 thirty-four.

Antiquities.—The Cistercian abbey of Furness (*q.v.*) is one of the finest and most extensive ecclesiastical ruins in England. Whalley abbey, first founded at Stanlawe in Cheshire in 1178, and removed in 1296, belonged to the same order. There was a priory of Black Canons at Burscough, founded in the time of Richard I., one at Conishead dating from Henry II.'s reign, and one at Lancaster. A convent of Augustinian friars was founded at Cartmel in 1188, and one at Warrington about 1280. There are some remains of the Benedictine priory of Upholland, changed from a college of secular priests in 1318; and the same order had a priory at Lancaster founded in 1094, a cell at Lytham, of the reign of Richard I., and a priory at Penwortham, founded shortly after the time of the Conqueror. The Premonstratensians had Cockersand abbey, changed in 1190 from a hospital founded in the reign of Henry II., of which the chapter-house remains. At Kersal, near Manchester, there was a cell of Cluniac monks founded in the reign of John, while at Lancaster there were convents of Dominicans and Franciscans, and at Preston a priory of Grey Friars built by Edmund, earl of Lancaster, son of Henry III.

Besides the churches mentioned under the several towns, the more interesting are those of Aldingham, Norman doorway; Aughton; Cartmel priory church (see Furness); Hawkshead; Heysham, Norman with traces of earlier date; Hoole; Huyton; Kirkby, rebuilt, with very ancient font; Kirkby Ireleth, late Perpendicular, with Norman doorway; Leyland; Melling (in Lonsdale), Perpendicular, with stained-glass windows; Middleton, rebuilt in 1524, but containing part of the Norman church and several monuments; Ormskirk, Perpendicular with

traces of Norman, having two towers, one of which is detached and surmounted by a spire; Overton, with Norman doorway; Radcliffe, Norman; Sefton, Perpendicular, with fine brass and recumbent figures of the Molyneux family, also a screen exquisitely carved; Stidd, near Ribchester, Norman arch and old monuments; Tunstall, late Perpendicular; Upholland priory church, Early English, with low massy tower; Urswick, Norman, with embattled tower and several old monuments; Walton-on-the-hill, anciently the parish church of Liverpool; Walton-le-Dale; Warton, with old font; Whalley abbey church, Decorated and Perpendicular, with Runic stone monuments.

The principal old castles are those of Lancaster; Dalton, a small rude tower occupying the site of an older building; two towers of Gleaston castle, built by the lords of Aldingham in the 14th century; the ruins of Greenhalgh castle, built by the first earl of Derby, and demolished after a siege by order of parliament in 1649; the ruins of Fouldrey in Piel Island near the entrance to Barrow harbour, erected in the reign of Edward III., now most dilapidated. There are many old timber houses and mansions of interest, as well as numerous modern seats.

See *Victoria History of Lancashire* (1906-1907); E. Baines, *The History of the County Palatine and Duchy of Lancaster* (1888); H. Fishwick, *A History of Lancashire* (1894); W. D. Pink and A. B. Beavan, *The Parliamentary Representation of Lancashire* (1889).

LANCASTER, HOUSE OF.

The name House of Lancaster is commonly used to designate the line of English kings immediately descended from John of Gaunt, the fourth son of Edward III. But the history of the family and of the title goes back to the reign of Henry III., who created his second son, Edmund, earl of Lancaster in 1267. This Edmund received in his own day the surname of Crouchback, not, as was afterwards supposed, from a personal deformity, but from having worn a cross upon his back in token of a crusading vow. He is not a person of much importance in history except in relation to a strange theory raised in a later age about his birth, which we shall notice presently. His son Thomas, who inherited the title, took the lead among the nobles of Edward II.'s time in opposition to Piers Gaveston and the Despensers, and was beheaded for treason at Pontefract. At the commencement of the following reign his attainder was reversed and his brother Henry restored to the earldom; and Henry being appointed guardian to the young king Edward III., assisted him to throw off the yoke of Mortimer. On this Henry's death in 1345 he was succeeded by a son of the same name, sometimes known as Henry Tort-Col or Wryneck, a very valiant commander in the French wars, whom the king advanced to the dignity of a duke. Only one duke had been created in England before, and that was fourteen years previously, when the king's son Edward, the Black Prince, was made duke of Cornwall. This Henry Wryneck died in 1361 without heir male. His second daughter, Blanche, became the wife of John of Gaunt, who thus succeeded to the duke's inheritance in her right; and on the 13th of November 1362, when King Edward attained the age of fifty, John was created duke of Lancaster, his elder brother, Lionel, being at the same time created duke of Clarence. It was from these two dukes that the rival houses of Lancaster and York derived their respective claims to the crown. As Clarence was King Edward's third son, while John of Gaunt was his fourth, in ordinary course on the failure of the elder line the issue of Clarence should have taken precedence of that of Lancaster in the succession. But the rights of Clarence were conveyed in the first instance to an only daughter, and the ambition and policy of the house of Lancaster, profiting by advantageous circumstances, enabled them not only to gain possession of the throne but to maintain themselves in it for three generations before they were dispossessed by the representatives of the elder brother.

As for John of Gaunt himself, it can hardly be said that this sort of politic wisdom is very conspicuous in him. His ambition was generally more manifest than his discretion; but fortune favoured his ambition, even as to himself, somewhat beyond expectation, and still more in his posterity. Before the death of his father he had become the greatest subject in England, his three elder brothers having all died before him. He had even added to his other dignities the title of king of Castile, having married, after his first wife's death, the daughter of Peter the Cruel. The title, however, was an empty one, the throne of Castile being actually in the possession of Henry of Trastamara, whom the English had vainly endeavoured to set aside. His military and naval enterprises were for the most part disastrous failures, and in England he was exceedingly unpopular. Nevertheless, during the later years of his father's reign the weakness of the king and the declining health of the Black Prince threw the government very much into his hands. He even aimed, or was suspected of aiming, at the succession to the crown; but in this hope he was disappointed by the action of the Good Parliament a year before Edward's death, in which it was settled that Richard the son of the Black Prince should be king after his grandfather. Nevertheless the suspicion with which he was regarded was not altogether quieted when Richard came to the throne, a boy in the eleventh year of his age. The duke himself complained in parliament of the way he was spoken of out of doors, and at the outbreak of Wat Tyler's insurrection the peasants stopped pilgrims on the road to Canterbury and made them swear never to accept a king of the name of John. On gaining possession of London they burnt his magnificent palace of the Savoy. Richard found a convenient way to get rid of John of Gaunt by sending him to Castile to make good his barren title, and on this expedition he was away three years. He succeeded so far as to make a treaty with his rival, King John, son of Henry of Trastamara, for the succession, by virtue of which his daughter Catherine became the wife of Henry III. of Castile some years later. After his return the king seems to have regarded him with greater favour, created him duke of Aquitaine, and employed him in repeated embassies to France, which at length resulted in a treaty of peace, and Richard's marriage to the French king's daughter.

Another marked incident of his public life was the support which he gave on one occasion to the Reformer Wycliffe. How far this was due to religious and how far to political considerations may be a question; but not only John of Gaunt but his immediate descendants, the three kings of the house of Lancaster, all took deep interest in the religious movements of the times. A reaction against Lollardy, however, had already begun in the days of Henry IV., and both he and his son felt obliged to discountenance opinions which were believed to

be politically and theologically dangerous.

Accusations had been made against John of Gaunt more than once during the earlier part of Richard II.'s reign of entertaining designs to supplant his nephew on the throne. But these Richard never seems to have wholly credited, and during his three years' absence his younger brother, Thomas of Woodstock, duke of Gloucester, showed himself a far more dangerous intriguer. Five confederate lords with Gloucester at their head took up arms against the king's favourite ministers, and the Wonderful Parliament put to death without remorse almost every agent of his former administration who had not fled the country. Gloucester even contemplated the dethronement of the king, but found that in this matter he could not rely on the support of his associates, one of whom was Henry, earl of Derby, the duke of Lancaster's son. Richard soon afterwards, by declaring himself of age, shook off his uncle's control, and within ten years the acts of the Wonderful Parliament were reversed by a parliament no less arbitrary. Gloucester and his allies were then brought to account; but the earl of Derby and Thomas Mowbray, earl of Nottingham, were taken into favour as having opposed the more violent proceedings of their associates. As if to show his entire confidence in both these noblemen, the king created the former duke of Hereford and the latter duke of Norfolk. But within three months from this time the one duke accused the other of treason, and the truth of the charge, after much consideration, was referred to trial by battle according to the laws of chivalry. But when the combat was about to commence it was interrupted by the king, who, to preserve the peace of the kingdom, decreed by his own mere authority that the duke of Hereford should be banished for ten years—a term immediately afterwards reduced to five—and the duke of Norfolk for life.

This arbitrary sentence was obeyed in the first instance by both parties, and Norfolk never returned. But Henry, duke of Hereford, whose milder sentence was doubtless owing to the fact that he was the popular favourite, came back within a year, having been furnished with a very fair pretext for doing so by a new act of injustice on the part of Richard. His father, John of Gaunt, had died in the interval, and the king, troubled with a rebellion in Ireland, and sorely in want of money, had seized the duchy of Lancaster as forfeited property. Henry at once sailed for England, and landing in Yorkshire while King Richard was in Ireland, gave out that he came only to recover his inheritance. He at once received the support of the northern lords, and as he marched southwards the whole kingdom was soon practically at his command. Richard, by the time he had recrossed the channel to Wales, discovered that his cause was lost. He was conveyed from Chester to London, and forced to execute a deed by which he resigned his crown. This was recited in parliament, and he was formally deposed. The duke of Lancaster then claimed the kingdom as due to himself by virtue of his descent from Henry III.

The claim which he put forward involved, to all appearance, a strange falsification of history, for it seemed to rest upon the supposition that Edmund of Lancaster, and not Edward I., was the eldest son of Henry III. A story had gone about, even in the days of John of Gaunt, who, if we may trust the rhymer John Hardyng (*Chronicle*, pp. 290, 291), had got it inserted in chronicles deposited in various monasteries, that this Edmund, surnamed Crouchback, was really hump-backed, and that he was set aside in favour of his younger brother Edward on account of his deformity. No chronicle, however, is known to exist which actually states that Edmund Crouchback was thus set aside; and in point of fact he had no deformity at all, while Edward was six years his senior. Hardyng's testimony is, moreover, suspicious as reflecting the prejudices of the Percys after they had turned against Henry IV., for Hardyng himself expressly says that the earl of Northumberland was the source of his information (see note, p. 353 of his *Chronicle*). But a statement in the continuation of the chronicle called the *Eulogium* (vol. iii. pp. 369, 370) corroborates Hardyng to some extent; for we are told that John of Gaunt had once desired in parliament that his son should be recognized on this flimsy plea as heir to the crown; and when Roger Mortimer, earl of March, denied the story and insisted on his own claim as descended from Lionel, duke of Clarence, Richard imposed silence on both parties. However this may be, it is certain that this story, though not directly asserted to be true, was indirectly pointed at by Henry when he put forward his claim, and no one was then bold enough to challenge it.

This was partly due, no doubt, to the fact that the true lineal heir after Richard was then a child, Edmund, who had just succeeded his father as earl of March. Another circumstance was unfavourable to the house of Mortimer—that it derived its title through a woman. No case precisely similar had as yet arisen, and, notwithstanding the precedent of Henry II., it might be doubted whether succession through a female was favoured by the constitution. If not, Henry could say with truth that he was the direct heir of his grandfather, Edward III. If, on the other hand, succession through females was valid, he could trace his descent through his mother from Henry III. by a very illustrious line of ancestors. And, in the words by which he formally made his claim, he ventured to say no more than that he was descended from the king last mentioned "by right line of the blood." In what particular way that "right line" was to be traced he did not venture to indicate.

A brief epitome of the reigns of the three successive kings belonging to the house of Lancaster (Henry IV., V. and VI.) will be found elsewhere. With the death of Henry VI. the direct male line of John of Gaunt became extinct. But by his daughters he became the ancestor of more than one line of foreign kings, while his descendants by his third wife, Catherine Swynford, conveyed the crown of England to the house of Tudor. It is true that his children by this lady were born before he married her; but they were made legitimate by act of parliament, and, though Henry IV. in confirming the privilege thus granted to them endeavoured to debar them from the succession to the crown, it is now ascertained that there was no such reservation in the original act, and the title claimed by Henry VII. was probably better than he himself supposed.

We show on the following page a pedigree of the royal and illustrious houses that traced their descent from John of Gaunt.

(J. Ga.)

LANCASTER, HENRY, Earl of (*c.* 1281-1345), was the second son of Edmund, earl of Lancaster (d.

1296), and consequently a grandson of Henry III. During his early days he took part in campaigns in Flanders, Scotland and Wales, but was quite overshadowed by his elder brother Thomas (see below). In 1324, two years after Thomas had lost his life for opposing the king, Henry was made earl of Leicester by his cousin, Edward II., but he was not able to secure the titles and estates of Lancaster to which he was heir, and be showed openly that his sympathies were with his dead brother. When Queen Isabella took up arms against her husband in 1326 she was joined at once by the earl, who took a leading part in the proceedings against the king and his favourites, the Despensers, being Edward's gaoler at Kenilworth castle. Edward III. being now on the throne, Leicester secured the earldom of Lancaster and his brother's lands, becoming also steward of England; he knighted the young king and was the foremost member of the royal council, but he was soon at variance with Isabella and her paramour, Roger Mortimer, and was practically deprived of his power. In 1328 his attempt to overthrow Mortimer failed, and he quietly made his peace with the king; a second essay against Mortimer was more successful. About this time Lancaster became blind; he retired from public life and died on the 22nd of September, 1345.

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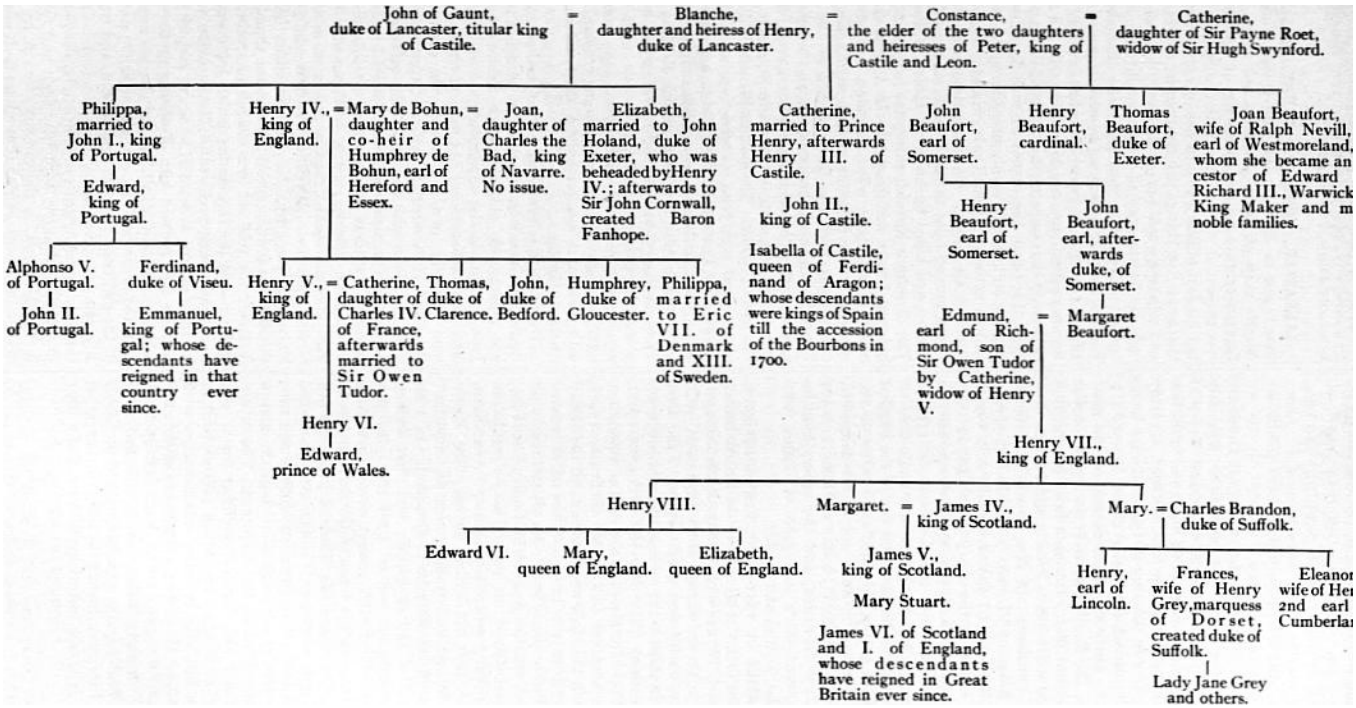

His son and successor, Henry, 1st duke of Lancaster (*c.* 1300-1361), was a soldier of unusual distinction. Probably from his birthplace in Monmouthshire he was called Henry of Grosmont. He fought in the naval fight off Sluys and in the one off Winchelsea in 1350; he led armies into Scotland, Gascony and Normandy, his exploits in Gascony in 1345 and 1346 being especially successful; he served frequently under Edward III. himself; and he may be fairly described as one of the most brilliant and capable of the English warriors during the earlier part of the Hundred Years' War. During a brief respite from the king's service he led a force into Prussia and he was often employed on diplomatic business. In 1354 he was at Avignon negotiating with Pope Innocent VI., who wished to make peace between England and France, and one of his last acts was to assist in arranging the details of the treaty of Brétigny in 1360. In 1337 he was made earl of Derby; in 1345 he succeeded to his father's earldoms of Lancaster and Leicester; in 1349 he was created earl of Lincoln, and in 1351 he was made duke of Lancaster. He was steward of England and one of the original knights of the order of the garter. He died at Leicester on the 13th of March 1361. He left no sons; one of his daughters, Maud (d. 1362), married William V., count of Holland, a son of the emperor Louis the Bavarian, and the other, Blanche (d. 1369), married Edward III.'s son, John of Gaunt, who obtained his father-in-law's titles and estates.

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LANCASTER, SIR JAMES

(fl. 1591-1618), English navigator and statesman, one of the foremost pioneers of the British Indian trade and empire. In early life he fought and traded in Portugal. On the 10th of April 1591 he started from Plymouth, with Raymond and Foxcroft, on his first great voyage to the East Indies; this fleet of three ships is the earliest of English oversea Indian expeditions. Reaching Table Bay (1st of August 1591), and losing one ship off Cape Corrientes on the 12th of September, the squadron rested and refitted at Zanzibar (February 1592), rounded Cape Comorin in May following, and was off the Malay Peninsula in June. Crossing later to Ceylon, the crews insisted on returning home; the voyage back was disastrous; only twenty-five officers and men reappeared in England in 1594. Lancaster himself reached Rye on the 24th of May 1594; in the same year he led a military expedition against Pernambuco, without much success; but his Indian voyage, like Ralph Fitch's overland explorations and trading, was an important factor in the foundation of the East India Company. In 1600 he was given command of the company's first fleet (which sailed from Torbay towards the end of April 1601); he was also accredited as Queen Elizabeth's special envoy to various Eastern potentates. Going by the Cape of Good Hope (1st of November 1601) Lancaster visited the Nicobars (from the 9th of April 1602), Achin and other parts of Sumatra (from the 5th of June 1602), and Bantam in Java; an

alliance was concluded with Achin, a factory established at Bantam and a commercial mission despatched to the Moluccas. The return voyage (20th of February to 11th of September 1603) was speedy and prosperous, and Lancaster (whose success both in trade and in diplomacy had been brilliant) was rewarded with knighthood (October 1603). He continued to be one of the chief directors of the East India Company till his death in May 1618; most of the voyages of the early Stuart time both to India and in search of the North-West passage were undertaken under his advice and direction; Lancaster Sound, on the north-west of Baffin's Bay (in 74° 20′ N.), was named by William Baffin after Sir James (July 1616).

See Hakluyt, *Principal Navigations*, vol. ii. pt. ii. pp. 102-110, vol. iii. pp. 708-715 (1599); Purchas, *Pilgrims*, vol. i. pt. ii. pp. 147-164; also *The Voyages of Sir James Lancaster ... to the East Indies ...*, ed. Sir Clements Markham, Hakluyt Soc. (1877), *Calendars of State Papers, East Indies*. The original journals of Lancaster's voyage of 1601-1603 have disappeared, and here we have only Purchas to go on.

LANCASTER, JOHN OF GAUNT, *Duke of* (1340-1399), fourth son of Edward III. and Queen Philippa, was born in March 1340 at Ghent, whence his name. On the 29th of September 1342 he was made earl of Richmond; as a child he was present at the sea fight with the Spaniards in August 1350, but his first military service was in 1355, when he was knighted. On the 19th of May 1359 he married his cousin Blanche, daughter and ultimately sole heiress of Henry, duke of Lancaster. In her right he became earl of Lancaster in 1361, and next year was created duke. His marriage made him the greatest lord in England, but for some time he took no prominent part in public affairs. In 1366 he joined his eldest brother, Edward the Black Prince, in Aquitaine, and in the year after led a strong contingent to share in the campaign in support of Pedro the Cruel of Castile. With this began the connexion with Spain, which was to have so great an influence on his after-life. John fought in the van at Najera on the 3rd of April 1367, when the English victory restored Pedro to his throne. He returned home at the end of the year. Pedro proved false to his English allies, and was finally overthrown and killed by his rival, Henry of Trastamara, in 1369. The disastrous Spanish enterprise led directly to renewed war between France and England. In August 1369 John had command of an army which invaded northern France without success. In the following year he went again to Aquitaine, and was present with the Black Prince at the sack of Limoges. Edward's health was broken down, and he soon after went home, leaving John as his lieutenant. For a year John maintained the war at his own cost, but whilst in Aquitaine a greater prospect was opened to him. The duchess Blanche had died in the autumn of 1369 and now John married Constance (d. 1394), the elder daughter of Pedro the Cruel, and in her right assumed the title of king of Castile and Leon. For sixteen years the pursuit of his kingdom was the chief object of John's ambition. No doubt he hoped to achieve his end, when he commanded the great army which invaded France in 1373. But the French would not give battle, and though John marched from Calais right through Champagne, Burgundy and Auvergne, it was with disastrous results; only a shattered remnant of the host reached Bordeaux.

The Spanish scheme had to wait, and when John got back to England he was soon absorbed in domestic politics. The king was prematurely old, the Black Prince's health was broken. John, in spite of the unpopularity of his ill-success, was forced into the foremost place. As head of the court party he had to bear the brunt of the attack on the administration made by the Good Parliament in 1376. It was not perhaps altogether just, and John was embittered by reflections on his loyalty. As soon as the parliament was dissolved he had its proceedings reversed, and next year secured a more subservient assembly. There came, however, a new development. The duke's politics were opposed by the chief ecclesiastics, and in resisting them he had made use of Wycliffe. With Wycliffe's religious opinions he had no sympathy. Nevertheless when the bishops arraigned the reformer for heresy John would not abandon him. The conflict over the trial led to a violent quarrel with the Londoners, and a riot in the city during which John was in danger of his life from the angry citizens. The situation was entirely altered by the death of Edward III. on the 21st of June. Though his enemies had accused him of aiming at the throne, John was without any taint of disloyalty. In his nephew's interests he accepted a compromise, disclaimed before parliament the truth of the malicious rumours against him, and was reconciled formally with his opponents. Though he took his proper place in the ceremonies at Richard's coronation, he showed a tactful moderation by withdrawing for a time from any share in the government. However, in the summer of 1378, he commanded in an attack on St Malo, which through no fault of his failed. To add to this misfortune, during his absence some of his supporters violated the sanctuary at Westminster. He vindicated himself somewhat bitterly in a parliament at Gloucester, but still avoiding a prominent part in the government, accepted the command on the Scottish border. He was there engaged when his palace of the Savoy in London was burnt during the peasants' revolt in June 1381. Wild reports that even the government had declared him a traitor made him seek refuge in Scotland. Richard had, however, denounced the calumnies, and at once recalled his uncle.

John's self-restraint had strengthened his position, and he began again to think of his Spanish scheme. He urged its undertaking in parliament in 1382, but nearer troubles were more urgent, and John himself was wanted on the Scottish border. There he sought to arrange peace, but against his will was forced into an unfortunate campaign in 1384. His ill-success renewed his unpopularity, and the court favourites of Richard II. intrigued against him. They were probably responsible for the allegation, made by a Carmelite, called Latemar, that John was conspiring against his nephew. Though Richard at first believed it, the matter was disposed of by the friar's death. However, the court party soon after concocted a fresh plot for the duke's destruction; John boldly denounced his traducers, and the quarrel was appeased by the intervention of the king's mother. The intrigue still continued, and broke out again during the Scottish campaign in 1385. John was not the man to be forced into treason to his family, but the impossibility of the position at home made his foreign ambitions more feasible.

The victory of John of Portugal over the king of Castile at Aljubarrota, won with English help, offered an opportunity. In July 1386 John left England with a strong force to win his Spanish throne. He landed at Corunna, and during the autumn conquered Galicia. Juan, who had succeeded his father Henry as king of

Castile, offered a compromise by marriage. John of Gaunt refused, hoping for greater success with the help of the king of Portugal, who now married the duke's eldest daughter Philippa. In the spring the allies invaded Castile. They could achieve no success, and sickness ruined the English army. The conquests of the previous year were lost, and when Juan renewed his offers, John of Gaunt agreed to surrender his claims to his daughter by Constance of Castile, who was to marry Juan's heir. After some delay the peace was concluded at Bayonne in 1388. The next eighteen months were spent by John as lieutenant of Aquitaine, and it was not till November 1389 that he returned to England. By his absence he had avoided implication in the troubles at home. Richard, still insecure of his own position, welcomed his uncle, and early in the following year marked his favour by creating him duke of Aquitaine. John on his part was glad to support the king's government; during four years he exercised his influence in favour of pacification at home, and abroad was chiefly responsible for the conclusion of a truce with France. Then in 1395 he went to take up the government of his duchy; thanks chiefly to his lavish expenditure his administration was not unsuccessful, but the Gascons had from the first objected to government except by the crown, and secured his recall within less than a year. Almost immediately after his return John married as his third wife Catherine Swynford; Constance of Castile had died in 1394. Catherine had been his mistress for many years, and his children by her, who bore the name of Beaufort, were now legitimated. In this and in other matters Richard found it politic to conciliate him. But though John presided at the trial of the earl of Arundel in September 1397, he took no active part in affairs. The exile of his son Henry in 1398 was a blow from which he did not recover. He died on the 3rd of February 1399, and was buried at St Paul's near the high altar.

John was neither a great soldier nor a statesman, but he was a chivalrous knight and loyal to what he believed were the interests of his family. In spite of opportunities and provocations he never lent himself to treason. He deserves credit for his protection of Wycliffe, though he had no sympathy with his religious or political opinions. He was also the patron of Chaucer, whose *Boke of the Duchesse* was a lament for Blanche of Lancaster.

The chief original sources for John's life are Froissart, the maliciously hostile *Chronicon Angliae* (1328-1388), and the eulogistic *Chronicle* of Henry Knighton (both the latter in the Rolls Series). But fuller information is to be found in the excellent biography by S. Armytage-Smith, published in 1904. For his descendants see the table under LANCASTER, HOUSE OF.

(C. L. K.)

LANCASTER, JOSEPH

(1778-1838), English educationist, was born in Southwark in 1778, the son of a Chelsea pensioner. He had few opportunities of regular instruction, but he very early showed unusual seriousness and desire for learning. At sixteen he looked forward to the dissenting ministry; but soon after his religious views altered, and he attached himself to the Society of Friends, with which he remained associated for many years, until long afterwards he was disowned by that body. At the age of twenty he began to gather a few poor children under his father's roof, and to give them the rudiments of instruction, without a fee, except in cases in which the parent was willing to pay a trifle. Soon a thousand children were assembled in the Borough Road; and, the attention of the duke of Bedford, Mr Whitbread, and others having been directed to his efforts, he was provided with means for building a schoolroom and supplying needful materials. The main features of his plan were the employment of older scholars as monitors, and an elaborate system of mechanical drill, by means of which these young teachers were made to impart the rudiments of reading, writing and arithmetic to large numbers at the same time. The material appliances for teaching were very scanty—a few leaves torn out of spelling-books and pasted on boards, some slates and a desk spread with sand, on which the children wrote with their fingers. The order and cheerfulness of the school and the military precision of the children's movements began to attract much public observation at a time when the education of the poor was almost entirely neglected. Lancaster inspired his young monitors with fondness for their work and with pride in the institution of which they formed a part. As these youths became more trustworthy, he found himself at leisure to accept invitations to expound what he called "his system" by lectures in various towns. In this way many new schools were established, and placed under the care of young men whom he had trained. In a memorable interview with George III., Lancaster was encouraged by the expression of the king's wish that every poor child in his dominions should be taught to read the Bible. Royal patronage brought in its train resources, fame and public responsibility, which proved to be beyond Lancaster's own powers to sustain or control. He was vain, reckless and improvident. In 1808 a few noblemen and gentlemen paid his debts, became his trustees and founded the society at first called the Royal Lancasterian Institution, but afterwards more widely known as the British and Foreign School Society. The trustees soon found that Lancaster was impatient of control, and that his wild impulses and heedless extravagance made it impossible to work with him. He quarrelled with the committee, set up a private school at Tooting, became bankrupt, and in 1818 emigrated to America. There he met at first a warm reception, gave several courses of lectures which were well attended, and wrote to friends at home letters full of enthusiasm. But his fame was short-lived. The miseries of debt and disappointment were aggravated by sickness, and he settled for a time in the warmer climate of Carácas. He afterwards visited St Thomas and Santa Cruz, and at length returned to New York, the corporation of which city made him a public grant of 500 dollars in pity for the misfortunes which had by this time reduced him to lamentable poverty. He afterwards visited Canada, where he gave lectures at Montreal, and was encouraged to open a school which enjoyed an ephemeral success, but was soon abandoned. A small annuity provided by his friends in England was his only means of support. He formed a plan for returning home and giving a new impetus to his "system," by which he declared it would be possible "to teach ten thousand children in different schools, not knowing their letters, all to read fluently in three weeks to three months." But these visions were never realized. He was run over by a carriage in the streets of New York on the 24th of October 1838, and died in a few hours.

As one of the two rival inventors of what was called the "monitorial" or "mutual" method of instruction, Lancaster's name was prominent for many years in educational controversy. Dr Andrew Bell (*q.v.*) had in 1797 published an account of his experiments in teaching; and Lancaster in his first pamphlet, published in 1803,

frankly acknowledges his debt to Bell for some useful hints. The two worked independently, but Lancaster was the first to apply the system of monitorial teaching on a large scale. As an economical experiment his school at the Borough Road was a signal success. He had one thousand scholars under discipline, and taught them to read, write and work simple sums at a yearly cost of less than 5s. a head. His tract *Improvements in Education* described the gradation of ranks, the system of signals and orders, the functions of the monitors, the method of counting and of spelling and the curious devices he adopted for punishing offenders. Bell's educational aims were humbler, as he feared to "elevate above their station those who were doomed to the drudgery of daily labour," and therefore did not desire to teach even writing and ciphering to the lower classes. The main difference between them was that the system of the one was adopted by ecclesiastics and Conservatives,—the "National Society for the Education of the Poor in the principles of the Established Church" having been founded in 1811 for its propagation; while Lancaster's method was patronized by the *Edinburgh Review*, by Whig statesmen, by a few liberal Churchmen and by Nonconformists generally. It was the design of Lancaster and his friends to make national education Christian, but not sectarian,—to cause the Scriptures to be read, explained and reverenced in the schools, without seeking by catechisms or otherwise to attract the children to any particular church or sect. This principle was at first vehemently denounced as deistic and mischievous, and as especially hostile to the Established Church. To do them justice, it must be owned that the rival claims and merits of Bell and Lancaster were urged with more passion and unfairness by their friends than by themselves. Yet neither is entitled to hold a very high place among the world's teachers. Bell was cold, shrewd and self-seeking. Lancaster had more enthusiasm, a genuine and abounding love for children, and some ingenuity in devising plans both for teaching and governing. But he was shiftless, wayward and unmethodical, and incapable of sustained and high-principled personal effort. His writings were not numerous. They consist mainly of short pamphlets descriptive of the successes he attained at the Borough Road. His last publication, *An Epitome of the Chief Events and Transactions of my Own Life*, appeared in America in 1833, and is characterized, even more strongly than his former writings, by looseness and incoherency of style, by egotism and by a curious incapacity for judging fairly the motives either of his friends or his foes. We have since come to believe that intelligent teaching requires skill and previous training, and that even the humblest rudiments are not to be well taught by those who have only just acquired them for themselves, or to be attained by mere mechanical drill. But in the early stages of national education the monitorial method served a valuable purpose. It brought large numbers of hitherto neglected children under discipline, and gave them elementary instruction at a very cheap rate. Moreover, the little monitors were often found to make up in brightness, tractability and energy for their lack of experience, and to teach the arts of reading, writing and computing with surprising success. And one cardinal principle of Bell and Lancaster is of prime importance. They regarded a school, not merely as a place to which individual pupils should come for guidance from teachers, but as an organized community whose members have much to learn from each other. They sought to place their scholars from the first in helpful mutual relations, and to make them feel the need of common efforts towards the attainment of common ends.

(J. G. F.)

LANCASTER, THOMAS, Earl of (*c.* 1277-1322), was the eldest son of Edmund, earl of Lancaster and titular king of Sicily, and a grandson of the English king, Henry III.; while he was related to the royal house of France both through his mother, Blanche, a granddaughter of Louis VIII., and his step-sister, Jeanne, queen of Navarre, the wife of Philip IV. A minor when Earl Edmund died in 1296, Thomas received his father's earldoms of Lancaster and Leicester in 1298, but did not become prominent in English affairs until after the accession of his cousin, Edward II., in July 1307. Having married Alice (d. 1348), daughter and heiress of Henry Lacy, earl of Lincoln, and added the earldom of Derby to those which he already held, he was marked out both by his wealth and position as the leader of the barons in their resistance to the new king. With his associates he produced the banishment of the royal favourite, Piers Gaveston, in 1308; compelled Edward in 1310 to surrender his power to a committee of "ordainers," among whom he himself was numbered; and took up arms when Gaveston returned to England in January 1312. Lancaster, who had just obtained the earldoms of Lincoln and Salisbury on the death of his father-in-law in 1311, drove the king and his favourite from Newcastle to Scarborough, and was present at the execution of Gaveston in June 1312. After lengthy efforts at mediation, he made his submission and received a full pardon from Edward in October 1313; but he refused to accompany the king on his march into Scotland, which ended at Bannockburn, and took advantage of the English disaster to wrest the control of affairs from the hands of Edward. In 1315 he took command of the forces raised to fight the Scots, and was soon appointed to the "chief place in the council," while his supporters filled the great offices of state, but his rule was as feeble as that of the monarch whom he had superseded. Quarrelling with some of the barons, he neglected both the government and the defence of the kingdom, and in 1317 began a private war with John, Earl Warrenne, who had assisted his countess to escape from her husband. The capture of Berwick by the Scots, however, in April 1318 led to a second reconciliation with Edward. A formal treaty, made in the following August, having been ratified by parliament, the king and earl opened the siege of Berwick; but there was no cohesion between their troops, and the undertaking was quickly abandoned. On several occasions Lancaster was suspected of intriguing with the Scots, and it is significant that his lands were spared when Robert Bruce ravaged the north of England. He refused to attend the councils or to take any part in the government until 1321, when the Despensers were banished, and war broke out again between himself and the king. Having conducted some military operations against Lancaster's friends on the Welsh marches, Edward led his troops against the earl, who gradually fell back from Burton-on-Trent to Pontefract. Continuing this movement, Lancaster reached Boroughbridge, where he was met by another body of royalists under Sir Andrew Harclay. After a skirmish he was deserted by his troops, and was obliged to surrender. Taken to his own castle at Pontefract, where the king was, he was condemned to death as a rebel and a traitor, and was beheaded near the town on the 22nd of March 1322. He left no children.

Although a coarse, selfish and violent man, without any of the attributes of a statesman, Lancaster won a great reputation for patriotism; and his memory was long cherished, especially in the north of England, as that of a defender of popular liberties. Over a hundred years after his death miracles were said to have been worked at his tomb at Pontefract; thousands visited his effigy in St Paul's Cathedral, London, and it was even proposed

to make him a saint.

See *Chronicles of the Reigns of Edward I. and Edward II.*, edited with introduction by W. Stubbs (London, 1882-1883); and W. Stubbs, *Constitutional History*, vol. ii. (Oxford, 1896).

LANCASTER, a market town and municipal borough, river port, and the county town of Lancashire, England, in the Lancaster parliamentary division, 230 m. N.W. by N. from London by the London & North-Western railway (Castle Station); served also by a branch of the Midland railway (Green Ayre station). Pop. (1891) 33,256; (1901) 40,329. It lies at the head of the estuary of the river Lune, mainly on its south bank, 7 m. from the sea. The site slopes sharply up to an eminence crowned by the castle and the church of St Mary. Fine views over the rich valley and Morecambe Bay to the west are commanded from the summit. St Mary's church was originally attached by Roger de Poictou to his Benedictine priory founded at the close of the 11th century. It contains some fine Early English work in the nave arcade, but is of Perpendicular workmanship in general appearance, while the tower dates from 1759. There are some beautiful Decorated oak stalls in the chancel, brought probably from Cockersand or Furness Abbey.

The castle occupies the site of a Roman *castrum*. The Saxon foundations of a yet older structure remain, and the tower at the south-west corner is supposed to have been erected during the reign of Hadrian. The Dungeon Tower, also supposed to be of Roman origin, was taken down in 1818. The greater part of the old portion of the present structure was built by Roger de Poictou, who utilized some of the Roman towers and the old walls. In 1322 much damage was done to the castle by Robert Bruce, whose attack it successfully resisted, but it was restored and strengthened by John of Gaunt, who added the greater part of the Gateway Tower as well as a turret on the keep or Lungess Tower, which on that account has been named "John o' Gaunt's Chair." During the Civil War the castle was captured by Cromwell. Shortly after this it was put to public use, and now, largely modernized, contains the assize courts and gaol. Its appearance, with massive buildings surrounding a quadrangle, is picturesque and dignified. Without the walls is a pleasant terrace walk. Other buildings include several handsome modern churches and chapels (notably the Roman Catholic church); the Storey Institute with art gallery, technical and art schools, museum and library, presented to the borough by Sir Thomas Storey in 1887; Palatine Hall, Ripley hospital (an endowed school for the children of residents in Lancaster and the neighbourhood), the asylum, the Royal Lancaster infirmary and an observatory in the Williamson Park. A new town hall, presented by Lord Ashton in 1909, is a handsome classical building from designs of E. W. Mountford. The Ashton Memorial in Williamson Park, commemorating members of the Ashton family, is a lofty domed structure. The grammar school occupies modern buildings, but its foundation dates from the close of the 15th century, and in its former Jacobean house near the church William Whewell and Sir Richard Owen were educated. A horseshoe inserted in the pavement at Horseshoe Corner in the town, and renewed from time to time, is said to mark the place where a shoe was cast by John of Gaunt's horse.

The chief industries are cotton-spinning, cabinet-making, oil cloth-making, railway wagon-building and engineering. Glasson Dock, 5 m. down the Lune, with a graving dock, is accessible to vessels of 600 tons. The Kendal and Lancaster canal reaches the town by an aqueduct over the Lune, which is also crossed by a handsome bridge dated 1788. The town has further connexion by canal with Preston. The corporation consists of a mayor, 8 aldermen and 24 councillors. Area, 3506 acres.

History.—Lancaster (Lone-caster or Lunecastrum) was an important Roman station, and traces of the Roman fortification wall remain. The Danes left few memorials of their occupation, and the Runic Cross found here, once supposed to be Danish, is now conclusively proved to be Anglo-Saxon. At the Conquest, the place, reduced in size and with its Roman castrum almost in ruins, became a possession of Roger de Poictou, who founded or enlarged the present castle on the old site. The town and castle had a somewhat chequered ownership till in 1266 they were granted by Henry III. to his son Edmund, first earl of Lancaster, and continued to be a part of the duchy of Lancaster till the present time. A town gathered around the castle, and in 1193 John, earl of Mertoun, afterwards king, granted it a charter, and another in 1199 after his accession. Under these charters the burgesses claimed the right of electing a mayor, of holding a yearly fair at Michaelmas and a weekly market on Saturday. Henry III. in 1226 confirmed the charter of 1199; in 1291 the style of the corporation is first mentioned as *Ballivus et communitas burgi*, and Edward III.'s confirmation and extension (1362) is issued to the mayor, bailiffs and commonalty. Edward III.'s charter was confirmed by Richard II. (1389), Henry IV. (1400), Henry V. (1421), Henry VII. (1488) and Elizabeth (1563). James I. (1604) and Charles II. (1665 and 1685) ratified, with certain additions, all previous charters, and again in 1819 a similar confirmation was issued. John of Gaunt in 1362 obtained a charter for the exclusive right of holding the sessions of pleas for the county in Lancaster itself, and up to 1873 the duchy appointed a chief justice and a puisne justice for the court of common pleas at Lancaster. In 1322 the Scots burnt the town, the castle alone escaping; the town was rebuilt but removed from its original position on the hill to the slope and foot. Again in 1389, after the battle of Otterburn, it was destroyed by the same enemy. At the outbreak of the Great Rebellion the burgesses sided with the king, and the town and castle were captured in February 1643 by the Parliamentarians. In March 1643 Lord Derby assaulted and took the town with great slaughter, but the castle remained in the hands of the Parliamentarians. In May and June of the same year the castle was again besieged in vain, and in 1648 the Royalists under Sir Thomas Tyldesley once more fruitlessly besieged it. During the rebellion of 1715 the northern rebels occupied Lancaster for two days and several of them were later executed here. During the 1745 rebellion Prince Charles Edward's army passed through the town in its southward march and again in its retreat, but the inhabitants stood firm for the Hanoverians.

Two chartered markets are held weekly on Wednesday and Saturday and three annual fairs in April, July and October. A merchant gild existed here, which was ratified by Edward III.'s charter (1362), and in 1688 six trade companies were incorporated. The chief manufactures used to be sailcloth, cabinet furniture, candles and

cordage. The borough returned two members to parliament from 1295 to 1331 and again from some time in Henry VIII.'s reign before 1529 till 1867, when it was merged in the Lancaster division of north Lancashire. A church existed here, probably on the site of the parish church of St Mary's, in Anglo-Saxon times, but the present church dates from the early 15th century. An act of parliament was passed in 1792 to make the canal from Kendal through Lancaster and Preston, which is carried over the Lune about a mile above Lancaster by a splendid aqueduct.

See Fleury, *Time-Honoured Lancaster* (1891); E. Baines, *History of Lancashire* (1888).

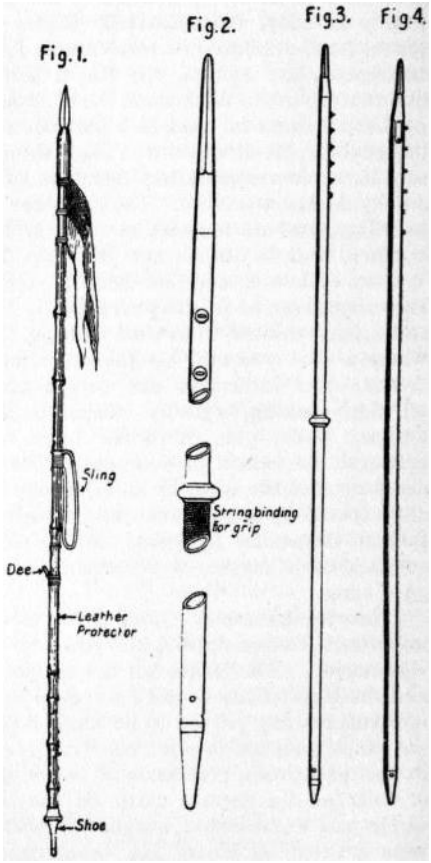
LANCASTER, a city and the county-seat of Fairfield county, Ohio, U.S.A., on the Hocking river (non-navigable), about 32 m. S.E. of Columbus. Pop. (1900) 8991, of whom 442 were foreign-born and 212 were negroes; (1910 census) 13,093. Lancaster is served by the Hocking Valley, the Columbus & Southern and the Cincinnati & Muskingum Valley (Pennsylvania Lines) railways, and by the electric line of the Scioto Valley Traction Company, which connects it with Columbus. Near the centre of the city is Mt. Pleasant, which rises nearly 200 ft. above the surrounding plain and about which cluster many Indian legends; with 70 acres of woodland and fields surrounding it, this has been given to the city for a park. On another hill is the county court house. Lancaster has a public library and a children's home; and 6 m. distant is the State Industrial School for Boys. The manufactures include boots and shoes, glass and agricultural implements. The total value of the city's factory product in 1905 was $4,159,410, being an increase of 118.3% over that of 1900. Lancaster is the trade centre of a fertile agricultural region, has good transportation facilities, and is near the Hocking Valley and Sunday Creek Valley coal-fields; its commercial and industrial importance increased greatly, after 1900, through the development of the neighbouring natural gas fields and, after 1907-1908, through the discovery of petroleum near the city. Good sandstone is quarried in the vicinity. The municipality owns and operates its waterworks and natural gas plant. Lancaster was founded in 1800 by Ebenezer Zane (1747-1811), who received a section of land here as part compensation for opening a road, known as "Zane's Trace," from Wheeling, West Virginia, to Limestone (now Maysville), Kentucky. Some of the early settlers were from Lancaster, Pennsylvania, whence the name. Lancaster was incorporated as a village in 1831 and twenty years later became a city of the third class.

LANCASTER, a city and the county-seat of Lancaster county, Pennsylvania, U.S.A., on the Conestoga river, 68 m. W. of Philadelphia. Pop. (1900) 41,459, of whom 3492 were foreign-born and 777 were negroes; (1910 census) 47,227. It is served by the Pennsylvania, the Philadelphia & Reading and the Lancaster, Oxford & Southern railways, and by tramways of the Conestoga Traction Company, which had in 1909 a mileage of 152 m. Lancaster has a fine county court house, a soldiers' monument about 43 ft. in height, two fine hospitals, the Thaddeus Stevens Industrial School (for orphans), a children's home, the Mechanics' Library, and the Library of the Lancaster Historical Society. It is the seat of Franklin and Marshall College (Reformed Church), of the affiliated Franklin and Marshall Academy, and of the Theological Seminary of the Reformed Church, conducted in connexion with the college. The college was founded in 1852 by the consolidation of Franklin College, founded at Lancaster in 1787, and Marshall College, founded at Mercersburg in 1836, both of which had earned a high standing among the educational institutions of Pennsylvania. Franklin College was named in honour of Benjamin Franklin, an early patron; Marshall College was founded by the Reformed Church and was named in honour of John Marshall. The Theological Seminary was opened in 1825 at Carlisle, Pa., and was removed to York, Pa., in 1829, to Mercersburg, Pa., in 1837 and to Lancaster in 1871; in 1831 it was chartered by the Pennsylvania legislature. Among its teachers have been John W. Nevin and Philip Schaff, whose names, and that of the seminary, are associated with the so-called "Mercersburg Theology." At Millersville, 4 m. S.W. of Lancaster, is the Second Pennsylvania State Normal School. At Lancaster are the graves of General John F. Reynolds, who was born here; Thaddeus Stevens, who lived here after 1842; and President James Buchanan, who lived for many years on an estate, "Wheatland," near the city and is buried in the Woodward Hill Cemetery. The city is in a productive tobacco and grain region, and has a large tobacco trade and important manufactures. The value of the city's factory products increased from $12,750,429 in 1900 to $14,647,681 in 1905, or 14.9%. In 1905 the principal products were umbrellas and canes (valued at $2,782,879), cigars and cigarettes ($1,951,971), and foundry and machine-shop products ($1,036,526). Lancaster county has long been one of the richest agricultural counties in the United States, its annual products being valued at about $10,000,000; in 1906 the value of the tobacco crop was about $3,225,000, and there were 824 manufactories of cigars in the county.

Lancaster was settled about 1717 by English Quakers and Germans, was laid out as a town in 1730, incorporated as a borough in 1742, and chartered as a city in 1818. An important treaty with the Iroquois Indians was negotiated here by the governor of Pennsylvania and by commissioners from Maryland and Virginia in June 1744. Some of General Burgoyne's troops, surrendered at Saratoga, were confined here after the autumn of 1780. The Continental Congress sat here on the 27th of September 1777 after being driven from Philadelphia by the British; and subsequently, after the organization of the Federal government, Lancaster was one of the places seriously considered when a national capital was to be chosen. From 1799 to 1812 Lancaster was the capital of Pennsylvania.

LANCE, a form of spear used by cavalry (see SPEAR). The use of the lance, dying away on the decay of chivalry and the introduction of pistol-armed cavalry, was revived by the Polish and Cossack cavalry who fought against Charles XII. and Frederick the Great. It was not until Napoleon's time, however, that lancer regiments appeared in any great numbers on European battlefields. The effective use of the weapon—long before called by Montecucculi the "queen of weapons"—by Napoleon's lancers at Waterloo led to its introduction into the British service, and except for a short period after the South African War, in which it was condemned as an anachronism, it has shared, or rather contested, with the sword the premier place amongst cavalry arms. In Great Britain and other countries lances are carried by the front rank of cavalry, except light cavalry, regiments, as well as by lancer regiments. In Germany, since 1889, the *whole* of the cavalry has been armed with the lance. In Russia, on the other hand, line cavalry being, until recently, considered as a sort of mounted infantry or dragoons, the lance was restricted to the Cossacks, and in Austria it enjoys less favour than in Germany. Altogether there are few questions of armament or military detail more freely disputed, in the present day as in the past, than this of sword *versus* lance.

The lances used in the British service are of two kinds, those with ash and those with bamboo staves. The latter are much preferred and are generally used, the "male" bamboo being peculiarly tough and elastic. The lance is provided with a sling, through which the trooper passes his right arm when the lance is carried slung, the point of the steel shoe fitting into a bucket attached to the right stirrup. A small "dee" loop is also provided, by which the lance can be attached to the saddle when the trooper dismounts. The small flag is removed on service. The head is of the best steel. The Germans, doubtless owing to difficulty in obtaining bamboos, or ash in large quantity straight enough in the grain over a considerable length, for lance staves, have adopted a stave of steel tubing as well as one of pine (figs. 2, 3 and 4).



TYPES OF BRITISH AND GERMAN LANCES.

FIG. 1 is the British bamboo lance; figs. 2 and 3 the German steel tubular lance, and fig. 4 the German pine-wood lance. The full length of the German lance is 11 ft. 9 in., that of the Cossacks 9 ft. 10 in., that of the Austrian lancers 8 ft. 8 in., and the French lance 11 ft. The British lance is 9 ft. long. The weight of a lance varies but slightly. The steel-staved lance weighs 4 lb, the bamboo 4½.

As to the question of the relative efficiency of the lance and the sword as the principal arm for cavalry, it is alleged that the former is heavy and fatiguing to carry, conspicuous, and much in the way when reconnoitring in close country, working through woods and the like; that, when unslung ready for the charge, it is awkward to handle, and may be positively dangerous if a horse becomes restive and the rider has to use both hands on the reins; that unless the thrust be delivered at full speed, it is easily parried; and, lastly, that in the *mêlée*, when the trooper has not room to use his lance, he will be helpless until he either throws it away or slings it, and can draw his sword. While admitting the last-mentioned objection, those who favour the lance contend that success in the first shock of contact is all-important, and that this success the lancer will certainly obtain, owing to his long reach enabling him to deliver a blow before the swordsman can retaliate, while, when the *mêlée* commences, the rear rank will come to the assistance of the front rank. Further, it is claimed that the power of delivering the first blow gives confidence to the young soldier; that the appearance of a lancer regiment,

preceded as it were by a hedge of steel, has an immense moral effect; that in single combat a lancer, with room to turn, can always defeat an opponent armed with a sword; and, lastly, that in pursuit a lancer is terrible to an enemy, whether the latter be mounted or on foot. As in the case of the perennial argument whether a sword should be designed mainly for cutting or thrusting, it is unlikely that the dispute as to the merits of the lance over the sword will ever be definitely settled, since so many other factors—horsemanship, the training of the horse, the skill and courage of the adversary—determine the trooper's success quite as much as the weapon he happens to wield. The following passage from *Cavalry: its History and Tactics* (London, 1853), by Captain Nolan, explains how the lance gained popularity in Austria:—"In the last Hungarian war (1848-49) the Hungarian Hussars were ... generally successful against the Austrian heavy cavalry—cuirassiers and dragoons; but when they met the Polish Lancers, the finest regiments of light horse in the Austrian service, distinguished for their discipline, good riding, and, above all, for their *esprit de corps* and gallantry in action, against those the Hungarians were not successful, and at once attributed this to the lances of their opponents. The Austrians then extolled the lance above the sword, and armed all their light cavalry regiments with it."

The lancer regiments in the British service are the 5th, the 9th, the 12th, the 16th, the 17th and the 21st. All these were converted at different dates from hussars and light dragoons, the last-named in 1896. The typical lancer uniform is a light-fitting short-skirted tunic with a double-breasted front, called the plastron, of a different colour, a girdle, and a flat-topped lancer "cap," adapted from the Polish czapka (see UNIFORMS: *Naval and Military*). The British lancers, with the exception of the 16th, who wear scarlet with blue facings, are clad in blue, the 5th, 9th and 12th having scarlet facings and green, black and red plumes respectively, the 17th (famous as the "death or glory boys" and wearing a skull and crossbones badge) white facings and white plume, and the 21st light-blue facings and plume.

LANCELOT (Lancelot du Lac, or Lancelot of the Lake), a famous figure in the Arthurian cycle of romances. To the great majority of English readers the name of no knight of King Arthur's court is so familiar as is that of Sir Lancelot. The mention of Arthur and the Round Table at once brings him to mind as the most valiant member of that brotherhood and the secret lover of the Queen. Lancelot, however, is not an original member of the cycle, and the development of his story is still a source of considerable perplexity to the critic.

Briefly summarized, the outline of his career, as given in the German *Lanzelet* and the French prose *Lancelot*, is as follows: Lancelot was the only child of King Ban of Benoic and his queen Helaine. While yet an infant, his father was driven from his kingdom, either by a revolt of his subjects, caused by his own harshness (*Lanzelet*), or by the action of his enemy Claudas de la Deserte (*Lancelot*). King and queen fly, carrying the child with them, and while the wife is tending her husband, who dies of a broken heart on his flight, the infant is carried off by a friendly water-fairy, the Lady of the Lake, who brings the boy up in her mysterious kingdom. In the German poem this is a veritable "Isle of Maidens," where no man ever enters, and where it is perpetual spring. In the prose *Lancelot*, on the other hand, the Lake is but a mirage, and the Lady's court does not lack its complement of gallant knights; moreover the boy has the companionship of his cousins, Lionel and Bohort, who, like himself, have been driven from their kingdom by Claudas. When he reaches the customary age (which appears to be fifteen), the young Lancelot, suitably equipped, is sent out into the world. In both versions his name and parentage are concealed, in the *Lanzelet* he is genuinely ignorant of both; here too his lack of all knightly accomplishments (not unnatural when we remember he has here been brought up entirely by women) and his inability to handle a steed are insisted upon. Here he rides forth in search of what adventure may bring. In the prose *Lancelot* his education is complete, he knows his name and parentage, though for some unexplained reason he keeps both secret, and he goes with a fitting escort and equipment to Arthur's court to demand knighthood. The subsequent adventures differ widely: in the *Lanzelet* he ultimately reconquers his kingdom, and, with his wife Iblis, reigns over it in peace, both living to see their children's children, and dying on the same day, in good old fairy-tale fashion. In fact, the whole of the *Lanzelet* has much more the character of a fairy or folk-tale than that of a knightly romance.

In the prose version, Lancelot, from his first appearance at court, conceives a passion for the queen, who is very considerably his senior, his birth taking place some time after her marriage to Arthur. This infatuation colours all his later career. He frees her from imprisonment in the castle of Meleagant, who has carried her off against her will—(a similar adventure is related in *Lanzelet*, where the abductor is Valerîn, and Lanzelet is not the rescuer)—and, although he recovers his kingdom from Claudas, he prefers to remain a simple knight of Arthur's court, bestowing the lands on his cousins and half-brother Hector. Tricked into a liaison with the Fisher King's daughter Elaine, he becomes the father of Galahad, the Grail winner, and, as a result of the queen's jealous anger at his relations with the lady, goes mad, and remains an exile from the court for some years. He takes part, fruitlessly, in the Grail quest, only being vouchsafed a fleeting glimpse of the sacred Vessel, which, however, is sufficient to cast him into unconsciousness, in which he remains for as many days as he has spent years in sin. Finally, his relations with Guenevere are revealed to Arthur by the sons of King Lot, Gawain, however, taking no part in the disclosure. Surprised together, Lancelot escapes, and the queen is condemned to be burnt alive. As the sentence is about to be carried into execution Lancelot and his kinsmen come to her rescue, but in the fight that ensues many of Arthur's knights, including three of Gawain's brothers, are slain. Thus converted into an enemy, Gawain urges his uncle to make war on Lancelot, and there follows a desperate struggle between Arthur and the race of Ban. This is interrupted by the tidings of Mordred's treachery, and Lancelot, taking no part in the last fatal conflict, outlives both king and queen, and the downfall of the Round Table. Finally, retiring to a hermitage, he ends his days in the odour of sanctity.

The process whereby the independent hero of the *Lanzelet* (who, though his mother is Arthur's sister, has but the slightest connexion with the British king), the faithful husband of Iblis, became converted into the principal ornament of Arthur's court, and the devoted lover of the queen, is by no means easy to follow, nor do other works of the cycle explain the transformation. In the pseudo-chronicles, the *Historia* of Geoffrey and the

translations by Wace and Layamon, Lancelot does not appear at all; the queen's lover, whose guilty passion is fully returned, is Mordred. Chrétien de Troyes' treatment of him is contradictory; in the *Erec*, his earliest extant poem, Lancelot's name appears as third on the list of the knights of Arthur's court. (It is well, however, to bear in mind the possibility of later addition or alteration in such lists.) In *Cligés* he again ranks as third, being overthrown by the hero of the poem. In *Le Chevalier de la Charrette*, however, which followed *Cligés*, we find Lancelot alike as leading knight of the court and lover of the queen, in fact, precisely in the position he occupies in the prose romance, where, indeed, the section dealing with this adventure is, as Gaston Paris clearly proved, an almost literal adaptation of Chrétien's poem. The subject of the poem is the rescue of the queen from her abductor Meleagant; and what makes the matter more perplexing is that Chrétien handles the situation as one with which his hearers are already familiar; it is Lancelot, and not Arthur or another, to whom the office of rescuer naturally belongs. After this it is surprising to find that in his next poem, *Le Chevalier au Lion*, Lancelot is once, and only once, casually referred to, and that in a passing reference to his rescue of the queen. In the *Perceval*, Chrétien's last work, he does not appear at all, and yet much of the action passes at Arthur's court.

In the continuations added at various times to Chrétien's unfinished work the rôle assigned to Lancelot is equally modest. Among the fifteen knights selected by Arthur to accompany him to Chastel Orguellous he only ranks ninth. In the version of the *Luite Tristran* inserted by Gerbert in his *Perceval*, he is publicly overthrown and shamed by Tristan. Nowhere is he treated with anything approaching the importance assigned to him in the prose versions. Welsh tradition does not know him; early Italian records, which have preserved the names of Arthur and Gawain, have no reference to Lancelot; among the group of Arthurian knights figured on the architrave of the north doorway of Modena cathedral (a work of the 12th century) he finds no place; the real cause for his apparently sudden and triumphant rise to popularity is extremely difficult to determine. What appears the most probable solution is that which regards Lancelot as the hero of an independent and widely diffused folk-tale, which, owing to certain special circumstances, was brought into contact with, and incorporated in, the Arthurian tradition. This much has been proved certain of the adventures recounted in the *Lanzelet*; the theft of an infant by a water-fairy; the appearance of the hero three consecutive days, in three different disguises, at a tournament; the rescue of a queen, or princess, from an Other-World prison, all belong to one well-known and widely-spread folk-tale, variants of which are found in almost every land, and of which numerous examples have been collected alike by M. Cosquin in his *Contes Lorrains*, and by Mr J. F. Campbell in his *Tales of the West Highlands*.

The story of the loves of Lancelot and Guenevere, as related by Chrétien, has about it nothing spontaneous and genuine; in no way can it be compared with the story of Tristan and Iseult. It is the exposition of a relation governed by artificial and arbitrary rules, to which the principal actors in the drama must perforce conform. Chrétien states that he composed the poem (which he left to be completed by Godefroi de Leigni) at the request of the countess Marie of Champagne, who provided him with *matière et san*. Marie was the daughter of Louis VII. of France and of Eleanor of Aquitaine, subsequently wife of Henry II. of Anjou and England. It is a matter of history that both mother and daughter were active agents in fostering that view of the social relations of the sexes which found its most famous expression in the "Courts of Love," and which was responsible for the dictum that love between husband and wife was impossible. The logical conclusion appears to be that the *Charrette* poem is a "*Tendenz-Schrift*," composed under certain special conditions, in response to a special demand. The story of *Tristan and Iseult*, immensely popular as it was, was too genuine—(shall we say too crude?)—to satisfy the taste of the court for which Chrétien was writing. Moreover, the Arthurian story was the popular story of the day, and Tristan did not belong to the magic circle, though he was ultimately introduced, somewhat clumsily, it must be admitted, within its bounds. The Arthurian cycle must have its own love-tale; Guenevere, the leading lady of that cycle, could not be behind the courtly ladies of the day and lack a lover; one had to be found for her. Lancelot, already popular hero of a tale in which an adventure parallel to that of the *Charrette* figured prominently, was pressed into the service, Modred, Guenevere's earlier lover, being too unsympathetic a character; moreover, Modred was required for the final rôle of traitor.

But to whom is the story to be assigned? Here we must distinguish between the *Lancelot* proper and the *Lancelot-Guenevere* versions; so far as the latter are concerned, we cannot get behind the version of Chrétien, —nowhere, prior to the composition of the *Chevalier de la Charrette* is there any evidence of the existence of such a story. Yet Chrétien does not claim to have invented the situation. Did it spring from the fertile brain of some court lady, Marie, or another? The authorship of the *Lancelot* proper, on the other hand, is invariably ascribed to Walter Map (see Map), the chancellor of Henry II., but so also are the majority of the Arthurian prose Romances. The trend of modern critical opinion is towards accepting Map as the author of a *Lancelot* romance, which formed the basis for later developments, and there is a growing tendency to identify this hypothetical original *Lancelot* with the source of the German *Lanzelet*. The author, Ulrich von Zatzikhoven, tells us that he translated his poem from a French (*welsches*) book in the possession of Hugo de Morville, one of the English hostages, who, in 1194, replaced Richard Cœur de Lion in the prison of Leopold of Austria. Further evidence on the point is, unfortunately, not at present forthcoming. To the student of the original texts Lancelot is an infinitely less interesting hero than Gawain, Perceval or Tristan, each of whom possesses a well-marked personality, and is the centre of what we may call individual adventures. Saving and excepting the incident of his being stolen and brought up by a water-fairy (from a *Lai* relating which adventure the whole story probably started), there is absolutely nothing in Lancelot's character or career to distinguish him from any other romantic hero of the period. The language of the prose *Lancelot* is good, easy and graceful, but the adventures lack originality and interest, and the situations repeat themselves in a most wearisome manner. English readers, who know the story only through the medium of Malory's noble prose and Tennyson's melodious verse, carry away an impression entirely foreign to that produced by a study of the original literature. The *Lancelot* story, in its rise and development, belongs exclusively to the later stage of Arthurian romance; it was a story for the court, not for the folk, and it lacks alike the dramatic force and human appeal of the genuine "popular" tale.

The prose *Lancelot* was frequently printed; J. C. Brunet chronicles editions of 1488, 1494, 1513, 1520 and 1533—of this last date there are two, one published by Jehan Petit, the other by Philippe Lenoire, this last by far the better, being printed from a much fuller manuscript. There is no critical edition, and the only version available for the general reader is the modernized and abridged text published by Paulin Paris in vols. iii. to v. of *Romans de la Table Ronde*. A Dutch verse translation of the 13th century was published by M. W. J. A.

Jonckbloet in 1850, under the title of *Roman van Lanceloet*. This only begins with what Paulin Paris terms the *Agravain* section, all the part previous to Guenevere's rescue from Meleagant having been lost; but the text is an excellent one, agreeing closely with the Lenoire edition of 1533. The Books devoted by Malory to Lancelot are also drawn from this latter section of the romance; there is no sign that the English translator had any of the earlier part before him. Malory's version of the *Charrette* adventure differs in many respects from any other extant form, and the source of this special section of his work is still a question of debate among scholars. The text at his disposal, especially in the *Queste* section, must have been closely akin to that used by the Dutch translator and the compiler of Lenoire, 1533. Unfortunately, Dr Sommer, in his study on the *Sources of Malory*, omitted to consult these texts, with the result that the sections dealing with *Lancelot* and *Queste* urgently require revision.

BIBLIOGRAPHY.—*Lanzelet* (ed. Hahn, 1845, out of print and extremely difficult to obtain). Chrétien's poem has been published by Professor Wendelin Foerster, in his edition of the works of that poet, *Der Karrenritter* (1899). A Dutch version of a short episodic poem, *Lancelot et le cerf au pied blanc* will be found in M. Jonckbloet's volume, and a discussion of this and other *Lancelot* poems, by Gaston Paris, is contained in vol. xxx. of *Histoire littéraire de la France*. For critical studies on the subject cf. Gaston Paris's articles in *Romania*, vols. x. and xii.; Wechssler, *Die verschiedenen Redaktionen des Graal-Lancelot Cyklus*; J. L. Weston, *The Legend of Sir Lancelot du Lac* (Grimm Library, vol. xii.); and *The Three Days' Tournament* (Grimm Library, vol. xv.) an appendix to the (J. L. W.) previous vol.

LANCET (from Fr. *lancette*, dim. of *lance*, lance), the name given to a surgical instrument, with a narrow two-edged blade and a lance-shaped point, used for opening abscesses, &c. The term is applied, in architecture, to a form of the pointed arch, and to a window of which the head is a lancet-arch.

LANCEWOOD, a straight-grained, tough, light elastic wood obtained from the West Indies and Guiana. It is brought into commerce in the form of taper poles of about 20 ft. in length and from 6 to 8 in. in diameter at the thickest end. Lancewood is used by carriage-builders for shafts; but since the practice of employing curved shafts has come largely into use it is not in so great demand as formerly. The smaller wood is used for whip-handles, for the tops of fishing-rods, and for various minor purposes where even-grained elastic wood is a desideratum. The wood is obtained from two members of the natural order Anonaceae. The black lancewood or carisiri of Guiana (*Guatteria virgata*) grows to a height of 50 ft., is of remarkably slender form, and seldom yields wood more than 8 in. diameter. The yellow lancewood tree (*Duguetia quitarensis*, yari-yari, of Guiana) is of similar dimensions, found in tolerable abundance throughout Guiana, and used by the Indians for arrow-points, as well as for spars, beams, &c.

LAN-CHOW-FU, the chief town of the Chinese province of Kan-suh, and one of the most important cities of the interior part of the empire, on the right bank of the Hwang-ho. The population is estimated at 175,000. The houses, with very few exceptions, are built of wood, but the streets are paved with blocks of granite and marble. Silks, wood-carvings, silver and jade ornaments, tin and copper wares, fruits and tobacco are the chief articles of the local trade. Tobacco is very extensively cultivated in the vicinity.

LANCIANO (anc. *Anxanum*), a town and episcopal see of the Abruzzi, Italy, in the province of Chieti, situated on three hills, 984 ft. above sea-level, about 8 m. from the Adriatic coast and 12 m. S.E. of Chieti. Pop. (1901) 7642 (town), 18,316 (commune). It has a railway station on the coast railway, 19 m. S.E. of Castellammare Adriatico. It has broad, regular streets, and several fine buildings. The cathedral, an imposing structure with a fine clock-tower of 1619, is built upon bridges of brickwork, dating perhaps from the Roman period (though the inscription attributing the work to Diocletian is a forgery), that span the gorge of the Feltrino, and is dedicated to S. Maria del Ponte, Our Lady of the Bridge. The Gothic church of S. Maria Maggiore dates from 1227 and has a fine façade, with a portal of 1317 by a local sculptor. The processional cross by the silversmith Nicola di Guardiagrele (1422) is very beautiful. In S. Nicola is a fine reliquary of 1445 by Nicola di Francavilla. The church of the Annunziata has a good rose window of 1362. The industries of the

town, famous in the middle ages, have declined. Anxanum belonged originally to the tribe of the Frentani and later became a *municipium*. It lay on the ancient highroad, which abandoned the coast at Ortona 10 m. to the N. and returned to it at Histonium (Vasto). Remains of a Roman theatre exist under the bishop's palace.

See V. Bindi, *Monumenti degli Abruzzi* (Naples, 1889, 690 sqq.), and for discoveries in the neighbourhood see A. de Nino in *Notizie degli scavi* (1884), 431.

(T. As.)

LANCRET, NICOLAS (1660-1743), French painter, was born in Paris on the 22nd of January 1660, and became a brilliant depicter of light comedy which reflected the tastes and manners of French society under the regent Orleans. His first master was Pierre d'Ulin, but his acquaintance with and admiration for Watteau induced him to leave d'Ulin for Gillot, whose pupil Watteau had been. Two pictures painted by Lancret and exhibited on the Place Dauphine had a great success, which laid the foundation of his fortune, and, it is said, estranged Watteau, who had been complimented as their author. Lancret's work cannot now, however, be taken for that of Watteau, for both in drawing and in painting his touch, although intelligent, is dry, hard and wanting in that quality which distinguished his great model; these characteristics are due possibly in part to the fact that he had been for some time in training under an engraver. The number of his paintings (of which over eighty have been engraved) is immense; he executed a few portraits and attempted historical composition, but his favourite subjects were balls, fairs, village weddings, &c. The British Museum possesses an admirable series of studies by Lancret in red chalk, and the National Gallery, London, shows four paintings—the "Four Ages of Man" (engraved by Desplaces and l'Armessin), cited by d'Argenville amongst the principal works of Lancret. In 1719 he was received as Academician, and became councillor in 1735; in 1741 he married a grandchild of Boursault, author of *Aesop at Court*. He died on the 14th of September 1743.

See d'Argenville, *Vies des peintres*; and Ballot de Sovot, *Éloge de M. Lancret* (1743, new ed. 1874).

LAND, the general term for that part of the earth's surface which is solid and dry as opposed to sea or water. The word is common to Teutonic languages, mainly in the same form and with essentially the same meaning. The Celtic cognate forms are Irish *lann*, Welsh *llan*, an enclosure, also in the sense of "church," and so of constant occurrence in Welsh place-names, Cornish *lan* and Breton *lann*, health, which has given the French *lande*, an expanse or tract of sandy waste ground. The ultimate root is unknown. From its primary meaning have developed naturally the various uses of the word, for a tract of ground or country viewed either as a political, geographical or ethnographical division of the earth, as property owned by the public or state or by a private individual, or as the rural as opposed to the urban or the cultivated as opposed to the built on part of the country; of particular meanings may be mentioned that of a building divided into tenements or flats, the divisions being known as "houses," a Scottish usage, and also that of a division of a ploughed field marked by the irrigating channels, hence transferred to the smooth parts of the bore of a rifle between the grooves of the rifling.

For the physical geography of the land, as the solid portion of the earth's surface, see GEOGRAPHY. For land as the subject of cultivation see AGRICULTURE and SOIL, also RECLAMATION OF LAND. For the history of the holding or tenure of land see VILLAGE COMMUNITIES and FEUDALISM; a particular form of land tenure is dealt with under MÉTAYAGE. The article AGRARIAN LAWS deals with the disposal of the public land (*Ager publicus*) in Ancient Rome, and further information with regard to the part played by the land question in Roman history will be found under ROME: § *History*. The legal side of the private ownership of land is treated under REAL PROPERTY and CONVEYANCING (see also LANDLORD AND TENANT, and LAND REGISTRATION).

LANDAU, a town in the Bavarian Palatinate, on the Queich, lying under the eastern slope of the Hardt Mountains, 32 m. by rail S.W. from Mannheim, at the junction of lines to Neustadt an der Hardt, Weissenburg and Saarbrücken. Pop. (1905) 17,165. Among its buildings are the Gothic Evangelical church, dating from 1285; the chapel of St Catherine built in 1344; the church of the former Augustinian monastery, dating from 1405; and the Augustinian monastery itself, founded in 1276 and now converted into a brewery. There are manufactures of cigars, beer, hats, watches, furniture and machines, and a trade in wine, fruit and cereals. Large cattle-markets are held here. Landau was founded in 1224, becoming an imperial city fifty years later. This dignity was soon lost, as in 1317 it passed to the bishopric of Spires and in 1331 to the Palatinate, recovering its former position in 1511. Captured eight times during the Thirty Years' War the town was ceded to France by the treaty of Westphalia in 1648, although with certain ill-defined reservations. In 1679 Louis XIV. definitely took possession of Landau. Its fortifications were greatly strengthened; nevertheless it was twice taken by the Imperialists and twice recovered by the French during the Spanish Succession War. In 1815 it was given to Austria and in the following year to Bavaria. The fortifications were finally dismantled in 1871.

The town is commonly supposed to have given its name to the four-wheeled carriage, with an adjustable divided top for use either open or closed, known as a “landau” (Ger. *Landauer*). But this derivation is doubtful, the origin of the name being also ascribed to that of an English carriage-builder, Landow, who introduced this form of equipage.

See E. Heuser, *Die Belagerungen von Landau in den Jahren 1702 und 1703* (Landau, 1894); Lehmann, *Geschichte der ehemaligen freien Reichsstadt Landau* (1851); and Jost, *Interessante Daten aus der 600 jährigen Geschichte der Stadt Landau* (Landau, 1879).

LANDECK, a town and spa in the Prussian province of Silesia, on the Biele, 73 m. by rail S. of Breslau and close to the Austrian frontier. Pop. (1905) 3,481. It is situated at an altitude of 1400 ft. It has manufactures of gloves. Landeck is visited by nearly 10,000 people annually on account of its warm sulphur baths, which have been known since the 13th century. In the neighbourhood are the ruins of the castle of Karpenstein.

See Langner, *Bad Landeck* (Glatz, 1872); Schütze, *Die Thermen von Landeck* (Berlin, 1895); Wehse, *Bad Landeck* (Breslau, 1886); Joseph, *Die Thermen von Landeck* (Berlin, 1887), and Patschovsky, *Führer durch Bad Landeck und Umgebung* (Schweidnitz, 1902).

LANDEN, JOHN (1719-1790), English mathematician, was born at Peakirk near Peterborough in Northamptonshire on the 23rd of January 1719, and died on the 15th of January 1790 at Milton in the same county. He lived a very retired life, and saw little or nothing of society; when he did mingle in it, his dogmatism and pugnacity caused him to be generally shunned. In 1762 he was appointed agent to the Earl Fitzwilliam, and held that office to within two years of his death. He was first known as a mathematician by his essays in the *Ladies’ Diary* for 1744. In 1766 he was elected a fellow of the Royal Society. He was well acquainted with the works of the mathematicians of his own time, and has been called the “English d’Alembert.” In his *Discourse* on the “Residual Analysis,” he proposes to avoid the metaphysical difficulties of the method of fluxions by a purely algebraical method. The idea may be compared with that of Joseph Louis Lagrange’s *Calcul des Fonctions*. His memoir (1775) on the rotatory motion of a body contains (as the author was aware) conclusions at variance with those arrived at by Jean le Rond, d’Alembert and Leonhard Euler in their researches on the same subject. He reproduces and further develops and defends his own views in his *Mathematical Memoirs*, and in his paper in the *Philosophical Transactions* for 1785. But Landen’s capital discovery is that of the theorem known by his name (obtained in its complete form in the memoir of 1775, and reproduced in the first volume of the *Mathematical Memoirs*) for the expression of the arc of an hyperbola in terms of two elliptic arcs. His researches on elliptic functions are of considerable elegance, but their great merit lies in the stimulating effect which they had on later mathematicians. He also showed that the roots of a cubic equation can be derived by means of the infinitesimal calculus.

The list of his writings is as follows:—*Ladies’ Diary*, various communications (1744-1760); papers in the *Phil. Trans.* (1754, 1760, 1768, 1771, 1775, 1777, 1785); *Mathematical Lucubrations* (1755); *A Discourse concerning the Residual Analysis* (1758); *The Residual Analysis*, book i. (1764); *Animadversions on Dr Stewart’s Method of computing the Sun’s Distance from the Earth* (1771); *Mathematical Memoirs* (1780, 1789).

LANDEN, a town in the province of Liége, Belgium, an important junction for lines of railway from Limburg, Liége and Louvain. Pop. (1904) 2874. It is the birthplace of the first Pippin, distinguished as Pippin of Landen from his grandson Pippin of Herstal. In 1693 the French under Marshal Luxemburg defeated here the Anglo-Dutch army under William III. This battle is also called Neerwinden from a village 3 m. W. of Landen. Here in 1793 the Austrians under Frederick of Saxe-Coburg and Clerfayt defeated the French under Dumouriez.

LANDER, RICHARD LEMON (1804-1834) and JOHN (1807-1839), English explorers of the Niger, were natives of Cornwall, sons of an innkeeper at Truro. At the age of eleven Richard went to the West Indies in the service of a merchant. Returning to England after an absence of three years he took service with

various wealthy families, with whom he travelled on the continent. In 1823-1824 he accompanied Major (afterwards General Sir) W. M. Colebrooke, on a tour through Cape Colony. In 1825 Richard offered his services to Hugh Clapperton, then preparing for his second expedition to West Africa. He was Clapperton's devoted servant and companion in this expedition, and on Clapperton's death near Sokoto in April 1827 Richard Lander, after visiting Kano and other parts of the Hausa states, returned to the Guinea coast through Yoruba bringing with him Clapperton's journal. To this on its publication (1829) was added *The Journal of Richard Lander from Kano to the Coast*, and in the next year Lander published another account of the expedition entitled *Records of Captain Clapperton's Last Expedition to Africa ... with the subsequent Adventures of the Author*. To this narrative he prefixed an autobiographical note. Richard Lander, though without any scientific attainments, had exhibited such capacity for exploration that the British government decided to send him out to determine the course of the lower Niger. In the expedition he was accompanied by his brother John, by trade a printer, and better educated than Richard, who went as an unsalaried volunteer. Leaving England in January 1830, the brothers landed at Badagry on the Guinea coast on the 22nd of March. They then travelled by the route previously taken by Clapperton to Bussa on the right bank of the Niger, reached on the 17th of June. Thence they ascended the river for about 100 m. Going back to Bussa the travellers began, on the 20th of September, the descent of the river, not knowing whither it would lead them. They journeyed in canoes accompanied by a few negroes, their only scientific instrument a common compass. They discovered the Benue river, ascertaining when passing its confluence, by paddling against its stream, that their course was not in that direction. At the beginning of the delta they were captured by the Ibos, from whom they were ransomed by "King Boy" of Brass Town; by him they were taken to the Nun mouth of the river, whence a passage was obtained to Fernando Po, reached on the 1st of December. The Landers were thus able to lay down with approximate correctness the lower course of the Niger—a matter till then as much in dispute as was the question of the Nile sources. In the attack by the Ibos the Landers lost many of their records, but they published a narrative of their discoveries in 1832, in three small volumes—*Journal of an Expedition to Explore the Course and Termination of the Niger*. In recognition of his services the Royal Geographical Society —formed two years previously—granted Richard Lander in 1832 the royal medal, he being the first recipient of such an award. In the same year Richard went to Africa again as leader of an expedition organized by Macgregor Laird and other Liverpool merchants to open up trade on the Niger and to found a commercial settlement at the junction of the Benue with the main stream. The expedition encountered many difficulties, suffered great mortality from fever, and was not able to reach Bussa. Lander made several journeys up and down stream, and while going up the river in a canoe was attacked by the natives on the 20th of January 1834 at a spot about 84 m. above the Nun mouth, and wounded by a musket ball in the thigh. He was removed to Fernando Po, where he died on the 6th of February. John Lander, who on his return to England in 1831 obtained a situation at the London customs house, died on the 16th of November 1839 of a disease contracted in Africa.

See, besides the books mentioned, the *Narrative* of the Niger expedition of 1832-1834, published in 1837 by Macgregor Laird and R. A. K. Oldfield.

LANDES, a department in the south-west of France, formed in 1790 of portions of the ancient provinces of Guyenne (Landes, Condomios Chalosse), Gascony and Béarn, and bounded N. by Gironde, E. by Lot-et-Garonne and Gers, S. by Basses Pyrenées, and W. (for 68 m.) by the Bay of Biscay. Pop. (1906) 293,397. Its area, 3615 sq. m., is second only to that of the department of Gironde. The department takes its name from the *Landes*, which occupy three-quarters of its surface, or practically the whole region north of the Adour, the chief river of the department. They are separated from the sea by a belt of dunes fringed on the east by a chain of lakes. South of the Adour lies the Chalosse—a hilly region, intersected by the Gabas, Luy and Gave de Pau, left-hand tributaries of the Adour, which descend from the Pyrenees. On the right the Adour is joined by the Midouze, formed by the junction of the Douze and the Midou. The climate of Landes is the Girondine, which prevails from the Loire to the Pyrenees. Snow is almost unknown, the spring is rainy, the summer warm and stormy. The prevailing wind is the south-west, and the mean temperature of the year is 53° F., the thermometer hardly ever rising above 82° or falling below 14°. The annual rainfall in the south of the department in the neighbourhood of the sea reaches 55 in., but diminishes by more than half towards the north-east.

The fertility of La Chalosse is counterbalanced by the comparative poorness of the soil of the Landes, and small though the population is, the department does not produce wheat enough for its own consumption. The chief cereal is maize; next in importance are rye, wheat and millet. Of vegetables, the bean is most cultivated. The vine is grown in the Chalosse, sheep are numerous, and the "Landes" breed of horses is well known. Forests, chiefly composed of pines, occupy more than half the department, and their exploitation forms the chief industry. The resin of the maritime pine furnishes by distillation essence of turpentine, and from the residue are obtained various qualities of resin, which serve to make varnish, tapers, sealing-wax and lubricants. Tar, and an excellent charcoal for smelting purposes, are also obtained from the pine-wood. The department has several mineral springs, the most important being those of Dax, which were frequented in the time of the Romans, and of Eugénie-les-Bains and Préchacq. The cultivation of the cork tree is also important. There are salt-workings and stone quarries. There are several iron-works in the department; those at Le Boucau, at the mouth of the Adour, are the most important. There are also saw-mills, distilleries, flour-mills, brick and tile works and potteries. Exports include resinous products, pine-timber, metal, brandy; leading imports are grain, coal, iron, millinery and furniture. In its long extent of coast the department has no considerable port. Opposite Cape Breton, however, where the Adour formerly entered the sea, there is, close to land, a deep channel where there is safe anchorage. It was from this once important harbour of Capbreton that the discoverers of the Canadian island of that name set out. Landes includes three arrondissements (Mont-de-Marsan, Dax and St Sever), 28 cantons and 334 communes.

Mont-de-Marsan is the capital of the department, which comes within the circumscription of the appeal court of Pau, the académie (educational division) of Bordeaux and the archbishopric of Auch, and forms part of the region of the 18th army corps. It is served by the Southern railway; there is some navigation on the Adour, but that upon the other rivers is of little importance. Mont-de-Marsan, Dax, St Sever and Aire-sur-l'Adour, the most noteworthy towns, receive separate notice. Hagetmau has a church built over a Romanesque crypt, the roof of which is supported on columns with elaborately-carved capitals. Sorde has an interesting abbey-church of the 13th and 14th centuries.

LANDES, an extensive natural region of south-western France, known more strictly as the Landes de Gascogne. It has an area of 5400 sq. m., and occupies three-quarters of the department of Landes, half of that of Gironde, and some 175,000 acres of Lot-et-Garonne. The Landes, formerly a vast tract of moorland and marsh, now consist chiefly of fields and forests of pines. They form a plateau, shaped like a triangle, the base of which is the Atlantic coast while the apex is situated slightly west of Nérac (Lot-et-Garonne). Its limits are, on the S. the river Adour; on the E. the hills of Armagnac, Eauzan, Condomois, Agenais and Bazadais; and on the N.E. the Garonne, the hills of Médoc and the Gironde. The height of the plateau ranges in general from 130 to 260 ft.; the highest altitude (498 ft.) is found in the east near Baudignan (department of Landes), from which point there is a gradual slope towards north, south, east and west. The soil is naturally sterile. It is composed of fine sand resting on a subsoil of tufa (*alios*) impermeable by water; for three-quarters of the year, consequently, the waters, settling on the almost level surface and unable to filter through, used to transform the country into unwholesome swamps, which the Landesats could only traverse on stilts. About the middle of the 18th century an engineer, François Chambrelent, instituted a scheme of draining and planting to remedy these evils. As a result about 1600 m. of ditches have been dug which carry off superficial water either to streams or to the lakes which fringe the landes on the west, and over 1,600,000 acres have been planted with maritime pines and oaks. The coast, for a breadth of about 4 m., and over an area of about 225,000 acres, is bordered by dunes, in ranges parallel to the shore, and from 100 to 300 ft. in height. Driven by the west wind, which is most frequent in these parts, the dunes were slowly advancing year by year towards the east, burying the cultivated lands and even the houses. Nicolas Thomas Brémontier, towards the end of the 18th century, devised the plan of arresting this scourge by planting the dunes with maritime pines. Upwards of 210,000 acres have been thus treated. In the south-west, cork trees take the place of the pines. To prevent the formation of fresh dunes, a "dune littorale" has been formed by means of a palisade. This barrier, from 20 to 30 ft. high, presents an obstacle which the sand cannot cross. On the eastern side of the dunes is a series of lakes (Hourtin et Carcans, Lacanau, Cazau or Sanguinet, Biscarrosse, Aureilhan, St Julien, Léon and Soustons) separated from the sea by the heaping up of the sand. The salt water has escaped by defiltration, and they are now quite fresh. The Basin of Arcachon, which lies midway between the lakes of Lacanau and Cazau, still communicates with the ocean, the current of the Leyre which flows into it having sufficient force to keep a passage open.

LANDESHUT, a town in the Prussian province of Silesia, at the north foot of the Riesengebirge, and on the river Bober, 65 m. S.W. of Breslau by rail. Pop. (1905) 9000. Its main industries are flax-spinning, linen-weaving and manufactures of cloth, shoes and beer. The town dates from the 13th century, being originally a fortress built for protection against the Bohemians. There the Prussians defeated the Austrians in May 1745, and in June 1760 the Prussians were routed by a greatly superior force of Austrians.

See Perschke, *Beschreibung und Geschichte der Stadt Landeshut* (Breslau, 1829).

LANDGRAVE (Ger. *Landgraf*, from *Land*, "a country" and *Graf*, "count"), a German title of nobility surviving from the times of the Holy Roman Empire. It originally signified a count of more than usual power or dignity, and in some cases implied sovereignty. The title is now rare; it is borne by the former sovereign of Hesse-Homburg, now incorporated in Prussia, the heads of the various branches of the house of Hesse, and by a branch of the family of Fürstenberg. In other cases the title of landgrave is borne by German sovereigns as a subsidiary title; *e.g.* the grand-duke of Saxe-Weimar is landgrave of Thuringia.

LANDLORD AND TENANT. In *Roman Law*, the relationship of landlord and tenant arose from the contract of letting and hiring (*locatio conductio*), and existed also with special incidents, under the forms of tenure known as *emphyteusis*—the long lease of Roman law—and *precarium*, or tenancy at will (see Roman Law).

Law of England.—The law of England—and the laws of Scotland and Ireland agree with it on this point—recognizes no absolute private ownership of land. The absolute and ultimate owner of all land is the crown, and the highest interest that a subject can hold therein—viz. an estate in fee simple—is only a tenancy. But this aspect of the law, under which the landlord, other than the crown, is himself always a tenant, falls beyond the scope of the present article, which is restricted to those holdings that arise from the hiring and leasing of land.

The legal relationship of landlord and tenant is constituted by a lease, or an agreement for a lease, by assignment, by attornment and by estoppel. And first of a lease and an agreement for a lease. All kinds of interests and property, whether corporeal, such as lands or buildings, or incorporeal, such as rights of common or of way, may be let. The Benefices Act 1898, however, now prohibits the grant of a lease of an advowson. Titles of honour, offices of trust or relating to the administration of justice, and pensions granted by the crown for military services are also inalienable. Generally speaking, any person may grant or take a lease. But there are a number of common-law and statutory qualifications and exceptions. A lease by or to an infant is voidable at his option. But extensive powers of leasing the property of infants have been created by the Settled Estates Act 1877 and the Settled Land Act 1882. A person of unsound mind can grant or take a lease if he is capable of contracting. Leases may be made on behalf of lunatics subject to the jurisdiction in lunacy under the provisions of the Lunacy Act 1890 and the Settled Land Act 1882. A married woman can lease her "separate property" apart from or under the Married Women's Property Acts, as if she were a single woman (*feme sole*). As regards other property, the concurrence of her husband is generally necessary. An alien was, at common law, incapable of being either a lessor or a lessee. But this disqualification is removed by the Naturalization Act 1870. The right to deal with the property of a convict while he is undergoing sentence (but not while he is out of prison on leave) is, by the Forfeiture Act 1870, vested in his administrator. Leases by or to corporations must be by deed under their common seal, and the leasing powers of ecclesiastical corporations in particular are subject to complicated statutory restrictions which cannot here be examined (see Phillimore, *Eccl. Law*, 2nd ed., p. 1281). Powers of granting building and other leases have been conferred by modern legislation on municipal corporations and other local authorities.

Leases.

A person having an interest in land can, in general, create a valid interest only to the extent of that interest. Thus a tenant for years, or even from year to year only, may stand in his turn as landlord to another tenant. If he profess, however, to create a tenancy for a period longer than that to which his own interest extends, he does not thereby give to his tenant an interest available against the reversioner or remainder man. The subtenant's interest will expire with the interest of the person who created it. But as between the subtenant and his immediate lessor the subtenancy will be good, and should the interest of the lessor become greater than it was when the subtenancy was created the subtenant will have the benefit of it. On his side, again, the subtenant, by accepting that position, is estopped from denying that his lessor's title (whatever it be) is good. There are also special rules of law with reference to leases by persons having only a limited interest in the property leased, *e.g.* a tenant for life under the Settled Land Acts, or a mortgagor or mortgagee.

The Letting.—To constitute the relationship of landlord and tenant in the mode under consideration, it is necessary not only that there should be parties capable of entering into the contract, but that there should be a letting, as distinct from a mere agreement to let, and that the right conveyed should be a right to the exclusive possession of the subject of the letting and not a simple licence to use it. Whether a particular instrument is a lease, or an agreement for a lease, or a bare licence, is a question the answer to which depends to a large extent on the circumstances of individual cases; and the only general rule is that in a lease there must be an expression of intention on the part of the lessor to convey, and of the lessee to accept, the exclusive possession of the thing let for the prescribed term and on the prescribed conditions. The landlord must not part with the whole of his interest, since, if he does so, the instrument is not a lease but an assignment. Where a tenant enters under an agreement for a lease and pays rent, the agreement will be regarded as a lease from year to year; and if the agreement is one of which specific performance would be decreed (*i.e.* if it contains a complete contract between the parties and satisfies the provisions—to be noted immediately—of the Statute of Frauds, and if, in all the circumstances, its enforcement is just and equitable), the lessee is treated as having a lease for the term fixed in the agreement from the time that he took possession under it, just as if a valid lease had been executed. At common law a lease for a term of years (other than a lease by a corporation) might be made by parol. But under the Statute of Frauds (1677, ss., 1, 2) leases, except those the term of which does not exceed three years, and in which the reserved rent is equal to two-thirds at least of the improved value of the premises, were required to be in writing signed by the parties or their lawfully authorized agents; and, under the Real Property Act 1845, a lease required by law to be in writing is void unless made by deed. The Statute of Frauds also prohibits an action from being brought upon any agreement for a lease, for any term, unless such agreement is in writing and signed by the party to be charged therewith or by some agent lawfully authorized by him.

Forms of Tenancy.—The following are the principal forms of tenancy: (i.) *Tenancy for Life.*—A lease for life must be made by deed, and the term may be the life of the lessee and the life or lives of some other person or persons, and in the latter case either for their joint lives or for the life of the survivor; also for the lives of the lessee himself and of some other person or persons, and this constitutes a single estate. A tenant for life under a settlement has extensive powers of leasing under the Settled Land Act 1882. He may lease the settled land, or any part of it, for any time not exceeding (*a*) in the case of a building lease, 99 years; (*b*) in the case of a mining lease, 60 years, (*c*) in the case of any other lease, 21 years. He may also grant either a lease of the surface of settled land, reserving the mines and minerals, or a lease of the minerals without the surface. A lease under the Settled Land Act 1882 must be by deed and must be made to take effect in possession not later than 12 months after its date; the best rent that can reasonably be obtained must be reserved and the lease must contain a covenant by the lessee for payment of the rent, and a condition of re-entry on non-payment within a specified time not exceeding 30 days, (ii.) *Tenancy for Years, i.e.* for a term of years.—This tenancy is created by an express contract between the parties and never by implication, as in the case of tenancy from year to year and tenancy at will. Here the tenancy ends on the expiry of the prescribed term, without notice to quit or any other

formality. (iii.) *Tenancy from Year to Year.*—This tenancy may be created by express agreement between the parties, or by implication as, *e.g.* where a person enters and pays rent under a lease for years, void either by law or by statute, or without any actual lease or agreement, or holds over after the determination of a lease whether for years or otherwise. In the absence of express agreement or custom or statutory provision (such as is made by the Agricultural Holdings Act 1883), a tenancy from year to year is determinable on half a year's notice expiring at the end of some current year of the tenancy. Where there is no express stipulation creating a yearly tenancy, if the parties have contracted that the tenant may be dispossessed by a notice given at any time, effect will be given to this provision. The common law doctrine of a six months' notice being required to terminate a tenancy from year to year of a corporeal hereditament, does not apply to an incorporeal hereditament such as a right to shoot. (iv.) *Tenancies for Shorter Periods.*—Closely associated with tenancies from year to year are various other tenancies for shorter periods than a year—weekly, monthly or quarterly. Questions of considerable importance frequently arise as to the notice necessary to terminate tenancies of this character. The issue is one of fact; the date at which the rent is payable is a material circumstance, but it may be said generally that a week's notice should be given to determine a weekly tenancy, a month's to determine a monthly tenancy, and a quarter's to determine a quarterly tenancy. It is chiefly in connexion with the letting of lodgings, flats, &c., that tenancies of this class arise (see Flats, Lodger and Lodgings). (v.) *Tenancy at Will.*—A tenancy at will is one which endures at the will of the parties only, *i.e.* at the will of both, for if a demise be made to hold at the will of the lessor, the law implies that it is at the will of the lessee also and vice versa. Any signification of a desire to terminate the tenancy, whether expressed as "notice" or not, will bring it to an end. This form of tenancy, like tenancy from year to year, may be treated either by express contract or by implication, as where premises are occupied with the consent of the owner, but without any express or implied agreement as to the duration of the tenancy, or where a house is lent rent free by one person to another. A tenancy at will is determined by either party alienating his interest as soon as such alienation comes to the knowledge of the other. (vi.) *Tenancy at Sufferance.*—A tenant who comes into possession by a lawful demise, but "holds over" or continues in possession after his estate is ended, is said to be a "tenant at sufferance." Properly speaking, tenancy at sufferance is not a tenancy at all, inasmuch as if the landlord acquiesces in it, it becomes a tenancy at will; and it is to be regarded merely as a legal fiction which prevented the rightful owner from treating the tenant as a trespasser until he had himself made an actual entry on or had brought an action to recover the land. The Distress for Rent Act 1737, however, enables a landlord to recover double rent from a tenant who holds over after having himself given notice to quit; while another statute in the reign of George II. —the Landlord and Tenant Act 1730—makes a tenant who holds over after receiving a notice from his landlord liable to the extent of double the value of the premises. There is no tenancy by sufferance against the crown.

Form of a Lease.—The component parts of a lease are the parties, the recitals (when necessary) setting out such matters as the title of the lessor; the demise or actual letting (the word "demise" is ordinarily used, but any term indicating an express intention to make a present letting is sufficient); the parcels in which the extent of the premises demised is stated; the *habendum* (which defines the commencement and the term of the lease), the *reddendum* or reservation of rent, and the covenants and conditions. The Conveyancing Act 1881 provides that, as regards conveyances subsequent to 1881, unless a contrary intention is expressed, a lease of "land" is to be deemed to include all buildings, fixtures, easements, &c., appertaining to it; and, if there are houses or other buildings on the land demised, all out-houses, erections, &c., are to pass with the lease of the land. Rights which the landlord desires to retain over the lands let are excepted or reserved. Sporting rights will pass to the lessee unless reserved (see Game Laws). A grant or reservation of mines in general terms confers, or reserves, a right to work the mines, subject to the obligation of leaving a reasonable support to the surface as it exists at the time of the grant or reservation. It is not necessary that a lease should be dated. In the absence of a date, it will take effect from the day of delivery.

Covenants in Leases.—These may be roughly divided into four groups: (i.) *Implied Covenants.*—A covenant is said to be implied when it is raised by implication of law without any express provision being made for it in the lease. Thus a lessee is under an implied obligation to treat the premises demised in a tenant-like or "husband-like" manner, and again, where in a lease by deed the word "demise" is used, the lessor probably covenants impliedly for his own title and for the quiet enjoyment of the premises by the lessee. (ii.) *"Usual" Covenants.*—Where an agreement for a lease specifies only such essential conditions as the payment of rent, and either mentions no other terms, or provides that the lease shall contain the "usual" covenants, the parties are entitled to have inserted in the lease made in pursuance of the agreement such other provisions as are "usual" in leases of property of the same character, and in the same district, not being provisions tending to abridge or qualify the legal incidents of the estate intended to be granted to the lessee. The question what covenants are "usual" is a question of fact. A covenant by the lessor, limited to his own acts and those of persons claiming under or through him, for the "quiet enjoyment" by the lessee of the demised premises, and covenants by the lessee to pay rent, to pay taxes, except such as fall upon the landlord, to keep the premises in repair, and to allow the landlord to enter and view the condition of the premises may be taken as typical instances of "usual" covenants. Covenants by the lessee to build and repair, not to assign or underlet without license, or to insure, or not to carry on a particular trade on the premises leased, have been held not to be "usual." Where the agreement provides for the insertion in the lease of "proper" covenants, such covenants only are pointed at as are calculated to secure the full effect of the contract, and a covenant against assignment or under-letting would not ordinarily be included. (iii.) *The Covenants running with the Land.*—A covenant is said to "run with the land" when the rights and duties which it creates are not merely personal to the immediate parties (in which case a covenant is said to be "collateral"), but pass also to their assignees. At common law, it was said that covenants "ran with the land" but not with the reversion, the assignee of the reversion not having the rights of the original lessor. But the assignees of both parties were placed on the same footing by a statute of Henry VIII. (1540). A covenant "runs with the land" if it relates either to a thing *in esse*, which is part and parcel of the demise, *e.g.* the payment of rent, the repair of houses or fixtures or machinery already built or set up, or to a thing not *in esse* at the time of the demise, but touching the land, provided that the word "assigns" is used in the covenant. All implied covenants run with the land. As instances of "collateral" covenants, we may take a covenant by a lessor to give the lessee a right of pre-emption over a piece of land adjoining the subject of the demise, or in the case of a lease of a beer-shop, not to keep any similar shop within a prescribed distance from the premises demised, or a covenant by a lessee to pay rates on premises not demised. A covenant not to assign without the lessor's assent runs with the land and applies to a re-assignment to the original lessee. (iv.) *Restrictive Covenants.*—These may be subdivided into two classes—covenants not to assign or underlet without the lessor's consent (it may be noted that such consent must be applied for even if, under the covenant, it cannot be withheld); and covenants in restraint of trade, *e.g.* not to use the demised premises for certain trading purposes, and in the case of "tied houses" a covenant by the lessees to purchase all beer required from

the lessors.

In addition a lease frequently contains covenants for renewal of the lease at the option of the lessee, and for repairs or insurance against damage by fire by the lessee. Leases frequently contain a covenant by the lessee to bear and pay rates, taxes, assessments and other "impositions" or "charges," or "duties" or "outgoings," or "burdens" (except property tax) imposed upon the demised premises during the term. Considerable difficulty has arisen as to the scope of the terms "impositions," "charges," "duties," "outgoings," "burdens." The words, "rates, taxes, assessments" point to payments of a periodical or recurring character. Are the latter words in such covenants limited to payments of this kind, or do they include single and definite payments demanded, for example, by a local authority, acting under statutory powers, for improvements of a permanent kind affecting the premises demised? The decisions on the point are numerous and difficult to reconcile, but the main test is whether, on the true construction of the particular covenant, the lessee has undertaken to indemnify the landlord against payments of all kinds. The stronger current of modern authority is in favour of the landlords and not in favour of restricting the meaning of covenants of this class. It may be added that, if a lessee covenants to pay rates and taxes, no demand by the collector apparently is necessary to constitute a breach of the covenant; where a rate is duly made and published it is the duty of the parties assessed to seek out the collector and pay it.

Mutual Rights and Liabilities of Landlord and Tenant.—These are to a large extent regulated by the covenants of the lease. (i.) The landlord generally covenants—and, in the absence of such a proviso, a covenant will be implied from the fact of letting—that the tenant shall have quiet enjoyment of the premises for the time agreed upon. This obligation makes the landlord responsible for any lawful eviction of the tenant during the term, but not for wrongful eviction unless he is himself the wrong-doer or has expressly made himself responsible for evictions of all kinds. It may be noted here that at common law no lease for years is complete till actual entry has been made by the lessee. Till then, he has only a right of entry or *interesse termini*. (ii.) The tenant, on his part, is presumed to undertake to use the property in a reasonable manner, according to the purposes for which it was let, and to do reasonable repairs. A landlord is not presumed to have undertaken to put the premises in repair, nor to execute repairs. But the respective obligations of parties where repairs are, as they always are in leases for years, the subject of express covenant, may vary indefinitely. The obligation is generally imposed upon the tenant to keep the premises in "good condition" or "tenantable repair." The amount and quality of the repairs necessary to fulfil the covenant are always relative to the age, class and condition of the premises at the time of the lease. A tenant is not responsible, under such a covenant, for deterioration due to diminution in value caused by lapse of time or by the elements. Where there is an unqualified covenant to repair, and the premises during the tenancy are burnt down, or destroyed by some other inevitable calamity, the tenant is bound to rebuild and restore them at his own expense, even although the landlord has taken out a policy on his own account and been paid by the insurance company in respect of it. A covenant to keep in repair requires the tenant to put the premises in repair if they are out of it, and to maintain them in that condition up to and at the end of the tenancy. A breach of the covenant to repair gives the landlord an action for damages which will be measured by the estimated injury to the reversion if the action be brought during the tenancy, and by the sum necessary to execute the repairs, if the action be brought later. (iii.) The improper user of the premises to the injury of the reversioner is *waste* (*q.v.*). (iv.) Covenants by the tenants to insure the premises and keep them insured are also common; and if the premises are left uninsured for the smallest portion of the term, though there is no damage by fire, the covenant is broken. (v.) Covenants to bear and pay rates and taxes have been discussed above. (vi.) As to the tenant's obligation to pay rent, see Rent.

Repairs.

Assignment, Attornment, Estoppel.—The relationship of landlord and tenant may be altered either voluntarily, by the act of the parties, or involuntarily, by the operation of law, and may also be dissolved. The principal mode of voluntary alteration is an assignment either by the tenant of his term or by the landlord of his reversion. An assignment which creates the relationship of landlord and tenant between the lessor or lessee and the assignee, must be by deed, but the acceptance by a landlord of rent from a tenant under an invalid assignment may create an implied tenancy from year to year; and similarly payment of rent by a tenant may amount to an acknowledgment of his landlord's title. This is one form of tenancy by estoppel. The principle of all tenancies of this kind is that something has been done by the party estopped, amounting to an admission which he cannot be allowed to contradict. "Attornment," or the agreement by a tenant to become tenant to a new landlord, is a term now often used to indicate an acknowledgment of the existence of the relationship of landlord and tenant. It may be noted that it is still common to insert in mortgage deeds what is called an "attornment clause," by which the mortgagor "attorns" tenant to the mortgagee, and the latter thereupon acquires a power of distress as an additional security. If the lands assigned are situated in Middlesex or Yorkshire, the assignment should be registered under the Middlesex Registry or Yorkshire Registries Acts, as the case may be; and similar provision is now made for the registration by an assignee of his title under the Land Transfer Acts 1875 and 1897.

Underlease.—Another form of alteration in a contract of tenancy is an under-lease, which differs from assignment in this—that the lessor parts with a portion of his estate instead of, as in assignment, with the whole of it. There is no privity of contract between an underlessee and the superior landlord, but the latter can enforce against the former restrictive covenants of which he had notice; it is the duty of the underlessee to inform himself as to the covenants of the original lease, and, if he enters and takes possession, he will be considered to have had full notice of, and will be bound by, these covenants.

Bankruptcy, Death.—The contract of tenancy may also be altered by operation of law. If a tenant become bankrupt, his interest passes to his trustee in bankruptcy—unless, as is frequently the case, the lease makes the occurrence of that contingency determine the lease. So, on the death of a tenant, his interest passes to his legal representatives.

Dissolution of Tenancy.—Tenancy is dissolved by the expiry of the term for which it was created, or by forfeiture of the tenant's interest on the ground of the breach of some condition by the tenant and re-entry by the landlord. A breach of condition may, however, be waived by the landlord, and the legislature has made provision for the relief of the tenant from the consequences of such breaches in certain cases. Relief from forfeiture and rights of re-entry are now regulated chiefly by the Conveyancing Acts 1881 and 1882. Under these acts a right of re-entry or forfeiture is not to be enforceable unless and until the lessor has served on the

lessee a written notice specifying the breach of covenant or condition complained of, and requiring him to remedy it or make compensation, and this demand has not within a reasonable time been complied with; and when a lessor is proceeding to enforce such a right the court may, if it think fit, grant relief to the lessee. A forfeiture is also waived if the landlord elects not to take advantage of it—and shows his election either expressly or impliedly by some act, which acknowledges the continuance of the tenancy, *e.g.* by the acceptance of, or even by an absolute and unqualified demand for, rent, which has accrued due since the forfeiture, by bringing an action for such rent, or by distraining for rent whether due before or after the forfeiture.

A tenancy may also be determined by merger, *i.e.* where a greater and a less estate coincide and meet in one and the same person, without any intermediate estate, as, for instance, when a tenant for years obtains the fee simple. There may also be a surrender, either voluntary or by operation of law, which will determine a tenancy, as, for example, when a tenant is party to some act, the validity of which he is legally estopped from denying and which would not have been valid had the tenancy continued to exist.

The land, on the expiration of the tenancy, becomes at common law the absolute property of the landlord, no matter how it may have been altered or improved during the occupation. In certain cases, however, the law has discriminated between the contending claims of landlord and tenant. (1) In respect of *fixtures* (which may be shortly defined as movables so affixed to the soil as to become part thereof), the tenant may sometimes remove them, *e.g.* when they have been brought on the premises for the purpose of being used in business (see Fixtures). (2) In respect of *emblements*, *i.e.* the profits of sown land, a tenant may be entitled to these whose term comes to an end by the happening of an uncertain contingency (see Emblements). (3) A similar right is very generally recognized by custom in tenants whose term expires in the ordinary way. The custom of the district, in the absence of stipulations between the parties, would be imported into their contract—the tenant going out on the same conditions as he came in. Such customary tenant right only arises at the expiration of the lease, and on the substantial performance of the covenants; and is forfeited if the tenant abandons his tenancy during the term. Tenant right is assignable, and will pass under an assignment of "all the estate and interest" of the outgoing tenant in the farm. But, with the exceptions noted, the land in its improved condition passes over at common law to the landlord. The tenant may have added to its value by buildings, by labour applied to the land, or by the use of fertilizing manures, but, whatever be the amount of the additional value, he is not entitled to any compensation whatever. This again is a matter which the parties may, if they please, regulate for themselves.

The law as to *Ejectment* is dealt with under that heading.

Statutory Provisions.—Reference may be made, in conclusion, to a few modern statutes which have affected the law of landlord and tenant. The Agricultural Holdings Act 1908 (which repeals the Agricultural Holdings Acts of 1883, 1900 and 1906) gives to the agricultural tenant a right to compensation for (i.) certain specified improvements made by him with the landlord's previous consent in writing; and (ii.) certain other classes of improvements although the landlord's consent has not been obtained. As examples of class (i.) may be mentioned—erection or enlargement of buildings, laying down of permanent pasture, making of gardens or fences, planting of hops, embankments and sluices; as examples of (ii.)—chalking of land, clay burning, application to land of purchased artificial or purchased manure, except they have been made for the purpose of making provision to protect the holding from injury or deterioration. In the case of proposed drainage improvements, notice in writing must be given to the landlord, who may then execute the improvements himself and charge the tenant with interest not exceeding 5% per annum on the outlay, or such annual instalments, payable for a period of twenty-five years, and recoverable as rent, as will repay the outlay, with interest at the rate of 3% a year. Under s. 11 of the act a tenant is entitled to compensation for disturbance, when he is compelled to quit without good and sufficient cause, and for reasons inconsistent with good estate management. An agricultural tenant may not contract himself out of his statutory right to compensation, but "contracting out" is apparently not prohibited with regard to the right given him by the acts of 1883 and 1900 to remove fixtures which he has erected and for which he is not otherwise entitled to compensation, after reasonable notice to the landlord, unless the latter elects to purchase such fixtures at a valuation. The Agricultural Holdings Act 1906 conferred upon every tenant (with slight exceptions) entire freedom of cropping and of disposal of produce, notwithstanding any custom of the county or explicit agreement to the contrary. (See further the articles Ejectment, Fixtures, Rent.) The Small Holdings and Allotments Act 1908, which repealed previous acts of 1887, 1890 and 1907, deals, on terms similar to those of the Agricultural Holdings Act 1908, with small holdings and allotments (the expression "small holding" meaning an agricultural holding which exceeds one acre, and either does not exceed fifty acres, or, if exceeding fifty acres, is at the date of sale or letting of an annual value for the purposes of income tax not exceeding fifty pounds; the expression "allotment" includes a field garden). Section 47 of the act gives the tenant the same rights to compensation as if his holding had been a holding under the Agricultural Holdings Act 1908 (*vide supra*). Compensation was given to market gardeners for unexhausted improvements by the Market Gardeners' Compensation Act 1895 and by the Agricultural Holdings Act 1906 for improvements effected before the commencement of that act on a holding cultivated to the knowledge of the landlord as a market garden, if the landlord had not dissented in writing to the improvements. The important sections of these acts were incorporated in the Agricultural Holdings Act 1908, s. 42.

Scots Law.—The original lease in Scots law took the form of a grant by the proprietor or lessor. But, with advancing civilization and the consequent increase in the number of the conditions to be imposed on both parties, leases became mutual contracts, bilateral in form. The law of Scotland as to landlord and tenant may be considered under two main heads:—I. *Ordinary Leases, Common Law and Statutory*; II. *Building or Long Leases*.

I. *Ordinary Leases, Common Law and Statutory.*—A verbal lease for a year is good. Such a lease for more than a year is not effectual even for a year, except where the lessee has taken possession. At common law, while a lease was binding on the grantor and his heirs, it was not good against "singular successors," *i.e.* persons acquiring by purchase or adjudication, and the lessee was liable to be ejected by such persons, unless (a precaution usually taken) sasine of the subjects demised was expressly conferred on him by the lease. To obviate this difficulty, the Scots Act 1449, c. 18, made possession of the subjects of the lease equivalent to sasine. This enactment applies to leases of agricultural subjects, houses, mills, fisheries and whatever is *fundo annexum*; provided that (*a*) the lease, when for more than one year, must be in writing, (*b*) it must be definite as to subject, rent (which may consist of money, grain or services, if the *reddendum* is not illusory) and term of

duration, (*c*) possession must follow on the lease. Special powers of granting leases are conferred by statute on trustees. (Trusts [Scotland] Act 1867, s. 2), *curatores bonis* (Judicial Factors [Scotland] Act 1889) and heirs of entail (cf. Entail Act 1882, ss. 5, 6, 8, 9). The requisites of the statutory leases, last mentioned, are similar to those imposed in England upon tenants for life by the Settled Land Acts (*v. sup.* p. 3). The rent stipulated for must not be illusory, and must fairly represent the value of the subjects leased, and the term of the lease must not be excessive (as to rent generally, see RENT). A life-renter can only grant a lease that is effectual during the subsistence of the life-rent. There is practically no limitation, but the will of the parties, as to the persons to whom a lease may be granted. A lease granted to a tenant by name will pass, on his death during the subsistence of the term to his heir-at-law, even if the lease contains no destination to heirs. The rights and obligations of the lessor and the tenant (*e.g.* as to the use of the produce, the payment of rent, the quiet possession of the subjects demised, and as to the payment of rates and taxes) are similar to those existing under English law. An agricultural lease does not, apart from stipulation, confer any right to kill game, other than hares and rabbits (as to which, see the Ground Game Act 1880, and GAME LAWS) or any right of fishing. A tenant is not entitled, without the landlord's consent, to change the character of the subjects demised, and, except under an agricultural lease, he is bound to quit the premises on the expiration of the lease. In the case of urban leases, however, ejectment (*q.v.*)—called in Scots Law "removing"—will not be authorized unless the tenant received 40 days' warning before the term of removal. In the absence of such notice, the parties are held, if there be nothing in their conduct or in the lease inconsistent with this presumption, to renew their agreement in all its terms, and so on from year to year till due notice is given. This is called "tacit relocation." A lease may be transmitted (i.) by "assignation," intimated to the landlord, and followed by possession on the part of the assignee; (ii.) by sub-lease—the effect of which is equivalent to that of under-lease in English law; (iii.) by succession, as of the heir of a tenant; (iv.) in the case of agricultural holdings, by bequest (Agricultural Holdings [Scotland] Act 1883, s. 29). A lease terminates (i.) by the expiration of its term or by advantage being taken by the party in whose favour it is stipulated, of a "break" in the term; (ii.) by the occurrence of an "irritancy" of ground of forfeiture, either conventional, or statutory, *e.g.* where a tenant's rent is in arrear, or he fails to remove on the expiry of his lease (Act of Sederunt, 14th of Dec. 1756: Agricultural Holdings Act 1883, s. 27); (iii.) by the bankruptcy or insolvency of the tenant, at the landlord's option, if it is so stipulated in the lease; (iv.) by the destruction, *e.g.* by fire, of the subject leased, unless the landlord is bound to restore it. Complete destruction of the subject leased, *e.g.* where a house is burnt down, or a farm is reduced to "sterility" by flood or hurricane, discharges the tenant from the obligation to pay rent. The effect of partial destruction has given rise to some uncertainty. "The distinction seems to be that if the destruction be permanent, though partial, the failure of the subject let will give relief by entitling the tenant to renounce the lease, unless a deduction shall be allowed, but that if it be merely temporary or occasional, it will not entitle the tenant to relief" (Bell's *Prin.* s. 1208). Agricultural leases usually contain special provisions as to the order of cropping, the proper stocking of the farm, and the rights of the incoming and outgoing tenant with regard to the waygoing crop. Where the rent is in money, it is generally payable at Whitsunday and Martinmas—the two "legal terms." Sometimes the term of payment is *before* the crop is reaped, sometimes *after*. "The terms thus stipulated are called 'the conventional terms'; the rent payable by anticipation being called 'forehand rent,' that which is payable after the crop is reaped, 'back rent.' Where the rent is in grain, or otherwise payable in produce, it is to be satisfied from the produce of the farm, if there be any. If there be none the tenant is bound and entitled to deliver fair marketable grain of the same kind." (Bell's *Principles*, ss. 1204, 1205). The general rule with regard to "waygoing crops" on arable farms is that the tenant is entitled to reap the crop sown before the term of removal (whether or not that be the natural termination of the lease), the right of exclusive possession being his during seed time. But he is not entitled to the use of the barns in threshing, &c., the corn.

The Agricultural Holdings (Scotland) Acts 1883 and 1900, already referred to incidentally, contain provisions —similar to those of the English acts—as to a tenant's right to compensation for unexhausted improvements, removal for non-payment of rent, notice to quit at the termination of a tenancy, and a tenant's property in fixtures. The Crofters' Holdings (Scotland) Acts 1886, 1887 and 1888, confer on "crofters" special rights. A crofter is defined as "a tenant of a holding"—being arable or pasture land, or partly arable and partly pasture land—"from year to year who resides on his holding, the annual rent of which does not exceed £30 in money, and which is situated in a 'crofting parish.'" Nearly all the parishes in Argyll, Inverness, Ross, Cromarty, Sutherland, Caithness and Orkney and Shetland answer to this description. The crofter enjoys a perpetual tenure subject to the fulfilment of certain conditions as to payment of rent, non-assignment of tenancy, &c., and to defeasance at his own option on giving one year's notice to the landlord. A Crofters' Commission constituted under the acts has power to fix fair rents, and the crofter on renunciation of his tenancy or removal from his holding is entitled to compensation for permanent improvements. The Small Holdings Act 1892 applies to Scotland.

Under the law of Scotland down to 1880, a landlord had as security for rent due on an agricultural lease a "hypothec"—*i.e.* a preferential right over ordinary creditors, and extending, subject to certain limitations, over the whole stock and crop of the tenant. This right was enforceable by sequestration and sale. It was abolished in 1880 as regards all leases entered into after the 11th of November 1881, where the land demised exceeded two acres in extent, and the landlord was left to remedies akin to ejectment (Hypothec Abolition, Scotland, Act 1880).

II. *Building or Long Leases.*—Under these leases, the term of which is usually 99 and sometimes 999 years, the tenant is to a certain extent in the position of a fee simple proprietor, except that his right is terminable, and that he can only exercise such rights of ownership as are conferred on him either by statute or by the terms of his lease. Extensive powers of entering into such leases have been given by statute to trustees subject to the authority of the Court (Trusts [Scotland] Act 1867, s. 3) and to heirs of entail (Entail Acts 1840, 1849, 1882). Where long leases are "probative," *i.e.* holograph or duly tested, do not exceed 31 years, or, except as regards leases of mines and minerals, and of lands held by burgage tenure, relate to an extent of land exceeding 50 acres, and contain provisions for renewal, they may be recorded for publication in the *Register of Sasines*, and such publication has the effect of possession (Registration of Leases [Scotland] Act 1857).

Ireland.—The law of landlord and tenant was originally substantially the same as that described for England is. But the modern Land Acts have readjusted the relation between landlords and tenants, while the Land Purchase Acts have aimed at abolishing those relations by enabling the tenant to become the owner of his holding. The way was paved for these changes by the existence in Ulster of a local custom having virtually the force of law, which had two main features—fixity of tenure, and free right of sale by the tenant of his interest. These principles, with the addition of that of fair rents settled by judicial means, were gradually established by the Land Acts of 1870 and subsequent years, and the whole system was remodelled by the Land Purchase Acts

(see IRELAND).

United States.—The law of landlord and tenant in the United States is in its principles similar to those of English law. It is only possible to indicate, by way of example, some of the points of similarity. The relationship of landlord and tenant is created, altered and dissolved in the same way, and the rights and duties of parties are substantially identical. A lease must contain, either in itself or by clear reference, all the terms of a complete contract—the names of the parties, description of the property let, the rent (see RENT) and the conditions. The date is not essential. That is a matter of identification as to time only. In Pennsylvania, parol evidence of the date is allowed. The general American doctrine is that where the contract is contained in separate writings they must connect themselves by reference, and that parol evidence is not admissible to connect them. The English doctrine that a verbal lease may be specifically enforced if there has been part performance by the person seeking the remedy has been fully adopted in nearly all the American states. The law as to the rights and obligations of assignees and sub-lessees and as to surrender is the same as in England. Forfeiture only renders a lease void as regards the lessee; it may be waived by the lessor, and acceptance by the landlord of rent due after forfeiture, with notice of such forfeiture, amounts to waiver. Where there is a lease for a certain period, no notice to quit is necessary. In uncertain tenancies there must be reasonable notice—*i.e.* at common law six months generally. The notice necessary to determine a monthly or weekly tenancy is generally a month or a week (see further under LODGER; LODGINGS). In the United States, as in England, the covenant for quiet enjoyment only extends, so far as relates to the acts of third parties, to lawful acts of disturbance in the enjoyment of the subject agreed to be let.

Laws of other Countries.—It is impossible here to deal with the systems of land tenure in force in other countries. Only the question of the legal relations between landlord and tenant can be touched upon. In France, the Code Civil recognizes two such relationships, the letting to hire of houses (*bail à loyer*) and the letting to farm of rural properties (*bail à ferme*). To a certain extent, both forms of tenancy are governed by the same rules. The letting may be either written or verbal. But a verbal lease presents this disadvantage that, if it is unperformed and one of the parties denies its existence, it cannot be proved by witnesses. The party who denies the letting can only be put to his oath (Arts. 1714-1715). It may further be noted that in the case of a verbal lease, notice to quit is regulated by the custom of the place (Art. 1736). The tenant or farmer has the right of underletting or assigning his lease, in the absence of prohibiting stipulation (Art. 1717). The lessor is bound by the nature of his contract and without the need of any particular stipulation (i.) to deliver to the lessee the thing hired in a good state of repair; (ii.) to maintain it in a state to serve the purpose for which it has been hired; (iii.) to secure to the lessee peaceable enjoyment during the continuance of the lease (Arts. 1719-1720). He is bound to warrant the lessee against, and to indemnify him for, any loss arising from any faults or defects in the thing hired which prevent its use, even though he was not aware of them at the time of the lease (Art. 1721). If during the continuance of the letting, the thing hired is entirely destroyed by accident, the lease is cancelled. In case of partial destruction, the lessee may, according to circumstances, demand either a diminution of the price, or the cancellation of the lease. In neither case is there ground for damages (Art. 1722). The lessor cannot, during the lease, change the form of the thing hired (Art. 1723). The lessee is bound, on his side (i.) to use the thing hired like a good head of a household (*bon père de famille*), in accordance with the express or presumed purpose of the hiring; (ii.) to pay the price of the hiring at the times agreed (Art. 1728). On breach of the former obligation, the lease may be judicially cancelled (Art. 1729). As to the consequences of breach of the latter, see RENT. If a statement of the condition of the property (*état des lieux*) has been prepared, the lessee must give it up such as he received it according to the statement, except what has perished or decayed by age or by means of *force majeure* (Art. 1730). In the absence of an *état des lieux*, the lessee is presumed to have received the thing hired in a good state of tenantable repair, and must so yield it up, saving proof to the contrary (Art. 1731). He is liable for injuries or losses happening during his enjoyment, unless he prove that they have taken place without his fault (Art. 1732); in particular, for loss by fire unless he show that the fire happened by accident, *force majeure*, or defect of construction, or through communication from a neighbouring house (Art. 1733). The lessee is liable for injuries and losses happening by the act of persons belonging to his house or of his sub-tenants (Art. 1735). A lease terminates (i.) at the expiration of the prescribed term (Art. 1737)—if at that period the lessee remains and is left in possession, there is, in the case of written leases, a tacit renewal (*tacite reconduction*) of the lease as a verbal lease (Arts. 1738-1739); (ii.) by the loss of the thing hired and by the default of the lessor or lessee in the fulfilment of their respective obligations (Art. 1741), but (iii.) not by the death either of the lessor or of the lessee (1742). The conditions of EJECTMENT are stated under that heading. The special rules (Arts. 1752-1762) relative to the hire of houses are touched upon in LODGER AND LODGINGS. It only remains here to refer to those applicable to leases to farm. The lessee is bound to stock the farm with the cattle and implements necessary for its husbandry (Art. 1766), and to stack in the places appointed for the purpose in the lease (Art. 1767). A lessee, who farms on condition of dividing the produce with the lessor, can only underlet or assign if he is expressly empowered to do so by the lease (Art. 1763). The lessee must give notice to the lessor of any acts of usurpation committed on the property (Art. 1768). If at least half of the harvest in any year is destroyed by accident, the lessee (*a*) in the case of a lease for several years, obtains, at the end of his lease, a refund of rent, by way of indemnity, unless he has been indemnified by preceding harvests; (*b*) in the case of a lease for a year only, may secure a proportional abatement of the current rent. No refund is payable if the produce was severed before the accident, unless the lessor was entitled to a portion of it, when he must bear his share of the loss, provided the lessee was not *in morâ* as regards the delivery of the lessor's portion. The lessee has no right to a refund when the cause of damage was existing and known at the date of the lease (Arts. 1769-1771). Liability for loss by "accidents" may be thrown on the lessee by express stipulation (Art. 1772). "Accidents" here mean ordinary accidents only, such as hail, lightning or frost, and the lessee will not be answerable for loss caused by extraordinary accidents such as war or floods, unless he has been made liable for all accidents, foreseen or unforeseen (Art. 1773). A verbal lease is deemed to be for the term necessary to enable the lessee to gather in all the produce, thus for a year in the case of a meadow or vineyard; in the case of lands leased in tillage, where they are divided into shifts or seasons, for as many years as there are shifts (Art. 1774). The outgoing must leave for the incoming tenant convenient housing and other facilities for the labours of the year following; the incoming must procure for the outgoing tenant conveniences for the consumption of his fodder and for the harvests remaining to be got in. In either case the custom of the place is to be followed (Art. 1777). The outgoing tenant must leave the straw and manure of the year, if he received them at the beginning of his lease, and even where he has not so received them, the owner may retain them according to valuation (Art. 1778). A

word must be added as to letting by cheptel (*bail à cheptel*)—a contract by which one of the parties gives to the other a stock of cattle to keep under conditions agreed on between them (Art. 1800). There are several varieties of the contract, (i.) simple cheptel (*cheptel simple*) in which the whole stock is supplied by the lessor—the lessee taking half the profit and bearing half the loss (Art. 1804); (ii.) cheptel by moiety (*cheptel à moietié*)—here each of the contracting parties furnishes half of the stock, which remains common for profit or loss (Art. 1818); (iii.) cheptel given to a farmer (*fermier*) or participating cultivator (*colon partiaire*)—in the cheptel given to the farmer (also called *cheptel de fer*) stock of a value equal to the estimated price of the stock given must be left at the expiry of the lease (Art. 1821); cheptel given to the participating cultivator resembles simple cheptel, except in points of detail (Arts. 1827-1830); (iv.) the term "cheptel" is also improperly applied to a contract by which cattle are given to be housed and fed—here the lessor retains the ownership, but has only the profit of the calves (Art. 1831).

The French system just described is in force in its entirety in Belgium (Code Civil, Arts. 1713 et seq.) and has been followed to some extent in Italy (Civil Code, Arts. 1568 et seq.), Spain (Civil Code, Arts 1542 et seq.), and Portugal (Civil Code, Arts. 1298 et seq., 1595 et seq.). In all these countries there are varieties of emphyteutic tenure; and in Italy the mezzadria or metayer system (see Civil Code, Arts. 1647 et seq.) exists. The German Civil Code adopts the distinction between *bail à loyer* (Miehl, Arts. 535 et seq.) and *bail à ferme* (Pacht, Arts. 581 et seq.). Dutch law also (Civil Code, Arts. 1583 et seq.) is similar to the French.

The Indian law of landlord and tenant is described in the article Indian Law. The laws of the various British colonies on the subject are too numerous and too different to be dealt with here. In Mauritius, the provisions of the Code Civil are in force without modification. In Quebec (Civil Code, Arts. 1605 et seq.) and St Lucia (Civil Code, Arts. 1512 et seq.) they have been reproduced by the local law. In many of the colonies, parts of the English law of landlord and tenant, common law and statutory, have been introduced by local enactments (cf. British Guiana, Ord. 4 of 1846; Jamaica, 1 Vict. c. 26). In others (*e.g.* Victoria, Landlord and Tenant Act 1890, No. 1108; Ontario, Rev. Stats. 1897, c. 170) consolidating statutes have been passed.

Authorities.—English Law: Wolstenholme, Brinton and Cherry, *Conveyancing and Settled Land Acts* (London, 9th ed., 1905); Hood and Challis, *Conveyancing and Settled Land Acts* (London, 7th ed., 1909); Foà, on *Landlord and Tenant* (London, 4th ed., 1907); Woodfall, on *Landlord and Tenant* (London, 18th ed., 1907); Fawcett, *Landlord and Tenant* (London, 3rd ed., 1905). Scots Law: Hunter, on *Landlord and Tenant* (Edinburgh, 4th ed., 1876); Rankine, on *Land Ownership* (Edinburgh, 3rd ed., 1891); Rankine, on *Leases* (Edinburgh, 2nd ed., 1893); Hunter, *Landlord and Tenant* (4th ed. G. Guthrie, Edinburgh, 1876). Irish Law: Kelly's *Statute Law of Landlord and Tenant in Ireland* (Dublin, 1898); Barton and Cherry's *Land Act 1896* (Dublin, 1896); Quill, Hamilton and Longworth, *Irish Land Acts of 1903 and 1904* (Dublin, 1904). American Law: Bouvier, *Law Dictionary* (ed. Rawle) (London, 1897); McAdam, *Rights, Remedies and Liabilities of Landlord and Tenant* (New York, 1900); Wood, *Law of Landlord and Tenant* (New York, 1888). Foreign and Colonial Laws: Field, *Landholding and the relation of Landlord and Tenant in various Countries; Ruling Cases* (American Notes), (London and Boston, 1894-1901).

(A. W. R.)

LANDON, CHARLES PAUL

(1760-1826), French painter and art-author, was born at Nonant in 1760. He entered the studio of Regnault, and won the first prize of the Academy in 1792. After his return from Italy, disturbed by the Revolution, he seems to have abandoned painting for letters, but he began to exhibit in 1795, and continued to do so at various intervals up to 1814. His "Leda" obtained an award of merit in 1801, and is now in the Louvre. His "Mother's Lesson," "Paul and Virginia Bathing," and "Daedalus and Icarus" have been engraved; but his works on painting and painters, which reach nearly one hundred volumes, form his chief title to be remembered. In spite of a complete want of critical accuracy, an extreme carelessness in the biographical details, and the feebleness of the line engravings by which they are illustrated, Landon's *Annales du Musée*, in 33 vols., form a vast repertory of compositions by masters of every age and school of permanent value. Landon also published *Lives of Celebrated Painters*, in 22 vols.; *An Historical Description of Paris*, 2 vols.; a *Description of London*, with 42 plates; and descriptions of the Luxembourg, of the Giustiniani collection, and of the gallery of the duchesse de Berry. He died at Paris in 1826.

LANDON, LETITIA ELIZABETH

(1802-1838), English poet and novelist, better known by her initials L. E. L. than as Miss Landon or Mrs Maclean, was descended from an old Herefordshire family, and was born at Chelsea on the 14th of August 1802. She went to a school in Chelsea where Miss Mitford also received her education. Her father, an army agent, amassed a large property, which he lost by speculation shortly before his death. About 1815 the Landons made the acquaintance of William Jerdan, and Letitia began her contributions to the *Literary Gazette* and to various Christmas annuals. She also published some volumes of verse, which soon won for her a wide literary fame. The gentle melancholy and romantic sentiment her writings embodied suited the taste of the period, and would in any case have secured her the sympathy and approval of a wide class of readers. She displays richness of fancy and aptness of language, but her work suffered from hasty production, and has not stood the test of time. The large sums she earned by her literary labours were expended on the support of her family. An engagement to John Forster, it is said, was broken off through the intervention of scandalmongers. In June 1838 she married George Maclean, governor of the Gold Coast, but she only survived her marriage, which proved to be very unhappy, by a few months. She died on the 15th of

October 1838 at Cape Coast from an overdose of prussic acid, which, it is supposed, was taken accidentally.

For some time L. E. L. was joint editor of the *Literary Gazette*. Her first volume of poetry appeared in 1820 under the title The *Fate of Adelaide*, and was followed by other collections of verses with similar titles. She also wrote several novels, of which the best is *Ethel Churchill* (1837). Various editions of her *Poetical Works* have been published since her death, one in 1880 with an introductory memoir by W. B. Scott. *The Life and Literary Remains of Letilia Elizabeth Landon*, by Laman Blanchard, appeared in 1841, and a second edition in 1855.

LANDOR, WALTER SAVAGE

(1775-1864), English writer, eldest son of Walter Landor and his wife Elizabeth Savage, was born at Warwick on the 30th of January 1775. [He was sent to Rugby school, but was removed at the headmaster's request and studied privately with Mr Langley, vicar of Ashbourne. In 1793 he entered Trinity College, Cambridge. He adopted republican principles and in 1794 fired a gun at the windows of a Tory for whom he had an aversion. He was rusticated for a year, and, although the authorities were willing to condone the offence, he refused to return. The affair led to a quarrel with his father in which Landor expressed his intention of leaving home for ever. He was, however, reconciled with his family through the efforts of his friend Dorothea Lyttelton. He entered no profession, but his father allowed him £150 a year, and he was free to live at home or not as he pleased.]

In 1795 appeared in a small volume, divided into three books, *The Poems of Walter Savage Landor*, and, in pamphlet form of nineteen pages, an anonymous *Moral Epistle, respectfully dedicated to Earl Stanhope*. No poet at the age of twenty ever had more vigour of style and fluency of verse; nor perhaps has any ever shown such masterly command of epigram and satire, made vivid and vital by the purest enthusiasm and most generous indignation. Three years later appeared the first edition of the first great work which was to inscribe his name for ever among the great names in English poetry. The second edition of *Gebir* appeared in 1803, with a text corrected of grave errors and improved by magnificent additions. About the same time the whole poem was also published in a Latin form, which for might and melody of line, for power and perfection of language, must always dispute the palm of precedence with the English version. [His father's death in 1805 put him in possession of an independent fortune. Landor settled in Bath. Here in 1808 he met Southey, and the mutual appreciation of the two poets led to a warm friendship.] In 1808, under an impulse not less heroic than that which was afterwards to lead Byron to a glorious death in redemption of Greece and his own good fame, Landor, then aged thirty-three, left England for Spain as a volunteer to serve in the national army against Napoleon at the head of a regiment raised and supported at his sole expense. After some three months' campaigning came the affair of Cintra and its disasters; "his troop," in the words of his biographer, "dispersed or melted away, and he came back to England in as great a hurry as he had left it," but bringing with him the honourable recollection of a brave design unselfishly attempted, and the material in his memory for the sublimest poem published in our language, between the last masterpiece of Milton and the first masterpiece of Shelley—one equally worthy to stand unchallenged beside either for poetic perfection as well as moral majesty —the lofty tragedy of *Count Julian*, which appeared in 1812, without the name of its author. No comparable work is to be found in English poetry between the date of *Samson Agonistes* and the date of *Prometheus Unbound*; and with both these great works it has some points of greatness in common. The superhuman isolation of agony and endurance which encircles and exalts the hero is in each case expressed with equally appropriate magnificence of effect. The style of *Count Julian*, if somewhat deficient in dramatic ease and the fluency of natural dialogue, has such might and purity and majesty of speech as elsewhere we find only in Milton so long and so steadily sustained.

In May 1811 Landor had suddenly married Miss Julia Thuillier, with whose looks he had fallen in love at first sight in a ball-room at Bath; and in June they settled for a while at Llanthony Abbey in Monmouthshire, from whence he was worried in three years' time by the combined vexation of neighbours and tenants, lawyers and lords-lieutenant; not before much toil and money had been nobly wasted on attempts to improve the sterility of the land, to relieve the wretchedness and raise the condition of the peasantry. He left England for France at first, but after a brief residence at Tours took up his abode for three years at Como; "and three more wandering years he passed," says his biographer, "between Pisa and Pistoja, before he pitched his tent in Florence in 1821."

In 1835 he had an unfortunate difference with his wife which ended in a complete separation. In 1824 appeared the first series of his *Imaginary Conversations*, in 1826 "the second edition, corrected and enlarged"; a supplementary third volume was added in 1828; and in 1829 the second series was given to the world. Not until 1846 was a fresh instalment added, in the second volume of his collected and selected works. During the interval he had published his three other most famous and greatest books in prose: *The Citation and Examination of William Shakespeare* (1834), *Pericles and Aspasia* (1836), *The Pentameron* (1837). To the last of these was originally appended *The Pentalogia*, containing five of the very finest among his shorter studies in dramatic poetry. In 1847 he published his most important Latin work, *Poemata et inscriptiones*, comprising, with large additions, the main contents of two former volumes of idyllic, satiric, elegiac and lyric verse; and in the same golden year of his poetic life appeared the very crown and flower of its manifold labours, the *Hellenics of Waller Savage Landor*, enlarged and completed. Twelve years later this book was re-issued, with additions of more or less value, with alterations generally to be regretted, and with omissions invariably to be deplored. In 1853 he put forth *The Last Fruit off an Old Tree*, containing fresh conversations, critical and controversial essays, miscellaneous epigrams, lyrics and occasional poems of various kind and merit, closing with *Five Scenes* on the martyrdom of Beatrice Cenci, unsurpassed even by their author himself for noble and heroic pathos, for subtle and genial, tragic and profound, ardent and compassionate insight into character, with consummate mastery of dramatic and spiritual truth. In 1856 he published *Antony and Octavius—Scenes for the Study*, twelve consecutive poems in dialogue which alone would suffice to place him high among the few great masters of historic drama.

In 1858 appeared a metrical miscellany bearing the title of *Dry Sticks Fagoted by W. S. Landor*, and containing among other things graver and lighter certain epigrammatic and satirical attacks which reinvolved him in the troubles of an action for libel; and in July of the same year he returned for the last six years of his life to Italy, which he had left for England in 1835. [He was advised to make over his property to his family, on whom he was now dependent. They appear to have refused to make him an allowance unless he returned to England. By the exertions of Robert Browning an allowance was secured. Browning settled him first at Siena and then at Florence.] Embittered and distracted by domestic dissensions, if brightened and relieved by the affection and veneration of friends and strangers, this final period of his troubled and splendid career came at last to a quiet end on the 17th of September 1864. In the preceding year he had published a last volume of *Heroic Idyls, with Additional Poems*, English and Latin,—the better part of them well worthy to be indeed the "last fruit" of a genius which after a life of eighty-eight years had lost nothing of its majestic and pathetic power, its exquisite and exalted loveliness.

A complete list of Landor's writings, published or privately printed, in English, Latin and Italian, including pamphlets, fly-sheets and occasional newspaper correspondence on political or literary questions, it would be difficult to give anywhere and impossible to give here. From nineteen almost to ninety his intellectual and literary activity was indefatigably incessant; but, herein at least like Charles Lamb, whose cordial admiration he so cordially returned, he could not write a note of three lines which did not bear the mark of his "Roman hand" in its matchless and inimitable command of a style at once the most powerful and the purest of his age. The one charge which can ever seriously be brought and maintained against it is that of such occasional obscurity or difficulty as may arise from excessive strictness in condensation of phrase and expurgation of matter not always superfluous, and sometimes almost indispensable. His English prose and his Latin verse are perhaps more frequently and more gravely liable to this charge than either his English verse or his Latin prose. At times it is well-nigh impossible for an eye less keen and swift, a scholarship less exquisite and ready than his own, to catch the precise direction and follow the perfect course of his rapid thought and radiant utterance. This apparently studious pursuit and preference of the most terse and elliptic expression which could be found for anything he might have to say could not but occasionally make even so sovereign a master of two great languages appear "dark with excess of light"; but from no former master of either tongue in prose or verse was ever the quality of real obscurity, of loose and nebulous incertitude, more utterly alien or more naturally remote. There is nothing of cloud or fog about the path on which he leads us; but we feel now and then the want of a bridge or a handrail; we have to leap from point to point of narrative or argument without the usual help of a connecting plank. Even in his dramatic works, where least of all it should have been found, this lack of visible connexion or sequence in details of thought or action is too often a source of sensible perplexity. In his noble trilogy on the history of Giovanna queen of Naples it is sometimes actually difficult to realize on a first reading what has happened or is happening, or how, or why, or by what agency—a defect alone sufficient, but unhappily sufficient in itself, to explain the too general ignorance of a work so rich in subtle and noble treatment of character, so sure and strong in its grasp and rendering of "high actions and high passions," so rich in humour and in pathos, so royally serene in its commanding power upon the tragic mainsprings of terror and of pity. As a poet, he may be said on the whole to stand midway between Byron and Shelley—about as far above the former as below the latter. If we except Catullus and Simonides, it might be hard to match and it would be impossible to overmatch the flawless and blameless yet living and breathing beauty of his most perfect elegies, epigrams or epitaphs. As truly as prettily was he likened by Leigh Hunt "to a stormy mountain pine which should produce lilies." His passionate compassion, his bitter and burning pity for all wrongs endured in all the world, found only their natural and inevitable outlet in his lifelong defence or advocacy of tyrannicide as the last resource of baffled justice, the last discharge of heroic duty. His tender and ardent love of children, of animals and of flowers makes fragrant alike the pages of his writing and the records of his life. He was as surely the most gentle and generous as the most headstrong and hot-headed of heroes or of men. Nor ever was any man's best work more thoroughly imbued and informed with evidence of his noblest qualities. His loyalty and liberality of heart were as inexhaustible as his bounty and beneficence of hand. Praise and encouragement, deserved or undeserved, came yet more readily to his lips than challenge or defiance. Reviled and ridiculed by Lord Byron, he retorted on the offender living less readily and less warmly than he lamented and extolled him dead. On the noble dramatic works of his brother Robert he lavished a magnificence of sympathetic praise which his utmost self-estimate would never have exacted for his own. Age and the lapse of time could neither heighten nor lessen the fulness of this rich and ready generosity. To the poets of his own and of the next generation he was not readier to do honour than to those of a later growth, and not seldom of deserts far lower and far lesser claims than theirs. That he was not unconscious of his own, and avowed it with the frank simplicity of nobler times, is not more evident or more certain than that in comparison with his friends and fellows he was liable rather to undervalue than to overrate himself. He was a classic, and no formalist; the wide range of his just and loyal admiration had room for a genius so far from classical as Blake's. Nor in his own highest mood or method of creative as of critical work was he a classic only, in any narrow or exclusive sense of the term. On either side, immediately or hardly below his mighty masterpiece of *Pericles and Aspasia*, stand the two scarcely less beautiful and vivid studies of medieval Italy and Shakespearean England. The very finest flower of his immortal dialogues is probably to be found in the single volume comprising only "Imaginary Conversations of Greeks and Romans"; his utmost command of passion and pathos may be tested by its transcendent success in the distilled and concentrated tragedy of *Tiberius and Vipsania*, where for once he shows a quality more proper to romantic than classical imagination—the subtle and sublime and terrible power to enter the dark vestibule of distraction, to throw the whole force of his fancy, the whole fire of his spirit, into the "shadowing passion" (as Shakespeare calls it) of gradually imminent insanity. Yet, if this and all other studies from ancient history or legend could be subtracted from the volume of his work, enough would be left whereon to rest the foundation of a fame which time could not sensibly impair.

(A. C. S.)

BIBLIOGRAPHY.—See *The Works and Life of Walter Savage Landor* (8 vols., 1846), the life being the work of John Forster. Another edition of his works (1891-1893), edited by C. G. Crump, comprises *Imaginary Conversations*, *Poems*, *Dialogues in Verse and Epigrams* and *The Longer Prose Works*. His *Letters and other Unpublished Writings* were edited by Mr Stephen Wheeler (1897). There are many volumes of selections from his works, notably one (1882) for the "Golden Treasury" series, edited by Sidney Colvin, who also contributed the monograph on *Landor* (1881) in the "English Men of Letters" series. A bibliography of his works, many of which are very rare, is included in Sir Leslie Stephen's article on Landor in the *Dictionary of National*

(M. Br.)

LANDOUR, a hill station and sanatorium in India, in Dehra Dun district of the United Provinces, adjoining Mussoorie. Pop. (1901) 1720, rising to 3700 in the hot season. Since 1827 it has been a convalescent station for European troops, with a school for their children.

LAND REGISTRATION, a legal process connected with the transfer of landed property, comprising two forms—registration of deeds and registration of title, which may be best described as a species of machinery for assisting a purchaser or mortgagee in his inquiries as to his vendor's or mortgagor's title previously to completing his dealing, and for securing his own position afterwards. The expediency of making inquiry into the vendor's title before completing a purchase of land (and the case of a mortgage is precisely similar) is obvious. In the case of goods possession may ordinarily be relied on as proof of full ownership; in the case of land, the person in ostensible possession is very seldom the owner, being usually only a tenant, paying rent to someone else. Even the person to whom the rent is paid is in many cases—probably, in England, in most cases—not the full owner, but only a life owner, or a trustee, whose powers of disposing of the property are of a strictly limited nature. Again, goods are very seldom the subject of a mortgage, whereas land has from time immemorial been the frequent subject of this class of transaction. Evidently, therefore, some sort of inquiry is necessary to enable a purchaser to obtain certainty that the land for which he pays full price is not subject to an unknown mortgage or charge which, if left undiscovered, might afterwards deprive him of a large part or even the whole of its value. Again, the probability of serious consequences to the purchaser ensuing from a mistake as to title is infinitely greater in the case of land than in the case of goods. Before the rightful owner can recover misappropriated goods, he has to find out where they are. This is usually a matter of considerable 163
difficulty. By the time they have reached the hands of a *bonâ fide* purchaser all chance of their recovery by the true owner is practically at an end. But with land the case is far otherwise. A dispossessed rightful owner never has any difficulty in tracing his property, for it is immovable. All he has to do is to bring an action for ejectment against the person in possession. For these reasons, among others, any attempt to deal with land on the simple and unsuspecting principles which obtain in regard to goods would be fraught with grave risks.

Apart from very early and primitive social conditions, there appear to be only two ways in which the required certainty as to title to land can be obtained. Either the purchaser must satisfy himself, by an exhaustive scrutiny and review of all the deeds, wills, marriages, heirships and other documents and events by which the property has been conveyed, mortgaged, leased, devised or transmitted during a considerable period of time, that no loophole exists whereby an adverse claim can enter or be made good—this is called the system of private investigation of title—or the government must keep an authoritative list or register of the properties within its jurisdiction, together with the names of the owners and particulars of the encumbrances in each case, and must protect purchasers and others dealing with land, on the faith of this register, from all adverse claims. This second system is called Registration of Title. To these two alternatives may perhaps be added a third, of very recent growth—Insurance of Title. This is largely used in the United States. But it is in reality only a phase of the system of private investigation. The insurance company investigates the title, and charges the purchaser a premium to cover the expense and the risk of error. Registration of deeds is an adjunct of the system of private investigation, and, except in England, is a practically invariable feature of it. It consists in the establishment of public offices in which all documents affecting land are to be recorded—partly to preserve them in a readily accessible place, partly to prevent the possibility of any material deed or document being dishonestly concealed by a vendor. Where registration is effected by depositing a full copy of the deed, it also renders the subsequent falsification of the original document dangerous. Registration of deeds does not (except perhaps to a certain extent indirectly) cheapen or simplify the process of investigation—the formalities at the registry add something to the trouble and cost incurred—but it prevents the particular classes of fraud mentioned.

The history of land registration follows, as a general rule, a fairly uniform course of development. In very early times, and in small and simple communities, the difficulty afterwards found in establishing title to land does not arise, owing to the primitive habit of attaching ceremony and publicity to all dealings. The parties meet on the land, with witnesses; symbolical acts (such as handing over a piece of earth, or the bough of a tree) are performed; and a set form of words is spoken, expressive of the intention to convey. By this means the ownership of each estate in the community becomes to a certain extent a matter of common knowledge, rendering fraud and mistake difficult. But this method leaves a good deal to be desired in point of security. Witnesses die, and memory is uncertain; and one of the earliest improvements consists in the establishment of a sort of public record kept by the magistrate, lord or other local authority, containing a series of contemporary notes of the effect of the various transactions that take place. This book becomes the general title-deed of the whole community, and as long as transactions remain simple, and not too numerous, the results appear to be satisfactory. Of this character are the Manorial Court Rolls, which were in the middle ages the great authorities on title, both in England and on the continent. The entries in them in early times were made in a very few words. The date, the names of the parties, the name or short verbal description of the land, the nature of the transaction, are all that appear. In the land registry at Vienna there is a continuous series of registers of this kind going back to 1368, in Prague to 1377, in Munich to 1440. No doubt there are extant (though in a less

easily accessible form) manorial records in England of equal or greater antiquity. This may be considered the first stage in the history of Land Registration. It can hardly be said to be in active operation at the present day in any civilized country—in the sense in which that term is usually understood. Where dealings become more numerous and complicated, written instruments are required to express the intentions of the parties, and afterwards to supply evidence of the landowner's title. It appears, too, that as a general rule the public books already described continue to be used, notwithstanding this change; only (as would be expected) the entries in them, once plain and simple, either grow into full copies of the long and intricate deeds, or consist of mere notes stating that such and such deeds have been executed, leaving the persons interested to inquire for the originals, in whose custody soever they may be found. This system, which may be regarded as the second stage in the history of land registration, is called Registration of Deeds. It prevails in France, Belgium, parts of Switzerland, in Italy, Spain, India, in almost all the British colonies (except Australasia and Canada), in most of the states of the American Union, in the South American republics, in Scotland and Ireland, and in the English counties of Yorkshire and Middlesex. Where it exists, there is generally a law to the effect that in case of dispute a registered deed shall prevail over an unregistered one. The practical effect is that a purchaser can, by searching the register, find out exactly what deeds he ought to inquire for, and receives an assurance that if, after completion, he registers his own conveyance, no other deeds—even if they exist—will prevail against him.

The expenses and delays, not to mention the occasional actual losses of property through fraud or mistake, attendant on the system of making every purchaser responsible for the due examination of his vendor's title—whether or not assisted by registration of deeds—have induced several governments to establish the more perfect system of Registration of Title, which consists in collecting the transactions affecting each separate estate under a separate head, keeping an accurate account of the parcels of which each such estate is composed, and summarizing authoritatively, as each fresh transaction occurs, the subsisting rights of all parties in relation to the land itself. This system prevails in Germany, Austria, Hungary, parts of Switzerland, the Australasian colonies, nearly the whole of Canada, some of the states of the American Union, to a certain extent in Ireland, and is in course of establishment in England and Wales. The Register consists of three portions:—(1) The description of the land, usually, but not necessarily, accompanied by a reference to a map; (2) the ownership, giving the name and address of the person who can sell and dispose of the land; and (3) the encumbrances, in their order of priority, and the names of the persons for the time being entitled to them. When any fresh transaction takes place the instrument effecting it is produced, and the proper alterations in, or additions to, the register are made: if it be a sale, the name of the vendor is cancelled from the register, and that of the purchaser is entered instead; if it be a mortgage, it is added to the list of encumbrances; if a discharge, the encumbrance discharged is cancelled; if it is a sale of part of the land, the original description is modified or the plan is marked to show the piece conveyed, while a new description or plan is made and a new register is opened for the detached parcel. In the English and Australian registries a "land certificate" is also issued to the landowner containing copies of the register and of the plan. This certificate takes the place more or less of the old documents of title. On a sale, the process is as follows: The vendor first of all produces to the purchaser his land certificate, or gives him the number of his title and an authority to inspect the register. In Austria and in some colonial registries this is not necessary, the register being open to public inspection, which in England is not the case. The purchaser, on inspecting this, can easily see for himself whether the land he wishes to buy is comprised in the registered description or plan, whether the vendor's name appears on the register as the owner of the land, and whether there are any encumbrances or other burdens registered as affecting it. If there are encumbrances, the register states their amount and who are entitled to them. The purchaser then usually[1] prepares a conveyance or transfer of the land (generally in a short printed form issued by the registry), and the vendor executes it in exchange for the purchase money. If there are mortgages, he pays them off to the persons named in the register as their owners, and they concur in a discharge. He then presents the executed instruments at the registry, and is entered as owner of the land instead of the vendor, the mortgages, if any, being cancelled. Where "land certificates" are used (as in England and Australia), a new land certificate is issued to the purchaser showing the existing state of the register and containing a copy of the registered plan of the land. The above is only a brief outline of the processes employed. For further information as to practical details reference may be made to the treatises mentioned at the end of this article.

England and Wales.—The first attempt to introduce general registration of conveyances appears to have been made by the Statute of Enrolments, passed in the 27th year of Henry VIII. But this was soon found to be capable of evasion, and it became a dead letter. A Registration Act applying to the counties of Lancaster, Chester and Durham was passed in Queen Elizabeth's reign, but failed for want of providing the necessary machinery for its observance. The subject reappeared in several bills during the Commonwealth, but these failed to pass, owing, it would seem, to the objection of landowners to publicity. In 1669 a committee of the House of Lords reported that one cause of the depreciation of landed property was the uncertainty of titles, and proposed registration of deeds as a remedy, but nothing was done.

During the next thirty years numerous pamphlets for and against a general registry were published. In 1704 the first Deed Registry Act was passed, applying to the West Riding of Yorkshire. In 1707 the system was extended to the East Riding, and in 1708 to Middlesex. These Middlesex and Yorkshire registries (modified considerably in practice, but not seriously in principle, by the Yorkshire Registries Acts 1884, 1885, and Land Registry [Middlesex Deeds] Act 1891) remain in operation, and are greatly valued by the smaller proprietors and mortgagees, owing to the security against fraud which they provide at a trifling cost. The selection of these counties seems capricious: its probable explanation is that in them trade was flourishing, and the fortunes made were frequently invested in land, and a protection against secret encumbrances was most in demand. In 1728 and 1732 Surrey and Derby petitioned, unsuccessfully, for local registries. In 1735 the North Riding Deed Registry Act was passed. In 1739 a General Registry bill passed the Commons, but did not reach the Lords. Next year the Lords passed a similar bill, but it did not reach the Commons. In 1759 a General Registry bill was thrown out by a majority of one. In 1784 Northumberland unsuccessfully petitioned for a local registry. After this the subject went almost out of sight till the Real Property Commission of 1828. They reported in 1830 in favour of a general register of deeds, but though several bills were introduced, none were passed. In 1846 a committee of the House of Lords reported that the marketable value of real property was seriously diminished by the tedious and expensive process of the transfer of land, and that a registry of title to all real property was essential to the success of any attempt to simplify the system of conveyancing. In 1850 a Royal Commission reported in favour of a general register of deeds, and in 1851 Lord Campbell introduced a bill accordingly, but it was opposed, and was dropped. In 1853 Lord Cranworth introduced a bill, which passed the Lords but not the

Commons.

Hitherto only registration of deeds had been considered, but in 1854 a new Royal Commission was appointed, which reported in 1857 in favour of a register of title. The scheme they recommended was substantially embodied in a bill introduced in 1859 by Lord Cairns—then Solicitor-General—but a dissolution stopped its progress. In 1862 Lord Westbury had the satisfaction of carrying the first act for registration of title. This act enabled any landowner to register an indefeasible title on production of strict proof. The proof required was to be such as the court of chancery would force an unwilling purchaser to accept. Only a few hundred titles were registered under this act, and in 1868 a Royal Commission was appointed to inquire into the causes of its failure. They reported in 1870, making various suggestions of detail, and especially adverting to the great expense caused by the strictness of the official investigation of title before a property could be admitted to the register. In the same year Lord Hatherley introduced a Transfer of Land Bill, but it was not proceeded with. In 1873 Lord Selborne introduced a Land Titles and Transfer Bill, following more or less the recommendations of the report of 1870, proposing for the first time compulsory registration of title upon every next sale after a prescribed date. Lord Cairns again introduced this bill (with some modifications) in 1874, but it had to be dropped. In 1875 Lord Cairns's Land Transfer Act of that year was passed, which was much the same as the former bill, but without compulsion. This act had no better success in the way of voluntary general adoption than the act of 1862, but as its adoption has since been made compulsory, its provisions are important. Its most noticeable feature, from a practical point of view, is the additional prominence given to an expedient called "Possessory" registration (which also existed under another name in Lord Westbury's Act), whereby is removed the great initial difficulty of placing titles on the register in the first instance. Two sorts of registration were established, "Absolute" and "Possessory." The effect of an absolute registration was immediately to destroy all claims adverse to the registered title. But this was only to be granted on a regular investigation of title, which, though not so strict as under the former act, yet necessarily involved time and cost. Possessory registration, however, was to be granted to any one who could show a prima facie title—a quick and cheap process. But the effect of such registration would not be immediately felt. It would not destroy existing adverse claims. It would only prevent new difficulties from arising. In course of time such a title would be practically as good as an absolute one. In 1885 the duke of Marlborough introduced a bill for a registry of titles, and in the following vacation Lord Davey wrote three letters to *The Times* advocating the same thing on the general lines afterwards adopted.[2] In 1887 Lord Halsbury, by introducing his Land Transfer Bill, commenced a struggle with the opponents of reform, which, after ten years of almost continuous effort, resulted in the passing of his act of 1897, establishing compulsory registration of title. Lord Halsbury introduced bills in 1887, 1888 and 1889. Lord Herschell, who succeeded him after the change of government, introduced bills in 1893, 1894 and 1895, these last three being unanimously passed by the House of Lords on every occasion. The bill of 1895 reached committee in the Commons, but was stopped by the dissolution of parliament. In 1897 Lord Halsbury (who had returned to the woolsack) again introduced the same bill with certain modifications which caused the Incorporated Law Society to withdraw its opposition in the House of Commons, and the act was finally passed on the last day of the session. Under it the Privy Council has power to issue orders declaring that on a certain date registration of title is to be compulsory on sale in a given district. The effect of such an order is to oblige every purchaser of land in the district after that date to register a "possessory title," immediately after his purchase. The compulsory provisions of the act extend to freeholds and (by a rule afterwards made) to leaseholds having forty years to run. No order except the first can be made, save on the request of a county council. The first order was made in July 1898. It embraced the whole administrative county of London (including the City of London), proceeding gradually by groups of parishes. Under this order upwards of 122,000 titles had been registered by 1908, representing a value exceeding one hundred millions sterling.

Under the operation of this act, at the expense of a slightly increased cost on all transactions during a few years, persons dealing with land in the county will ultimately experience great relief in the matter both of cost and of delay. The costs of a sale (including professional assistance, if required) will ultimately be for the vendor about one-fifth, and for the purchaser (at the most usual values) less than half, of the present expenses. The delay will be no more than in dealings with stock. Mortgagees will also be protected from risks of fraud, which at present are very appreciable, and of which the Redgrave and Richards cases are recent examples. Further particulars of the practical operation of the acts will be found in the Registrar's Reports of 1902 and 1906, embracing the period from 1899 to 1905 inclusive, with comments on the general position, suggestions for future legislation, &c. In the autumn of 1908 a Royal Commission under the chairmanship of Lord St Aldwyn, was appointed to inquire into the working of the Land Transfer Acts. The evidence given before them in October, November and December 1908 comprised a general exposition by the registrar of the origin and history of the acts, and the principles of their working, and suggestions for amendments in certain details. It also comprised the experience of several landowners and others, who had found the acts highly beneficial, and who had carried through a large number of dealings under absolute titles, without professional help, very quickly, and at a greatly reduced cost.

Scotland.—In Scotland registration of *deeds* was established by an act of 1617, which remained unaltered till 1845. There are also acts of 1868 and 1874. The registry is in Edinburgh. Deeds are registered almost invariably by full copy. The deeds are indexed according to properties—each property having a separate number and folio called a "search sheet," on which all deeds affecting it are referred to. About 40,000 deeds are registered annually. The consequence of the existence of this register is to render fraud in title absolutely unknown. Forty years is the usual period investigated. The investigation can, if desired, be made from the records in the registry alone. The fees are trifling, but suffice to pay the expenses of the office, which employs between 70 and 80 permanent officers in addition to temporary assistants. The total costs of conveyancing amount, roughly speaking, to between 1 and 2% on the purchase money, and are equally shared between vendor and purchaser. In 1906 a royal commission was appointed, with Lord Dunedin as chairman, to inquire into the expediency of instituting in Scotland a system of registration of title.

Australia and New Zealand.—These states now furnish the most conspicuous examples in the British empire of the success of registration of *title*. But prior to the year 1857 they had only registration of *deeds*, and the expense, delay and confusion resulting from the frequent dealings appear to have been a crying evil. Sir Robert Torrens, then registrar of deeds in South Australia, drew up and carried an act establishing a register of title similar to the shipping register. The act rapidly became popular, and was adopted (with variations) in all the other Australasian states in the years 1861, 1862, 1870 and 1874. Consolidating and amending acts have since been passed in most of these states. Only absolute title is registered. All land granted by government, after the passing of the several acts, is placed on the register compulsorily. But voluntary applications are also made in very large numbers. It is said ordinary purchasers will not buy land unless the vendor first registers the title.

The fees are very low—£1 to £3 is a usual maximum—though in some states, *e.g.* Victoria, the fees rise indefinitely, *ad valorem*, at a rate of about 10s. per £1000. Insurance funds are established to provide compensation for errors. At a recent date they amounted to over £400,000, while only £14,600 odd had been paid in claims. All the registries pay their own expenses. Bankers and men of business generally are warm in their appreciation of the acts, which are popularly called Torrens Acts, after their originator, who, though not a lawyer, originated and carried through this important and difficult legal work.

Canada.—Registration of *title* was introduced in Vancouver Island in 1861, was extended to the rest of British Columbia in 1870, and was in 1885 adopted by Ontario, Manitoba and the North-West Territories. Only Quebec, Nova Scotia, New Brunswick and Prince Edward Island retain the old English system, plus registration of deeds. The three provinces which have adopted registration of title have adopted it in somewhat different forms. In British Columbia it is similar to Lord Westbury's Act of 1862. The North-West Territories follow closely the Torrens Acts. The Ontario Act is almost a transcript of Lord Cairns's Act of 1875. The fees are very low, seldom exceeding a few shillings, but all expenses of the office are paid from this source. The Ontario registry has five district offices, as well as the central one at Toronto. This is apparently the only colonial registry not open to public inspection.

Other British Colonies.—In the other British colonies private investigation of title, plus registration of deeds, is the prevailing system, but registration of title has been introduced in one or two instances.

Germany and Austria-Hungary.—By far the most important examples of registration of *title* at present existing—because they show how the system works when applied to large European communities, with all the intricacies and complications of modern civilized life—are to be found in Germany and Austria-Hungary. In some parts of these countries registration of title has been established for several centuries—notably in Bohemia; in most parts it has existed for the greater part of the 19th century; in some districts, again, notably Tirol and the Rhine Provinces, it is still in course of introduction. In all cases it appears to have been preceded by a system of deed registration, which materially facilitated its introduction. In some cases, Prussia, for instance, the former registers were kept in such a way as to amount in themselves to little short of a registry of title. Very low scales of fees suffice to pay all official expenses. In Prussia the fees for registering sales begin at 5d. for a value of £1; at £20 the fee is 2s 7d.; at £100 it is 7s. 3d.; at £1000 it is £1, 10s.; at £5000, £4, 5s., and so on. In case of error, the officials are personally liable; failing these, the state. Other states are very similar. In 1894, 1,159,995 transactions were registered in Prussia. In 1893, 938,708 were registered in Austria. Some idea of the extent to which small holdings prevail in these countries may be gathered from the fact that 36% of the sales and mortgages in Austria were for under £8, 6s. 8d. value—74% were for under £50. Owing to the ease and simplicity of the registers, it is not always necessary to employ professional help. When such help is required, the fees are low. In Vienna £1 is a very usual fee for the purchaser's lawyer. £10 is seldom reached. In Germany the register is private. In Austria it is open to public inspection. In these registers may be found examples of large estates in the country with numerous charges and encumbrances and dealings therewith; peasants' properties, in numerous scattered parcels, acquired and disposed of at different times, and variously mortgaged; town and suburban properties, flats, small farms, rights to light and air, rights of way, family settlements, and dealings of all sorts—inheritances and wills, partitions, bankruptcies, mortgages, and a great variety of dealings therewith. The Continental systems are usually administered locally in districts, about 20 to 30 m. across, attached to the local law courts. In Baden and Württemberg every parish (commune) has its own registry. All ordinary dealings are transacted with the greatest expedition. Security is absolute.[3]

The United States.—Up to a late date the ordinary English system, with registration of *deeds*, was universal in the United States. The registries appear to go back practically to the original settlement of the country. Registration is by full copy. It is said that in the large towns the name indexes were often much overgrown owing to the want of subdivision into smaller areas corresponding to the parishes into which the Middlesex and Yorkshire indexes are divided. In the New York registry not many years ago 25,000 deeds were registered annually. At the same time 35,000 were registered in Middlesex. Complaints are made by American lawyers of want of accuracy in the indexes also. In 1890 an act was passed in New York for splitting the indexes into "blocks," which is believed to have given much relief. The average time and cost of an examination of title, as estimated by a committee of the Bar Association of New York in 1887, was about thirty days and 150 dollars (about £30). A later State Commission in Illinois estimates the law costs of a sale there at about 25 dollars (£5); the time may run into many months. Allusion has already been made to the insurance of title companies. The rates of insurance are substantial, *e.g.* 65 dollars (£13) on the first 3000 dollars (£600), and 5 dollars (£1) on each additional 1000 dollars (£200). This would amount to £20 on £2000 value, £110 on £20,000, £510 on £100,000. The guarantee given is very ample, and may be renewed to subsequent owners at one-third of the fee. Registration of title has lately been introduced, on a voluntary basis, into the states of California, Oregon, Illinois, Massachusetts, Minnesota and Colorado, and also into Hawaii and the Philippines.

France.—In France registration of *deeds* is universal. Sales, mortgages, gifts and successions; easements, leases of over eighteen years, and transactions affecting the land to the extent of three years' rent may lose priority if not registered. Wills need not be registered. Mortgages must be re-registered every ten years. Purchase deeds are registered by filing full copies. Registries are established in all the considerable towns. The duty on sales amounts to the high figure of about 6½% on the value. Part of this is allocated to registration, in addition to which a fixed fee of one franc, and stationers' charges averaging 6 francs are also chargeable. The title can usually be fully investigated from the documents in the registry. Official searches for mortgages are commonly resorted to, at a cost of about 5 francs. Under the monarchy the land system was practically copyhold tenure, but greater validity was attached to the Court Rolls than was the case in England. The present system was established by a law of 1790 after the abolition of seigniorial institutions in 1789. This was modified by the Code Napoleon, and further perfected by a law of 1855. The average value of transactions in France is very small. Probably at the present time four-fifths of the properties are of under £25 value. The costs of a sale for 200 francs (£8) would be about as follows: Duty, 13 fr.; Notary (1%), 2 fr.; expenses, 12 fr.—total 27 fr. A sale for 1000 fr. (£40) would cost about 110 fr. Taking all values, the cost of conveyance and duty reaches the high figure of 10% in the general run of transactions. The vendor as a rule has no costs. *Indefeasible* title is not obtainable, but frauds are almost unknown. A day or two usually suffices for all formalities. On large sales a further process known as the "purge" is undergone, which requires a few weeks and more expense, in order to guard against possible claims against which the deed registries afford no protection, such as dowries of wives, claims under guardianships, &c. A commission (Commission Extraparlementaire du Cadastre), appointed in 1891 to consider the revision of the government cadastral maps (which are in very serious arrear) and the establishment of registration of title, collected, in nine volumes of Comptes Rendus, a great mass of most interesting particulars relating to land questions in France, and in 1905 reported in favour of the general

establishment of a register of title, with a draft of the necessary enactment.

AUTHORITIES.—A very complete list of some 114 English publications from 1653 to 1895 will be found in R. Burnet Morris, *Land Registration* (1895); Parliamentary Publications: *Second Report of the Real Property Commissioners* (1831); *Report of the Registration and Conveyancing Commission* (1850); *Report of the Registration of Title Commission* (1857); *Report of the Land Transfer Commission* (1870); *Reports on Registration of Title in Australasian Colonies* (1871 and 1881); *Report on Registration of Title in Germany and Austria-Hungary* (1896); *The Registrar's Reports of 1902 and 1906 on the Formation of a Register in London*; *Royal Commission on the Land Transfer Acts, Minutes of Evidence* (1909). General reviews of land registration in the British Isles, the Colonies, and in foreign countries: R. Burnet Morris, as above, and C. F. Brickdale, *Land Transfer in Various Countries* (1894). Books on practice: England—Brickdale and Sheldon, *The Land Transfer Acts* (2nd ed., 1905); Cherry and Marigold, *The Land Transfer Acts* (1898); Hay, *Land Registration under the Land Transfer Acts* (1904); *Land Transfer, &c.* (1901); C. F. Brickdale, *Registration in Middlesex* (1892). *Australia—The Australian Torrens System*; Hogg, *The Transfer of Land Act 1890* (Melbourne). Prussia—Oberneck, *Die Preussischen Grundbuchgesetze* (Berlin). Austria—*Das allgemeine Grundbuchsgesetz*, &c. (Vienna); Bartsch, *Das Oesterreichische allgemeine Grundbuchsgesetz in seiner practischen Anwendung* (Vienna). Saxony—Siegmann, *Sächsische Hypothekenrecht* (Leipzig). Statistics—*Oesterreichische Statistik* (*Grundbuchs-ämter*) (Vienna, annually).

(C. F.-BR.)

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1 In Prussia all conveyances are verbal, made in person or by attorney before the registrar, who forthwith notes them in his books.

2 This summary is an abridgement (with permission) of pp. 7 to 26 of Mr R. Burnet Morris's book referred to at the end of this article.

3 Full information as to the German and Austrian systems is to be found in a Parliamentary Report of 1896 (C.—8139) on the subject.

LANDSBERG AM LECH, a town in the kingdom of Bavaria, on the river Lech, 38 m. by rail W. by S. of Munich. Pop. (1905) 6505. It has eight Roman Catholic churches, among them the Liebfrauen Kirche dating from 1498, several monasteries, and a fine medieval town-hall, with frescoes by Karl von Piloty and a painting by Hubert von Herkomer. Here also are a fine gateway, the Bayer-Tor, an agricultural and other schools. Brewing, tanning and the manufacture of agricultural machinery are among the principal industries.

See Schober, *Landsberg am Lech und Umgebung* (1902); and Zwerger, *Geschichte Landsbergs* (1889).

LANDSBERG-AN-DER-WARTHE, a town in the Prussian province of Brandenburg, at the confluence of the Warthe and the Kladow, 80 m. N.E. of Berlin by rail. Pop. (1905) 36,934. It has important engine and boiler works and iron-foundries; there are also manufactures of tobacco, cloth, carriages, wools, spirits, jute products and leather. An active trade is carried on in wood, cattle and the produce of the surrounding country. Landsberg obtained civic privileges in 1257, and later was besieged by the Poles and then by the Hussites.

See R. Eckert, *Geschichte von Landsberg-Warthe* (1890).

LANDSBERG BEI HALLE, a town in Prussia on the Strengbach, on the railway from Berlin to Weissenfels. Pop. (1905) 1770. Its industries include quarrying and malting, and the manufacture of sugar and machinery. Landsberg was the capital of a small margraviate of this name, ruled in the 12th century by a certain Dietrich, who built the town. Later it belonged to Meissen and to Saxony, passing to Prussia in 1814.

LANDSEER, SIR EDWIN HENRY (1802-1873), English painter, third son of John Landseer, A.R.A., a well-known engraver and writer on art, was born at 71 Queen Anne Street East (afterwards 33 Foley Street), London, on March 7th 1802. His mother was Miss Potts, who sat to Sir Joshua Reynolds as the reaper

with a sheaf of corn on her head, in “Macklin’s Family Picture,” or “The Gleaners.”[1] Edwin Henry Landseer began his artistic education under his father so successfully that in his fifth year he drew fairly well, and was familiar with animal character and passion. Drawings of his, at South Kensington, dated by his father, attest that he drew excellently at eight years of age; at ten he was an admirable draughtsman and his work shows considerable sense of humour. At thirteen he drew a majestic St Bernard dog so finely that his brother Thomas engraved and published the work. At this date (1815) he sent two pictures to the Royal Academy, and was described in the catalogue as “Master E. Landseer, 33 Foley Street.” Youth forbade his being reckoned among practising artists, and caused him to be considered as the “Honorary Exhibitor” of “No. 443, Portrait of a Mule,” and “No. 584, Portraits of a Pointer Bitch and Puppy.” Adopting the advice of B. R. Haydon, he studied the Elgin Marbles, the animals in the Tower of London and Exeter ‘Change, and dissected every animal whose carcass he could obtain. In 1816 Landseer was admitted a student of the Royal Academy schools. In 1817 he sent to the Academy a portrait of “Old Brutus,” a much-favoured dog, which, as well as its son, another Brutus, often appeared in his later pictures. Even at this date Landseer enjoyed considerable reputation, and had more work than he could readily perform, his renown having been zealously fostered by his father in James Elmes’s *Annals of the Fine Arts*. At the Academy he was a diligent student and a favourite of Henry Fuseli’s, who would look about the crowded antique school and ask, “Where is my curly-headed dog-boy?” Although his pictures sold easily from the first, the prices he received at this time were comparatively small. In 1818 Landseer sent to the Society of Painters in Oil and Water Colours, which then held its exhibitions in Spring Gardens, his picture of “Fighting Dogs getting Wind.” The sale of this work to Sir George Beaumont vastly enhanced the fame of the painter, who soon became “the fashion.” This picture illustrates the prime strength of Landseer’s earlier style. Unlike the productions of his later life, it displays not an iota of sentiment. Perfectly drawn, solidly and minutely finished, and carefully composed, its execution attested the skill acquired during ten years’ studies from nature. Between 1818 and 1825 Landseer did a great deal of work, but on the whole gained little besides facility of technical expression, a greater zest for humour and a larger style. The work of this stage ended with the production of the painting called “The Cat’s Paw,” which was sent to the British Institution in 1824, and made an enormous sensation. The price obtained for this picture, £100, enabled Landseer to set up for himself in the house No. 1 St John’s Wood Road, where he lived nearly fifty years and in which he died. During this period Landseer’s principal pictures were “The Cat Disturbed”; “Alpine Mastiffs reanimating a Distressed Traveller,” a famous work engraved by his father; “The Ratcatchers”; “Pointers to be”; “The Larder Invaded”; and “Neptune,” the head and shoulders of a Newfoundland dog. In 1824 Landseer and C. R. Leslie made a journey to the Highlands—a momentous visit for the former, who thenceforward rarely failed annually to repeat it in search of studies and subjects.

In 1826 Landseer was elected an A.R.A. In 1827 appeared “The Monkey who has seen the World,” a picture which marked the growth of a taste for humorous subjects in the mind of the painter that had been evoked by the success of the “Cat’s Paw.” “Taking a Buck” (1825) was the painter’s first Scottish picture. Its execution marked a change in his style which, in increase of largeness, was a great improvement. In other respects, however, there was a decrease of solid qualities; indeed, finish, searching modelling, and elaborate draughtsmanship rarely appeared in Landseer’s work after 1823. The subject, as such, soon after this time became a very distinct element in his pictures; ultimately it dominated, and in effect the artist enjoyed a greater degree of popularity than technical judgment justified, so that later criticism has put Landseer’s position in art much lower than the place he once occupied. Sentiment gave new charm to his works, which had previously depended on the expression of animal passion and character, and the exhibition of noble qualities of draughtsmanship. Sentimentality ruled in not a few pictures of later dates, and *quasi*-human humour, or pathos, superseded that masculine animalism which rioted in its energy, and enabled the artist to rival Snyders, if not Velazquez, as a painter of beasts. After “High Life” and “Low Life,” now in the Tate Gallery, London, Landseer’s dogs, and even his lions and birds, were sometimes more than half civilized. It was not that these later pictures were less true to nature than their forerunners, but the models were chosen from different grades of animal society. As Landseer prospered he kept finer company, and his new patrons did not care about rat-catching and dog-fighting, however vigorously and learnedly those subjects might be depicted. It cannot be said that the world lost much when, in exchange for the “Cat Disturbed” and “Fighting Dogs getting Wind,” came “Jack in Office,” “The Old Shepherd’s Chief Mourner,” and “The Swannery invaded by Eagles,” three pictures which are types of as many diverse moods of Landseer’s art, and each a noble one.

Landseer was elected a Royal Academician in 1831. “Chevy Chase” (1826), which is at Woburn, “The Highland Whisky Still” (1829), “High Life” (1829) and “Low Life” (1829), besides other important works, had appeared in the interval. Landseer had by this time attained such amazing mastery that he painted “Spaniel and Rabbit” in two hours and a half, and “Rabbits,” which was at the British Institution, in three-quarters of an hour; and the fine dog-picture “Odin” (1836) was the work of one sitting, *i.e.* painted within twelve hours. But perhaps the most wonderful instance of his rapid but sure and dexterous brush-handling was “The Cavalier’s Pets” (1845), the picture of two King Charles’s spaniels in the National Gallery, which was executed in two days. Another remarkable feat consisted in drawing, simultaneously, a stag’s head with one hand and a head of a horse with the other. “Harvest in the Highlands,” and that masterpiece of humour, “Jack in Office,” were exhibited in 1833. In 1834 a noble work of sentiment was given to the world in “Suspense,” which is now at South Kensington, and shows a dog watching at the closed door of his wounded master. Many think this to be Landseer’s finest work, others prefer “The Old Shepherd’s Chief Mourner” (1837). The over-praised and unfortunate “Bolton Abbey in the Olden Time,” a group of portraits in character, was also shown in 1834, and was the first picture for which the painter received £400. A few years later he sold “Peace” and “War” for £1500, and for the copyrights alone obtained £6000. In 1881 “Man proposes, God Disposes” (1864) was resold for 6300 guineas, and a cartoon of “The Chase” (1866) fetched 5000 guineas. “A Distinguished Member of the Humane Society,” a dog reclining on a quay wall (1838), was succeeded by “Dignity and Impudence” (1839). The “Lion Dog of Malta,” and “Laying down the Law” appeared in 1840. In 1842 was finished the capital “Highland Shepherd’s Home” (Sheepshanks Gift), together with the beautiful “Eos,” a portrait of Prince Albert’s most graceful of greyhounds, to which Thomas Landseer added an ineffable charm and solidity not in the painting. The “Rout of Comus” was painted in the summerhouse of Buckingham Palace garden in 1843. The “Challenge” was accompanied (1844) by “Shoeing the Bay Mare” (Bell Gift), and followed by “Peace” and “War,” and the “Stag at Bay” (1846). “Alexander and Diogenes,” and a “Random Shot,” a dead kid lying in the snow, came forth in 1848. In 1850 Landseer received a national commission to paint in the Houses of

Parliament three subjects connected with the chase. Although they would have been worth three times as much money, the House of Commons refused to grant £1500 for these pictures, and the matter fell through, more to the artist's profit than the nation's gain. The famous "Monarch of the Glen" (1851) was one of these subjects. "Night" and "Morning," romantic and pathetic deer subjects, came in due order (1853). For "The Sanctuary" (1842) the Fine Arts jury of experts awarded to the artist the great gold medal of the Exposition Universelle, Paris, 1855.

The "Dialogue at Waterloo" (1850), which he afterwards regarded with strong disapproval, showed how Landseer, like nearly all English artists of original power and considerable fertility, owed nothing to French or Italian training. In the same year he received the honour of knighthood. Next came "Geneva" (1851), "Titania and Bottom" (1851), which comprises a charming queen of the fairies, and the "Deer Pass" (1852), followed by "The Children of the Mist" (1853), "Saved" (1856), "Braemar," a noble stag, "Rough and Ready," and "Uncle Tom and his Wife for Sale" (1857). "The Maid and the Magpie" (1858), the extraordinarily large cartoon called "Deer Browsing" (1857), "The Twa Dogs" (1858), and one or two minor paintings were equal to any previously produced by the artist. Nevertheless, signs of failing health were remarked in "Doubtful Crumbs" and a "Kind Star" (1859). The immense and profoundly dramatic picture called "A Flood in the Highlands" (1860) more than reinstated the painter before the public, but friends still saw ground for uneasiness. Extreme nervous excitability manifested itself in many ways, and in the choice (1864) of the dreadful subject of "Man Proposes, God Disposes," bears clumsily clambering among relics of Sir John Franklin's party, there was occult pathos, which some of the artist's intimates suspected, but did not avow. In 1862 and 1863 Landseer produced nothing; but "A Piper and a Pair of Nutcrackers" (1864) revealed his old power. He declined the presidentship of the Royal Academy in 1865, in succession to Sir Charles Eastlake. In 1867 the four lions which he had modelled for the base of the Nelson Monument in Trafalgar Square, London, were unveiled, and with "The Swannery invaded by Eagles" (1869) he achieved his last triumph. After four years more, full of suffering, mainly of broken art and shattered mental powers, Sir Edwin Landseer died on the 1st of October 1873, and was buried, ten days later, in St Paul's Cathedral. Those who would see the full strength of Landseer's brush should examine his sketches and the like in the Victoria and Albert Museum and similar works. In these he shows himself endowed with the strength of Paul Potter.

See Algernon Graves's *Catalogue of the Works of the late Sir Edwin Landseer*, R.A. (London, n.d.); Frederic G. Stephens's *Sir Edwin Landseer* (1880); W. Cosmo Monkhouse's *The Studies of Sir Edwin Landseer, R.A., with a History of his Art-Life* (London, n.d.); W. P. Frith's *My Autobiography and Reminiscences* (1887); Vernon Heath's *Recollections* (1892); and James A. Manson's "Sir Edwin Landseer, R.A.," *The Makers of British Art* (London, 1902).

1 John Landseer died February 29, 1852, aged ninety-one (or eighty-three, according to Cosmo Monkhouse). Sir Edwin's eldest brother Thomas, an A.R.A. and a famous engraver, whose interpretations of his junior's pictures have made them known throughout the world, was born in 1795, and died January 20, 1880. Charles Landseer, R.A., and Keeper of the Royal Academy, the second brother, was born in 1799, and died July 22, 1879. John Landseer's brother Henry was a painter of some reputation, who emigrated to Australia.

LAND'S END, a promontory of Cornwall, forming the western most point of England. It is a fine headland of granite, pierced by a natural arch, on a coast renowned for its cliff scenery. Dangerous reefs lie off the point, and one group a mile from the mainland is marked by the Longships Lighthouse, in 50° 4′ N. 5° 43′ W. The Land's End is the westernmost of the granite masses which rise at intervals through Cornwall from Dartmoor. The phenomenon of a raised beach may be seen here, but indications of a submerged forest have also been discovered in the neighbourhood.

LANDSHUT, a town in the kingdom of Bavaria, on the right bank of the Isar, 40 m. N.E. of Munich on the main line of railway to Regensburg. Pop. (1905) 24,217. Landshut is still a quaint, picturesque place; it consists of an old and a new town and of four suburbs, one part of it lying on an island in the Isar. It contains a fine street, the Altstadt, and several interesting medieval buildings. Among its eleven churches the most noteworthy are those of St Martin, with a tower 432 ft. high, of St Jodocus, and of the Holy Ghost, or the Hospital church, all three begun before 1410. The former Dominican convent, founded in 1271, once the seat of the university, is now used as public offices. The post-office, formerly the meeting-house of the Estates, a building adorned with old frescoes; the royal palace, which contains some very fine Renaissance work; and the town-hall, built in 1446 and restored in 1860, are also noteworthy. The town has monuments to the Bavarian king, Maximilian II., and to other famous men; it contains a botanical garden and a public park. On a hill overlooking Landshut is the castle of Trausnitz, called also Burg Landshut, formerly a stronghold of the dukes of Lower Bavaria, whose burial-place was at Seligenthal also near the town. The original building was erected early in the 13th century, but the chapel, the oldest part now existing, dates from the 14th century. The upper part of the castle has been made habitable. The industries of Landshut are not important; they include brewing, tanning and spinning, and the manufacture of tobacco and cloth. Market gardening and an extensive trade in grain are also carried on.

Landshut was founded about 1204, and from 1255 to 1503 it was the principal residence of the dukes of

Lower Bavaria and of their successors, the dukes of Bavaria-Landshut. During the Thirty Years' War it was captured several times by the Swedes and in the 18th century by the Austrians. In April 1809 Napoleon defeated the Austrians here and the town was stormed by his troops. From 1800 to 1826 the university, formerly at Ingolstadt and now at Munich, was located at Landshut. Owing to the three helmets which form its arms the town is sometimes called "Dreihelm Stadt."

See Staudenraus, *Chronik der Stadt Landshut*, (Landshut 1832); Wiesend, *Topographische Geschichte von Landshut* (Landshut, 1858); Rosenthal, *Zur Rechtsgeschichte der Städte Landshut und Straubing* (Würzberg, 1883); Kalcher, *Führer durch Landshut* (Landshut, 1887); Haack, *Die gotische Architektur und Plastik der Stadt Landshut* (Munich, 1894); and *Geschichte der Stadt Landshut* (Landshut, 1835).

LANDSKNECHT, a German mercenary foot-soldier of the 16th century. The name (German for "man of the plains") was given to mark the contrast between the force of these soldiers, formed by the emperor Maximilian I. about the end of the 15th century, and the Swiss, the "men of the mountains," at that time the typical mercenary infantry of Europe. After the battles of Marignan and Pavia, where the military reputation of the Swiss had been broken, the Swabian *landsknechte* came to be considered the best fighting troops in Europe. Though primarily a German force and always the mainstay of imperial armies, they served in organized bodies as mercenaries elsewhere in Europe; in France they fought for the League and for the Protestants indiscriminately. In fact *landsknecht*, and more particularly its French corruption *lansquenet*, became in western Europe a general term for mercenary foot-soldiers. It is owing to the *lange Spiesse* (long pike or lance), the typical weapon with which they were armed, that the corrupted French form, as well as a German form, *lanzknecht*, and an English "lance-knight" came into use.

The landsknechts were raised by colonels (*Oberst*), to whom the emperor issued recruiting commissions corresponding to the English "indents"; they were organized in regiments made up of a colonel, lieut.-colonel and regimental staff, with a varying number of companies, "colours" (*Fähnlein*), commanded by captains (*Hauptmann*); subaltern officers were lieutenants and ensigns (*Fähnrich*). In thus defining the titles and duties of each rank, and in almost every detail of regimental customs and organization, discipline and interior economy, the landsknechts may be considered as the founders of the modern military system on a regimental basis (see further ARMY).

LANDSKRONA, a seaport of Sweden, on the east side of the Sound, 15 m. N.E. of Copenhagen. Pop. (1900) 14,399. The harbour is excellent, giving a depth of 35 ft., with 15 ft. beside the quays. The town is among the first twelve manufacturing centres of Sweden in value of output, the principal industries being tanning and sugar manufacture and refining from beetroot. On the little island of Hven, immediately opposite the town, Tycho Brahe built his famous subterranean observatory of Uranienborg in the second half of the 16th century. Landskrona, originally called Landora or Landör, owed its first importance to King Erik XIII., who introduced a body of Carmelite monks from Germany in 1410, and bestowed on the place the privileges of a town. During the wars of the 16th and 17th centuries it played too conspicuous a part for its own prosperity. On the 24th of July 1677 a great naval battle was fought in the neighbourhood in which the Swedes defeated the Danes.

LANDSTURM, the German equivalent of the *levée en masse*, or general levy of all men capable of bearing arms and not included in the other regularly organized forces, standing army or its second line formations, of Continental nations.

LANDWEHR, a German word meaning "defence of the country"; but the term as applied to an insurrectional militia is very ancient, and "lantveri" are mentioned in *Baluzii Capitularia*, as quoted in Hallam's *Middle Ages*, i. 262, 10th ed. The landwehr in Prussia was first formed by a royal edict of the 17th of March 1813, which called up all men capable of bearing arms between the ages of eighteen and forty-five, and not serving in the regular army, for the defence of the country. After the peace of 1815 this force was made an

integral part of the Prussian army, each brigade being composed of one line and one landwehr regiment. This, however, retarded the mobilization and diminished the value of the first line, and by the re-organization of 1859 the landwehr troops were relegated to the second line. In Austria the landwehr is a totally different organization. It is in reality a *cadre* force existing alongside the regular army, and to it are handed over such recruits as, for want of vacancies, cannot be placed in the latter. In Switzerland the landwehr is a second line force, in which all citizens serve for twelve years, after passing twelve in the "Auszug" or field army.

LANE, EDWARD WILLIAM (1801-1876), English Arabic scholar, son of Dr Theophilus Lane, prebendary of Hereford, was born on the 17th of September 1801. He was educated at Bath and Hereford grammar schools, where he showed marked mathematical ability, and was designed for Cambridge and the church, but this purpose was abandoned, and for some time he studied the art of engraving. Failure of health compelled him to throw aside the burin, and in 1825 he started for Egypt, where he spent three years, twice ascended the Nile, proceeding as far as the second cataract, and composed a complete description of Egypt, with a portfolio of one hundred and one drawings. This work was never published, but the account of the modern Egyptians, which formed a part of it, was accepted for separate publication by the Society for the Diffusion of Useful Knowledge. To perfect this work Lane again visited Egypt in 1833-1835, residing mainly in Cairo, but retiring to Luxor during the plague of 1835. Lane took up his residence in the Mahommedan quarter, and under the name of Mansur Effendi lived the life of an Egyptian scholar. He was fortunate in the time when he took up his work, for Cairo had not then become a modern city, and he was thus able to describe aspects of Arabian life that no longer exist there. Perfected by the additional observations collected during these years, the *Modern Egyptians* appeared in 1836, and at once took the place which it has never lost as the best description of Eastern life and an Eastern country ever written. It was followed from 1838 to 1840 by a translation of the *Arabian Nights*, with notes and illustrations, designed to make the book a sort of encyclopaedia of Eastern manners. The translation itself is an admirable proof of scholarship, but is characterized by a somewhat stilted mannerism, which is not equally appropriate to all parts of the motley-coloured original. The character of some of the tales and the tedious repetitions of the same theme in the Arabic collection induced Lane to leave considerable parts of the work untranslated. The value of his version is increased by the exhaustive notes on Mahommedan life and customs. In 1840 Lane married a Greek lady. A useful volume of *Selections from the Kur-ān* was published in 1843, but before it passed through the press Lane was again in Egypt, where he spent seven years (1842-1849) collecting materials for a great Arabic lexicon, which the munificence of Lord Prudhoe (afterwards duke of Northumberland) enabled him to undertake. The most important of the materials amassed during this sojourn (in which he was accompanied by his wife and by his sister, Mrs Poole, authoress of the *Englishwoman in Egypt*, with her two sons, afterwards well known in Eastern letters) was a copy in 24 thick quarto volumes of Sheikh Murtadā's great lexicon, the *Tāj el 'Arūs*, which, though itself a compilation, is so extensive and exact that it formed the main basis of Lane's subsequent work. The author, who lived in Egypt in the 18th century, used more than a hundred sources, interweaving what he learned from them with the *al-Qāmūs* of Fairūzābādī in the form of a commentary. By far the larger part of this commentary was derived from the *Lisān el 'Arab* of Ibn Mokarram, a work of the 13th century, which Lane was also able to use while in Cairo.

Returning to England in 1849, Lane devoted the remaining twenty-seven years of his life to digesting and translating his Arabic material in the form of a great thesaurus of the lexicographical knowledge of the Arabs. In spite of weak health he continued this arduous task with unflagging diligence till a few days before his death at Worthing on the 10th of August 1876. Five parts appeared during his lifetime (1863-1874), and three posthumous parts were afterwards edited from his papers by S. Lane-Poole. Even in its imperfect state the *Lexicon* is an enduring monument, the completeness and finished scholarship with which it is executed making each article an exhaustive monograph. Two essays, the one on Arabic lexicography and the other on Arabic pronunciation, contributed to the magazine of the German Oriental Society, complete the record of Lane's publications. His scholarship was recognized by many learned European societies. He was a member of the German Oriental Society, a correspondent of the French Institute, &c. In 1863 he was awarded a small civil list pension, which was after his death continued to his widow. Lane was not an original mind; his powers were those of observation, industry and sound judgment. His personal character was elevated and pure, his strong sense of religious and moral duty being of the type that characterized the best circles of English evangelicalism in the early part of the 19th century.

A Memoir, by his grand-nephew, S. Lane-Poole, was prefixed to part vi. of the *Lexicon*. It was published separately in 1877.

LANE, GEORGE MARTIN (1823-1897), American scholar, was born at Charlestown, Massachusetts, on the 24th of December 1823. He graduated in 1846 at Harvard, and in 1847-1851 studied at the universities of Berlin, Bonn, Heidelberg and Göttingen. In 1851 he received his doctor's degree at Göttingen for his dissertation *Smyrnaeorum Res Gestae et Antiquitates*, and on his return to America he was appointed University Professor of Latin in Harvard College. From 1869 until 1894, when he resigned and became professor emeritus, he was Pope Professor of Latin in the same institution. His *Latin Pronunciation*, which led to the rejection of the English method of Latin pronunciation in the United States, was published in 1871. He

died on the 30th of June 1897. His *Latin Grammar*, completed and published by Professor M. H. Morgan in the following year, is of high value. Lane's assistance in the preparation of Harper's Latin lexicons was also invaluable. English light verse he wrote with humour and fluency, and his song *Jonah* and the *Ballad of the Lone Fishball* were famous.

LANE, JAMES HENRY (1814-1866), American soldier and politician, was born at Lawrenceburg, Indiana, on the 22nd of June 1814. He was the son of Amos Lane (1778-1849), a political leader in Indiana, a member of the Indiana House of Representatives in 1816-1818 (speaker in 1817-1818), in 1821-1822 and in 1839-1840, and from 1833 to 1837 a Democratic representative in Congress. The son received a common school education, studied law and in 1840 was admitted to the bar. In the Mexican War he served as a colonel under General Taylor, and then commanded the Fifth Indiana regiment (which he had raised) in the Southern Campaign under General Scott. Lane was lieutenant-governor of Indiana from 1849 to 1853, and from 1853 to 1855 was a Democratic representative in Congress. His vote in favour of the Kansas-Nebraska Bill ruined his political future in his own state, and he emigrated in 1855 to the Territory of Kansas, probably as an agent of Stephen A. Douglas to organize the Democratic party there. He soon joined the Free State forces, however, was a member of the first general Free State convention at Big Springs in September 1855, and wrote its "platform," which deprecated abolitionism and urged the exclusion of negroes from the Territory; and he presided over the Topeka Constitutional Convention, composed of Free State men, in the autumn of 1855. Lane was second in command of the forces in Lawrence during the "Wakarusa War"; and in the spring of 1856 was elected a United States senator under the Topeka Constitution, the validity of which, however, and therefore the validity of his election, Congress refused to recognize. In May 1856, with George Washington Deitzler (1826-1884), Dr Charles Robinson, and other Free State leaders, he was indicted for treason; but he escaped from Kansas, made a tour of the northern cities, and by his fiery oratory aroused great enthusiasm in behalf of the Free State movement in Kansas. Returning to the Territory with John Brown in August 1856, he took an active part in the domestic feuds of 1856-1857. After Kansas became a state, Lane was elected in 1861 to the United States Senate as a Republican. Immediately on reaching Washington he organized a company to guard the President; and in August 1861, having gained the ear of the Federal authorities and become intimate with President Lincoln, he went to Kansas with vague military powers, and exercised them in spite of the protests of the governor and the regular departmental commanders. During the autumn, with a brigade of 1500 men, he conducted a devastating campaign on the Missouri border, and in July 1862 he was appointed commissioner of recruiting for Kansas, a position in which he rendered faithful service, though he frequently came into conflict with the state authorities. At this time he planned a chimerical "great Southern expedition" against New Mexico, but this came to nothing. In 1864 he laboured earnestly for the re-election of Lincoln. When President Johnson quarrelled with the Radical Republicans, Lane deserted the latter and defended the Executive. Angered by his defection, certain senators accused him of being implicated in Indian contracts of a fraudulent character; and in a fit of depression following this accusation he took his own life, dying near Fort Leavenworth, Kansas, on the 11th of July 1866, ten days after he had shot himself in the head. Ambitious, unscrupulous, rash and impulsive, and generally regarded by his contemporaries as an unsafe leader, Lane was a man of great energy and personal magnetism, and possessed oratorical powers of a high order.

See the article by L. W. Spring entitled "The Career of a Kansas Politician," in vol. iv. (October 1898) of the *American Historical Review*; and for the commoner view, which makes him not a coward as does Spring, but a "grim chieftain" and a hero, see John Speer, *Life of Gen. James H. Lane*, "*The Saviour of Kansas*," (Garden City, Kansas, 1896).

Senator Lane should not be confused with James Henry Lane (1833-1907), who served on the Confederate side during the Civil War, attaining the rank of brigadier-general in 1862, and after the war was professor of natural philosophy and military tactics in the Virginia Agricultural and Mechanical College from 1872 to 1880, and professor of civil engineering and drawing in the Alabama Polytechnic Institute from 1882 until his death.

LANESSAN, JEAN MARIE ANTOINE DE (1843-), French statesman and naturalist, was born at Sainte-André de Cubzac (Gironde) on the 13th of July 1843. He entered the navy in 1862, serving on the East African and Cochin-China stations in the medical department until the Franco-German War, when he resigned and volunteered for the army medical service. He now completed his studies, taking his doctorate in 1872. Elected to the Municipal Council of Paris in 1879, he declared in favour of communal autonomy and joined with Henri Rochefort in demanding the erection of a monument to the Communards; but after his election to the Chamber of Deputies for the 5th arrondissement of Paris in 1881 he gradually veered from the extreme Radical party to the Republican Union, and identified himself with the cause of colonial expansion. A government mission to the French colonies in 1886-1887, in connexion with the approaching Paris exhibition, gave him the opportunity of studying colonial questions, on which, after his return, he published three works: *La Tunisie* (Paris, 1887); *L'Expansion coloniale de la France* (*ib.*, 1888), *L'Indo-Chine française* (*ib.*, 1889). In 1891 he was made civil and military governor of French Indo-China, where his administration, which involved him in open rupture with Admiral Fournier, was severely criticized. Nevertheless he consolidated French influence in Annam and Cambodia, and secured a large accession of territory on the Mekong river from the kingdom of Siam. He was recalled in 1894, and published an apology for his administration (*La Colonisation*

française en Indo-Chine) in the following year. In the Waldeck-Rousseau cabinet of 1899 to 1902 he was minister of marine, and in 1901 he secured the passage of a naval programme intended to raise the French navy during the next six years to a level befitting the place of France among the great powers. At the general election of 1906 he was not re-elected. He was political director of the *Siècle*, and president of the French Colonization Society, and wrote, besides the books already mentioned, various works on political and biological questions.

LANFRANC (d. 1089), archbishop of Canterbury, was a Lombard by extraction. He was born in the early years of the 11th century at Pavia, where his father, Hanbald, held the rank of a magistrate. Lanfranc was trained in the legal studies for which northern Italy was then becoming famous, and acquired such proficiency that tradition links him with Irnerius of Bologna as a pioneer in the renaissance of Roman law. Though designed for a public career Lanfranc had the tastes of a student. After his father's death he crossed the Alps to found a school in France; but in a short while he decided that Normandy would afford him a better field. About 1039 he became the master of the cathedral school at Avranches, where he taught for three years with conspicuous success. But in 1042 he embraced the monastic profession in the newly founded house of Bec. Until 1045 he lived at Bec in absolute seclusion. He was then persuaded by Abbot Herluin to open a school in the monastery. From the first he was celebrated (*totius Latinitatis magister*). His pupils were drawn not only from France and Normandy, but also from Gascony, Flanders, Germany and Italy. Many of them afterwards attained high positions in the Church; one, Anselm of Badagio, became pope under the title of Alexander II. In this way Lanfranc set the seal of intellectual activity on the reform movement of which Bec was the centre. The favourite subjects of his lectures were logic and dogmatic theology. He was therefore naturally invited to defend the doctrine of transubstantiation against the attacks of Berengar of Tours. He took up the task with the greatest zeal, although Berengar had been his personal friend; he was the protagonist of orthodoxy at the councils of Vercelli (1050), Tours (1054) and Rome (1059). To his influence we may attribute the desertion of Berengar's cause by Hildebrand and the more broad-minded of the cardinals. Our knowledge of Lanfranc's polemics is chiefly derived from the tract *De corpore et sanguine Domini* which he wrote many years later (after 1079) when Berengar had been finally condemned. Though betraying no signs of metaphysical ability, his work was regarded as conclusive and became a text-book in the schools. It is the most important of the works attributed to Lanfranc; which, considering his reputation, are slight and disappointing.

In the midst of his scholastic and controversial activities Lanfranc became a political force. While merely a prior of Bec he led the opposition to the uncanonical marriage of Duke William with Matilda of Flanders (1053) and carried matters so far that he incurred a sentence of exile. But the quarrel was settled when he was on the point of departure, and he undertook the difficult task of obtaining the pope's approval of the marriage. In this he was successful at the same council which witnessed his third victory over Berengar (1059), and he thus acquired a lasting claim on William's gratitude. In 1066 he became the first abbot of St Stephen's at Caen, a house which the duke had been enjoined to found as a penance for his disobedience to the Holy See. Henceforward Lanfranc exercised a perceptible influence on his master's policy. William adopted the Cluniac programme of ecclesiastical reform, and obtained the support of Rome for his English expedition by assuming the attitude of a crusader against schism and corruption. It was Alexander II., the former pupil of Lanfranc, who gave the Norman Conquest the papal benediction—a notable advantage to William at the moment, but subsequently the cause of serious embarrassments.

Naturally, when the see of Rouen next fell vacant (1067), the thoughts of the electors turned to Lanfranc. But he declined the honour, and he was nominated to the English primacy as soon as Stigand had been canonically deposed (1070). The new archbishop at once began a policy of reorganization and reform. His first difficulties were with Thomas of Bayeux, archbishop-elect of York, who asserted that his see was independent of Canterbury and claimed jurisdiction over the greater part of midland England. Lanfranc, during a visit which he paid the pope for the purpose of receiving his pallium, obtained an order from Alexander that the disputed points should be settled by a council of the English Church. This was held at Winchester in 1072. Thanks to a skilful use of forged documents, the primate carried the council's verdict upon every point. Even if he were not the author of the forgeries he can scarcely have been the dupe of his own partisans. But the political dangers to be apprehended from the disruption of the English Church were sufficiently serious to palliate the fraud. This was not the only occasion on which Lanfranc allowed his judgment to be warped by considerations of expediency. Although the school of Bec was firmly attached to the doctrine of papal sovereignty, he still assisted William in maintaining the independence of the English Church; and appears at one time to have favoured the idea of maintaining a neutral attitude on the subject of the quarrels between papacy and empire. In the domestic affairs of England the archbishop showed more spiritual zeal. His grand aim was to extricate the Church from the fetters of the state and of secular interests. He was a generous patron of monasticism. He endeavoured to enforce celibacy upon the secular clergy. He obtained the king's permission to deal with the affairs of the Church in synods which met apart from the Great Council, and were exclusively composed of ecclesiastics. Nor can we doubt that it was his influence which shaped the famous ordinance separating the ecclesiastical from the secular courts (*c.* 1076). But even in such questions he allowed some weight to political considerations and the wishes of his sovereign. He acknowledged the royal right to veto the legislation of national synods. In the cases of Odo of Bayeux (1082) and of William of St Calais, bishop of Durham (1088), he used his legal ingenuity to justify the trial of bishops before a lay tribunal. He accelerated the process of substituting Normans for Englishmen in all preferments of importance; and although his nominees were usually respectable, it cannot be said that all of them were better than the men whom they superseded. For this admixture of secular with spiritual aims there was considerable excuse. By long tradition the primate was entitled to a leading position in the king's councils; and the interests of the Church demanded that Lanfranc should use his power in a manner not displeasing to the king. On several occasions when William I. was absent from England Lanfranc acted as his vicegerent; he then had opportunities of realizing the close connexion

between religious and secular affairs.

Lanfranc's greatest political service to the Conqueror was rendered in 1075, when he detected and foiled the conspiracy which had been formed by the earls of Norfolk and Hereford. But this was not the only occasion on which he turned to good account his influence with the native English. Although he regarded them as an inferior race he was just and honourable towards their leaders. He interceded for Waltheof's life and to the last spoke of the earl as an innocent sufferer for the crimes of others; he lived on terms of friendship with Bishop Wulfstan. On the death of the Conqueror (1087) he secured the succession for William Rufus, in spite of the discontent of the Anglo-Norman baronage; and in 1088 his exhortations induced the English militia to fight on the side of the new sovereign against Odo of Bayeux and the other partisans of Duke Robert. He exacted promises of just government from Rufus, and was not afraid to remonstrate when the promises were disregarded. So long as he lived he was a check upon the worst propensities of the king's administration. But his restraining hand was too soon removed. In 1089 he was stricken with fever and he died on the 24th of May amidst universal lamentations. Notwithstanding some obvious moral and intellectual defects, he was the most eminent and the most disinterested of those who had co-operated with William I. in riveting Norman rule upon the English Church and people. As a statesman he did something to uphold the traditional ideal of his office; as a primate he elevated the standards of clerical discipline and education. Conceived in the Hildebrandine spirit, his reforms led by a natural sequence to strained relations between Church and State; the equilibrium which he established was unstable, and depended too much upon his personal influence with the Conqueror. But of all the Hildebrandine statesmen who applied their teacher's ideas within the sphere of a particular national church he was the most successful.

The chief authority is the *Vita Lanfranci* by Milo Crispin, who was precentor at Bec and died in 1149. Milo drew largely upon the *Vita Herluini*, composed by Gilbert Crispin, abbot of Westminster. The *Chronicon Beccensis abbatiae*, a 14th-century compilation, should also be consulted. The first edition of these two sources, and of Lanfranc's writings, is that of L. d'Achery, *Beati Lanfranci opera omnia* (Paris, 1648). Another edition, slightly enlarged, is that of J. A. Giles, *Lanfranci opera* (2 vols., Oxford, 1844). The correspondence between Lanfranc and Gregory VII. is given in the *Monumenta Gregoriana* (ed. P. Jaffé, Berlin, 1865). Of modern works A. Charma's *Lanfranc* (Paris, 1849), H. Boehmer's *Die Fälschungen Erzbischof Lanfranks von Canterbury* (Leipzig, 1902), and the same author's *Kirche und Staat in England und in der Normandie* (Leipzig, 1899) are useful. See also the authorities cited in the articles on WILLIAM I. and WILLIAM II.

(H. W. C. D.)

LANFREY, PIERRE (1828-1877), French historian and politician, was born at Chambéry (Savoie) on the 26th of October 1828. His father had been one of Napoleon's officers. The son studied philosophy and history in Paris and wrote historical works of an anti-clerical and rationalizing tendency. These included *L'Église et les philosophes au XVIII^e siècle* (1855; new edition, with a notice of the author by E. de Pressensé, 1879); *Essai sur la révolution française* (1858); *Histoire politique des papes* (1860); *Lettres d Evérard* (1860), a novel in the form of letters; *Le Rétablissement de la Pologne* (1863). His *magnum opus* was his *Histoire de Napoléon I^er* (5 vols., 1867-1875 and 1886; Eng. trans., 4 vols., 1871-1879), which ceased unfortunately at the end of 1811 with the preparations for the Russian campaign of 1812. This book, based on the emperor's correspondence published in 1858-1870, attempted the destruction of the legends which had grown up around his subject, and sought by a critical examination of the documents to explain the motives of his policy. In his desire to controvert current misconceptions and exaggerations of Napoleon's abilities Lanfrey unduly minimized his military and administrative genius. A stanch republican, he was elected to the National Assembly in 1871, became ambassador at Bern (1871-1873), and life senator in 1875. He died at Pau on the 15th of November 1877.

His *Œuvres complètes* were published in 12 vols. (1879 seq.), and his *Correspondance* in 2 vols. (1885).

LANG, ANDREW (1844-), British man of letters, was born on the 31st of March 1844, at Selkirk, Scotland. He was educated at the Edinburgh Academy, St Andrews University and at Balliol College, Oxford, where he took a first class in the final classical schools in 1868, becoming a fellow and subsequently honorary fellow of Merton College. As a journalist, poet, critic and historian, he soon made a reputation as one of the ablest and most versatile writers of the day. His first publication was a volume of metrical experiments, *The Ballads and Lyrics of Old France* (1872), and this was followed at intervals by other volumes of dainty verse, *xxii. Ballades in Blue China* (1880, enlarged edition, 1888), *Ballads and Verses Vain* (1884), selected by Mr Austin Dobson; *Rhymes à la Mode* (1884), *Grass of Parnassus* (1888), *Ban and Arrière Ban* (1894), *New Collected Rhymes* (1905). He collaborated with S. H. Butcher in a prose translation (1879) of the *Odyssey*, and with E. Myers and Walter Leaf in a prose version (1883) of the *Iliad*, both of them remarkable for accurate scholarship and excellence of style. As a Homeric scholar, of conservative views, he took a high rank. His *Homer and the Epic* appeared in 1893; a new prose translation of *The Homeric Hymns* in 1899, with essays literary and mythological, in which parallels to the Greek myths are given from the traditions of savage races; and his *Homer and his Age* in 1906. His purely journalistic activity was from the first of a varied description, ranging from sparkling "leaders" for the *Daily News* to miscellaneous articles for the *Morning Post*, and for many years he was literary editor of *Longman's Magazine*; no critic was in more request, whether for

occasional articles and introductions to new editions or as editor of dainty reprints. To the study of Scottish history Mr Lang brought a scholarly care for detail, a piquant literary style, and a gift for disentangling complicated questions. The *Mystery of Mary Stuart* (1901, new and revised ed., 1904) was a consideration of the fresh light thrown on Mary's history by the Lennox MSS. in the University library, Cambridge, strengthening her case by restating the perfidy of her accusers. He also wrote monographs on *The Portraits and Jewels of Mary Stuart* (1906) and *James VI. and the Gowrie Mystery* (1902). The somewhat unfavourable view of John Knox presented in his book *John Knox and the Reformation* (1905) aroused considerable controversy. He gave new information about the continental career of the Young Pretender in *Pickle the Spy* (1897), an account of Alastair Ruadh Macdonell, whom he identified with Pickle, a notorious Hanoverian spy. This was followed in 1898 by *The Companions of Pickle*, and in 1900 by a monograph on *Prince Charles Edward*. In 1900 he began a *History of Scotland from the Roman Occupation*, the fourth volume of which (1907) brought Scottish history down to 1746. *The Valet's Tragedy* (1903), which takes its title from an essay on the "Man with the Iron Mask," (see IRON MASK), collects twelve papers on historical mysteries, and *A Monk of Fife* (1896) is a fictitious narrative purporting to be written by a young Scot in France in 1429-1431. Mr Lang's versatility was also shown in his valuable works on folk-lore and on primitive religion. The earliest of these works was *Custom and Myth* (1884); in *Myth, Literature and Religion* (2 vols., 1887, French trans., 1896) he explained the irrational elements of mythology as survivals from earlier savagery; in *The Making of Religion* (an idealization of savage animism) he maintained the existence of high spiritual ideas among savage races, and instituted comparisons between savage practices and the occult phenomena among civilized races; he dealt with the origins of totemism (*q.v.*) in *Social Origins*, printed (1903) together with J. J. Atkinson's *Primal Law*. He was one of the founders of the study of "Psychical Research," and his other writings on anthropology include *The Book of Dreams and Ghosts* (1897), *Magic and Religion* (1901) and *The Secret of the Totem* (1905). He carried the humour and sub-acidity of discrimination which marked his criticism of fellow folk-lorists into the discussion of purely literary subjects in his *Books and Bookmen* (1886), *Letters to Dead Authors* (1886), *Letters on Literature* (1889), &c. His *Blue Fairy Tale Book* (1889), beautifully produced and illustrated, was followed annually at Christmas by a book of fairy tales and romances drawn from many sources. He edited *The Poems and Songs of Robert Burns* (1896), and was responsible for the *Life and Letters* (1897) of J. G. Lockhart, and *The Life, Letters and Diaries* (1890) of Sir Stafford Northcote, first earl of Iddesleigh.

LANG, KARL HEINRICH, RITTER VON (1764-1835), German historian, was born on the 7th of June 1764 at Balgheim, near Nördlingen. From the first he was greatly attracted towards historical studies, and this was shown when he began to attend the gymnasium of Oettingen, and in 1782, when he went to the university of Altdorf, near Nuremberg. At the same time he studied jurisprudence, and in 1782 became a government clerk at Oettingen. About the same period began his activities as a journalist and publicist. But Lang did not long remain an official. He was of a restless, changeable character, which constantly involved him in personal quarrels, though he was equally quick to retire from them. In 1788 he obtained a position as private tutor in Hungary, and in 1789 became private secretary to Baron von Bühler, the envoy of Württemberg at Vienna. This led to further travels and to his entering the service of the prince of Oettingen-Wallerstein. In 1792 Lang again betook himself to a university, this time to Göttingen. Here he came under the influence of the historian, Ludwig Timotheus Spittler, from whom, as also from Johannes von Müller and Friedrich Schlegel, his historical studies received a fresh impulse. At intervals from 1793 to 1801 Lang was closely connected with the Prussian statesman Hardenberg, who employed him as his private secretary and archivist, and in 1797 he was present with Hardenberg at the congress of Rastadt as secretary to the legation. He was occupied chiefly with affairs of the principalities of Anspach and Bayreuth, newly acquired by Prussia, and especially in the settlement of disputes with Bavaria as to their boundaries.

When in 1805 the principalities became part of Bavaria, Lang entered the Bavarian service (1806), was ennobled in 1808 and from 1810 to 1817 held the office of archivist in Munich. He again devoted himself with great enthusiasm to historical studies, which naturally dealt chiefly with Bavarian history. He evolved the theory, among other things, that the boundaries of the old counties or *pagi* (*Gaue*) were identical with those of the dioceses. This theory was combated in later days, and caused great confusion in the province of historical geography. For the rest, Lang did great service to the study of the history of Bavaria, especially by bringing fresh material from the archives to bear upon it. He also kept up his activity as a publicist, in 1814 defending in a detailed and somewhat biassed pamphlet the policy of the minister Montgelas, and he undertook critical studies in the history of the Jesuits. In 1817 Lang retired from active life, and until his death, which took place on the 26th of March 1835, lived chiefly in Ansbach.

Lang is best known through his *Memoiren*, which appeared at Brunswick in two parts in 1842, and were republished in 1881 in a second edition. They contain much of interest for the history of the period, but have to be used with the greatest caution on account of their pronounced tendency to satire. Lang's character, as can be gathered especially from a consideration of his behaviour at Munich, is darkened by many shadows. He did not scruple, for instance, to strike out of the lists of witnesses to medieval charters, before publishing them, the names of families which he disliked.

Of his very numerous literary productions the following may be mentioned: *Beiträge zur Kenntnis der natürlichen und politischen Verfassung des oettingischen Vaterlandes* (1786); *Ein Votum über den Wucher von einem Manne sine voto* (1791); *Historische Entwicklung der deutschen Steuerverfassungen* (1793); *Historische Prüfung des vermeintlichen Alters der deutschen Landstände* (1796); *Neuere Geschichte des Fürstentums Bayreuth* (1486-1603) (1798-1811); *Tabellen über Flächeninhalt &c. und bevorstehende Verluste der deutschen Reichsstände*. (On the occasion of the congress of Rastadt, 1798); *Der Minister Graf von Montgelas* (1814); *Geschichte der Jesuiten in Bayern* (1819); and *Bayerns Gauen* (Nuremberg, 1830).

See K. Th. v. Heigel, *Augsburger allgemeine Zeitung* for 1878, p. 1969 et seq., 1986 et seq. (Beilage of the

14th and 15th of May); F. Muncker, in *Allgemeine deutsche Biographie*, vol. xvii. (1883); F. X. v. Wegele, *Geschichte der deutschen Historiographie* (1885).

(J. Hn.)

LANGDELL, CHRISTOPHER COLUMBUS

(1826-1906), American jurist, was born in New Boston, Hillsborough county, New Hampshire, on the 22nd of May 1826, of English and Scotch-Irish ancestry. He studied at Phillips Exeter Academy in 1845-1848, at Harvard College in 1848-1850 and in the Harvard Law School in 1851-1854. He practised law in 1854-1870 in New York City, but he was almost unknown when, in January 1870, he was appointed Dane professor of law (and soon afterwards Dean of the Law Faculty) of Harvard University, to succeed Theophilus Parsons, to whose *Treatise on the Law of Contracts* (1853) he had contributed as a student. He resigned the deanship in 1895, in 1900 became Dane professor emeritus, and on the 6th of July 1906 died in Cambridge. He received the degree of LL.D. in 1875; in 1903 a chair in the law school was named in his honour; and after his death one of the school's buildings was named Langdell Hall. He made the Harvard Law School a success by remodelling its administration and by introducing the "case" system of instruction.

Langdell wrote *Selection of Cases on the Law of Contracts* (1870, the first book used in the "case" system; enlarged, 1877); *Cases on Sales* (1872); *Summary of Equity Pleading* (1877, 2nd ed., 1883); *Cases in Equity Pleading* (1883); and *Brief Survey of Equity Jurisdiction* (1905).

LANGDON, JOHN

(1741-1819), American statesman, was born in Portsmouth, New Hampshire, on the 25th of June 1741. After an apprenticeship in a counting-house, he led a seafaring life for several years, and became a shipowner and merchant. In December 1774, as a militia captain he assisted in the capture of Fort William and Mary at New Castle, New Hampshire, one of the first overt acts of the American colonists against the property of the crown. He was elected to the House of Representatives of the last Royal Assembly of New Hampshire and then to the second Continental Congress in 1775, and was a member of the first Naval Committee of the latter, but he resigned in 1776, and in June 1776 became Congress's agent of prizes in New Hampshire and in 1778 continental (naval) agent of Congress in this state, where he supervised the building of John Paul Jones's "Ranger" (completed in June 1777), the "America," launched in 1782, and other vessels. He was a judge of the New Hampshire Court of Common Pleas in 1776-1777, a member (and speaker) of the New Hampshire House of Representatives from 1776 until 1782, a member of the state Constitutional Convention of 1778 and of the state Senate in 1784-1785, and in 1783-1784 was again a member of Congress. He contributed largely to raise troops in 1777 to meet Burgoyne; and he served as a captain at Bennington and at Saratoga. He was president of New Hampshire in 1785-1786 and in 1788-1789; a member of the Federal Constitutional Convention in 1787, where he voted against granting to Congress the power of issuing paper money; a member of the state convention which ratified the Federal Constitution for New Hampshire; a member of the United States Senate in 1789-1801, and its president *pro tem.* during the first Congress and the second session of the second Congress; a member of the New Hampshire House of Representatives in 1801-1805 and its speaker in 1803-1805; and governor of the state in 1805-1809 and in 1810-1812. He received nine electoral votes for the vice-presidency in 1808, and in 1812 was an elector on the Madison ticket. He died in Portsmouth on the 18th of September 1819. He was an able leader during the Revolutionary period, when his wealth and social position were of great assistance to the patriot party. In the later years of his life in New Hampshire he was the most prominent of the local Republican leaders and built up his party by partisan appointments. He refused the naval portfolio in Jefferson's cabinet.

His elder brother, Woodbury Langdon (1739-1805), was a delegate to the Continental Congress in 1779-1780, a member of the executive council of New Hampshire in 1781-1784, judge of the Supreme Court of the state in 1782 and in 1786-1790 (although he had had no legal training), and a state senator in 1784-1785.

Alfred Langdon Elwyn has edited *Letters by Washington, Adams, Jefferson and Others, Written During and After the Revolution, to John Langdon of New Hampshire* (Philadelphia, 1880), a book of great interest and value. See a biographical sketch of John Langdon by Charles R. Corning in the *New England Magazine*, vol. xxii. (Boston, 1897).

LANGE, ANNE FRANÇOISE ELIZABETH

(1772-1816), French actress, was born in Genoa on the 17th of September 1772, the daughter of a musician and an actress at the Comédie Italienne. She made her first appearance on the stage at Tours in 1787 and a successful début at the Comédie Française in 1788 in *L'Écossaise* and *L'Oracle*. She followed Talma and the others in 1791 to the Rue Richelieu, but returned after a few months to the Comédie Française. Here her talent and beauty gave her an enormous success in François de Neuchâteau's *Pamela*, the performance of which brought upon the theatre the vials of wrath of the

Committee of Safety. With the author and the other members of the caste, she was arrested and imprisoned. After the 9th Thermidor she rejoined her comrades at the Feydeau, but retired on the 16th of December 1797, reappearing only for a few performances in 1807. She had, meantime, married the son of a rich Belgian named Simons. She died on the 25th of May 1816.

LANGE, ERNST PHILIPP KARL (1813-1899), German novelist, who wrote under the pseudonym *Philipp Galen*, was born at Potsdam on the 21st of December 1813. He studied medicine at Berlin (1835-1840), and on taking his degree, in 1840, entered the Prussian army as surgeon. In this capacity he saw service in the Schleswig-Holstein campaign of 1849. He settled at Bielefeld as medical practitioner and here issued his first novel, *Der Inselkönig* (1852, 3rd ed., 1858), which enjoyed considerable popularity. In Bielefeld he continued to work at his profession and to write, until his retirement, with the rank of *Oberstabsarzt* (surgeon-general) to Potsdam in 1878; there he died on the 20th of February 1899. Lange's novels are distinguished by local colouring and pretty, though not powerful, descriptions of manners and customs. He particularly favoured scenes of English life, though he had never been in that country, and on the whole he succeeded well in his descriptions. Chief among his novels are, *Der Irre von St James* (1853, 5th ed., 1871), and *Emery Glandon* (3rd ed., Leip., 1865), while of those dealing with the Schleswig-Holstein campaign *Andreas Burns* (1856) and *Die Tochter des Diplomaten* (1865) commanded considerable attention.

His *Gesammelte Schriften* appeared in 36 vols. (1857-1866).

LANGE, FRIEDRICH ALBERT (1828-1875), German philosopher and sociologist, was born on the 28th of September 1828, at Wald, near Solingen, the son of the theologian, J. P. Lange (*q.v.*). He was educated at Duisburg, Zürich and Bonn, where he distinguished himself by gymnastics as much as by study. In 1852 he became schoolmaster at Cologne; in 1855 *privatdozent* in philosophy at Bonn; in 1858 schoolmaster at Duisburg, resigning when the government forbade schoolmasters to take part in political agitation. Lange then entered on a career of militant journalism in the cause of political and social reform. He was also prominent in the affairs of his town, yet found leisure to write most of his best-known books, *Die Leibesübungen* (1863), *Die Arbeiterfrage* (1865, 5th ed. 1894), *Geschichte des Materialismus und Kritik seiner Bedeutung in der Gegenwart* (1866; 7th ed. with biographical sketch by H. Cohen, 1902; Eng. trans., E. C. Thomas, 1877), and *J. S. Mill's Ansichten über die sociale Frage* (1866). In 1866, discouraged by affairs in Germany, he moved to Winterthur, near Zürich, to become connected with the democratic newspaper, *Winterthurer Landbote*. In 1869 he was *Privatdozent at Zürich*, and next year professor. The strong French sympathies of the Swiss in the Franco-German War led to his speedy resignation. Thenceforward he gave up politics. In 1872 he accepted a professorship at Marburg. Unhappily, his vigorous frame was already stricken with disease, and, after a lingering illness, he died at Marburg, on the 23rd of November 1875, diligent to the end. His *Logische Studien* was published by H. Cohen in 1877 (2nd ed., 1894). His main work, the *Geschichte des Materialismus*, which is brilliantly written, with wide scientific knowledge and more sympathy with English thought than is usual in Germany, is rather a didactic exposition of principles than a history in the proper sense. Adopting the Kantian standpoint that we can know nothing but phenomena, Lange maintains that neither materialism nor any other metaphysical system has a valid claim to ultimate truth. For empirical phenomenal knowledge, however, which is all that man can look for, materialism with its exact scientific methods has done most valuable service. Ideal metaphysics, though they fail of the inner truth of things, have a value as the embodiment of high aspirations, in the same way as poetry and religion. In Lange's *Logische Studien*, which attempts a reconstruction of formal logic, the leading idea is that reasoning has validity in so far as it can be represented in terms of space. His *Arbeiterfrage* advocates an ill-defined form of socialism. It protests against contemporary industrial selfishness, and against the organization of industry on the Darwinian principle of struggle for existence.

See O. A. Ellissen, *F. A. Lange* (Leipzig, 1891), and in *Monatsch. d. Comeniusgesell.* iii., 1894, 210 ff.; H. Cohen in *Preuss. Jahrb.* xxvii., 1876, 353 ff.; Vaihinger, *Hartmann, Dühring und Lange* (Iserlohn, 1876); J. M. Bösch, *F. A. Lange und sein Standpunkt d. Ideals* (Frauenfeld, 1890); H. Braun, *F. A. Lange, als Socialökonom* (Halle, 1881).

(H. St.)

LANGE, JOHANN PETER (1802-1884), German Protestant theologian, was of peasant origin and was born at Sonneborn near Elberfeld on the 10th of April 1802. He studied theology at Bonn (from 1822) under K. I. Nitzsch and G. C. F. Lücke, held several pastorates, and eventually (1854) settled at Bonn as professor of theology in succession to Isaac A. Dorner, becoming also in 1860 counsellor to the consistory. He died on the 9th of July 1884. Lange has been called the poetical theologian *par excellence*: "It has been said of him that his thoughts succeed each other in such rapid and agitated waves that all calm reflection and all

rational distinction become, in a manner, drowned" (F. Lichtenberger). As a dogmatic writer he belonged to the school of Schleiermacher. His *Christliche Dogmatik* (3 vols., 1849-1852, new edition, 1870) "contains many fruitful and suggestive thoughts, which, however, are hidden under such a mass of bold figures and strange fancies, and suffer so much from want of clearness of presentation, that they did not produce any lasting effect" (Otto Pfleiderer).

His other works include *Das Leben Jesu* (3 vols., 1844-1847), *Das apostolische Zeitalter* (2 vols., 1853-1854). *Grundriss der theologischen Enzyklopädie* (1877). *Grundriss der christlichen Ethik* (1878), and *Grundriss der Bibelkunde* (1881). In 1857 he undertook with other scholars a *Theologisch-homiletisches Bibelwerk*, to which he contributed commentaries on the first four books of the Pentateuch, Haggai, Zechariah, Malachi, Matthew, Mark, Revelation. The *Bibelwerk* has been translated, enlarged and revised under the general editorship of Dr Philip Schaff.

LANGEAIS, a town of west-central France in the department of Indre-et-Loire, on the right bank of the Loire, 16 m. W.S.W. of Tours by rail. Pop. (1906) town, 1755; commune, 3550. Langeais has a church of the 11th, 12th and 15th centuries but is chiefly interesting for the possession of a large château built soon after the middle of the 15th century by Jean Bourré, minister of Louis XI. Here the marriage of Charles VIII. and Anne of Brittany took place in 1491. In the park are the ruins of a keep of late 10th-century architecture, built by Fulk Nerra, count of Anjou.

LANGEN, JOSEPH (1837-1901), German theologian, was born at Cologne on the 3rd of June 1837. He studied at Bonn, was ordained priest in 1859, was nominated professor extraordinary at the university of Bonn in 1864, and a professor in ordinary of the exegesis of the New Testament in 1867—an office which he held till his death. He was one of the able band of professors who in 1870 supported Döllinger in his resistance to the Vatican decrees, and was excommunicated with Ignaz v. Döllinger, Johann Huber, Johann Friedrich, Franz Heinrich Reusch, Joseph Hubert Reinkens and others, for refusing to accept them. In 1878, in consequence of the permission given to priests to marry, he ceased to identify himself with the Old Catholic movement, although he was not reconciled with the Roman Catholic Church. Langen was more celebrated as a writer than as a speaker. His first work was an inquiry into the authorship of the Commentary on St Paul's Epistles and the Treatise on Biblical Questions, ascribed to Ambrose and Augustine respectively. In 1868 he published an *Introduction to the New Testament*, a work of which a second edition was called for in 1873. He also published works on the *Last Days of the Life of Jesus*, on *Judaism in the Time of Christ*, on *John of Damascus* (1879) and an *Examination of the Vatican Dogma in the Light of Patristic Exegesis of the New Testament*. But he is chiefly famous for his *History of the Church of Rome to the Pontificate of Innocent III.* (4 vols., 1881-1893), a work of sound scholarship, based directly upon the authorities, the most important sources being woven carefully into the text. He also contributed largely to the *Internationale theologische Zeitschrift*, a review started in 1893 by the Old Catholics to promote the union of National Churches on the basis of the councils of the Undivided Church, and admitting articles in German, French and English. Among other subjects, he wrote on the School of Hierotheus, on Romish falsifications of the Greek Fathers, on Leo XIII., on Liberal Ultramontanism, on the Papal Teaching in regard to Morals, on Vincentius of Lerins and he carried on a controversy with Professor Willibald Beyschlag, of the German Evangelical Church, on the respective merits of Protestantism and Old Catholicism regarded as a basis for teaching the Christian faith. An attack of apoplexy put an end to his activity as a teacher and hastened his death, which occurred in July 1901.

(J. J. L.*)

LANGENBECK, BERNHARD RUDOLF KONRAD VON (1810-1887), German surgeon, was born at Horneburg on the 9th of November 1810, and received his medical education at Göttingen, where he took his doctor's degree in 1835 with a thesis on the structure of the retina. After a visit to France and England, he returned to Göttingen as *Privatdozent*, and in 1842 became professor of surgery and director of the Friedrichs Hospital at Kiel. Six years later he succeeded J. F. Dieffenbach (1794-1847) as director of the Clinical Institute for Surgery and Ophthalmology at Berlin, and remained there till 1882, when failing health obliged him to retire. He died at Wiesbaden on the 30th of September 1887. Langenbeck was a bold and skilful operator, but was disinclined to resort to operation while other means afforded a prospect of success. He devoted particular attention to military surgery, and was a great authority in the treatment of gunshot wounds. Besides acting as general field-surgeon of the army in the war with Denmark in 1848, he saw active service in 1864, 1866, and again in the Franco-German campaign of 1870-71. He was in Orleans at the end of 1870, after the city had been taken by the Prussians, and was unwearied in his attentions, whether as operator or consultant, to wounded men with whom every public building was packed. He also utilized the opportunities for

instruction that thus arose, and the “Militär-Aerztliche Gesellschaft,” which met twice a week for some months, and in the discussions of which every surgeon in the city was invited to take part, irrespective of nationality, was mainly formed by his energy and enthusiasm. He was ennobled for his services in the Danish War of 1864.

LANGENSALZA, a town in the Prussian province of Saxony, on the Salza, about 20 m. N. W. from Erfurt. Pop. (1905) 12,545. Near it are the remains of the old Benedictine monastery of Homburg or Hohenburg, where the emperor Henry IV. defeated the Saxons in 1075. The manufacture of cloth is the chief industry; lace, starch, machines, cigars and chemicals are also produced, while spinning, dyeing, brewing and printing are carried on. There is a sulphur bath in the neighbourhood, situated in a pleasant park, in which there are monuments to those who fell in the war of 1866. Langensalza became a town in 1211 and was afterwards part of the electorate of Saxony. In 1815 it came into the possession of Prussia. It is remarkable in history as the scene of three battles: (1) the victory of the Prussians and English over the imperial army on the 15th of February 1761; (2) that of the Prussians over the Bavarians on the 17th of April 1813; and (3) the engagement on the 27th of June 1866 between the Prussians and the Hanoverians, in which the latter, though victorious in the field, were compelled to lay down their arms on the arrival of overwhelming Prussian reinforcements.

See Göschel, *Chronik der Stadt Langensalza* (Langensalza, 1818-1842); G. and H. Schütz, *Chronik der Stadt Langensalza* (Langensalza, 1901); and Gutbier, *Schwefelbad Langensalza* (Langensalza, 1900).

LANGHAM, SIMON (d. 1376), archbishop of Canterbury and cardinal, was born at Langham in Rutland, becoming a monk in the abbey of St Peter at Westminster, and later prior and then abbot of this house. In 1360 he was made treasurer of England and in 1361 he became bishop of Ely; he was appointed chancellor of England in 1363 and was chosen archbishop of Canterbury in 1366. Perhaps the most interesting incident in his primacy was when he drove the secular clergy from their college of Canterbury Hall, Oxford, and filled their places with monks. The expelled head of the seculars was a certain John de Wiclif, who has been identified with the great reformer Wycliffe. Notwithstanding the part Langham as chancellor had taken in the anti-papal measures of 1365 and 1366 he was made a cardinal by Pope Urban V. in 1368. This step lost him the favour of Edward III., and two months later he resigned his archbishopric and went to Avignon. He was soon allowed to hold other although less exalted positions in England, and in 1374 he was elected archbishop of Canterbury for the second time; but he withdrew his claim and died at Avignon on the 22nd of July 1376. Langham’s tomb is the oldest monument to an ecclesiastic in Westminster Abbey; he left the residue of his estate—a large sum of money—to the abbey, and has been called its second founder.

LANGHOLM, a burgh of barony and police burgh of Dumfriesshire, Scotland. Pop. (1901) 3142. It is situated on both sides of the Esk, 16 m. N.E. of Annan, the terminus of a branch line connecting with the North British railway system at Riddings Junction. The Esk is crossed by a three-arched stone bridge, uniting the old town on the left bank with the new on the right, and a suspension bridge. Ewes Water, which falls into the river, is spanned by a two-arched bridge, 1 m. N. of the town. The public buildings include the town hall—a substantial edifice with a tower rising in three tiers from the body of the structure, the Telford library, and the Hope hospital for aged poor. Already famous for its plaids and blankets, the prosperity of the burgh advanced when it took up the manufacture of tweeds. Distilling, brewing, dyeing and tanning are also important industries. The Esk and Liddel being favourite fishing streams, Langholm is the headquarters of the association which protects the rights of anglers. About 1 m. to the N.W. stands Langholm Lodge, a seat of the duke of Buccleuch, and some 4 m. S.E. is Gilnockie Tower, the peel-house that belonged to Johnny Armstrong, the freebooter, who was executed by order of James V. in 1530.

LANGHORNE, JOHN (1735-1779), English poet and translator of Plutarch, was born at Kirkby Stephen, Westmorland. He At first supported himself as a private tutor and schoolmaster, and, having taken orders, was appointed (1766) to the rectory of Blagdon, Somerset, where he died on the 1st of April 1779. His

poems (original and translations), and sentimental tales, are now forgotten, but his translation of Plutarch's *Lives* (1770), in which he had the co-operation of his elder brother William (1721-1772), is not yet superseded. It is far less vigorous than Sir Thomas North's version (translated from Amyot) but is free from its inaccuracies. His poems were published in 1804 by his son, J. T. Langhorne, with a memoir of the author; they will also be found in R. Anderson's *Poets of Great Britain*, xi. (1794) and A. Chalmers's *English Poets*, xvi. (1810), with memoir. Of his poems, *The Country Justice*, a plea for the neglected poor, and *The Fables of Flora*, were the most successful; of his prose writings, *The Correspondence between Theodosius and Constantia*, founded on a well-known story in the *Spectator* (No. 164).

LANGIEWICZ, MARYAN (1827-1887), Polish patriot, was born at Krotoszyn, in the province of Posen, on the 5th of August 1827, his father being the local doctor. Langiewicz was educated at Posen, Breslau and Prague, and was compelled to earn his daily bread by giving lectures. He subsequently entered the Prussian *Landwehr* and served for a year in the royal guard. In 1860 he migrated to Paris and was for a time professor in the high school founded there by Mieroslawski. The same year he took part in Garibaldi's Neapolitan campaign, and was then a professor in the military school at Cuneo till the establishment was closed. In 1862 he entered into communication with the central Polish committee at Warsaw, and on the outbreak of the insurrection of the 22nd of January 1863, took the command of the armed bands. He defeated the Russians at Wachock and Slupia (February), capturing 1000 muskets and 8 cannon. This victory drew hundreds of young recruits to his standard, till at last he had 12,000 men at his disposal. On the 23rd of February he again defeated the Russians, at Malogoszcza, and captured 500 muskets and 2 cannon. On the 10th of March he proclaimed himself dictator and attempted to form a regular government; but either he had insufficient organizing talent, or had not time enough to carry out his plans, and after a fresh series of engagements his army was almost annihilated at Zagosc (18th of March), whereupon he took refuge in Austrian territory and was interned at Tarnow. He was subsequently transferred to the fortress of Josephstadt, from which he was released in 1865. He then lived at Solothurn as a citizen of the Swiss Republic, and subsequently entered the Turkish service as Langie Bey. He died at Constantinople on the 11th of May 1887.

See Boleslaw Limanowski, *The National Insurrection of 1863-64* (Pol.) (Lemberg, 1900); Paolo Mazzoleni, *I Bergamaschi in Polonia nel 1863* (Bergamo, 1893); W. H. Bavink, *De Poolsche opstand 1863*, &c. (Haarlem, 1864).

LANGLAND, WILLIAM (*c.* 1332-*c.* 1400), the supposed English poet, generally regarded until recently as the single author of the remarkable 14th-century poem *Piers the Plowman*. Its full title is—*The Vision of William concerning Piers the Plowman, together with Vita de Do-wel, Do-bet, et Do-best, secundum Wit et Resoun*; usually given in Latin as *Visio Willelmi de Petra Plowman, &c.*; the whole work being sometimes briefly described as *Liber de Petro Plowman*. We know nothing of William Langland except from the supposed evidence of the MSS. of the poem and the text itself, and it will be convenient first to give a brief general description of them.

The poem exists in three forms. If we denote these by the names of A-text (or Vernon), B-text (or Crowley), and C-text (or Whitaker), we find, of the first, ten MSS., of the second fourteen, and of the third seventeen, besides seven others of a mixed type. It will be seen that we thus have abundance of material, a circumstance which proves the great popularity of the poem in former times. Owing to the frequent expressions which indicate a desire for reformation in religion, it was, in the time of Edward VI., considered worthy of being printed. Three impressions of the B-text were printed by Robert Crowley in 1550; and one of these was badly reprinted by Owen Rogers in 1561. In 1813 the best MS. of the C-text was printed by Dr E. Whitaker. In 1842 Mr Thomas Wright printed an edition from an excellent MS. of the B-text in the library of Trinity College, Cambridge (2nd ed., 1856, new ed., 1895). A complete edition of all three texts was printed for the Early English Text Society as edited by the Rev. W. W. Skeat, with the addition of *Richard the Redeless*, and containing full notes to all three texts, with a glossary and indexes, in 1867-1885. The Clarendon Press edition, by the same editor, appeared in 1886.

The A-text contains a prologue and 12 passus or cantos (i.-iv., the vision of the Lady Meed; v.-viii., the vision of Piers the Plowman; ix.-xii., the vision of Do-wel, Do-bet and Do-best), with 2567 lines. The B-text is much longer, containing 7242 lines, with additional passus following after xi. of A, the earlier passus being altered in various respects. The C-text, with 7357 lines, is a revision of B.

The general contents of the poem may be gathered from a brief description of the C-text. This is divided into twenty-three passus, nominally comprising four parts, called respectively Visio de Petro Plowman, Visio de Do-wel, Visio de Do-bet and Visio de Do-best. Here *Do-bet* signifies "do better" in modern English; the explanation of the names being that he who does a kind action *does well*, he who teaches others to act kindly *does better*, whilst he who combines both practice and theory, both doing good himself and teaching others to do the same, *does best*. But the visions by no means closely correspond to these descriptions; and Skeat divides the whole into a set of eleven visions, which may be thus enumerated: (1) Vision of the Field Full of Folk, of Holy Church, and of the Lady Meed (passus i.-v.); (2) Vision of the Seven Deadly Sins, and of Piers the Plowman (pass. vi.-x.); (3) Wit, Study, Clergy and Scripture (pass. xi., xii.); (4) Fortune, Nature, Recklessness and Reason (pass. xiii.,

xiv.); (5) Vision of Imaginative (pass. xv.); (6) Conscience, Patience and Activa-Vita (pass. xvi., xvii.); (7) Free-will and the Tree of Charity (pass. xviii., xix.); (8) Faith, Hope and Charity (pass. xx.); (9) The Triumph of Piers the Plowman, *i.e.* the Crucifixion, Burial and Resurrection of Jesus Christ (pass. xxi.); (10) The Vision of Grace (pass. xxii.); (11) The Vision of Antichrist (pass. xxiii.).

The bare outline of the C-text gives little idea of the real nature of the poem. The author's object, as Skeat describes it, was to "afford himself opportunities (of which he has amply availed himself) for describing the life and manners of the poorer classes; for inveighing against clerical abuses and the rapacity of the friars; for representing the miseries caused by the great pestilences then prevalent and by the hasty and ill-advised marriages consequent thereupon; and for denouncing lazy workmen and sham beggars, the corruption and bribery then too common in the law courts, and all the numerous forms of falsehood which are at all time the fit subjects for satire and indignant exposure. In describing, for example, the seven deadly sins, he gives so exact a description of Glutton and Sloth that the reader feels them to be no mere abstractions, but drawn from the life; and it becomes hardly more difficult to realize Glutton than it is to realize Sir John Falstaff. The numerous allegorical personages so frequently introduced, such as Scripture, Clergy, Conscience, Patience and the like, are all mouthpieces of the author himself, uttering for the most part his own sentiments, but sometimes speaking in accordance with the character which each is supposed to represent. The theological disquisitions which are occasionally introduced are somewhat dull and tedious, but the earnestness of the author's purpose and his energy of language tend to relieve them, and there are not many passages which might have been omitted without loss. The poem is essentially one of those which improve on a second reading, and as a linguistic monument it is of very high value. Mere extracts from the poem, even if rather numerous and of some length, fail to give a fair idea of it. The whole deserves, and will repay, a careful study; indeed, there are not many single works from which a student of English literature and of the English language may derive more substantial benefit.

"The metre is alliterative, and destitute of final rhyme. It is not very regular, as the author's earnestness led him to use the fittest words rather than those which merely served the purpose of rhythm. The chief rule is that, in general, the same letter or combination of letters should begin *three* stressed syllables in the same line, as, for example, in the line which may be modernized thus: 'Of all *m*anner of *m*en, the *m*ean and the rich.' Sometimes there are but *two* such rhyme-letters, as: '*M*ight of the commons *m*ade him to reign.' Sometimes there are *four*, as: 'In a summer season, when soft was the sun.' There is invariably a pause, more or less distinct, in the middle of each line" (*Ency. Brit.*, 9th ed., art. Langland).

The traditional view, accepted by such great authorities as Skeat and Jusserand, that a single author—and that author Langland—was responsible for the whole poem, in all its versions, has been so recently disputed that it seems best to state it in Skeat's own words, before giving briefly the alternative view, which propounds a theory of composite authorship, denying any real existence to "William Langland." The account of the single-author theory is repeated from Professor Skeat's article in the 9th edition of this work, slightly revised by him in 1905 for this edition.

"The author's name is not quite certain, and the facts concerning his life are few and scanty. As to his Christian name we are sure, from various allusions in the poem itself, and the title *Visio Willelmi*, &c., in many MSS.; so that we may at once reject the suggestion that his name may have been Robert. In no less than three MSS. [of the C-text; one not later than 1427] occurs the following colophon: 'Explicit visio Willelmi W. de Petro le Plowman.' What is here meant by W. it is difficult to conjecture; but it is just possible that it may represent Wychwood (of which more presently), or Wigornensis, *i.e.* of Worcester. As to the surname, we find the note that 'Robert or William Langland made pers ploughman,' in a handwriting of the 15th century, on the fly-leaf of a MS. copy [of the B-text] formerly belonging to Lord Ashburnham, and now in the British Museum; and in a Dublin MS. [of the C-text] is the note [in a 15th-century hand]: 'Memorandum, quod Stacy de Rokayle, pater Willielmi de Langlond, qui Stacius fuit generosus et morabatur in Schiptone-under-Whicwode, tenens domini le Spenser in comitatu Oxon., qui predictus Willielmus fecit librum qui vocatur Perys Ploughman.' There is no trace of any Langland family in the midland counties, while the Langley family were wardens of Wychwood forest in Oxfordshire between the years 1278 and 1362; but this consideration can hardly set aside the above statement. According to Bale, our author was born at Cleobury Mortimer, which is quite consistent with the supposition that his father may have removed from that place to Shipton in Oxfordshire, as there seems to have been a real connexion between the families in those places.

"The internal evidence concerning the author is fuller and more satisfactory. By piecing together the various hints concerning himself which the poet gives us, we may compile the following account. His name was William (and probably Langland), and he was born about 1332, perhaps at Cleobury Mortimer in Shropshire. His father, who was doubtless a franklin or farmer, and his other friends put him to school, made a 'clerk' or scholar of him, and taught him what Holy Writ meant. In 1362, at the age of about thirty, he found himself wandering upon the Malvern hills, and fell asleep beside a stream, and saw in a vision a field full of folk, *i.e.* this present world, and many other remarkable sights which he duly records. From this supposed circumstance he named his poem *The Vision of William*, though it is really a succession of visions, since he mentions several occasions on which he awoke, and afterwards again fell asleep; and he even tells us of some adventures which befel him in his waking moments. In some of these visions there is no mention of Piers the Plowman, but in others he describes him as being the coming reformer who was to remedy all abuses, and restore the world to a right condition. It is remarkable that his conception of this reformer changes from time to time, and becomes more exalted as the poem advances. At first he is no more than a ploughman, one of the true and honest labourers who are the salt of the earth; but at last he is identified with the great reformer who has come already, the regenerator of the world in the person of Jesus Christ; in the author's own phrase—'Petrus est Christus.' If this be borne in mind, it will not be possible to make the mistake into which so many have fallen, of speaking of Piers the Plowman as being the author, not the subject, of the poem. The author once alludes to the nickname of Long Will bestowed upon him from his tallness of stature—just as the poet Gascoigne was familiarly called Long George. Though there is mention of the Malvern hills more than once near the beginning of the poem, it is abundantly clear that the poet lived for 'many years in Cornhill (London), with his wife Kitte and his daughter Calote.' He seems to have come to London soon after the date of the first commencement of his work, and to have long continued there. He describes himself as being a tall man, one who was loath to reverence lords or ladies or persons in gay apparel, and not deigning to say 'God save you' to the sergeants whom he met in the

street, insomuch that many people took him to be a fool. He was very poor, wore long robes, and had a shaven crown, having received the clerical tonsure. But he seems only to have taken minor orders, and earned a precarious living by singing the *placebo*, *dirige* and seven psalms for the good of men's souls. The fact that he was married may explain why he never rose in the church. But he had another source of livelihood in his ability to write out legal documents, and he was extremely familiar with the law courts at Westminster. His leisure time must have been entirely occupied with his poem, which was essentially the work of his lifetime. He was not satisfied with rewriting it once, but he actually re-wrote it twice; and from the abundance of the MSS. which still exist we can see its development from the earliest draught (A-text), written about 1362, to its latest form (C-text), written about 1393.[1]

"In 1399, just before the deposition of Richard II., appeared a poem addressed to the king, who is designated as 'Richard the Redeless,' *i.e.* devoid of counsel. This poem, occurring in only one MS. [of the B-text] in which it is incomplete, breaking off abruptly in the middle of a page, may safely be attributed to Langland, who was then in Bristol. As he was at that time about sixty-seven years of age, we may be sure that he did not long survive the accession of Henry IV. It may here be observed that the well-known poem, entitled *Pierce Ploughman's Crede*, though excellently written, is certainly an imitation by another hand; for the Pierce Ploughman of the *Crede* is very different in conception from the subject of 'William's Vision.'"

On the other hand, the view taken by Professor J. M. Manly, of Chicago, which has recently obtained increasing acceptance among scholars, is that the early popularity of the *Piers Plowman* poems has resulted in "the confusion of what is really the work of five different men," and that Langland himself is "a mythical author." The argument for the distinction in authorship rests on internal evidence, and on analysis of the style, diction and "visualizing" quality within the different texts. Whereas Skeat, regarding the three texts as due to the same author, gives most attention to the later versions, and considers B the intermediate form, as on the whole the best, Manly recognizes in A the real poet, and lays special stress on the importance of attention to the A-text, and particularly pass. i.-viii. In this A-text the two first visions are regarded as by a single author of genius, but the third is assigned to a continuator who tried to imitate him, the whole conclusion of the 12th passus being, moreover, by a third author, whose name, John But, is in fact given towards the end, but in a way leading Skeat only to credit him with a few lines. The same process of analysis leads to crediting the B-text and the C-text to separate and different authors, B working over the three visions of the A-text and making additions of his own, while C again worked over the B-text. The supposed references to the original author A, introduced by B and C, are then to be taken as part of the fiction. Who were the five authors? That question is left unsolved. John But, according to Professor Manly, was "doubtless a scribe" or "a minstrel." B, C and the continuator of A "seem to have been clerics, and, from their criticisms of monks and friars, to have been of the secular clergy," C being "a better scholar than either the continuator of A or B." A, who "exempts from his satire no order of society except monks," may have been himself a monk, but "as he exhibits no special technical knowledge or interests" he "may have been a layman." As regards Richard the Redeless, Professor Manly attributes this to another imitator; he regards identity of authorship as out of the question, in consequences of differences in style and thought, apart altogether from the conclusion as to the authorship of *Piers the Plowman*.

See the editions already referred to: *The Deposition of Richard II.*, ed. T. Wright (Camden Society), which is the same poem as *Richard the Redeless*; Warton, *Hist. of Eng. Poetry*; Rev. H. H. Milman, *Hist. of Latin Christianity*; G. P. Marsh, *Lectures on English*; H. Morley, *English Writers*; B. ten Brink, *Early English Literature*; J. J. Jusserand, *Observations sur la vision de P. P.* (Paris, 1879); *Les Anglais au moyen âge: L'Épopée mystique de William Langland* (1893, Eng. trans. *Piers Plowman*, revised and enlarged by another 1894); J. M. Manly in *Cambridge Hist. of English Lit.*, vol. ii. and bibliography. A long and careful summary of the whole poem is given in Morley's *English Writers*, and is repeated in his *Illustrations of English Religion*, ch. iii.

1 According to Jusserand, 1398.

LANGLEY, SAMUEL PIERPONT (1834-1906), American physicist and astronomer, was born at Roxbury, Boston, Massachusetts, on the 22nd of August 1834. After acting for a short time as assistant in Harvard College Observatory, he was appointed assistant professor of mathematics in the U.S. Naval Academy in 1866, and in the following year became director of the Allegheny Observatory at Pittsburg, a position which he held until his selection in 1887 as secretary of the Smithsonian Institution at Washington. His name is especially associated with two main branches of investigation—aeronautics, and the exploration of the infra-red portions of the solar spectrum. The study of the latter he took up as a result of the publication in 1871 of an energy-curve of the spectrum by S. I. Lamansky. The imperfections of the thermopile, with which he began his work, led him, about 1880, to the invention of the bolometer, an instrument of extraordinary delicacy, which in its most refined form is believed to be capable of detecting a change of temperature amounting to less than one-hundred-millionth of a degree Centigrade. Depending on the fact that the electrical conductivity of a metallic conductor is decreased by heat, it consists of two strips of platinum, arranged to form the two arms of a Wheatstone bridge; one strip being exposed to a source of radiation from which the other is shielded, the heat causes a change in the resistance of one arm, the balance of the bridge is destroyed, and a deflection is marked on the galvanometer. The platinum strips are exceedingly minute, being in some cases only $\frac{1}{250}$ in. in width, and less than one-tenth of that amount in thickness. By the aid of this instrument, Langley, working on Mount Whitney, 12,000 ft. above sea-level, discovered in 1881 an entirely unsuspected extension of the invisible infra-red rays, which he called the "new spectrum." The importance of his achievement may be judged from the fact that, while the visible spectrum includes rays having wave-lengths of from about 0.4 μ to 0.76 μ, and no invisible heat-rays were known before 1881 having a wave-length greater than 1.8 μ, he detected rays having a wave-length of 5.3 μ. In addition, taking advantage of the accuracy with which the bolometer can

determine the position of a source of heat by which it is affected, he mapped out in this infra-red spectrum over 700 dark lines or bands resembling the Fraunhofer lines of the visible spectrum, with a probable accuracy equal to that of refined astronomical observations. In aeronautics he succeeded in demonstrating the practicability of mechanical flight. He first undertook a preliminary inquiry into the principles upon which flight depends, and established at Allegheny a huge "whirling table," the revolving arm of which could be driven by a steam-engine at any circumferential speed up to 70 m. an hour. The construction of a flying machine was next attempted. The first difficulty was to make it sufficiently light in relation to the power its machinery could develop; and several machines were built in which trials were made of steam, and of compressed air and carbonic acid gas as motive agents. About 1893 a satisfactory machine was ready, and a new series of troubles had to be faced, for it had to be launched at a certain initial speed, and in the face of any wind that might be blowing. To enable these conditions to be fulfilled, as well as to ensure that the machine, when it fell, should fall on water, the experiments were carried out on the Potomac river, some 30 m. below Washington. It was not till the autumn of 1894 that an efficient launching apparatus was devised, and then the wings were found not to be strong enough to bear the pressures to which they were subjected. Various other delays and mishaps followed, but ultimately, on the 6th of May 1896, a successful flight was made. On that day an aerodrome, weighing about 30 lb and about 16 ft. in length, with wings measuring between 12 and 13 ft. from tip to tip, twice sustained itself in the air for 1½ minutes (the full time for which it was supplied with fuel and water), and traversed on each occasion a distance of over half a mile, falling gently into the water when the engines stopped. Later in the same year, on the 28th of November, a similar aerodrome flew about three-quarters of a mile, attaining a speed of 30 m. an hour. In 1903 he experimented with an aerodrome capable of carrying a man, but repeated accidents prevented it from being launched, and finally through lack of funds the experiments had to be abandoned without the machine ever having been free in the air (see also Flight And Flying). Langley died on the 27th of February 1906.

LANGLOIS, HIPPOLYTE (1839-), French general, was born at Besançon in 1839, and, after passing through the École Polytechnique, was appointed to the artillery as sub-lieutenant in 1858, attaining the rank of captain in 1866. He served in the army of Metz in the war of 1870. Eight years later he became major, in 1887 lieutenant-colonel and in 1888 colonel. At this time he was appointed professor of artillery at the École de Guerre, and in this post he devoted himself to working out the tactical principles of the employment of field artillery under the new conditions of armament of which he foresaw the advent. The public result of his work was the great treatise *L'Artillerie de campagne* (1891-1892), which may still be regarded as the classic of the arm. In 1894 he became general of brigade, and in 1898 general of division. For two years after this he was the commandant of the École de Guerre at the time that the modern French strategical and tactical "doctrine" was being developed and taught. He was, however, regarded as a leader as well as a theorist, and in 1901 he was selected to command the XX. Army Corps on the German frontier, popularly called the "iron" corps. In 1902 he became a member of the Conseil supérieur de la Guerre, consisting of senior generals marked out for the higher commands in war. He retired from the active list in 1904 on reaching the age limit, and devoted himself with the greatest energy to critical military literature. In 1907 he began the publication of a monthly journal of military art and history, the *Revue militaire générale*. The most important of his other works are *Enseignements de deux guerres recentes* and *Conséquences tactiques du progrès de l'armement*.

LANGPORT, a market town in the eastern parliamentary division of Somersetshire, England, 13½ m. E. of Taunton by the Great Western railway. Pop. (1901) 890. It lies on the right (east) bank of the river Parret, near the point where that river debouches from the hills on to the plain through which it flows to the Bristol Channel. The main street leads up a slope from the river to the fine Perpendicular church of All Saints. Close to this an archway crosses the road, bearing a Perpendicular building known as the hanging chapel. After serving this purpose it housed first the grammar-school (founded 1675), then the Quekett museum, named after John Thomas Quekett (1815-1861) the histologist, a native of the town, whose father was master of the school. The hanging chapel afterwards became a masonic hall. Not far distant is the church of Huish Episcopi, with one of the finest of the Perpendicular towers for which Somersetshire is noted. Langport has a considerable general and agricultural trade.

Langport (*Llongborth*, *Langeberga*, *Langeport*) owed its origin to its defensible position on a hill, and its growth to its facilities for trade on the chief river of Somerset. It occupies the site of the British town of Llongborth, and was important during the Roman occupation. It was a royal borough in Saxon times, and in 1086 had 34 resident burgesses. The first charter, given by Elizabeth in 1562, recognized that Langport was a borough of great antiquity, which had enjoyed considerable privileges, being governed by a portreve. It was incorporated by James I. in 1617, but the corporation was abolished in 1883. Langport was represented in parliament in 1304 and 1306. The charter of 1562 granted three annual fairs to Langport, on the 28th of June, the 11th of November and the second Monday in Lent. One fair only is now held, on the 3rd of September, which is a horse and cattle fair. A Saturday market was held under the grant of 1562, but in the 19th century the market day was changed to Tuesday.

LANGREO, a town of northern Spain, in the province of Oviedo, in very hilly country, on the left bank of the river Nalon, and on a branch railway from Oviedo to Labiana. Pop. (1900) 18,714. In the neighbourhood large quantities of wheat, hemp, fruit and cider are produced; and there are important coal and iron mines, foundries, and factories for the manufacture of coarse cloth.

LANGRES, a town of eastern France, capital of an arrondissement in the department of Haute-Marne, 22 m. S.S.E. of Chaumont on the eastern railway to Belfort. Pop. (1906) town, 6663; commune, 9803. Langres stands at a height of some 1550 ft. on a jutting promontory of the tableland known as the plateau de Langres, and overlooks eastward and westward respectively the valleys of the Marne and its tributary the Bonnelle. From the cathedral tower and the ramparts which surround the town there is an extensive view over the valley of the Marne, the Vosges and the Côte d'Or, and in clear weather Mt Blanc (160 m. distant) is visible. The cathedral of St Mammès, for the most part in the Transitional style of the 12th century, has a west front in the Graeco-Roman style of the 18th century and a fine Renaissance chapel. The church of St Martin (13th, 15th and 18th centuries) possesses a figure of Christ of the 16th century, one of the finest wood carvings known. The ramparts are protected by several towers, most of which date from the 16th century. The Gallo-Roman gate, one of four entrances in the Roman period, is preserved, but is walled up. The Porte des Moulins (17th century) is the most interesting of the other gates. The town possesses a museum rich in Gallo-Roman antiquities, a picture gallery and an important library. The birth of Denis Diderot here is commemorated by a statue. Langres is the seat of a bishop and a sub-prefect, and has tribunals of first instance and of commerce, a higher ecclesiastical seminary and communal colleges for both sexes. It manufactures well-known cutlery and grind-stones. Trade is in grain and other farm-produce, live stock, wine, &c.

Langres, the ancient *Andematunum*, was capital of the *Lingones*. Under Roman rule it was at first to some extent autonomous, but was reduced to the rank of colony after the revolt of the chief Sabinus in A.D. 71. The bishopric was founded about 200 and in the middle ages its holders became peers of the realm and enjoyed the temporal power in the town. In 301 the Alemanni were defeated at Langres by the Romans, but in the next century it was burnt by the Vandals and by Attila.

> The "plateau of Langres" appears frequently in the military history of the 18th and 19th centuries as a dominant strategic point, though its importance as such has appealed chiefly to the advocates of wars of positions and passive defence. The modern fortifications of Langres, which serves as a second line fortress, consist of (*a*) Fort St Menge or Ligniville on high ground above the confluence of the Marne and the Neuilly brook, about 5 m. N. by W. of the town; (*b*) the west front, comprising Humes battery (2¼ m. N.W. of Langres), Fort de la Pointe de Diamant, and the redoubts of Perrancey, Le Fays and Noidant (the last 4 m. S.W. of the town), overlooking the deep valley of the Mouche brook (this front was attacked in the mock siege of August 1907); (*c*) the south front, comprising Fort de la Bonnelle or Décrès (2 m. S.S.W. of the town), a small work commanding the Chalon-Langres road, Le Mont and Le Pailly batteries, Fort Vercingetorix, the last, 5 m. S.W. of the place, standing on a steep and narrow spur of the main plateau, and in second line the old fort de la Marnotte, and the large bastioned citadel (the town enceinte is "déclassée"); (*d*) the east front, marked by Forts Montlandon and Plesnoy at the north and south ends respectively of a long steep ridge, 6 m. E. of Langres, the bridges over the Marne leading to these works being commanded by Fort Peigney, a work about half a mile east of the town; (*e*) Fort Dampierre, 8 m. N.E. of the town, which commands all the main approaches from the north, and completes the circle by crossing its fire with that of Fort St Menge.

LANGTOFT, PETER (d. *c.* 1307), English chronicler, took his name from the village of Langtoft in Yorkshire, and was a canon of the Augustinian priory in Bridlington. His name is also given as Langetoft and Langetost. He wrote in French verse a *Chronicle* dealing with the history of England from the earliest times to the death of Edward I. in 1307. It consists of three parts and contains about 9000 rhyming verses. The earlier part of the *Chronicle* is taken from Geoffrey of Monmouth and other writers; for the period dealing with the reign of Edward I. Langtoft is a contemporary and valuable authority, especially for affairs in the north of England and in Scotland. Langtoft's *Chronicle* seems to have enjoyed considerable popularity in the north, and the latter part of it was translated into English by Robert Mannyng, sometimes called Robert of Brunne, about 1330. It has been edited for the Rolls Series by T. Wright (1866-1868).

> See Wright's preface, and also O. Preussner, *Robert Mannyng of Brunne's Übersetzung von Pierre de Langtofts Chronicle und ihr Verhältniss zum Originale* (Breslau, 1891).

LANGTON, JOHN (d. 1337), chancellor of England and bishop of Chichester, was a clerk in the royal chancery, and became chancellor in 1292. He obtained several ecclesiastical appointments, but owing to the resistance of Pope Boniface VIII. he failed to secure the bishopric of Ely in 1298, although he was supported by Edward I. and visited Rome to attain his end. Resigning his office as chancellor in 1302, he was chosen bishop of Chichester in 1305, and again became chancellor shortly after the accession of Edward II. in 1307. Langton was one of the "ordainers" elected in 1310, and it was probably his connexion with this body that led to his losing the office of chancellor about this time. He continued, however, to take part in public affairs; mediating between the king and Earl Thomas of Lancaster in 1318, and attempting to do so between Edward and his rebellious barons in 1321. He died in June or July 1337. Langton built the chapterhouse at Chichester, and was a benefactor of the university of Oxford.

LANGTON, STEPHEN (d. 1228), cardinal and archbishop of Canterbury, was the son of English parents; but the date and place of his birth are unknown. Since he became early in his career a prebendary of York, and since his brother Simon (d. 1248) was elected[1] to that see in 1215, we may suppose the family to have been of northern extraction. Stephen, however, migrated to Paris, and having graduated in that university became one of its most celebrated theologians. This was probably the time when he composed his voluminous commentaries (many of which still exist in manuscript) and divided the Bible into chapters. At Paris also he contracted the friendship with Lothar of Segni, the future Innocent III., which played so important a part in shaping his career. Upon becoming pope, Innocent summoned Langton to Rome, and in 1206 designated him as cardinal-priest of S. Chrysogonus. Immediately afterwards Langton was drawn into the vortex of English politics.

Archbishop Hubert Walter had died in 1205, and the election of his successor had raised thorny questions. The suffragans of Canterbury claimed a share in choosing the new primate, although that right had been exclusively reserved to the monks of Canterbury by a papal privilege; and John supported the bishops since they were prepared to give their votes for his candidate, John de Gray, bishop of Norwich. A party of the younger monks, to evade the double pressure of the king and bishops, secretly elected their sub-prior Reginald and sent him to Rome for confirmation. The plot leaked out; the rest of the monks were induced to elect John de Gray, and he too was despatched to Rome. After hearing the case Innocent declared both elections void; and with John's consent ordered that a new election should be made in his presence by the representatives of the monks. The latter, having confessed that they had given John a secret pledge to elect none but the bishop of Norwich, were released from the promise by Innocent; and at his suggestion elected Stephen Langton, who was consecrated by the pope on the 17th of June 1207. On hearing the news the king banished the monks of Canterbury and lodged a protest with the pope, in which he threatened to prevent any English appeals from being brought to Rome. Innocent replied by laying England under an interdict (March 1208), and excommunicating the king (November 1209). As John still remained obstinate, the pope at length invited the French king Philip Augustus to enter England and depose him. It was this threat which forced John to sue for a reconciliation; and the first condition exacted was that he should acknowledge Langton as archbishop. During these years Langton had been residing at Pontigny, formerly the refuge of Becket. He had addressed to the English people a dignified protest against the king's conduct, and had at last pressed the pope to take extreme measures. But he had consistently adopted towards John as conciliatory an attitude as his duty to the church would allow, and had more than once entered upon negotiations for a peaceful compromise. Immediately after entering England (July 1213) he showed his desire for peace by absolving the king. But, unlike the pope, he gave ear to the popular cry for redress of political grievances; and persisted in associating with the baronial opposition, even after he was ordered by Innocent to excommunicate them as disturbers of the peace. Langton encouraged the barons to formulate their demands, and is said to have suggested that they should take their stand upon the charter of Henry I. It is uncertain what further share he took in drafting Magna Carta. At Runnymede he appeared as a commissioner on the king's side, and his influence must therefore be sought in those clauses of the Charter which differ from the original petitions of the barons. Of these the most striking is that which confirms the "liberties" of the church; and this is chiefly remarkable for its moderation.

Soon after the issue of the charter the archbishop left England to attend the Fourth Lateran Council. At the moment of his departure he was suspended by the representatives of Innocent for not enforcing the papal censures against the barons. Innocent confirmed the sentence, which remained in force for two years. During this time the archbishop resided at Rome. He was allowed to return in 1218, after the deaths of Innocent and John. From that date till his death he was a tower of strength to the royal party. Through his influence Pandulf was recalled to Rome (1221) and Honorius III. promised that no legate should be sent to reside in England during the archbishop's lifetime. In 1222, in a synod held at Oseney, he promulgated a set of Constitutions still recognized as forming a part of the law of the English Church. Beyond this little is recorded of his latter years. He died on the 9th of July 1228, and was buried in Canterbury Cathedral, where his tomb, unless tradition errs, may still be seen.

The authorities are mainly those for the reign of John. No contemporary biography has come down to us. Some letters, by Langton and others, relating to the quarrel over his election are preserved in a Canterbury Chronicle (ed. W. Stubbs in the "Rolls" edition of *Gervase of Canterbury*, vol. ii.). There are many references to

him in the correspondence of Innocent III. (Migne's *Patrologia Latina*, vols. ccxiv.-ccxvii.). Of modern works see F. Hurter, *Geschichte Papst Innocenz III.* (Hamburg, 1841-1844); W. F. Hook, *Lives of the Archbishops of Canterbury* (London, 1860-1876), and W. Stubbs's preface to the second volume of *Walter of Coventry* ("Rolls" ed.), which devotes special attention to Langton. The MSS. of Langton's writings are noticed in J. Bale's *Index Britanniae scriptorum* (ed. R. L. Poole, 1902); his Constitutions are printed in D. Wilkin's *Concilia*, vol. ii. (London, 1737).

(H. W. C. D.)

Another English prelate who bore the name of Langton was THOMAS LANGTON, bishop of Winchester, chaplain to Edward IV. In 1483 he was chosen bishop of St Davids; in 1485 he was made bishop of Salisbury and provost of Queen's College, Oxford, and he became bishop of Winchester in 1493. In 1501 he was elected archbishop of Canterbury, but he died on the 27th of January 1501, before his election had been confirmed.

1 Pope Innocent, however, would not confirm this election, and the disappointed candidate threw himself into the contest between the English barons on the one side and King John and the pope on the other. Later Simon made peace with Henry III. and was appointed archdeacon of Canterbury; he was consulted by Pope Gregory IX. and was sent to France on diplomatic business by Henry III.

LANGTON, WALTER (d. 1321), bishop of Lichfield and treasurer of England, was probably a native of Langton West in Leicestershire. Appointed a clerk in the royal chancery, he became a favourite servant of Edward I., taking part in the suit over the succession to the Scottish throne in 1292, and visiting France more than once on diplomatic business. He obtained several ecclesiastical preferments, became treasurer in 1295, and in 1296 bishop of Lichfield. Having become unpopular, the barons in 1301 vainly asked Edward to dismiss him; about the same time he was accused of murder, adultery and simony. Suspended from his office, he went to Rome to be tried before Pope Boniface VIII., who referred the case to Winchelsea, archbishop of Canterbury; the archbishop, although Langton's lifelong enemy, found him innocent, and this sentence was confirmed by Boniface in 1303. Throughout these difficulties, and also during a quarrel with the prince of Wales, afterwards Edward II., the treasurer was loyally supported by the king. Visiting Pope Clement V. on royal business in 1305, Langton appears to have persuaded Clement to suspend Winchelsea; after his return to England he was the chief adviser of Edward I., who had already appointed him the principal executor of his will. His position, however, was changed by the king's death in July 1307. The accession of Edward II. and the return of Langton's enemy, Piers Gaveston, were quickly followed by the arrest of the bishop and his removal from office. His lands, together with a great hoard of movable wealth, were seized, and he was accused of misappropriation and venality. In spite of the intercession of Clement V. and even of the restored archbishop, Winchelsea, who was anxious to uphold the privileges of his order, Langton, accused again by the barons in 1309, remained in prison after Edward's surrender to the "ordainers" in 1310. He was released in January 1312 and again became treasurer; but he was disliked by the "ordainers," who forbade him to discharge the duties of his office. Excommunicated by Winchelsea, he appealed to the pope, visited him at Avignon, and returned to England after the archbishop's death in May 1313. He was a member of the royal council from this time until his dismissal at the request of parliament in 1315. He died in November 1321, and was buried in Lichfield cathedral, which was improved and enriched at his expense. Langton appears to have been no relation of his contemporary, John Langton, bishop of Chichester.

LANGTRY, LILLIE (1852-), English actress, was the daughter of the Rev. W. C. le Breton, dean of Jersey, and married in 1874 Edward Langtry (d. 1897). For many years she was famous as one of the most beautiful women in England. It was not till 1881 that she definitely went on the stage, appearing from that time under her own management both in London and in America. In 1899 she married Sir Hugo de Bathe, Bart.

LANGUAGE (adapted from the Fr. *langage*, from *langue*, tongue, Lat. *lingua*), the whole body of words and combinations of words as used in common by a nation, people or race, for the purpose of expressing or communicating their thoughts; also, more widely, the power of expressing thought by verbal utterance. See generally under PHILOLOGY, PHONETICS, VOICE, WRITING, GRAMMAR, &c.; and the articles on the various languages, or under headings of countries and races.

LANGUEDOC, one of the old provinces of France, the name of which dates from the end of the 13th century. In 1290 it was used to refer to the country in whose tongue (*langue*) the word for "yes" was *oc*, as opposed to the centre and north of France, the *langue d'oil* (the *oui* of to-day). Territorially Languedoc varied considerably in extent, but in general from 1360 until the French Revolution it included the territory of the following departments of modern France: part of Tarn et Garonne, Tarn, most of Haute-Garonne, Ariège, Aude, Pyrénées-Orientales, Hérault, Gard, Lozère, part of Ardèche and Haute-Loire. The country had no natural geographical unity. Stretching over the Cevennes into the valleys of the upper Loire on the north and into that of the upper Garonne on the west, it reached the Pyrenees on the south and the rolling hills along the Rhone on the east. Its unity was entirely a political creation, but none the less real, as it was the great state of the Midi, the representative of its culture and, to some degree, the defence of its peculiar civilization. Its climate, especially in Hérault (Montpellier), is especially delightful in spring and early summer, and the scenery still holds enough ruined remains of Roman and feudal times to recall the romance and the tragedy of its history.

Although the name is of comparatively late medieval origin, the history of Languedoc, which had little in common with that of northern France, begins with the Roman occupation. Toulouse was an important place as early as 119 B.C.; the next year Narbonne, the seaport, became a Roman colony. By the time of Julius Caesar the country was sufficiently Romanized to furnish him with men and money, and though at first involved in the civil wars which followed, it prospered under Roman rule as perhaps no other part of the empire did. While it corresponded exactly to no administrative division of the Roman empire, it was approximately the territory included in *Gallia Narbonensis*, one of the seventeen provinces into which the empire was divided at the death of Augustus. It was rich and flourishing, crowded with great and densely populated towns, Nîmes, Narbonne, Béziers, Toulouse; with schools of rhetoric and poetry still vigorous in the 5th century; theatres, amphitheatres and splendid temples. In the 5th century this high culture was an open prize for the barbarians; and after the passing of the Vandals, Suebi and Visigoths into Spain, the Visigoths returned under Wallia, who made his capital at Toulouse in 419. This was the foundation of the Visigothic kingdom which Clovis dismembered in 507, leaving the Visigoths only Septimania—the country of seven cities, Narbonne, Carcassonne, Elne, Béziers, Maguelonne, Lodève and Agde—that is, very nearly the area occupied later by the province of Languedoc. At the council of Narbonne in 589 five races are mentioned as living in the province, Visigoths, Romans, Jews—of whom there were a great many—Syrians and Greeks. The repulse of the Arabs by Charles Martel in 732 opened up the country for the Frankish conquest, which was completed by 768. Under the Carolingians Septimania became part of the kingdom of Aquitaine, but became a separate duchy in 817.

Until the opening of the 13th century there is no unity in the history of Languedoc, the great houses of Toulouse and Carcassonne and the swarm of warlike counts and barons practically ignoring the distant king of France, and maintaining a chronic state of civil war. The feudal régime did not become at all universal in the district, as it tended to become in the north of France. Allodial tenures survived in sufficient numbers to constitute a considerable class of non-vassal subjects of the king, with whose authority they were little troubled. By the end of the 11th century the house of the counts of Toulouse began to play the predominant rôle; but their court had been famous almost a century before for its love of art and literature and its extravagance in dress and fashions, all of which denoted its wealth. Constance, wife of King Robert II. and daughter of the count of Toulouse, gave great offence to the monks by her following of gallant gentlemen. They owed their tastes, not only to their Roman blood, and the survival of their old love for rhetoric and poetry, but also to their intercourse with the Mahommedans, their neighbours and enemies, and their friends when they were not fighting. Under Raymond of Saint Gilles, at the end of the 11th century, the county of Toulouse began its great career, but Raymond's ambition to become an Oriental prince, which led him—and the hundred thousand men who, according to the chroniclers, followed him—away on the first crusade, left a troubled heritage to his sons Bertrand and Alphonse Jourdain. The latter successfully beat off William IX., duke of Aquitaine, and won from the count of Barcelona that part of Provence between the Drôme and the Durance. The reign of Alphonse lasted from 1109 to 1148. By the opening of the 13th century the sovereignty of the counts of Toulouse was recognized through about half of Provence, and they held the rich cities of the most cultured and wealthiest portion of France, cities which had a high degree of local independence. Their local governments, with their consuls at the head, show, at least in name, the influence of Roman ideas. It is still an open question how much of their autonomy had remained untouched by the barbarian invasions from the Roman period. The citizens of these free cities were in continual intercourse with Saracens of Palestine and Moors of Spain; they had never entirely abandoned pagan customs; their poetry—the poetry of the troubadours—taught them the joys of life rather than the fear of death, the licence of their chivalry with its courts of love led to the other extreme of asceticism in such as were of religious temperament; all things combined to make Languedoc the proper soil for heresy. The Church never had the hold upon the country that it had in the north, the people of the Midi were always lukewarm in the faith; there was no noteworthy ecclesiastical literature in Languedoc from the end of the Carolingian period until after the Albigensian crusade, no theological centre like Paris, Bec or Laon. Yet Languedoc furnished the most heroic martyrs for the ascetic Manichaean creed. The era of heresy began with the preaching of Peter de Brueys and his follower, Henry of Lausanne, who emptied the churches and taught contempt for the clergy. Saint Bernard himself was able to make but temporary headway against this rebellion from a sacramental and institutionalized Christianity. In the first decade of the 13th century came the inevitable conflict. The whole county of Toulouse, with its fiefs of Narbonne, Béziers, Foix, Montpellier and Quercy, was in open and scornful secession from the Catholic Church, and the suppression of this Manichaean or Cathar religion was the end of the brilliant culture of Languedoc. (See ALBIGENSES, CATHARS, INQUISITION.) The crusade against the Albigenses, as the Cathars were locally termed, in 1209, resulted in the union to the crown of France in 1229 of all the country from Carcassonne to the Rhone, thus dividing Languedoc into two. The western part left to Raymond VII., by the treaty of 1229, included the Agenais, Quercy, Rouergue, the Toulousain and southern Albigeois. He had as well the Venaissin across the Rhone. From 1229 to his death in 1249 Raymond VII. worked tirelessly to bring back prosperity to his ruined country, encouraging the foundation of new cities, and attempting to gain reconciliation with the Church. He left only a daughter, Jeanne, who was married to Alphonse of Poitiers. Alphonse, a sincere Catholic, upheld the Inquisition, but, although ruling the country from Paris, maintained peace. Jeanne died without heirs four days after her husband, upon their return from the crusade in Africa, in 1271, and although she attempted by will to

prevent the reversion of her lands to the crown, they were promptly seized by King Philip III., who used the opposition of Roger Bernard, count of Foix, as an excuse to appear with a formidable army, which had little to do to secure entire submission. Thus the county of Toulouse passed to the crown, though Philip III. turned over the Agenais to Edward I. of England in 1279. In 1274 he ceded the county of Venaissin to Pope Gregory X., the papacy having claimed it, without legal grounds, since the Albigensian crusade (see AVIGNON).

Such was the fate of the reduced county of Toulouse. At the division of Languedoc in 1229 Louis IX. was given all the country from Carcassonne to the Rhone. This royal Languedoc was at first subject to much trickery on the part of northern speculators and government officials. In 1248 Louis IX. sent royal *enquêteurs*, much like Charlemagne's *missi dominici*, to correct all abuses, especially to inquire concerning peculation by royal agents. On the basis of their investigations the king issued royal edicts in 1254 and 1259 which organized the administration of the province. Two *sénéchaussées* were created—one at Nîmes, the other at Carcassonne—each with its lesser divisions of *vigueries* and *bailliages*. During the reign of Philip III. the *enquêteurs* were busily employed securing justice for the conquered, preventing the seizure of lands, and in 1279 a supreme court of justice was established at Toulouse. In 1302 Philip IV. convoked the estates of Languedoc, but in the century which followed they were less an instrument for self-government than one for securing money, thus aiding the *enquêteurs*, who during the Hundred Years' War became mere revenue hunters for the king. In 1355 the Black Prince led a savage plundering raid across the country to Narbonne. After the battle of Poitiers, Languedoc supported the count of Armagnac, but there was no enthusiasm for a national cause. Under Charles V., Louis of Anjou, the king's brother, was governor of Languedoc, and while an active opponent of the English, he drained the country of money. But his extortions were surpassed by those of another brother, the duc de Berry, after the death of Charles V. In 1382 and 1383 the infuriated peasantry, abetted by some nobles, rose in a rebellion—known as the Tuchins—which was put down with frightful butchery, while still greater sums were demanded from the impoverished country. In the anarchy which followed brigandage increased. Redress did not come until 1420, when the dauphin, afterwards Charles VII., came to Languedoc and reformed the administration. Then the country he saved furnished him with the means for driving out the English in the north. For the first time, in the climax of its miseries, Languedoc was genuinely united to France. But Charles VII. was not able to drive out the brigands, and it was not until after the English were expelled in 1453 that Languedoc had even comparative peace. Charles VII. united Comminges to the crown; Louis XI. Roussillon and Cerdagne, both of which were ceded to Aragon by Charles VIII. as the price of its neutrality during his expedition into Italy. From the reign of Louis XI. until 1523 the governorship of Languedoc was held by the house cf Bourbon. After the treason of the constable Bourbon it was held by the Montmorency family with but slight interruption until 1632.

The Reformation found Languedoc orthodox. Persecution had succeeded. The Inquisition had had no victims since 1340, and the cities which had been centres of heresy were now strongly orthodox. Toulouse was one of the most fanatically orthodox cities in Europe, and remained so in Voltaire's day. But Calvinism gained ground rapidly in the other parts of Languedoc, and by 1560 the majority of the population was Protestant. It was, however, partly a political protest against the misrule of the Guises. The open conflict came in 1561, and from that until the edict of Nantes (1598) there was intermittent civil war, accompanied with iconoclasm on the one hand, massacres on the other and ravages on both.

The main figure in this period is that of Henri de Montmorency, seigneur de Damville, later duc de Montmorency, governor of the province from 1563, who was, at first, hostile to the Protestants, then from 1574 to 1577, as leader of the "*Politiques*," an advocate of compromise. But peace was hardly ever established, although there was a yearly truce for the ploughing. By the edict of Nantes, the Protestants were given ten places of safety in Languedoc; but civil strife did not come to an end, even under Henry IV. In 1620 the Protestants in Languedoc rose under Henri, duc de Rohan (1579-1638), who for two years defied the power of Louis XIII. When Louis took Montpellier in 1622, he attempted to reconcile the Calvinists by bribes of money and office, and left Montauban as a city of refuge. Richelieu's extinction of Huguenotism is less the history of Languedoc than of the Huguenots (*q.v.*). By 1629 Protestantism was crushed in the Midi as a political force. Then followed the tragic episode of the rebellion of Henri II., duc de Montmorency, son of the old governor of Languedoc. As a result, Languedoc lost its old provincial privilege of self-assessment until 1649, and was placed under the governorship of Marshal Schomberg. During Louis XIV.'s reign Languedoc prospered until the revocation of the edict of Nantes. Industries and agriculture were encouraged, roads and bridges were built, and the great canal giving a water route from the Atlantic to the Mediterranean increased the trade of its cities. Colbert especially encouraged its manufactures. The religious persecutions which accompanied the revocation of the edict of Nantes bore hardest on Languedoc, and resulted in a guerilla warfare known as the rebellion of the Camisards (*q.v.*). On the eve of the Revolution some of the brightest scenes of contentment and prosperity which surprised Arthur Young, the English traveller in France, were those of the grape harvests in Languedoc vineyards.

In 1790 Languedoc disappeared from the map of France, with the other old provinces; and the departments mentioned took its place. But the peculiar characteristics of the men of the Midi remain as clearly distinct from those of the north as the Scottish type is distinct from the English. The "peaceful insurrection" of the Languedoc vine-growers in the summer of 1907 revealed to the astonished Parisians the same spirit of independence as had underlain the resistance to Simon de Montfort and Richelieu.

The one monumental history of Languedoc is that of the Benedictines, Dom Claude Devic and Dom J. J. Vaissete, *Histoire générale de la province de Languedoc* (5 vols., Paris, 1730-1745). This has been re-edited, and continued and increased by the addition of important monographs, to 15 volumes (Toulouse, 1872-1892). It is the great library of sources, critical apparatus and bibliographies concerning Languedoc, and carries the history up to 1790. The fine article "Languedoc" in *La Grande Encyclopédie* is by A. Molinier, perhaps the greatest modern authority on Languedoc.

(J. T. S.*)

LANGUET, HUBERT (1518-1581), French Huguenot writer and diplomat, was born at Vitteaux in Burgundy, of which town his father was governor. He received his early education from a distinguished Hellenist, Jean Perelle, and displayed remarkable ability in Greek and Latin. He studied law, theology and science at the university of Poitiers from 1536 to 1539; then, after some travel, attended the universities of Bologna and Padua, receiving the doctorate from the latter in 1548. At Bologna he read Melanchthon's *Loci communes theologiae* and was so impressed by it that in 1549 he went to Wittenberg to see the author, and shortly afterwards became a Protestant. He made his headquarters at Wittenberg until the death of Melanchthon in 1560, although during that period, as well as throughout the rest of his life, he travelled extensively in France, Italy, Spain, Germany, Sweden, and even Finland and Lapland. In 1557 he declined the invitation of Gustavus I. to enter the service of Sweden, but two years later accepted a similar invitation of Augustus I., elector of Saxony. He showed great ability in diplomacy, particularly in organizing the Protestants. He represented the elector at the French court from 1561 to 1572 except when the religious and political troubles in France occasionally compelled him temporarily to withdraw. He performed many minor diplomatic missions for the elector, and in 1567 accompanied him to the siege of Gotha. He delivered a violent harangue before Charles IX. of France in 1570 on behalf of the Protestant princes, and escaped death on St Bartholomew's Day (1572) only through the intervention of Jean de Morvilliers, the moderate and influential bishop of Orleans. He represented the elector of Saxony at the imperial court from 1573 to 1577. Financial embarrassment and disgust at the Protestant controversies in which he was forced to participate caused him to seek recall from the imperial court. His request being granted, Languet spent the last years of his life mainly in the Low Countries, and though nominally still in the service of the elector, he undertook a mission to England for John Casimir of Bavaria and was a valuable adviser to William the Silent, prince of Orange. Languet died at Antwerp on the 30th of September 1581.

His correspondence is important for the history of the 16th century. Three hundred and twenty-nine letters to Augustus of Saxony dating from the 17th of November 1565 to the 8th of September 1581, and one hundred and eleven letters to the chancellor Mordeisen dating from November 1559 to the summer of 1565, are preserved in MS. in the Saxon archives, and were published by Ludovicus at Halle in 1699 under the title *Arcana seculi decimi sexti*. One hundred and eight letters to Camerarius were published at Groningen in 1646 under the title *Langueti Epistolae ad Joach. Camerarium, patrem et filium*; and ninety-six to his great friend Sir Philip Sidney, dating from the 22nd of April 1573 to the 28th of October 1580, appeared at Frankfort in 1633 and have been translated into English by S. A. Pears (London, 1845). The *Historica Descriptio* of the siege and capture of Gotha appeared in 1568 and has been translated into French and German. The authorship of the work by which Languet is best known has been disputed. It is entitled *Vindiciae contra tyrannos, sive de principis in populum populique in principem legitima potestate, Stephano Junio Bruto Celta auctore*, and is thought to have been published at Basel (1579) although it bears the imprint of Edinburgh. It has been attributed to Beza, Hotman, Casaubon and Duplessis-Mornay, by divers writers on various grounds—to the last-named on the very respectable authority of Grotius. The authorship of Languet was supported by Peter Bayle (for reasons stated in the form of a supplement to the *Dictionnaire*) and confirmed by practically all later writers. The work has been frequently reprinted, the Leipzig edition (1846) containing a life of Languet by Treitschke. A French translation appeared in 1581 and an English translation in 1689. The work upholds the doctrine of resistance, but affirms that resistance must come from properly constituted authorities and objects to anything which savours of anabaptism or other extreme views. The *Apologie ou défence du très illustre Prince Guillaume contre le ban et l'édit du roi d'Espagne* (Leiden, 1581) is sometimes attributed to Languet. There seems little doubt, however, that it was really the work of the prince himself, with the help either of Languet (Groen van Prinsterer, *Archives*) or of Pierre de Villiers (Motley, *Rise of the Dutch Republic*; and Blok, *History of the People of the Netherlands*).

See Ph. de la Mare, *Vie d'Hubert Languet* (Halle, 1700); E. and E. Haag, *La France protestante*; H. Chevreul, *Hubert Languet* (Paris, 1852); J. Blasel, *Hubert Languet* (Breslau, 1872); O. Scholz, *Hubert Languet als kursächsischer Berichterstatter u. Gesandter in Frankreich während 1560-1572* (Halle, 1875); G. Touchard, *De politica Huberti Langueti* (Paris, 1898). There is a good article on Languet by P. Tschackert in Hauck's *Real-Encyklopädie*, 3rd ed., xi. 274-280.

LANGUR, one of the two Hindu names (the other being *hanuman*) of the sacred Indian monkey scientifically known as *Semnopithecus entellus*, and hence sometimes called the entellus monkey. A prodigiously long tail, beetling eyebrows with long black hairs, black ears, face, feet and hands, and a general greyish-brown colour of the fur are the distinctive characteristics of the langur. These monkeys roam at will in the bazaars of Hindu cities, where they help themselves freely from the stores of the grain-dealers, and they are kept in numbers at the great temple in Benares. In a zoological sense the term is extended to embrace all the monkeys of the Asiatic genus *Semnopithecus*, which includes a large number of species, ranging from Ceylon, India and Kashmir to southern China and the Malay countries as far east as Borneo and Sumatra. These monkeys are characterized by their lank bodies, long slender limbs and tail, well-developed thumbs, absence of cheek-pouches, and complex stomachs. They feed on leaves and young shoots.

(R. L.*)

LANG VON WELLENBURG, MATTHÄUS (1469-1540), German statesman and ecclesiastic, was the son of a burgher of Augsburg. He afterwards assumed the name of Wellenburg from a castle that came into his possession. After studying at Ingolstadt, Vienna and Tübingen he entered the service of the emperor Frederick III. and quickly made his way to the front. He was also one of the most trusted advisers of Frederick's son and successor Maximilian I., and his services were rewarded in 1500 with the provostship of the cathedral at Augsburg and in the following year with the bishopric of Gurk. In 1511 he was made a cardinal by Pope Julius II., and in 1514 he became coadjutor to the archbishop of Salzburg, whom he succeeded in 1519. He also received the bishopric of Cartagena in Murcia in 1521, and that of Albano in 1535. Lang's adherence to the older faith, together with his pride and arrogance, made him very unpopular in his diocese of Salzburg; in 1523 he was involved in a serious struggle with his subjects, and in 1525, during the Peasants' War, he had again to fight hard to hold his own. He was one of the chief ministers of Charles V.; he played an important part in the tangled international negotiations of his time; and he was always loyal to his imperial masters. Not without reason has he been compared with Cardinal Wolsey. He died on the 30th of March 1540.

LANIER, SIDNEY (1842-1881), American poet, was born at Macon, Georgia, on the 3rd of February 1842. He was of Huguenot descent on his father's side, and of Scottish and Virginian on his mother's. From childhood he was passionately fond of music. His subsequent mastery of the flute helped to support him and greatly increased his reputation. At the age of fourteen he entered Oglethorpe College, where, after graduating with distinction, he held a tutorship. He enlisted in the Confederate army in April 1861, serving first in Virginia, and finding opportunities to continue his studies. After the Seven Days' battles around Richmond, he was transferred to the signal service. About this time the first symptoms of consumption appeared. He subsequently served in a blockade-runner, but his vessel was captured, and he was confined for five months in a Federal prison, his flute proving the best of companions. Exchanged early in 1865, he started home on foot, arriving in a state of exhaustion that led to a severe illness. In 1867 he visited New York in connexion with his novel *Tiger Lilies*—an immature work, dealing in part with his war experiences, and now difficult to obtain. Later in the same year he took charge of a country school in Alabama, and was married to Miss Mary Day of his native town. The next year he returned to Macon in low health, and began to study and practise law with his father. In 1872 he went to Texas for his health, but was forced to return, and he secured an engagement as first flute in the Peabody concerts at Baltimore (December 1873). He wrote a guide-book to Florida (1876), and tales for boys from Froissart, Malory, the Mabinogion and Percy's *Reliques* (1878-1882). He now made congenial friends, such as Bayard Taylor, his reputation gradually increased, and he was enabled to study music and literature, especially Anglo-Saxon poetry. In 1876 he wrote his ambitious cantata for the Centennial Exhibition, and brought his family north. A small volume of verse appeared in the next year. In 1879 he was made lecturer on English literature at Johns Hopkins University. His lectures became the basis of his *Science of English Verse* (1880)—his most important prose work, and an admirable discussion of the relations of music and poetry—and also of his *English Novel* (New York, 1883), which, devoted largely to George Eliot, is suggestive, but one-sided. Work had to be abandoned on account of growing feebleness, and in the spring of 1881 he was carried to Lynn, North Carolina, to try camp life, and died there on the 7th of September. Since his death his fame has grown steadily and greatly, an enlarged and final edition (1884) of his poems, prepared by his wife, his *Letters, 1866-1881* (1899), and several volumes of miscellaneous prose having assisted in keeping his name before the public. A posthumous work on *Shakspere and his Forerunners* (London, 2 vols., 1902) was edited by H. W. Lanier. Among his more noteworthy poems are "Corn," "The Revenge of Hamish," "Song of the Chattahoochee" and "The Marshes of Glynn." By some his genius is regarded as musical rather than poetic, and his style is considered hectic; by others he is held to be one of the most original and most talented of modern American poets. He is considered the leading writer of the New South, the greatest Southern poet since Poe, and a man of heroic and exquisite character.

See a "Memorial," by William Hayes Ward, prefixed to the *Poems* (1884); *Letters of Sidney Lanier 1866-1881* (1899), edited by H. W. Lanier and Mrs Sidney Lanier; E. Mims, *Sidney Lanier* (1905). There is a bibliography of Lanier's scattered writings in *Select Poems* (New York, 1896; Toronto, 1900) edited by Morgan Callaway.

(W. P. T.)

LANJUINAIS, JEAN DENIS, Comte (1753-1827), French politician, was born at Rennes (Ille-et-Vilaine) on the 12th of March 1753. After a brilliant college career, which made him doctor of laws and a qualified barrister at nineteen, he was appointed counsel to the Breton estates and in 1775 professor of ecclesiastical law at Rennes. At this period he wrote two important works which, owing to the distracted state of public affairs, remained unpublished, *Institutiones juris ecclesiastici* and *Praelectiones juris ecclesiastici*. He had begun his career at the bar by pleading against the feudal *droit du colombier*, and when he was sent by his fellow-citizens to the states-general of 1789 he demanded the abolition of nobility and the substitution of the title of king of the French and the Navarrese for king of France and Navarre, and helped to establish the civil constitution of the clergy. Returned to the Convention in September 1792 he developed moderate, even reactionary views, becoming one of the fiercest opponents of the Mountain, though he never wavered in his support of republican principles. He refused to vote for the death of Louis XVI., alleging that the nation had no right to despatch a vanquished prisoner. His daily attacks on the Mountain resulted, on the 15th of April 1793, in a demand by the commune for his exclusion from the assembly, but, undaunted, when the Parisian populace

invaded the Chamber on the 2nd of June, Lanjuinais renewed his defiance of the victorious party. Placed under arrest with the Girondins, he escaped to Rennes where he drew up a pamphlet denouncing the constitution of 1793 under the curious title *Le Dernier Crime de Lanjuinais* (Rennes, 1793). Pursued by J. B. Carrier, who was sent to stamp out resistance in the west, he lay hidden until some time after the revolution of Thermidor (July 1794), but he was readmitted to the Convention on the 8th of March 1795. He maintained his liberal and independent attitude in the Conseil des Anciens, the Senate and the Chamber of Peers, being president of the upper house during the Hundred Days. Together with G. J. B. Target, J. E. M. Portalis and others he founded under the empire an academy of legislation in Paris, himself lecturing on Roman law. Closely associated with oriental scholars, and a keen student of oriental religions, he entered the Academy of Inscriptions in 1808. After the Bourbon restoration Lanjuinais consistently defended the principles of constitutional monarchy, but most of his time was given to religious and political subjects. Besides many contributions to periodical literature he wrote, among other works, *Constitutions de la nation française* (1819); *Appréciation du projet de loi relatif aux trois concordats* (1806, 6th ed. 1827), in defence of Gallicanism; and *Études biographiques et littéraires sur Antoine Arnauld, P. Nicole et Jacques Necker* (1823). He died in Paris on the 13th of January 1827.

His son, Victor Ambroise, Vicomte de Lanjuinais (1802-1869), was also a politician, becoming a deputy in 1838. His interests lay chiefly in financial questions and in 1849 he became minister of commerce and agriculture in the cabinet of Odilon Barrot. He wrote a *Notice historique sur la vie et les ouvrages du comte de Lanjuinais*, which was prefixed to an edition of his father's *Œuvres* (4 vols., 1832).

For the life of the comte de Lanjuinais see also A. Robert and G. Cougny, *Dictionnaire des parlementaires*, vol. ii. (1890); and F. A. Aulard, *Les Orateurs de la Législative et de la Convention* (Paris, 1885-1886). For a bibliography of his works see J. M. Quérard, *La France littéraire*, vol. iii. (1829).

LANMAN, CHARLES ROCKWELL (1850-), American Sanskrit scholar, was born in Norwich, Connecticut, on the 8th of July 1850. He graduated at Yale in 1871, was a graduate student there (1871-1873) under James Hadley and W. D. Whitney, and in Germany (1873-1876) studied Sanskrit under Weber and Roth and philology under Georg Curtius and Leskien. He was professor of Sanskrit at Johns Hopkins University in 1876-1880 and subsequently at Harvard University. In 1889 he travelled in India and bought for Harvard University Sanskrit and Prākrit books and manuscripts, which, with those subsequently bequeathed to the university by Fitzedward Hall, make the most valuable collection of its kind in America, and made possible the *Harvard Oriental Series*, edited by Professor Lanman. In 1879-1884 he was secretary and editor of the *Transactions*, and in 1889-1890 president of the American Philological Association, and in 1884-1894 he was corresponding secretary of the American Oriental Society, in 1897-1907 vice-president, and in 1907-1908 president. In the *Harvard Oriental Series* he translated (vol. iv.) into English Rājaçekhara's Karpūra-Mañjarī (1900), a Prākrit drama, and (vols. vii. and viii.) revised and edited Whitney's translation of, and notes on, the *Atharva-Veda Samhitā* (2 vols., 1905); he published *A Sanskrit Reader, with Vocabulary and Notes* (2 vols., 1884-1888); and he wrote on early Hindu pantheism and contributed the section on Brahmanism to *Messages of the World's Religions*.

LANNES, JEAN, duke of Montebello (1769-1809), marshal of France, was born at Lectoure (Gers) on the 11th of April 1769. He was the son of a livery stables keeper, and was apprenticed to a dyer. He had had little education, but his great strength and proficiency in all manly sports caused him in 1792 to be elected sergeant-major of the battalion of volunteers of Gers, which he had joined on the breaking out of war between Spain and the French republic. He served through the campaigns in the Pyrenees in 1793 and 1794, and rose by distinguished conduct to the rank of *chef de brigade*. However, in 1795, on the reform of the army introduced by the Thermidorians, he was dismissed from his rank. He re-enlisted as a simple volunteer in the army of Italy, and in the famous campaign of 1796 he again fought his way up to high rank, being eventually made a general of brigade by Bonaparte. He was distinguished in every battle, and was wounded at Arcola. He was chosen by Bonaparte to accompany him to Egypt as commander of one of Kléber's brigades, in which capacity he greatly distinguished himself, especially on the retreat from Syria. He went with Bonaparte to France, assisted at the 18th Brumaire, and was appointed general of division, and commandant of the consular guard. He commanded the advanced guard in the crossing of the Alps in 1800, was instrumental in winning the battle of Montebello, from which he afterwards took his title, and bore the brunt of the battle of Marengo. In 1801 Napoleon sent him as ambassador to Portugal. Opinions differ as to his merits in this capacity; Napoleon never made such use of him again. On the establishment of the empire he was created a marshal of France, and commanded once more the advanced guard of a great French army in the campaign of Austerlitz. At Austerlitz he had the left of the Grand Army. In the 1806-07 campaign he was at his best, commanding his corps with the greatest credit in the march through the Thuringian Forest, the action of Saalfeld (which is studied as a model to-day at the French Staff College) and the battle of Jena. His leadership of the advanced guard at Friedland was even more conspicuous. He was now to be tried as a commander-in-chief, for Napoleon took him to Spain in 1808, and gave him a detached wing of the army, with which he won a victory over Castaños at Tudela on November 22. In January 1809 he was sent to attempt the capture of Saragossa, and by February 21, after one of the most stubborn defences in history, was in possession of the place. Napoleon then created him duc de

Montebello, and in 1809, for the last time, gave him command of the advanced guard. He took part in the engagements around Eckmühl and the advance on Vienna. With his corps he led the French army across the Danube, and bore the brunt, with Masséna, of the terrible battle of Aspern-Essling (*q.v.*). On the 22nd of May he had to retreat. During the retreat Lannes exposed himself as usual to the hottest fire, and received a mortal wound, to which he succumbed at Vienna on the 31st of May. As he was being carried from the field to Vienna he met the emperor hurrying to the front. It was reported that the dying man reproached Napoleon for his ambition, but this rests on little evidence save the fact that Lannes was the most blunt and outspoken of all Napoleon's marshals. He was one of the few men for whom the emperor felt a real and deep affection, and at this their last meeting Napoleon gave way to a passionate burst of grief, even in the midst of the battle. His eldest son was made a peer of France by Louis XVIII.

> Lannes ranks with Davout and Masséna as the ablest of all Napoleon's marshals, and consciously or unconsciously was the best exponent of the emperor's method of making war. Hence his constant employment in tasks requiring the utmost resolution and daring, and more especially when the emperor's combinations depended upon the vigour and self-sacrifice of a detachment or fraction of the army. It was thus with Lannes at Friedland and at Aspern as it was with Davout at Austerlitz and Auerstädt, and Napoleon's estimate of his subordinates' capacities can almost exactly be judged by the frequency with which he used them to prepare the way for his own shattering blow. Routine generals with the usual military virtue, or careful and exact troop leaders like Soult and Macdonald, Napoleon kept under his own hand for the final assault which he himself launched, but the long hours of preparatory fighting against odds of two to one, which alone made the final blow possible, he entrusted only to men of extraordinary courage and high capacity for command. In his own words, he found Lannes a pigmy, and lost him a giant. Lannes's place in his affections was never filled.

See R. Périn, *Vie militaire de Jean Lannes* (Paris, 1809).

LANNION, a town of north-western France, capital of an arrondissement in the department of Côtes-du-Nord, on the right bank of the Léguer, 45 m. W.N.W. of St Brieuc by rail. Pop. (1906) 5336. Lannion is 5 m. in direct line from the mouth of the Léguer; its port does a small trade (exports of agricultural produce, imports of wine, salt, timber, &c.), and there is an active fishing industry. The town contains many houses of the 15th and 16th centuries and other old buildings, the chief of which is the church of St Jean-du-Baly (16th and 17th centuries). On an eminence close to Lannion is the church of Brélevenez of the 12th century, restored in the 15th or 16th century; it has an interesting 16th-century Holy Sepulchre.

Some 6 m. S.E. of the town are the imposing ruins of the château of Tonquédec (*c.* 1400) styled the "Pierrefonds of Brittany," and there are other buildings of antiquarian interest in the vicinity. The coast north of Lannion at Trégastel and Ploumanac presents curious rock formations.

Lannion is the seat of a subprefect and has a tribunal of first instance and a communal college. Its industries include saw-milling, tanning and the manufacture of farm implements. The town was taken in 1346 by the English; it was defended against them by Geoffroy de Pontblanc whose valour is commemorated by a cross close to the spot where he was slain.

LANNOY, GUILLEBERT DE (1386-1462), Flemish diplomatist, was chamberlain to the duke of Burgundy, governor of the fort of Sluys, and a knight of the Golden Fleece. He discharged several diplomatic missions in France, England, Prussia, Poland and Lithuania, and was one of the negotiators of the treaty of Troyes (1420). In 1421 he was sent by Henry V. of England to Palestine to inquire into the possibility of reviving the kingdom of Jerusalem, and wrote an account of his travels, *Les Pèlerinages de Surye et de Egipte*, which was published in 1826 and again in 1842.

LANOLIN (Lat. *lana*, wool, and *oleum*, oil), the commercial name of the preparation styled *adeps lanae hydrosus* in the British Pharmacopoeia, and which consists of 7 oz. of neutral wool-fat (*adeps lanae*) mixed with 3 fluid oz. of water. The wool-fat is obtained by purification of the "brown grease," "recovered grease" or dégras extracted from raw sheep's wool in the process of preparing it for the spinner. It is a translucent unctuous substance which has the property of taking up large quantities of water and forming emulsions which are very slow to separate into their constituents. Owing to the ease with which it penetrates the skin, wool-fat both in the anhydrous form and as lanolin, sometimes mixed with such substances as vaseline or fatty oils, is largely employed as a basis for ointments. It is slightly antiseptic and does not become rancid.

LA NOUE, FRANÇOIS DE (1531-1591), called Bras-de-Fer, one of the Huguenot captains of the 16th century, was born near Nantes in 1531, of an ancient Breton family. He served in Italy under Marshal Brissac, and in the first Huguenot war, but his first great exploit was the capture of Orleans at the head of only fifteen cavaliers in 1567, during the second war. At the battle of Jarnac in March 1569 he commanded the rearguard, and at Moncontour in the following October he was taken prisoner; but he was exchanged in time to resume the governorship of Poitou, and to inflict a signal defeat on the royalist troops before Rochefort. At the siege of Fontenay (1570) his left arm was shattered by a bullet; but a mechanic of Rochelle made him an iron arm (hence his sobriquet) with a hook for holding his reins. When peace was made in France in the same year, La Noue carried his sword against the Spaniards in the Netherlands, but was taken at the recapture of Mons by the Spanish in 1572. Permitted to return to France, he was commissioned by Charles IX., after the massacre of St Bartholomew, to reconcile the inhabitants of La Rochelle, the great stronghold of the Huguenots, to the king. But the Rochellois were too much alarmed to come to terms; and La Noue, perceiving that war was imminent, and knowing that his post was on the Huguenot side, gave up his royal commission, and from 1574 till 1578 acted as general of La Rochelle. When peace was again concluded La Noue once more went to aid the Protestants of the Low Countries. He took several towns and captured Count Egmont in 1580; but a few weeks afterwards he fell into the hands of the Spaniards. Thrust into a loathsome prison at Limburg, La Noue, the admiration of all, of whatever faith, for his gallantry, honour and purity of character, was kept confined for five years by a powerful nation, whose reluctance to set him free is one of the sincerest tributes to his reputation. It was in captivity that he wrote his celebrated *Discours politiques et militaires*, a work which was published at Basel in 1587 [republished at La Rochelle 1590, Frankfurt on Main (in German) 1592 and 1612; and London (in English) 1597] and had an immense influence on the soldiers of all nations. The abiding value of La Noue's "Discourses" lies in the fact that he wrote of war as a human drama, before it had been elaborated and codified. At length, in June 1585, La Noue was exchanged for Egmont and other prisoners of consideration, while a heavy ransom and a pledge not to bear arms against his Catholic majesty were also exacted from him. Till 1589 La Noue took no part in public matters, but in that year he joined Henry of Navarre against the Leaguers. He was present at both sieges of Paris, at Ivry and other battles. At the siege of Lamballe in Brittany he received a wound of which he died at Moncontour on the 4th of August 1591.

He wrote, besides the Discourses, *Déclaration pour prise d'armes et la défense de Sedan et Jamets* (1588); *Observations sur l'histoire de Guicciardini* (2 vols., 1592); and notes on *Plutarch's Lives*. His *Correspondance* was published in 1854. See *La Vie de François, seigneur de La Noue*, by Moyse Amirault (Leiden, 1661); Brantôme's *Vies des Capitaines français*; C. Vincens' *Les Héros de la Réforme. Fr. de La Noue* (1875); and Hauser, *François de La Noue* (Paris, 1892).

LANSDOWNE, WILLIAM PETTY FITZMAURICE, 1ST MARQUESS OF (1737-1805), British statesman, better known under his earlier title of earl of Shelburne, was born at Dublin on the 20th of May 1737. He was a descendant of the lords of Kerry (dating from 1181), and his grandfather Thomas Fitzmaurice, who was created earl of Kerry (1723), married the daughter of Sir William Petty (*q.v.*). On the death without issue of Sir William Petty's sons, the first earls of Shelburne, the estates passed to his nephew John Fitzmaurice (advanced in 1753 to the earldom of Shelburne), who in 1751 took the additional name of Petty. His son William spent his childhood "in the remotest parts of the south of Ireland," and, according to his own account, when he entered Christ Church, Oxford, in 1755, he had both "everything to learn and everything to unlearn." From a tutor whom he describes as "narrow-minded" he received advantageous guidance in his studies, but he attributes his improvement in manners and in knowledge of the world chiefly to the fact that, as was his "fate through life," he fell in "with clever but unpopular connexions." Shortly after leaving the university he served in Wolfe's regiment during the Seven Years' War, and so distinguished himself at Minden and Kloster-Kampen that he was raised to the rank of colonel and appointed aide-de-camp to the king (1760). Being thus brought into near communication with Lord Bute, he was in 1761 employed by that nobleman to negotiate for the support of Henry Fox, Lord Holland. He was returned to the House of Commons as member for Wycombe, but in 1761 he succeeded his father as earl of Shelburne in the Irish peerage, and Baron Wycombe in the peerage of Great Britain (created 1760). Though he declined to take office under Bute he undertook negotiations to induce C. J. Fox to gain the consent of the Commons to the peace of 1763. Fox affirmed that he had been duped, and, although Shelburne always asserted that he had acted in thorough good faith, Bute spoke of the affair as a "pious fraud." Shelburne joined the Grenville ministry in 1763 as president of the Board of Trade, but, failing in his efforts to replace Pitt in the cabinet, he in a few months resigned office. Having moreover on account of his support of Pitt on the question of Wilkes's expulsion from the House of Commons incurred the displeasure of the king, he retired for a time to his estate. After Pitt's return to power in 1766 he became secretary of state, but during Pitt's illness his conciliatory policy towards America was completely thwarted by his colleagues and the king, and in 1768 he was dismissed from office. In 1782 he consented to take office under the marquess of Rockingham on condition that the king would recognize the United States. On the death of Lord Rockingham in the same year he became premier; but the secession of Fox and his supporters led to the famous coalition of Fox with North, which caused his resignation in the following February, his fall being perhaps hastened by his plans for the reform of the public service. He had also in contemplation a bill to promote free commercial intercourse between England and the United States. When Pitt acceded to office in

1784, Shelburne, instead of receiving a place in the cabinet, was created marquess of Lansdowne. Though giving a general support to the policy of Pitt, he from this time ceased to take an active part in public affairs. He died on the 7th of May 1805. During his lifetime he was blamed for insincerity and duplicity, and he incurred the deepest unpopularity, but the accusations came chiefly from those who were dissatisfied with his preference of principles to party, and if he had had a more unscrupulous regard to his personal ambition, his career as a statesman would have had more outward success. He was cynical in his estimates of character, but no statesman of his time possessed more enlightened political views, while his friendship with those of his contemporaries eminent in science and literature must be allowed considerable weight in qualifying our estimate of the moral defects with which he has been credited. He was twice married, first to Lady Sophia (1745-1771), daughter of John Carteret, Earl Granville, through whom he obtained the Lansdowne estates near Bath, and secondly to Lady Louisa (1755-1789), daughter of John Fitzpatrick, 1st earl of Upper Ossory. John Henry Petty Fitzmaurice (1765-1809), his son by the first marriage, succeeded as 2nd marquess, after having sat in the House of Commons for twenty years as member for Chipping Wycombe.

Henry Petty Fitzmaurice, 3rd marquess of Lansdowne (1780-1863), son of the 1st marquess by his second marriage, was born on the 2nd of July 1780 and educated at Edinburgh University and at Trinity College, Cambridge. He entered the House of Commons in 1802 as member for the family borough of Calne and quickly showed his mettle as a politician. In February 1806, as Lord Henry Petty, he became chancellor of the exchequer in the ministry of “All the Talents,” being at this time member for the university of Cambridge; but he lost both his seat and his office in 1807. In 1809 he became marquess of Lansdowne; and in the House of Lords and in society he continued to play an active part as one of the Whig leaders. His chief interest was perhaps in the question of Roman Catholic emancipation, a cause which he consistently championed, but he sympathized also with the advocates of the abolition of the slave-trade and with the cause of popular education. Lansdowne, who had succeeded his cousin, Francis Thomas Fitzmaurice, as 4th earl of Kerry in 1818, took office with Canning in May 1827 and was secretary for home affairs from July of that year until January 1828; he was lord president of the council under Earl Grey and then under Lord Melbourne from November 1830 to August 1841, with the exception of the few months in 1835 when Sir Robert Peel was prime minister. He held the same office during the whole of Lord John Russell’s ministry (1846-1852), and, having declined to become prime minister, sat in the cabinets of Lord Aberdeen and of Lord Palmerston, but without office. In 1857 he refused the offer of a dukedom, and he died on the 31st of January 1863. Lansdowne’s social influence and political moderation made him one of the most powerful Whig statesmen of the time; he was frequently consulted by Queen Victoria on matters of moment, and his long official experience made his counsel invaluable to his party. He married Louisa (1785-1851), daughter of the 2nd earl of Ilchester, and was succeeded by his son Henry, the 4th marquess (1816-1866). The latter, who was member of parliament for Calne for twenty years and chairman of the Great Western railway, married for his second wife Emily (1819-1895), daughter of the comte de Flahaut de la Billarderie, a lady who became Baroness Nairne in her own right in 1867. By her he had two sons, the 5th marquess and Lord Edmond Fitzmaurice (Baron Fitzmaurice of Leigh).

Henry Charles Keith Petty Fitzmaurice, 5th marquess of Lansdowne (b. 1845), was educated at Balliol, Oxford, where he became one of Jowett’s favourite pupils. In 1869 he married the daughter of the 1st duke of Abercorn. As a member of the Liberal party he was a lord of the treasury (1869-1872), under-secretary of war (1872-1874), and under-secretary of India (1880); in 1883 he was appointed governor-general of Canada, and from 1888 to 1893 he was viceroy of India. He joined the Liberal Unionist party when Mr Gladstone proposed home rule for Ireland, and on returning to England became one of its most influential leaders. He was secretary of state for war from 1895 to 1900, and foreign secretary from 1900 to 1906, becoming leader of the Unionist party in the House of Lords on Lord Salisbury’s death.

His brother Edmond George Fitzmaurice, Baron Fitzmaurice (b. 1846), was educated at Trinity, Cambridge, where he took a first class in classics. Unlike Lord Lansdowne, he remained a Liberal in politics and followed Mr Gladstone in his home rule policy. As Lord Edmond Fitzmaurice he entered the House of Commons in 1868, and was under-secretary for foreign affairs from 1882 to 1885. He then had no seat in parliament till 1898, when he was elected for the Cricklade division of Wilts, and retiring in 1905, he was created Baron Fitzmaurice of Leigh in 1906, and made under-secretary for foreign affairs in Sir Henry Campbell-Bannerman’s ministry. In 1908 he became chancellor of the duchy of Lancaster and a member of the Liberal cabinet, but resigned his post in 1909. He devoted much time to literary work, and was the author of excellent biographies of the 1st marquess, of Sir William Petty (1895), and of Lord Granville (1905), under whom he had served at the foreign office.

For the 1st marquess, see Lord Fitzmaurice, *Life of William, Earl of Shelburne* (3 vols., London, 1875-1876).

LANSDOWNE, a hill cantonment in India, in Garhwal district of the United Provinces, about 6000 ft. above the sea, 19 m. by cart road from the station of Kotdwara on the Oudh and Rohilkhand railway. Pop. (1901) 3943. The cantonment, founded in 1887, extends for more than 3 m. through pine and oak forests, and can accommodate three Gurkha battalions.

LANSING, the capital of Michigan, U.S.A., in Ingham county, at the confluence of the Grand and Cedar

rivers, about 85 m. W.N.W. of Detroit and about 64 m. E.S.E. of Grand Rapids. Pop. (1900) 16,485, of whom 2397 were foreign-born; (1910 census) 31,229. It is served by the Michigan Central, the Lake Shore & Michigan Southern, the Grand Trunk and the Père Marquette railways, and by interurban electric lines. The Grand river on its way through the city makes a horse-shoe bend round a moderately elevated plateau; this is the commercial centre of the city, and here, in a square covering 10 acres, is the State Capitol, erected in 1873-1878 and containing the State library. On the opposite side of the river, farther N., and also extending across the southern portion of the city, are districts devoted largely to manufacturing. Lansing has a public library and a city hospital. About 3 m. E. of the city, at East Lansing, is the State Agricultural College (coeducational), the oldest agricultural college in the United States, which was provided for by the state constitution of 1850, was organized in 1855 and opened in 1857. Its engineering course was begun in 1885; a course in home economics for women was established in 1896; and a forestry course was opened in 1902. In connexion with the college there is an agricultural experiment station. Lansing is the seat of the Michigan School for the Blind, and of the State Industrial School for Boys, formerly the Reform School. The city has abundant water-power and is an important manufacturing centre. The value of the factory products increased from $2,942,306 in 1900 to $6,887,415 in 1904, or 134.1%. The municipality owns and operates the water-works and the electric-lighting plant. The place was selected as the site for the capital in 1847, when it was still covered with forests, and growth was slow until 1862, when the railways began to reach it. Lansing was chartered as a city in 1859 and rechartered in 1893.

LANSING MAN, the term applied by American ethnologists to certain human remains discovered in 1902 during the digging of a cellar near Lansing, Kansas, and by some authorities believed to represent a prehistoric type of man. They include a skull and several large adult bones and a child’s jaw. They were found beneath 20 ft. of undisturbed silt, in a position indicating intentional burial. The skull is preserved in the U. S. National Museum at Washington. It is similar in shape to those of historic Indians of the region. Its ethnological value as indicating the existence of man on the Missouri in the glacial period is very doubtful, it being impossible accurately to determine the age of the deposits.

See *Handbook of American Indians* (Washington, 1907).

LANSQUENET, the French corrupted form of the German *Landsknecht* (*q.v.*), a mercenary foot-soldier of the 16th century. It is also the name of a card game said to have been introduced into France by the *Landsknechte*. The pack of 52 cards is cut by the player at the dealer’s right. The dealer lays the two first cards face upwards on the table to his left; the third he places in front of him and the fourth, or *réjouissance* card, in the middle of the table. The players, usually called (except in the case of the dealer) *punters*, stake any sum within the agreed limit upon this réjouissance card; the dealer, who is also the banker, covers the bets and then turns up the next card. If this fails to match any of the cards already exposed, it is laid beside the réjouissance card and then punters may stake upon it. Other cards not matching are treated in the same manner. When a card is turned which matches the réjouissance card, the banker wins everything staked on it, and in like manner he wins what is staked on any card (save his own) that is matched by the card turned. The banker pays all stakes, and the deal is over as soon as a card appears that matches his own; excepting that should the two cards originally placed at his left both be matched before his own, he is then entitled to a second deal. In France matching means winning, not losing, as in Great Britain. There are other variations of play on the continent of Europe.

LANTARA, SIMON MATHURIN (1729-1778), French landscape painter, was born at Oncy on the 24th of March 1729. His father was a weaver, and he himself began life as a herdboy; but, having attracted the notice of Gille de Reumont, a son of his master, he was placed under a painter at Versailles. Endowed with great facility and real talent, his powers found ready recognition; but he found the constraint of a regular life and the society of educated people unbearably tiresome; and as long as the proceeds of the last sale lasted he lived careless of the future in the company of obscure workmen. Rich amateurs more than once attracted him to their houses, only to find that in ease and high living Lantara could produce nothing. He died in Paris on the 22nd of December 1778. His works, now much prized, are not numerous; the Louvre has one landscape, “Morning,” signed and dated 1761. Bernard, Joseph Vernet, and others are said to have added figures to his landscapes and sea-pieces. Engravings after Lantara will be found in the works of Lebas, Piquenot, Duret, Mouchy and others. In 1809 a comedy called *Lantara, or the Painter in the Pothouse*, was brought out at the Vaudeville with great success.

See E. Bellier de la Chavignerie, *Recherches sur le peintre Lantara* (Paris, 1852).

LANTERN (an adaptation of the Fr. *lanterne* from Lat. *lanterna* or *laterna*, supposed to be from Gr. λαμπτήρ, a torch or lamp, λάμπειν, to shine, cf. "lamp"; the 16th- and 17th-century form "lanthorn" is due to a mistaken derivation from "horn," as a material frequently used in the making of lanterns), a metal case filled in with some transparent material, and used for holding a light and protecting it from rain or wind. The appliance is of two kinds—the hanging lantern and the hand lantern—both of which are ancient. At Pompeii and Herculaneum have been discovered two cylindrical bronze lanterns, with ornamented pillars, to which chains are attached for carrying or hanging the lantern. Plates of horn surrounded the bronze lamp within, and the cover at the top can be removed for lighting and for the escape of smoke. The hanging lantern for lighting rooms was composed of ornamental metal work, of which iron and brass were perhaps most frequently used. Silver, and even gold, were, however, sometimes employed, and the artificers in metal of the 17th and 18th centuries produced much exceedingly artistic work of this kind. Oriental lanterns in open-work bronze were often very beautiful. The early lantern had sides of horn, talc, bladder or oiled paper, and the primitive shape remains in the common square stable lantern with straight glass sides, to carry a candle. The hand lantern was usually a much more modest appliance than the hanging lantern, although in great houses it was sometimes richly worked and decorated. As glass grew cheaper it gradually ousted all other materials, but the horn lantern which was already ancient in the 13th century was still being used in the early part of the 19th. By the end of the 18th century lanterns in rooms had been superseded by the candlestick. The collapsible paper lanterns of China and Japan, usually known as Chinese lanterns, are globular or cylindrical in shape, and the paper is pleated and when not in use folds flat. For illuminative and decorative purposes they are coloured with patterns of flowers, &c. The lanterns carried by the ordinary foot passenger are made of oiled paper. In China the "Feast of Lanterns" takes place early in the New Year and lasts for four days. In Japan the festival of Bon is sometimes known as the "feast of lanterns." It is then that the spirits of the dead ancestors return to the household altar. The festival takes place in July. The "bull's-eye" lantern has a convex lens which concentrates the light and allows it to be thrown in the shape of a diverging cone. The "dark lantern" has a shutter or slide arrangement by which the light can be shut off at will. Ships' lanterns are used as masthead or other signal lights. On Trajan's column is a representation of a heavy poop-lantern on a ship. The ships' lanterns of the 16th and 17th centuries were highly ornamental, especially when placed on the poop. At the Armeria Real in Madrid is a collection of these 16th-century ships' lanterns. The protected cages which contain the lights used in lighthouses are also known as "lanterns" (see LIGHTHOUSES).

In architecture a lantern is primarily a framework of timber, with windows all round, to admit ample light, placed on the top of a roof. In a broader sense, it is applied to those portions of buildings which are largely perforated with windows, and more especially to the upper part of the towers of cathedrals and churches, as in the octagon of Ely cathedral, or the tower of Boston church, Lincolnshire. The term is also applied to the entire church, as in the case of Bath Abbey church, which was called the "lantern of England," from the number of its windows, and St John's Priory at Kilkenny, the "lantern of Ireland," on account of the window on the south side of the choir which was 54 ft. long. In the Renaissance style the lantern was looked upon as a decorative feature surmounting the dome, as in St Peter's, Rome, the Invalides, Paris, and St Paul's, London.

Magic or Optical Lantern.

The magic or optical lantern is an instrument for projecting on a white wall or screen largely magnified representations of transparent pictures painted or photographed on glass, or of objects—crystals, animals, &c. —carried on glass slides or in glass vessels. If the light traverses the object, the projection is said to be diascopic, if by reflected light, episcopic.

The invention of the magic lantern is usually attributed to Athanasius Kircher, who described it in the first edition (1646) of his *Ars magna lucis et umbrae*, but it is very probably of earlier discovery. For a long period the magic lantern was used chiefly to exhibit comic pictures, or in the hands of so-called wizards to summon up ghosts and perform other tricks, astonishing to those ignorant of the simple optical principles employed. Within recent years, however, the optical lantern has been greatly improved in construction, and its use widely extended. By its means finely executed photographs on glass can be shown greatly magnified to large audiences, thus saving the trouble and expense of preparing large diagrams. When suitably constructed, it can be used in the form of a microscope to exhibit on a screen the forms and movements of minute living organisms, or to show to an audience delicate physical and chemical experiments which could otherwise be seen only by a few at a time Another application of the optical lantern is found in the cinematograph (*q.v.*).

The optical lantern, in its simpler forms, consists of the following parts: (1) the lantern body, (2) a source of light, (3) an optical system for projecting the images. The lantern body is a rectangular casing usually made of Russian iron, but sometimes covered with wood (which must be protected by asbestos at parts liable to damage by heat), provided with the openings necessary to the insertion of the source of light, windows for viewing the same, a chimney for conveying away the products of combustion, fittings to carry the slides and the optical system. In the earlier and simpler lanterns, oil lamps were commonly used, and in the toy forms either an oil flame or an ordinary gas jet is still employed. Natural petroleum burnt in a specially constructed lamp by means of two or three parallel wicks set edgeways to the lenses was employed in the sciopticon, an improved lantern invented in America which gave well-defined pictures 6 to 10 ft. in diameter. The Argand gas burner also found application. A great improvement attended the introduction of lime-light, *i.e.* the light emitted by a block of lime made incandescent by an impinging oxyhydrogen or oxygen-coal-gas flame, and the readiness with which hydrogen and oxygen can be prepared and rendered available by compression in steel cylinders and the increased commercial supply of coal-gas greatly popularized these illuminants. Many improvements have been made on the original apparatus. The lime-cylinders are specially prepared to withstand better the disintegrating effects of the flame, and are mounted on a rotating pin in order that fresh surfaces may be brought into play.

Cones of zirconia are also used in the same way; or a thorium mantle in conjunction with alcohol vapour may be employed. Two types of burner are in use: (1) the "blow-through jet," in which the oxygen is forced through the jet of the burning gas (this is the safest type), and (2) where the gases are mixed before combustion (this is the more dangerous but also the more powerful type). Ether burners are also in use. In one type the oxygen supply is divided into two streams, one of which passes through a chamber containing cotton wool soaked with ether, and then rejoins the undiverted stream at the jet. The application of the incandescent gas mantle is limited by the intensity of the heat emitted and the large area of the source. Of electrical illuminants the platinum and carbon filament lamps are not much used, the Nernst lamp (in which the preliminary heating is effected by a spirit lamp and not by an auxiliary coil) being preferred. But the arc light is undoubtedly the best illuminant for use in the projecting lantern. The actual size of the source is comparatively small, and hence it is necessary to mount the carbons so that the arc remains at one point on the axis of the optical system. It is also advisable to set back the carbons relatively to one another and to tilt them, so that the brightest part of the "crater" faces the lens.

Optical System.—In the ordinary (or vertically) projecting lantern the rays are transmitted through a lens termed the "condenser," then through the object, and finally through another lens termed the "objective." In the horizontally projecting types the light, after passing through the condenser, is reflected vertically by a plane mirror inclined at 45° to the direction of the light; it then traverses another lens, then the object, then the objective, and is finally projected horizontally by a plane mirror inclined at 45°, or by a right angled glass prism, the hypothenuse face of which is silvered. In episcopic projection, the light, having traversed the condenser, is reflected on to the object, placed horizontally, by an inclined mirror. The rays reflecting the object then traverse the objective, and are then projected horizontally by a mirror or prism. This device inverts the object; a convenient remedy is to place an erecting prism before the lens. The object of the condenser is to collect as much light as possible from the source, and pass it through the object in a uniform beam. For this purpose the condenser should subtend as large an angle as possible at the source of light. To secure this, it should be tolerably large, and its distance from the light, that is, its focal length, small. Since effective single lenses of large diameter are necessarily of long focus, a really good condenser of considerable diameter and yet of short focus must be a combination of two or more lenses. It is essential that the condenser be white and limpid and free from defects or striae.

In the earlier lanterns, as still in the cheaper forms, only a single plano-convex lens or bull's-eye was employed as a condenser. A good compound condenser for ordinary work is that proposed by Herschel, consisting of a biconvex lens and a meniscus mounted together with the concave side of the meniscus next the light. Other types employ two plano-convex lenses, the curved surfaces nearly in contact; or a concavo-convex and a plano-convex lens. Or it may be a triple combination, the object always being to increase the aperture. The focus must not be so short as to bring the lens too near the light, and render it liable to crack from the intense heat. In some lanterns this is guarded against by placing a plate of thin glass between the condenser and the light. If the source of light be broad, an iris diaphragm may be introduced so as to eliminate inequalities in illumination.

The function of the objective is to produce a magnified inverted image of the picture on the screen. In toy lanterns it is a simple double-convex lens of short focus. This, however, can only produce a small picture, and that not very distinct at the edges. The best objective is the portrait combination lens usually of the Petzval type as used in ordinary photographic cameras. These are carefully corrected both for spherical and chromatic aberration, which is absolutely essential in the objective, although not so necessary in the condenser.

Objects.—The commonest objects used for exhibiting with the optical lantern are named "slides" and consist of pictures printed on transparent surfaces. Solid objects mounted on glass after the ordinary manner of mounting microscopic objects are also possible of exhibition, and hollow glass tanks containing organisms or substances undergoing some alteration are also available for use with the lantern. If it be necessary to eliminate the heat rays, which may act deleteriously on the object, a vessel is introduced containing either water or a 5% solution of ferric chloride. In the ordinary slide the pictures are painted with transparent water or oil colours, or photographed on pieces of glass. If parts of the picture are to be movable, two disks of glass are employed, the one movable in front of the other, the fixed part of the picture being painted on the fixed disk and the movable part on the other. By means of a lever the latter disk is moved in its own plane; and in this way a cow, for instance, can be represented drinking, or a donkey cutting amusing capers. In the chromatrope slide two circular disks of glass are placed face to face, each containing a design radiating from the centre, and painted with brilliant transparent colours. By a small pinion gearing in toothed wheels or endless bands the disks are made to move in opposite directions in their own plane. The effect produced is a singularly beautiful change of design and colour. In astronomical slides the motions of the heavenly bodies, eclipses, the phases of the moon or the like are similarly represented by mechanical means.

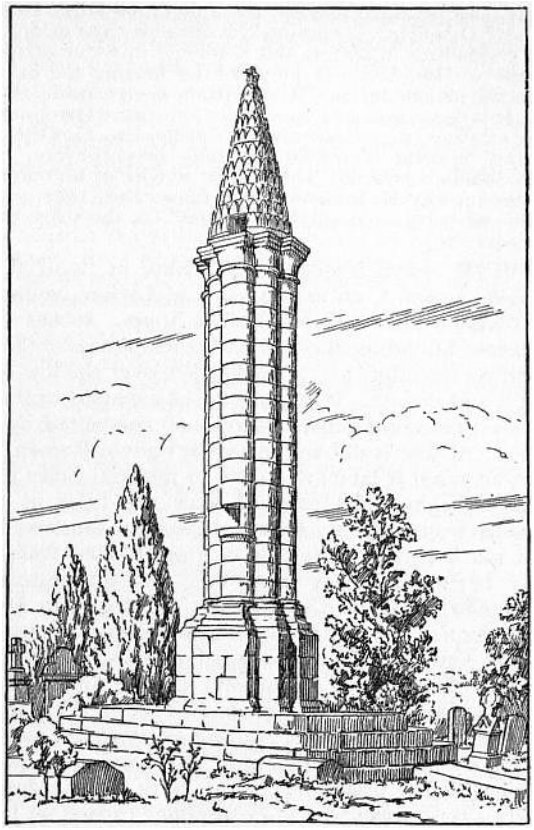
Dissolving Views.—For this purpose two magic lanterns are necessary, arranged either side by side or the one on the top of the other. The fronts of the lanterns are slightly inclined to each other so as to make the illuminated disks on the screen due to each lantern coincide. By means of a pair of thin metallic shutters terminating in comb-like teeth, and movable by a rack or lever, the light from either lantern can be gradually cut off at the same time that the light from the other is allowed gradually to fall on the screen. In this way one view appears to melt or dissolve into another. This arrangement was first adopted by Childe in 1811.

Phantasmagoria.—In this arrangement the pictures on the screen appear gradually to increase or diminish in size and brightness. To effect this a semi-transparent screen of cotton or other material is used, the lantern being behind and the audience in front. The lantern is mounted on wheels so that it can be rapidly moved up to or withdrawn from the screen; and an automatic arrangement is provided whereby simultaneously with this the objective is made to approach or recede from the slide so as to focus the picture on the screen in any position of the lantern. In this way a very small picture appears gradually to grow to enormous dimensions.

See L. Wright, *Optical Projection* (1891); E. Trutat, *Traité des Projections* (Paris, 1897 and 1901); P. E. Liesegang, *Die Projektions-Kunst* (Leipzig, 1909).

LANTERN-FLY, the name given to insects belonging to the homopterous division of the Hemiptera, and referable to the genus *Fulgora* and allied forms. They are mostly of large size, with a superficial resemblance to lepidoptera due to their brilliant and varied coloration. Characteristic of the group is the presence on the front of the head of a hollow process, simulating a snout, which is sometimes inflated and as large as the rest of the insect, sometimes elongated, narrow and apically upturned. It was believed, mainly on the authority of Marie Sibylle de Mérian, that this process, the so-called "lantern," was luminous at night. Linnaeus adopted the statement without question and made use of a number of specific names, such as *lanternaria*, *phosphorea*, *candelaria*, &c., to illustrate the supposed fact, and thus aided in disseminating a belief which subsequent observations have failed to establish and which is now generally rejected.

LANTERNS OF THE DEAD, the architectural name for the small towers in stone, found chiefly in the centre and west of France, pierced with small openings at the top, where a light was exhibited at night to indicate the position of a cemetery. These towers were usually circular, with a small entrance in the lower part giving access to the interior, so as to raise the lamps by a pulley to the required height. One of the most perfect in France is that at Cellefrouin (Charente), which consists of a series of eight attached semicircular shafts, raised on a pedestal, and is crowned with a conical roof decorated with fir cones; it has only one aperture, towards the main road. Other examples exist at Ciron (Indre) and Antigny (Vienne).



Lantern of the Dead at Cellefrouin (Charente).

LANTHANUM [symbol La, atomic weight 139.0 (O = 16)] one of the metals of the cerium group of rare earths. Its name is derived from the Gr. λανθάνειν, to lie hidden. It was first isolated in 1839 by C. G. Mosander from the "cerium" of J. Berzelius. It is found in the minerals gadolinite, cerite, samarskite and fergusonite, and is usually obtained from cerite. For details of the complex process for the separation of the lanthanum salts from cerite, see R. Bunsen (*Pogg. Ann.*, 1875, 155, p. 377); P. T. Cleve (*Bull. de la soc. chim.*, 1874, 21, p. 196); and A. v. Welsbach (*Monats. f. Chem.*, 1884, 5, p. 508). The metal was obtained by Mosander on heating its chloride with potassium, and by W. F. Hillebrand and T. Norton (*Pogg. Ann.*, 1875, 156, p. 466) on electrolysis of the fused chloride, while C. Winkler (*Ber.*, 1890, 23, p. 78) prepared it by heating the oxide with a mixture of magnesium and magnesia. Muthmann and Weiss (*Ann.*, 1904, 331, p. 1) obtained it by electrolysing the anhydrous chloride. It may be readily hammered, but cannot be drawn. Its specific gravity is 6.1545, and it melts at 810°. It decomposes cold water slowly, but hot water violently. It burns in air, and also in chlorine and bromine, and is readily oxidized by nitric acid.

Lanthanum oxide, La_2O_3, is a white powder obtained by burning the metal in oxygen, or by ignition of the carbonate, nitrate or sulphate. It combines with water with evolution of heat, and on heating with magnesium powder in an atmosphere of hydrogen forms a hydride of probable composition La_2H_3 (C. Winkler, *Ber.* 1891, 24, p. 890). *Lanthanum hydroxide*, $La(OH)_3$, is a white amorphous powder formed by precipitating lanthanum salts by potassium hydroxide. It decomposes ammonium salts. *Lanthanum chloride*, $LaCl_3$, is obtained in the anhydrous condition by heating lanthanum ammonium chloride or, according to C. Matignon (*Compt. rend.*, 1905, 40, p. 1181), by the action of chlorine or hydrochloric acid on the residue obtained by evaporating the oxide with hydrochloric acid. It forms a deliquescent crystalline mass. By evaporation of a solution of lanthanum oxide in hydrochloric acid to the consistency of a syrup, and allowing the solution to stand, large colourless crystals of a hydrated chloride of the composition $2LaCl_3{\cdot}15H_2O$ are obtained. *Lanthanum sulphide*, La_2S_3, is a yellow powder, obtained when the oxide is heated in the vapour of carbon bisulphide. It is decomposed by water, with evolution of sulphuretted hydrogen. *Lanthanum sulphate*, $La_2(SO_4)_3{\cdot}9H_2O$, forms six-sided prisms, isomorphous with those of the corresponding cerium salt. By careful heating it may be made to yield the anhydrous salt. *Lanthanum nitrate*, $La(NO_3)_3{\cdot}6H_2O$, is obtained by dissolving the oxide in nitric acid. It crystallizes in plates, and is soluble in water and alcohol. *Lanthanum carbide*, LaC_2, is prepared by heating the oxide with carbon in the electric furnace (H. Moissan, *Compt. rend.*, 1896, 123, p. 148). It is decomposed by water with the formation of acetylene, methane, ethylene, &c. *Lanthanum carbonate*, $La_2CO_3{\cdot}8H_2O$, occurs as the rare mineral lanthanite, forming greyish-white, pink or yellowish rhombic prisms. The atomic weight of lanthanum has been determined by B. Brauner (*Proc. Chem. Soc.*, 1901, 17, p. 63) by ignition of lanthanum sulphate at 500° C., the value obtained being 139 (O = 16).

LANUVIUM (more frequently *Lanivium* in imperial times, mod. *Civita Lavinia*), an ancient city of Latium, some 19 m. S.E. of Rome, a little S.W. of the Via Appia. It was situated on an isolated hill projecting S. from the main mass of the Alban Hills, and commanding an extensive view over the low country between it and the sea. It was one of the members of the Latin League, and remained independent until conquered by Rome in 338 B.C. At first it did not enjoy the right of Roman citizenship, but acquired it later; and even in imperial times its chief magistrate and municipal council kept the titles of *dictator* and *senatus* respectively. It was especially famous for its rich and much venerated temple of Juno Sospes, from which Octavian borrowed money in 31 B.C., and the possessions of which extended as far as the sea-coast (T. Ashby in *Mélanges de l'école française*, 1905, 203). It possessed many other temples, repaired by Antoninus Pius, who was born close by, as was also Commodus. Remains of the ancient theatre and of the city walls exist in the modern village, and above it is an area surrounded by a portico, in *opus reticulatum*, upon the north side of which is a rectangular building in *opus quadratum*, probably connected with the temple of Juno. Here archaic decorative terra-cottas were discovered in excavations carried on by Lord Savile. The acropolis of the primitive city was probably on the highest point above the temple to the north. The neighbourhood, which is now covered with vineyards, contains remains of many Roman villas, one of which is traditionally attributed to Antoninus Pius.

See *Notizie degli Scavi, passim.*

(T. As.)

LANZA, DOMENICO GIOVANNI GIUSEPPE MARIA (1810-1882), Italian politician, was born at Casale, Piedmont, on the 15th of February 1810. He studied medicine at Turin, and practised for some years in his native place. He was one of the promoters of the agrarian association in Turin, and took an active part in the rising of 1848. He was elected to the Piedmontese parliament in that year, and attached himself to the party of Cavour, devoting his attention chiefly to questions of economy and finance. He became minister of public instruction in 1855 in the cabinet of Cavour, and in 1858 minister of finance. He followed Cavour into his temporary retirement in July 1859 after the peace of Villafranca, and for a year (1860-1861) was president of the Chamber. He was minister of the interior (1864-1865) in the La Marmora cabinet, and arranged the transference of the capital to Florence. He maintained a resolute opposition to the financial policy of Menabrea, who resigned when Lanza was a second time elected, in 1869, president of the Chamber. Lanza formed a new cabinet in which he was himself minister of the interior. With Quintino Sella as minister of finance he sought to reorganize Italian finance, and resigned office when Sella's projects were rejected in 1873. His cabinet had seen the accomplishment of Italian unity and the installation of an Italian government in Rome. He died in Rome on the 9th of March 1882.

See Enrico Tavallini, *La Vita ed i tempi di Giovanni Lanza* (2 vols., Turin and Naples, 1887).

LANZAROTE, an island in the Atlantic Ocean, forming part of the Spanish archipelago of the Canary Islands (*q.v.*). Pop. (1900) 17,546; area, 326 sq. m. Lanzarote, the most easterly of the Canaries, has a length of

31 m. and a breadth varying from 5 to 10 m. It is naked and mountainous, bearing everywhere marks of its volcanic origin. Montaña Blanca, the highest point (2000 ft.), is cultivated to the summit. In 1730 the appearance of half the island was altered by a volcanic outburst. A violent earthquake preceded the catastrophe, by which nine villages were destroyed. In 1825 another volcanic eruption took place accompanied by earthquakes, and two hills were thrown up. The port of Naos on the south-east of the island affords safe anchorage. It is protected by two forts. A short distance inland is the town of Arrecife (pop. 3082). The climate is hot and dry. There is only a single spring of fresh water on the island, and that in a position difficult of access. From the total failure of water the inhabitants were once compelled to abandon the island. Dromedaries are used as beasts of burden. Teguise (pop. 3786), on the north-west coast, is the residence of the local authorities. A strait about 6 m. in width separates Lanzarote from Fuerteventura.

Graciosa, a small uninhabited island, is divided from the north-eastern extremity of Lanzarote by a channel 1 m. in width, which affords a capacious and safe harbour for large ships; but basaltic cliffs, 1500 ft. high, prevent intercourse with the inhabited part of Lanzarote. A few persons reside on the little island Allegranza, a mass of lava and cinders ejected at various times from a now extinct volcano, the crater of which has still a well-defined edge.

LANZI, LUIGI (1732-1810), Italian archaeologist, was born in 1732 and educated as a priest. In 1773 he was appointed keeper of the galleries of Florence, and thereafter studied Italian painting and Etruscan antiquities and language. In the one field his labours are represented by his *Storia Pittorica della Italia*, the first portion of which, containing the Florentine, Sienese, Roman and Neapolitan schools, appeared in 1792, the rest in 1796. The work is translated by Roscoe. In archaeology his great achievement was *Saggio di lingua Etrusca* (1789), followed by *Saggio delle lingue Ital. antiche* (1806). In his memoir on the so-called Etruscan vases (*Dei vasi antichi dipinti volgarmente chiamati Etruschi*, 1806) Lanzi rightly perceived their Greek origin and characters. What was true of the antiquities would be true also, he argued, of the Etruscan language, and the object of the *Saggio di lingua Etrusca* was to prove that this language must be related to that of the neighbouring peoples—Romans, Umbrians, Oscans and Greeks. He was allied with E. Q. Visconti in his great but never accomplished plan of illustrating antiquity altogether from existing literature and monuments. His notices of ancient sculpture and its various styles appeared as an appendix to the *Saggio di lingua Etrusca*, and arose out of his minute study of the treasures then added to the Florentine collection from the Villa Medici. The abuse he met with from later writers on the Etruscan language led Corssen (*Sprache der Etrusker*, i. p. vi.) to protest in the name of his real services to philology and archaeology. Among his other productions was an edition of Hesiod's *Works and Days*, with valuable notes, and a translation in *terza rima*. Begun in 1785, it was recast and completed in 1808. The list of his works closes with his *Opere sacre*, a series of treatises on spiritual subjects. Lanzi died on the 30th of March 1810. He was buried in the church of the Santa Croce at Florence by the side of Michelangelo.

LAOAG, a town, port for coasting vessels, and capital of the province of Ilocos Norte, Luzon, Philippine Islands, on the Laoag river, about 5 m. from its mouth, and in the N.W. part of the island. Pop. (1903) 34,454; in 1903, after the census had been taken, the municipality of San Nicolás (pop. 1903, 10,880) was added to Laoag. Laoag is on an extensive coast plain, behind which is a picturesque range of hills; it is well built and is noted for its fine climate, the name "Laoag" signifying "clear." It is especially well equipped for handling rice, which is shipped in large quantities; Indian corn, tobacco and sugar are also shipped. Cotton is grown in the vicinity, and is woven by the women into fabrics, which find a ready sale among the pagan tribes of the mountains. The language is Ilocano.

LAOCOON, in Greek legend a brother of Anchises, who had been a priest of Apollo, but having profaned the temple of the god he and his two sons were attacked by serpents while preparing to sacrifice a bull at the altar of Poseidon, in whose service Laocoon was then acting as priest. An additional motive for his punishment consisted in his having warned the Trojans against the wooden horse left by the Greeks. But, whatever his crime may have been, the punishment stands out even among the tragedies of Greek legend as marked by its horror—particularly so as it comes to us in Virgil (*Aeneid*, ii. 199 sq.), and as it is represented in the marble group, the Laocoon, in the Vatican. In the oldest existing version of the legend—that of Arctinus of Miletus, which has so far been preserved in the excerpts of Proclus—the calamity is lessened by the fact that only one of the two sons is killed; and this, as has been pointed out (*Arch. Zeitung*, 1879, p. 167), agrees with the interpretation which Goethe in his *Propylaea* had put on the marble group without reference to the literary tradition. He says: "The younger son struggles and is powerless, and is alarmed; the father struggles

ineffectively, indeed his efforts only increase the opposition; the elder son is least of all injured, he feels neither anguish nor pain, but he is horrified at what he sees happening to his father, and he screams while he pushes the coils of the serpent off from his legs. He is thus an observer, witness, and participant in the incident, and the work is then complete." Again, "the gradation of the incident is this: the father has become powerless among the coils of the serpent; the younger son has still strength for resistance but is wounded; the elder has a prospect of escape." Lessing, on the other hand, maintained the view that the marble group illustrated the version of the legend given by Virgil, with such differences as were necessary from the different limits of representation imposed on the arts of sculpture and of poetry. These limits required a new definition, and this he undertook in his still famous work, *Laokoon* (see the edition of Hugo Blümner, Berlin, 1876, in which the subsequent criticism is collected). The date of the Laocoon being now fixed (see AGESANDER) to 40-20 B.C., there can be no question of copying Virgil. The group represents the extreme of a pathetic tendency in sculpture (see GREEK ART, Plate I. fig. 52).

LAODICEA,

the name of at least eight cities, founded or renovated in the later Hellenic period. Most of them were founded by the Seleucid kings of Syria. Seleucus, founder of the dynasty, is said by Appian to have named five cities after his mother Laodice. Thus in the immense realm of the Seleucidae from the Aegean Sea to the borders of India we find cities called Laodicea, as also Seleucia (*q.v.*). So long as Greek civilization held its ground, these were the commercial and social centres. The chief are Laodicea *ad Lycum* (see below); *Combusta* on the borders of Phrygia, Lycaonia and Pisidia; a third in Pontus; a fourth, *ad mare*, on the coast of Syria; a fifth, *ad Libanum*, beside the Lebanon mountains; and three others in the far east—Media, Persia and the lower Tigris valley. In the latter countries Greek civilization was short-lived, and the last three cities disappeared; the other five continued great throughout the Greek and Roman period, and the second, third and fourth retain to the present day the ancient name under the pronunciation Ladik, Ladikiyeh or Latakia (*q.v.*).

LAODICEA AD LYCUM (mod. *Denizli*, *q.v.*) was founded probably by Antiochus II. Theos (261-46 B.C.), and named after his wife Laodice. Its site is close to the station of Gonjeli on the Anatolian railway. Here was one of the oldest homes of Christianity and the seat of one of the seven churches of the Apocalypse. Pliny states (v. 29) that the town was called in older times Diospolis and Rhoas; but at an early period Colossae, a few miles to the east, and Hierapolis, 6 m. to the north, were the great cities of the neighbourhood, and Laodicea was of no importance till the Seleucid foundation (Strabo, p. 578). A favourable site was found on some low hills of alluvial formation, about 2 m. S. of the river Lycus (Churuk Su) and 9 m. E. of the confluence of the Lycus and Maeander. The great trade route from the Euphrates and the interior passed to it through Apamea. There it forked, one branch going down the Maeander valley to Magnesia and thence north to Ephesus, a distance of about 90 m., and the other branch crossing the mountains by an easy pass to Philadelphia and the Hermus valley, Sardis, Thyatira and at last Pergamum. St Paul (Col. iv. 15) alludes to the situation of Laodicea beside Colossae and Hierapolis; and the order in which the last five churches of the Apocalypse are enumerated (Rev. i. 11) is explained by their position on the road just described. Placed in this situation, in the centre of a very fertile district, Laodicea became a rich city. It was famous for its money transactions (Cic. *Ad Fam.* ii. 17, iii. 5), and for the beautiful soft wool grown by the sheep of the country (Strabo 578). Both points are referred to in the message to the church (Rev. iii. 17, 18).

Little is known of the history of the town. It suffered greatly from a siege in the Mithradatic war, but soon recovered its prosperity under the Roman empire. The Zeus of Laodicea, with the curious epithet Azeus or Azeis, is a frequent symbol on the city coins. He is represented standing, holding in the extended right hand an eagle, in the left a spear, the *hasta pura*. Not far from the city was the temple of Men Karou, with a great medical school; while Laodicea itself produced some famous Sceptic philosophers, and gave origin to the royal family of Polemon and Zenon, whose curious history has been illustrated in recent times (W. H. Waddington, *Mélanges de Numism.* ser. ii.; Th. Mommsen, *Ephem. Epigraph.* i. and ii.; M. G. Rayet, *Milet et le Golfe Latmique*, chap. v.). The city fell finally into decay in the frontier wars with the Turkish invaders. Its ruins are of wide extent, but not of great beauty or interest; there is no doubt, however, that much has been buried beneath the surface by the frequent earthquakes to which the district is exposed (Strabo 580; Tac. *Ann.* xiv. 27).

See W. M. Ramsay, *Cities and Bishoprics of Phrygia*, i.-ii. (1895); *Letters to the Seven Churches* (1904); and the beautiful drawings of Cockerell in the *Antiquities of Ionia*, vol. iii. pl. 47-51.

(A. H. S.)

LAODICEA, SYNOD OF,

held at Laodicea ad Lycum in Phrygia, some time between 343 and 381 (so Hefele; but Baronius argues for 314, and others for a date as late as 399), adopted sixty canons, chiefly disciplinary, which were declared ecumenical by the council of Chalcedon, 451. The most significant canons are those directly affecting the clergy, wherein the clergy appear as a privileged class, far above the laity, but with sharply differentiated and carefully graded orders within itself. For example, the priests are not to be chosen by the people; penitents are not to be present at ordinations (lest they should hear the failings of candidates discussed); bishops are to be appointed by the metropolitan and his suffragan; sub-deacons may not distribute the elements of the Eucharist; clerics are forbidden to leave a diocese without the bishop's permission. Other canons treat of intercourse with heretics, admission of penitent heretics, baptism, fasts, Lent, angel-worship (forbidden as idolatrous) and the canonical books, from which the Apocrypha and Revelation are wanting.

See Mansi ii. 563-614; Hardouin i. 777-792; Hefele, 2nd ed., i. 746-777 (Eng. trans. ii. 295-325).

(T. F. C.)

LAOMEDON, in Greek legend, son of Ilus, king of Troy and father of Podarces (Priam). The gods Apollo and Poseidon served him for hire, Apollo tending his herds, while Poseidon built the walls of Troy. When Laomedon refused to pay the reward agreed upon, Apollo visited the land with a pestilence, and Poseidon sent up a monster from the sea, which ravaged the land. According to the oracle, the wrath of Poseidon could only be appeased by the sacrifice of one of the king's daughters. The lot fell upon Hesione, who was chained to a rock to await the monster's coming. Heracles, on his way back from the land of the Amazons, offered to slay the monster and release Hesione, on condition that he should receive the wonderful horses presented by Zeus to Tros, the father of Ganymede, to console him for the loss of his son. Again Laomedon broke his word; whereupon Heracles returned with a band of warriors, attacked Troy, and slew Laomedon and all his sons except Priam. According to Diodorus Siculus, Laomedon aggravated his offence by imprisoning Iphiclus and Telamon, who had been sent by Heracles to demand the surrender of the horses. Laomedon was buried near the Scaean gate, and it was said that so long as his grave remained undisturbed, so long would the walls of Troy remain impregnable.

See Homer, *Iliad*, v. 265, 640, vii. 452, xxi. 443; Apollodorus ii. 5. 9 and 6. 4; Diod. Sic. iv. 32, 42, 49; Hyginus, *Fab.* 89; Horace, *Odes* iii. 3, 22; Ovid, *Metam.* xi. 194.

LAON, a town of northern France, capital of the department of Aisne, 87 m. N.E. of Paris on the Northern railway. Pop. (1906), town, 9787, commune (including troops) 15,288. It is situated on an isolated ridge, forming two sides of a triangle, which rises some 330 ft. above the surrounding plain and the little river of Ardon. The suburbs of St Marcel and Vaux extend along the foot of the ridge to the north. From the railway station, situated in the plain to the north, a straight staircase of several hundred steps leads to the gate of the town, and all the roads connecting Laon with the surrounding district are cut in zigzags on the steep slopes, which are crowned by promenades on the site of the old ramparts. The 13th-century gates of Ardon, Chenizelles and Soissons, the latter in a state of ruin, have been preserved. At the eastern extremity of the ridge rises the citadel; at its apex is the parade-ground of St Martin, and at the southern end stands the ancient abbey of St Vincent. The deep depression between the arms of the ridge, known as the Cuve St Vincent, has its slopes covered with trees, vegetable gardens and vineyards. From the promenade along the line of the ramparts there is an extensive view northward beyond St Quentin, westward to the forest of St Gobain, and southward over the wooded hills of the Laonnais and Soissonnais.

The cathedral of Laon (see Architecture, Romanesque and Gothic Architecture in France) is one of the most important creations of the art of the 12th and 13th centuries. It took the place of the old cathedral, burned at the beginning of the communal struggles mentioned below. The building is cruciform, and the choir terminates in a straight wall instead of in an apse. Of the six towers flanking the façades, only four are complete to the height of the base of the spires, two at the west front with huge figures of oxen beneath the arcades of their upper portion, and one at each end of the transept. A square central tower forms a lantern within the church. The west front, with three porches, the centre one surmounted by a fine rose window, ranks next to that of Notre-Dame at Paris in purity. The cathedral has stained glass of the 13th century and a choir grille of the 18th century. The chapter-house and the cloister contain beautiful specimens of the architecture of the beginning of the 13th century. The old episcopal palace, contiguous to the cathedral, is now used as a court-house. The front, flanked by turrets, is pierced by great pointed windows. There is also a Gothic cloister and an old chapel of two storeys, of a date anterior to the cathedral. The church of St Martin dates from the middle of the 12th century. The old abbey buildings of the same foundation are now used as the hospital. The museum of Laon had collections of sculpture and painting. In its garden there is a chapel of the Templars belonging to the 12th century. The church of the suburb of Vaux near the railway station dates from the 11th and 12th centuries. Numerous cellars of two or three storeys have taken the place of the old quarries in the hill-side. Laon forms with La Fère and Reims a triangle of important fortresses. Its fortifications consist of an inner line of works on the eminence of Laon itself, and two groups of detached forts, one some 2½ m. S.E. about the village of Bruyères, the other about 3 m. W.S.W., near Laniscourt. To the S.S.W. forts Malmaison and Condé connect Laon with the Aisne and with Reims.

Laon is the seat of a prefect and a court of assizes, and possesses a tribunal of first instance, a lycée for boys, a college for girls, a school of agriculture and training colleges. Sugar-making and metal-founding are carried on, but neither industry nor trade, which is in grain and wine, are of much importance.

The hilly district of Laon (Laudunum) has always had some strategic importance. In the time of Caesar there was a Gallic village where the Remi (inhabitants of the country round Reims) had to meet the onset of the confederated Belgae. Whatever may have been the precise locality of that battlefield, Laon was fortified by the Romans, and successively checked the invasions of the Franks, Burgundians, Vandals, Alani and Huns. St Remigius, the archbishop of Reims who baptized Clovis, was born in the Laonnais, and it was he who, at the end of the 5th century, instituted the bishopric of the town. Thenceforward Laon was one of the principal towns of the kingdom of the Franks, and the possession of it was often disputed. Charles the Bald had enriched its church with the gift of very numerous domains. After the fall of the Carolingians Laon took the part of Charles

of Lorraine, their heir, and Hugh Capet only succeeded in making himself master of the town by the connivance of the bishop, who, in return for this service, was made second ecclesiastical peer of the kingdom. Early in the 12th century the communes of France set about emancipating themselves, and the history of the commune of Laon is one of the richest and most varied. The citizens had profited by a temporary absence of Bishop Gaudry to secure from his representatives a communal charter, but he, on his return, purchased from the king of France the revocation of this document, and recommenced his oppressions. The consequence was a revolt, in which the episcopal palace was burnt and the bishop and several of his partisans were put to death. The fire spread to the cathedral, and reduced it to ashes. Uneasy at the result of their victory, the rioters went into hiding outside the town, which was anew pillaged by the people of the neighbourhood, eager to avenge the death of their bishop. The king alternately interfered in favour of the bishop and of the inhabitants till 1239. After that date the liberties of Laon were no more contested till 1331, when the commune was abolished. During the Hundred Years' War it was attacked and taken by the Burgundians, who gave it up to the English, to be retaken by the French after the consecration of Charles VII. Under the League Laon took the part of the Leaguers, and was taken by Henry IV. During the campaign of 1814 Napoleon tried in vain to dislodge Blücher from it. In 1870 an engineer blew up the powder magazine of the citadel at the moment when the German troops were entering the town. Many lives were lost; and the cathedral and the old episcopal palace were damaged. At the Revolution Laon permanently lost its rank as a bishopric.

LAOS, a territory of French Indo-China, bounded N. by the Chinese province of Yun-nan, W. by the British Shan states and Siam, S. by Cambodia and Annam, E. by Annam and N.E. by Tongking. Northern Laos is traversed by the Mekong (*q.v.*) which from Chieng-Khan to a point below Stung-Treng forms the boundary between Laos (on the left bank) and Siam and Cambodia (on the right). French Laos constitutes a strip of territory between 700 and 800 m. in length with an average breadth of 155 m., an approximate area of 88,780 sq. m., and a population of about 550,000. Its northern region between the Mekong and Tongking is covered by a tangle of mountain chains clothed with dense forests and traversed by the Nam-Hou, the Nam-Ta and other tributaries of the Mekong. The culminating point exceeds 6500 ft. in height. South of this is the extensive wooded plateau of Tran-Ninh with an average altitude of between 3000 and 5000 ft. Towards the 18th degree of latitude this mountain system narrows into a range running parallel to and closely approaching the coast of the China Sea as it descends south. The boundary between Laos and Annam follows the crest-line of this range, several peaks of which exceed 6500 ft. (Pu-Atwat, over 8000 ft.). On the west its ramifications extend to the Mekong enclosing wide plains watered by the affluents of that river.

Laos is inhabited by a mixed population falling into three main groups—the Thais (including the Laotions (see below)); various aboriginal peoples classed as Khas; and the inhabitants of neighbouring countries, *e.g.* China, Annam, Cambodia, Siam, Burma, &c.

Laos has a rainy season lasting from June to October and corresponding to the S.W. monsoon and a dry season coinciding with the N.E. monsoon and lasting from November to May. Both in northern and southern Laos the heat during April and May is excessive, the thermometer reaching 104° F. and averaging 95° F. With the beginning of the rains the heat becomes more tolerable. December, January and February are cool months, the temperature in south Laos (south of 19°) averaging 77°, in north Laos from 50° to 53°. The plateau of Tran-Ninh and, in the south, that of the Bolovens are distinguished by the wholesomeness of their climate.

The forests contain bamboo and many valuable woods amongst which only the teak of north Laos and rattan are exploited to any extent; other forest products are rubber, stick lac, gum, benjamin, cardamoms, &c. Rice and maize, and cotton, indigo, tobacco, sugar-cane and cardamoms are among the cultivated plants. Elephants are numerous and the forests are inhabited by tigers, panthers, bears, deer and buffalo. Hunting and fishing are leading occupations of the inhabitants. Many species of monkeys, as well as peacocks, pheasants and woodcock are found, and the reptiles include crocodiles, turtles, pythons and cobras.

Scarcity of labour and difficulty of communication hinder the working of the gold, tin, copper, argentiferous lead, precious stones and other minerals of the country and the industries in general are of a primitive kind and satisfy only local needs.

The buffalo, the ox, the horse and the elephant are domesticated, and these together with cardamoms, rice, tobacco and the products of the forests form the bulk of the exports. Swine are reared, their flesh forming an important article of diet. Imports are inconsiderable, comprising chiefly cotton fabrics, garments and articles for domestic use. Trade is chiefly in the hands of the Chinese and is carried on for the most part with Siam. The Mekong is the chief artery of transit; elsewhere communication is afforded by tracks sometimes passable only for pedestrians. Luang-Prabang (*q.v.*) is the principal commercial town. Before the French occupation of Laos, it was split up into small principalities (*muongs*) of which the chief was that of Vien-Tiane. Vien-Tiane was destroyed in 1828 by the Siamese who annexed the territory. In 1893 they made it over to the French, who grouped the *muongs* into provinces. Of these there are twelve each administered by a French commissioner and, under his surveillance, by native officials elected by the people from amongst the members of an hereditary nobility. At the head of the administration there is a resident-superior stationed at Savannaket. Up till 1896 Laos had no special budget, but was administered by Cochin-China, Annam and Tongking. The budget for 1899 showed receipts £78,988 and expenditure £77,417. For 1904 the budget figures were, receipts £82,942, expenditure £76,344. The chief sources of revenue are the direct taxes (£15,606 in 1904), especially the poll-tax, and the contribution from the general budget of Indo-China (£54,090 in 1904). The chief items of expenditure in 1904 were Government house, &c., £22,558, transport, £19,191, native guard, £17,327.

See M. J. F. Garnier, *Voyage d'exploration en Indo-Chine* (Paris, 1873); C. Gosselin, *Le Laos et le protectorat français* (Paris, 1900); L. de Reinach, *Le Laos* (Paris, 1902) and *Notes sur le Laos* (Paris, 1906); and bibliography under INDO-CHINA, FRENCH.

LAOS, or Laotions, an important division of the widespread Thai or Shan race found throughout Indo-China from 28° N. and the sources of the Irrawaddy as far as Cambodia and 7° N. in the Malay Peninsula. This Thai family includes the Shans proper, and the Siamese. The name Lao, which appears to mean simply "man," is the collective Siamese term for all the Thai peoples subject to Siam, while Shan, said to be of Chinese origin, is the collective Burmese term for those subject to Burma. Lao is therefore rather a political than an ethnical title, and the people cordially dislike the name, insisting on their right to be called Thai. Owing to the different circumstances which have attended their migrations, the Thai peoples have attained to varying degrees of civilization. The Lao, who descended from the mountain districts of Yunnan, Szechuen and Kweichow to the highland plains of upper Indo-China, and drove the wilder Kha peoples whom they found in possession into the hills, mostly adopted Buddhism, and formed small settled communities or states in which laws were easy, taxes light and a very fair degree of comfort was attained. There are two main divisions, the Lao Pong Dam ("Black Paunch Laos"), so-called from their habit of tattooing the body from the waist to the knees, and the Lao Pong Kao ("White Paunch Laos") who do not tattoo. Lao tattooing is of a most elaborate kind. The Lao Pong Dam now form the western branch of the Lao family, inhabiting the Siamese Lao states of Chieng Mai Lapaun, 'Tern Pre and Nan, and reaching as far south as 17° N. Various influences have contributed to making the Lao the pleasant, easy-going, idle fellow that he is. The result is that practically all the trade of these states is in the hands of Bangkok Chinese firms, of a certain number of European houses and others, while most of the manual labour connected with the teak industry is done by Ka Mus, who migrate in large numbers from the left bank of the Mekong. The Lao Pong Kao, or eastern branch, appear to have migrated southwards by the more easterly route of the Nam-u and the Mekong valley. In contradistinction to the Lao Pong Dam, who have derived their written language from the Burmese character, the eastern race has retained what appears to be the early form of the present Siamese writing, from which it differs little. They formed important settlements at various points on the Mekong, notably Luang Prabang, Wieng Chan (Vien-Tiane) Ubon and Bassac; and, heading inland as far as Korat on the one side and the Annamite watershed in the east, they drove out the less civilized Kha peoples, and even the Cambodians, as the Lao Pong Dam did on the west. Vien-Tiane during the 18th century was the most powerful of the Lao principalities, and was feared and respected throughout Indo-China. It was destroyed by the Siamese in 1828. The inhabitants, in accordance with the Indo-Chinese custom of the day, were transported to Lower Siam. The Lao Pong Kao below 18° N. are a less merry and less vivacious people, and are for the most part shorter and more thick-set than those of Luang Prabang and the north. If possible, they are as a race lazier than the western Lao, as they are certainly more musical. The "khen," or mouth organ, which is universal among them, is the sweetest-toned of eastern instruments.

After 1828 the Laos became entirely subject to Siam, and were governed partly by khiao, or native hereditary princes, partly by mandarins directly nominated by the Bangkok authorities. The khiao were invested by a gold dish, betel-box, spittoon and teapot, which were sent from Bangkok and returned at their death or deposition. Of all the khiao the most powerful was the prince of Ubon (15° N., 105° E.), whose jurisdiction extended nearly from Bassac on the Mekong northwards to the great southern bend of that river. Nearly all the Laos country is now divided between France and Siam, and only a few tribes retain a nominal independence.

The many contradictory accounts of the Laos are due to the fact that the race has become much mixed with the aboriginal inhabitants. The half-castes sprung from alliances with the wild tribes of Caucasic stock present every variety between that type and the Mongolian. But the pure Laos are still distinguished by the high cheek-bones, small flat nose, oblique eyes, wide mouth, black lank hair, sparse beard, and yellow complexion of the Thai and other branches of the Mongol family. In disposition the Laos are an apathetic, peace-loving, pleasant-mannered race. Though the women have to work, they are free and well treated, and polygamy is rare. The Laos are very superstitious, believe in wer-wolves, and that all diseases are caused by evil spirits. Their chief food is rice and fish. Men, women and children all smoke tobacco. The civilized Laos were long addicted to slave-hunting, not only with the sanction but even with the co-operation of their rulers, the Lao mandarins heading regular expeditions against the wilder tribes.

Closely allied with the Lao are a number of tribes found throughout the hill regions of the upper Mekong, between Yunnan and Kwangsi in China and the upper waters of the Menam in Siam. They have all within recent times been partakers in the general movement towards the south-west from the highland districts of southern China, which has produced so many recruits for the peopling of the Indo-Chinese peninsula. Of this group of people, among whom may be named the Yao, Yao Yin, Lanten, Meo, Musur (or Muhso) and Kaw, perhaps the best known and most like the Lao are the Lu—both names meaning originally "man"—who have in many cases adopted a form of Buddhism (flavoured strongly by their natural respect for local spirits as well as tattooing) and other relatively civilized customs, and have forsaken their wandering life among the hills for a more settled village existence. Hardy, simple and industrious, fond of music, kind-hearted, and with a strangely artistic taste in dress, these people possess in a wonderful degree the secret of cheerful contentment.

Authorities.—M. J. F. Garnier, *Voyage d'exploration en Indo-Chine*; A. H. Mouhot, *Travels in the Central Parts of Indo-China, Cambodia and Laos* (1864); Holt S. Hallett, *A Thousand Miles on an Elephant in the Shan States* (1890); A. R. Colquhoun, *Amongst the Shâns* (1885); Lord Lamington, *Proc. R.G.S.* vol. xiii. No. 12; Archer, *Report on a Journey in the Mekong Valley*; Prince Henri d'Orléans, *Around Tonkin and Siam* (1894); M'Carthy, *Report on a Survey in Siam* (1894); Bulletins, Paris Geographical Society: H. Warington Smyth, *Notes of a Journey on the Upper Mekong* (1895); *Five Years in Siam* (1898); Harmand, *Le Laos et les populations sauvages de l'Indo-Chine* (1880). See also bibliography to preceding article.

LÂO-TSZE, or Laou-Tsze, the designation of the Chinese author of the celebrated treatise called *Tâo Teh King*, and the reputed founder of the religion called *Tâoism*. The Chinese characters composing the designation may mean either "the Old Son," which commonly assumes with foreigners the form of "the Old Boy," or "the Old Philosopher." The latter significance is attached to them by Dr Chalmers in his translation of the treatise published in 1868 under the title of *The Speculations on Metaphysics, Polity and Morality of "the Old Philosopher," Lâo-tsze*. The former is derived from a fabulous account of Lâo-tsze in the *Shăn Hsien Chwan*; "The Account of Spirits and Immortals," of Ko Hung in the 4th century A.D. According to this, his mother, after a supernatural conception, carried him in her womb sixty-two years (or seventy-two, or eighty-one—ten years more or fewer are of little importance in such a case), so that, when he was born at last, his hair was white as with age, and people might well call him "the old boy." The other meaning of the designation rests on better authority. We find it in the *Kiâ Yü*, or "Narratives of the Confucian School," compiled in the 3rd century A.D. from documents said to have been preserved among the descendants of Confucius, and also in the brief history of Lâo-tsze given in the historical records of Sze-ma Ch'ien (about 100 B.C.). In the latter instance the designation is used by Confucius, and possibly it originated with him. It should be regarded more as an epithet of respect than of years, and is equivalent to "the Venerable Philosopher."

> All that Ch'ien tells us about Lâo-tsze goes into small compass. His surname was Lî, and his name Urh. He was a native of the state of Ch'û, and was born in a hamlet not far from the present prefectural city of Kwei-te in Ho-nan province. He was one of the recorders or historiographers at the court of Chow, his special department being the charge of the whole or a portion of the royal library. He must thus have been able to make himself acquainted with the history of his country. Ch'ien does not mention the year of his birth, which is often said, though on what Chinese authority does not appear, to have taken place in the third year of King Phing, corresponding to 604 B.C. That date cannot be far from the truth. That he was contemporary with Confucius is established by the concurrent testimony of the *Lî Kî* and the *Kiâ Yü* on the Confucian side, and of Chwang-tsze and Sze-ma Ch'ien on the Tâoist. The two men whose influence has been so great on all the subsequent generations of the Chinese people—Kung-tsze (Confucius) and Lâo-tsze—had at least one interview, in 517 B.C., when the former was in his thirty-fifth year. The conversation between them was interesting. Lâo was in a mocking mood; Kung appears to the greater advantage. If it be true that Confucius, when he was fifty-one years old, visited Lâo-tsze as Chwang-tsze says (in the *Thien Yun*, the fourteenth of his treatises), to ask about the *Tâo*, they must have had more than one interview. Dr Chalmers, however, has pointed out that both Chwang-tsze and Lieh-tsze (a still earlier Tâoist writer) produce Confucius in their writings, as the lords of the Philistines did the captive Samson on their festive occasions, "to make sport for them." Their testimony is valueless as to any matter of fact. There may have been several meetings between the two in 517 B.C., but we have no evidence that they were together in the same place after that time. Ch'ien adds:—"Lâo-tsze cultivated the *Tâo* and virtue, his chief aim in his studies being how to keep himself concealed and unknown. He resided at (the capital of) Chow; but after a long time, seeing the decay of the dynasty, he left it, and went away to the Gate (leading from the royal domain into the regions beyond—at the entrance of the pass of Han-kû, in the north-west of Ho-nan). Yin Hsî, the warden of the Gate, said to him, 'You are about to withdraw yourself out of sight; I pray you to compose for me a book (before you go).' On this Lâo-tsze made a writing, setting forth his views on the *tâo* and virtue, in two sections, containing more than 5000 characters. He then went away, and it is not known where he died." The historian then mentions the names of two other men whom some regarded as the true Lâo-tsze. One of them was a Lâo Lâi, a contemporary of Confucius, who wrote fifteen treatises (or sections) on the practices of the school of *Tâo*. Subjoined to the notice of him is the remark that Lâo-tsze was more than one hundred and sixty years old, or, as some say, more than two hundred, because by the cultivation of the *Tâo* he nourished his longevity. The other was "a grand historiographer" of Chow, called Tan, one hundred and twenty-nine (? one hundred and nineteen) years after the death of Confucius. The introduction of these disjointed notices detracts from the verisimilitude of the whole narrative in which they occur.
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> Finally, Ch'ien states that "Lâo-tsze was a superior man, who liked to keep in obscurity," traces the line of his posterity down to the 2nd century B.C., and concludes with this important statement:—"Those who attach themselves to the doctrine of Lâo-tsze condemn that of the literati, and the literati on their part condemn Lâo-tsze, thus verifying the saying, 'Parties whose principles are different cannot take counsel together.' Lî Urh taught that transformation follows, as a matter of course, the doing nothing (to bring it about), and rectification ensues in the same way from being pure and still."

Accepting the *Tâo Teh King* as the veritable work of Lâo-tsze, we may now examine its contents. Consisting of not more than between five and six thousand characters, it is but a short treatise—not half the size of the Gospel of St Mark. The nature of the subject, however, the want of any progress of thought or of logical connexion between its different parts, and the condensed style, with the mystic tendencies and poetical temperament of the author, make its meaning extraordinarily obscure. Divided at first into two parts, it has subsequently and conveniently been subdivided into chapters. One of the oldest, and the most common, of these arrangements makes the chapters eighty-two.

Supposed harmony with Biblical teaching.

Some Roman Catholic missionaries, two centuries ago, fancied that they found a wonderful harmony between many passages and the teaching of the Bible. Montucci of Berlin ventured to say in 1808: "Many things about a Triune God are so clearly expressed that no one who has read this book can doubt that the mystery of the Holy Trinity was revealed to the Chinese five centuries before the coming of Jesus Christ." Even Rémusat, the first occupant of a Chinese chair in Europe, published at Paris in 1823 his *Mémoire sur la vie et les opinions de Lâo-tsze*, to vindicate the view that the Hebrew name Yahweh was phonetically represented in the fourteenth chapter by Chinese characters. These fancies were exploded by Stanislas Julien, when he issued in 1842 his translation of the whole treatise as *Le Livre de la voie et de la vertu*.

The most important thing is to determine what we are to understand by the *Tâo*, for *Teh* is merely its outcome, especially in man, and is rightly translated by "virtue." Julien translated *Tâo* by "la voie." Chalmers leaves it untranslated. "No English word," he says (p. xi.), "is its exact equivalent. Three terms suggest themselves—the way, reason and the word; but they are all liable to objection. Were we guided by etymology, 'the way' would come nearest the original, and in one or two passages the idea of a way seems to be in the term; but this is too materialistic to serve the purpose of a translation. 'Reason,' again, seems to be more like a

quality or attribute of some conscious being than *Tâo* is. I would translate it by 'the Word,' in the sense of the Logos, but this would be like settling the question which I wish to leave open, viz. what resemblance there is between the Logos of the New Testament and this Chinese Tâo." Later Sinologues in China have employed "nature" as our best analogue of the term. Thus Watters (*Lâo-tsze, A Study in Chinese Philosophy*, p. 45) says:—"In the *Tâo Teh King* the originator of the universe is referred to under the names Non-Existence, Existence, Nature (*Tâo*) and various designations—all which, however, represent one idea in various manifestations. It is in all cases Nature (*Tâo*) which is meant." This view has been skilfully worked out; but it only hides the scope of "the Venerable Philosopher." "Nature" cannot be accepted as a *translation* of *Tâo*. That character was, primarily, the symbol of a way, road or path; and then, figuratively, it was used, as we also use *way*, in the senses of means and method—the *course* that we pursue in passing from one thing or concept to another as its end or result. It is the name of a quality. Sir Robert Douglas has well said (*Confucianism and Tâoism*, p. 189): "If we were compelled to adopt a single word to represent the *Tâo* of Lâo-tsze, we should prefer the sense in which it is used by Confucius, 'the way,' that is, μέθοδος."

The doctrine of "the way."

What, then, was the quality which Lâo-tsze had in view, and which he thought of as the *Tâo*—there in the library of Chow, at the pass of the valley of Han, and where he met the end of his life beyond the limits of the civilized state? It was the simplicity of spontaneity, action (which might be called non-action) without motive, free from all selfish purpose, resting in nothing but its own accomplishment. This is found in the phenomena of the material world. "All things spring up without a word spoken, and grow without a claim for their production. They go through their processes without any display of pride in them; and the results are realized without any assumption of ownership. It is owing to the absence of such assumption that the results and their processes do not disappear" (chap. ii.). It only needs the same quality in the arrangements and measures of government to make society beautiful and happy. "A government conducted by sages would free the hearts of the people from inordinate desires, fill their bellies, keep their ambitions feeble and strengthen their bones. They would constantly keep the people without knowledge and free from desires; and, where there were those who had knowledge, they would have them so that they would not dare to put it in practice" (chap. iii.). A corresponding course observed by individual man in his government of himself becoming again "as a little child" (chaps. x. and xxviii.) will have corresponding results. "His constant virtue will be complete, and he will return to the primitive simplicity" (chap. xxviii.).

Such is the subject matter of the *Tâo Teh King*—the operation of this method or *Tâo*, "without striving or crying," in nature, in society and in the individual. Much that is very beautiful and practical is inculcated in connexion with its working in the individual character. The writer seems to feel that he cannot say enough on the virtue of humility (chap. viii., &c.). There were three things which he prized and held fast—gentle compassion, economy and the not presuming to take precedence in the world (chap. lxvii.). His teaching rises to its highest point in chap. lxiii.:—"It is the way of *Tâo* not to act from any personal motive, to conduct affairs without feeling the trouble of them, to taste without being aware of the flavour, to account the great as small and the small as great, to recompense injury with kindness." This last and noblest characteristic of the *Tâo*, the requiting "good for evil," is not touched on again in the treatise; but we know that it excited general attention at the time, and was the subject of conversation between Confucius and his disciples (*Confucian Analects*, xiv. 36).

What is said in the *Tâo* on government is not, all of it, so satisfactory. The writer shows, indeed, the benevolence of his heart. He seems to condemn the infliction of capital punishment (chaps. lxxiii. and lxxiv.), and he deplores the practice of war (chap. lxix.); but he had no sympathy with the progress of society or with the culture and arts of life. He says (chap. lxv.):—"Those who anciently were skilful in practising the *Tâo* did not use it to enlighten the people; their object rather was to keep them simple. The difficulty in governing the people arises from their having too much knowledge, and therefore he who tries to govern a state by wisdom is a scourge to it, while he who does not try to govern thereby is a blessing." The last chapter but one is the following:—"In a small state with a few inhabitants, I would so order it that the people, though supplied with all kinds of implements, would not (care to) use them; I would give them cause to look on death as a most grievous thing, while yet they would not go away to a distance to escape from it. Though they had boats and carriages, they should have no occasion to ride in them. Though they had buff-coats and sharp weapons, they should not don or use them. I would make them return to the use of knotted cords (instead of written characters). They should think their coarse food sweet, their plain clothing beautiful, their poor houses places of rest and their common simple ways sources of enjoyment. There should be a neighbouring state within sight, and the sound of the fowls and dogs should be heard from it to us without interruption, but I would make the people to old age, even to death, have no intercourse with it."

On reading these sentiments, we must judge of Lâo-tsze that, with all his power of thought, he was only a dreamer. But thus far there is no difficulty arising from his language in regard to the *Tâo*. It is simply a quality, descriptive of the style of character and action, which the individual should seek to attain in himself, and the ruler to impress on his administration. The language about the *Tâo* in nature is by no means so clear. While Sir Robert Douglas says that "the way" would be the best translation of *Tâo*, he immediately adds:—"But *Tâo* is more than the way. It is the way and the way-goer. It is an eternal road; along it all beings and things walk; but no being made it, for it is being itself; it is everything, and nothing and the cause and effect of all. All things originate from *Tâo*, conform to *Tâo* and to *Tâo* at last they return."

The Tâo and the Deity.

Some of these representations require modification; but no thoughtful reader of the treatise can fail to be often puzzled by what is said on the point in hand. Julien, indeed, says with truth (p. xiii.) that "it is impossible to take *Tâo* for the primordial Reason, for the sublime Intelligence, which has created and governs the world"; but many of Lâo-tsze's statements are unthinkable if there be not behind the *Tâo* the unexpressed recognition of a personal creator and ruler. Granted that he does not affirm positively the existence of such a Being, yet certainly he does not deny it, and his language even implies it. It has been said, indeed, that he denies it, and we are referred in proof to the fourth chapter:—"*Tâo* is like the emptiness of a vessel; and the use of it, we may say, must be free from all self-sufficiency. How deep and mysterious it is, as if it were the author of all things! We should make our sharpness blunt, and unravel the complications of things; we should attemper our brightness, and assimilate ourselves to the obscurity caused by dust. How still and clear is *Tâo*, a phantasm with the semblance of permanence! I do not know whose son it is. It might appear to have been before God (*Ti*)."

The reader will not overlook the cautious and dubious manner in which the predicates of *Tâo* are stated in this remarkable passage. The author does not say that it was before God, but that "it might appear" to have been so. Nowhere else in his treatise does the nature of *Tâo* as a method or style of action come out more clearly. It has no positive existence of itself; it is but like the emptiness of a vessel, and the manifestation of it by men requires that they endeavour to free themselves from all self-sufficiency. Whence came it? It does not shock Lâo-tsze to suppose that it had a father, but he cannot tell whose son it is. And, as the feeling of its mysteriousness grows on him, he ventures to say that "it might appear to have been before God."

There is here no denial but express recognition of the existence of God, so far as it is implied in the name *Tî*, which is the personal name for the concept of heaven as the ruling power, by means of which the fathers of the Chinese people rose in prehistoric time to the idea of God. Again and again Lâo-tsze speaks of heaven just as "we do when we mean thereby the Deity who presides over heaven and earth." These last words are taken from Watters (p. 81); and, though he adds, "We must not forget that this heaven is inferior and subsequent to the mysterious *Tâo*, and was in fact produced by it," it has been shown how rash and unwarranted is the ascription of such a sentiment to "the Venerable Philosopher." He makes the *Tâo* prior to heaven and earth, which is a phrase denoting what we often call "nature," but he does not make it prior to heaven in the higher and immaterial usage of that name. The last sentence of his treatise is:—"It is the *Tâo*—the way—of Heaven to benefit and not injure; it is the *Tâo*—the way—of the sage to do and not strive."

Since Julien laid the *Tâo Teh King* fairly open to Western readers in 1842, there has been a tendency to overestimate rather than to underestimate its value as a scheme of thought and a discipline for the individual and society. There are in it lessons of unsurpassed value, such as the inculcation of simplicity, humility and self-abnegation, and especially the brief enunciation of the divine duty of returning good for ill; but there are also the regretful representations of a primitive society when men were ignorant of the rudiments of culture, and the longings for its return.

When it was thought that the treatise made known the doctrine of the Trinity, and even gave a phonetic representation of the Hebrew name for God, it was natural, even necessary, to believe that its author had had communication with more western parts of Asia, and there was much speculation about visits to India and Judaea, and even to Greece. The necessity for assuming such travels has passed away. If we can receive Sze-mâ Ch'ien's histories as trustworthy, Lâo-tsze might have heard, in the states of Chow and among the wild tribes adjacent to them, views about society and government very like his own. Ch'ien relates how an envoy came in 624 B.C.—twenty years before the date assigned to the birth of Lâo-tsze—to the court of Duke Mû of Ch'in, sent by the king of some rude hordes on the west. The duke told him of the histories, poems, codes of rites, music and laws which they had in the middle states, while yet rebellion and disorder were of frequent occurrence, and asked how good order was secured among the wild people, who had none of those appliances. The envoy smiled, and replied that the troubles of China were occasioned by those very things of which the duke vaunted, and that there had been a gradual degeneration in the condition of its states, as their professed civilization had increased, ever since the days of the ancient sage, Hwang Tî, whereas in the land he came from, where there was nothing but the primitive simplicity, their princes showed a pure virtue in their treatment of the people, who responded to them with loyalty and good faith. "The government of a state," said he in conclusion, "is like a man's ruling his own single person. He rules it, and does not know how he does so; and this was indeed the method of the sages." Lâo-tsze did not need to go further afield to find all that he has said about government.

We have confined ourselves to the Tâoism of the *Tâo Teh King* without touching on the religion Tâoism now existing in China, but which did not take shape until more than five hundred years after the death of Lâo-tsze, though he now occupies the second place in its trinity of "The three Pure or Holy Ones." There is hardly a word in his treatise that savours either of superstition or religion. In the works of Lieh-tsze and Chwang-tsze, his earliest followers of note, we find abundance of grotesque superstitions; but their beliefs (if indeed we can say that they had beliefs) had not become embodied in any religious institutions. When we come to the Ch'in dynasty (221-206 B.C.), we meet with a Tâoism in the shape of a search for the fairy islands of the eastern sea, where the herb of immortality might be gathered. In the 1st century A.D. a magician, called Chang Tâo-ling, comes before us as the chief professor and controller of this Tâoism, preparing in retirement "the pill" which renewed his youth, supreme over all spirits, and destroying millions of demons by a stroke of his pencil. He left his books, talismans and charms, with his sword and seal, to his descendants, and one of them, professing to be animated by his soul, dwells on the Lung-hû mountain in Kiang-si, the acknowledged head or pope of Tâoism. But even then the system was not yet a religion, with temples or monasteries, liturgies and forms of public worship. It borrowed all these from Buddhism, which first obtained public recognition in China between A.D. 65 and 70, though at least a couple of centuries passed before it could be said to have free course in the country.

The Tâoism of to-da.

Even still, with the form of a religion, Tâoism is in reality a conglomeration of base and dangerous superstitions. Alchemy, geomancy and spiritualism have dwelt and dwell under its shadow. Each of its "three Holy Ones" has the title of *Thien Tsun*, "the Heavenly and Honoured," taken from Buddhism, and also of *Shang Tî* or God, taken from the old religion of the country. The most popular deity, however, is not one of them, but has the title of *Yü Wang Shang Tî*, "God, the Perfect King." But it would take long to tell of all its "celestial gods," "great gods," "divine rulers" and others. It has been doubted whether Lâo-tsze acknowledged the existence of God at all, but modern Tâoism is a system of the wildest polytheism. The science and religion of the West meet from it a most determined opposition. The "Venerable Philosopher" himself would not have welcomed them; but he ought not to bear the obloquy of being the founder of the Tâoist religion.

(J. Le.)

LA PAZ, a western department of Bolivia, bounded N. by the national territories of Caupolican and El Beni, E. by El Beni and Cochabamba, S. by Cochabamba and Oruro and W. by Chile and Peru. Pop. (1900) 445,616, the majority of whom are Indians. Area 53,777 sq. m. The department belongs to the great Bolivian plateau, and its greater part to the cold, bleak, *puna* climatic region. The Cordillera Real crosses it N.W. to S.E. and

culminates in the snow-crowned summits of Sorata and Illimani. The west of the department includes a part of the Titicaca basin with about half of the lake. This elevated plateau region is partially barren and inhospitable, its short, cold summers permitting the production of little besides potatoes, quinoa (*Chenopodium quinoa*) and barley, with a little Indian corn and wheat in favoured localities. Some attention is given to the rearing of llamas, and a few cattle, sheep and mules are to be seen south of Lake Titicaca. There is a considerable Indian population in this region, living chiefly in small hamlets on the products of their own industry. In the lower valleys of the eastern slopes, where climatic conditions range from temperate to tropical, wheat, Indian corn, oats and the fruits and vegetables of the temperate zone are cultivated. Farther down, coffee, cacao, coca, rice, sugar cane, tobacco, oranges, bananas and other tropical fruits are grown, and the forests yield cinchona bark and rubber. The mineral wealth of La Paz includes gold, silver, tin, copper and bismuth. Tin and copper are the most important of these, the principal tin mines being in the vicinity of the capital and known under the names of Huayna-Potosi, Milluni and Chocoltaga. The chief copper mines are the famous Corocoro group, about 75 m. S.S.E. of Lake Titicaca by the Desaguadero river, the principal means of transport. The output of the Corocoro mines, which also includes gold and silver, finds its way to market by boat and rail to Mollendo, and by pack animals to Tacna and rail to Arica. There are no roads in La Paz worthy of the name except the 5 m. between the capital and the "Alto," though stagecoach communication with Oruro and Chililaya has been maintained by the national government. The railway opened in 1905 between Guaqui and La Paz (54 m.) superseded the latter of these stage lines, and a railway is planned from Viacha to Oruro to supersede the other. The capital of the department is the national capital La Paz. Corocoro, near the Desaguadero river, about 75 m. S.S.E. of Lake Titicaca and 13,353 ft. above sea-level, has an estimated population (1906) of 15,000, chiefly Aymará Indians.

LA PAZ (officially La Paz de Ayacucho), the capital of Bolivia since 1898, the see of a bishopric created in 1605 and capital of the department of La Paz, on the Rio de la Paz or Rio Chuquiapo, 42 m. S.E. of Lake Titicaca (port of Chililaya) in 16° 30′ S., 68° W. Pop. (1900) 54,713, (1906, estimate) 67,235. The city is built in a deeply-eroded valley of the Cordillera Real which is believed to have formed an outlet of Lake Titicaca, and at this point descends sharply to the S.E., the river making a great bend southward and then flowing northward to the Beni. The valley is about 10 m. long and 3 m. wide, and is singularly barren and forbidding. Its precipitous sides, deeply gullied by torrential rains and diversely coloured by mineral ores, rise 1500 ft. above the city to the margin of the great plateau surrounding Lake Titicaca, and above these are the snow-capped summits of Illimani and other giants of the Bolivian Cordillera. Below, the valley is fertile and covered with vegetation, first of the temperate and then of the tropical zone. The elevation of La Paz is 12,120 ft. above sea-level, which places it within the *puna* climatic region, in which the summers are short and cold. The mean annual temperature is a little above the *puna* average, which is 54° F., the extremes ranging from 19° to 75°. Pneumonia and bronchial complaints are common, but consumption is said to be rare. The surface of the valley is very uneven, rising sharply from the river on both sides, and the transverse streets of the city are steep and irregular. At its south-eastern extremity is the Alameda, a handsome public promenade with parallel rows of exotic trees, shrubs and flowers, which are maintained with no small effort in so inhospitable a climate. The trees which seem to thrive best are the willow and eucalyptus. The streets are generally narrow and roughly paved, and there are numerous bridges across the river and its many small tributaries. The dwellings of the poorer classes are commonly built with mud walls and covered with tiles, but stone and brick are used for the better structures. The cathedral, which was begun in the 17th century when the mines of Potosi were at the height of their productiveness, was never finished because of the revolutions and the comparative poverty of the city under the republic. It faces the Plaza Mayor and is distinguished for the finely-carved stonework of its façade. Facing the same plaza are the government offices and legislative chambers. Other notable edifices and institutions are the old university of San Andrés, the San Francisco church, a national college, a seminary, a good public library and a museum rich in relics of the Inca and colonial periods. La Paz is an important commercial centre, being connected with the Pacific coast by the Peruvian railway from Mollendo to Puno (via Arequipa), and a Bolivian extension from Guaqui to the Alto de La Paz (Heights of La Paz)—the two lines being connected by a steamship service across Lake Titicaca. An electric railway 5 m. long connects the Alto de La Paz with the city, 1493 ft. below. This route is 496 m. long, and is expensive because of trans-shipments and the cost of handling cargo at Mollendo. The vicinity of La Paz abounds with mineral wealth; most important are the tin deposits of Huayna-Potosi, Milluni and Chocoltaga. The La Paz valley is auriferous, and since the foundation of the city gold has been taken from the soil washed down from the mountain sides.

La Paz was founded in 1548 by Alonzo de Mendoza on the site of an Indian village called Chuquiapu. It was called the Pueblo Nuevo de Nuestra Señora de la Paz in commemoration of the reconciliation between Pizarro and Almagro, and soon became an important colony. At the close of the war of independence (1825) it was rechristened La Paz de Ayacucho, in honour of the last decisive battle of that protracted struggle. It was made one of the four capitals of the republic, but the revolution of 1898 permanently established the seat of government here because of its accessibility, wealth, trade and political influence.

LA PÉROUSE, JEAN-FRANÇOIS DE GALAUP, Comte de (1741-*c.* 1788), French navigator, was born near Albi, on the 22nd of August 1741. His family name was Galaup, and La Pérouse or La Peyrouse was an addition adopted by himself from a small family estate near Albi. As a lad of eighteen he was wounded

and made prisoner on board the “Formidable” when it was captured by Admiral Hawke in 1759; and during the war with England between 1778 and 1783 he served with distinction in various parts of the world, more particularly on the eastern coasts of Canada and in Hudson’s Bay, where he captured Forts Prince of Wales and York (August 8th and 21st, 1782). In 1785 (August 1st) he sailed from Brest in command of the French government expedition of two vessels (“La Boussole” under La Pérouse himself, and “L’Astrolabe,” under de Langle) for the discovery of the North-West Passage, vainly essayed by Cook on his last voyage, from the Pacific side. He was also charged with the further exploration of the north-west coasts of America, and the north-east coasts of Asia, of the China and Japan seas, the Solomon Islands and Australia; and he was ordered to collect information as to the whale fishery in the southern oceans and as to the fur trade in North America. He reached Mount St Elias, on the coast of Alaska, on the 23rd of June 1786. After six weeks, marked by various small discoveries, he was driven from these regions by bad weather; and after visiting the Hawaiian Islands, and discovering Necker Island (November 5th, 1786), he crossed over to Asia (Macao, January 3rd, 1787). Thence he passed to the Philippines, and so to the coasts of Japan, Korea and “Chinese Tartary,” where his best results were gained. Touching at Quelpart, he reached De Castries Bay, near the modern Vladivostok, on the 28th of July 1787; and on the 2nd of August following discovered the strait, still named after him, between Sakhalin and the Northern Island of Japan. On the 7th of September he put in at Petropavlovsk in Kamchatka, where he was well received by special order of the Russian empress, Catherine II.; thence he sent home Lesseps, overland, with the journals, notes, plans and maps recording the work of the expedition. He left Avacha Bay on the 29th of September, and arrived at Mauna in the Samoan group on the 8th of December; here de Langle and ten of the crew of the “Astrolabe” were murdered. He quitted Samoa on the 14th of December, touched at the Friendly Islands and Norfolk Island and arrived in Botany Bay on the 26th of January 1788. From this place, where he interchanged courtesies with some of the English pioneers in Australia, he wrote his last letter to the French Ministry of Marine (February 7th). After this no more was heard of him and his squadron till in 1826 Captain Peter Dillon found the wreckage of what must have been the “Boussole” and the “Astrolabe” on the reefs of Vanikoro, an island to the north of the New Hebrides. In 1828 Dumont d’Urville visited the scene of the disaster and erected a monument (March 14th).

See Milet Mureau, *Voyage de la Pérouse autour du monde* (Paris, 1797) 4 vols.; Gérard, *Vies ... des ... marins français* (Paris, 1825), 197-200; Peter Dillon, *Narrative ... of a Voyage in the South Seas for the Discovery of the Fate of La Pérouse* (London, 1829), 2 vols.; Dumont d’Urville, *Voyage pittoresque autour du monde*; Quoy and Paul Gaimard, *Voyage de ... l’Astrolabe*; Domeny de Rienzi, *Océanie*; Van Tenac, *Histoire général de la marine*, iv. 258-264; *Moniteur universel*, 13th of February 1847.

LAPIDARY, and GEM CUTTING

(Lat. *lapidarius, lapis*, a stone). The earliest examples of gem cutting and carving known (see also GEM) are the ancient engraved seals, which are of two principal types, the cylindrical or “rolling” seals of Babylonia and Assyria, suggested by a joint of the bamboo or the central whorl of a conch-like shell, and the peculiar scarabaeoid seals of Egypt. Recent researches make it appear that both these types were in use as far back as 4500 B.C., though with some variations. The jewels of Queen Zer, and other jewels consisting of cut turquoise, lapis lazuli and amethyst, found by the French mission, date from 4777 B.C. to 4515 B.C. Until about 2500 B.C., the cylinder seals bore almost wholly animal designs; then cuneiform inscriptions were added. In the 6th century B.C., the scarabaeoid type was introduced from Egypt, while the rolling seals began to give place to a new form, that of a tall cone. These, in a century or two, were gradually shortened; the hole by which they were suspended was enlarged until it could admit the finger, and in time they passed into the familiar form of seal-rings. This later type, which prevailed for a long period, usually bore Persian or Sassanian inscriptions. The scarabaeoid seals were worn as rings in Egypt apparently from the earliest times.

The most ancient of the cylinder seals were cut at first from shell, then largely from opaque stones such as diorite and serpentine. After 2500 B.C., varieties of chalcedony and milky quartz were employed, translucent and richly coloured; sometimes even rock crystal, and also frequently a beautiful compact haematite. Amazone stone, amethyst and fossil coral were used, but no specimen is believed to be known of ruby, sapphire, emerald, diamond, tourmaline or spinel.

The date of about 500 B.C. marks the beginning of a period of great artistic taste and skill in gem carving, which extended throughout the ancient civilized world, and lasted until the 3rd or 4th century A.D. Prior to this period, all the work appears to have been done by hand with a sapphire point, or else with a bow-drill; thenceforward the wheel came to be largely employed. The Greek cutters, in their best period, the 5th and 6th centuries B.C., knew the use of disks and drills, but preferred the sapphire point for their finest work, and continued to use it for two or three hundred years. Engraving by the bow-drill was introduced in Assyrian and Babylonian work as early as perhaps 3000 B.C., the earlier carving being all done with the sapphire point, which was secured in a handle for convenient application. This handwork demanded the utmost skill and delicacy of touch in the artist. The bow-drill consisted of a similar point fastened in the end of a stick, which could be rotated by means of a horizontal cross-bar attached at each end to a string wound around the stick; as the cross-bar was moved up and down, the stick was made to rotate alternately in opposite directions. This has been a frequent device for such purposes among many peoples, both ancient and modern, civilized and uncivilized. The point used by hand, and the bow-drill, were afterwards variously combined in executing such work. Another modification was the substitution for the point, in either process, of a hollow tube or drill, probably in most cases the joint of a hollow reed, whereby very accurate circles could be made, as also crescent figures and the like. This process, used with fine hard sand, has also been widely employed among many peoples. It may perhaps have been suggested by the boring of other shells by carnivorous molluscs of the *Murex* type, examples of which may be picked up on any sea-beach. It is possible that the cylinder seals were drilled in this way out of larger pieces by means of a hollow reed or bamboo, the cylinder being left as the core.

The Egyptian scarabs were an early and very characteristic type of seal cutting. The Greek gem cutters modified them by adding Greek and Etruscan symbols and talismanic signs; many of them also worked in Egypt and for Egyptians. Phoenician work shows a mixture of Assyrian and Egyptian designs; and Cypriote seals, principally on the agate gems, are known that are referred to the 9th century B.C.

Scarabs are sometimes found that have been sliced in two, and the new flat faces thus produced carved with later inscriptions and set in rings. This secondary work is of many kinds. An Assyrian cylinder in the Metropolitan Museum, New York, referred to 3000 B.C., bears such a cutting of Mediterranean character, of the 2nd or 3rd century B.C. In the early Christian era, also, many Greek and Roman gems were recut with Gnostic and other peculiar and obscure devices.

In the later Roman period, the 3rd and 4th centuries, a great decline in the art is seen—so great that Castellani terms it “the idiotic age.” Numbers of gems of this kind have been found together, as though they were the product of a single manufacturer, carved in the crudest manner, both in design and execution. Yet remarkable results are sometimes produced in these by a few touches of the drill, which under the glass appear very crude but nevertheless yield strong effects. The same thing may be seen now in many of the Japanese sketches and lacquer designs, where a whole landscape is depicted, or rather suggested, by a few simple but powerful strokes. It is now thought that some of these seals may be of earlier origin than has been supposed, and also that they may have been worn by the poorer classes, who could not afford the more finished work. They must have been made by the hundred thousand. The decline of the art went on until in the Byzantine period, especially the 6th century, it had reached a very low point. Most of the gems of this period show drill-work of poor quality, although hand-work is occasionally seen.

With the Renaissance, the art of gem carving revived, and the engravers from that time and onward have produced results that equal the best Greek and Roman work; copies of ancient gem carvings made by some of the 18th-century masters are only distinguishable from true antiques by experts of great proficiency. It is in fact extremely difficult to judge positively as to the age of engraved gems. The materials of which they are made are hard and resistant to any change through time, and there are many ingenious devices for producing the appearances usually believed to indicate great age, such as slightly dulled or scratched surfaces and the like. There are also the gems with secondary carving, already alluded to, and the ancient gems that have been partially recut by modern engravers for the purpose of fraudulently enhancing their price. All these elements enter into the problem and make it an almost hopeless one for any but a person of great experience in the study of such objects; and even he may not be able in all cases to decide.

Until the 14th century, almost all the gems were cut *en cabochon*—that is, smoothly rounded, as carbuncles and opals are still—or else in the form of beads drilled from both sides for suspension or attachment, the two perforations often meeting but imperfectly. These latter may be of Asiatic origin, brought into Europe by commerce during the Crusades. Some of the finest gems in the Austrian, Russian and German crowns are stones of this perforated or bead type. An approach, or transition, to the modern facetting is seen in a style of cutting often used for rock-crystal in the 10th and 11th centuries: an oval cabochon was polished flat, and the sides of the dome were also trimmed flat, with a rounded back, and the upper side with a ridge in the centre, tapering off to the girdle of the stone below.

The plane facetted cutting is altogether modern; and hence the pictures which represent the breastplate of the ancient Jewish high-priest as set with facetted stones are wholly imaginary and probably incorrect, as we have no exact knowledge of the forms of the gems. The Orientals polish gems in all sorts of irregular, rounded shapes, according to the form of the piece as found, and with the one object of preserving as much of its original size and colour as possible. The greatest ingenuity is used to make a speck of colour, as in a sapphire, tone up an entire gem, by cutting it so that there is a point of high colour at the lower side of the gem.

In later times a few facets are sometimes cut upon a generally rounded stone. The *cabochon* method is still used for opaque or translucent stones, as opal, moonstone, turquoise, carbuncle, &c.; but for transparent gems the facetted cutting is almost always employed, on account of its fine effect in producing brilliancy, by reflection or refraction of light from the under side of the gem. Occasionally the ancients used natural crystals with polished faces, or perhaps at times polished these to some extent artificially. This use of crystals was frequent with prisms of emerald, which were drilled and suspended as drops. Those the French call “primes d’émeraudes.” These were often natural crystals from Zaborah, Egypt or the Tirol Mountains, drilled through the height of the prism, and with little or no polishing. In rare instances perfect and brilliant crystals may now be seen mounted as gems.

The modern method is that of numerous facets, geometrically disposed to bring out the beauty of light and colour to the best advantage. This is done at the sacrifice of material, often to the extent of half the stone or even more—the opposite of the Oriental idea. There are various forms of such cutting, but three are specially employed, known as the brilliant, the rose and the table-cut. The last, generally made from cleavage pieces, usually square or oblong, with a single facet or edge on each side, and occasionally four or more facets on the lower side of the stone, is used chiefly for emeralds, rubies and sapphires; the two former for diamonds in particular. The brilliant is essentially a low, double cone, its top truncated to form a large flat eight-sided face called the table, and its basal apex also truncated by a very small face known as the *culette* or *cullet*. The upper and lower slopes are cut into a series of triangular facets, 32 above the girdle, in four rows of eight, and 24 below, in three rows, making 56 facets in all. The rose form is used for diamonds not thick enough to cut as brilliants; it is flat below and has 12 to 24, or sometimes 32, triangular facets above, in three rows, meeting in a point. Stones thus cut are also known as “roses couronnées”; others with fewer facets, twelve or even six, are called “roses d’Anvers,” and are a specialty, as their name implies, at Antwerp. These, however, are only cut from very thin or shallow stones. None of the rose-cut diamonds is equal in beauty to the brilliants. There are several other forms, among which are the “briolette,” “marquise,” oval and pear-shaped stones, &c., but they are of minor importance. The pear-shaped brilliant is a facetted ball or drop, being a brilliant in style of cutting, although the form of the gem is elongated or drop-shaped. The “marquise” or “navette” form is an elliptical brilliant of varying width in proportion to its length. The “rondelle” form consists of flat, circular gems with smooth sides pierced, like shallow beads, with facetted edges, and is sometimes used between pearls, or gem beads, and in the coloured gems, such as rubies, sapphires, emeralds, &c. The mitred gems fitted to a gauge are much used and are closely set together, forming a continuous line of colour.

Modern gem cutting and engraving are done by means of the lathe, which can be made to revolve with extreme rapidity, carrying a point or small disk of soft iron, with diamond-dust and oil. The disks vary in diameter from that of a pin-head to a quarter of an inch. Better than the lathe, also, is the S. S. White dental engine, which the present writer was the first to suggest for this use. The flexibility and sensitiveness of this machine enables it to respond to the touch of the artist and to impart a personal quality to his work not possible with the mechanical action of the lathe, and more like the hand-work with the sapphire point. The diamond-dust and oil, thus applied, will carve any stone softer than the diamond itself with comparative ease.

We may now review some of the special forms of cutting and working gems and ornamental stones that have been developed in Europe since the period of the Renaissance.

Garnets (*q.v.*) have been used and worked from remote antiquity; but in modern times the cutting of them has been carried on chiefly in Bohemia, in the region around Merowitz and Dlaskowitch. The stones occur in a trap rock, and are weathered out by its decomposition and gathered from gravels and beds of streams. They are of the rich red variety known as pyrope (*q.v.*), or Bohemian garnet; it is generally valued as a gem-stone. Such are the so-called “Cape rubies,” of South Africa, found in considerable quantity in German East Africa, and the beautiful garnets known as the “Arizona rubies.” Garnets are so abundant in Bohemia as to constitute an important industry, employing some five hundred miners, an equal number of cutters and as many as three thousand dealers. Extensive garnet cutting is also done in India, especially at Jeypore, where there are large works employing natives who have been taught by Europeans. The Indian garnets, however, are mostly of another variety, the almandine (*q.v.*); it is equally rich in colour, though inclining more to a violet cast than the pyrope, and can be obtained in larger pieces. The ancient garnets, from Etruscan and Byzantine remains, some of which are flat plates set in gold, or carved with mythological designs, were probably obtained from India or perhaps from the remarkable locality for large masses of garnet in German East Africa. Many are cut with the portraits of Sassanian kings with their characteristic pearl earrings. The East Indians carve small dishes out of a single garnet.

The carving of elegant objects from transparent quartz, or rock crystal, has been carried on since the 16th century, first in Italy, by the greatest masters of the time, and afterwards in Prague, under Rudolph II., until the Thirty Years’ War, when the industry was wiped out. Splendid examples of this work are in the important museums of Europe. Many of these are reproduced now in Vienna, and fine examples are included in some American museums. Among them are rock-crystal dishes several inches across, beautifully engraved in intaglio and mounted in silver with gems. Other varieties of quartz minerals, such as agate, jasper, &c., and other ornamental stones of similar hardness, are likewise wrought into all manner of art objects. Caskets, vases, ewers, coupés and animal and other fanciful forms, are familiar in these opaque and semi-transparent stones, either carved out of single masses or made of separate pieces united with gold, silver or enamel in the most artistic manner. Cellini, and other masters in the 16th and 17th centuries, vied with each other in such work.

The greatest development of agate (*q.v.*), however, has been seen in Germany, at Waldkirch in Breisgau, and especially at Idar and Oberstein on the Nahe, in Oldenburg. The industry began in the 14th century, at the neighbouring town of Freiburg, but was transferred to Waldkirch, where it is still carried on, employing about 120 men and women, the number of workmen having increased nearly threefold since the middle of the 19th century. The Idar and Oberstein industry was founded somewhat later, but is much more extensive. Mills run by water-power line the Nahe river for over 30 m., from above Kreuznach to below Idar, and gave employment in 1908 to some 5000 people—1625 lapidaries, 160 drillers, 100 engravers, 2900 cutters, &c., besides 300 jewellers and 300 dealers. The industry began here in consequence of the abundance of agates in the amygdaloid rocks of the vicinity; and it is probable that many of the Cinque Cento gems, and perhaps even some of the Roman ones, were obtained in this region. By the middle of the 18th century the best material was about exhausted, but the industry had become so firmly established that it has been kept up and increased by importing agates. In 1540 there were only three mills; in 1740, twenty-five; in 1840, fifty; in 1870, one hundred and eighty-four. Agents and prospectors are sent all over the world to procure agates and other ornamental stones, and enormous quantities are brought there and stored. The chief source of agate supply has been in Uruguay, but much has been brought from other distant lands. It was estimated that fifty thousand tons were stored at Salto in Uruguay at one time.

The grinding is done on large, horizontal wheels like grindstones, some 6 ft. in diameter and one-fourth as thick, run by water-wheels. The faces of some of these grindstones are made with grooves of different sizes so that round objects or convex surfaces can be ground very easily and rapidly. An agate ball or marble, for instance, is made from a piece broken to about the right size and held in one of these semicircular grooves until one-half of it is shaped, and then turned over and the other half ground in the same way. The polishing is done on wooden wheels, with tripoli found in the vicinity; any carving or ornamentation is then put on with a wheel-edge or a drill by skilled workmen.

In the United States the Drake Company at Sioux Falls, South Dakota, has done cutting and polishing in hard materials on a grand scale. It is here, and here only, that the agatized wood from Chalcedony Park, Arizona, has been cut and polished, large sections of tree-trunks having been made into table-tops and columns of wonderful beauty, with a polish like that of a mirror.

Much of the finest lapidary work, both on a large and a small scale, is done in Russia. Catherine II. sought to develop the precious stone resources of the Ural region, and sent thither two Italian lapidaries. This led to the founding of an industry which now employs at least a thousand people. The work is done either at the great imperial lapidary establishment at Ekaterinburg, or in the vicinity of the mines by lapidary masters, as they are called, each of whom has his peculiar style. The products are sold to dealers at the great Russian fairs at Nizhniy Novgorod, Moscow and Ekaterinburg. The imperial works at the last-named place have command of an immense water-power, and are on such a scale that great masses of hard stones can be worked as marble is in other countries. Much of the machinery is primitive, but the applications are ingenious and the results unsurpassed anywhere. The work done is of several classes, ranging from the largest and most massive to the smallest and most delicate. There is (1) the cutting of facetted gems, as topaz, aquamarine, amethyst, &c., from the mines of the Ural, and of other gem-stones also; this is largely done by means of the cadrans, a small machine held in the hand, by which the angle of the facets can be adjusted readily when once the stone has been set, and which produces work of great beauty and accuracy. Then there is (2) a vast variety of ornamental objects, large and small, some weighing 2000 ℔ and over, and requiring years to complete; they are made from the opaque minerals of the Ural and Siberia—malachite, rhodonite, lapis-lazuli, aventurine and jasper. A peculiar type of work is (3) the production of beautiful groups of fruit, flowers and leaves, in stones selected to

match exactly the colour of each object represented. These are chosen with great care and skill, somewhat as in the Florentine mosaics, not to produce a flat inlaid picture, however, but a perfect reproduction of form, size and colour. These groups are carved and polished from hard stones, whereas the Florentine mosaic work includes many substances that are much softer, as glass, shell, &c.

Enormous masses of material are brought to these works; the supply of rhodonite, jade, jaspers of various colours, &c., sometimes amounting to hundreds of tons. One mass of Kalkansky jasper weighed nearly 9 tons, and a mass of rhodonite above 50 tons; the latter required a week of sledging, with ninety horses, to bring it from the quarry, only 14 m. from the works. About seventy-five men are employed, at twenty-five roubles a month (£2, 11s. 6d.), and ten boys, who earn from two to ten roubles (4s. to £1). A training school is connected with the works, where over fifty boys are pupils; on graduating they may remain as government lapidaries or set up on their own account.

There are two other great Russian imperial establishments of the same kind. One of these, founded by Catherine II., is at Peterhof, a short distance from the capital; it is a large building fitted up with imperial elegance. Here are made all the designs and models for the work done at Ekaterinburg; these are returned and strictly preserved. In the Peterhof works are to be seen the largest and most remarkable achievements of the lapidarian art, vases and pedestals and columns of immense size, made from the hardest and most elegant stones, often requiring the labour of years for their completion. The third great establishment is at Kolyvan, in Siberia, bearing a like relation to the minerals and gem-stones of the Altai region that the works of Ekaterinburg do to the Ural. The three establishments are conducted at large expense, from the private revenue of the tsar. The Russian emperors have always taken special interest in lapidary work, and the products of these establishments have made that country famous throughout the world. The immense monolithic columns of the Hermitage and of St Isaac’s Cathedral, of polished granite and other hard and elegant stones, are among the triumphs of modern architectural work; and the Alexander column at St Petersburg is a single polished shaft, 13 ft. in diameter and 82 ft. in height, of the red Finland granite.

The finest lapidary work of modern France is done at Moulin la Vacherie Saint Simon, Seine-et-Marne, where some seventy-five of the most skilful artisans are engaged. The products are all manner of ornamental objects of every variety of beautiful stone, all finished with absolute perfection of detail. Columns and other ornaments of porphyry and the like, of ancient workmanship, are brought hither from Egypt and elsewhere, and recut into smaller objects for modern artistic tastes. Here, too, are made spheres of transparent quartz—“crystal balls”—up to 6 in. in diameter, the material for which is obtained in Madagascar.

A few words may be said, by way of comparison and contrast, about the lapidary art of Japan and China, especially in relation to the crystal balls, now reproduced in France and elsewhere. The tools are the simplest, and there is no machinery; but the lack of it is made up by time and patience, and by hereditary pride, as a Japanese artisan can often trace back his art through many generations continuously. To make a quartz ball, a large crystal or mass is chipped or broken into available shape, and then the piece is trimmed into a spherical form with a small steel hammer. The polishing is effected by grinding with emery and garnet-powder and plenty of water, in semi-cylindrical pieces of cast iron, of sizes varying with that of the ball to be ground, which is kept constantly turning as it is rubbed. Small balls are fixed in the end of a bamboo tube, which the worker continually revolves. The final brilliant polish is given by the hand, with rouge-powder (haematite). This process is evidently very slow, and only the cheapness of labour prevents the cost from being too great.

The spheres are now made quite freely but very differently in France, Germany and the United States. They are ground in semicircular grooves in a large horizontal wheel of hard stone, such as is used for grinding garnets at Oberstein and Idar, or else by gradually revolving them on a lathe and fitting them into hollow cylinders. Plenty of water must be used, to prevent heating and cracking. The polishing is effected on a wooden wheel with tripoli. Work of this kind is now done in the United States, in the production of the spheres and carved ornaments of rock-crystal, that is equal to any in the world. But most of the material for these supposed Japanese balls now comes from Brazil or Madagascar, and the work is done in Germany or France.

The cutting of amber is a special branch of lapidary work developed along the Baltic coast of Germany, where amber is chiefly obtained. The amber traffic dates back to prehistoric times; but the cutting industry in northern Europe cannot be definitely traced further back than the 14th century, when gilds of amber-workers were known at Bruges and Lübeck. Fine carving was also done at Königsberg as early as 1399. The latter city and Danzig have become the chief seats of the amber industry, and the business has increased immensely within a recent period. Articles are made there, not only for all the civilized world, but for exportation to half-civilized and even barbarous nations, in great variety of shapes, styles and colours.

Diamond Cutting.—On account of its extreme hardness, the treatment of the diamond in preparation for use in jewelry constitutes a separate and special branch of the lapidary’s art. Any valuable gem must first be trimmed, cleaved or sawed into suitable shape and size, then cut into the desired form, and finally polished upon the faces which have been cut. The stages in diamond working are, therefore, (1) cleavage or division; (2) cutting; (3) polishing; but in point of fact there are four processes, as the setting of the stone for cutting is a somewhat distinct branch, and the workers are classed in four groups—cleavers, setters, cutters and polishers.

1. *Cleaving or Dividing.*—Diamonds are always found as crystals, usually octahedral in form, though often irregular or distorted. The problem involved in each case is twofold: (1) to obtain the largest perfect stone possible, and (2) to remove any portions containing flaws or defects. These ends are generally met by cleaving the crystal, *i.e.* causing it to split along certain natural planes of structural weakness, which are parallel with the faces of the octahedron. This process requires the utmost judgment, care and skill on the part of the operator, as any error would cause great loss of valuable material; hence expert cleavers command very high wages. The stone is first examined closely, to determine the directions of the cleavage planes, which are recognizable only by an expert. The cleaver then cuts a narrow notch at the place selected, with another diamond having a sharp point; a rather dull iron or steel edge is then laid on this line, and a smart blow struck upon it. If all has been skilfully done, the diamond divides at once in the direction desired. De Boot in 1609 mentions knowing some one who could part a diamond like mica or talc. In this process, each of the diamonds is fixed in cement on the end of a stick or handle, so that they can be held firmly while one is applied to the other.

When the stone is large and very valuable, the cleaving is a most critical process. Wollaston in 1790 made many favourable transactions by buying very poor-looking flawed stones and cleaving off the good parts. In the

case of the immense Excelsior diamond of 971 carats, which was divided at Amsterdam in 1904, and made into ten splendid stones, the most elaborate study extending over two months was given to the work beforehand, and many models were made of the very irregular stone and divided in different ways to determine those most advantageous. This process was in 1908 applied to the most remarkable piece of work of the kind ever undertaken—the cutting of the gigantic Cullinan diamond of 3025¾ English carats. The stone was taken to Amsterdam to be treated by the old-fashioned hand method, with innumerable precautions of every kind at every step, and the cutting was successfully accomplished after nine months' work (see *The Times*, Nov. 10, 1908). The two principal stones obtained (see Diamond), one a pendeloque or drop brilliant, and the other a square brilliant, were given 72 and 64 facets respectively (exclusive of the table and cullet) instead of the normal 56.

This process of cleavage is the old-established one, still used to a large extent, especially at Amsterdam. But a different method has recently been introduced, that of sawing,[1] which is now generally employed in Antwerp. The stone is placed in a small metal receptacle which is filled with melted aluminium; thus embedded securely, with only the part to be cut exposed, it is pressed firmly against the edge of a metallic disk or thin wheel, 4 or 5 in. in diameter, made of copper, iron or phosphor bronze, which is charged with diamond dust and oil, and made to revolve with great velocity. This machine was announced as an American invention, but the form now principally employed at Antwerp was invented by a Belgian diamond cutter in the United States, and is similar to slitting wheels used by gem cutters for centuries. Two patents were taken out, however, by different parties, with some distinctions of method. The process is much slower than hand-cleavage, but greatly diminishes the loss of material involved. It is claimed that not only can flaws or defective portions be thus easily taken off, but that any well-formed crystal of the usual octahedral shape (known in the trade as "six-point") can be divided in half very perfectly at the "girdle," making two stones, in each of which the sawed face can be used with advantage to form the "table" of a brilliant. By another method the stone is sawed at a tangent with the octahedron, and then each half into three pieces; for this Wood method a total saving of 5% is claimed. Occasionally the finest material is only a small spot in a large mass of impure material, and this is taken out by most skilful cleaving.

After the cleaving or sawing, however, the diamond is rarely yet in a form for cutting the facets, and requires considerable shaping. This rough "blocking-out" of the final form it is to assume, by removing irregularities and making it symmetrical, is called "brutage." Well-shaped and flawless crystals, indeed may not require to be cleaved, and then the brutage is the first process. Here again, the old hand methods are beginning to give place to mechanism. In either case two diamonds are taken, each fixed in cement on the end of a handle or support, and are rubbed one against the other until the irregularities are ground away and the general shape desired is attained. The old method was to do this by hand—an extremely tedious and laborious process. The machine method, invented about 1885 and first used by Field and Morse of Boston, is now used at Antwerp exclusively. In this, one diamond is fixed at the centre of a rotating apparatus, and the other, on an arm or handle, is placed so as to press steadily against the other stone at the proper angle. The rotating diamond thus becomes rounded and smoothed; the other one is then put in its place at the centre and their mutual action reversed.

At Amsterdam a hand-process is employed, which lies between the cleavage and the brutage. This consists in cutting or trimming away angles and irregularities all over the stone by means of a sharp-edged or pointed diamond, both being mounted in cement on pear-shaped handles for firm holding. This work is largely done by women. In all these processes the dust and fragments are caught and carefully saved.

2. *Cutting and Setting.*—The next process is that of cutting the facets; but an intervening step is the fixing or "setting" of the stone for that purpose. This is done by embedding it in a fusible alloy, melting at 440° Fahr., in a little cup-shaped depression on the end of a handle, the whole being called a "dop." Only the portion to be ground off is left exposed; and two such mounted diamonds are then rubbed against each other until a face is produced. This is the work of the cutter; it is very laborious, and requires great care and skill. The hands must be protected with leather gloves. The powder produced is carefully saved, as in the former processes, for use in the final polishing. When one face has been produced, the alloy is softened by heating, and the stone re-set for grinding another surface; and as this process is necessary for every face cut, it must be repeated many times for each stone. An improved dop has lately been devised in which the diamond is held by a system of claws so that all this heating and resetting can, it is claimed, be obviated, and the cutting completed with only two changes.

3. *Polishing.*—The faces having thus been cut, the last stage is the polishing. This is done upon horizontal iron wheels called "skaifs," made to rotate up to 2500 revolutions per minute. The diamond-powder saved in the former operations, and also made by crushing very inferior diamonds, here comes into use as the only material for polishing. It is applied with oil, and the stones are fixed in a "dop" in much the same way as in the cutting process. Again, the utmost skill and watchfulness are necessary, as the angles of the faces must be mathematically exact, in order to yield the best effects by refraction and reflection of light, and their sizes must be accurately regulated to preserve the symmetry of the stone. In this process, also, the old hand method is already replaced in part by an improved device whereby the diamond is held by adjustable claws, on a base that can be rotated, so as to apply it in any desired position. By this means the time and trouble of repeated re-setting in the dop are saved, as well as the liability to injury from the heating and cooling; the services of special "setters" are also made needless.

The rapid development of mechanical devices for the several stages of diamond cutting has already greatly influenced the art. A very interesting comparison was brought out in the thirteenth report of the American Commissioner of Labour, as to the aspects and relations of hand-work and machinery in this branch of industry. It appeared from the data gathered that the advantage lay with machinery as to time and with hand-work as to cost, in the ratios respectively of 1 to 3.38 and 1.76 to 1. In other words, about half the gain in time is lost by increased expense in the use of machine methods. A great many devices and applications have been developed within the last few years, owing to the immense increase in the production of diamonds from the South African mines, and their consequent widespread use.

History of Diamond Cutting.—The East Indian diamonds, many of which are doubtless very ancient, were polished in the usual Oriental fashion by merely rounding off the angles. Among church jewels in Europe are a

few diamonds of unknown age and source, cut four-sided, with a table above and a pyramid below. Several cut diamonds are recorded among the treasures of Louis of Anjou in the third quarter of the 14th century. But the first definite accounts of diamond polishing are early in the century following, when one Hermann became noted for such work in Paris. The modern method of "brilliant" cutting, however, is generally ascribed to Louis de Berquem, of Bruges, who in 1475 cut several celebrated diamonds sent to him by Charles the Bold, duke of Burgundy. He taught this process to many pupils, who afterwards settled in Antwerp and Amsterdam, which have been the chief centres of diamond cutting ever since. Peruzzi was the artist who worked out the theory of the well-proportioned brilliant of 58 facets. Some very fine work was done early in London also, but most of the workmen were Jews, who, being objectionable in England, finally betook themselves to Amsterdam and Antwerp. Efforts have been lately made to re-establish the art in London, where, as the great diamond mart of the world, it should peculiarly belong.

The same unwise policy was even more marked in Portugal. That nation had its colonial possessions in India, following the voyages and discoveries of Da Gama, and thus became the chief importer of diamonds into Europe. Early in the 18th century, also, the diamond-mines were discovered in Brazil, which was then likewise a Portuguese possession; thus the whole diamond product of the world came to Portugal, and there was naturally developed in Lisbon an active industry of cutting and polishing diamonds. But in time the Jews were forced away, and went to Holland and Belgium, where diamond cutting has been concentrated since the middle of the 18th century.

It is of interest to trace the recent endeavours to establish diamond cutting in the United States. The pioneer in this movement was Henry D. Morse of Boston, associated with James W. Yerrington of New York. He opened a diamond-cutting establishment about 1860 and carried it on for some years, training a number of young men and women, who became the best cutters in the country. But the chief importance of his work lay in its superior quality. So long had it been a monopoly of the Dutch and Belgians that it was declining into a mere mechanical trade. Morse studied the diamond scientifically and taught his pupils how important mathematical exactitude in cutting was to the beauty and value of the gem. He thus attained a perfection rarely seen before, and gave a great stimulus to the art. Shops were opened in London as well, in consequence of Morse's success; and many valuable diamonds were recut in the United States after his work became known. This fact in turn reacted upon the cutter abroad, especially in France and Switzerland; and thus the general standard of the art was greatly advanced.

Diamond cutting in the United States is now a well-established industry. From 1882 to 1885 a number of American jewelers undertook such work, but for various reasons it was not found practicable then. Ten years later, however, there were fifteen firms engaged in diamond cutting, giving employment to nearly 150 men in the various processes involved. In the year 1894 a number of European diamond workers came over; some foreign capital became engaged; and a rapid development of diamond cutting took place. This movement was caused by the low tariff on uncut diamonds as compared with that on cut stones. It went so far as to be felt seriously abroad; but in a year or two it declined, owing partly to strikes and partly to legal questions as to the application of some of the tariff provisions. At the close of 1895, however, there were still some fourteen establishments in and near New York, employing about 500 men. Since then the industry has gradually developed. Many of the European diamond workers who came over to America remained and carried on their art; and the movement then begun has become permanent. New York is now recognized as one of the chief diamond-cutting centres; there are some 500 cutters, and the quality of work done is fully equal, if not superior, to any in the Old World. So well is this fact established that American-cut diamonds are exported and sold in Europe to a considerable and an increasing extent.

In the Brazilian diamond region of Minas Geraes an industry of cutting has grown up since 1875. Small mills are run by water power, and the machinery, as well as the methods, are from Holland. This Brazilian diamond work is done both well and cheaply, and supplies the local market.

The leading position in diamond working still belongs to Amsterdam, where the number of persons engaged in the industry has trebled since about 1875, in consequence of the enormous increase in the world's supply of diamonds. The number now amounts to 15,000, about one-third of whom are actual cleavers, cutters, polishers, &c. The number of cutting establishments in Amsterdam is about seventy, containing some 7000 mills.

Antwerp comes next with about half as many mills and a total of some 4500 persons engaged in all departments, including about seventy women. These are distributed among thirty-five or forty establishments. A majority of the workers are Belgians, but there are many Dutch, Poles and Austro-Hungarians, principally Jews. Among these numerous employees there is much opportunity for dishonesty, and but little surveillance, actual or possible; yet losses from this cause are almost unknown. The wages paid are good, averaging from £2, 9s. 6d. to £2, 17s. 6d. a week. Sorters receive from 28s. to £2; cutters from £2, 9s. 6d to £3, 6s., and cleavers from £3, 14s. upwards.

With the recent introduction of electricity in diamond cutting there has been a revolution in that industry. Whereas formerly wheels were made to revolve by steam, they are now placed in direct connexion with electric motors, although there is not a motor to each machine. The saws for slitting the diamond can thus be made to revolve much more rapidly, and there is a cleanliness and a speed about the work never before attained.

(G. F. K.)

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1 *The Universal Magazine of Knowledge and Pleasure* for 1749 states that diamond dust, "well ground and diluted with water and vinegar, is used in the sawing of diamonds, which is done with an iron or brass wire, as fine as a hair."—Ed.

LAPILLI (pl. of Ital. *lapillo*, from Lat. *lapillus*, dim. of *lapis*, a stone), a name applied to small fragments of lava ejected from a volcano. They are generally subangular in shape and vesicular in structure, varying in size from a pea to a walnut. In the Neapolitan dialect the word becomes *rapilli*—a form sometimes used by English writers on volcanoes. (See VOLCANOES.)

LAPIS LAZULI, or azure stone,[1] a mineral substance valued for decorative purposes in consequence of the fine blue colour which it usually presents. It appears to have been the sapphire of ancient writers: thus Theophrastus describes the σάπφειρος as being spotted with gold-dust, a description quite inappropriate to modern sapphire, but fully applicable to lapis lazuli, for this stone frequently contains disseminated particles of iron-pyrites of gold-like appearance. Pliny, too, refers to the *sapphirus* as a stone sprinkled with specks of gold; and possibly an allusion to the same character may be found in Job xxviii. 6. The Hebrew *sappir*, denoting a stone in the High Priest's breastplate, was probably lapis lazuli, as acknowledged in the Revised Version of the Bible. With the ancient Egyptians lapis lazuli was a favourite stone for amulets and ornaments such as scarabs; it was also used to a limited extent by the Assyrians and Babylonians for cylinder seals. It has been suggested that the Egyptians obtained it from Persia in exchange for their emeralds. When the lapis lazuli contains pyrites, the brilliant spots in the deep blue matrix invite comparison with the stars in the firmament. The stone seems to have been sometimes called by ancient writers κύανος. It was a favourite material with the Italians of the *Cinquecento* for vases, small busts and other ornaments. Magnificent examples of the decorative use of lapis lazuli are to be seen in St Petersburg, notably in the columns of St Isaac's cathedral. The beautiful blue colour of lapis lazuli led to its employment, when ground and levigated, as a valuable pigment known as ultramarine (*q.v.*), a substance now practically displaced by a chemical product (artificial ultramarine).

Lapis lazuli occurs usually in compact masses, with a finely granular structure; and occasionally, but only as a great rarity, it presents the form of the rhombic dodecahedron. Its specific gravity is 2.38 to 2.45, and its 200
hardness about 5.5, so that being comparatively soft it tends, when polished, to lose its lustre rather readily. The colour is generally a fine azure or rich Berlin blue, but some varieties exhibit green, violet and even red tints, or may be altogether colourless. The colour is sometimes improved by heating the stone. Under artificial illumination the dark-blue stones may appear almost black. The mineral is opaque, with only slight translucency at thin edges.

Analyses of lapis lazuli show considerable variation in composition, and this led long ago to doubt as to its homogeneity. This doubt was confirmed by the microscopic studies of L. H. Fischer, F. Zirkel and H. P. J. Vogelsang, who found that sections showed bluish particles in a white matrix; but it was reserved for Professor W. C. Brögger and H. Bäckström, of Christiania, to separate the several constituents and subject them to analysis, thus demonstrating the true constitution of lapis lazuli, and proving that it is a rock rather than a definite mineral species. The essential part of most lapis lazuli is a blue mineral allied to sodalite and crystallized in the cubic system, which Brögger distinguishes as lazurite, but this is intimately associated with a closely related mineral which has long been known as haüyne, or haüynite. The lazurite, sometimes regarded as true lapis lazuli, is a sulphur-bearing sodium and aluminium silicate, having the formula: $Na_4(NaS_3Al)Al_2(SiO_4)_3$. As the lazurite and the haüynite seem to occur in molecular intermixture, various kinds of lapis lazuli are formed; and it has been proposed to distinguish some of them as lazurite-lapis and haüyne-lapis, according as one or the other mineral prevails. The lazurite of lapis lazuli is to be carefully distinguished from lazulite, an aluminium-magnesium phosphate, related to turquoise. In addition to the blue cubic minerals in lapis lazuli, the following minerals have also been found: a non-ferriferous diopside, an amphibole called, from the Russian mineralogist, koksharovite, orthoclase, plagioclase, a muscovite-like mica, apatite, titanite, zircon, calcite and pyrite. The calcite seems to form in some cases a great part of the lapis; and the pyrite, which may occur in patches, is often altered to limonite.

Lapis lazuli usually occurs in crystalline limestone, and seems to be a product of contact metamorphism. It is recorded from Persia, Tartary, Tibet and China, but many of the localities are vague and some doubtful. The best known and probably the most important locality is in Badakshan. There it occurs in limestone, in the valley of the river Kokcha, a tributary to the Oxus, south of Firgamu. The mines were visited by Marco Polo in 1271, by J. B. Fraser in 1825, and by Captain John Wood in 1837-1838. The rock is split by aid of fire. Three varieties of the lapis lazuli are recognized by the miners: *nili* of indigo-blue colour, *asmani* sky-blue, and *sabzi* of green tint. Another locality for lapis lazuli is in Siberia near the western extremity of Lake Baikal, where it occurs in limestone at its contact with granite. Fine masses of lapis lazuli occur in the Andes, in the vicinity of Ovalle, Chile. In Europe lapis lazuli is found as a rarity in the peperino of Latium, near Rome, and in the ejected blocks of Monte Somma, Vesuvius.

(F. W. R.*)

1 The Med. Gr. λαζούριον, Med. Lat. *lazurius* or *lazulus*, as the names of this mineral substance, were adaptations of the Arab. *al-lazward*, Pers. *lājward*, blue colour, lapis lazuli. The same word appears in Med. Lat. as *azura*, whence O.F. azur, Eng. "azure," blue, particularly used of that colour in heraldry (*q.v.*) and represented conventionally in black and white by horizontal lines.

LAPITHAE, a mythical race, whose home was in Thessaly in the valley of the Peneus. The genealogies make them a kindred race with the Centaurs, their king Peirithoüs being the son, and the Centaurs the grandchildren (or sons) of Ixion. The best-known legends with which they are connected are those of Ixion (*q.v.*) and the battle with the Centaurs (*q.v.*). A well-known Lapith was Caeneus, said to have been originally a girl named Caenis, the favourite of Poseidon, who changed her into a man and made her invulnerable (Ovid,

Metam. xii. 146 ff). In the Centaur battle, having been crushed by rocks and trunks of trees, he was changed into a bird; or he disappeared into the depths of the earth unharmed. According to some, the Lapithae are representatives of the giants of fable, or spirits of the storm; according to others, they are a semi-legendary; semi-historical race, like the Myrmidons and other Thessalian tribes. The Greek sculptors of the school of Pheidias conceived of the battle of the Lapithae and Centaurs as a struggle between mankind and mischievous monsters, and symbolical of the great conflict between the Greeks and Persians. Sidney Colvin (*Journ. Hellen. Stud.* i. 64) explains it as a contest of the physical powers of nature, and the mythical expression of the terrible effects of swollen waters.

LA PLACE (Lat. *Placaeus*), JOSUÉ DE (1606?-1665), French Protestant divine, was born in Brittany. He studied and afterwards taught philosophy at Saumur. In 1625 he became pastor of the Reformed Church at Nantes, and in 1632 was appointed professor of theology at Saumur, where he had as his colleagues, appointed at the same time, Moses Amyraut and Louis Cappell. In 1640 he published a work, *Theses theologicae de statu hominis lapsi ante gratiam*, which was looked upon with some suspicion as containing liberal ideas about the doctrine of original sin. The view that the original sin of Adam was not imputed to his descendants was condemned at the synod of Charenton (1645), without special reference being made to La Place, whose position perhaps was not quite clear. As a matter of fact La Place distinguished between a direct and indirect imputation, and after his death his views, as well as those of Amyraut, were rejected in the *Formula consensus of* 1675. He died on the 17th of August 1665.

La Place's defence was published with the title *Disputationes academicae* (3 vols., 1649-1651; and again in 1665); his work *De imputatione primi peccati Adami* in 1655. A collected edition of his works appeared at Franeker in 1699, and at Aubencit in 1702.

LAPLACE, PIERRE SIMON, MARQUIS DE (1749-1827), French mathematician and astronomer, was born at Beaumont-en-Auge in Normandy, on the 28th of March 1749. His father was a small farmer, and he owed his education to the interest excited by his lively parts in some persons of position. His first distinctions are said to have been gained in theological controversy, but at an early age he became mathematical teacher in the military school of Beaumont, the classes of which he had attended as an extern. He was not more than eighteen when, armed with letters of recommendation, he approached J. B. d'Alembert, then at the height of his fame, in the hope of finding a career in Paris. The letters remained unnoticed, but Laplace was not crushed by the rebuff. He wrote to the great geometer a letter on the principles of mechanics, which evoked an immediate and enthusiastic response. "You," said d'Alembert to him, "needed no introduction; you have recommended yourself; my support is your due." He accordingly obtained for him an appointment as professor of mathematics in the École Militaire of Paris, and continued zealously to forward his interests.

Laplace had not yet completed his twenty-fourth year when he entered upon the course of discovery which earned him the title of "the Newton of France." Having in his first published paper[1] shown his mastery of analysis, he proceeded to apply its resources to the great outstanding problems in celestial mechanics. Of these the most conspicuous was offered by the opposite inequalities of Jupiter and Saturn, which the emulous efforts of L. Euler and J. L. Lagrange had failed to bring within the bounds of theory. The discordance of their results incited Laplace to a searching examination of the whole subject of planetary perturbations, and his maiden effort was rewarded with a discovery which constituted, when developed and completely demonstrated by his own further labours and those of his illustrious rival Lagrange, the most important advance made in physical astronomy since the time of Newton. In a paper read before the Academy of Sciences, on the 10th of February 1773 (*Mém. présentés par divers savans*, tom, vii., 1776), Laplace announced his celebrated conclusion of the invariability of planetary mean motions, carrying the proof as far as the cubes of the eccentricities and inclinations. This was the first and most important step in the establishment of the stability of the solar system. It was followed by a series of profound investigations, in which Lagrange and Laplace alternately surpassed and supplemented each other in assigning limits of variation to the several elements of the planetary orbits. The analytical tournament closed with the communication to the Academy by Laplace, in 1787, of an entire group of remarkable discoveries. It would be difficult, in the whole range of scientific literature, to point to a memoir of equal brilliancy with that published (divided into three parts) in the volumes of the Academy for 1784, 1785 and 1786. The long-sought cause of the "great inequality" of Jupiter and Saturn was found in the near approach to commensurability of their mean motions; it was demonstrated in two elegant theorems, independently of any except the most general considerations as to mass, that the mutual action of the planets could never largely affect the eccentricities and inclinations of their orbits; and the singular peculiarities detected by him in the Jovian system were expressed in the so-called "laws of Laplace." He completed the theory of these bodies in a treatise published among the Paris *Memoirs* for 1788 and 1789; and the striking superiority of the tables computed by J. B. J. Delambre from the data there supplied marked the profit derived from the investigation by practical astronomy. The year 1787 was rendered further memorable by Laplace's announcement on the 19th of November (*Memoirs*, 1786), of the dependence of lunar acceleration upon the secular changes in the eccentricity of the earth's orbit. The last apparent anomaly, and the last threat of instability, thus disappeared from the solar system.

With these brilliant performances the first period of Laplace's scientific career may be said to have closed. If he ceased to make striking discoveries in celestial mechanics, it was rather their subject-matter than his powers that failed. The general working of the great machine was now laid bare, and it needed a further advance of knowledge to bring a fresh set of problems within reach of investigation. The time had come when the results obtained in the development and application of the law of gravitation by three generations of illustrious mathematicians might be presented from a single point of view. To this task the second period of Laplace's activity was devoted. As a monument of mathematical genius applied to the celestial revolutions, the *Mécanique céleste* ranks second only to the *Principia* of Newton.

> The declared aim of the author[2] was to offer a complete solution of the great mechanical problem presented by the solar system, and to bring theory to coincide so closely with observation that empirical equations should no longer find a place in astronomical tables. His success in both respects fell little short of his lofty ideal. The first part of the work (2 vols. 4to, Paris, 1799) contains methods for calculating the movements of translation and rotation of the heavenly bodies, for determining their figures, and resolving tidal problems; the second, especially dedicated to the improvement of tables, exhibits in the third and fourth volumes (1802 and 1805) the application of these formulae; while a fifth volume, published in three instalments, 1823-1825, comprises the results of Laplace's latest researches, together with a valuable history of progress in each separate branch of his subject. In the delicate task of apportioning his own large share of merit, he certainly does not err on the side of modesty; but it would perhaps be as difficult to produce an instance of injustice, as of generosity in his estimate of others. Far more serious blame attaches to his all but total suppression in the body of the work—and the fault pervades the whole of his writings—of the names of his predecessors and contemporaries. Theorems and formulae are appropriated wholesale without acknowledgment, and a production which may be described as the organized result of a century of patient toil presents itself to the world as the offspring of a single brain. The *Mécanique céleste* is, even to those most conversant with analytical methods, by no means easy reading. J. B. Biot, who assisted in the correction of its proof sheets, remarked that it would have extended, had the demonstrations been fully developed, to eight or ten instead of five volumes; and he saw at times the author himself obliged to devote an hour's labour to recovering the dropped links in the chain of reasoning covered by the recurring formula. "Il est aisé à voir."[3]

The *Exposition du système du monde* (Paris, 1796) has been styled by Arago "the *Mécanique céleste* disembarrassed of its analytical paraphernalia." Conclusions are not merely stated in it, but the methods pursued for their attainment are indicated. It has the strength of an analytical treatise, the charm of a popular dissertation. The style is lucid and masterly, and the summary of astronomical history with which it terminates has been reckoned one of the masterpieces of the language. To this linguistic excellence the writer owed the place accorded to him in 1816 in the Academy, of which institution he became president in the following year. The famous "nebular hypothesis" of Laplace made its appearance in the *Système du monde*. Although relegated to a note (vii.), and propounded "Avec la défiance que doit inspirer tout ce qui n'est point un résultat de l'observation ou du calcul," it is plain, from the complacency with which he recurred to it[4] at a later date, that he regarded the speculation with considerable interest. That it formed the starting-point, and largely prescribed the course of thought on the subject of planetary origin is due to the simplicity of its assumptions, and the clearness of the mechanical principles involved, rather than to any cogent evidence of its truth. It is curious that Laplace, while bestowing more attention than they deserved on the crude conjectures of Buffon, seems to have been unaware that he had been, to some extent, anticipated by Kant, who had put forward in 1755, in his *Allgemeine Naturgeschichte*, a true though defective nebular cosmogony.

The career of Laplace was one of scarcely interrupted prosperity. Admitted to the Academy of Sciences as an associate in 1773, he became a member in 1785, having, about a year previously, succeeded E. Bezout as examiner to the royal artillery. During an access of revolutionary suspicion, he was removed from the commission of weights and measures; but the slight was quickly effaced by new honours. He was one of the first members, and became president of the Bureau of Longitudes, took a prominent place at the Institute (founded in 1796), professed analysis at the École Normale, and aided in the organization of the decimal system. The publication of the *Mécanique céleste* gained him world-wide celebrity, and his name appeared on the lists of the principal scientific associations of Europe, including the Royal Society. But scientific distinctions by no means satisfied his ambition. He aspired to the rôle of a politician, and has left a memorable example of genius degraded to servility for the sake of a riband and a title. The ardour of his republican principles gave place, after the 18th Brumaire, to devotion towards the first consul, a sentiment promptly rewarded with the post of minister of the interior. His incapacity for affairs was, however, so flagrant that it became necessary to supersede him at the end of six weeks, when Lucien Bonaparte became his successor. "He brought into the administration," said Napoleon, "the spirit of the infinitesimals." His failure was consoled by elevation to the senate, of which body he became chancellor in September 1803. He was at the same time named grand officer of the Legion of Honour, and obtained in 1813 the same rank in the new order of Reunion. The title of count he had acquired on the creation of the empire. Nevertheless he cheerfully gave his voice in 1814 for the dethronement of his patron, and his "suppleness" merited a seat in the chamber of peers, and, in 1817, the dignity of a marquisate. The memory of these tergiversations is perpetuated in his writings. The first edition of the *Système du monde* was inscribed to the Council of Five Hundred; to the third volume of the *Mécanique céleste* (1802) was prefixed the declaration that, of all the truths contained in the work, that most precious to the author was the expression of his gratitude and devotion towards the "pacificator of Europe"; upon which noteworthy protestation the suppression in the editions of the *Théorie des probabilités* subsequent to the restoration, of the original dedication to the emperor formed a fitting commentary.

During the later years of his life, Laplace lived much at Arcueil, where he had a country-place adjoining that of his friend C. L. Berthollet. With his co-operation the Société d'Arcueil was formed, and he occasionally contributed to its *Memoirs*. In this peaceful retirement he pursued his studies with unabated ardour, and received with uniform courtesy distinguished visitors from all parts of the world. Here, too, he died, attended by his physician, Dr Majendie, and his mathematical coadjutor, Alexis Bouvard, on the 5th of March 1827. His last words were: "Ce que nous connaissons est peu de chose, ce que nous ignorons est immense."

Expressions occur in Laplace's private letters inconsistent with the atheistical opinions he is commonly believed to have held. His character, notwithstanding the egotism by which it was disfigured, had an amiable and engaging side. Young men of science found in him an active benefactor. His relations with these "adopted children of his thought" possessed a singular charm of affectionate simplicity; their intellectual progress and

material interests were objects of equal solicitude to him, and he demanded in return only diligence in the pursuit of knowledge. Biot relates that, when he himself was beginning his career, Laplace introduced him at the Institute for the purpose of explaining his supposed discovery of equations of mixed differences, and afterwards showed him, under a strict pledge of secrecy, the papers, then yellow with age, in which he had long before obtained the same results. This instance of abnegation is the more worthy of record that it formed a marked exception to Laplace's usual course. Between him and A. M. Legendre there was a feeling of "more than coldness," owing to his appropriation, with scant acknowledgment, of the fruits of the other's labours; and Dr Thomas Young counted himself, rightly or wrongly, amongst the number of those similarly aggrieved by him. With Lagrange, on the other hand, he always remained on the best of terms. Laplace left a son, Charles Emile Pierre Joseph Laplace (1789-1874), who succeeded to his title, and rose to the rank of general in the artillery.

It might be said that Laplace was a great mathematician by the original structure of his mind, and became a great discoverer through the sentiment which animated it. The regulated enthusiasm with which he regarded the system of nature was with him from first to last. It can be traced in his earliest essay, and it dictated the ravings of his final illness. By it his extraordinary analytical powers became strictly subordinated to physical investigations. To this lofty quality of intellect he added a rare sagacity in perceiving analogies, and in detecting the new truths that lay concealed in his formulae, and a tenacity of mental grip, by which problems, once seized, were held fast, year after year, until they yielded up their solutions. In every branch of physical astronomy, accordingly, deep traces of his work are visible. "He would have completed the science of the skies," Baron Fourier remarked, "had the science been capable of completion."

It may be added that he first examined the conditions of stability of the system formed by Saturn's rings, pointed out the necessity for their rotation, and fixed for it a period ($10^h\ 33^m$) virtually identical with that established by the observations of Herschel; that he detected the existence in the solar system of an invariable plane such that the sum of the products of the planetary masses by the projections upon it of the areas described by their radii vectores in a given time is a maximum; and made notable advances in the theory of astronomical refraction (*Méc. cél.* tom. iv. p. 258), besides constructing satisfactory formulae for the barometrical determination of heights (*Méc. cél.* tom. iv. p. 324). His removal of the considerable discrepancy between the actual and Newtonian velocities of sound,[5] by taking into account the increase of elasticity due to the heat of compression, would alone have sufficed to illustrate a lesser name. Molecular physics also attracted his notice, and he announced in 1824 his purpose of treating the subject in a separate work. With A. Lavoisier he made an important series of experiments on specific heat (1782-1784), in the course of which the "ice calorimeter" was invented; and they contributed jointly to the *Memoirs* of the Academy (1781) a paper on the development of electricity by evaporation. Laplace was, moreover, the first to offer a complete analysis of capillary action based upon a definite hypothesis—that of forces "sensible only at insensible distances"; and he made strenuous but unsuccessful efforts to explain the phenomena of light on an identical principle. It was a favourite idea of his that chemical affinity and capillary attraction would eventually be included under the same law, and it was perhaps because of its recalcitrance to this cherished generalization that the undulatory theory of light was distasteful to him.

The investigation of the figure of equilibrium of a rotating fluid mass engaged the persistent attention of Laplace. His first memoir was communicated to the Academy in 1773, when he was only twenty-four, his last in 1817, when he was sixty-eight. The results of his many papers on this subject—characterized by him as "un des points les plus intéressans du système du monde"—are embodied in the *Mécanique céleste*, and furnish one of the most remarkable proofs of his analytical genius. C. Maclaurin, Legendre and d'Alembert had furnished partial solutions of the problem, confining their attention to the possible figures which would satisfy the conditions of equilibrium. Laplace treated the subject from the point of view of the gradual aggregation and cooling of a mass of matter, and demonstrated that the form which such a mass would ultimately assume must be an ellipsoid of revolution whose equator was determined by the primitive plane of maximum areas.

The related subject of the attraction of spheroids was also signally promoted by him. Legendre, in 1783, extended Maclaurin's theorem concerning ellipsoids of revolution to the case of any spheroid of revolution where the attracted point, instead of being limited to the axis or equator, occupied any position in space; and Laplace, in his treatise *Théorie du mouvement et de la figure elliptique des planètes* (published in 1784), effected a still further generalization by proving, what had been suspected by Legendre, that the theorem was equally true for any confocal ellipsoids. Finally, in a celebrated memoir, *Théorie des attractions des sphéroides et de la figure des planètes*, published in 1785 among the Paris *Memoirs* for the year 1782, although written after the treatise of 1784, Laplace treated exhaustively the general problem of the attraction of any spheroid upon a particle situated outside or upon its surface.

These researches derive additional importance from having introduced two powerful engines of analysis for the treatment of physical problems, Laplace's coefficients and the potential function. By his discovery that the attracting force in any direction of a mass upon a particle could be obtained by the direct process of differentiating a single function, Laplace laid the foundations of the mathematical sciences of heat, electricity and magnetism. The expressions designated by Dr Whewell, Laplace's coefficients (see Spherical Harmonics) were definitely introduced in the memoir of 1785 on attractions above referred to. In the figure of the earth, the theory of attractions, and the sciences of electricity and magnetism this powerful calculus occupies a prominent place. C. F. Gauss in particular employed it in the calculation of the magnetic potential of the earth, and it received new light from Clerk Maxwell's interpretation of harmonics with reference to poles on the sphere.

Laplace nowhere displayed the massiveness of his genius more conspicuously than in the theory of probabilities. The science which B. Pascal and P. de Fermat had initiated he brought very nearly to perfection; but the demonstrations are so involved, and the omissions in the chain of reasoning so frequent, that the *Théorie analytique* (1812) is to the best mathematicians a work requiring most arduous study. The theory of probabilities, which Laplace described as common sense expressed in mathematical language, engaged his attention from its importance in physics and astronomy; and he applied his theory, not only to the ordinary problems of chances, but also to the inquiry into the causes of phenomena, vital statistics and future events.

The device known as the method of least squares, for reducing numerous equations of condition to the number of unknown quantities to be determined, had been adopted as a practically convenient rule by Gauss and Legendre; but Laplace first treated it as a problem in probabilities, and proved by an intricate and difficult course of reasoning that it was also the most advantageous, the mean of the probabilities of error in the determination of the elements being thereby reduced to a minimum.

Laplace published in 1779 the method of generating functions, the foundation of his theory of probabilities, and the first part of his *Théorie analytique* is devoted to the exposition of its principles, which in their simplest form consist in treating the successive values of any function as the coefficients in the expansion of another function with reference to a different variable. The latter is therefore called the generating function of the former. A *direct* and an *inverse* calculus is thus created, the object of the former being to determine the coefficients from the generating function, of the latter to discover the generating function from the coefficients. The one is a problem of interpolation, the other a step towards the solution of an equation in finite differences. The method, however, is now obsolete owing to the more extended facilities afforded by the calculus of operations.

The first formal proof of Lagrange's theorem for the development in a series of an implicit function was furnished by Laplace, who gave to it an extended generality. He also showed that every equation of an even degree must have at least one real quadratic factor, reduced the solution of linear differential equations to definite integrals, and furnished an elegant method by which the linear partial differential equation of the second order might be solved. He was also the first to consider the difficult problems involved in equations of mixed differences, and to prove that an equation in finite differences of the first degree and the second order might always be converted into a continued fraction.

In 1842, the works of Laplace being nearly out of print, his widow was about to sell a farm to procure funds for a new impression, when the government of Louis Philippe took the matter in hand. A grant of 40,000 francs having been obtained from the chamber, a national edition was issued in seven 4to vols., bearing the title *Œuvres de Laplace* (1843-1847). The *Mécanique céleste* with its four supplements occupies the first 5 vols., the 6th contains the *Système du monde*, and the 7th the *Th. des probabilités*, to which the more popular *Essai philosophique* forms an introduction. Of the four supplements added by the author (1816-1825) he tells us that the problems in the last were contributed by his son. An enumeration of Laplace's memoirs and papers (about one hundred in number) is rendered superfluous by their embodiment in his principal works. The *Th. des prob.* was first published in 1812, the *Essai* in 1814; and both works as well as the *Système du monde* went through repeated editions. An English version of the *Essai* appeared in New York in 1902. Laplace's first separate work, *Théorie du mouvement et de la figure elliptique des planètes* (1784), was published at the expense of President Bochard de Saron. The *Précis de l'histoire de l'astronomie* (1821), formed the fifth book of the 5th edition of the *Système du monde*. An English translation, with copious elucidatory notes, of the first 4 vols. of the *Mécanique céleste*, by N. Bowditch, was published at Boston, U.S. (1829-1839), in 4 vols. 4to.; a compendium of certain portions of the same work by Mrs Somerville appeared in 1831, and a German version of the first 2 vols. by Burckhardt at Berlin in 1801. English translations of the *Système du monde* by J. Pond and H. H. Harte were published, the first in 1809, the second in 1830. An edition entitled *Les Œuvres complètes de Laplace* (1878), &c., which is to include all his memoirs as well as his separate works, is in course of publication under the auspices of the Academy of Sciences. The thirteenth 4to volume was issued in 1904. Some of Laplace's results in the theory of probabilities are simplified in S. F. Lacroix's *Traité élémentaire du calcul des probabilités* and De Morgan's *Essay*, published in Lardner's *Cabinet Cyclopaedia*. For the history of the subject see *A History of the Mathematical Theory of Probability*, by Isaac Todhunter (1865). Laplace's treatise on specific heat was published in German in 1892 as No. 40 of W. Ostwald's *Klassiker der exacten Wissenschaften*.

AUTHORITIES.—Baron Fourier's *Éloge, Mémoires de l'institut*, x. lxxxi. (1831); *Revue encyclopédique*, xliii. (1829); S. D. Poisson's Funeral Oration (*Conn. des Temps*, 1830, p. 19); F. X. von Zach, *Allg. geographische Ephemeriden*, iv. 70 (1799); F. Arago, *Annuaire du Bureau des Long*. 1844, p. 271, translated among Arago's Biographies of Distinguished Men (1857); J. S. Bailly, *Hist. de l'astr. moderne*, t. iii.; R. Grant, *Hist. of Phys. Astr*. p. 50, &c.; A. Berry, *Short Hist. of Astr*. p. 306; Max Marie, *Hist. des sciences* t. x. pp. 69-98; R. Wolf, *Geschichte der Astronomie*; J. Mädler, *Gesch. der Himmelskunde*, i. 17; W. Whewell, *Hist. of the Inductive Sciences*, ii. *passim*; J. C. Poggendorff, *Biog-lit. Handwörterbuch.*

(A. M. C.)

1 "Recherches sur le calcul intégral," *Mélanges de la Soc. Roy. de Turin* (1766-1769).

2 "Plan de l'Ouvrage," *Œuvres*, tom. i. p 1.

3 Journal des savants (1850).

4 *Méc. cél.*, tom. v. p. 346.

5 *Annales de chimie et de physique* (1816), tom. iii. p. 238.

LAPLAND, or LAPPLAND, a name used to indicate the region of northern Europe inhabited by the Lapps, though not applied to any administrative district. It covers in Norway the division (amter) of Finmarken and the higher inland parts of Tromsö and Nordland; in Russian territory the western part of the government of Archangel as far as the White Sea and the northern part of the Finnish district of Uleåborg; and in Sweden the inland and northern parts of the old province of Norrland, roughly coincident with the districts (*län*) of Norbotten and Vesterbotten, and divided into five divisions—Torne Lappmark, Lule Lappmark, Pite Lappmark, Lycksele Lappmark and Åsele Lappmark. The Norwegian portion is thus insignificant; of the Russian only a little lies south of the Arctic circle, and the whole is less accessible and more sparsely populated than the Swedish, the southern boundary of which may be taken arbitrarily at about 64° N., though scattered families of Lapps occur much farther south, even in the Hardanger Fjeld in Norway.

The Scandinavian portion of Lapland presents the usual characteristics of the mountain plateau of that peninsula—on the west side the bold headlands and fjords, deeply-grooved valleys and glaciers of Norway, on the east the long mountain lakes and great lake-fed rivers of Sweden. Russian Lapland is broadly similar to the lower-lying parts of Swedish Lapland, but the great lakes are more generally distributed, and the valleys are less direct. The country is low and gently undulating, broken by detached hills and ridges not exceeding in

elevation 2500 ft. In the uplands of Swedish Lapland, and to some extent in Russian Lapland, the lakes afford the principal means of communication; it is almost impossible to cross the forests from valley to valley without a native guide. In Sweden the few farms of the Swedes who inhabit the region are on the lake shores, and the traveller must be rowed from one to another in the typical boats of the district, pointed at bow and stern, unusually low amidships, and propelled by short sculls or paddles. Sailing is hardly ever practised, and squalls on the lakes are often dangerous to the rowing-boats. On a few of the lakes wood-fired steam-launches are used in connexion with the timber trade, which is considerable, as practically the whole region is forested. Between the lakes all journeying is made on foot. The heads of the Swedish valleys are connected with the Norwegian fjords by passes generally traversed only by tracks; though from the head of the Ume a driving road crosses to Mo on Ranen Fjord. Each principal valley has a considerable village at or near the tail of the lake-chain, up to which a road runs along the valley. The village consists of wooden cottages with an inn (*gästgifvaregård*), a church, and frequently a collection of huts without windows, closed in summer, but inhabited by the Lapps when they come down from the mountains to the winter fairs. Sometimes there is another church and small settlement in the upper valley, to which, once or twice in a summer, the Lapps come from great distances to attend service. To these, too, they sometimes bring their dead for burial, bearing them if necessary on a journey of many days. Though Lapland gives little scope for husbandry, a bad summer being commonly followed by a winter famine, it is richly furnished with much that is serviceable to man. There are copper-mines at the mountain of Sulitelma, and the iron deposits in Norrland are among the most extensive in the world. Their working is facilitated by the railway from Stockholm to Gellivara, Kirunavara and Narvik on the Norwegian coast, which also connects them with the port of Luleå on the Gulf of Bothnia. The supply of timber (pine, fir, spruce and birch) is unlimited. Though fruit-trees will not bear there is an abundance of edible berries; the rivers and lakes abound with trout, perch, pike and other fish, and in the lower waters with salmon; and the cod, herring, halibut and Greenland shark in the northern seas attract numerous Norwegian and Russian fishermen.

The climate is thoroughly Arctic. In the northern parts unbroken daylight in summer and darkness in winter last from two to three months each; and through the greater part of the country the sun does not rise at mid-winter or set at midsummer. In December and January in the far north there is little more daylight than a cold glimmer of dawn; by February, however, there are some hours of daylight; in March the heat of the sun is beginning to modify the cold, and now and in April the birds of passage begin to appear. In April the snow is melting from the branches; spring comes in May; spring flowers are in blossom, and grain is sown. At the end of this month or in June the ice is breaking up on the lakes, woods rush into leaf, and the unbroken daylight of the northern summer soon sets in. July is quite warm; the great rivers come down full from the melting snows in the mountains. August is a rainy month, the time of harvest; night-frosts may begin already about the middle of the month. All preparations for winter are made during September and October, and full winter has set in by November.

The Lapps.—The Lapps (Swed. *Lappar*; Russian *Lopari*; Norw. *Finner*) call their country *Sabme* or *Same*, and themselves *Samelats*—names almost identical with those employed by the Finns for their country and race, and probably connected with a root signifying “dark.” Lapp is almost certainly a nickname imposed by foreigners, although some of the Lapps apply it contemptuously to those of their countrymen whom they think to be less civilized than themselves.[1]

In Sweden and Finland the Lapps are usually divided into fisher, mountain and forest Lapps. In Sweden the first class includes many impoverished mountain Lapps. As described by Laestadius (1827-1832), their condition was very miserable; but since his time matters have improved. The principal colony has its summer quarters on the Stora-Lule Lake, possesses good boats and nets, and, besides catching and drying fish, makes money by the shooting of wild fowl and the gathering of eggs. When he has acquired a little means it is not unusual for the fisher to settle down and reclaim a bit of land. The mountain and forest Lapps are the true representatives of the race. In the wandering life of the mountain Lapp his autumn residence, on the borders of the forest district, may be considered as the central point; it is there that he erects his *njalla*, a small wooden storehouse raised high above the ground by one or more piles. About the beginning of November he begins to wander south or east into the forest land, and in the winter he may visit, not only such places as Jokkmokk and Arjepluog, but even Gefle, Upsala or Stockholm. About the beginning of May he is back at his njalla, but as soon as the weather grows warm he pushes up to the mountains, and there throughout the summer pastures his herds and prepares his store of cheese. By autumn or October he is busy at his njalla killing the surplus reindeer bulls and curing meat for the winter. From the mountain Lapp the forest (or, as he used to be called, the spruce-fir) Lapp is mainly distinguished by the narrower limits within which he pursues his nomadic life. He never wanders outside of a certain district, in which he possesses hereditary rights, and maintains a series of camping-grounds which he visits in regular rotation. In May or April he lets his reindeer loose, to wander as they please; but immediately after midsummer, when the mosquitoes become troublesome, he goes to collect them. Catching a single deer and belling it, he drives it through the wood; the other deer, whose instinct leads them to gather into herds for mutual protection against the mosquitoes, are attracted by the sound. Should the summer be very cool and the mosquitoes few, the Lapp finds it next to impossible to bring the creatures together. About the end of August they are again let loose, but they are once more collected in October, the forest Lapp during winter pursuing the same course of life as the mountain Lapp.

In Norway there are three classes—the sea Lapps, the river Lapps and the mountain Lapps, the first two settled, the third nomadic. The mountain Lapps have a rather ruder and harder life than the same class in Sweden. About Christmas those of Kautokeino and Karasjok are usually settled in the neighbourhood of the churches; in summer they visit the coast, and in autumn they return inland. Previous to 1852, when they were forbidden by imperial decree, they were wont in winter to move south across the Russian frontiers. It is seldom possible for them to remain more than three or four days in one spot. Flesh is their favourite, in winter almost their only food, though they also use reindeer milk, cheese and rye or barley cakes. The sea Lapps are in some respects hardly to be distinguished from the other coast dwellers of Finmark. Their food consists mainly of cooked fish. The river Lapps, many of whom, however, are descendants of Finns proper, breed cattle, attempt a little tillage and entrust their reindeer to the care of mountain Lapps.

In Finland there are comparatively few Laplanders, and the great bulk of them belong to the fisher class. Many are settled in the neighbourhood of the Enare Lake. In the spring they go down to the Norwegian coast

and take part in the sea fisheries, returning to the lake about midsummer. Formerly they found the capture of wild reindeer a profitable occupation, using for this purpose a palisaded avenue gradually narrowing towards a pitfall.

The Russian Lapps are also for the most part fishers, as is natural in a district with such an extent of coast and such a number of lakes, not to mention the advantage which the fisher has over the reindeer keeper in connexion with the many fasts of the Greek Church. They maintain a half nomadic life, very few having become settlers in the Russian villages. It is usual to distinguish them according to the district of the coast which they frequent, as Murman (Murmanski) and Terian (Terski) Lapps. A separate tribe, the Filmans, *i.e.* Finnmans, wander about the Pazyets, Motov and Pechenga tundras, and retain the peculiar dialect and the Lutheran creed which they owe to a former connexion with Sweden. They were formerly known as the "twice and thrice tributary" Lapps, because they paid to two or even three states—Russia, Denmark and Sweden.

The Lapps within the historical period have considerably recruited themselves from neighbouring races. Shortness of stature[2] is their most obvious characteristic, though in regard to this much exaggeration has prevailed. Düben found an average of 4.9 ft. for males and a little less for females; Mantegazza, who made a number of anthropological observations in Norway in 1879, gives 5 ft. and 4.75 ft., respectively (*Archivio per l'antrop.*, 1880). Individuals much above or much below the average are rare. The body is usually of fair proportions, but the legs are rather short, and in many cases somewhat bandy. Dark, swarthy, yellow, copper-coloured are all adjectives employed to describe their complexion—the truth being that their habits of life do not conduce either to the preservation or display of the natural colour of their skin, and that some of them are really fair, and others, perhaps the majority, really dark. The colour of the hair ranges from blonde and reddish to a bluish or greyish black; the eyes are black, hazel, blue or grey. The shape of the skull is the most striking peculiarity of the Lapp. He is the most brachycephalous type of man in Europe, perhaps in the world.[3] According to Virchow, the women in width of face are more Mongolian in type than the men, but neither in men nor women does the opening of the eye show any true obliquity. In children the eye is large, open and round. The nose is always low and broad, more markedly retroussé among the females than the males. Wrinkled and puckered by exposure to the weather, the faces even of the younger Lapps assume an appearance of old age. The muscular system is usually well developed, but there is deficiency of fatty tissue, which affects the features (particularly by giving relative prominence to the eyes) and the general character of the skin. The thinness of the skin, indeed, can but rarely be paralleled among other Europeans. Among the Lapps, as among other lower races, the index is shorter than the ring finger.

The Lapps are a quiet, inoffensive people. Crimes of violence are almost unknown, and the only common breach of law is the killing of tame reindeer belonging to other owners. In Russia, however, they have a bad reputation for lying and general untrustworthiness, and drunkenness is well-nigh a universal vice. In Scandinavia laws have been directed against the importation of intoxicating liquors into the Lapp country since 1723.

Superficially at least the great bulk of the Lapps have been Christianized—those of the Scandinavian countries being Protestants, those of Russia members of the Greek Church. Although the first attempt to convert the Lapps to Christianity seems to have been made in the 11th century, the worship of heathen idols was carried on openly in Swedish Lappmark as late as 1687, and secretly in Norway down to the first quarter of the 18th century, while the practices of heathen rites survived into the 19th century, if indeed they are extinct even yet. Lapp graves, prepared in the heathen manner, have been discovered in upper Namdal (Norway), belonging to the years 1820 and 1826. In education the Scandinavian Lapps are far ahead of their Russian brethren, to whom reading and writing are arts as unfamiliar as they were to their pagan ancestors. The general manner of life is patriarchal. The father of the family has complete authority over all its affairs; and on his death this authority passes to the eldest son. Parents are free to disinherit their children; and, if a son separates from the family without his father's permission, he receives no share of the property except a gun and his wife's dowry.[4]

The Lapps are of necessity conservative in most of their habits, many of which can hardly have altered since the first taming of the reindeer. But the strong current of mercantile enterprise has carried a few important products of southern civilization into their huts. The lines in which James Thomson describes their simple life—

> The reindeer form their riches: these their tents,
> Their robes, their beds, and all their homely wealth
> Supply; their wholesome fare and cheerful cups—

are still applicable in the main to the mountain Lapps; but even they have learned to use coffee as an ordinary beverage and to wear stout Norwegian cloth (*vadmal*).

Language.

Linguistically the Lapps belong to the Finno-Ugrian group (*q.v.*); the similarity of their speech to Finnish is evident though the phonetics are different and more complicated. It is broken up into very distinct and even mutually unintelligible dialects, the origin of several of which is, however, easily found in the political and social dismemberment of the people. Düben distinguishes four leading dialects; but a much greater number are recognizable. In Russian Lapland alone there are three, due to the influence of Norwegian, Karelian and Russian (Lönnrot, *Acta Soc. Sci. Fennicae*, vol. iv.). "The Lapps," says Castren, "have had the misfortune to come into close contact with foreign races while their language was yet in its tenderest infancy, and consequently it has not only adopted an endless number of foreign words, but in many grammatical aspects fashioned itself after foreign models." That it began at a very early period to enrich itself with Scandinavian words is shown by the use it still makes of forms belonging to a linguistic stage older even than that of Icelandic. Düben has subjected the vocabulary to a very interesting analysis for the purpose of discovering what stage of culture the people had reached before their contact with the Norse. Agricultural terms, the names of the metals and the word for smith are all of Scandinavian origin, and the words for "taming" and "milk" would suggest that the southern strangers taught the Lapps how to turn the reindeer to full account. The important place, however, which this creature must always have held in their estimation is evident from the existence of more than three hundred native words in connexion with reindeer.

The Lapp tongue was long ago reduced to writing by the missionaries; but very little has been printed in it except school-books and religious works. A number of popular tales and songs, indeed, have been taken down from the lips of the people. The songs are similar to those of the Finns, and a process of mutual borrowing seems to have gone on. In one of the saga-like pieces—Pishan-Peshan's son—there seems to be a mention of the Baikal Lake, and possibly also of the Altai Mountains. The story of Njavvisena, daughter of the Sun, is full of quaint folk-lore about the taming of the reindeer. Giants, as well as a blind or one-eyed monster, are frequently introduced, and the Aesopic fable is not without its representatives. Many of the Lapps are able to speak one or even two of the neighbouring tongues.

The reputation of the Laplanders for skill in magic and divination is of very early date, and in Finland is not yet extinct. When Erik Blood-axe, son of Harold Haarfager, visited Bjarmaland in 922, he found Gunhild, daughter of Asur Tote, living among the Lapps, to whom she had been sent by her father for the purpose of being trained in witchcraft; and Ivan the Terrible of Russia sent for magicians from Lapland to explain the cause of the appearance of a comet. One of the powers with which they were formerly credited was that of raising winds. "They tye three knottes," says old Richard Eden, "on a strynge hangyng at a whyp. When they lose one of these they rayse tollerable wynds. When they lose an other the wynde is more vehement; but by losing the thyrd they rayse playne tempestes as in old tyme they were accustomed to rayse thunder and lyghtnyng" (*Hist. of Trauayle*, 1577). Though we are familiar in English with allusions to "Lapland witches," it appears that the art, according to native custom, was in the hands of the men. During his divination the wizard fell into a state of trance or ecstasy, his soul being held to run at large to pursue its inquiries.

Witchcraft.

Great use was made of a curious divining-drum, oval in shape and made of wood, 1 to 4 ft. in length. Over the upper surface was stretched a white-dressed reindeer skin, and at the corners (so to speak) hung a variety of charms—tufts of wool, bones, teeth, claws, &c. The area was divided into several spaces, often into three, one for the celestial gods, one for the terrestrial and one for man. A variety of figures and conventional signs were drawn in the several compartments: the sun, for instance, is frequently represented by a square and a stroke from each corner, Thor by two hammers placed crosswise; and in the more modern specimens symbols for Christ, the Virgin, and the Holy Ghost are introduced. An *arpa* or divining-rod was laid on a definite spot, the drum beaten by a hammer, and conclusions drawn from the position taken up by the arpa. Any Lapp who had attained to manhood could in ordinary circumstances consult the drum for himself, but in matters of unusual moment the professional wizard (*naid*, *noide* or *noaide*) had to be called in.

History.—The Lapps have a dim tradition that their ancestors lived in a far eastern land, and they tell rude stories of conflicts with Norsemen and Karelians. But no answer can be obtained from them in regard to their early distribution and movements. It has been maintained that they were formerly spread over the whole of the Scandinavian peninsula, and they have even been considered the remnants of that primeval race of cave-dwellers which hunted the reindeer over the snow-fields of central and western Europe. But much of the evidence adduced for these theories is highly questionable. The contents of the so-called Lapps' graves found in various parts of Scandinavia are often sufficient in themselves to show that the appellation must be a misnomer, and the syllable Lap or Lapp found in many names of places can often be proved to have no connexion with the Lapps.[5] They occupied their present territory when they are first mentioned in history. According to Düben the name first occurs in the 13th century—in the *Fundinn Noregr*, composed about 1200, in Saxo Grammaticus, and in a papal bull of date 1230; but the people are probably to be identified with those Finns of Tacitus whom he describes as wild hunters with skins for clothing and rude huts as only means of shelter, and certainly with the Skrithiphinoi of Procopius (*Goth.* ii. 15), the Scritobini of Paulus Warnefridus, and the Scridifinni of the geographer of Ravenna. Some of the details given by Procopius, in regard for instance to the treatment of infants, show that his informant was acquainted with certain characteristic customs of the Lapps.

In the 9th century the Norsemen from Norway began to treat their feeble northern neighbours as a subject race. The wealth of Ottar, "northmost of the northmen," whose narrative has been preserved by King Alfred, consisted mainly of six hundred of those "deer they call hrenas" and in tribute paid by the natives; and the Eigils saga tells how Brynjulf Bjargulfson had his right to collect contributions from the Finns (*i.e.* the Lapps) recognized by Harold Haarfager. So much value was attached to this source of wealth that as early as 1050 strangers were excluded from the fur-trade of Finmark, and a kind of coast-guard prevented their intrusion. Meantime the Karelians were pressing on the eastern Lapps, and in the course of the 11th century the rulers of Novgorod began to treat them as the Norsemen had treated their western brethren. The ground-swell of the Tatar invasion drove the Karelians westward in the 13th century, and for many years even Finmark was so unsettled that the Norsemen received no tribute from the Lapps. At length in 1326 a treaty was concluded between Norway and Russia by which the supremacy of the Norwegians over the Lapps was recognized as far east as Voljo beyond Kandalax on the White Sea, and the supremacy of the Russians over the Karelians as far as Lyngen and the Målself. The relations of the Lapps to their more powerful neighbours were complicated by the rivalry of the different Scandinavian kingdoms. After the disruption of the Calmar Union (1523) Sweden began to assert its rights with vigour, and in 1595 the treaty of Teusina between Sweden and Russia decreed "that the Lapps who dwell in the woods between eastern Bothnia and Varanger shall pay their dues to the king of Sweden." It was in vain that Christian IV. of Denmark visited Kola and exacted homage in 1599, and every year sent messengers to protest against the collection of his tribute by the Swedes (a custom which continued down to 1806). Charles of Sweden took the title of "king of the Kajans and Lapps," and left no means untried to establish his power over all Scandinavian Lapland. By the peace of Knäröd (1613) Gustavus Adolphus gave up the Swedish claim to Finmark; and in 1751 mutual renunciations brought the relations of Swedish and Norwegian (Danish) Lapland to their present position. Meanwhile Russian influence had been spreading westward; and in 1809, when Alexander I. finally obtained the cession of Finland, he also added to his dominions the whole of Finnish Lapland to the east of the Muonio and the Köngämä. It may be interesting to mention that Lapps, armed with bows and arrows, were attached to certain regiments of Gustavus Adolphus in Germany during the Thirty Years' War.

The Lapps have had the ordinary fate of a subject and defenceless people; they have been utilized with little regard to their own interest or inclinations. The example set by the early Norwegians was followed by the Swedes: a peculiar class of adventurers known as the Birkarlians (from *Bjark* or *Birk*, "trade") began in the 13th century to farm the Lapps, and, receiving very extensive privileges from the kings, grew to great wealth and influence. In 1606 there were twenty-two Birkarlians in Tornio, seventeen in Lule, sixteen in Pite, and sixty-six in Ume Lappmark. They are regularly spoken of as having or owning Lapps, whom they dispose of as any other piece of property. In Russian Lapland matters followed much the same course. The very institutions of the

Solovets monastery, intended by St Tryphon for the benefit of the poor neglected pagans, turned out the occasion of much injustice towards them. By a charter of Ivan Vasilivitch (November 1556), the monks are declared masters of the Lapps of the Motoff and Petchenga districts, and they soon sought to extend their control over those not legally assigned to them (Ephimenko). Other monasteries were gifted with similar proprietary rights; and the supplication of the patriarch Nikon to Alexis Mikhaelovitch, for example, shows clearly the oppression to which the Lapps were subjected.

It is long, however, since these abuses were abolished; and in Scandinavia more especially the Lapps of the present day enjoy the advantages resulting from a large amount of philanthropic legislation on the part of their rulers. There seems to be no fear of their becoming extinct, except it may be by gradual amalgamation with their more powerful neighbours. In Norway the total number of Lapps was 20,786 in 1891, and in Sweden in 1904 it was officially estimated that there were 7000. Add to these some 3000 for Russian Lapland, and the total Lapp population approximates to 30,000. In Sweden the Lapps are gradually abandoning their nomadic habits and becoming merged in the Swedish population. The majority of the Norwegian Lapps lead a semi-nomadic existence; but the number of inveterate nomads can scarcely reach 1500 at the present day. In Sweden there are about 3500 nomads.

AUTHORITIES.—G. von Düben, *Om Lappland och Lapparne* (Stockholm, 1873), with list of over 200 authorities; C. Rabot, "La Laponie suédoise d'après les récentes explorations de MM. Svenonius et Hamberg," *La Géographie*, Soc. Géog. de Paris VII. (1903); S. Passarge, *Fahrten in Schweden, besonders in Nordschweden und Lappland* (Berlin, 1897); Bayard Taylor, *Northern Travel* (London, 1858); E. Rae, *The White Sea Peninsula* (London, 1882), and *Land of the North Wind* (London, 1875); P. B. du Chaillu, *Land of the Midnight Sun* (London, 1881); S. Tromholt, *Under the Rays of the Aurora Borealis* (London, 1885); Y. Nielsen, *Det Norske geogr. Selskabs Aarbog* (1891); H. H. Reusch, *Folk og natur i Finmarken* (1895); K. B. Wicklund, *De Svenska nomadlapparnas flyttningar till Norge i älore och nyare tid* (Upsala, 1908); see also SWEDEN. Among older works may be mentioned Scheffer, *Lapponia* (Frankfurt, 1673, English trans. Oxford, 1674); Regnard, *Voyage de Laponie*, English version in Pinkerton's *Voyages*, vol. i.; Leem, *Beskrivelse over Finmarkens Lapper* (Copenhagen, 1767), in Danish and Latin; see also Pinkerton, *loc. cit.*; Sir A. de C. Brooke, *A Winter in Lapland* (London, 1827); Laestadius, *Journal* (1831).

As to the language, J. A. Friis, professor of Lapp in the university of Christiania, has published *Lappiske Sprogprover: en samling lapp. eventyr, ordsprog, og gåder* (Christiania, 1856), and *Lappisk mythologi eventyr og folkesagn* (Christiania, 1871). See also G. Donner, *Lieder der Lappen* (Helsingfors, 1876); Poestion, *Lappländische Märchen*, &c. (Vienna, 1885). Grammars of the Lapp tongue have been published by Fjellström (1738), Leem (1748), Rask (1832), Stockfleth (1840); lexicons by Fjellström (1703), Leem (1768-1781), Lindahl (1780), Stockfleth (1852). Among more recent works may be mentioned a dictionary (1885), by J. A. Friis; a reader, with German translations (1888), by J. Qvigstad; a dictionary (1890) and two grammars (1891 and 1897) of the Luleå dialect, and a chrestomathy of Norwegian Lappish (1894), by K. B. Wiklund; a dictionary of Russian Lappish, or the Kola dialect (1891), by A. Genetz; readers of different dialects (1885-1896), by J. Halász; and a grammar of Norwegian Lappish (1882), by S. Nielsen; further, a comparative study of Lappish and Finnish by Qvigstad in the *Acts of the Finnish Academy of Science*, vol. xii., 1883; the same author's *Nordische Lehnwörter im Lappischen* (1893); Wiklund, *Entwurf einer urlappischen Lautlehre* (1896); see also various articles by these writers, Paasonen and others in the *Journal de la Société Finno-Ougrienne* and the *Finnisch-Ugrische Forschungen*; Qvigstad and Wiklund, *Bibliographie der lappischen Literatur* (1900).

The older literature on the Lapps received a notable addition by the discovery in 1896, among the letters of Linnaeus preserved in the British Museum, of a MS. diary of a journey made in 1695 to the north of Swedish Lappmark by Olof Rudbeck the younger. On missionary work see Stockfleth, *Dagbog over mine missions Reiser* (1860); E. Haller, *Svenska Kyrkans mission i Lappmarken* (1896). It was not until 1840 that the New Testament was translated into Norwegian Lappish, and not until 1895 that the entire Bible was printed in the same dialect. In the Russian dialect of Lappish there exist only two versions of St Matthew's gospel.

1 The most probable etymology is the Finnish *lappu*, and in this case the meaning would be the "land's end folk."

2 Hence they have been supposed by many to be the originals of the "little folk" of Scandinavian legend.

3 Bertillon found in one instance a cephalic index of 94. The average obtained by Pruner Bey was 84.7, by Virchow 82.5.

4 A valuable paper by Ephimenko, on "The Legal Customs of the Lapps, especially in Russian Lapland," appeared in vol. viii. of the *Mem. of Russ. Geog. Soc.*, Ethnog. Section, 1878.

5 The view that the Lapps at one time occupied the whole of the Scandinavian peninsula, and have during the course of centuries been driven back by the Swedes and Norwegians is disproved by the recent investigations of Yngvar Nielsen, K. B. Wiklund and others. The fact is, the Lapps are increasing in numbers, as well as pushing their way farther and farther south. In the beginning of the 16th century their southern border-line in Norway ran on the upper side of 64° N. In 1890 they forced their way to the head of the Hardanger Fjord in 60° N. In Sweden the presence of Lapps as far south as Jämtland (or Jemtland) is first mentioned in 1564. In 1881 they pushed on into the north of Dalecarlia, about 61° 45′ N.

LA PLATA, a city of Argentina and capital of the province of Buenos Aires, 5 m. inland from the port of Ensenada, or La Plata, and about 31 m. S.E. of the city of Buenos Aires, with which it is connected by rail. Pop. (1895) 45,609; (1907, estimate) 84,000. La Plata was founded in 1882, two years after Buenos Aires had been constituted a federal district and made the national capital. This necessitated the selection of another provincial capital, which resulted in the choice of an open plain near the former port of Ensenada de Barragán, on which a city was laid out after the plan of Washington. The streets are so wide that they seem out of proportion to the low brick buildings. The principal public buildings, constructed of brick and stucco, are the government-house, assembly building, treasury, municipal hall, cathedral, courts of justice, police

headquarters, provincial museum and railway station. The museum, originally presented by Dr Moreno, has become one of the most important in South America, its palaeontological and anthropological collections being unique. There are also a university, national college, public library, astronomical observatory, several churches, two hospitals and two theatres. A noteworthy public park is formed by a large plantation of eucalyptus trees, which have grown to a great height and present an imposing appearance on the level, treeless plain. Electricity is in general use for public and private lighting, and tramways are laid down in the principal streets and extend eastward to the port. The harbour of the port of La Plata consists of a large artificial basin, 1450 yds. long by 150 yds. wide, with approaches, in addition to the old port of Ensenada, which are capable of receiving the largest vessels that can navigate the La Plata estuary. Up to the opening of the new port works of Buenos Aires a large part of the ocean-going traffic of Buenos Aires passed through the port of La Plata. It has good railway connexions with the interior, and exports cattle and agricultural produce.

LAPORTE, ROLAND (1675-1704), Camisard leader, better known as “Roland,” was born at Mas Soubeyran (Gard) in a cottage which has become the property of the Société de l’Histoire du Protestantisme français, and which contains relics of the hero. He was a nephew of Laporte, the Camisard leader who was hunted down and shot in October 1702, and he himself became the leader of a band of a thousand men which he formed into a disciplined army with magazines, arsenals and hospitals. For daring in action and rapidity of movement he was second only to Cavalier. These two leaders in 1702 secured entrance to the town of Sauve under the pretence of being royal officers, burnt the church and carried off provisions and ammunition for their forces. Roland, who called himself “general of the children of God,” terrorized the country between Nîmes and Alais, burning churches and houses, and slaying those suspected of hostility against the Huguenots, though without personally taking any part of the spoil. Cavalier was already in negotiation with Marshal Villars when Roland cut to pieces a Catholic regiment at Fontmorte in May 1704. He refused to lay down his arms without definite assurance of the restoration of the privileges accorded by the Edict of Nantes. Villars then sought to negotiate, offering Roland the command of a regiment on foreign service and liberty of conscience, though not the free exercise of their religion, for his co-religionists. This parley had no results, but Roland was betrayed to his enemies, and on the 14th of August 1704 was shot while defending himself against his captors. The five officers who were with him surrendered, and were broken on the wheel at Nîmes. Roland’s death put an end to the effective resistance of the Cévenols.

See A. Court, *Histoire des troubles des Cévennes* (Villefranche, 1760); H. M. Baird, *The Huguenots and the revocation of the Edict of Nantes* (2 vols., London, 1895), and other literature dealing with the Camisards.

LA PORTE, a city and the county seat of La Porte county, Indiana, U.S.A., 12 m. S. of Lake Michigan and about 60 m. S.E. of Chicago. Pop. (1890) 7126; (1900) 7113 (1403 foreign-born); (1910) 10,525. It is served by the Lake Erie & Western, the Lake Shore & Michigan Southern, the Père Marquette, the Chicago, South Bend & Northern Indiana (electric), and the Chicago-New York Electric Air Line railways. La Porte lies in the midst of a fertile agricultural region, and the shipment of farm and orchard products is one of its chief industries. There are also numerous manufactures. La Porte’s situation in the heart of a region of beautiful lakes (including Clear, Pine and Stone lakes) has given it a considerable reputation as a summer resort. The lakes furnish a large supply of clear ice, which is shipped to the Chicago markets. La Porte was settled in 1830, laid out in 1833, incorporated as a town in 1835, and first chartered as a city in 1852.

LAPPA, an island directly opposite the inner harbour of Macao, the distance across being from 1 to 1½ m. It is a station of the Chinese imperial maritime customs which collects duties on vessels trading between China and the Portuguese colony of Macao. The arrangement is altogether abnormal, and was consented to by the Portuguese government in 1887 to assist the Chinese authorities in the suppression of opium smuggling. A similar arrangement prevails at the British colony of Hong-Kong, where the Chinese customs station is Kowloon. In both cases the customs stations levy duties on vessels entering and leaving the foreign port in lieu of levying them, as ought to be done, on entering or leaving a Chinese port.

LAPPARENT, ALBERT AUGUSTE COCHON DE (1839-1908), French geologist, was born at Bourges on the 30th of December 1839. After studying at the École Polytechnique from 1858 to 1860 he became *ingénieur au corps des mines*, and took part in drawing up the geological map of France; and in 1875 he was appointed professor of geology and mineralogy at the Catholic Institute, Paris. In 1879 he prepared an important memoir for the geological survey of France on *Le Pays de Bray*, a subject on which he had already published several memoirs, and in 1880 he served as president of the French Geological Society. In 1881-1883 he published his *Traité de géologie* (5th ed., 1905), the best European text-book of stratigraphical geology. His other works include *Cours de minéralogie* (1884, 3rd ed., 1899), *La Formation des combustibles minéraux* (1886), *Le Niveau de la mer et ses variations* (1886), *Les Tremblements de terre* (1887), *La Géologie en chemin de fer* (1888), *Précis de minéralogie* (1888), *Le Siècle du fer* (1890), *Les Anciens Glaciers* (1893), *Leçons de géographie physique* (1896), *Notions générales sur l'écorce terrestre* (1897), *Le Globe terrestre* (1899), and *Science et apologétique* (1905). With Achille Delesse he was for many years editor of the *Révue de géologie* and contributed to the *Extraits de géologie*, and he joined with A. Potier in the geological surveys undertaken in connexion with the Channel Tunnel proposals. He died in Paris on the 5th of May 1908.

LAPPENBERG, JOHANN MARTIN (1794-1865), German historian, was born on the 30th of July 1794 at Hamburg, where his father, Valentin Anton Lappenberg (1759-1819), held an official position. He studied medicine, and afterwards history, at Edinburgh. He continued to study history in London, and at Berlin and Göttingen, graduating as doctor of laws at Göttingen in 1816. In 1820 he was sent by the Hamburg senate as resident minister to the Prussian court. In 1823 he became keeper of the Hamburg archives; an office in which he had the fullest opportunities for the laborious and critical research work upon which his reputation as an historian rests. He retained this post until 1863, when a serious affection of the eyes compelled him to resign. In 1850 he represented Hamburg in the German parliament at Frankfort, and bis death took place at Hamburg on the 28th of November 1865. Lappenberg's most important work is his *Geschichte von England*, which deals with the history of England from the earliest times to 1154, and was published in two volumes at Hamburg in 1834-1837. It has been translated into English by B. Thorpe as *History of England under the Anglo-Saxon Kings* (London 1845, and again 1881), and *History of England under the Norman Kings* (Oxford, 1857), and has been continued in three additional volumes from 1154 to 1509 by R. Pauli. His other works deal mainly with the history of Hamburg, and include *Hamburgische Chroniken in Niedersächsischer Sprache* (Hamburg, 1852-1861); *Geschichtsquellen des Erzstiftes und der Stadt Bremen* (Bremen, 1841); *Hamburgisches Urkundenbuch* (Hamburg, 1842); *Urkundliche Geschichte des Hansischen Stahlhofes zu London* (Hamburg, 1851); *Hamburgische Rechtsalterthümer* (Hamburg, 1845); and *Urkundliche Geschichte des Ursprunges der deutschen Hanse* (Hamburg, 1830), a continuation of the work of G. F. Sartorius. For the *Monumenta Germaniae historica* he edited the *Chronicon* of Thietmar of Merseburg, the *Gesta Hammenburgensis ecclesiae pontificum* of Adam of Bremen and the *Chronica Slavorum* of Helmold, with its continuation by Arnold of Lübeck. Lappenberg, who was a member of numerous learned societies in Europe, wrote many other historical works.

See E. H. Meyer, *Johann Martin Lappenberg* (Hamburg, 1867); and R. Pauli in the *Allgemeine deutsche Biographie*, Band xvii. (Leipzig, 1883).

LAPRADE, PIERRE MARTIN VICTOR RICHARD DE (1812-1883), known as Victor de Laprade, French poet and critic, was born on the 13th of January 1812 at Montbrison, in the department of the Loire. He came of a modest provincial family. After completing his studies at Lyons, he produced in 1839 a small volume of religious verse, *Les Parfums de Madeleine*. This was followed in 1840 by *La Colère de Jésus*, in 1841 by the religious fantasy of *Psyché*, and in 1844 by *Odes et poèmes*. In 1845 Laprade visited Italy on a mission of literary research, and in 1847 he was appointed professor of French literature at Lyons. The French Academy, by a single vote, preferred Émile Augier at the election in 1857, but in the following year Laprade was chosen to fill the chair of Alfred de Musset. In 1861 he was removed from his post at Lyons owing to the publication of a political satire in verse (*Les Muses d'État*), and in 1871 took his seat in the National Assembly on the benches of the Right. He died on the 13th of December 1883. A statue has been raised by his fellow-townsmen at Montbrison. Besides those named above, Laprade's poetical works include *Poèmes évangéliques* (1852), *Idylles héroïques* (1858), *Les Voix de silence* (1864), *Pernette* (1868), *Poèmes civiles* (1873), *Le Livre d'un père* (1877), *Varia* and *Livre des adieux* (1878-1879). In prose he published, in 1840, *Des habitudes intellectuelles de l'avocat. Questions d'art et de morale* appeared in 1861, succeeded by *Le Sentiment de la nature, avant le Christianisme* in 1866, and *Chez les modernes* in 1868, *Éducation libérale* in 1873. The material for these books had in some cases been printed earlier, after delivery as a lecture. He also contributed articles to the *Revue des deux mondes* and the *Revue de Paris*. No writer represents more perfectly than Laprade the admirable genius of French provincial life, its homely simplicity, its culture, its piety and its sober patriotism. As a poet he belongs to the school of Chateaubriand and Lamartine. Devoted to the best classical models, inspired by a sense of the ideal, and by worship of nature as revealing the divine—gifted, too, with a full faculty of expression—he lacked only fire and passion in the equipment of a romantic poet. But the want of these, and the pressure of a certain chilly facility and of a too conscious philosophizing have prevented him from reaching the first rank, or from even attaining the popularity due to his high place in the second. Only in

his patriotic verse did he shake himself clear from these trammels. Speaking generally, he possessed some of the qualities, and many of the defects, of the English Lake School. Laprade's prose criticisms must be ranked high. Apart from his classical and metaphysical studies, he was widely read in the literatures of Europe, and built upon the groundwork of a naturally correct taste. His dislike of irony and scepticism probably led him to underrate the product of the 18th century, and there are signs of a too fastidious dread of Philistinism. But a constant love of the best, a joy in nature and a lofty patriotism are not less evident than in his poetry. Few writers of any nation have fixed their minds so steadily on whatsoever things are pure, and lovely and of good report.

See also Edmond Biré, *Victor de Laprade, sa vie et ses œuvres*.

(C.)

LAPSE (Lat. *lapsus*, a slip or departure), in law, a term used in several senses. (1) In ecclesiastical law, when a patron has neglected to present to a void benefice within six months next after the avoidance, the right of presentation is said to lapse. In such case the patronage or right of presentation devolves from the neglectful patron to the bishop as ordinary, to the metropolitan as superior and to the sovereign as patron paramount. (2) The failure of a testamentary disposition in favour of any person, by reason of the decease of its object in the testator's lifetime, is termed a lapse. See LEGACY, WILL.

LAPWING (O.Eng. *hleápewince* = "one who turns about in running or flight"),[1] a bird, the *Tringa vanellus* of Linnaeus and the *Vanellus vulgaris* or *V. cristatus* of modern ornithologists. In the temperate parts of the Old World this species is perhaps the most abundant of the plovers, *Charadriidae*, breeding in almost every suitable place from Ireland to Japan—the majority migrating towards winter to southern countries, as the Punjab, Egypt and Barbary—though in the British Islands some are always found at that season. As a straggler it has occurred within the Arctic Circle (as on the Varanger Fjord in Norway), as well as in Iceland and even Greenland; while it not unfrequently appears in Madeira and the Azores. Conspicuous as the strongly contrasted colours of its plumage and its very peculiar flight make it, it is remarkable that it maintains its ground when so many of its allies have been almost exterminated, for the lapwing is the object perhaps of greater persecution than any other European bird that is not a plunderer. Its eggs are the well-known "plovers' eggs" of commerce,[2] and the bird, wary and wild at other times of the year, in the breeding-season becomes easily approachable, and is shot to be sold in the markets for "golden plover." Its growing scarcity in Great Britain was very perceptible until the various acts for the protection of wild birds were passed. It is now abundant and is of service both for the market and to agriculture. What seems to be the secret of the lapwing holding its position is the adaptability of its nature to various kinds of localities. It will find sustenance equally on the driest of soils as on the fattest pastures; upland and fen, arable and moorland, are alike to it, provided only the ground be open enough. The wailing cry[3] and the frantic gestures of the cock bird in the breeding-season will tell any passer-by that a nest or brood is near; but, unless he knows how to look for it, nothing save mere chance will enable him to find it. The nest is a slight hollow in the ground, wonderfully inconspicuous even when deepened, as is usually the case, by incubation, and the black-spotted olive eggs (four in number) are almost invisible to the careless or untrained eye. The young when first hatched are clothed with mottled down, so as closely to resemble a stone, and to be overlooked as they squat motionless on the approach of danger. At a distance the plumage of the adult appears to be white and black in about equal proportions, the latter predominating above; but on closer examination nearly all the seeming black is found to be a bottle-green gleaming with purple and copper; the tail-coverts, both above and below, are of a bright bay colour, seldom visible in flight. The crest consists of six or eight narrow and elongated feathers, turned slightly upwards at the end, and is usually carried in a horizontal position, extending in the cock beyond the middle of the back; but it is capable of being erected so as to become nearly vertical. Frequenting parts of the open country so very divergent in character, and as remarkable for the peculiarity of its flight as for that of its cry, the lapwing is far more often observed in nearly all parts of the British Islands than any other of the group Limicolae. The peculiarity of its flight seems due to the wide and rounded wings it possesses, the steady and ordinarily somewhat slow flapping of which impels the body at each stroke with a manifest though easy jerk. Yet on occasion, as when performing its migrations, or even its almost daily transits from one feeding-ground to another, and still more when being pursued by a falcon, the speed with which it moves through the air is very considerable. On the ground this bird runs nimbly, and is nearly always engaged in searching for its food, which is wholly animal.

Allied to the lapwing are several forms that have been placed by ornithologists in the genera *Hoplopterus*, *Chettusia*, *Lobivanellus*, *Defilippia*. In some of them the hind toe, which has already ceased to have any function in the lapwing, is wholly wanting. In others the wings are armed with a tubercle or even a sharp spur on the carpus. Few have any occipital crest, but several have the face ornamented by the outgrowth of a fleshy lobe or lobes. With the exception of North America, they are found in most parts of the world, but perhaps the greater number in Africa. Europe has three species—*Hoplopterus spinosus*, the spur-winged plover, and *Chettusia gregaria* and *C. leucura*; but the first and last are only stragglers from Africa and Asia.

(A. N.)

1 Skeat, *Etym.* Dict. (1898), *s.v.* Caxton in 1481 has "lapwynches" (*Reynard the Fox*, cap. 27). The first part of the word is from *hleápan*, to leap; the second part is "wink" (O.H.G. *winchan*, Ger. *wanken*, to waver). Popular etymology has

given the word its present form, as if it meant “wing-flapper,” from “lap,” a fold or flap of a garment.

2 There is a prevalent belief that many of the eggs sold as “plovers’” are those of rooks, but no notion can be more absurd, since the appearance of the two is wholly unlike. Those of the redshank, of the golden plover (to a small extent), and enormous numbers of those of the black-headed gull, and in certain places of some of the terns are, however, sold as lapwings’, having a certain similarity of shell to the latter, and a difference of flavour only to be detected by a fine palate.

3 This sounds like *pee-weet*, with some variety of intonation. Hence the names peewit, peaseweep and teuchit, commonly applied in some parts of Britain to this bird—though the first is that by which one of the smaller gulls, *Larus ridibundus* (see GULL), is known in the districts it frequents. In Sweden *Vipa*, in Germany *Kiebitz*, in Holland *Kiewiet*, and in France *Dixhuit*, are names of the lapwing, given to it from its usual cry. Other English names are green plover and hornpie—the latter from its long hornlike crest and pied plumage. The lapwing’s conspicuous crest seems to have been the cause of a common blunder among English writers of the middle ages, who translated the Latin word *Upupa*, property hoopoe, by lapwing, as being the crested bird with which they were best acquainted. In like manner other writers of the same or an earlier period latinized lapwing by *Egrettides* (plural), and rendered that again into English as egrets—the tuft of feathers misleading them also. The word *Vanellus* is from *vannus*, the fan used for winnowing corn, and refers to the audible beating of the bird’s wings.

LAPWORTH, CHARLES (1842-), English geologist, was born at Faringdon in Berkshire on the 30th of September 1842. He was educated partly in the village of Buckland in the same county, and afterwards in the training college at Culham, near Oxford (1862-1864). He was then appointed master in a school connected with the Episcopal church at Galashiels, where he remained eleven years. Geology came to absorb all his leisure time, and he commenced to investigate the Silurian rocks of the Southern Uplands, and to study the graptolites and other fossils which mark horizons in the great series of Lower Palaeozoic rocks. His first paper on the Lower Silurian rocks of Galashiels was published in 1870, and from that date onwards he continued to enrich our knowledge of the southern uplands of Scotland until the publication by the Geological Society of his masterly papers on *The Moffat Series* (1878) and *The Girvan Succession* (1882). Meanwhile in 1875 he became an assistant master in the Madras College, St Andrews, and in 1881 professor of geology and mineralogy (afterwards geology and physiography) in the Mason College, now University of Birmingham. In 1882 he started work in the Durness-Eriboll district of the Scottish Highlands, and made out the true succession of the rocks, and interpreted the complicated structure which had baffled most of the previous observers. His results were published in “The Secret of the Highlands” (*Geol. Mag.*, 1883). His subsequent work includes papers on the Cambrian rocks of Nuneaton and the Ordovician rocks of Shropshire. The term Ordovician was introduced by him in 1879 for the strata between the base of the Lower Llandovery formation and that of the Lower Arenig; and it was intended to settle the confusion arising from the use by some writers of Lower Silurian and by others of Upper Cambrian for the same set of rocks. The term Ordovician is now generally adopted. Professor Lapworth was elected F.R.S. in 1888, he received a royal medal in 1891, and was awarded the Wollaston medal by the Geological Society in 1899. He was president of the Geological Society, 1902-1904. His *Intermediate Text-book of Geology* was published in 1899.

See article, with portrait and bibliography, in *Geol. Mag.* (July 1901).

LAR, a city of Persia, capital of Laristan, in 27° 30′ N., 53° 58′ E., 180 m. from Shiraz and 75 from the coast at Bander Lingah. It stands at the foot of a mountain range in an extensive plain covered with palm trees, and was once a flourishing place, but a large portion is in ruins, and the population which early in the 18th century numbered 50,000 is reduced to 8000. There are still some good buildings, of which the most prominent are the old bazaar consisting of four arcades each 180 ft. long, 14 broad and 22 high, radiating from a domed centre 30 ft. high, an old stone mosque and many cisterns. The crest of a steep limestone hill immediately behind the town and rising 150 ft. above the plain is crowned by the ruins of a castle formerly deemed impregnable. Just below the castle is a well sunk 200 ft. in the rock. The tower-flanked mud wall which surrounds the town is for the most part in ruins.

LARA, western state of Venezuela, lying in the angle formed by the parting of the N. and N.E. ranges of the Cordillera de Mérida and extending N.E. with converging frontiers to the Caribbean. Pop. (1905 estimate) 272,252. The greater part of its surface is mountainous, with elevated fertile valleys which have a temperate climate. The Tocuyo river rises in the S.W. angle of the state and flows N.E. to the Caribbean with a total length of 287 m. A narrow-gauge railway, the “South-western,” owned by British capitalists, runs from the port of Tucacas 55 m. S.W. to Barquisimeto by way of the Aroa copper-mining district. Lara produces wheat and other cereals, coffee, sugar, tobacco, neat cattle, sheep and various mineral ores, including silver, copper, iron,

lead, bismuth and antimony. The capital, Barquisimeto, is one of the largest and most progressive of the inland cities of Venezuela. Carora is also prominent as a commercial centre. Tocuyo (pop. in 1891, 15,383), 40 m. S.W. of Barquisimeto, is an important commercial and mining town, over 2000 ft. above sea-level, in the midst of a rich agricultural and pastoral region. Yaritagua (pop. about 12,000), 20 m. E. of Barquisimeto, and 1026 ft. above the sea, is known for its cigar manufactories.

LARAISH (*El Araish*), a port in northern Morocco on the Atlantic coast in 35° 13′ N., 6° 9′ W., 43 m. by sea S. by W. of Tangier, picturesquely situated on the left bank of the estuary of the Wad Lekkus. Pop. 6000 to 7000. The river, being fairly deep inside the bar, made this a favourite port for the Salli rovers to winter in, but the quantity of alluvial soil brought down threatens to close the port. The town is well situated for defence, its walls are in fair condition, and it has ten forts, all supplied with old-fashioned guns. Traces of the Spanish occupation from 1610-1689 are to be seen in the towers whose names are given by Tissot as those of St Stephen, St James and that of the Jews, with the Castle of Our Lady of Europe, now the kasbah or citadel. The most remarkable feature of Laraish is its fine large market-place inside the town with a low colonnade in front of very small shops. The streets, though narrow and steep, are generally paved. Its chief exports are oranges, millet, dra and other cereals, goat-hair and skins, sheepskins, wool and fullers' earth. The wool goes chiefly to Marseilles. The annual value of the trade is from £400,000 to £500,000.

In 1780 all the Europeans in Laraish were expelled by Mohammed XVI., although in 1786 the monopoly of its trade had been granted to Holland, even its export of wheat. In 1787 the Moors were still building pirate vessels here, the timber for which came from the neighbouring forest of M'amora. Not far from the town are the remains of what is believed to be a Phoenician city, Shammish, mentioned by Idrisi, who makes no allusion to Laraish. It is not, however, improbable from a passage in Scylax that the site of the present town was occupied by a Libyan settlement. Tradition also connects Laraish with the garden of the Hesperides, '*Arāsi* being the Arabic for "pleasure-gardens," and the "golden apples" perhaps the familiar oranges.

LARAMIE, a city and the county-seat of Albany county, Wyoming, U.S.A., on the Laramie river, 57 m. by rail N.W. of Cheyenne. Pop. (1900) 8207, of whom 1280 were foreign-born; (1905) 7601; (1910) 8237. It is served by the Union Pacific and the Laramie, Hahn's Peak & Pacific railways, the latter extending from Laramie to Centennial (30 m.). The city is situated on the Laramie Plains, at an elevation of 7165 ft., and is hemmed in on three sides by picturesque mountains. It has a public library, a United States Government building and hospitals, and is the seat of the university of Wyoming and of a Protestant Episcopal missionary bishopric. There is a state fish hatchery in the vicinity. The university (part of the public school system of the state) was founded in 1886, was opened in 1887, and embraces a College of Liberal Arts and Graduate School, a Normal School, a College of Agriculture and the Mechanic Arts, an Agricultural Experiment Station (established by a Federal appropriation), a College of Engineering, a School of Music, a Preparatory School and a Summer School. Laramie is a supply and distributing centre for a live-stock raising and mining region—particularly coal mining, though gold, silver, copper and iron are also found. The Union Pacific Railroad Company has machine shops, repair shops and rolling mills at Laramie, and, a short distance S. of the city, ice-houses and a tie-preserving plant. The manufactures include glass, leather, flour, plaster and pressed brick, the brick being made from shale obtained in the vicinity. The municipality owns and operates the water-works; the water is obtained from large springs about 2½ m. distant. Laramie was settled in 1868, by people largely from New England, Michigan, Wisconsin and Iowa, and was named in honour of Jacques Laramie, a French fur trader. It was first chartered as a city in 1868 by the legislature of Dakota, and was rechartered by the legislature of Wyoming in 1873.

LARBERT, a parish and town of Stirlingshire, Scotland. Pop. of parish (1901) 6500, of town, 1442. The town is situated on the Carron, 8 m. S. by E. of Stirling by the North British and Caledonian railways, the junction being an important station for traffic from the south by the West Coast route. Coal-mining is the chief industry. The principal buildings are the church, finely placed overlooking the river, the Stirling district asylum and the Scottish National Institution for imbecile children. In the churchyard is a monument to James Bruce, the Abyssinian traveller, who was born and died at Kinnaird House, 2½ m. N.E. Two m. N. by W. are the ruins of Torwood Castle and the remains of Torwood forest, to which Sir William Wallace retired after his defeat at Falkirk (1298). Near "Wallace's oak," in which the patriot concealed himself, Donald Cargill (1619-1681), the Covenanter, excommunicated Charles II. and James, duke of York, in 1680. The fragment of an old round building is said to be the relic of one of the very few "brochs," or round towers, found in the Lowlands.

LARCENY (an adaptation of Fr. *larcin*, O. Fr. *larrecin*, from Lat. *latrocinium*, theft, *latio*, robber), the unlawful taking and carrying away of things personal, with intent to deprive the rightful owner of the same. The term *theft*, sometimes used as a synonym of larceny, is in reality a broader term, applying to all cases of depriving another of his property whether by removing or withholding it, and includes larceny, robbery, cheating, embezzlement, breach of trust, &c.

Larceny is, in modern legal systems, universally treated as a crime, but the conception of it as a crime is not one belonging to the earliest stage of law. To its latest period Roman law regarded larceny or theft (*furtum*) as a delict *prima facie* pursued by a civil remedy—the *actio furti* for a penalty, the *vindicatio* or *condictio* for the stolen property itself or its value. In later times, a criminal remedy to meet the graver crimes gradually grew up by the side of the civil, and in the time of Justinian the criminal remedy, where it existed, took precedence of the civil (*Cod.* iii. 8. 4). But to the last criminal proceedings could only be taken in serious cases, *e.g.* against stealers of cattle (*abigei*) or the clothes of bathers (*balnearii*). The punishment was death, banishment, or labour in the mines or on public works. In the main the Roman law coincides with the English law. The definition as given in the *Institutes* (iv. 1. 1) is "furtum est contrectatio rei fraudulosa, vel ipsius rei, vel etiam ejus usus possessionisve," to which the *Digest* (xlvii. 2. 1, 3) adds "lucri faciendi gratia." The earliest English definition, that of Bracton (150*b*), runs thus: "furtum est secundum leges contrectatio rei alienae fraudulenta cum animo furandi invito illo domino cujus res illa fuerit." Bracton omits the "lucri faciendi gratia" of the Roman definition, because in English law the motive is immaterial,[1] and the "usus ejus possessionisve," because the definition includes an intent to deprive the owner of his property permanently. The "animo furandi" and "invito domino" of Bracton's definition are expansions for the sake of greater clearness. They seem to have been implied in Roman law. *Furtum* is on the whole a more comprehensive term than larceny. This difference no doubt arises from the tendency to extend the bounds of a delict and to limit the bounds of a crime. Thus it was *furtum* (but it would not be theft at English common law) to use a deposit of pledge contrary to the wishes of the owner, to retain goods found, or to steal a human being, such as a slave or *filius familias* (a special form of *furtum* called *plagium*). The latter would be in English law an abduction under certain circumstances but not a theft. One of two married persons could not commit *furtum* as against the other, but larceny may be so committed in England since the Married Women's Property Act 1882. As a *furtum* was merely a delict, the *obligatio ex delicto* could be extinguished by agreement between the parties; this cannot be done in England. In another direction English law is more considerate of the rights of third parties than was Roman. The thief can give a good title to stolen goods; in Roman law he could not do so, except in the single case of a *hereditas* acquired by *usucapio*. The development of the law of *furtum* at Rome is historically interesting, for even in its latest period is found a relic of one of the most primitive theories of law adopted by courts of justice: "They took as their guide the measure of vengeance likely to be exacted by an aggrieved person under the circumstances of the case" (Maine, *Ancient Law*, ch. x.). This explains the reason of the division of *furtum* into *manifestum* and *nec manifestum*. The manifest thief was one taken red-handed—"taken with the manner," in the language of old English law. The Twelve Tables denounced the punishment of death against the manifest thief, for that would be the penalty demanded by the indignant owner in whose place the judge stood. The severity of this penalty was afterwards mitigated by the praetor, who substituted for it the payment of quadruple the value of the thing stolen. The same penalty was also given by the praetor in case of theft from a fire or a wreck, or of prevention of search. The Twelve Tables mulcted the non-manifest thief in double the value of the thing stolen. The actions for penalties were in addition to the action for the stolen goods themselves or their value. The quadruple and double penalties still remain in the legislation of Justinian. The search for stolen goods, as it existed in the time of Gaius, was a survival of a period when the injured person was, as in the case of summons (*in jus vocatio*), his own executive officer. Such a search, by the Twelve Tables, might be conducted in the house of the supposed thief by the owner in person, naked except for a cincture, and carrying a platter in his hand, safeguards apparently against any possibility of his making a false charge by depositing some of his own property on his neighbour's premises. This mode of search became obsolete before the time of Justinian. Robbery (*bona vi rapta*) was violence added to *furtum*. By the *actio vi bonorum raptorum* quadruple the value could be recovered if the action were brought within a year, only the value if brought after the expiration of a year. The quadruple value included the stolen thing itself, so that the penalty was in effect only a triple one. It was inclusive, and not cumulative, as in *furtum*.

In England theft or larceny appears to have been very early regarded by legislators as a matter calling for special attention. The pre-Conquest compilations of laws are full of provisions on the subject. The earlier laws appear to regard it as a delict which may be compounded for by payment. Considerable distinctions of person are made, both in regard to the owner and the thief. Thus, by the laws of Æthelberht, if a freeman stole from the king he was to restore ninefold, if from a freeman or from a dwelling, threefold. If a theow stole, he had only to make a twofold reparation. In the laws of Alfred ordinary theft was still only civil, but he who stole in a church was punished by the loss of his hand. The laws of Ina named as the penalty death or redemption according to the wer-gild of the thief. By the same laws the thief might be slain if he fled or resisted. Gradually the severity of the punishment increased. By the laws of Æthelstan death in a very cruel form was inflicted. At a later date the *Leges Henrici Primi* placed a thief in the king's mercy, and his lands were forfeited. Putting out the eyes and other kinds of mutilation were sometimes the punishment. The principle of severity continued down to the 19th century, and until 1827 theft or larceny of certain kinds remained capital. Both before and after the Conquest local jurisdiction over thieves was a common franchise of lords of manors, attended with some of the advantages of modern summary jurisdiction.

Under the common law larceny was a felony. It was affected by numerous statutes, the main object of legislation being to bring within the law of larceny offences which were not larcenies at common law, either because they were thefts of things of which there could be no larceny at common law, *e.g.* beasts *ferae naturae*, title deeds or choses in action, or because the common law regarded them merely as delicts for which the remedy was by civil action, *e.g.* fraudulent breaches of trust. The earliest act in the statutes of the realm

dealing with larceny appears to be the *Carta Forestae* of 1225, by which fine or imprisonment was inflicted for stealing the king's deer. The next act appears to be the statute of Westminster the First (1275), dealing again with stealing deer. It seems as though the beginning of legislation on the subject was for the purpose of protecting the chases and parks of the king and the nobility. A very large number of the old acts are named in the repealing act of 1827. An act of the same date removed the old distinction between grand and petit larceny.[2] The former was theft of goods above the value of twelve pence, in the house of the owner, not from the person, or by night, and was a capital crime. It was petit larceny where the value was twelve pence or under, the punishment being imprisonment or whipping. The gradual depreciation in the value of money afforded good ground for Sir Henry Spelman's sarcasm that, while everything else became dearer, the life of man became continually cheaper. The distinction between grand and petit larceny first appears in statute law in the Statute of Westminster the First, c. 15, but it was not created for the first time by that statute. It is found in some of the pre-Conquest codes, as that of Æthelstan, and it is recognized in the *Leges Henrici Primi*. A distinction between simple and compound larceny is still found in the books. The latter is larceny accompanied by circumstances of aggravation, as that it is in a dwelling-house or from the person. The law of larceny is now contained chiefly in the Larceny Act 1861 (which extends to England and Ireland), a comprehensive enactment including larceny, embezzlement, fraud by bailees, agents, bankers, factors, and trustees, sacrilege, burglary, housebreaking, robbery, obtaining money by threats or by false pretences, and receiving stolen goods, and prescribing procedure, both civil and criminal. There are, however, other acts in force dealing with special cases of larceny, such as an act of Henry VIII. as to stealing the goods of the king, and the Game, Post-Office and Merchant Shipping Acts. There are separate acts providing for larceny by a partner of partnership property, and by a husband or wife of the property of the other (Married Women's Property Act 1882). Proceedings against persons subject to naval or military law depend upon the Naval Discipline Act 1866 and the Army Act 1881. There are several acts, both before and after 1861, directing how the property is to be laid in indictments for stealing the goods of counties, friendly societies, trades unions, &c. The principal conditions which must exist in order to constitute larceny are these: (1) there must be an actual taking into the possession of the thief, though the smallest removal is sufficient; (2) there must be an intent to deprive the owner of his property for an indefinite period, and to assume the entire dominion over it, an intent often described in Bracton's words as *animus furandi*; (3) this intent must exist at the time of taking; (4) the thing taken must be one capable of larceny either at common law or by statute. One or two cases falling under the law of larceny are of special interest. It was held more than once that a servant taking corn to feed his master's horses, but without any intention of applying it for his own benefit, was guilty of larceny. To remedy this hardship, the Misappropriation of Servants Act 1863 was passed to declare such an act not to be felony. The case of appropriation of goods which have been found has led to some difficulty. It now seems to be the law that in order to constitute a larceny of lost goods there must be a felonious intent at the time of finding, that is, an intent to deprive the owner of them, coupled with reasonable means at the same time of knowing the owner. The mere retention of the goods when the owner has become known to the finder does not make the retention criminal. Larceny of money may be committed when the money is paid by mistake, if the prisoner took it *animo furandi*. In two noteworthy cases the question was argued before a very full court for crown cases reserved, and in each case there was a striking difference of opinion. In *R.* v. *Middleton*, 1873, L.R. 2 C.C.R., 38, the prisoner, a depositor in a post-office savings bank, received by the mistake of the clerk a larger sum that he was entitled to. The jury found that he had the *animus furandi* at the time of taking the money, and that he knew it to be the money of the postmaster-general. The majority of the court held it to be larceny. In a case in 1885 (*R.* v. *Ashwell*, L.R. 16 Q.B.D. 190), where the prosecutor gave the prisoner a sovereign believing it to be a shilling, and the prisoner took it under that belief, but afterwards discovered its value and retained it, the court was 211
equally divided as to whether the prisoner was guilty of larceny at common law, but held that he was not guilty of larceny as a bailee. Legislation has considerably affected the procedure in prosecutions for larceny. The inconveniences of the common law rules of interpretation of indictments led to certain amendments of the law, now contained in the Larceny Act, for the purpose of avoiding the frequent failures of justice owing to the strictness with which indictments were construed. Three larcenies of property of the same person within six months may now be charged in one indictment. On an indictment for larceny the prisoner may be found guilty of embezzlement, and *vice versa*; and if the prisoner be indicted for obtaining goods by false pretences, and the offence turn out to be larceny, he is not entitled to be acquitted of the misdemeanour. A count for receiving may be joined with the count for stealing. In many cases it is unnecessary to allege or prove ownership of the property the subject of the indictment. The act also contains numerous provisions as to venue and the apprehension of offenders. In another direction the powers of courts of Summary Jurisdiction (*q.v.*) have been extended, in the case of charges of larceny, embezzlement and receiving stolen goods, against children and young persons and against adults pleading guilty or waiving their right to trial by jury. The maximum punishment for larceny is fourteen years' penal servitude, but this can only be inflicted in certain exceptional cases, such as horse or cattle stealing and larceny by a servant or a person in the service of the crown or the police. The extreme punishment for simple larceny after a previous conviction for felony is ten years' penal servitude. Whipping may be part of the sentence on boys under sixteen.

Scotland.—A vast number of acts of the Scottish parliament dealt with larceny. The general policy of the acts was to make larceny what was not larceny at common law, *e.g.* stealing fruit, dogs, hawks or deer, and to extend the remedies, *e.g.* by giving the justiciar authority throughout the kingdom, by making the master in the case of theft by the servant liable to give the latter up to justice, or by allowing the use of firearms against thieves. The general result of legislation in England and Scotland has been to assimilate the law of larceny in both kingdoms. As a rule, what would be larceny in one would be larceny in the other.

United Stales.—The law depends almost entirely upon state legislation, and is in general accordance with that of England. The only acts of Congress bearing on the subject deal with larceny in the army and navy, and with larceny and receiving on the high seas or in any place under the exclusive jurisdiction of the United States, *e.g.* Alaska.

Alaska.—Stealing any goods, chattels, government note, bank note, or other thing in action, books of account, &c., is larceny: punishment, imprisonment for not less than one nor more than ten years if the property stolen is in value over $35. Larceny in any dwelling-house, warehouse, steamship, church, &c., is punishable by imprisonment for not less than one nor more than seven years. Larceny of a horse, mule, ass, bull, steer, cow or reindeer is punishable by imprisonment for not less than one nor more than fifteen years. Wilfully altering or defacing marks or brands on such animals is larceny (Pen. Code Alaska, § 45, 1899).

Arizona.—Appropriating property found without due inquiry for the owner is larceny (Penal Code, § 442).

"Dogs are property and of the value of *one dollar each* within the meaning of the terms 'property' and 'value' as used in this chapter" (*id.* § 448). Property includes a passage ticket though never issued. Persons stealing property in another state or county, or who receive it knowing it to be stolen and bring it into Arizona, may be convicted and punished as if the offence was committed there (*id.* § 454). Stealing gas or water from a main is a misdemeanour.

Iowa.—It is larceny to steal electricity, gas or water from wires, meters or mains (L. 1903, ch. 132).

New York.—Larceny as defined by § 528 of the Penal Code includes also embezzlement, obtaining property by false pretences, and felonious breach of trust (*People* v. *Dumar*, 106 N.Y. 508), but the method of proof required to establish these offences has not been changed. Grand larceny in the *first degree* is (*a*) stealing property of any value in the night time; (*b*) of $25 in value or more at night from a dwelling house, vessel or railway car; (*c*) of the value of more than $500 in any manner; in the *second degree* (*a*) stealing in any manner property of the value of over $25 and under $500; (*b*) taking from the person property of any value; (*c*) stealing any record of a court or other record filed with any public officer. Every other larceny is petit larceny. "Value" of any stock, bond or security having a market value is the amount of money due thereon or what, in any contingency, might be collected thereon; of any passenger ticket the price it is usually sold at. The value of anything else not fixed by statute is its market value. Grand larceny, in the first degree, is punishable by imprisonment not exceeding ten years; in the second degree, not exceeding five years. Petit larceny is a misdemeanour (Penal Code, §§ 530-535). Bringing stolen goods into the state knowing them to be stolen is punishable as larceny within the state (*id.* § 540). A "pay ticket" for removing a load of snow may be the subject of larceny and its value the amount to be paid on it. (*People* v. *Fletcher* [1906] 110 App. D. 231).

Kansas.—The owner of goods who takes them from a railroad company with intent to defeat its lien for transportation charges is guilty of larceny. (*Atchison Co.* v. *Hinsdell* [1907] 90 Pac. Rep. 800).

Massachusetts.—Larceny includes embezzlement and obtaining money by false pretences. (Rev. L. 1902, ch. 218, § 40.) The failing to restore to or to notify the owner of property removed from premises on fire is larceny (*id.* ch. 208, § 22). It is larceny to purchase property (payment for which is to be made on or before delivery) by means of a false pretence as to means or ability to pay, provided such pretence is signed by the person to be charged. Indictment for stealing a will need not contain an allegation of value (*id.* § 29). A person convicted either as accessory or principal of three distinct larcenies shall be adjudged "a common and notorious thief" and may be imprisoned for not more than twenty years (*id.* 31). On second conviction for larceny of a bicycle, the thief may be imprisoned for not more than five years. Larceny of things annexed to realty is punishable as if it were a larceny of personal property (*id.* §§ 33, 35).

Ohio.—Stealing "anything of value" is larceny (Bates Stats. § 6856). Tapping gas pipes is punishable by fine or imprisonment for not more than thirty days. Stealing timber having "timber dealers'" trade mark, or removing it from a stream, is punishable by a fine of not less than $20.

Utah.—It is grand larceny to alter the mark or brand on an animal (L. 1905, ch. 38).

Wyoming.—For branding or altering or defacing the brand on cattle with intent to steal, the penalty is imprisonment for not more than five years. It is larceny for a bailee to convert with intent to steal goods left with or found by him (Rev. Stats. §§ 4986, 4989).

Washington.—A horse not branded, but under Code § 6861 an "outlaw," the owner being unknown, can be the subject of a larceny, having been held to be property of the state. (*State* v. *Eddy* [1907], 90 Pac. Rep. 641). For the third offence of such a larceny the penalty is imprisonment for *life* (L. 1903, ch. 86).

See also Embezzlement; Cheating; False Pretences; Robbery; Stolen Goods.

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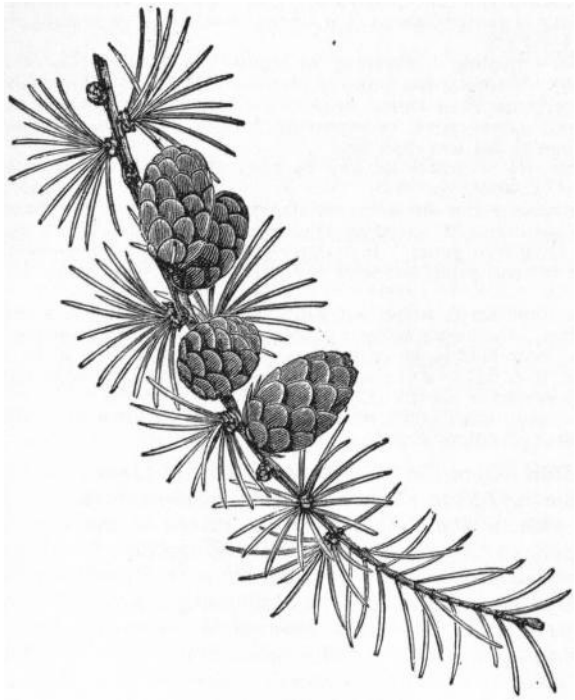
1 Thus destruction of a letter by a servant, with a view of suppressing inquiries into his or her character, makes the servant guilty of larceny in English law.

2 This provision was most unnecessarily repeated in the Larceny Act of 1861.

LARCH (from the Ger. *Lärche*, M.H.G. *Lerche*, Lat. *larix*), a name applied to a small group of coniferous trees, of which the common larch of Europe is taken as the type. The members of the genus *Larix* are distinguished from the firs, with which they were formerly placed, by their deciduous leaves, scattered singly, as in *Abies*, on the young shoots of the season, but on all older branchlets growing in whorl-like tufts, each surrounding the extremity of a rudimentary or abortive branch; they differ from cedars (*Cedrus*), which also have the fascicles of leaves on arrested branchlets, not only in the deciduous leaves, but in the cones, the scales of which are thinner towards the apex, and are persistent, remaining attached long after the seeds are discharged. The trees of the genus are closely allied in botanic features, as well as in general appearance, so that it is sometimes difficult to assign to them determinate specific characters, and the limit between species and variety is not always very accurately defined. Nearly all are natives of Europe, or the northern plains and mountain ranges of Asia and North America, though one (*Larix Griffithii*) occurs only on the Himalayas.

The common larch (*L. europaea*) is, when grown in perfection, a stately tree with tall erect trunk, gradually tapering from root to summit, and horizontal branches springing at irregular intervals from the stem, and in old trees often becoming more or less drooping, but rising again towards the extremities; the branchlets or side shoots, very slender and pendulous, are pretty thickly studded with the spurs each bearing a fascicle of thirty or more narrow linear leaves, of a peculiar bright light green when they first appear in the spring, but becoming of a deeper hue when mature. The yellow stamen-bearing flowers are in sessile, nearly spherical catkins; the fertile ones vary in colour, from red or purple to greenish-white, in different varieties; the erect cones, which remain long on the branches, are above an inch in length and oblong-ovate in shape, with reddish-brown scales somewhat waved on the edges, the lower bracts usually rather longer than the scales. The tree

flowers in April or May, and the winged seeds are shed the following autumn. When standing in an open space, the larch grows of a nearly conical shape, with the lower branches almost reaching the ground, while those above gradually diminish in length towards the top of the trunk, presenting a very symmetrical form; but in dense woods the lower parts become bare of foliage, as with the firs under similar circumstances. When springing up among rocks or on ledges, the stem sometimes becomes much curved, and, with its spreading boughs and pendent branchlets, often forms a striking and picturesque object in alpine passes and steep ravines. In the prevalent European varieties the bark is reddish-grey, and rather rough and scarred in old trees, which are often much lichen-covered. The trunk attains a height of from 80 to 140 ft., with a diameter of from 3 to 5 ft. near the ground, but in close woods is comparatively slender in proportion to its altitude. The larch abounds on the Alps of Switzerland, on which it flourishes at an elevation of 5000 ft., and also on those of Tirol and Savoy, on the Carpathians, and in most of the hill regions of central Europe; it is not wild on the Apennine chain, or the Pyrenees, and in the wild state is unknown in the Spanish peninsula. It forms extensive woods in Russia, but does not extend to Scandinavia, where its absence is somewhat remarkable, as the tree grows freely in Norway and Sweden where planted, and even multiplies itself by self-sown seed, according to F. C. Schübeler, in the neighbourhood of Trondhjem. In the north-eastern parts of Russia, in the country towards the Petchora river, and on the Ural, a peculiar variety prevails, regarded by some as a distinct species (*L. sibirica*); this form is abundant nearly throughout Siberia, extending to the Pacific coast of Kamchatka and the hills of the Amur region. The Siberian larch has smooth grey bark and smaller cones, approaching in shape somewhat to those of the American hackmatack; it seems even hardier than the Alpine tree, growing up to latitude 68°, but, as the inclement climate of the polar shores is neared, dwindling down to a dwarf and even trailing bush.



Branchlet of Larch (*Larix europaea*).

The larch, from its lofty straight trunk and the high quality of its wood, is one of the most important of coniferous trees; its growth is extremely rapid, the stem attaining a large size in from sixty to eighty years, while the tree yields good useful timber at forty or fifty; it forms firm heartwood at an early age, and the sapwood is less perishable than that of the firs, rendering it more valuable in the young state.

The wood of large trees is compact in texture, in the best varieties of a deep reddish colour varying to brownish-yellow, but apt to be lighter in tint, and less hard in grain, when grown in rich soils or in low sheltered situations. It is remarkably tough, resisting a rending strain better than any of the fir or pine woods in common use, though not as elastic as some; properly seasoned, it is as little liable to shrink as to split; the boughs being small compared to the trunk, the timber is more free from large knots, and the small knots remain firm and undecayed. The only drawback to these good qualities is a certain liability to warp and bend, unless very carefully seasoned; for this purpose it is recommended to be left floating in water for a year after felling, and then allowed some months to dry slowly and completely before sawing up the logs; barking the trunk in winter while the tree is standing, and leaving it in that state till the next year, has been often advised with the larch as with other timber, but the practical inconveniences of the plan have prevented its adoption on any large scale. When well prepared for use, larch is one of the most durable of coniferous woods. Its strength and toughness render it valuable for naval purposes, to which it is largely applied; its freedom from any tendency to split adapts it for clinker-built boats. It is much employed for house-building; most of the picturesque log-houses in Vaud and the adjacent cantons are built of squared larch trunks, and derive their fine brown tint from the hardened resin that slowly exudes from the wood after long exposure to the summer sun; the wooden shingles, that in Switzerland supply the place of tiles, are also frequently of larch. In Germany it is much used by the cooper as well as the carpenter, while the form of the trunk admirably adapts it for all purposes for which long straight timber is needed. It answers well for fence-posts and river piles; many of the foundations of Venice rest upon larch, the lasting qualities of which were well known and appreciated, not only in medieval times, but in the days of Vitruvius and Pliny. The harder and darker varieties are used in the construction of cheap solid furniture, being fine in grain and taking polish better than many more costly woods. A peculiarity of larch wood is the difficulty with which it is ignited, although so resinous; and, coated with a thin layer of plaster, beams and pillars of larch might probably be found to justify Caesar’s epithet “igni impenetrabile lignum”; even the small branches are not easily kept alight, and a larch fire in the open needs considerable care. Yet the forests of larch in Siberia often suffer from conflagration. When these fires occur while the trees are full of sap, a curious mucilaginous matter is exuded from the half-burnt stems; when dry it is

of pale reddish colour, like some of the coarser kinds of gum-arabic, and is soluble in water, the solution resembling gum-water, in place of which it is sometimes used; considerable quantities are collected and sold as “Orenburg gum”; in Siberia and Russia it is occasionally employed as a semi-medicinal food, being esteemed an antiscorbutic. For burning in close stoves and furnaces, larch makes tolerably good fuel, its value being estimated by Hartig as only one-fifth less than that of beech; the charcoal is compact, and is in demand for iron-smelting and other metallurgic uses in some parts of Europe.

In the trunk of the larch, especially when growing in climates where the sun is powerful in summer, a fine clear turpentine exists in great abundance; in Savoy and the south of Switzerland, it is collected for sale, though not in such quantity as formerly, when, being taken to Venice for shipment, it was known in commerce as “Venice turpentine.” Old trees are selected, from the bark of which it is observed to ooze in the early summer; holes are bored in the trunk, somewhat inclined upward towards the centre of the stem, in which, between the layers of wood, the turpentine is said to collect in small lacunae; wooden gutters placed in these holes convey the viscous fluid into little wooden pails hung on the end of each gutter; the secretion flows slowly all through the summer months, and a tree in proper condition yields from 6 to 8 lb a year, and will continue to give an annual supply for thirty or forty years, being, however, rendered quite useless for timber by subjection to this process. In Tirol, a single hole is made near the root of the tree in the spring; this is stopped with a plug, and the turpentine is removed by a scoop in the autumn; but each tree yields only from a few ounces to ½ lb by this process. Real larch turpentine is a thick tenacious fluid, of a deep yellow colour, and nearly transparent; it does not harden by time; it contains 15% of the essential oil of turpentine, also resin, succinic, pinic and sylvic acids, and a bitter extractive matter. According to Pereira, much sold under the name of Venice turpentine is a mixture of common resin and oil of turpentine. On the French Alps a sweet exudation is found on the small branchlets of young larches in June and July, resembling manna in taste and laxative properties, and known as *Manna de Briançon* or *Manna Brigantina*; it occurs in small whitish irregular granular masses, which are removed in the morning before they are too much dried by the sun; this manna seems to differ little in composition from the sap of the tree, which also contains *mannite*; its cathartic powers are weaker than those of the manna of the manna ash (*Fraximus ornus*), but it is employed in France for the same purposes.

The bark of the larch is largely used in some countries for tanning; it is taken from the trunk only, being stripped from the trees when felled; its value is about equal to that of birch bark; but, according to the experience of British tanners, it is scarcely half as strong as that of the oak. The soft inner bark is occasionally used in Siberia as a ferment, by hunters and others, being boiled and mixed with rye-meal, and buried in the snow for a short time, when it is employed as a substitute for other leaven, and in making the sour liquor called “quass.” In Germany a fungus (*Polyporus Laricis*) grows on the roots and stems of decaying larches, which was formerly in esteem as a drastic purgative. The young shoots of the larch are sometimes given in Switzerland as fodder to cattle.

The larch, though mentioned by Parkinson in 1629 as “nursed up” by a few “lovers of variety” as a rare exotic, does not seem to have been much grown in England till early in the 18th century. In Scotland the date of its introduction is a disputed point, but it seems to have been planted at Dunkeld by the 2nd duke of Athole in 1727, and about thirteen or fourteen years later considerable plantations were made at that place, the commencement of one of the largest planting experiments on record; it is estimated that 14 million larches were planted on the Athole estates between that date and 1826. The cultivation of the tree rapidly spread, and the larch has become a conspicuous feature of the scenery in many parts of Scotland. It grows as rapidly and attains as large a size in British habitats suited to it as in its home on the Alps, and often produces equally good timber. The larch of Europe is essentially a mountain tree, and requires not only free air above, but a certain moderate amount of moisture in the soil beneath, with, at the same time, perfect drainage, to bring the timber to perfection. Where there is complete freedom from stagnant water in the ground, and abundant room for the spread of its branches to light and air, the larch will flourish in a great variety of soils, stiff clays, wet or mossy peat, and moist alluvium being the chief exceptions; in its native localities it seems partial to the debris of primitive and metamorphic rocks, but is occasionally found growing luxuriantly on calcareous subsoils; in Switzerland it attains the largest size, and forms the best timber, on the northern declivities of the mountains; but in Scotland a southern aspect appears most favourable.

The best variety for culture in Britain is that with red female flowers; the light-flowered kinds are said to produce inferior wood, and the Siberian larch does not grow in Scotland nearly as fast as the Alpine tree. The larch is raised from seed in immense numbers in British nurseries; that obtained from Germany is preferred, being more perfectly ripened than the cones of home growth usually are. The seeds are sown in April, on rich ground, which should not be too highly manured; the young larches are planted out when two years old, or sometimes transferred to a nursery bed to attain a larger size; but, like all conifers, they succeed best when planted young; on the mountains, the seedlings are usually put into a mere slit made in the ground by a spade with a triangular blade, the place being first cleared of any heath, bracken, or tall herbage that might smother the young tree; the plants should be from 3 to 4 ft. apart, or even more, according to the growth intended before thinning, which should be begun as soon as the boughs begin to overspread much; little or no pruning is needed beyond the careful removal of dead branches. The larch is said not to succeed on arable land, especially where corn has been grown, but experience does not seem to support this view; that against the previous occupation of the ground by Scotch fir or Norway spruce is probably better founded, and, where timber is the object, it should not be planted with other conifers. On the Grampians and neighbouring hills the larch will flourish at a greater elevation than the pine, and will grow up to an altitude of 1700 or even 1800 ft.; but it attains its full size on lower slopes. In very dry and bleak localities, the Scotch fir will probably be more successful up to 900 ft. above the sea, the limit of the luxuriant growth of that hardy conifer in Britain; and in moist valleys or on imperfectly drained acclivities Norway spruce is more suitable. The growth of the larch while young is exceedingly rapid; in the south of England it will often attain a height of 25 ft. in the first ten years, while in favourable localities it will grow upwards of 80 ft. in half a century or less; one at Dunkeld felled sixty years after planting was 110 ft. high; but usually the tree does not increase so rapidly after the first thirty of forty years. Some larches in Scotland rival in size the most gigantic specimens standing in their native woods; a tree at Dalwick, Peeblesshire, attained 5 ft. in diameter; one at Glenarbuck, near the Clyde, grew above 140 ft. high, with a circumference of 13 ft. The annual increase in girth is often considerable even in large trees; the fine larch near the abbey of Dunkeld figured by Strutt in his *Sylva Britannica* increased 2½ ft. between 1796 and 1825, its measurement at the latter date being 13 ft., with a height of 97½ ft.

In the south of England, the larch is much planted for the supply of hop-poles, though in parts of Kent and Sussex poles formed of Spanish chestnut are regarded as still more lasting. In plantations made with this

object, the seedlings are placed very close (from 1½ to 2 ft. apart), and either cut down all at once, when the required height is attained or thinned out, leaving the remainder to gain a greater length; the land is always well trenched before planting. The best month for larch planting, whether for poles or timber, is November; larches are sometimes planted in the spring, but the practice cannot be commended, as the sap flows early, and, if a dry period follows, the growth is sure to be checked. The thinnings of the larch woods in the Highlands are in demand for railway sleepers, scaffold poles, and mining timber, and are applied to a variety of agricultural purposes. The tree generally succeeds on the Welsh hills.

The young seedlings are sometimes nibbled by the hare and rabbit; and on parts of the highland hills both bark and shoots are eaten in the winter by the roe-deer; larch woods should always be fenced in to keep out the hill-cattle, which will browse upon the shoots in spring. The "woolly aphis," "American blight," or "larch blight" (*Eriosoma laricis*) often attacks the trees in close valleys, but rarely spreads much unless other unhealthy conditions are present. The larch suffers from several diseases caused by fungi; the most important is the larch-canker caused by the parasitism of *Peziza Willkommii*. The spores germinate on a damp surface and enter the cortex through small cracks or wounds in the protecting layer. The fungus-mycelium will go on growing indefinitely in the cambium layer, thus killing and destroying a larger area year by year. The most effective method of treatment is to cut out the diseased branch or patch as early as possible. Another disease which is sometimes confused with that caused by the *Peziza* is "heart-rot"; it occasionally attacks larches only ten years old or less, but is more common when the trees have acquired a considerable size, sometimes spreading in a short time through a whole plantation. The trees for a considerable period show little sign of unhealthiness, but eventually the stem begins to swell somewhat near the root, and the whole tree gradually goes off as the disease advances; when cut down, the trunk is found to be decayed at the centre, the "rot" usually commencing near the ground. Trees of good size are thus rendered nearly worthless, often showing little sign of unhealthiness till felled. Great difference of opinion exists among foresters as to the cause of this destructive malady; but it is probably the direct result of unsuitable soil, especially soil containing insufficient nourishment.

Considerable quantities of larch timber are imported into Britain for use in the dockyards, in addition to the large home supply. The quality varies much, as well as the colour and density; an Italian sample in the museum at Kew (of a very dark red tint) weighs about 24½ lb to the cub. ft., while a Polish specimen, of equally deep hue, is 44 lb 1 oz. to the same measurement.

For the landscape gardener, the larch is a valuable aid in the formation of park and pleasure ground; but it is never seen to such advantage as when hanging over some tumbling burn or rocky pass among the mountains. A variety with very pendent boughs, known as the "drooping" larch var. *pendula*, is occasionally met with in gardens.

The bark of the larch has been introduced into pharmacy, being given, generally in the form of an alcoholic tincture, in chronic bronchitic affections and internal haemorrhages. It contains, in addition to tannin, a peculiar principle called *larixin*, which may be obtained in a pure state by distillation from a concentrated infusion of the bark; it is a colourless substance in long crystals, with a bitter and astringent taste, and a faint acid reaction; hence some term it *larixinic acid*.

The European larch has long been introduced into the United States, where, in suitable localities, it flourishes as luxuriantly as in Britain. Plantations have been made in America with an economic view, the tree growing much faster, and producing good timber at an earlier age than the native hackmatack (or tamarack), while the wood is less ponderous, and therefore more generally applicable.

The genus is represented in the eastern parts of North America by the hackmatack (*L. americana*), of which there are several varieties, two so well marked that they are by some botanists considered specifically distinct. In one (*L. microcarpa*) the cones are very small, rarely exceeding ½ in. in length, of a roundish-oblong shape; the scales are very few in number, crimson in the young state, reddish-brown when ripe; the tree much resembles the European larch in general appearance but is of more slender growth; its trunk is seldom more than 2 ft. in diameter and rarely above 80 ft. high; this form is the red larch, the *épinette rouge* of the French Canadians. The black larch (*L. pendula*) has rather larger cones, of an oblong shape, about ¾ in. long, purplish or green in the immature state, and dark brown when ripe, the scales somewhat more numerous, the bracts all shorter than the scales. The bark is dark bluish-grey, smoother than in the red larch, on the trunk and lower boughs often glossy; the branches are more or less pendulous and very slender.

The red larch grows usually on higher and drier ground, ranging from the Virginian mountains to the shores of Hudson Bay; the black larch is found often on moist land, and even in swamps. The hackmatack is one of the most valuable timber trees of America; it is in great demand in the ports of the St Lawrence for shipbuilding. It is far more durable than any of the oaks of that region, is heavy and close-grained, and much stronger, as well as more lasting, than that of the pines and firs of Canada. In many parts all the finer trees have been cut down, but large woods of it still exist in the less accessible districts; it abounds especially near Lake St John, Quebec, and in Newfoundland is the prevalent tree in some of the forest tracts; it is likewise common in Maine and Vermont. In the timber and building yards the "red" hackmatack is the kind preferred, the produce, probably, of *L. microcarpa*; the "grey" is less esteemed; but the varieties from which these woods are obtained cannot always be traced with certainty. Several fine specimens of the red larch exist in English parks, but its growth is much slower than that of *L. europaea*; the more pendulous forms of *L. pendula* are elegant trees for the garden. The hackmatacks might perhaps be grown with advantage in places too wet for the common larch.

In western America a larch (*L. occidentalis*) occurs more nearly resembling *L. europaea*. The leaves are short, thicker and more rigid than in any of the other larches; the cones are much larger than those of the hackmatacks, egg-shaped or oval in outline; the scales are of a fine red in the immature state, the bracts green and extending far beyond the scales in a rigid leaf-like point. The bark of the trunk has the same reddish tint as that of the common larch of Europe. It is the largest of all larches and one of the most useful timber trees of North America. Some of the trees are 250 ft. high and 6 to 8 ft. in diameter. The wood is the hardest and strongest of all the American conifers; it is durable and adapted for construction work or household furniture.

LARCHER, PIERRE HENRI (1726-1812), French classical scholar and archaeologist, was born at Dijon on the 12th of October 1726. Originally intended for the law, he abandoned it for the classics. His (anonymous) translation of Chariton's *Chaereas and Callirrhoë* (1763) marked him as an excellent Greek scholar. His attack upon Voltaire's *Philosophie de l'historie* (published under the name of l'Abbé Bazin) created considerable interest at the time. His archaeological and mythological *Mémoire sur Vénus* (1775), which has been ranked with similar works of Heyne and Winckelmann, gained him admission to the Académie des Inscriptions (1778). After the imperial university was founded, he was appointed professor of Greek literature (1809) with Boissonade as his assistant. He died on the 22nd of December 1812. Larcher's best work was his translation of Herodotus (1786, new ed. by L. Humbert, 1880) on the preparation of which he had spent fifteen years. The translation itself, though correct, is dull, but the commentary (translated into English, London, 1829, new ed. 1844, by W. D. Cooley) dealing with historical, geographical and chronological questions, and enriched by a wealth of illustration from ancient and modern authors, is not without value.

See J. F. Boissonade, *Notice sur la vie et les écrits de P. L.* (1813); F. A. Wolf, *Literarische Analecten*, i. 205; D. A. Wyttenbach, *Philomathia*, iii. (1817).

LARCIUS (less accurately LARTIUS), **TITUS,** probably surnamed FLAVUS, a member of an Etruscan family (cf. Lars Tolumnius, Lars Porsena) early settled in Rome. When consul in 501 B.C. he was chosen dictator (the title and office being then introduced for the first time) to command against the thirty Latin cities, which had sworn to reinstate Tarquin in Rome. Other authorities put the appointment three years later, when the plebeians refused to serve against the Latins until they had been released from the burden of their debts. He opposed harsh measures against the Latins, and also interested himself in the improvement of the lot of the plebeians. His brother, Spurius, is associated with Horatius Cocles in the defence of the Sublician bridge against the Etruscans.

See Livy ii. 10, 18, 21, 29; Dion. Halic. v. 50-77, vi. 37; Cicero, *De Re Publica*, ii. 32.

LARD (Fr. *lard*, from Lat. *laridum*, bacon fat, related to Gr. λαρινός fat, λαρός dainty or sweet), the melted and strained fat of the common hog. Properly it is prepared from the "leaf" or fat of the bowel and kidneys, but in commerce the term as applied to products which include fat obtained from other parts of the animal and sometimes containing no "leaf" at all. Lard of various grades is made in enormous quantities by the great pork-packing houses at Chicago and elsewhere in America. "Neutral lard" is prepared at a temperature of 40°-50° C. from freshly killed hogs; the finest quality, used for making oleomargarine, is got from the leaf, while the second, employed by biscuit and pastry bakers, is obtained from the fat of the back. Steam heat is utilized in extracting inferior qualities, such as "choice lard" and "prime steam lard," the source of the latter being any fat portion of the animal. Lard is a pure white fat of a butter-like consistence; its specific gravity is about 0.93, its solidifying point about 27°-30° C., and its melting point 35°-45° C. It contains about 60% of olein and 40% of palmitin and stearin. Adulteration is common, the substances used including "stearin" both of beef and of mutton, and vegetable oils such as cotton seed oil: indeed, mixtures have been sold as lard that contain nothing but such adulterants. In the pharmacopoeia lard figures as *adeps* and is employed as a basis for ointments. Benzoated lard, used for the same purpose, is prepared by heating lard with 3% of powdered benzoin for two hours; it keeps better than ordinary lard, but has slightly irritant properties.

Lard oil is the limpid, clear, colourless oil expressed by hydraulic pressure and gentle heat from lard; it is employed for burning and for lubrication. Of the solid residue, lard "stearine," the best qualities are utilized for making oleomargarine, the inferior ones in the manufacture of candles.

See J. Lewkowitsch, *Oils, Fats and Waxes* (London, 1909).

LARDNER, DIONYSIUS (1793-1859), Irish scientific writer, was born at Dublin on the 3rd of April 1793. His father, a solicitor, wished his son to follow the same calling. After some years of uncongenial desk work, Lardner entered Trinity College, Dublin, and graduated B.A. in 1817. In 1828 he became professor of natural philosophy and astronomy at University College, London, a position he held till 1840, when he eloped with a married lady, and had to leave the country. After a lecturing tour through the principal cities of the United States, which realized £40,000, he returned to Europe in 1845. He settled at Paris, and resided there till within a few months of his death, which took place at Naples on the 29th of April 1859.

Though lacking in originality or brilliancy, Lardner showed himself to be a successful popularizer of science.

He was the author of numerous mathematical and physical treatises on such subjects as algebraic geometry (1823), the differential and integral calculus (1825), the steam engine (1828), besides hand-books on various departments of natural philosophy (1854-1856); but it is as the editor of *Lardner's Cabinet Cyclopaedia* (1830-1844) that he is best remembered. To this scientific library of 134 volumes many of the ablest savants of the day contributed, Lardner himself being the author of the treatises on arithmetic, geometry, heat, hydrostatics and pneumatics, mechanics (in conjunction with Henry Kater) and electricity (in conjunction with C. V. Walker). The *Cabinet Library* (12 vols., 1830-1832) and the *Museum of Science and Art* (12 vols., 1854-1856) are his other chief undertakings. A few original papers appear in the Royal Irish Academy's *Transactions* (1824), in the Royal Society's *Proceedings* (1831-1836) and in the Astronomical Society's *Monthly Notices* (1852-1853); and two *Reports* to the British Association on railway constants (1838, 1841) are from his pen.

LARDNER, NATHANIEL (1684-1768), English theologian, was born at Hawkhurst, Kent. After studying for the Presbyterian ministry in London, and also at Utrecht and Leiden, he took licence as a preacher in 1709, but was not successful. In 1713 he entered the family of a lady of rank as tutor and domestic chaplain, where he remained until 1721. In 1724 he was appointed to deliver the Tuesday evening lecture in the Presbyterian chapel, Old Jewry, London, and in 1729 he became assistant minister to the Presbyterian congregation in Crutched Friars. He was given the degree of D.D. by Marischal College, Aberdeen, in 1745. He died at Hawkhurst on the 24th of July 1768.

An anonymous volume of *Memoirs* appeared in 1769; and a life by Andrew Kippis is prefixed to the edition of the *Works* of Lardner, published in 11 vols., 8vo in 1788, in 4 vols. 4to in 1817, and 10 vols. 8vo in 1827. The full title of his principal work—a work which, though now out of date, entitles its author to be regarded as the founder of modern critical research in the field of early Christian literature—is *The Credibility of the Gospel History; or the Principal Facts of the New Testament confirmed by Passages of Ancient Authors, who were contemporary with our Saviour or his Apostles, or lived near their time*. Part i., in 2 vols. 8vo, appeared in 1727; the publication of part ii., in 12 vols. 8vo, began in 1733 and ended in 1755. In 1730 there was a second edition of part i., and the *Additions and Alterations* were also published separately. A *Supplement*, otherwise entitled *A History of the Apostles and Evangelists, Writers of the New Testament*, was added in 3 vols. (1756-1757), and reprinted in 1760. Other works by Lardner are *A Large Collection of Ancient Jewish and Heathen Testimonies to the Truth of the Christian Revelation, with Notes and Observations* (4 vols., 4to, 1764-1767); *The History of the Heretics of the two first Centuries after Christ*, published posthumously in 1780 and a considerable number of occasional sermons.

LAREDO, a city and the county-seat of Webb county, Texas, U.S.A., and a sub-port of entry, on the Rio Grande opposite Nuevo Laredo, Mexico, and 150 m. S. of San Antonio. Pop. (1900) 13,429, of whom 6882 were foreign-born (mostly Mexicans) and 82 negroes; (1910 census) 14,855. It is served by the International & Great Northern, the National of Mexico, the Texas Mexican and the Rio Grande & Eagle Pass railways, and is connected by bridges with Nuevo Laredo. Among the principal buildings are the U.S. Government Building, the City Hall and the County Court House; and the city's institutions include the Laredo Seminary (1882) for boys and girls, the Mercy Hospital, the National Railroad of Mexico Hospital and an Ursuline Convent. Loma Vista Park (65 acres) is a pleasure resort, and immediately W. of Laredo on the Rio Grande is Fort McIntosh (formerly Camp Crawford), a United States military post. Laredo is a jobbing centre for trade between the United States and Mexico, and is a sub-port of entry in the Corpus Christi Customs District. It is situated in a good farming and cattle-raising region, irrigated by water from the Rio Grande. The principal crop is Bermuda onions; in 1909 it was estimated that 1500 acres in the vicinity were devoted to this crop, the average yield per acre being about 20,000 lb. There are coal mines about 25 m. above Laredo on the Rio Grande, and natural gas was discovered about 28 m. E. in 1908. The manufacture of bricks is an important industry. Laredo was named from the seaport in Spain, and was founded in 1767 as a Mexican town; it originally included what is now Nuevo Laredo, Mexico, and was long the only Mexican town on the left bank of the river. It was captured in 1846 by a force of Texas Rangers, and in 1847 was occupied by U.S. troops under General Lamar. In 1852 it was chartered as a city of Texas.

LA RÉOLE, a town of south-western France, capital of an arrondissement in the department of Gironde, on the right bank of the Gironde, 38 m. S.E. of Bordeaux by rail. Pop. (1906) 3469. La Réole grew up round a monastery founded in the 7th or 8th century, which was reformed in the 11th century and took the name of *Regula*, whence that of the town. A church of the end of the 12th century and some of the buildings (18th century) are left. There is also a town hall of the 12th and 14th centuries. The town fortifications were dismantled by order of Richelieu, but remains dating from the 12th and 14th centuries are to be seen, as well

as a ruined château built by Henry II. of England. La Réole has a sub-prefecture, a tribunal of first instance, a communal college and an agricultural school. The town is the centre of the district in which the well-known breed of Bazadais cattle is reared. It is an agricultural market and carries on trade in the wine of the region together with liqueur distillery and the manufacture of casks, rope, brooms, &c.

LARES (older form *Lases*), Roman tutelary deities. The word is generally supposed to mean "lords," and identified with Etruscan *larth*, *lar*; but this is by no means certain. The attempt to harmonize the Stoic demonology with Roman religion led to the Lares being compared with the Greek "heroes" during the period of Greco-Roman culture, and the word is frequently translated ἥρωες. In the later period of the republic they are confounded with the Penates (and other deities), though the distinction between them was probably more sharply marked in earlier times. They were originally gods of the cultivated fields, worshipped by each household where its allotment joined those of others (see below). The distinction between public and private Lares existed from early times. The latter were worshipped in the house by the family alone, and the household Lar (*familiaris*) was conceived of as the centre-point of the family and of the family cult. The word itself (in the singular) came to be used in the general sense of "home." It is certain that originally each household had only one Lar; the plural was at first only used to include other classes of Lares, and only gradually, after the time of Cicero, ousted the singular. The image of the Lar, made of wood, stone or metal, sometimes even of silver, stood in its special shrine (*lararium*), which in early times was in the atrium, but was afterwards transferred to other parts of the house, when the family hearth was removed from the atrium. In some of the Pompeian houses the *lararium* was represented by a niche only, containing the image of the lar. It was usually a youthful figure, dressed in a short, high-girt tunic, holding in one hand a *rhyton* (drinking-horn), in the other a *patera* (cup). Under the Empire we find usually two of these, one on each side of the central figure of the Genius of the head of the household, sometimes of Vesta the hearth-deity. The whole group was called indifferently Lares or Penates. A prayer was said to the Lar every morning, and at each meal offerings of food and drink were set before him; a portion of these was placed on the hearth and afterwards shaken into the fire. Special sacrifices were offered on the kalends, nones, and ides of every month, and on the occasion of important family events. Such events were the birthday of the head of the household; the assumption of the *toga virilis* by a son; the festival of the Caristia in memory of deceased members of the household; recovery from illness; the entry of a young bride into the house for the first time; return home after a long absence. On these occasions the Lares were crowned with garlands, and offerings of cakes and honey, wine and incense, but especially swine, were laid before them. Their worship persisted throughout the pagan period, although its character changed considerably in later times. The emperor Alexander Severus had images of Abraham, Christ and Alexander the Great among his household Lares.

The public Lares belonged to the state religion. Amongst these must be included, at least after the time of Augustus, the *Lares compitales*. Originally two in number, mythologically the sons of Mercurius and Lara (or Larunda), they were the presiding deities of the cross-roads (*compita*), where they had their special chapels. It has been maintained by some that they are the twin brothers so frequent in early religions, the Romulus and Remus of the Roman foundation legends. Their sphere of influence included not only the cross-roads, but the whole neighbouring district of the town and country in which they were situated. They had a special annual festival, called Compitalia, to which public games were added some time during the republican period. When the colleges of freedmen and slaves, who assisted the presidents of the festival, were abolished by Julius Caesar, it fell into disuse. Its importance was revived by Augustus, who added to these Lares his own Genius, the religious personification of the empire.

The state itself had its own Lares, called *praestites*, the protecting patrons and guardians of the city. They had a temple and altar on the Via Sacra, near the Palatine, and were represented on coins as young men wearing the chlamys, carrying lances, seated, with a dog, the emblem of watchfulness, at their feet. Mention may also be made of the *Lares grundules*, whose worship was connected with the white sow of Alba Longa and its thirty young (the epithet has been connected with *grunnire*, to grunt): the *viales*, who protected travellers; the *hostilii*, who kept off the enemies of the state; the *permarini*, connected with the sea, to whom L. Aemilius Regillus, after a naval victory over Antiochus (190 B.C.), vowed a temple in the Campus Martius, which was dedicated by M. Aemilius Lepidus the censor in 179.

The old view that the Lares were the deified ancestors of the family has been rejected lately by Wissowa, who holds that the Lar was originally the protecting spirit of a man's lot of arable land, with a shrine at the *compitum*, *i.e.* the spot where the path bounding his arable met that of another holding; and thence found his way into the house.

In addition to the manuals of Marquardt and Preller-Jordan, and Roscher's *Lexikon der Mythologie*, see A. de Marchi, *Il Culto privato di Roma antica* (1896-1903), p. 28 foll.; G. Wissowa, *Religion und Kultus der Römer* (1902), p. 148 foll.; *Archiv für Religionswissenschaft* (1904, p. 42 foll.) and W. Warde Fowler in the same periodical (1906; p. 529).

LA RÉVELLIÈRE-LÉPEAUX, LOUIS MARIE DE (1753-1824), French politician, member of the Directory, the son of J. B. de la Révellière, was born at Montaign (Vendée), on the 24th of August 1753. The

name of Lépeaux he adopted from a small property belonging to his family, and he was known locally as M. de Lépeaux. He studied law at Angers and Paris, being called to the bar in 1775. A deputy to the states-general in 1789, he returned at the close of the session to Angers, where with his school-friends J. B. Leclerc and Urbain René Pilastre he sat on the council of Maine-et-Loire, and had to deal with the first Vendéen outbreaks. In 1792 he was returned by the department to the Convention, and on the 19th of November he proposed the famous decree by which France offered protection to foreign nations in their struggle for liberty. Although La Révellière-Lépeaux voted for the death of Louis XVI., he was not in general agreement with the extremists. Proscribed with the Girondins in 1793 he was in hiding until the revolution of 9.10 Thermidor (27th and 28th of July 1794). After serving on the commission to prepare the initiation of the new constitution he became in July 1795 president of the Assembly, and shortly afterwards a member of the Committee of Public Safety. His name stood first on the list of directors elected, and he became president of the Directory. Of his colleagues he was in alliance with Jean François Rewbell and to a less degree with Barras, but the greatest of his fellow-directors, Lazare Carnot, was the object of his undying hatred. His policy was marked by a bitter hostility to the Christian religion, which he proposed to supplant as a civilizing agent by theophilanthropy, a new religion invented by the English deist David Williams. The credit of the *coup d'état* of 18 Fructidor (4th of September 1797), by which the allied directors made themselves supreme, La Révellière arrogated to himself in his *Mémoires*, which in this as in other matters must be read with caution. Compelled to resign by the revolution of 30 Prairial (18th of June 1799) he lived in retirement in the country, and even after his return to Paris ten years later took no part in public affairs. He died on the 27th of March 1824.

The *Mémoires* of La Révellière-Lépeaux were edited by R. D. D'Angers (Paris, 3 vols., 1895). See also E. Charavay, *La Révellière-Lépeaux et ses mémoires* (1895) and A. Meynier, *Un Représentant de la bourgeoisie angevine* (1905).

LARGENTIÈRE, a town of south-eastern France, capital of an arrondissement in the department of Ardèche, in the narrow valley of the Ligne, 29 m. S.W. of Privas by road. Pop. (1906) 1690. A church of the 12th, 13th and 15th centuries and the old castle of the bishops of Viviers, lords of Largentière, now used as a hospital, are the chief buildings. The town is the seat of a sub-prefect and of a tribunal of first instance; and has silk-mills, and carries on silk-spinning, wine-growing and trade in fruit and silk. It owes its name to silver-mines worked in the vicinity in the middle ages.

LARGILLIÈRE, NICOLAS (1656-1746), French painter, was born at Paris on the 20th of October 1656. His father, a merchant, took him to Antwerp at the age of three, and while a lad he spent nearly two years in London. The attempt to turn his attention to business having failed, he entered, some time after his return to Antwerp, the studio of Goubeau, quitting this at the age of eighteen to seek his fortune in England, where he was befriended by Lely, who employed him for four years at Windsor. His skill attracted the notice of Charles II., who wished to retain him in his service, but the fury aroused against Roman Catholics by the Rye House Plot alarmed Largillière, and he went to Paris, where he was well received by Le Brun and Van der Meulen. In spite of his Flemish training, his reputation, especially as a portrait-painter, was soon established; his brilliant colour and lively touch attracted all the celebrities of the day—actresses, public men and popular preachers flocking to his studio. Huet, bishop of Avranches, Cardinal de Noailles, the Duclos and President Lambert, with his beautiful wife and daughter, are amongst his most noted subjects. It is said that James II. recalled Largillière to England on his accession to the throne in 1685, that he declined the office of keeper of the royal collections, but that, during a short stay in London, he painted portraits of the king, the queen and the prince of Wales. This last is impossible, as the birth of the prince did not take place till 1688; the three portraits, therefore, painted by Largillière of the prince in his youth must all have been executed in Paris, to which city he returned some time before March 1686, when he was received by the Academy as a member, and presented as his diploma picture the fine portrait of Le Brun, now in the Louvre. He was received as an historical painter; but, although he occasionally produced works of that class ("Crucifixion," engraved by Roettiers), and also treated subjects of still life, it was in historical portraits that he excelled. Horace Walpole states that he left in London those of Pierre van der Meulen and of Sybrecht. Several of his works are at Versailles. The church of St Étienne du Mont at Paris contains the finest example of Largillière's work when dealing with large groups of figures; it is an *ex voto* offered by the city to St Geneviève, painted in 1694, and containing portraits of all the leading officers of the municipality. Largillière passed through every post of honour in the Academy, until in 1743 he was made chancellor. He died on the 20th of March 1746. Jean Baptiste Oudry was the most distinguished of his pupils. Largillière's work found skilful interpreters in Van Schuppen, Edelinck, Desplaces, Drevet, Pitou and other engravers.

LARGS, a police burgh and watering place of Ayrshire, Scotland. Pop. (1901) 3246. It is situated 43 m. W. by S. of Glasgow by the Glasgow & South-Western railway. Its fine beach and dry, bracing climate have attracted many wealthy residents, and the number of summer visitors is also large. The public buildings include the Clark hospital, the Victoria infirmary convalescent home and the Stevenson institute and mechanics' library. Skelmorlie Aisle, the sole relic of the old parish church of St Columba, was converted into a mausoleum in 1636. Near it a mound covers remains, possibly those of the Norwegians who fell in the battle (1263) between Alexander III. and Haco, king of Norway. The harbour is used mainly by Clyde passenger steamers and yachtsmen. From the quay a broad esplanade has been constructed northwards round the bay, and there is an excellent golf course. Kelburne Castle, 2 m. S., a seat of the earl of Glasgow, stands in romantic scenery. Fairlie, 3 m. S., another seaside resort, with a station on the Glasgow & South-Western railway, is the connecting-point for Millport on Great Cumbrae. Once a fishing village, it has acquired a great reputation for its yachts.

LARGUS, SCRIBONIUS, court physician to the emperor Claudius. About A.D. 47, at the request of Gaius Julius Callistus, the emperor's freedman, he drew up a list of 271 prescriptions (*Compositiones*), most of them his own, although he acknowledged his indebtedness to his tutors, to friends and to the writings of eminent physicians. Certain old wives' remedies are also included. The work has no pretensions to style, and contains many colloquialisms. The greater part of it was transferred without acknowledgment to the work of Marcellus Empiricus (*c.* 410), *De Medicamentis Empiricis, Physicis, et Rationabilibus*, which is of great value for the correction of the text of Largus.

See the edition of the *Compositiones* by G. Helmreich (Teubner series, 1887).

LARINO (anc. *Larinum*) a town and episcopal see of the Molise (province of Campobasso), Italy, 32 m. N.E. of Campobasso by rail (20 m. direct), 984 ft. above sea-level. Pop. (1901) 7044. The cathedral, completed in 1319, has a good Gothic façade; the interior has to some extent been spoilt by later restoration. The campanile rests upon a Gothic arch erected in 1451. The Palazzo Comunale has a courtyard of the 16th century. That the ancient town (which is close to the modern) existed before the Roman supremacy had extended so far is proved by the coins. It lay in the 2nd Augustan region (Apulia), but the people belonged to the Frentani by race. Its strong position gave it importance in the military history of Italy from the Hannibalic wars onwards. The town was a *municipium*, situated on the main road to the S.E., which left the coast at Histonium (Vasto) and ran from Larinum E. to Sipontum. From Larinum a branch road ran to Bovianum Vetus. Remains of its city walls, of its amphitheatre and also of baths, &c., exist, and it did not cease to be inhabited until after the earthquake of 1300, when the modern city was established. Cluentius, the client of Cicero, who delivered a speech in his favour, was a native of Larinum, his father having been praetor of the allied forces in the Social War.

(T. As.)

LARISSA (Turk. *Yeni Shehr*, "new town"), the most important town of Thessaly, situated in a rich agricultural district on the right bank of the Salambria (Peneios, Peneus, Peneius), about 35 m. N.W. of Volo, with which it is connected by rail. Pop. (1889) 13,610, (1907) 18,001. Till 1881 it was the seat of a pasha in the vilayet of Jannina; it is now the capital of the Greek province and the seat of a nomarch. Its long subjection to Turkey has left little trace of antiquity, and the most striking features in the general view are the minarets of the disused mosques (only four are now in use) and the Mahommedan burying-grounds. It was formerly a Turkish military centre and most of the people were of Turkish blood. In the outskirts is a village of Africans from the Sudan—a curious remnant of the forces collected by Ali Pasha. The manufactures include Turkish leather, cotton, silk and tobacco; trade and industry, however, are far from prosperous, though improving owing to the immigration of the Greek commercial element. Fevers and agues are prevalent owing to bad drainage and the overflowing of the river; and the death-rate is higher than the birth-rate. A considerable portion of the Turkish population emigrated in 1881; a further exodus took place in 1898. The department of Larissa had in 1907 a population of 95,066.

Larissa, written Larisa on ancient coins and inscriptions, is near the site of the Homeric Argissa. It appears in early times, when Thessaly was mainly governed by a few aristocratic families, as an important city under the rule of the Aleuadae, whose authority extended over the whole district of Pelasgiotis. This powerful family possessed for many generations before 369 B.C. the privilege of furnishing the Tagus, or generalissimo, of the combined Thessalian forces. The principal rivals of the Aleuadae were the Scopadae of Crannon, the remains of which (called by the Turks *Old Larissa*) are about 14 m. to the S.W. The inhabitants sided with Athens during the Peloponnesian War, and during the Roman invasion their city was of considerable importance. Since the 5th

century it has been the seat of an archbishop, who has now fifteen suffragans. Larissa was the headquarters of Ali Pasha during the Greek War of Independence, and of the crown prince Constantine during the Greco-Turkish War; the flight of the Greek army from this place to Pharsala took place on the 23rd of April 1897. Notices of some ancient inscriptions found at Larissa are given by Miller in *Mélanges philologiques* (Paris, 1880); several sepulchral reliefs were found in the neighbourhood in 1882. A few traces of the ancient acropolis and theatre are still visible.

The name Larissa was common to many "Pelasgian" towns, and apparently signified a fortified city or *burg*, such as the citadel of Argos. Another town of the name in Thessaly was Larissa Cremaste, surnamed Pelasgia (Strabo ix. p. 440), situated on the slope of Mt. Othrys.

(J. D. B.)

LĀRISTĀN, a sub-province of the province of Fars in Persia, bounded E. and N.E. by Kerman and S. by the Persian Gulf. It lies between 26° 30′ and 28° 25′ N. and between 52° 30′ and 55° 30′ E. and has an extreme breadth and length of 120 and 210 m. respectively, with an area of about 20,000 sq. m. Pop. about 90,000. Laristan consists mainly of mountain ranges in the north and east, and of arid plains varied with rocky hills and sandy valleys stretching thence to the coast. In the highlands, where some fertile upland tracts produce corn, dates and other fruits, the climate is genial, but elsewhere it is extremely sultry, and on the low-lying coast lands malarious. Good water is everywhere so scarce that but for the rain preserved in cisterns the country would be mostly uninhabitable. Many cisterns are infested with Guinea worm (*filaria medinensis*, Gm.). The coast is chiefly occupied by Arab tribes who were virtually independent, paying merely a nominal tribute to the shah's government until 1898. They reside in small towns and mud forts scattered along the coast. The people of the interior are mostly of the old Iranian stock, and there are also a few nomads of the Turkish Bahārlū tribe which came to Persia in the 11th century when the province was subdued by a Turkish chief. Laristan remained an independent state under a Turkish ruler until 1602, when Shah Ibrahim Khan was deposed and put to death by Shah 'Abbas the Great. The province is subdivided into eight districts: (1) Lar, the capital and environs, with 34 villages; (2) Bikhah Ihsham with 11; (3) Bikhah Fal with 10; (4) Jehangiriyeh with 30; (5) Shibkuh with 36; (6) Fumistan with 13; (7) Kauristan with 4; (8) Mazayijan with 6 villages. Lingah, with its principal place Bander Lingah and 11 villages, formerly a part of Laristan, is now included in the "Persian Gulf Ports," a separate administrative division. Laristan is famous for the condiment called *māhiābeh* (fish-jelly), a compound of pounded small sprat-like fish, salt, mustard, nutmeg, cloves and other spices, used as a relish with nearly all foods.

LARIVEY, PIERRE (*c.* 1550-1612), French dramatist, of Italian origin, was the son of one of the Giunta, the famous printers of Florence and Venice. The family was established at Troyes and had taken the name of Larivey or L'Arrivey, by way of translation from *giunto*. Pierre Larivey appears to have cast horoscopes, and to have acted as clerk to the chapter of the church of St Étienne, of which he eventually became a canon. He has no claim to be the originator of French comedy. The *Corrivaux* of Jean de la Taille dates from 1562, but Larivey naturalized the Italian comedy of intrigue in France. He adapted, rather than translated, twelve Italian comedies into French prose. The first volume of the *Comédies facétieuses* appeared in 1579, and the second in 1611. Only nine in all were printed.[1] The licence of the manners depicted in these plays is matched by the coarseness of the expression. Larivey's merit lies in the use of popular language in dialogue, which often rises to real excellence, and was not without influence on Molière and Regnard. Molière's *L'Avare* owes something to the scene in Larivey's masterpiece, *Les Esprits*, where Séverin laments the loss of his purse, and the opening scene of the piece seems to have suggested Regnard's *Retour imprévu*. It is uncertain whether Larivey's plays were represented, though they were evidently written for the stage. In any case prose comedy gained very little ground in popular favour before the time of Molière. Larivey was the author of many translations, varying in subject from the *Facétieuses nuits* (1573) of Straparola to the *Humanité de Jésus-Christ* (1604) from Pietro Aretino.

1 *Le Laquais*, from the *Ragazzo* of Ludovico Dolce; *La Veuve*, from the *Vedova* of Nicolo Buonaparte; *Les Esprits*, from the *Aridosio* of Lorenzino de Medicis; *Le Morfondu*, from the *Gelosia* of Antonio Grazzini; *Les Jaloux*, from the *Gelosi* of Vincent Gabbiani; and *Les Escolliers*, from the *Cecca* of Girolamo Razzi, in the first volume; and in the second, *Constance*, from the *Costanza* of Razzi; *Le Fidèle*, from the *Fedele* of Luigi Pasqualigo; and *Les Tromperies*, from the *Inganni* of N. Secchi.

LARK (O. Eng. *láwerce*, Ger. *Lerche*, Dan. *Laerke*, Dutch *Leeuwerik*), a bird's name used in a rather general sense, the specific meaning being signified by a prefix, as skylark, titlark, woodlark. It seems to be nearly conterminous with the Latin *Alauda* as used by older authors; and, though this was to some extent

limited by Linnaeus, several of the species included by him under the genus he so designated have long since been referred elsewhere. By Englishmen the word lark, used without qualification, almost invariably means the skylark, *Alauda arvensis*, which, as the best-known and most widely spread species throughout Europe, has been invariably considered the type of the genus. Of all birds it holds unquestionably the foremost place in English literature. It is one of the most favourite cage birds, as it will live for many years in captivity, and, except in the season of moult, will pour forth its thrilling song many times in an hour for weeks or months together. The skylark is probably the most plentiful of the class in western Europe. Not only does it frequent almost all unwooded districts in that quarter of the globe, but, unlike most birds, its numbers increase with the spread of agricultural improvement. Nesting chiefly in the growing corn, its eggs and young are protected in a great measure from molestation; and, as each pair of birds will rear several broods in the season, their produce on the average may be set down as at least quadrupling the original stock—the eggs in each nest varying from five to three. Young larks leave their birthplace as soon as they can shift for themselves. When the stubbles are cleared, old and young congregate in flocks.

In Great Britain in the autumn they give place to others coming from more northerly districts, and then as winter succeeds in great part vanish, leaving but a tithe of the numbers previously present. On the approach of severe weather great flocks arrive from the continent of Europe. On the east coast of both Scotland and England this immigration has been noticed as occurring in a constant stream for as many as three days in succession. Farther inland the birds are observed “in numbers simply incalculable,” and “in countless hundreds.” In these migrations enormous numbers are netted for the markets, but the rate of reproduction is so rapid, and the conditions of life so favourable in Europe that there is no reason to fear any serious diminution in the numbers of the species.

The skylark’s range extends across the Old World from the Faeroe to the Kurile Islands. In winter it occurs in North China, Nepal, the Punjab, Persia, Palestine, Lower Egypt and Barbary. It sometimes strays to Madeira, and has been killed in Bermuda, though its unassisted appearance there is doubtful. It has been successfully introduced on Long Island, in the state of New York, into Hawaii and into New Zealand—in which latter it has become as troublesome a denizen as are some other subjects upon which acclimatization societies have exercised their activity.

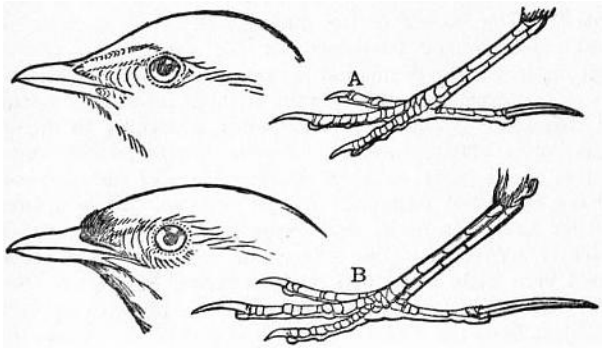


Fig. 1.—A, *Alauda agrestis*; B, *Alauda arvensis*.

Allied to the skylark a considerable number of species have been described, of which perhaps a dozen may be deemed valid, besides a supposed local race, *Alauda agrestis*, the difference between which and the normal bird is shown in the annexed woodcut (fig. 1), kindly lent to this work by H. E. Dresser, in whose *Birds of Europe* it is described at length. These are found in various parts of Africa and Asia.

The woodlark, *Lullula arborea*, is a much more local and, therefore, a far less numerous bird than the skylark, from which it may be easily distinguished by its finer bill, shorter tail, more spotted breast and light superciliary stripe. Though not actually inhabiting woods, as its common name might imply, it is seldom found far from trees. Its song wants the variety and power of the skylark’s, but has a resonant sweetness peculiarly its own. The bird, however, requires much care in captivity. It has by no means so wide a range as the skylark, and perhaps the most eastern locality recorded for it is Erzerum, while its appearance in Egypt and even in Algeria must be accounted rare.

Not far removed from the foregoing is a group of larks characterized by a larger crest, a stronger and more curved bill, a rufous lining to the wings, and some other minor features. This group has been generally termed *Galerita*, and has for its type the crested lark, the *Alauda cristata* of Linnaeus, a bird common enough in parts of France and some other countries of the European continent, and one which has been obtained several times in the British Islands. Many of the birds of this group frequent the borders if not the interior of deserts, and such as do so exhibit a more or less pale coloration, whereby they are assimilated in hue to that of their haunts. The same characteristic may be observed in several other groups—especially those known as belonging to the genera *Calandrella*, *Ammomanes* and *Certhilauda*, some species of which are of a light sandy or cream colour. The genus last named is of very peculiar appearance, presenting in some respects an extraordinary resemblance to the hoopoes, so much so that the first specimen described was referred to the genus *Upupa*, and named *U. alaudipes*. The resemblance, however, is merely one of analogy.

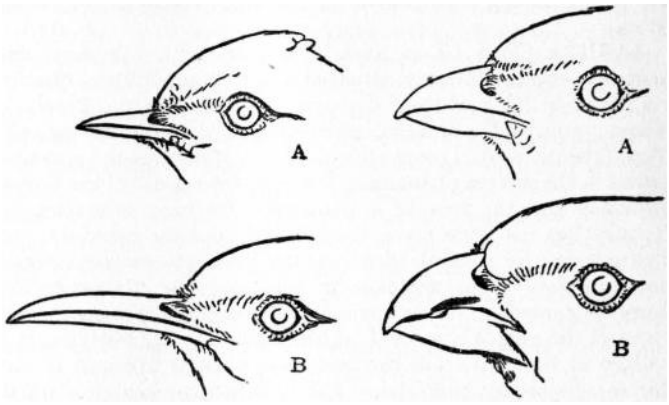


Fig. 2.—A, Lullula arborea; B, *Certhilauda*.

Fig. 3.—A, *Melanocorypha calandra*; B, *Rhamphocorys clot-bey*.

There is, however, abundant evidence of the susceptibility of the Alaudine structure to modification from external circumstances—in other words, of its plasticity; and perhaps no homogeneous group of *Passeres* could be found which better displays the working of natural selection. Almost every character that among Passerine birds is accounted most sure is in the larks found subject to modification. The form of the bill varies in an extraordinary degree. In the woodlark (fig. 2, A), already noticed, it is almost as slender as a warbler's; in *Ammomanes* it is short; in *Certhilauda* (fig. 2, B) it is elongated and curved; in *Pyrrhulauda* and *Melanocorypha* (fig. 3, A) it is stout and finchlike; while in *Rhamphocorys* (fig. 3, B) it is exaggerated to an extent that surpasses almost any Fringilline form, exceeding in its development that found in some members of the perplexing genus *Paradoxornis*, and even presenting a resemblance to the same feature in the far-distant *Anastomus*—the tomia of the maxilla not meeting those of the mandibula along their whole length, but leaving an open space between them. The hind claw, generally greatly elongated in larks, is in *Calandrella* (fig. 4) and some other genera reduced to a very moderate size. The wings exhibit almost every modification, from the almost entire abortion of the first primary in the skylark to its considerable development (fig. 5), and from tertials and scapulars of ordinary length to the extreme elongation found in the *Motacillidae* and almost in certain *Limicolae*. The most constant character indeed of the *Alaudidae* would seem to be that afforded by the *podotheca* or covering of the tarsus, which is scutellate behind as well as in front, but a character easily overlooked.[1]

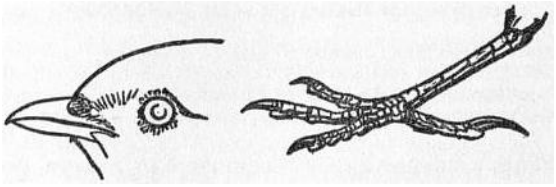


Fig. 4.—*Calandrella brachydactyla*.

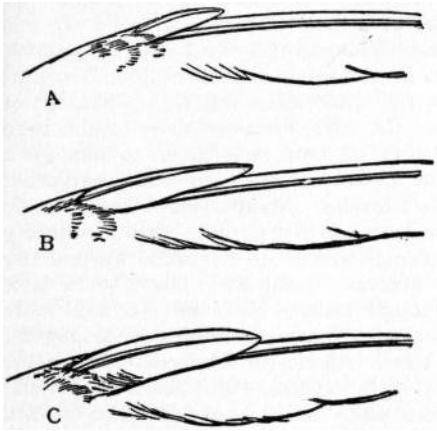


Fig. 5.—A, *Alauda arborea*; B, *Certhilauda*; C, *Melanocorypha calandra*.

In the Old World larks are found in most parts of the Palaearctic, Ethiopian and Indian regions; but only one genus, *Mirafra*, inhabits Australia, where it is represented by, so far as is ascertained, a single species, *M. horsfieldi*; and there is no true lark indigenous to New Zealand. In the New World there is also only one genus, *Otocorys*, where it is represented by many races, some of which closely approach the Old World shore-lark, *O. alpestris*. The shore-lark is in Europe a native of only the extreme north, but is very common near the shores of the Varanger Fjord, and likewise breeds on mountain-tops farther south-west, though still well within the Arctic circle. The mellow tone of its call-note has obtained for it in Lapland a name signifying "bell-bird," and the song of the cock is lively, though not very loud. The bird trustfully resorts to the neighbourhood of houses, and even enters the villages of East Finmark in search of its food. It produces at least two broods in the season, and towards autumn migrates to lower latitudes in large flocks. These have been observed in winter on the east coast of Great Britain, and the species instead of being regarded, as it once was, in the light of an accidental visitor to the United Kingdom, must now be deemed an almost regular visitor, though in very varying numbers. The observations on its habits made by Audubon in Labrador have long been known, and often reprinted. Other congeners of this bird are the *O. penicillata* of south-eastern Europe, Palestine and central Asia—to which are referred by H. E. Dresser (*B. Europe*, iv. 401) several other forms originally described as distinct. All these birds, which have been termed horned larks, from the tuft of elongated black feathers growing on each side of the head, form a little group easily recognized by their peculiar coloration, which calls to mind some of the ringed plovers, *Aegialitis*.

The name of lark is also frequently applied to many birds which do not belong to the *Alaudidae* as now understood. The mud-lark, rock-lark, tit-lark and tree-lark are pipits (*q.v.*). The grasshopper-lark is one of the aquatic warblers (*q.v.*), while the so-called meadow-lark of America is an Icterus (*q.v.*). Sand-lark and sea-lark are likewise names often given to some of the smaller members of the *Limicolae*. Of the true larks, *Alaudidae*, there may be perhaps about one hundred species, and it is believed to be a physiological character of the family that they moult but once in the year, while the pipits, which in general appearance much resemble them,

undergo a double moult, as do others of the *Motacillidae*, to which they are most nearly allied.

(A. N.)

1 By assigning far too great an importance to this superficial character (in comparison with others), C. J. Sundevall (*Tentamen*, pp. 53-63) was induced to array the larks, hoopoes and several other heterogeneous groups in one "series," to which he applied the name of *Scutelliplantares*.

LARKHALL, a mining and manufacturing town of Lanarkshire, Scotland, near the left bank of the Clyde, 1 m. S.E. of Glasgow by the Caledonian railway. Pop. (1901) 11,879. The highest bridge in Scotland has been thrown across the river Avon, which flows close by. Brick-making is carried on at several of the adjoining collieries. Other industries include bleaching, silk-weaving, fire-clay and enamelling works, and a sanitary appliances factory. The town has a public hall and baths.

LARKHANA, a town and district of British India, in Sind, Bombay. The town is on a canal not far from the Indus, and has a station on the North-Western railway, 281 m. N. by E. of Karachi. It is pleasantly situated in a fertile locality, and is well laid out with wide streets and spacious gardens. It is a centre of trade, with manufactures of cotton, silk, leather, metal-ware and paper. Pop. (1901) 14,543.

The District of Larkhana, lying along the right bank of the Indus, was formed out of portions of Sukkur and Karachi districts in 1901, and has an area of 5091 sq. m.; pop. (1901) 656,083, showing an increase of 10% in the decade. Its western part is mountainous, but the remainder is a plain of alluvium watered by canals and well cultivated, being the most fertile part of Sind. The staple grain-crops are rice, wheat and millets, which are exported, together with wool, cotton and other agricultural produce. Cotton cloth, carpets, salt and leather goods are manufactured, and dyeing is an important industry. The district is served by the North-Western railway.

LARKSPUR, in botany, the popular name for species of *Delphinium*, a genus of hardy herbaceous plants belonging to the natural order Ranunculaceae (*q.v.*). They are of erect branching habit, with the flowers in terminal racemes, often of considerable length. Blue is the predominating colour, but purple, pink, yellow (*D. Zalil* or *sulphureum*), scarlet (*D. cardinale*) and white also occur; the "spur" is produced by the elongation of the upper sepal. The field or rocket larkspur (*D. Ajacis*), the branching larkspur (*D. consolida*), *D. cardiopetalum* and their varieties, are charming annuals; height about 18 in. The spotted larkspur *(D. requienii*) and a few others are biennials. The perennial larkspurs, however, are the most gorgeous of the family. There are numerous species of this group, natives of the old and new worlds, and a great number of varieties, raised chiefly from *D. exaltatum*, *D. formosum* and *D. grandiflorum*. Members of this group vary from 2 ft. to 6 ft. in height.

The larkspurs are of easy cultivation, either in beds or herbaceous borders; the soil should be deeply dug and manured. The annual varieties are best sown early in April, where they are intended to flower, and suitably thinned out as growth is made. The perennial kinds are increased by the division of existing plants in spring, or by cuttings taken in spring or autumn and rooted in pots in cold frames. The varieties cannot be perpetuated with certainty by seed. Seed is the most popular means, however, of raising larkspurs in the majority of gardens, and is suitable for all ordinary purposes; it should be sown as soon as gathered, preferably in rows in nursery beds, and the young plants transplanted when ready. They should be fit for the borders in the spring of the following year, and if strong, should be planted in groups about 3 ft. apart. Delphiniums require exposure to light and air. Given plenty of space in a rich soil, the plants rarely require to be staked except in windy localities.

LARNACA, Larnica or Larneca (anc. *Citium*, Turk. *Tuzla*), a town of the island of Cyprus, at the head of a bay on the south coast, 23 m. S.S.E. from Nicosia. Pop. (1901) 7964. It is the principal port of the island, exporting barley, wheat, cotton, raisins, oranges, lemons and gypsum. There is an iron pier 450 ft. long, but

vessels anchor in the bay in from 16 to 70 ft. of water. Larnaca occupies the site of the ancient *Citium*, but the citadel of the ancient city was used to fill up the ancient harbour in 1879. The modern and principal residential part of the town is called Scala. Mycenaean tombs and other antiquities have been found (see CYPRUS).

LA ROCHE, a small town in the Belgian Ardennes, noticeable for its antiquity and its picturesque situation. Pop. (1904) 2065. Its name is derived from its position on a rock commanding the river Ourthe, which meanders round the little place, and skirts the rock on which are the interesting ruins of the old castle of the 11th century. This is supposed to have been the site of a hunting box of Pippin, and certainly the counts of La Roche held it in fief from his descendants, the Carolingian rulers. In the 12th century they sold it to the counts of Luxemburg. In the 16th and 17th centuries the French and Imperialists frequently fought in its neighbourhood, and at Tenneville, not far distant, is shown the tomb of an English officer named Barnewall killed in one of these encounters in 1692. La Roche is famous as a tourist centre on account of its fine sylvan scenery. Among the local curiosities is the Diable-Château, a freak of nature, being the apparent replica of a medieval castle. La Roche is connected by steam tramway with Melreux, a station on the main line from Marloie to Liége.

LA ROCHEFOUCAULD, the name of an old French family which is derived from a castle[1] in the province of Angoumois (department of Charente), which was in its possession in the 11th century. François de La Rochefoucauld (1494-1517), godson of King Francis I., was made count in 1515. At the time of the wars of religion the family fought for the Protestant cause. François (1588-1650) was created duke and peer of France by Louis XIII. in 1622. His son François was the author of the *Maxims*, and the son of the latter acquired for his house the estates of La Roche-Guyon and Liancourt by his marriage with Jeanne Charlotte du Plessis-Liancourt. Alexandre, duc de La Rochefoucauld (d. 1762), left two daughters, who married into the Roye branch of the family. Of the numerous branches of the family the most famous are those of Roucy, Roye, Bayers, Doudeauville, Randan and Estissac, which all furnished distinguished statesmen and soldiers.

1 The castle was largely rebuilt in the reign of Francis I., and is one of the finest specimens of the Renaissance architecture in France.

LA ROCHEFOUCAULD, FRANÇOIS DE (1613-1680), the greatest maxim writer of France, one of her best memoir writers, and perhaps the most complete and accomplished representative of her ancient nobility, was born at Paris in the Rue des Petits Champs on the 15th of September 1613. The author of the *Maxims*, who during the lifetime of his father (see above) and part of his own most stirring years bore the title of prince de Marcillac, was somewhat neglected in the matter of education, at least of the scholastic kind; but he joined the army before he was sixteen, and almost immediately began to make a figure in public life. He had been nominally married a year before to Andrée de Vivonne, who seems to have been an affectionate wife, while not a breath of scandal touches her—two points in which La Rochefoucauld was perhaps more fortunate than he deserved. For some years Marcillac continued to take part in the annual campaigns, where he displayed the utmost bravery, though he never obtained credit for much military skill. Then he passed under the spell of Madame de Chevreuse, the first of three celebrated women who successively influenced his life. Through Madame de Chevreuse he became attached to the queen, Anne of Austria, and in one of her quarrels with Richelieu and her husband a wild scheme seems to have been formed, according to which Marcillac was to carry her off to Brussels on a pillion. These caballings against Richelieu, however, had no more serious results (an eight days' experience of the Bastille excepted) than occasional exiles, that is to say, orders to retire to his father's estates. After the death of the great minister (1642), opportunity seemed to be favourable to the vague ambition which then animated half the nobility of France. Marcillac became one of the so-called *importants*, and took an active part in reconciling the queen and Condé in a league against Gaston of Orleans. But the growing credit of Mazarin came in his way, and the *liaison* in which about this time (1645) he became entangled with the beautiful duchess of Longueville made him irrevocably a Frondeur. He was a conspicuous figure in the siege of Paris, fought desperately in the desultory engagements which were constantly taking place, and was severely wounded at the siege of Mardyke. In the second Fronde Marcillac followed the fortunes of Condé, and the death of his father, which happened at the time (1650), gave rise to a characteristic incident. The nobility of the province gathered to the funeral, and the new duke de La Rochefoucauld took the opportunity of persuading them to follow him in an attempt on the royalist garrison of Saumur, which, however, was not successful. We have no space to follow La Rochefoucauld through the tortuous cabals and negotiations of the later Fronde; it is sufficient to say that he was always brave and generally unlucky. His run of bad fortune reached its climax in the battle of the Faubourg Saint Antoine (1652), where he was shot through the

head, and it was thought that he would lose the sight of both eyes. It was nearly a year before he recovered, and then he found himself at his country seat of Verteuil, with no result of twenty years' fighting and intriguing except impaired health, a seriously embarrassed fortune, and some cause for bearing a grudge against almost every party and man of importance in the state. He spent some years in this retirement, and he was fortunate enough (thanks chiefly to the fidelity of Gourville, who had been in his service, and who, passing into the service of Mazarin and of Condé, had acquired both wealth and influence) to be able to repair in some measure the breaches in his fortune. He did not, however, return to court life much before Mazarin's death, when Louis XIV. was on the eve of assuming absolute power, and the turbulent aristocratic anarchy of the Fronde was a thing utterly of the past.

Somewhat earlier, La Rochefoucauld had taken his place in the salon of Madame de Sablé, a member of the old Rambouillet coterie, and the founder of a kind of successor to it. It was known that he, like almost all his more prominent contemporaries, had spent his solitude in writing memoirs, while the special literary employment of the Sablé salon was the fabrication of *Sentences* and *Maxims*. In 1662, however, more trouble than reputation, and not a little of both, was given to him by a surreptitious publication of his memoirs, or what purported to be his memoirs, by the Elzevirs. Many of his old friends were deeply wounded, and he hastened to deny flatly the authenticity of the publication, a denial which (as it seems, without any reason) was not very generally accepted. Three years later (1665) he published, though without his name, the still more famous *Maxims*, which at once established him high among the men of letters of the time. About the same date began the friendship with Madame de la Fayette, which lasted till the end of his life. The glimpses which we have of him henceforward are chiefly derived from the letters of Madame de Sévigné, and, though they show him suffering agonies from gout, are on the whole pleasant. He had a circle of devoted friends; he was recognized as a moralist and man of letters of the first rank; he might have entered the Academy for the asking; and in the altered measure of the times his son, the prince de Marcillac, to whom some time before his death he resigned his titles and honours, enjoyed a considerable position at court. Above all, La Rochefoucauld was generally recognized by his contemporaries from the king downward as a type of the older noblesse as it was before the sun of the great monarch dimmed its brilliant qualities. This position he has retained until the present day. He died at Paris on the 17th of March 1680, of the disease which had so long tormented him.

La Rochefoucauld's character, if considered without the prejudice which a dislike to his ethical views has sometimes occasioned, is thoroughly respectable and even amiable. Like almost all his contemporaries, he saw in politics little more than a chessboard where the people at large were but pawns. The weight of testimony, however, inclines to the conclusion that he was unusually scrupulous in his conduct, and that his comparative ill-success in the struggle arose more from this scrupulousness than from anything else. He has been charged with irresolution, and there is some ground for admitting the charge so far as to pronounce him one of those the keenness of whose intellect, together with their apprehension of both sides of a question, interferes with their capacity as men of action. But there is no ground whatever for the view which represents the Maxims as the mere outcome of the spite of a disappointed intriguer, disappointed through his own want of skill rather than of fortune.

His importance as a social and historical figure is, however, far inferior to his importance in literature. His work in this respect consists of three parts—letters, *Memoirs* and the *Maxims*. His letters exceed one hundred in number, and are biographically valuable, besides displaying not a few of his literary characteristics; but they need not further detain us. The *Memoirs*, when they are read in their proper form, yield in literary merit, in interest, and in value to no memoirs of the time, not even to those of Retz, between whom and La Rochefoucauld there was a strange mixture of enmity and esteem which resulted in a couple of most characteristic "portraits." But their history is unique in its strangeness. It has been said that a pirated edition appeared in Holland, and this, despite the author's protest, continued to be reprinted for some thirty years. It has been now proved to be a mere cento of the work of half a dozen different men, scarcely a third of which is La Rochefoucauld's, and which could only have been possible at a time when it was the habit of persons who frequented literary society to copy pell-mell in commonplace books the MS. compositions of their friends and others. Some years after La Rochefoucauld's death a new recension appeared, somewhat less incorrect than the former, but still largely adulterated, and this held its ground for more than a century. Only in 1817 did anything like a genuine edition (even then by no means perfect) appear. The *Maxims*, however, had no such fate. The author re-edited them frequently during his life, with alterations and additions; a few were added after his death, and it is usual now to print the whole of them, at whatever time they appeared, together. Thus taken, they amount to about seven hundred in number, in hardly any case exceeding half a page in length, and more frequently confined to two or three lines. The view of conduct which they illustrate is usually and not quite incorrectly summed up in the words "everything is reducible to the motive of self-interest." But though not absolutely incorrect, the phrase is misleading. The *Maxims* are in no respect mere deductions from or applications of any such general theory. They are on the contrary independent judgments on different relations of life, different affections of the human mind, and so forth, from which, taken together, the general view may be deduced or rather composed. Sentimental moralists have protested loudly against this view, yet it is easier to declaim against it in general than to find a flaw in the several parts of which it is made up. With a few exceptions La Rochefoucauld's maxims represent the matured result of the reflection of a man deeply versed in the business and pleasures of the world, and possessed of an extraordinarily fine and acute intellect, on the conduct and motives which have guided himself and his fellows. There is as little trace in them of personal spite as of *forfanterie de vice*. But the astonishing excellence of the literary medium in which they are conveyed is even more remarkable than the general soundness of their ethical import. In uniting the four qualities of brevity, clearness, fulness of meaning and point, La Rochefoucauld has no rival. His *Maxims* are never mere epigrams; they are never platitudes; they are never dark sayings. He has packed them so full of meaning that it would be impossible to pack them closer, yet there is no undue compression; he has sharpened their point to the utmost, yet there is no loss of substance. The comparison which occurs most frequently, and which is perhaps on the whole the justest, is that of a bronze medallion, and it applies to the matter no less than to the form. Nothing is left unfinished, yet none of the workmanship is finical. The sentiment, far from being merely hard, as the sentimentalists pretend, has a vein of melancholy poetry running through it which calls to mind the traditions of La Rochefoucauld's devotion to the romances of chivalry. The maxims are never shallow; each is the text for a whole sermon of application and corollary which any one of thought and experience can write. Add to all this that the language in which they are written is French, still at almost its greatest strength, and

chastened but as yet not emasculated by the reforming influence of the 17th century, and it is not necessary to say more. To the literary critic no less than to the man of the world La Rochefoucauld ranks among the scanty number of pocket-books to be read and re-read with ever new admiration, instruction and delight.

The editions of La Rochefoucauld's *Maxims* (as the full title runs, *Réflexions ou sentences et maximes morales*) published in his lifetime bear the dates 1665 (*editio princeps*), 1666, 1671, 1675, 1678. An important edition which appeared after his death in 1693 may rank almost with these. As long as the *Memoirs* remained in the state above described, no edition of them need be mentioned, and none of the complete works was possible. The previous more or less complete editions are all superseded by that of MM Gilbert and Gourdault (1868-1883), in the series of "Grands Écrivains de la France," 3 vols. There are still some puzzles as to the text; but this edition supplies all available material in regard to them. The handsomest separate edition of the *Maxims* is the so-called *Édition des bibliophiles* (1870); but cheap and handy issues are plentiful. See the English version by G. H. Powell (1903). Nearly all the great French critics of the 19th century have dealt more or less with La Rochefoucauld: the chief recent monograph on him is that of J. Bourdeau in the *Grands écrivains français* (1893).

(G. Sa.)

LA ROCHEFOUCAULD-LIANCOURT, FRANÇOIS ALEXANDRE FRÉDÉRIC, Duc de

(1747-1827), French social reformer, was born at La Roche Guyon on the 11th of January 1747, the son of François Armand de La Rochefoucauld, duc d'Estissac, grand master of the royal wardrobe. The duc de Liancourt became an officer of carbineers, and married at seventeen. A visit to England seems to have suggested the establishment of a model farm at Liancourt, where he reared cattle imported from England and Switzerland. He also set up spinning machines on his estate, and founded a school of arts and crafts for the sons of soldiers, which became in 1788 the École des Enfants de la Patrie under royal protection. Elected to the states-general of 1789 he sought in vain to support the cause of royalty while furthering the social reforms he had at heart. On the 12th of July, two days before the fall of the Bastille, he warned Louis XVI. of the state of affairs in Paris, and met his exclamation that there was a revolt with the answer, "*Non, sire, c'est une révolution.*" On the 18th of July he became president of the Assembly. Established in command of a military division in Normandy, he offered Louis a refuge in Rouen, and, failing in this effort, assisted him with a large sum of money. After the events of the 10th of August 1792 he fled to England, where he was the guest of Arthur Young, and thence passed to America. After the assassination of his cousin, Louis-Alexandre, duc de La Rochefoucauld d'Enville, at Gisors on the 14th of September 1792 he assumed the title of duc de La Rochefoucauld. He returned to Paris in 1799, but received small favour from Napoleon. At the Restoration he entered the House of Peers, but Louis XVIII. refused to reinstate him as master of the wardrobe, although his father had paid 400,000 francs for the honour. Successive governments, revolutionary and otherwise, recognized the value of his institutions at Liancourt, and he was for twenty-three years government inspector of his school of arts and crafts, which had been removed to Châlons. He was one of the first promoters of vaccination in France; he established a dispensary in Paris, and he was an active member of the central boards of administration for hospitals, prisons and agriculture. His opposition to the government in the House of Peers led to his removal in 1823 from the honorary positions he held, while the vaccination committee, of which he was president, was suppressed. The academies of science and of medicine admitted him to their membership by way of protest. Official hostility pursued him even after his death (27th of March 1827), for the old pupils of his school were charged by the military at his funeral. His works, chiefly on economic questions, include books on the English system of taxation, poor-relief and education.

His eldest son, François, duc de La Rochefoucauld (1765-1848), succeeded his father in the House of Peers. The second, Alexandre, comte de La Rochefoucauld (1767-1841), married a San Domingo heiress allied to the Beauharnais family. Mme de La Rochefoucauld became dame d'honneur to the empress Josephine, and their eldest daughter married a brother-in-law of Pauline Bonaparte, Princess Borghese. La Rochefoucauld became ambassador successively to Vienna (1805) and to the Hague (1808-1810), where he negotiated the union of Holland with France. During the "Hundred Days" he was made a peer of France. He subsequently devoted himself to philanthropic work, and in 1822 became deputy to the Chamber and sat with the constitutional royalists. He was again raised to the peerage in 1831.

The third son, Frédéric Gaétan, marquis de La Rochefoucauld-Liancourt (1779-1863), was a zealous philanthropist and a partisan of constitutional monarchy. He took no part in politics after 1848. The marquis wrote on social questions, notably on prison administration; he edited the works of La Rochefoucauld, and the memoirs of Condorcet; and he was the author of some vaudevilles, tragedies and poems.

LA ROCHEJACQUELEIN, DE,

the name of an ancient French family of La Vendée, celebrated for its devotion to the throne during and after the Revolution. Its original name was Duverger, derived from a fief near Bressuire in Poitou, and its pedigree is traceable to the 13th century. In 1505 Gui Duverger married Renée, heiress of Jacques Lemartin, seigneur de La Rochejacquelein, whose name he assumed. His grandson, Louis Duverger, seigneur de La Rochejacquelein, was a devoted adherent of Henry II., and was badly wounded at the battle of Arques; other members of the family were also distinguished soldiers, and the seigniory was raised to a countship and marquisate in reward for their services.

At the outbreak of the Revolution the chief of the family was Henri Louis Auguste, marquis de La

Rochejacquelein, *maréchal de camp* in the royal army, who had three sons named after himself—Henri, Louis and Auguste. The marquis fled abroad with his second son Louis at the time of the emigration of the nobles. He entered the service of Great Britain, and died in San Domingo in 1802.

Henri, comte de La Rochejacquelein, born at Dubertien, near Châtillon, sur Sèvres, on the 20th of August 1772, did not emigrate with his father. He served in the constitutional guard of the king, and remained in Paris till the execution of Louis XVI. He then took refuge with the marquis de Lescure on his own estates in Poitou. When the anti-clerical policy of the revolutionary powers provoked the rising of the peasantry of La Vendée, he put himself at the head of the men of his neighbourhood, and came rapidly to the front among the gentlemen whom the peasants took for leaders. In spite of his youth and his reluctance to assume the responsibility, he was chosen as commander-in-chief after the defeat of the Vendéans by the republicans at Cholet. His brilliant personal courage, his amiability and his loyalty to the cause make him a very attractive figure, but a commander-in-chief of the Vendéans, who came and went as they pleased, had little real power or opportunity to display the qualities of a general. The comte de La Rochejacquelein had in fact to obey his army, and could only display his personal valour in action. He could not avert the mistaken policy which led to the rout at Le Mans, and was finally shot in an obscure skirmish at Nouaillé on the 4th of March 1794.

Louis, marquis de La Rochejacquelein, the younger brother of Henri, accompanied his father in the emigration, served in the army of Condé, and entered the service of England in America. He returned to France during the Consulate, and in 1801 married the marquise de Lescure, widow of his brother's friend, who was mortally wounded at Cholet. Marie Louise Victoire de Donnissan, born at Versailles on the 25th of October 1772, belonged to a court family and was the god-daughter of Mme Victoire, daughter of Louis XV. At the age of seventeen she married the marquis de Lescure, whom she accompanied in the war of La Vendée. After his death she went through various adventures recorded in her memoirs, first published at Bordeaux in 1815. They are of extreme interest, and give a remarkable picture of the war and the fortunes of the royalists. She saved much of her own property and her first husband's, when a conciliatory policy was adopted after the fall of the Terrorists. After her second marriage she lived with her husband on her estates, both refusing all offers to take service with Napoleon. In 1814 they took an active part in the royalist movement in and about Bordeaux. In 1815 the marquis endeavoured to bring about another Vendéan rising for the king, and was shot in a skirmish with the Imperialist forces at the Pont des Marthes on the 4th of June 1815. The marquis died at Orleans in 1857.

Their eldest son, Henri Auguste Georges, marquis de La Rochejacquelein, born at Château Citran in the Gironde on the 28th of September 1805, was educated as a soldier, served in Spain in 1822, and as a volunteer in the Russo-Turkish War of 1828. During the reign of Louis Philippe he adhered to the legitimist policy of his family, but he became reconciled to the government of Napoleon III. and was mainly known as a clerical orator and philanthropist. He died on the 7th of January 1867.

His son and successor, Julien Marie Gaston, born at Chartres on the 27th of March 1833, was an active legitimist deputy in the Assembly chosen at the close of the German War of 1870-1871. He was a strong opponent of Thiers, and continued to contest constituencies as a legitimist with varying fortunes till his death in 1897.

Authorities.—*Henri de La Rochejacquelein et la guerre de la Vendée d'après des documents* inédits (Niort, 1890); A. F. Nettement, *Vie de Mme la Marquise de La Rochejacquelein* (Paris, 1876). The *Memoirs* of the marquise were translated into English by Sir Walter Scott, and issued as a volume of "Constable's Miscellany" (Edinburgh, 1827).

LA ROCHELLE, a seaport of western France, capital of the department of Charente-Inférieure, 90 m. S. by E. of Nantes on the railway to Bordeaux. Pop. (1906) town 24,524, commune 33,858. La Rochelle is situated on the Atlantic coast on an inlet opening off the great bay in which lie the islands of Ré and Oléron. Its fortifications, constructed by Vauban, have a circuit of 3½ m. with seven gates. Towards the sea are three towers, of which the oldest (1384) is that of St Nicholas. The apartment in the first storey was formerly used as a chapel. The Chain Tower, built towards the end of the 14th century, is so called from the chain which guarded the harbour at this point; the entrance to the tidal basin was at one time spanned by a great pointed arch between the two towers. The lantern tower (1445-1476), seven storeys high, is surmounted by a lofty spire and was once used as a lighthouse. Of the ancient gateways only one has been preserved in its entirety, that of the "Grosse Horloge," a huge square tower of the 14th or 15th century, the corner turrets of which have been surmounted with trophies since 1746. The cathedral of La Rochelle (St Louis or St Bartholomew) is a heavy Grecian building (1742-1762) with a dome above the transept, erected on the site of the old church of St Bartholomew, destroyed in the 16th century and now represented by a solitary tower dating from the 14th century. Externally the town-house is in the Gothic style of the latter years of the 15th century and has the appearance of a fortress, though its severity is much relieved by the beautiful carving of the two entrances, of the machicolations and of the two belfries. The buildings looking into the inner court are in the Renaissance style (16th and early 17th centuries) and contain several fine apartments. In the old episcopal palace (which was in turn the residence of Sully, the prince of Condé, Louis XIII., and Anne of Austria, and the scene of the marriage of Alphonso VI. of Portugal with a princess of Savoy) accommodation has been provided for a library, a collection of records and a museum of art and antiquities. Other buildings of note are an arsenal with an artillery museum, a large hospital, a special Protestant hospital, a military hospital and a lunatic asylum for the department. In the botanical gardens there are museums of natural history. Medieval and Renaissance houses give a peculiar character to certain districts: several have French, Latin or Greek inscriptions of a moral or religious turn and in general of Protestant origin. Of these old houses the most interesting is one built in the middle of the 16th century and wrongly known as that of Henry II. The parade-ground, which forms the

principal public square, occupies the site of the castle demolished in 1590. Some of the streets have side-arcades; the public wells are fed from a large reservoir in the Champ de Mars; and among the promenades are the Cours des Dames with the statue of Admiral Duperré, and outside the Charruyer Park on the west front of the ramparts, and the Mail, a beautiful piece of greensward. In this direction are the sea-bathing establishments.

La Rochelle is the seat of a bishopric and a prefect, and has tribunals of first instance and of commerce, a chamber of commerce and a branch of the Bank of France; its educational establishments include an ecclesiastical seminary, a lycée and a training college for girls. Ship-building, saw-milling and the manufacture of briquettes and chemicals, sardine and tunny-preserving and petroleum-refining are among the industries. The rearing of oysters and mussels and the exploitation of salt marshes is carried on in the vicinity.

The inlet of La Rochelle is protected by a stone mole constructed by Richelieu and visible at low tide. The harbour, one of the safest on the coast, is entered by a channel 2730 yds. long, and comprises an outer harbour opening on the one hand into a floating basin, on the other into a tidal basin with another floating basin adjoining it. Behind the tidal basin is the Maubec reservoir, the waters of which, along with those of the Marans canal, help to scour the port and navigable channel. Some 200 sailing ships are engaged in the fisheries, and the fish market of La Rochelle is the most important on the west coast. The harbour is, however, inaccessible to the largest vessels, for the accommodation of which the port of La Pallice, inaugurated in 1891, was created. Lying about 3 m. W.S.W. of La Rochelle, this port opens into the bay opposite the eastern extremity of the island of Ré. It was artificially excavated and affords safe anchorage in all weathers. The outer port, protected by two jetties, has an area of 29 acres and a depth of 16½ ft. below lowest tide-level. At the extremity of the breakwater is a wharf where ships may discharge without entering the basin. A lock connects with the inner basin, which has an area of 27 acres, with 5900 ft. of quayage, a minimum depth of 28 ft., and depths of 29½ ft. and 36 ft. at high, neap and spring tides. Connected with the basin are two graving docks. La Pallice has regular communication with South America by the vessels of the Pacific Steam Navigation Company and by those of other companies with London, America, West Africa, Egypt and the Far East. The port has petroleum refineries and chemical manure works.

In 1906 there entered the port of La Rochelle, including the dock of La Pallice, 441 vessels with a tonnage of 629,038, and cleared 468 vessels with a tonnage of 664,861 (of which 235 of 241,146 tons cleared with ballast). These figures do not include vessels entering from, or clearing for, other ports in France. The imports (value, £1,276,000 in 1900 as compared with £1,578,000 in 1907) include coal and patent fuel, superphosphates, natural phosphates, nitrate of soda, pyrites, building-timber, wines and alcohol, pitch, dried codfish, petroleum, jute, wood-pulp. Exports (value, £1,294,000 in 1900; £1,979,000 in 1907) include wine and brandy, fancy goods, woven goods, garments, skins, coal and briquettes, furniture, potatoes.

La Rochelle existed at the close of the 10th century under the name of Rupella. It belonged to the barony of Châtelaillon, which was annexed by the duke of Aquitaine and succeeded Châtelaillon as chief town in Aunis. In 1199 it received a communal charter from Eleanor, duchess of Guienne, and it was in its harbour that John Lackland disembarked when he came to try to recover the domains seized by Philip Augustus. Captured by Louis VIII. in 1224, it was restored to the English in 1360 by the treaty of Brétigny, but it shook off the yoke of the foreigner when Du Guesclin recovered Saintonge. During the 14th, 15th and 16th centuries La Rochelle, then an almost independent commune, was one of the great maritime cities of France. From its harbour in 1402 Jean de Béthencourt set out for the conquest of the Canaries, and its seamen were the first to turn to account the discovery of the new world. The salt-tax provoked a rebellion at Rochelle which Francis I. repressed in person; in 1568 the town secured exemption by the payment of a large sum. At the Reformation La Rochelle early became one of the chief centres of Calvinism, and during the religious wars it armed privateers which preyed on Catholic vessels in the Channel and on the high seas. In 1571 a synod of the Protestant churches of France was held within its walls under the presidency of Beza for the purpose of drawing up a confession of faith. After the massacre of St Bartholomew, La Rochelle held out for six and a half months against the Catholic army, which was ultimately obliged to raise the siege after losing more than 20,000 men. The peace of the 24th of June 1573, signed by the people of La Rochelle in the name of all the Protestant party, granted the Calvinists full liberty of worship in several places of safety. Under Henry IV. the town remained quiet, but under Louis XIII. it put itself again at the head of the Huguenot party. Its vessels blockaded the mouth of the Gironde and stopped the commerce of Bordeaux, and also seized the islands of Ré and Oléron and several vessels of the royal fleet. Richelieu then resolved to subdue the town once for all. In spite of the assistance rendered by the English troops under Buckingham and in spite of the fierce energy of their mayor Guiton, the people of La Rochelle were obliged to capitulate after a year’s siege (October 1628). During this investment Richelieu raised the celebrated mole which cut off the town from the open sea. La Rochelle then became the principal port for the trade between France and the colony of Canada. But the revocation of the Edict of Nantes (1685) deprived it of some thousands of its most industrious inhabitants, and the loss of Canada by France completed for the time the ruin of its commerce. Its privateers, however, maintained a vigorous struggle with the English during the republic and the empire.

See P. Suzanne, *La Rochelle pittoresque* (La Rochelle, 1903), and E. Couneau, *La Rochelle disparue* (La Rochelle, 1904).

LA ROCHE-SUR-YON, a town of western France, capital of the department of Vendée, on an eminence on the right bank of the Yon, 48 m. S. of Nantes on the railway to Bordeaux. Pop. (1906) town 10,666, commune 13,685. The castle of La Roche, which probably existed before the time of the crusades, and was frequently attacked or taken in the Hundred Years’ War and in the wars of religion, was finally dismantled under Louis XIII. When Napoleon in 1804 made this place, then of no importance, the chief town of a department, the stones from its ruins were employed in the erection of the administrative buildings, which,

being all produced at once after a regular plan, have a monotonous effect. The equestrian statue of Napoleon I. in an immense square overlooking the rest of the town; the statue of General Travot, who was engaged in the "pacification" of La Vendée; the museum, with several paintings by P. Baudry, a native artist, of whom there is a statue in the town, are the only objects of interest. Napoleon-Vendée and Bourbon-Vendée, the names borne by the town according to the dominance of either dynasty, gave place to the original name after the revolution of 1870. The town is the seat of a prefect and a court of assizes, and has a tribunal of first instance, a chamber of commerce, a branch of the Bank of France, a lycée for boys and training colleges for both sexes. It is a market for farm-produce, horses and cattle, and has flour-mills. The dog fairs of La Roche are well known.

LAROMIGUIÈRE, PIERRE (1756-1837), French philosopher, was born at Livignac on the 3rd of November 1756, and died on the 12th of August 1837 in Paris. As professor of philosophy at Toulouse he was unsuccessful and incurred the censure of the parliament by a thesis on the rights of property in connexion with taxation. Subsequently he came to Paris, where he was appointed professor of logic in the École Normale and lectured in the Prytanée. In 1799 he was made a member of the Tribunate, and in 1833 of the Academy of Moral and Political Science. In 1793 he published *Projet d'éléments de metaphysique*, a work characterized by lucidity and excellence of style. He wrote also two *Mémoires*, read before the Institute, *Les Paradoxes de Condillac* (1805) and *Leçons de philosophie* (1815-1818). Laromiguière's philosophy is interesting as a revolt against the extreme physiological psychology of the natural scientists, such as Cabanis. He distinguished between those psychological phenomena which can be traced directly to purely physical causes, and the actions of the soul which originate from within itself. Psychology was not for him a branch of physiology, nor on the other hand did he give to his theory an abstruse metaphysical basis. A pupil of Condillac and indebted for much of his ideology to Destutt de Tracy, he attached a fuller importance to Attention as a psychic faculty. Attention provides the facts, Comparison groups and combines them, while Reason systematizes and explains. The soul is active in its choice, *i.e.* is endowed with freewill, and is, therefore, immortal. For natural science as a method of discovery he had no respect. He held that its judgments are, at the best, statements of identity, and that its so-called discoveries are merely the reiteration, in a new form, of previous truisms. Laromiguière was not the first to develop these views; he owed much to Condillac, Destutt de Tracy and Cabanis. But, owing to the accuracy of his language and the purity of his style, his works had great influence, especially over Armand Marrast, Cardaillac and Cousin. A lecture of his in the École Normale impressed Cousin so strongly that he at once devoted himself to the study of philosophy. Jouffroy and Taine agree in describing him as one of the great thinkers of the 19th century.

See Damiron, *Essai sur la philosophie en France au XIX^e^ siècle*; Biran, *Examen des leçons de philosophie*; Victor Cousin, *De Methodo sive de Analysi*; Daunou, *Notice sur Laromiguière*; H. Taine, *Les Philosophes classiques du XIX^e^ siècle*; Gatien Arnoult, *Étude sur Laromiguière*; Compayré, *Notice sur Laromiguière*; Ferraz, *Spiritualisme et Libéralisme*; F. Picavet, *Les Idéologues*.

LARRA, MARIANO JOSÉ DE (1809-1837), Spanish satirist, was born at Madrid in 1809. His father served as a regimental doctor in the French army, and was compelled to leave the Peninsula with his family in 1812. In 1817 Larra returned to Spain, knowing less Spanish than French. His nature was disorderly, his education was imperfect, and, after futile attempts to obtain a degree in medicine or law, he made an imprudent marriage at the age of twenty, broke with his relatives and became a journalist. On the 27th of April 1831 he produced his first play, *No más mostrador*, based on two pieces by Scribe and Dieulafoy. Though wanting in originality, it is brilliantly written, and held the stage for many years. On the 24th of September 1834 he produced *Macias*, a play based on his own historical novel, *El Doncel de Don Enrique el Doliente* (1834). The drama and novel are interesting as experiments, but Larra was essentially a journalist, and the increased liberty of the press after the death of Ferdinand VII. gave his caustic talent an ampler field. He was already famous under the pseudonyms of "Juan Pérez de Munguía" and "Figaro" which he used in *El Pobrecito Hablador* and *La Revista Española* respectively. Madrid laughed at his grim humour; ministers feared his vitriolic pen and courted him assiduously; he was elected as deputy for Ávila, and a great career seemed to lie before him. But the era of military *pronunciamientos* ruined his personal prospects and patriotic plans. His writing took on a more sombre tinge; domestic troubles increased his pessimism, and, in consequence of a disastrous love-affair, he committed suicide on the 13th of February 1837. Larra lived long enough to prove himself the greatest prose-writer that Spain can boast during the 19th century. He wrote at great speed with the constant fear of the censor before his eyes, but no sign of haste is discernible in his work, and the dexterity with which he aims his venomous shafts is amazing. His political instinct, his abundance of ideas and his forcible, mordant style would have given him a foremost position at any time and in any country; in Spain, and in his own period, they placed him beyond all rivalry.

(J. F.-K.)

LARSA (Biblical *Ellasar*, Gen. xiv. 1), an important city of ancient Babylonia, the site of the worship of the sun-god, Shamash, represented by the ancient ruin mound of Senkereh (Senkera). It lay 15 m. S.E. of the ruin mounds of Warka (anc. *Erech*), near the east bank of the Shatt-en-Nil canal. Larsa is mentioned in Babylonian inscriptions as early as the time of Ur-Gur, 2700 or 2800 B.C., who built or restored the *ziggurat* (stage-tower) of E-Babbar, the temple of Shamash. Politically it came into special prominence at the time of the Elamite conquest, when it was made the centre of Elamite dominion in Babylonia, perhaps as a special check upon the neighbouring Erech, which had played a prominent part in the resistance to the Elamites. At the time of Khammurabi's successful struggle with the Elamite conquerors it was ruled by an Elamite king named Eriaku, the Arioch of the Bible, called Rim-Sin by his Semitic subjects. It finally lost its independence under Samsu-iluna, son of Khammurabi, *c.* 1900 B.C., and from that time until the close of the Babylonian period it was a subject city of Babylon. Loftus conducted excavations at this site in 1854. He describes the ruins as consisting of a low, circular platform, about 4½ m. in circumference, rising gradually from the level of the plain to a central mound 70 ft. high. This represents the ancient *ziggurat* of the temple of Shamash, which was in part explored by Loftus. From the inscriptions found there it appears that, besides the kings already mentioned, Khammurabi, Burna-buriash (buryas) and the great Nebuchadrezzar restored or rebuilt the temple of Shamash. The excavations at Senkereh were peculiarly successful in the discovery of inscribed remains, consisting of clay tablets, chiefly contracts, but including also an important mathematical tablet and a number of tablets of a description almost peculiar to Senkereh, exhibiting in bas-relief scenes of everyday life. Loftus found also the remains of an ancient Babylonian cemetery. From the ruins it would appear that Senkereh ceased to be inhabited at or soon after the Persian conquest.

See W. K. Loftus, *Chaldaea and Susiana* (1857).

(J. P. PE.)

LARTET, EDOUARD (1801-1871), French archaeologist, was born in 1801 near Castelnau-Barbarens, department of Gers, France, where his family had lived for more than five hundred years. He was educated for the law at Auch and Toulouse, but having private means elected to devote himself to science. The then recent work of Cuvier on fossil mammalia encouraged Lartet in excavations which led in 1834 to his first discovery of fossil remains in the neighbourhood of Auch. Thenceforward he devoted his whole time to a systematic examination of the French caves, his first publication on the subject being *The Antiquity of Man in Western Europe* (1860), followed in 1861 by *New Researches on the Coexistence of Man and of the Great Fossil Mammifers characteristic of the Last Geological Period*. In this paper he made public the results of his discoveries in the cave of Aurignac, where evidence existed of the contemporaneous existence of man and extinct mammals. In his work in the Périgord district Lartet had the aid of Henry Christy (*q.v.*). The first account of their joint researches appeared in a paper descriptive of the Dordogne caves and contents, published in *Revue archéologique* (1864). The important discoveries in the Madeleine cave and elsewhere were published by Lartet and Christy under the title *Reliquiae Aquitanicae*, the first part appearing in 1865. Christy died before the completion of the work, but Lartet continued it until his breakdown in health in 1870. The most modest and one of the most illustrious of the founders of modern palaeontology, Lartet's work had previously been publicly recognized by his nomination as an officer of the Legion of Honour; and in 1848 he had had the offer of a political post. In 1857 he had been elected a foreign member of the Geological Society of London, and a few weeks before his death he had been made professor of palaeontology at the museum of the Jardin des Plantes. He died at Seissan in January 1871.

LARVAL FORMS, in biology. As is explained in the article on EMBRYOLOGY (*q.v.*), development and life are coextensive, and it is impossible to point to any period in the life of an organism when the developmental changes cease. Nevertheless it is customary to speak of development as though it were confined to the early period of life, during which the important changes occur by which the uninucleated zygote acquires the form characteristic of the species. Using the word in this restricted sense, it is pointed out in the same article that the developmental period frequently presents two phases, the embryonic and the larval. During the embryonic phase the development occurs under protection, either within the egg envelopes, or within the maternal body, or in a brood pouch. At the end of this phase the young organism becomes free and uses, as a rule, its own mouth and digestive organs. If this happens before it has approximately acquired the adult form, it is called a larva (Lat. *larva*, ghost, spectre, mask), and the subsequent development by which the adult form is acquired constitutes the larval phase. In such forms the life-cycle is divided into three phases, the embryonic, the larval and the adult. The transition between the first two of these is always abrupt; whereas the second and third, except in cases in which a metamorphosis occurs (see METAMORPHOSIS), graduate into one another, and it is not possible to say when the larval stage ends and the adult begins. This is only what would be expected when it is remembered that the developmental changes never cease. It might be held that the presence of functional reproductive organs, or the possibility of rapidly acquiring them, marks off the adult phase of life from the larval. But this test sometimes fails. In certain of the Ctenophora there is a double sexual life; the larva becomes sexually mature and lays eggs, which are fertilized and develop; it then loses its generative organs and develops into the adult, which again develops reproductive organs (*dissogony*; see Chun, *Die Ctenophoren des Golfes von Neapel*, 1880). In certain Amphibia the larva may develop sexual organs and breed (axolotl), but

in this case (*neoteny*) it is doubtful whether further development may occur in the larva. A very similar phenomenon is found in certain insect larvae (*Cecidomyia*), but in this case ova alone are produced and develop parthenogenetically (paedogenesis). Again in certain Trematoda larval stages known as the sporocyst and redia produce ova which have the power of developing unfertilized; in this case the larva probably has not the power of continuing its development. It is very generally held by philosophers that the end of life is reproduction, and there is much to be said for this view; but, granting its truth, it is difficult to see why the capacity for reproduction should so generally be confined to the later stages of life. We know by more than one instance that it is possible for the larva to reproduce by sexual generation; why should not the phenomenon be more common? It is impossible in the present state of our knowledge to answer this question.

The conclusion, then, that we reach is that the larval phase of life graduates into the later phases, and that it is impossible to characterize it with precision, as we can the embryonic phase. Nevertheless great importance has been attached, in certain cases, to the forms assumed by the young organism when it breaks loose from its embryonic bonds. It has been widely held that the study of larvae is of greater importance in determining genetic affinity than the study of adults. What justification is there for this view? The phase of life, chosen for the ordinary anatomical and physiological studies and labelled as the adult phase, is merely one of the large number of stages of structure through which the organism passes during its free life. In animals with a well-marked larval phase, by far the greater number of the stages of structure are included in the larval period, for the developmental changes are more numerous and take place with greater rapidity at the beginning of life than in its later periods. As each of the larval stages is equal in value for the purposes of our study to the adult phase, it clearly follows that, if there is anything in the view that the anatomical study of organisms is of importance in determining their mutual relations, the study of the organism in its various larval stages must have a greater importance than the study of the single and arbitrarily selected stage of life called the adult.

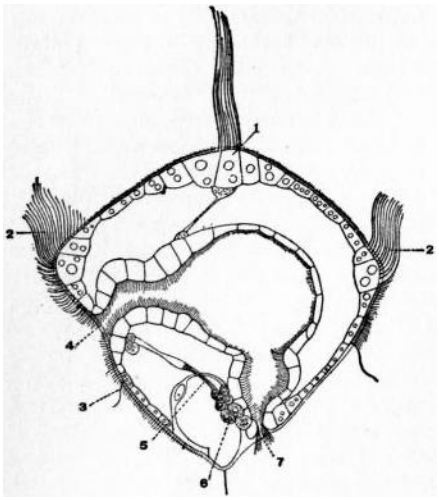
The importance, then, of the study of larval forms is admitted, but before proceeding to it this question may be asked: What is the meaning of the larval phase? Obviously this is part of a larger problem: Why does an organism, as soon as it is established at the fertilization of the ovum, enter upon a cycle of transformations which never cease until death puts an end to them? It is impossible to give any other answer to this question than this, viz. that it is a property of living matter to react in a remarkable way to external forces without undergoing destruction. As is explained in Embryology, development consists of an orderly interaction between the organism and its environment. The action of the environment produces certain morphological changes in the organism. These changes enable the organism to move into a new environment, which in its turn produces further structural changes in the organism. These in their turn enable, indeed necessitate, the organism to move again into a new environment, and so the process continues until the end of the life-cycle. The essential condition of success in this process is that the organism should always shift into the environment to which its new structure is suited, any failure in this leading to impairment of the organism. In most cases the shifting of the environment is a very gradual process, and the morphological changes in connexion with each step of it are but slight. In some cases, however, jumps are made, and whenever such jumps occur we get the morphological phenomenon termed metamorphosis. It would be foreign to our purpose to consider this question further here, but before leaving it we may suggest, if we cannot answer, one further question. Has the duration and complexity of the life-cycle expanded or contracted since organisms first appeared on the earth? According to the current view, the life-cycle is continually being shortened at one end by the abbreviation of embryonic development and by the absorption of larval stages into the embryonic period, and lengthened at the other by the evolutionary creation of new adult phases. What was the condition of the earliest organisms? Had they the property of reacting to external forces to the same extent and in the same orderly manner that organisms have to-day?

For the purpose of obtaining light upon the genetic affinities of an organism, a larval stage has as much importance as has the adult stage. According to the current views of naturalists, which are largely a product of Darwinism, it has its counterpart, as has the adult stage, in the ancestral form from which the living organism has been derived by descent with modification. Just as the adult phase of the living form differs owing to evolutionary modification from the adult phase of the ancestor, so each larval phase will differ for the same reason from the corresponding larval phase in the ancestral life-history. Inasmuch as the organism is variable at every stage of its existence, and is exposed to the action of natural selection, there is no reason why it should escape modification at any stage. But, as the characters of the ancestor are unknown, it is impossible to ascertain what the modification has been, and the determination of which of the characters of its descendant (whether larval or adult) are new and which ancient must be conjectural. It has been customary of late years to distinguish in larvae those characters which are supposed to have been recently acquired as *caenogenetic*, the ancient characters being termed *palingenetic*. These terms, if they have any value, are applicable with equal force to adults, but they are cumbrous, and the absence of any satisfactory test which enables us to distinguish between a character which is ancestral and one which has been recently acquired renders their utility very doubtful. Just as the adult may be supposed, on evolution doctrine, to be derived from an ancestral adult, so the various larval stages may be supposed to have been derived from the corresponding larval stage of the hypothetical ancestor. If we admit organic evolution at all, we may perhaps go so far, but we are not in a position to go further, and to assert that each larval stage is representative of and, so to speak, derived from some adult stage in the remote past, when the organism progressed no further in its life-cycle than the stage of structure revealed by such a larval form. We may perhaps have a right to take up this position, but it is of no advantage to us to do so, because it leads us into the realm of pure fancy. Moreover, it assumes that an answer can be given to the question asked above—has the life-cycle of organisms contracted or expanded as the result of evolution? This question has not been satisfactorily answered. Indeed we may go further and say that naturalists have answered it in different ways according to the class of facts they were contemplating at the moment. If we are to consider larvae at all from the evolution point of view, we must treat them as being representative of ancestral larvae from which they have been derived by descent with modification; and we must leave open the question whether and to what extent the first organisms themselves passed through a complicated life-cycle.

From the above considerations it is not surprising to find that the larvae of different members of any group resemble each other to the same kind of degree as do the adults, and that the larvae of allied groups resemble one another more closely than do the larvae of remote groups, and finally that a study of larvae does in some

cases reveal affinities which would not have been evident from a study of adults alone. Though it is impossible to give here an account of the larval forms of the animal kingdom, we may illustrate these points, which are facts of fundamental importance in the study of larvae, by a reference to specific cases.

The two great groups, Annelida and Mollusca, which by their adult structure present considerable affinity with one another, agree in possessing a very similar larval form, known as the *trochosphere* or *trochophore*.

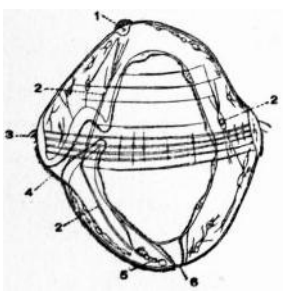


After V. Drasche in *Beiträge zur Entwickelung der Polychaeten, Entwickelung von Pomatoceros*.

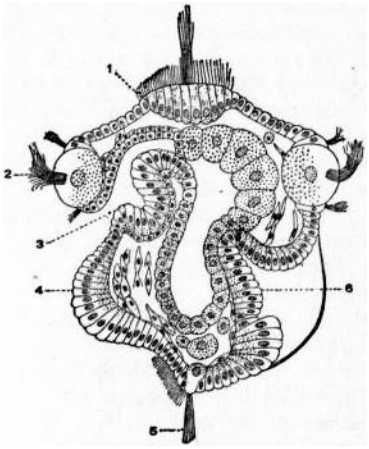
Fig. 1.—Trochosphere Larva of the Chaetopod *Pomatoceros trigueter*, L. (Osmic acid preparation.)

1. The apical plate.
2. Long cilia of preoral band (velum).
3. Long cilia of postoral band.
4. Mouth.
5. Excretory organ.
6. Mesoblastic band.
7. Anus.

A typical trochosphere larva (figs. 1, 2) possesses a small, transparent body divided into a large preoral lobe and a small postoral region. The mouth (4) is on the ventral surface at the junction of the preoral lobe with the hinder part of the body, and there is an anus (7) at the hind end. Connecting the two is a curved alimentary canal which is frequently divided into oesophagus, stomach and intestine. There is a preoral circlet of powerful cilia, called the “velum” (2), which encircles the body just anterior to the mouth and marks off the preoral lobe, and there is very generally a second ring of cilia immediately behind the mouth (3). At the anterior end of the preoral lobe is a nervous thickening of the ectoderm called the apical plate (1). This usually carries a tuft of long cilia or sensory hairs, and sometimes rudimentary visual organs. Mesoblastic bands are present, proceeding a short distance forwards from the anus on each side of the middle ventral line (6), and at the anterior end of each of these structures is a tube (5) which more or less branches internally and opens on the ventral surface. The branches of this tube end internally in peculiar cells containing a flame-shaped flagellum and floating in the so-called body cavity, into which, however, they do not open. These are the primitive kidneys. The body cavity, which is a space between the ectoderm and alimentary canal, is not lined by mesoderm and is traversed by a few muscular fibres. Such a larva is found, almost as described, in many Chaetopods (fig. 1), in *Echiurus* (fig. 2), in many Gastropods (fig. 3), and Lamellibranchiates (fig. 4). This typical structure of the larva is often departed from, and the molluscan trochosphere can be distinguished from the annelidan by the possession of a rudiment at least of the shell-gland and foot (figs. 3 and 4); but in all cases in which the young leaves the egg at an early stage of development it has a form which can be referred without much difficulty to the trochosphere type just described. A larva similar to the trochosphere in some features, particularly in possessing a preoral ring of cilia and an apical plate, is found in the Polyzoa, and in adult Rotifera, which latter, in their ciliary ring and excretory organs, present some resemblance to the trochosphere, and are sometimes described as permanent adult trochospheres. But in these phases the resemblance to the typical forms is not nearly so close as it is in the case of the larva of Annelida and Mollusca.



After Hatschek, “Echiurus” in Claus’s *Arbeiten aus dem*



After Patten, “Patella” in Claus’s *Arbeiten aus dem zoolog.*

zoolog. Institut der Wien.

FIG. 2.—Young Trochosphere Larva of the Gephyrean *Echiurus*, seen in optical section.

1. Apical plate.
2. Muscle-bands.
3. Preoral band of cilia (velum).
4. Mouth.
5. Mesoblastic band.
6. Anus.

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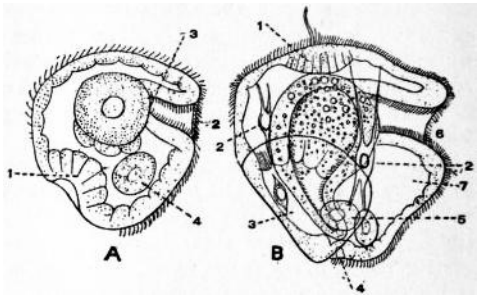
FIG. 3.—Larva of the Gastropod *Patella*, seen in longitudinal vertical section.

1. Apical plate.
2. Cilia of preoral circlet (velum).
3. Mouth.
4. Foot.
5. Anal tuft of cilia.
6. Shell-gland covered by shell.

In the Echinodermata there are two distinct larval forms which cannot be brought into relation with one another. The one of these is found in the Asteroids, Ophiuroids, Echinoids and Holothuroids; the other in the Crinoids.



After Hatschek on "Teredo" in Claus' *Arbeiten aus dem zoolog. Institut der Wien.*

FIG. 4.—A, Embryo, and B, Young Trochosphere Larva of the Lamellibranch *Teredo*.

In A the shell-gland (1) and the mouth (2) and the rudiment of the enteron (3) are shown; (4) primitive mesoderm cells.

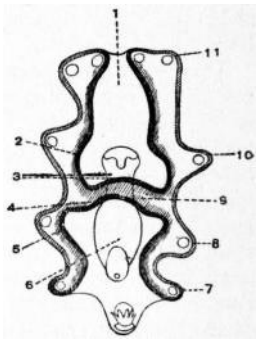
In B the shell-gland has flattened out and the shell is formed. 1, Apical plate; 2, muscles; 3, shell; 4, anal invagination; 5, mesoblast; 6, mouth; 7, foot.

The cilia of the preoral and postoral bands are not clearly differentiated at this stage.

The first is, in its most primitive form, a small transparent creature, with a mouth and anus and a postoral longitudinal ciliated band (fig. 5, A). In Asteroids the band of cilia becomes divided in such a way as to give rise to two bands, the one preoral, encircling the preoral lobe, and the other remaining postoral (fig. 5, B). In the other groups the band remains single and longitudinal. In all cases the edges of the body carrying the ciliary bands become sinuous (fig. 6) and sometimes prolonged into arms (figs. 7-9), and each of the four groups has its own type of larva. In Asteroids, in which the band divides, the larva is known as the bipinnaria (fig. 7); in Holothurians it is called the auricularia (fig. 6); in Echinoids and Ophiuroids, in which the arms are well marked, it is known as the pluteus, the echinopluteus (fig. 9) and ophiopluteus (fig. 8) respectively.

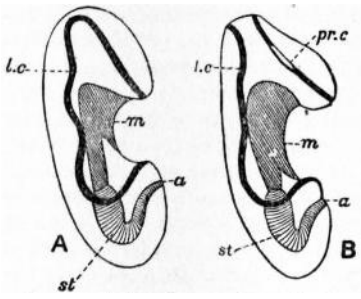
All these forms were obviously distinct but as obviously modifications of a common type and related to one another. They present certain remarkable structural features which differentiate them from other larval types except the tornaria larvae of the Enteropneusta. They possess an alimentary canal with a mouth and anus as does the trochosphere, but they differ altogether from that larva in having a diverticulum of the alimentary canal which gives rise to the coelom and to a considerable part of the mesoblast. Further, they are without an apical plate with its tuft of sensory hairs.

In Crinoids the type is different (fig. 10), and might belong to a different phylum. The body is opaque, and encircled by five ciliary bands, and is without either mouth, anus or arms, and there is a tuft of cilia on the preoral lobe. A resemblance to the other Echinoderm larvae is found in the fact that coelomic diverticula of the enteron are present.



From Balfour's *Comparative Embryology*, by permission of Macmillan & Co., Ltd.

FIG. 5.—Diagrams of side views of two young Echinoderm Larvae, showing the course of the ciliary bands. A, auricularia larva of a Holothurian; B, bipinnaria larva of an Asteroid; *a*, anus; *l.c*, in A primitive longitudinal ciliary band, in B postoral longitudinal ciliary band; *m*, mouth; *pr.c*, preoral ciliary band; *st*, stomach.



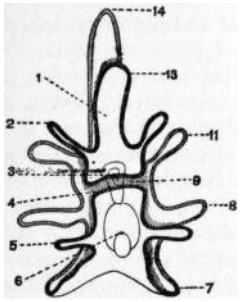
After J. Müller.

FIG. 6.—*Auricularia stelligera*, ventral view, somewhat diagrammatic. The larva of a Holothurian.

1. Frontal area.
2. Preoral arm.
3. Anterior transverse portion of ciliary band.
4. Posterior transverseportion of same.
5. Postoral arm.

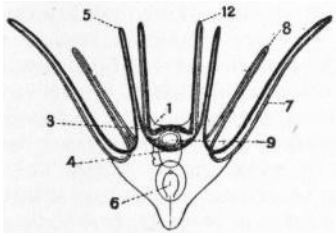
6. Anal area.
7. Posterior lateral arm.
8. Posterior dorsal arm.
9. Oral depression.
10. Middle dorsal arm.
11. Anterior dorsal arm.
12. Anterior lateral arm.
13. Ventral median arm.
14. Dorsal median arm.
15. Unpaired posterior arm.

The larvae of two other groups present certain resemblances to the typical Echinoderm larvae. The one of these is the tornaria larva of the Enteropneusta (fig. 11), which recalls Echinoderms in the possession of two ciliary bands, the one preoral and the other postoral and partly longitudinal, and in the presence of gut diverticula which give rise to the coelom; but, like the trochosphere, it possesses an apical plate with sensory organs on the preoral lobe. The resemblance of the tornaria to the bipinnaria is so close that, taking into consideration certain additional resemblances in the arrangement of the coelomic vesicles which arise from the original gut diverticulum, it is impossible to resist the conclusion that there is affinity between the Echinoderm and Enteropneust phyla. Here we have a case like that of the Tunicata in which an affinity which is not evident from a study of the adult alone is revealed by a study of the young form. The other larva which recalls the Echinoderm type is the Actinotrocha of *Phoronis* (fig. 12), but the resemblance is not nearly so close, being confined to the presence of a postoral longitudinal band of cilia which is prolonged into arm-like processes.



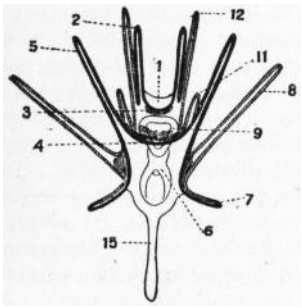
After J. Müller.

FIG. 7.—*Bipinnaria elegans*, the Larva of a Star-fish. Description and lettering as in fig. 6.



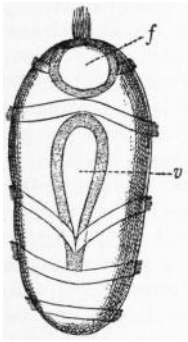
After J. Müller.

FIG. 8.—*Ophiopluteus bimaculatus*, the Larva of an Ophiurid. Description and lettering as in fig. 6.



After J. Müller.

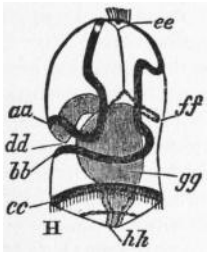
FIG. 9.—*Echinopluteus*, the Larva of a Spatangid. Description and lettering as in fig. 6.



After Seeliger on "Antedon" in Spengel's *Zoologische Jahrbücher*.

FIG. 10.—A free-swimming Larva of Antedon, ventral view. It has an apical tuft of cilia, five ciliated bands, and a depression—the vestibular depression—on its ventral surface. *v*, Vestibular depression; *f*, adhesive pit.

The following groups have larvae which cannot be related to other larvae: the Porifera, Coelenterata, Turbellaria and Nemertea, Brachiopoda, Myriapoda, Insecta, Crustacea, Tunicata. We may shortly notice the larvae of the two latter.



After Metschnikoff.

FIG. 11.—Tornaria Larva of an Enteropneust, side view.

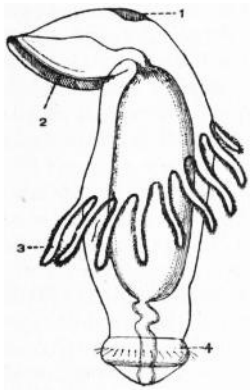


FIG. 12.—Actinotrocha Larva of *Phoronis*, side view. (Modified after Benham.)

ee, Apical plate.
aa, Preoral ciliary band.
bb, Postoral ciliary band.
dd, Mouth.
ff, Anterior coelomic vesicle and pore.
gg, Alimentary canal.
hh, Anus.

1. Apical plate.
2. Mouth.
3. Postoral ciliary band and arms.
4. Perianal ciliary band.

In the Crustacea the larvae are highly peculiar and share, in a striking manner, certain of the important features of specialization presented by the adult, viz. the presence of a strong cuticle and of articulated appendages and the absence of cilia. They are remarkable among larvae for the number of stages which they pass through in attaining the adult state. However numerous these may be, they almost always have, when first set free from the egg, one of two forms, that of the *nauplius* (fig. 13, A) or that of the *zoaea* (fig. 13, B). The nauplius is found throughout the group and is the more important of the two; the zoaea is confined to the higher members, in some of which it merely forms a stage through which the larva, hatched as a nauplius, passes in its gradual development. The nauplius larva is of classic interest because its occurrence has enabled zoologists to determine with precision the position in the animal kingdom of a group, the Cirripedia, which was placed by the illustrious Cuvier among the Mollusca.

In the Tunicata the remarkable tadpole larva, the structure and development of which was first elucidated by the great Russian naturalist, A. Kowalevsky, possesses a similar interest to that of the nauplius larva of Cirripeds, and of the tornaria larva of the Enteropneusta, in that it pointed the way to the recognition of the affinities of the Tunicata, affinities which were entirely unsuspected till they were revealed by a study of the larvae.

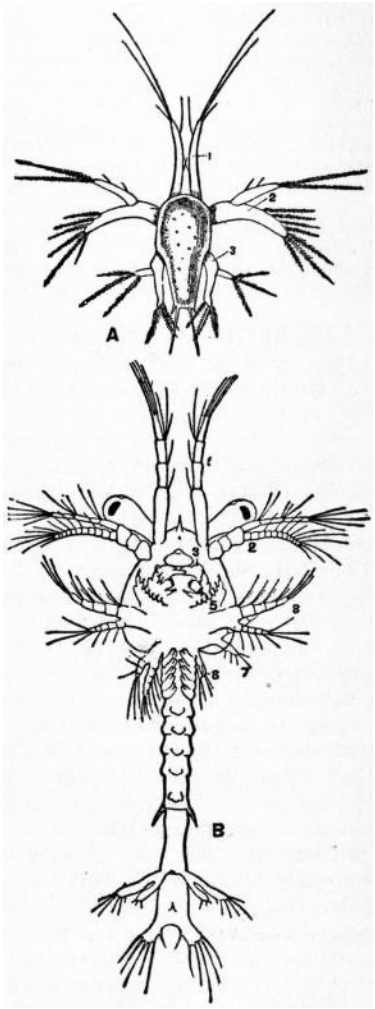


FIG. 13.—A, Nauplius of the Crustacean *Penaeus*, dorsal view. B, Zoaea Larva of the same animal, ventral view.

1. 2. 3. The three pairs of appendages of the nauplius larva (the future first and second antennae and mandibles).
3. Mandible.
4. First maxilla.
5. Second maxilla.
6. First maxilliped.
7. Second maxilliped.
8. Third maxilliped.

With regard to the occurrence of larvae, three general statements may be made. (1) They are always associated with a small egg in which the amount of food yolk is not sufficient to enable the animal to complete its development in the embryonic state. (2) A free-swimming larva is usually found in cases in which the adult is attached to foreign objects. (3) A larval stage is, as a rule, associated with internal parasitism of the adult. The object gained by the occurrence of a larva in the two last cases is to enable the species to distribute itself over as wide an area as possible. It may further be asserted that land and fresh-water animals develop without a larval stage much more frequently than marine forms. This is probably partly due to the fact that the conditions of land and fresh-water life are not so favourable for the spread of a species over a wide area by means of simply-organized larvae as are those of marine life, and partly to the fact that, in the case of fresh-water forms at any rate, a feebly-swimming larva would be in danger of being swept out to sea by currents.

1. The association of larvae with small eggs. This is a true statement as far as it goes, but in some cases small eggs do not give rise to larvae, some special form of nutriment being provided by the parent, *e.g.* Mammalia, in which there is a uterine nutrition by means of a placenta; some Gastropoda (*e.g. Helix waltoni*, *Bulimus*), in which, though the ovum is not specially large, it floats in a large quantity of albumen at the expense of which the development is completed; some Lamellibranchiata (*Cyclas*, &c.), Echinodermata (many *Ophiurids*, &c.), &c., in which development takes place in a brood pouch. In the majority of cases, however, in which there is a small amount of food yolk and no special arrangements for parental care, a larva is formed. No better group than the Mollusca can be taken to illustrate this point, for in them we find every kind of development from the completely embryonic development of the Cephalopoda, with their large heavily-yolked eggs, to the development of most marine Lamellibranchiata and many Gastropoda, in which the embryonic period is short and there is a long larval development. The Mollusca are further specially interesting for showing very clearly cases in which, though the young are born or hatched fully developed, the larval stages are passed through in the egg, and the larval organs (*e.g.* velum) are developed but without function (*e.g. Paludina*, *Cyclas*, *Onchidium*). As already mentioned, the larval form of the Mollusca is the trochosphere.

2. Free-swimming larvae are usually formed when the adult is fixed. We need only refer to the cases of the Cirripedia with their well-marked nauplius and cypris larvae, to *Phoronis* with its remarkable *actinotrocha*, to the Crinoidea, Polyzoa, &c. There are a few exceptions to this rule, *e.g.* the Molgulidae amongst the fixed Tunicata, *Tubularia*, *Myriothela*, &c., among the Hydrozoa.

3. Internal parasites generally have a stage which may be called larval, in which they are transferred either by active or passive migration to a new host. In most Nematoda, some Cestoda, and in Trematoda this larva leads a free life; but in some nematodes (*Trichina*) and some cestodes the larva does not become free.

(A. SE.*)

LARYNGITIS, an inflammation of the mucus of the *larynx*. There are three chief varieties: *acute*, *chronic*, and *oedematous*. The larynx is also liable to attacks of inflammation in connexion with tubercle or syphilis.

Acute Laryngitis may be produced by an independent catarrh, or by one extending either from the nasal or the bronchial mucous membrane into that of the larynx. The causes are various, “catching cold” being the most common. Excessive use of the voice either in speaking or singing sometimes gives rise to it. The inhalation of irritating particles, vapours, &c., and swallowing very hot fluids or corrosive poisons are well-recognized causes. It may also occur in connexion with diseases, notably measles and influenza. As a result of the inflammation there is a general swelling of the parts about the larynx and the epiglottis, the result being a narrowing of the channel for the entrance of the air, and to this the chief dangers are due. The symptoms vary with the intensity of the attack; there is first a sense of tickling, then of heat, dryness, and pain in the throat, with some difficulty in swallowing. There is a dry cough, with expectoration later; phonation becomes painful, while the voice is husky, and may be completely lost. In children there is some dyspnoea. In favourable cases, which form the majority, the attack tends to abate in a few days, but the inflammation may become of the oedematous variety, and death may occur suddenly from an asphyxial paroxysm. Many cases of acute laryngitis are so slight as to make themselves known only by hoarseness and the character of the cough, nevertheless in every instance the attack demands serious attention. The diagnosis is not, in adults, a matter of much difficulty, especially if an examination is made with the laryngoscope; in children, however, it is more difficult, and the question of diphtheria must not be lost sight of. The treatment is, first and foremost, rest; no talking must be allowed. The patient should be kept in bed, in a room at an even temperature, and the air saturated with moisture. An ice-bag round the throat gives much relief, while internally diaphoretics may be given, and a full dose of Dover’s powder if there be much pain or cough.

Chronic Laryngitis usually occurs as a result of repeated attacks of the acute form. It is extremely common in people who habitually over-use the voice, and is the cause of the hoarse voice one associates with street sellers. The constant inhalation of irritating vapours, such as tobacco smoke, may also cause it. There is usually little or no pain, only the unpleasant sensation of tickling in the larynx, with a constant desire to cough. The changes in the mucous membrane are more permanent than in the acute variety, and there nearly always accompanies this a chronic alteration of the membrane of the pharynx (*granular pharyngitis*). The treatment consists in stopping the cause, where known, *e.g.* the smoking or shouting. Careful examination should be made to see if there is any nasal obstruction, and the larynx should be treated locally with suitable astringents, by means of a brush, spray or insufflation. Overheated and ill-ventilated rooms must be avoided, as entrance into them immediately aggravates the trouble and causes a paroxysm of coughing.

Oedematous Laryngitis is a very fatal condition, which may occur, though rarely, as a sequence of acute laryngitis. It is far more commonly seen in syphilitic and tubercular conditions of the larynx, in kidney disease, in certain fevers, and in cases of cellulitis of the neck. The larynx is also one of the sites of *Angeioneurotic oedema*. In this form of laryngitis there are all the symptoms of acute laryngitis, but on a very much exaggerated scale. The dyspnoea, accompanied by marked stridor, may arise and reach a dangerous condition within the space of an hour, and demand the most prompt treatment. On examination the mucous membrane round the epiglottis is seen to be enormously swollen. The treatment is ice round the throat and internally, scarification of the swollen parts, and should that not relieve the asphyxial symptoms, tracheotomy must be performed immediately.

Tubercular Laryngitis is practically always associated with phthisis. The mucous membrane is invaded by the tubercles, which first form small masses. These later break down and ulcerate; the ulceration then spreads up and down, causing an immense amount of destruction. The first indication is hoarseness, or, in certain forms, pain on swallowing. The cough is, as a rule, a late symptom. A sudden oedema may bring about a rapid fatal termination. The general treatment is the same as that advised for phthisis; locally, the affected parts may be removed by one or a series of operations, generally under local anaesthesia, or they may be treated with some destructive agent such as lactic acid. The pain on swallowing can be best alleviated by painting with a weak solution of cocaine. The condition is a very grave one; the prognosis depends largely on the associated pulmonary infection—if that be extensive, a very small amount of laryngeal mischief resists treatment, while, if the case be the contrary, a very extensive mischief may be successfully dealt with.

Syphilitic Laryngitis.—Invasion of the larynx in syphilis is very common. It may occur in both stages of the disease and in the inherited form. In the secondary stage the damage is superficial, and the symptoms those of a slight acute laryngitis. The injury in the tertiary stage is much more serious, the deeper structures are invaded with the formation of deep ulcers, which may when they heal form strong cicatrices, which produce a narrowing of the air-passage which may eventually require surgical interference. Occasionally a fatal oedema may arise. The treatment consists of administering constitutional remedies, local treatment being of comparatively slight importance.

Paroxysmal Laryngitis, or *Laryngismus stridulus*, is a nervous affection of the larynx that occurs in infants. It appears to be associated with adenoids. The disease consists of a reflex spasm of the glottis, which causes a complete blocking of the air-passages. The attacks, which are recurrent, cause acute asphyxiation. They may cease for no obvious reason, or one may prove fatal. The whole attack is of such short duration that the infant has either recovered or succumbed before assistance can be called. After an attack, careful examination should be made, and the adenoids, if present, removed by operation.

LA SABLIÈRE, MARGUERITE DE (*c.* 1640-1693), friend and patron of La Fontaine, was the wife of Antoine Rambouillet, sieur de la Sablière (1624-1679), a Protestant financier entrusted with the administration of the royal estates, her maiden name being Marguerite Hessein. She received an excellent education in Latin, mathematics, physics and anatomy from the best scholars of her time, and her house became a meeting-place for poets, scientists and men of letters, no less than for brilliant members of the court of Louis XIV. About 1673 Mme de la Sablière received into her house La Fontaine, whom for twenty years she relieved of every kind of material anxiety. Another friend and inmate of the house was the traveller and physician François Bernier, whose abridgment of the works of Gassendi was written for Mme de la Sablière. The abbé Chaulieu and his fellow-poet, Charles Auguste, marquis de La Fare, were among her most intimate associates. La Fare sold his commission in the army to be able to spend his time with her. This liaison, which seems to have been the only serious passion of her life, was broken in 1679. La Fare was seduced from his allegiance, according to Mme de Sévigné by his love of play, but to this must be added a new passion for the actress La Champmeslé. Mme de la Sablière thenceforward gave more and more attention to good works, much of her time being spent in the hospital for incurables. Her husband's death in the same year increased her serious tendencies, and she was presently converted to Roman Catholicism. She died in Paris on the 8th of January 1693.

LA SALE (or La Salle), ANTOINE DE (*c.* 1388-1462?), French writer, was born in Provence, probably at Arles. He was a natural son of Bernard de la Salle,[1] a famous soldier of fortune, who served many masters, among others the Angevin dukes. In 1402 Antoine entered the court of Anjou, probably as a page, and in 1407 he was at Messina with Duke Louis II., who had gone there to enforce his claim to the kingdom of Sicily. The next years he perhaps spent in Brabant, for he was present at two tournaments given at Brussels and Ghent. With other gentlemen from Brabant, whose names he has preserved, he took part in the expedition of 1415 against the Moors, organized by John I. of Portugal. In 1420 he accompanied Louis III. on another expedition to Naples, making in that year an excursion from Norcia to the Monte della Sibilla, and the neighbouring Lake of Pilate. The story of his adventures on this occasion, and an account, with some sceptical comments, of the local legends regarding Pilate, and the Sibyl's grotto,[2] form the most interesting chapter of *La Salade*, which is further adorned with a map of the ascent from Montemonaco. La Sale probably returned with Louis III. of Anjou, who was also comte de Provence, in 1426 to Provence, where he was acting as *viguier* of Aries in 1429. In 1434 René, Louis's successor, made La Sale tutor to his son Jean d'Anjou, duc de Calabre, to whom he dedicated, between the years 1438 and 1447, his *La Salade*, which is a text-book of the studies necessary for a prince. The primary intention of the title is no doubt the play on his own name, but he explains it on the ground of the miscellaneous character of the book—a salad is composed "of many good herbs." In 1439 he was again in Italy in charge of the castle of Capua, with the duc de Calabre and his young wife, Marie de Bourbon, when the place was besieged by the king of Aragon. René abandoned Naples in 1442, and Antoine no doubt returned to France about the same time. His advice was sought at the tournaments which celebrated the marriage of the unfortunate Margaret of Anjou at Nancy in 1445; and in 1446, at a similar display at Saumur, he was one of the umpires. La Sale's pupil was now twenty years of age, and, after forty years' service of the house of Anjou, La Sale left it to become tutor to the sons of Louis de Luxembourg, comte de Saint Pol, who took him to Flanders and presented him at the court of Philippe le Bon, duke of Burgundy. For his new pupils he wrote at Châtelet-sur-Oise, in 1451, a moral work entitled *La Salle*.

He was nearly seventy years of age when he wrote the work that has made him famous, *L'Hystoire et plaisante cronicque du petit Jehan de Saintré et de la jeune dame des Belles-Cousines, Sans autre nom nommer*, dedicated to his former pupil, Jean de Calabre. An *envoi* in MS. 10,057 (nouv. acq. fr.) in the Bibliothèque Nationale, Paris, states that it was completed at Châtelet on the 6th of March 1455 (*i.e.* 1456). La Sale also announces an intention, never fulfilled, apparently, of writing a romance of *Paris et Vienne*. The MSS. of *Petit Jehan de Saintré* usually contain in addition *Floridam et Elvide*, translated by Rasse de Brunhamel from the Latin of Nicolas de Clamange, and dedicated to La Sale; also *Addiction extraite des Cronicques de Flandres*, of which only a few lines are original. Brunhamel says in his dedication that La Sale had delighted to write honourable histories from the time of his "florie jeunesse," which confirms a reasonable inference from the style of *Petit Jehan de Saintré* that its author was no novice in the art of romance-writing. The *Réconfort à Madame de Neufville*, a consolatory epistle including two stories of parental fortitude, was written at Vendeuil-sur-Oise about 1458, and in 1459 La Sale produced his treatise *Des anciens tournois et faictz d'armes* and the *Journée d'Onneur et de Prouesse*. He followed his patron to Genappe in Brabant when the Dauphin (afterwards Louis XI.) took refuge at the Burgundian court.

La Sale is generally accepted as the author of one of the most famous satires in the French language, *Les Quinze Joyes de mariage*, because his name has been disengaged from an acrostic at the end of the Rouen MS. He is also supposed to have been the "acteur" in the collection of licentious stories supposed to be narrated by various persons at the court of Philippe le Bon, and entitled the *Cent Nouvelles Nouvelles*. One only of the stories is given in his name, but he is credited with the compilation of the whole, for which Louis XI. was long held responsible. A completed copy of this was presented to the Duke of Burgundy at Dijon in 1462. If then La Sale was the author, he probably was still living; otherwise the last mention of him is in 1461.

Petit Jehan de Saintré gives, at the point when the traditions of chivalry were fast disappearing, an account of the education of an ideal knight and rules for his conduct under many different circumstances. When Petit Jehan, aged thirteen, is persuaded by the Dame des Belles-Cousines to accept her as his lady, she gives him systematic instruction in religion, courtesy, chivalry and the arts of success. She materially advances his career until Saintré becomes an accomplished knight, the fame of whose prowess spreads throughout Europe. This section of the romance—apparently didactic in intention—fits in with the author's other works of edification. But in the second part this virtuous lady falls a victim to a vulgar intrigue with Damp Abbé. One of La Sale's commentators, M. Joseph Nève, ingeniously maintains that the last section is simply to show how the hero, after passing through the other grades of education, learns at last by experience to arm himself against coquetry. The book may, however, be fairly regarded as satirizing the whole theory of "courteous" love, by the simple method of fastening a repulsive conclusion on an ideal case. The contention that the *fabliau*-like ending of a romance begun in idyllic fashion was due to the corrupt influences of the Dauphin's exiled court, is inadmissible, for the last page was written when the prince arrived in Brabant in 1456. That it is an anti-clerical satire seems unlikely. The profession of the seducer is not necessarily chosen from that point of view. The language of the book is not disfigured by coarseness of any kind, but, if the brutal ending was the expression of the writer's real views, there is little difficulty in accepting him as the author of the *Quinze Joyes de mariage* and the *Cent Nouvelles Nouvelles*.—Both these are masterpieces in their way and exhibit a much greater dramatic power and grasp of dialogue than does *Petit Jehan*. Some light is thrown on the romance by the circumstances of the duc de Calabre, to whom it was dedicated. His wife, Marie de Bourbon, was one of the "Belles-Cousines" who contended for the favour of Jacques or Jacquet de Lalaing in the *Livre des faits de Jacques Lalaing* which forms the chief source of the early exploits of Petit Jehan.

The incongruities of La Sale's aims appear in his method of construction. The hero is not imaginary. Jehan de Saintré flourished in the Hundred Years' War, was taken prisoner after Poitiers, with the elder Boucicaut, and was employed in negotiating the treaty of Bretigny. Froissart mentioned him as "le meilleur et le plus vaillant chevalier de France." His exploits as related in the romance are, however, founded on those of Jacques de Lalaing (*c.* 1422-1453), who was brought up at the Burgundian court, and became such a famous knight that he excited the rivalry of the "Belles-Cousines," Marie de Bourbon and Marie de Clèves, duchesse d'Orléans. Lalaing's exploits are related by more than one chronicler, but M. Gustave Raynaud thinks that the *Livre des faits de Jacques de Lalaing*, published among the works of Georges Chastelain, to which textual parallels may be found in *Petit Jehan*, should also be attributed to La Sale, who in that case undertook two accounts of the same hero, one historical and the other fictitious. To complicate matters, he drew, for the later exploits of Petit Jehan, on the *Livres des faits de Jean Boucicaut*, which gives the history of the younger Boucicaut. The atmosphere of the book is not the rough realities of the English wars in which the real Saintré figured but that of the courts to which La Sale was accustomed.

The title of *Les Quinze Joyes de mariage* is, with a profanity characteristic of the time, borrowed from a popular litany, *Les Quinze Joies de Notre Dame*, and each chapter terminates with a liturgical refrain voicing the miseries of marriage. Evidence in favour of La Sale's authorship is brought forward by M. E. Gossart (*Bibliophile belge*, 1871, pp. 83-7), who quotes from his didactic treatise of *La Salle* a passage paraphrased from St Jerome's treatise against Jovinian which contains the chief elements of the satire. Gaston Paris (*Revue de Paris*, Dec. 1897) expressed an opinion that to find anything like the malicious penetration by which La Sale divines the most intimate details of married life, and the painful exactness of the description, it is necessary to travel as far as Balzac. The theme itself was common enough in the middle ages in France, but the dialogue of the *Quinze Joyes* is unusually natural and pregnant. Each of the fifteen vignettes is perfect in its kind. There is no redundance. The diffuseness of romance is replaced by the methods of the writers of the *fabliaux*.

In the *Cent Nouvelles Nouvelles* the Italian *novella* is naturalized in France. The book is modelled on the *Decameron* of Boccaccio, and owes something to the Latin *Facetiae* of the contemporary scholar Poggio; but the stories are rarely borrowed, and in cases where the *Nouvelles* have Italian parallels they appear to be independent variants. In most cases the general immorality of the conception is matched by the grossness of the details, but the ninety-eighth story narrates what appears to be a genuine tragedy, and is of an entirely different nature from the other *contes*. It is another version of the story of Floridam et Elvide already mentioned.

Not content with allowing these achievements to La Sale, some critics have proposed to ascribe to him also the farce of *Maître Pathelin*.

The best editions of La Sale's undoubted and reputed works are:—*Petit Jehan de Saintré* by J. M. Guichard (1843); *Les Cent Nouvelles Nouvelles* by Thomas Wright (Bibl. elzévérienne, 1858); *Les Quinze Joyes de mariage* by P. Jannet (Bibl. elzév., 1857). *La Salade* was printed more than once during the 16th century. *La Salle* was never printed. For its contents see E. Gossart in the *Bibliophile belge* (1871, pp. 77 et seq.). See also the authorities quoted above, and Joseph Nève, *Antoine de la Salle, sa vie et ses ouvrages ... suivi du Réconfort de Madame de Fresne ... et de fragments et documents inédits* (1903), who argues for the rejection of *Les Quinze Joyes* and the *Cent Nouvelles Nouvelles* from La Sale's works; Pietro Toldo, *Contributo allo studio della novella francese del XV e XVI secolo* (1895), and a review of it by Gaston Paris in the *Journal des Savants* (May 1895); L. Stern, "Versuch über Antoine de la Salle," in *Archiv für das Studium der neueren Sprachen*, vol. xlvi.; and G. Raynaud, "Un Nouveau Manuscrit du Petit Jehan de Saintré," in *Romania*, vol. xxxi.

(M. Br.)

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1 For his career, see Paul Durrieu, *Les Gascons en Italie* (Auch, 1885, pp. 107-71).

2 For the legend of the Sibyl current in Italy at the time, given by La Sale, and its inter-relation with the Tannhäuser story, see W. Soederhjelm, "A. de la Salle et la légende de Tannhäuser" in *Mémoires de la soc. néo-philologique d'Helsingfors* (1897, vol. ii.); and Gaston Paris, "Le Paradis de la Reine Sibylle," and "La Légende du Tannhäuser," in the *Revue de Paris* (Dec. 1897 and March 1898).

LASALLE, ANTOINE CHEVALIER LOUIS COLLINET, Count (1775-1809), French soldier, belonged to a noble family in Lorraine. His grandfather was Abraham Fabert, marshal of France. Entering the French army at the age of eleven, he had reached the rank of lieutenant when the Revolution broke out. As an aristocrat, he lost his commission, but he enlisted in the ranks, where his desperate bravery and innate power of command soon distinguished him. By 1795 he had won back his grade, and was serving as a staff-officer in the army of Italy. On one occasion, at Vicenza, he rivalled Seydlitz's feat of leaping his horse over the parapet of a bridge to avoid capture, and, later, in Egypt, he saved Davout's life in action. By 1800 he had become colonel, and in one combat in that year he had two horses killed under him, and broke seven swords. Five years later, having attained the rank of general of brigade, he was present with his brigade of light cavalry at Austerlitz. In the pursuit after Jena in 1806, though he had but 600 hussars and not one piece of artillery with him, he terrified the commandant of the strong fortress of Stettin into surrender, a feat rarely equalled save by that of Cromwell on Bletchingdon House. Made general of division for this exploit, he was next in the Polish campaign, and at Heilsberg saved the life of Murat, grand duke of Berg. When the Peninsular War began, Lasalle was sent out with one of the cavalry divisions, and at Medina de Rio Seco, Gamonal and Medellin broke every body of troops which he charged. A year later, at the head of one of the cavalry divisions of the *Grande Armée* he took part in the Austrian war. At Wagram he was killed at the head of his men. With the possible exception of Curély, who was in 1809 still unknown, Napoleon never possessed a better leader of light horse. Wild and irregular in his private life, Lasalle was far more than a *beau sabreur*. To talent and experience he added that power of feeling the pulse of the battle which is the true gift of a great leader. A statue of him was erected in Lunéville in 1893. His remains were brought from Austria to the Invalides in 1891.

LA SALLE, RENÉ ROBERT CAVELIER, Sieur de (1643-1687), French explorer in North America, was born at Rouen on the 22nd of November 1643. He taught for a time in a school (probably Jesuit) in France, and seems to have forfeited his claim to his father's estate by his connexion with the Jesuits. In 1666 he became a settler in Canada, whither his brother, a Sulpician abbé, had preceded him. From the Seminary of St Sulpice in Montreal La Salle received a grant on the St Lawrence about 8 m. above Montreal, where he built a stockade and established a fur-trading post. In 1669 he sold this post (partly to the Sulpicians who had granted it to him) to raise funds for an expedition to China[1] by way of the Ohio,[2] which he supposed, from the reports of the Indians, to flow into the Pacific. He passed up the St Lawrence and through Lake Ontario to a Seneca village on the Genesee river; thence with an Iroquois guide he crossed the mouth of the Niagara (where he heard the noise of the distant falls) to Ganastogue, an Iroquois colony at the head of Lake Ontario, where he met Louis Joliet and received from him a map of parts of the Great Lakes. La Salle's missionary comrades now gave up the quest for China to preach among the Indians. La Salle discovered the Ohio river, descended it at least as far as the site of Louisville, Kentucky, and possibly, though not probably, to its junction with the Mississippi, and in 1669-1670, abandoned by his few followers, made his way back to Lake Erie. Apparently he passed through Lake Erie, Lake Huron and Lake Michigan, and some way down the Illinois river. Little is known of these explorations, for his journals are lost, and the description of his travels rests only on the testimony of the anonymous author of a *Histoire de M. de la Salle*. Before 1673 La Salle had returned to Montreal. Becoming convinced, after the explorations of Marquette and Joliet in 1673, that the Mississippi flowed into the Gulf of Mexico, he conceived a vast project for exploring that river to its mouth and extending the French power to the lower Mississippi Valley. He secured the support of Count Frontenac, then governor of Canada, and in 1674 and 1677 visited France, obtaining from Louis XIV. on his first visit a patent of nobility and a grant of lands about Fort Frontenac, on the site of the present Kingston, Ontario, and on his second visit a patent empowering him to explore the West at his own expense, and giving him the buffalo-hide monopoly. Late in the year 1678, at the head of a small party, he started from Fort Frontenac. He established a post above Niagara Falls, where he spent the winter, and where, his vessel having been wrecked, he built a larger ship, the "Griffon," in which he sailed up the Great Lakes to Green Bay (Lake Michigan), where he arrived in September 1679. Sending back the "Griffon" freighted with furs, by which he hoped to satisfy the claims of his creditors, he proceeded to the Illinois river, and near what is now Peoria, Illinois, built a fort, which he called Fort Crèvecœur. Thence he detached Father Hennepin, with one companion, to explore the Illinois to its mouth, and, leaving his lieutenant, Henri de Tonty (*c.* 1650-*c.* 1702),[3] with about fifteen men, at Fort Crèvecœur, he returned by land, afoot, to Canada to obtain needed supplies, discovering the fate of the "Griffon" (which proved to have been lost), thwarting the intrigues of his enemies and appeasing his creditors. In July 1680 news reached him at Fort Frontenac that nearly all Tonty's men had deserted, after destroying or appropriating most of the supplies; and that twelve of them were on their way to kill him as the surest means of escaping punishment. These he met and captured or killed. He then returned to the Illinois, to find the country devastated by the Iroquois, and his post abandoned. He formed a league of the Western Indians to fight the Iroquois, then went to Michilimackinac, where he found Tonty, proceeded again to Fort Frontenac to obtain supplies and organize his expedition anew, and returned in December 1681 to the Illinois. Passing down the Illinois to the Mississippi, which he reached in February 1682, he floated down that stream to its mouth, which he reached on the 9th of April, and, erecting there a monument and a cross, took formal possession in the name of Louis XIV., in whose honour he gave the name "Louisiana" to the region. He then returned to Michilimackinac, whence, with Tonty, he went again to the Illinois and established a fort, Fort St Louis, probably on Starved Rock (near the present Ottawa, Illinois), around which nearly 20,000 Indians (Illinois, Miamis and others seeking protection from the Iroquois) had been gathered. La Salle then went to Quebec, and La Barre, who had succeeded Frontenac, being unfriendly to him, again visited France (1684), where he succeeded in interesting the king in a scheme to establish a fort at the mouth of the Mississippi and to seize the Spanish posts in the vicinity. On the 24th of July 1684, with four vessels under the command of himself and Captain Beaujeu, a naval officer, he sailed from La Rochelle. Mistaking, it appears, the inlets of Matagorda Bay (which La Salle called St Louis's Bay) in the present state of Texas, for the mouth of an arm of the Mississippi,

he landed there, and Beaujeu, soon afterwards returned to France. The expedition had met with various misfortunes; one vessel had been captured by the Spaniards and another had been wrecked; and throughout La Salle and Beaujeu had failed to work in harmony. Soon finding that he was not at the mouth of the Mississippi, La Salle established a settlement and built a fort, Fort St Louis, on the Lavaca (he called it La Vache) river, and leaving there the greater part of his force, from October 1685 to March 1686 he vainly sought for the Mississippi. He also made two attempts to reach the Illinois country and Canada, and during the second, after two months of fruitless wanderings, he was assassinated, on the 19th of March 1687, by several of his followers, near the Trinity river in the present Texas.

His colony on the Lavaca, after suffering terribly from privation and disease and being attacked by the Indians, was finally broken up, and a force of Spaniards sent against it in 1689 found nothing but dead bodies and a dismantled fort; the few survivors having become domesticated in the Indian villages near by. Some writers, notably J. G. Shea, maintain that La Salle never intended to fortify the mouth of the Mississippi, but was instructed to establish an advanced post near the Spanish possessions, where he was to await a powerful expedition under a renegade Spaniard, Peñalosa, with whom he was to co-operate in expelling the Spaniards from this part of the continent.[4]

La Salle was one of the greatest of the explorers in North America. Besides discovering the Ohio and probably the Illinois, he was the first to follow the Mississippi from its upper course to its mouth and thus to establish the connexion between the discoveries of Radisson, Joliet and Marquette in the north with those of De Soto in the south. He was stern, indomitable and full of resource.

The best accounts of La Salle's explorations may be found in Francis Parkman's *La Salle and the Discovery of the Great West* (Boston, 1879; later revised editions), in Justin Winsor's *Cartier to Frontenac* (Boston, 1894), and in J. G. Shea's *Discovery and Exploration of the Mississippi Valley* (New York, 1852); see also P. Chesnel, *Histoire de Cavelier de La Salle, explorations et conquête du bassin du Mississippi* (Paris, 1901). Of the early narratives see Louis Hennepin, *Description de la Louisiane* (1683); Joutel, *Journal historique du dernier voyage que feu M. de la Salle fit dans le Golfe de Mexique, &c.* (Paris, 1713); and Henri de Tonty, *Derniers Découvertes dans l'Amérique septentrionale de M. de La Salle* (Paris, 1697). Original narratives may be found, translated into English, in *The Journeys of René Robert Cavelier, Sieur de La Salle, as related by his Faithful Lieutenant, Henri de Tonty, &c.* (2 vols., New York, 1905), edited by I. J. Cox; in Benjamin E. French's *Historical Collections of Louisiana* (6 series, New York, 1846-1853), and in Shea's *Early Voyages Up and Down the Mississippi* (Albany, 1861); and an immense collection of documents relating to La Salle may be found in Pierre Margry's *Découvertes et établissements des Français dans l'ouest et dans le sud de l'Amérique septentrionale, 1614-1754; Mémoires et documents originaux recueillis et publiés* (6 vols., Paris, 1875-1886), especially in vol. ii.

(C. C. W.)

1 The name La Chine was sarcastically applied to La Salle's settlement on the St Lawrence.

2 The Iroquois seem to have used the name Ohio for the Mississippi, or at least for its lower part; and this circumstance makes the story of La Salle's exploration peculiarly difficult to disentangle.

3 Tonty (or Tonti), an Italian, born at Gaeta, was La Salle's principal lieutenant, and was the equal of his chief in intrepidity. Before his association with La Salle he had engaged in military service in Europe, during which he had lost a hand. He accompanied La Salle to the mouth of the Mississippi, and was in command of Fort St Louis from the time of its erection until 1702, except during his journeys down the Mississippi in search of his chief. In 1702 he joined d'Iberville in lower Louisiana, and soon after was despatched on a mission to the Chickasaw Indians. This is the last authentic trace of him.

4 Although La Salle and Don Diego de Peñalosa (1624-1687) presented to the French government independent plans for an expedition against the Spaniards and Peñalosa afterwards proposed their co-operation, there is no substantial evidence that this project was adopted. Parkman is of the opinion that La Salle proposed his expedition against the Spaniards in the hope that the conclusion of peace between France and Spain would prevent its execution and that he might then use the aid he had thus received in establishing a fortified commercial colony at the mouth of the Mississippi. See E. T. Miller, "The Connection of Peñalosa with the La Salle Expedition," in the *Quarterly* of the Texas State Historical Association, vol. v. (Austin, Tex., 1902).

LA SALLE, ST JEAN BAPTISTE DE (1651-1719), founder of the order of Christian Brothers, was born at Reims. The son of a rich lawyer, his father's influence early secured him a canonry in the cathedral; there he established a school, where free elementary instruction was given to poor children. The enterprise soon broadened in scope; a band of enthusiastic assistants gathered round him; he resolved to resign his canonry, and devote himself entirely to education. His assistants were organized into a community, which gradually rooted itself all over France; and a training-school for teachers, the Collège de Saint-Yon, was set up at Rouen. In 1725, six years after the founder's death, the society was recognized by the pope, under the official title of "Brothers of the Christian Schools"; its members took the usual monastic vows, but did not aspire to the priesthood. During the first hundred years of its existence its activities were mainly confined to France; during the 19th century it spread to most of the countries of western Europe, and has been markedly successful in the United States. When La Salle was canonized in 1900, the total number of brothers was estimated at 15,000. Although the order has been chiefly concerned with elementary schools, it undertakes most branches of secondary and technical education; and it has served as a model for other societies, in Ireland and elsewhere, slightly differing in character from the original institute.

LA SALLE, a city of La Salle county, Illinois, U.S.A., on the Illinois river, near the head of navigation, 99 m. S.W. of Chicago. Pop. (1900) 10,446, of whom 3471 were foreign-born; (1910 census) 11,537. The city is served by the Chicago, Burlington & Quincy, the Chicago, Rock Island & Pacific, and the Illinois Central railways, and by the Illinois & Michigan Canal, of which La Salle is the western terminus. The city has a public library. The principal industries are the smelting of zinc and the manufacture of cement, rolled zinc, bricks, sulphuric acid and clocks; in 1905 the city's factory products were valued at $3,158,173. In the vicinity large quantities of coal are mined, for which the city is an important shipping point. The municipality owns and operates the waterworks and the electric lighting plant. The first settlement was made here in 1830; and the place which was named in honour of the explorer, René Robert Cavelier, Sieur de La Salle, was chartered as a city in 1852 and rechartered in 1876.

LASAULX, ARNOLD CONSTANTIN PETER FRANZ VON (1839-1886), German mineralogist and petrographer, was born at Castellaun near Coblenz on the 14th of June 1839. He was educated at Berlin, where he took his Ph. D. in 1868. In 1875 he became professor of mineralogy at Breslau, and in 1880 professor of mineralogy and geology at Bonn. He was distinguished for his researches on minerals and on crystallography, and he was one of the earlier workers on microscopic petrography. He described in 1878 the eruptive rocks of the district of Saar and Moselle. In 1880 he edited *Der Aetna* from the MSS. of Dr W. Sartorius von Waltershausen, the results of observations made between the years 1834-1869. He was author of *Elemente der Petrographie* (1875), *Einführung in die Gesteinslehre* (1885), and *Précis de pétrographie* (1887). He died at Bonn on the 25th of January 1886.

LASCAR, the name in common use for all oriental, and especially Indian, sailors, which has been adopted in England into the Merchant Shipping Acts, though without any definition. It is derived from the Persian *lashkar* = army, or camp, in which sense it is still used in India, *e.g.* Lashkar, originally the camp, now the permanent capital, of Sindhia at Gwalior. It would seem to have been applied by the Portuguese, first to an inferior class of men in military service (cf. "gun-lascars"), and then to sailors as early as the 17th century. The form *askari* on the east coast of Africa, equivalent to "sepoy," comes from the Arabic '*askar* = army, which is believed to be itself taken from the Persian.

LASCARIS, CONSTANTINE (d. 1493 or 1500), Greek scholar and grammarian, one of the promoters of the revival of Greek learning in Italy, was born at Constantinople. He was a member of the noble Bithynian family, which had furnished three emperors of Nicaea during the 13th century. After the fall of Constantinople in 1453, he took refuge first in Corfu and then in Italy, where Francesco Sforza, duke of Milan, appointed him Greek tutor to his daughter. Here was published his *Grammatica Graeca, sive compendium octo orationis partium*, remarkable as being the first book entirely in Greek issued from the printing press. After leaving Milan, Lascaris taught in Rome under the patronage of Cardinal Bessarion, and in Naples, whither he had been summoned by Ferdinand I. to deliver a course of lectures on Greece. Ultimately, on the invitation of the inhabitants, he settled in Messina, Sicily, where he continued to teach publicly until his death. Among his numerous pupils here was Pietro Bembo. Lascaris bequeathed his library of valuable MSS. to the senate of Messina; the collection was afterwards carried to Spain and lodged in the Escurial.

The *Grammatica*, which has often been reprinted, is the only work of value produced by Lascaris. Some of his letters are given by J. Iriarte in the *Regiae Bibliothecae Matritensis codices Graeci manuscripti*, i. (Madrid, 1769). His name is known to modern readers in the romance of A. F. Villemain, *Lascaris, ou les Grecs du quinzième siècle* (1825). See also J. E. Sandys, *Hist. Class. Schol.*, ed. 2, vol. ii. (1908), pp. 76 foll.

LASCARIS, JOANNES [John], or Janus (*c.* 1445-1535), Greek scholar, probably the younger brother of Constantine Lascaris, surnamed Rhyndacenus from the river Rhyndacus in Bithynia, his native province. After

the fall of Constantinople he was taken to the Peloponnese, thence to Crete, and ultimately found refuge in Florence at the court of Lorenzo de' Medici, whose intermediary he was with the sultan Bayezid II. in the purchase of Greek MSS. for the Medicean library. On the expulsion of the Medici from Florence, at the invitation of Charles VIII. of France, Lascaris removed to Paris (1495), where he gave public instruction in Greek. By Louis XII. he was several times employed on public missions, amongst others to Venice (1503-1508), and in 1515 he appears to have accepted the invitation of Leo X. to take charge of the Greek college he had founded at Rome. We afterwards (1518) find Lascaris employed along with Budaeus (Budé) by Francis I. in the formation of the royal library at Fontainebleau, and also again sent in the service of the French crown to Venice. He died at Rome, whither he had been summoned by Pope Paul III., in 1535. Among his pupils was Musurus.

Amongst other works, Lascaris edited or wrote: *Anthologia epigrammatum Graecorum* (1494), in which he ascribed the collection of the Anthology to Agathias, not to Planudes; *Didymi Alexandrini scholia in Iliadem* (1517); Porphyrius of Tyre's *Homericarum quaestionum liber* (1518); *De veris Graecarum litterarum formis ac causis apud antiquos* (Paris, 1556). See H. Hody, *De Graecis illustribus* (London, 1742); W. Roscoe, *Life of Leo X.* ii. (1846); C. F. Börner, *De doctis hominibus Graecis* (Leipzig, 1750); A. Horawitz in Ersch & Gruber's *Allgemeine Encyclopädie*; J. E. Sandys, *Hist. Class. Schol.*, ed. 2, vols. ii. (1908), p. 78.

LAS CASAS, BARTOLOMÉ DE (1474-1566), for some time bishop of Chiapa in Mexico, and known to posterity as "The Apostle of the Indies," was a native of Seville. His father, one of the companions of Columbus in the voyage which resulted in the discovery of the New World, sent him to Salamanca, where he graduated. In 1498 he accompanied his father in an expedition under Columbus to the West Indies, and in 1502 he went with Nicolás de Ovando, the governor, to Hayti, where in 1510 he was admitted to holy orders, being the first priest ordained in the American colonies. In 1511 he passed over to Cuba to take part in the work of "population and pacification," and in 1513 or 1514 he witnessed and vainly endeavoured to check the massacre of Indians at Caonao. Soon afterwards there was assigned to him and his friend Renteria a large village in the neighbourhood of Zagua, with a number of Indians attached to it in what was known as *repartimiento* (allotment); like the rest of his countrymen he made the most of this opportunity for growing rich, but occasionally celebrated mass and preached. Soon, however, having become convinced of the injustice connected with the *repartimiento* system, he began to preach against it, at the same time giving up his own slaves. With the consent of his partner he resolved to go to Spain on behalf of the oppressed natives, and the result of his representations was that in 1516 Cardinal Jimenes caused a commission to be sent out for the reform of abuses, Las Casas himself, with the title of "protector of the Indians," being appointed to advise and report on them. This commission had not been long at San Domingo before Las Casas perceived the indifference of his coadjutors to the cause which he himself had at heart, and July 1517 found him again in Spain, where he developed his scheme for the complete liberation of the Indians—a scheme which not only included facilities for emigration from Spain, but was intended to give to each Spanish resident in the colonies the right of importing twelve negro slaves. The emigration movement proved a failure, and Las Casas lived long enough to express his shame for having been so slow to see that Africans were as much entitled to freedom as were the natives of the New World. Overwhelmed with disappointment, he retired to the Dominican monastery in Haiti; he joined the order in 1522 and devoted eight years to study. About 1530 he appears to have revisited the Spanish court, but on what precise errand is not known; the confusion concerning this period of his life extends to the time when, after visits to Mexico, Nicaragua, Peru and Guatemala, he undertook an expedition in 1537 into Tuzulutlan, the inhabitants of which were, chiefly through his tact, peaceably converted to Christianity, mass being celebrated for the first time amongst them in the newly founded town of Rabinal in 1538. In 1539 Las Casas was sent to Spain to obtain Dominican recruits, and through Loaysa, general of the order, and confessor of Charles V., he was successful in obtaining royal orders and letters favouring his enterprise. During this stay in Europe, which lasted more than four years, he visited Germany to see the emperor; he also (1542) wrote his *Veynte Razones*, in defence of the liberties of the Indians and the *Brevisima Relacion de la Destruycion des las Indias occidentales*, the latter of which was published some twelve years later. In 1543 he refused the Mexican bishopric of Cuzco, but was prevailed upon to accept that of Chiapa, for which he sailed in 1544. Thwarted at every point by the officials, and outraged by his countrymen in his attempt to carry out the new laws which his humanity had procured, he returned to Spain and resigned his dignity (1547). In 1550 he met Sepúlveda in public debate on the theses drawn from the recently published *Apologia pro libro de justis belli causis*, in which the latter had maintained the lawfulness of waging unprovoked war upon the natives of the New World. The course of the discussion may be traced in the account of the *Disputa* contained in the *Obras* (1552). In 1565 Las Casas successfully remonstrated with Philip II. against the financial project for selling the reversion of the *encomiendas*—a project which would have involved the Indians in hopeless bondage. In July of the following year he died at Madrid, whither he had gone to urge (and with success) the necessity of restoring a court of justice which had been suppressed in Guatemala. His *Historia de las Indias* was not published till 1875-1876.

Sir Arthur Helps' *Life of Las Casas* (London, 1868) has not been superseded; but see also F. A. MacNutt, *Bartholomew de Las Casas* (1909).

LAS CASES, EMMANUEL AUGUSTIN DIEUDONNÉ MARIN JOSEPH, Marquis (1766-1842), French official, was born at the castle of Las Cases near Revel in Languedoc. He was educated at the military schools of Vendôme and Paris; he entered the navy and took part in various engagements of the years 1781-1782. The outbreak of the Revolution in 1789 caused him to "emigrate," and he spent some years in Germany and England, sharing in the disastrous Quiberon expedition (1795). He was one of the few survivors and returned to London, where he lived in poverty. He returned to France during the Consulate with other royalists who rallied to the side of Napoleon, and stated afterwards to the emperor that he was "conquered by his glory." Not until 1810 did he receive much notice from Napoleon, who then made him a chamberlain and created him a count of the empire (he was marquis by hereditary right). After the first abdication of the emperor (11th of April 1814), Las Cases retired to England, but returned to serve Napoleon during the Hundred Days. The second abdication opened up for Las Cases the most noteworthy part of his career. He withdrew with the ex-emperor and a few other trusty followers to Rochefort; and it was Las Cases who first proposed and strongly urged the emperor to throw himself on the generosity of the British nation. Las Cases made the first overtures to Captain Maitland of H.M.S. "Bellerophon" and received a guarded reply, the nature of which he afterwards misrepresented. Las Cases accompanied the ex-emperor to St Helena and acted informally but very assiduously as his secretary, taking down numerous notes of his conversations which thereafter took form in the famous *Mémorial de Ste Hélène*. The limits of this article preclude an attempt at assessing the value of this work. It should be read with great caution, as the compiler did not scruple to insert his own thoughts and to colour the expressions of his master. In some cases he misstated facts and even fabricated documents. It is far less trustworthy than the record penned by Gourgaud in his *Journal*. Disliked by Montholon and Gourgaud, Las Cases seems to have sought an opportunity to leave the island when he had accumulated sufficient literary material. However that may be, he infringed the British regulations in such a way as to lead to his expulsion by the governor, Sir Hudson Lowe (November, 1816). He was sent first to the Cape of Good Hope and thence to Europe, but was not at first allowed by the government of Louis XVIII. to enter France. He resided at Brussels; but, gaining permission to come to Paris after the death of Napoleon, he took up his residence there, published the *Mémorial*, and soon gained an enormous sum from it. He died in 1842 at Passy.

See *Mémoires de E. A. D., comte de Las Cases* (Brussels, 1818); *Mémorial de Ste Hélène* (4 vols., London and Paris, 1823; often republished and translated); *Suite au mémorial de Ste Hélène, ou observations critiques*, &c. (2 vols., Paris, 1824), anonymous, but known to be by Grille and Musset-Pathay. See too Gourgaud, Montholon, and Lowe, Sir Hudson.

(J. Hl. R.)

LASHIO, the headquarters of the superintendent, northern Shan States, Burma, situated in 22° 56′ N. and 97° 45′ E. at an altitude of 3100 ft., on a low spur overlooking the valley of the Nam Yao. It is the present terminus of the Mandalay-Kun Long railway and of the government cart road from Mandalay, from which it is 178 m. distant. It consists of the European station, with court house and quarters for the civil officers; the military police post, the headquarters of the Lashio battalion of military police; the native station, in which the various nationalities, Shans, Burmans, Hindus and Mahommedans, are divided into separate quarters, with reserves for government servants and for the temporary residences of the five sawbwas of the northern Shan States; and a bazaar. Under Burmese rule Lashio was also the centre of authority for the northern Shan States, but the Burmese post in the valley was close to the Nam Yao, in an old Chinese fortified camp. The Lashio valley was formerly very populous; but a rebellion, started by the sawbwa of Hsenwi, about ten years before the British occupation, ruined it, and it is only slowly approaching the prosperity it formerly enjoyed; pop. (1901) 2565. The annual rainfall averages 54 in. The average maximum temperature is 80.5° and the average minimum 55.5°.

LASKER, EDUARD (1829-1884), German publicist, was born on the 14th of October 1829, at Jarotschin, a village in Posen, being the son of a Jewish tradesman. He attended the gymnasium, and afterwards the university of Breslau. In 1848, after the outbreak of the revolution, he went to Vienna and entered the students' legion which took so prominent a part in the disturbances; he fought against the imperial troops during the siege of the city in October. He then continued his legal studies at Breslau and Berlin, and after a visit of three years to England, then the model state for German liberals, entered the Prussian judicial service. In 1870 he left the government service, and in 1873 was appointed to an administrative post in the service of the city of Berlin. He had been brought to the notice of the political world by some articles he wrote from 1861 to 1864, which were afterwards published under the title *Zur Verfassungsgeschichte Preussens* (Leipzig, 1874), and in 1865 he was elected member for one of the divisions of Berlin in the Prussian parliament. He joined the radical or *Fortschritts* party, and in 1867 was also elected to the German parliament, but he helped to form the national liberal party, and in consequence lost his seat in Berlin, which remained faithful to the radicals; after this he represented Magdeburg and Frankfort-on-Main in the Prussian, and Meiningen in the German, parliament. He threw himself with great energy into his parliamentary duties, and quickly became one of its most popular and most influential members. An optimist and idealist, he joined to a fervent belief in liberty an equal enthusiasm for German unity and the idea of the German state. His motion that Baden should be included in the North German Confederation in January 1870 caused much

embarrassment to Bismarck, but was not without effect in hastening the crisis of 1870. His great work, however, was the share he took in the judicial reform during the ten years 1867-1877. To him more than to any other single individual is due the great codification of the law. While he again and again was able to compel the government to withdraw or amend proposals which seemed dangerous to liberty, he opposed those liberals who, unable to obtain all the concessions which they called for, refused to vote for the new laws as a whole. A speech made by Lasker on the 7th of February 1873, in which he attacked the management of the Pomeranian railway, caused a great sensation, and his exposure of the financial mismanagement brought about the fall of Hermann Wagener, one of Bismarck's most trusted assistants. By this action he caused, however, some embarrassment to his party. This is generally regarded as the beginning of the reaction against economic liberalism by which he and his party were to be deprived of their influence. He refused to follow Bismarck in his financial and economic policy after 1878; always unsympathetic to the chancellor, he was now selected for his most bitter attacks. Between the radicals and socialists on the one side and the government on the other, like many of his friends, he was unable to maintain himself. In 1879 he lost his seat in the Prussian parliament; he joined the *Sezession*, but was ill at ease in his new position. Broken in health and spirits by the incessant labours of the time when he did "half the work of the Reichstag," he went in 1883 for a tour in America, and died suddenly in New York on the 5th of January 1884.

Lasker's death was the occasion of a curious episode, which caused much discussion at the time. The American House of Representatives adopted a motion of regret, and added to it these words: "That his loss is not alone to be mourned by the people of his native land, where his firm and constant exposition of, and devotion to, free and liberal ideas have materially advanced the social, political and economic conditions of these people, but by the lovers of liberty throughout the world." This motion was sent through the American minister at Berlin to the German foreign office, with a request that it might be communicated to the president of the Reichstag. It was to ask Bismarck officially to communicate a resolution in which a foreign parliament expressed an opinion in German affairs exactly opposed to that which the emperor at his advice had always followed. Bismarck therefore refused to communicate the resolution, and returned it through the German minister at Washington.

Among Lasker's writings may be mentioned: *Zur Geschichte der parlamentarischen Entwickelung Preussens* (Leipzig, 1873), *Die Zukunft des Deutschen Reichs* (Leipzig, 1877) and *Wege und Ziele der Kulturentwickelung* (Leipzig, 1881). After his death his *Fünfzehn Jahre parlamentarischer Geschichte 1866-1880* appeared edited by W. Cahn (Berlin, 1902). See also L. Bamberger, *Eduard Lasker, Gedenkrede* (Leipzig, 1884); A. Wolff, *Zur Erinnerung an Eduard Lasker* (Berlin, 1884); Freund, *Einiges über Eduard Lasker* (Leipzig, 1885); and *Eduard Lasker, seine Biographie und letzte öffentliche Rede*, by various writers (Stuttgart, 1884).

(J. W. He.)

LASKI, the name of a noble and powerful Polish family, is taken from the town of Lask, the seat of their lordship.

Jan Laski, the elder (1456-1531), Polish statesman and ecclesiastic, appears to have been largely self-taught and to have owed everything to the remarkable mental alertness which was hereditary in the Laski family. He took orders betimes, and in 1495 was secretary to the Polish chancellor Zawisza Kurozwecki, in which position he acquired both influence and experience. The aged chancellor entrusted the sharp-witted young ecclesiastic with the conduct of several important missions. Twice, in 1495 and again in 1500, he was sent to Rome, and once on a special embassy to Flanders, of which he has left an account. On these occasions he had the opportunity of displaying diplomatic talent of a high order. On the accession to the Polish throne in 1501 of the indolent Alexander, who had little knowledge of Polish affairs and chiefly resided in Lithuania, Laski was appointed by the senate the king's secretary, in which capacity he successfully opposed the growing separatist tendencies of the grand-duchy and maintained the influence of Catholicism, now seriously threatened there by the Muscovite propaganda. So struck was the king by his ability that on the death of the Polish chancellor in 1503 he passed over the vice-chancellor Macics Dzewicki and confided the great seal to Laski. As chancellor Laski supported the *szlachta*, or country-gentlemen, against the lower orders, going so far as to pass an edict excluding henceforth all plebeians from the higher benefices of the church. Nevertheless he approved himself such an excellent public servant that the new king, Sigismund I., made him one of his chief counsellors. In 1511 the chancellor, who ecclesiastically was still only a canon of Cracow, obtained the coveted dignity of archbishop of Gnesen which carried with it the primacy of the Polish church. In the long negotiations with the restive and semi-rebellious Teutonic Order, Laski rendered Sigismund most important political services, proposing as a solution of the question that Sigismund should be elected grand master, while he, Laski, should surrender the primacy to the new candidate of the knights, Albert of Brandenburg, a solution which would have been far more profitable to Poland than the ultimate settlement of 1525. In 1513 Laski was sent to the Lateran council, convened by Pope Julius II., to plead the cause of Poland against the knights, where both as an orator and as a diplomatist he brilliantly distinguished himself. This mission was equally profitable to his country and himself, and he succeeded in obtaining from the pope for the archbishops of Gnesen the title of *legati nati*. In his old age Laski's partiality for his nephew, Hieronymus, led him to support the candidature of John Zapolya, the protégé of the Turks, for the Hungarian crown so vehemently against the Habsburgs that Clement VII. excommunicated him, and the shock of this disgrace was the cause of his sudden death in 1531. Of his numerous works the most noteworthy are his collection of Polish statutes entitled: *Statuta provinciae gnesnensis antiqua, &c.* (Cracow, 1525-1528) and *De Ruthenorum nationibus eorumque erroribus*, printed at Nuremberg.

See Heinrich R. von Zeissberg, *Joh. Laski, Erzbischof in Gnesen* (Vienna, 1874); and Jan Korytkowski, *Jan Laski, Archbishop of Gnesen* (Gnesen, 1880).

Hieronymus Jaroslaw Laski (1496-1542), Polish diplomatist, nephew of Archbishop Laski, was successively palatine of Inowroclaw and of Sieradia. His first important mission was to Paris in 1524, ostensibly to contract

an anti-Turkish league with the French king, but really to bring about a matrimonial alliance between the dauphin, afterwards Henry II., and the daughter of King Sigismund I., a project which failed through no fault of Laski's. The collapse of the Hungarian monarchy at Mohacs (1526) first opened up a wider career to Laski's adventurous activity. Contrary to the wishes of his own sovereign, Sigismund I., whose pro-Austrian policy he detested, Laski entered the service of John Zapolya, the Magyar competitor for the Hungarian throne, thereby seriously compromising Poland both with the emperor and the pope. Zapolya despatched him on an embassy to Paris, Copenhagen and Munich for help, but on his return he found his patron a refugee in Transylvania, whither he had retired after his defeat by the German king Ferdinand I. at Tokay in 1527. In his extremity Zapolya placed himself under the protection of the sultan, Laski being sent to Constantinople as his intermediary. On his way thither he was attacked and robbed of everything, including his credentials and the rich presents without which no negotiations were deemed possible at the Porte. But Laski was nothing if not audacious. Proceeding on his way to the Turkish capital empty-handed, he nevertheless succeeded in gaining the confidence of Gritti, the favourite of the grand vizier, and ultimately persuaded the sultan to befriend Zapolya and to proclaim him king of Hungary. He went still further, and without the slightest authority for his action concluded a ten years' truce between his old master King Sigismund of Poland and the Porte. He then returned to Hungary at the head of 10,000 men, with whose aid he enabled Zapolya to re-establish his position and defeat Ferdinand at Saros-Patak. He was rewarded with the countship of Zips and the governor-generalship of Transylvania. But his influence excited the jealousy of the Magyars, and Zapolya was persuaded to imprison him. On being released by the interposition of the Polish grand hetman, Tarnowski, he became the most violent opponent of Zapolya. Shortly after his return to Poland, Laski died suddenly at Cracow, probably poisoned by one of his innumerable enemies.

See Alexander Hirschberg, *Hieronymus Laski* (Pol.) (Lemberg, 1888).

Jan Laski, the younger (1499-1560), also known as *Johannes a Lasco*, Polish reformer, son of Jaroslaw (d. 1523), voivode of Sieradia and nephew of the famous Archbishop Laski. During his academical course abroad he made the acquaintance of Zwingli and Erasmus and returned to Poland in 1526 saturated with the new doctrines. Nevertheless he took orders, and owing to the influence of his uncle obtained the bishopric of Veszprem in Hungary from King John Zapolya, besides holding a canonry of Cracow and the office of royal secretary. In 1531 he resigned all his benefices rather than give up a woman whom he had secretly married, and having incurred general reprobation and the lasting displeasure of his uncle the archbishop, he fled to Germany, where ultimately (1543) he adopted the Augsburg Confession. For the next thirteen years Laski was a wandering apostle of the new doctrines. He was successively superintendent at Emden and in Friesland, passed from thence to London where he became a member of the so-called *ecclesia peregrinorum*, a congregation of foreign Protestants exiled in consequence of the Augsburg Interim of 1548 and, on being expelled by Queen Mary, took refuge first in Denmark and subsequently at Frankfort-on-Main, where he was greatly esteemed. From Frankfort he addressed three letters (printed at Basel) to King Sigismund, Augustus, and the Polish gentry and people, urging the conversion of Poland to Protestantism. In 1556, during the brief triumph of the anti-catholics, he returned to his native land, took part in the synod of Brzesc, and published a number of polemical works, the most noteworthy of which were *Forma ac ratio tota ecclesiastici ministerii in peregrinorum Ecclesiae instituta* (Pinczow, 1560), and in Polish, *History of the Cruel Persecution of the Church of God in 1567*, republished in his *Opera*, edited by A. Kuyper at Amsterdam in 1866. He died at Pinczow in January 1560 and was buried with great pomp by the Polish Protestants, who also struck a medal in his honour. Twice married, he left two sons and two daughters. His nephew (?) Albert Laski, who visited England in 1583, wasted a fortune in aid of Dr Dee's craze for the "philosopher's stone." Laski's writings are important for the organization of the *ecclesia peregrinorum*, and he was concerned in the Polish version of the Bible, not published till 1563.

See H. Dalton, *Johannes a Lasco* (1881), English version of the earlier portion by J. Evans (1886); Bartels, *Johannes a Lasco* (1860); Harboe, *Schicksale des Johannes a Lasco* (1758); R. Wallace, *Antitrinitarian Biography* (1850); Bonet-Maury, *Early Sources of Eng. Unit. Christianity* (1884); W. A. J. Archbold in *Dict. Nat. Biog.* (1892) under "Laski," George Pascal, *Jean de Lasco* (Paris, 1894); *Life* in Polish by Antoni Walewski (Warsaw, 1872); and Julian Bukowski, *History of the Reformation in Poland* (Pol.) (Cracow, 1883).

(R. N. B.)

LAS PALMAS, the capital of the Spanish island of Grand Canary, in the Canary archipelago, and of an administrative district which also comprises the islands of Lanzarote and Fuerteventura; on the east coast, in 28° 7′ N. and 5° 24′ W. Pop. (1900) 44,517. Las Palmas is the largest city in the Canary Islands, of which it was the capital until 1833. It is the seat of a court of appeal, of a brigadier, who commands the military forces in the district, of a civil lieutenant-governor, who is independent of the governor-general except in connexion with elections and municipal administration, and of a bishop, who is subordinate to the archbishop of Seville. The palms from which the city derives its name are still characteristic of the fertile valley which it occupies. Las Palmas is built on both banks of a small river, and although parts of it date from the 16th century, it is on the whole a clean and modern city, well drained, and supplied with pure water, conveyed by an aqueduct from the highlands of the interior. Its principal buildings include a handsome cathedral, founded in the 16th century but only completed in the 19th, a theatre, a museum, an academy of art, and several hospitals and good schools. The modern development of Las Palmas is largely due to the foreign merchants, and especially to the British who control the greater portion of the local commerce. La Luz, the port, is connected with Las Palmas by a railway 4 m. long; it is a free port and harbour of refuge, officially considered the third in importance of Spanish ports, but actually the first in the matter of tonnage. It is strongly fortified. The harbour, protected by the promontory of La Isleta, which is connected with the mainland by a narrow bar of sand, can accommodate the largest ships, and affords secure anchorage in all weathers. Ships can discharge at the breakwater (1257 yds. long) or at the Santa Catalina mole, constructed in 1883-1902. The minimum depth of water alongside the

quays is 4½ ft. There are floating water-tanks, numerous lighters, titan and other cranes, repairing workshops, and very large supplies of coal afloat and ashore. La Luz is one of the principal Atlantic coaling stations, and the coal-trade is entirely in British hands. Other important industries are shipbuilding, fishing, and the manufacture of glass, leather and hats. The chief exports are fruit, vegetables, sugar, wine and cochineal; coal, iron, cement, timber, petroleum, manure, textiles and provisions are the chief imports. (See also Canary Islands.)

LASSALLE, FERDINAND (1825-1864), German socialist, was born at Breslau on the 11th of April 1825, of Jewish extraction. His father, a prosperous merchant in Breslau, intended Ferdinand for a business career, and sent him to the commercial school at Leipzig; but the boy got himself transferred to the university, first at Breslau, and afterwards at Berlin. His favourite studies were philology and philosophy; he became an ardent Hegelian. Having completed his university studies in 1845, he began to write a work on Heraclitus from the Hegelian point of view; but it was soon interrupted by more stirring interests, and did not see the light for many years. It was in Berlin, towards the end of 1845, that he met the lady with whom his life was to be associated in so remarkable a way, the Countess Hatzfeldt. She had been separated from her husband for many years, and was at feud with him on questions of property and the custody of their children. Lassalle attached himself to the cause of the countess, whom he believed to have been outrageously wronged, made special study of law, and, after bringing the case before thirty-six tribunals, reduced the powerful count to a compromise on terms most favourable to his client. The process, which lasted ten years, gave rise to not a little scandal, especially that of the *Cassettengeschichte* which pursued Lassalle all the rest of his life. This “affair of the casket” arose out of an attempt by the countess’s friends to get possession of a bond for a large life annuity settled by the count on his mistress, a Baroness Meyendorf, to the prejudice of the countess and her children. Two of Lassalle’s comrades succeeded in carrying off the casket, which contained the lady’s jewels, from the baroness’s room at an hotel in Cologne. They were prosecuted for theft, one of them being condemned to six months’ imprisonment. Lassalle, accused of moral complicity, was acquitted on appeal. He was not so fortunate in 1849, when he underwent a year’s durance for resistance to the authorities of Düsseldorf during the troubles of that stormy period. But going to prison was a familiar experience in Lassalle’s life. Till 1859 Lassalle resided mostly in the Rhine country, prosecuting the suit of the countess, finishing the work on Heraclitus, which was not published till 1858, taking little part in political agitation, but ever a helpful friend of the working men. He was not allowed to live in Berlin because of his connexion with the disturbances of ’48. In 1859, however, he entered the city disguised as a carter, and, through the influence of Humboldt with the king, got permission to stay there. The same year he published a remarkable pamphlet on the *Italian War and the Mission of Prussia*, in which he warned his countrymen against going to the rescue of Austria in her war with France. He pointed out that if France drove Austria out of Italy she might annex Savoy, but could not prevent the restoration of Italian unity under Victor Emmanuel. France was doing the work of Germany by weakening Austria; Prussia should form an alliance with France to drive out Austria and make herself supreme in Germany. After their realization by Bismarck these ideas have become sufficiently commonplace; but they were nowise obvious when thus published by Lassalle. In 1861 he published a great work in two volumes, *System der erworbenen Rechte* (*System of Acquired Rights*).

Now began the short-lived activity which was to give him an historical significance. It was early in 1862, when the struggle of Bismarck with the Prussian liberals was already begun. Lassalle, a democrat of the most advanced type, saw that an opportunity had come for asserting a third great cause—that of the working men—which would outflank the liberalism of the middle classes, and might even command the sympathy of the government. His political programme was, however, entirely subordinate to the social, that of bettering the condition of the working classes, for which he believed the schemes of Schulze-Delitzsch were utterly inadequate. Lassalle flung himself into the career of agitator with his accustomed vigour. His worst difficulties were with the working men themselves, among whom he met the most discouraging apathy. His mission as organizer and emancipator of the working class lasted only two years and a half. In that period he issued about twenty separate publications, most of them speeches and pamphlets, but one of them, that against Schulze-Delitzsch, a considerable treatise, and all full of keen and vigorous thought. He founded the “Allgemeiner Deutscher Arbeiterverein,” was its president and almost single-handed champion, conducted its affairs, and carried on a vast correspondence, not to mention about a dozen state prosecutions in which he was during that period involved. Berlin, Leipzig, Frankfort and the industrial centres on the Rhine were the chief scenes of his activity. His greatest success was on the Rhine, where in the summers of 1863 and 1864 his travels as missionary of the new gospel resembled a triumphal procession. The agitation was growing rapidly, but he had achieved little substantial success when a most unworthy death closed his career.

While posing as the messiah of the poor, Lassalle was a man of decidedly fashionable and luxurious habits. His suppers were well known as among the most exquisite in Berlin. It was the most piquant feature of his life that he, one of the gilded youth, a connoisseur in wines, and a learned man to boot, had become agitator and the champion of the working man. In one of the literary and fashionable circles of Berlin he had met a Fräulein von Dönniges, for whom he at once felt a passion, which was ardently reciprocated. In the summer of 1864 he met her again on the Rigi, when they resolved to marry. She was a young lady of twenty, decidedly unconventional and original in character, but the daughter of a Bavarian diplomatist then resident at Geneva, who would have nothing to do with Lassalle. The lady was imprisoned in her own room, and soon, apparently under the influence of very questionable pressure, renounced Lassalle in favour of another admirer, a Wallachian, Count von Racowitza. Lassalle sent a challenge both to the lady’s father and her betrothed, which was accepted by the latter. At the Carouge, a suburb of Geneva, the meeting took place on the morning of August 28, 1864, when Lassalle was mortally wounded, and he died on the 31st of August. In spite of such a foolish ending, his funeral was that of a martyr, and by many of his adherents he has been regarded since with feelings almost of religious devotion.

Lassalle did not lay claim to any special originality as a socialistic thinker, nor did he publish any systematic statement of his views. Yet his leading ideas are sufficiently clear and simple. Like a true Hegelian he saw three stages in the development of labour: the ancient and feudal period, which, through the subjection of the labourer, sought solidarity without freedom; the reign of capital and the middle classes, established in 1789, which sought freedom by destroying solidarity; and the new era, beginning in 1848, which would reconcile solidarity with freedom by introducing the principle of association. It was the basis and starting-point of his opinions that, under the empire of capital and so long as the working man was merely a receiver of wages, no improvement in his condition could be expected. This position he founded on the law of wages formulated by Ricardo, and accepted by all the leading economists, that wages are controlled by the ordinary relations of supply and demand, that a rise in wages leads to an increase in the labouring population, which, by increasing the supply of labour, is followed by a corresponding fall of wages. Thus population increases or decreases in fixed relation to the rise or fall of wages. The condition of the working man will never permanently rise above the mere standard of living required for his subsistence, and the continued supply of his kind. Lassalle held that the co-operative schemes of Schulze-Delitzsch on the principle of "self-help" were utterly inadequate, for the obvious reason that the working classes were destitute of capital. The struggle of the working man helping himself with his empty pockets against the capitalists he compared to a battle with teeth and nails against modern artillery. In short, Lassalle accepted the orthodox political economy to show that the inevitable operation of its laws left no hope for the working classes, and that no remedy could be found but by abolishing the conditions in which these laws had their validity—in other words, by abolishing the present relations of labour and capital altogether. And this could only be done by the productive association of the working men with money provided by the state. And he held that such association should be the voluntary act of the working men, the government merely reserving the right to examine the books of the various societies. All the arrangements should be carried out according to the rules of business usually followed in such transactions. But how move the government to grant such a loan? Simply by introducing (direct) universal suffrage. The working men were an overwhelming majority; they were the state, and should control the government. The aim of Lassalle, then, was to organize the working classes into a great political power, which in the way thus indicated, by peaceful resolute agitation, without violence or insurrection, might attain the goal of productive association. In this way the fourth estate would be emancipated from the despotism of the capitalist, and a great step taken in the solution of the great "social question."

It will be seen that the net result of Lassalle's life was to produce a European scandal, and to originate a socialistic movement in Germany, which, at the election of 1903, returned to the Reichstag eighty-one members and polled 3,010,771 votes, and at the election of 1907 returned forty-three members and polled 3,258,968 votes. (The diminution in the number of members returned in 1907 was due mostly to combination among the different political groups.) This result, great as it was, would hardly have been commensurate with his ambition, which was boundless. In the heyday of his passion for Fräulein von Dönniges, his dream was to be enthroned as the president of the German republic with her seated at his side. With his energy, ability and gift of dominating and organizing, he might indeed have done a great deal. Bismarck coquetted with him as the representative of a force that might help him to combat the Prussian liberals; in 1878, in a speech before the Reichstag, he spoke of him with deep respect, as a man of the greatest amiability and ability from whom much could be learned. Even Bishop Ketteler of Mainz had declared his sympathy for the cause he advocated.

Lassalle's *Die Philosophie Herakleitos des Dunklen von Ephesos* (Berlin, 1858), and the *System der erworbenen Rechte* (Leipzig, 1861) are both marked by great learning and intellectual power. But of far more historical interest are the speeches and pamphlets connected with his socialistic agitation, of which the most important are—*Ueber Verfassungswesen*; *Arbeiterprogramm*; *Offenes Antwortschreiben*; *Zur Arbeiterfrage*; *Arbeiterlesebuch*; *Herr Bastiat-Schulze von Delitzsch, oder Kapital und Arbeit*. His drama, *Franz von Sickingen*, published in 1859, is a work of no poetic value. His *Collected Works* were issued at Leipzig in 1899-1901.

The best biography of Lassalle is H. Oncken's *Lassalle* (Stuttgart, 1904); another excellent work on his life and writings is George Brandes's Danish work, *Ferdinand Lassalle* (German translation, 4th ed., Leipzig, 1900). See also A. Aaberg, *Ferdinand Lassalle* (Leipzig, 1883); C. v. Plener, *Lassalle* (Leipzig, 1884); G. Meyer, *Lassalle als Sozialökonom* (Berlin, 1894); Brandt, *F. Lassalles sozialökonomische Anschauungen und praktische Vorschläge* (Jena, 1895); Seillière, *Études sur Ferdinand Lassalle* (Paris, 1897); E. Bernstein, *Ferd. Lassalle und seine Bedeutung für die Arbeiterklasse* (Berlin, 1904). There is a considerable literature on his love affair and death; the most notable books are: *Meine Beziehungen zu F. Lassalle*, by Helene von Racowitza, a very strange book; *Enthüllungen über das tragische Lebensende F. Lassalle's* by B. Becker; *Im Anschluss an die Memoiren der H. von Racowitza*, by A. Kutschbach, and George Meredith's *Tragic Comedians* (1880).

(T. K.)

LASSEN, CHRISTIAN (1800-1876), German orientalist, was born on the 22nd of October 1800, at Bergen in Norway. Having received his earliest university education at Christiania, he went to Germany, and continued his studies at Heidelberg and Bonn. In the latter university Lassen acquired a sound knowledge of Sanskrit. He next spent three years in Paris and London, engaged in copying and collating MSS., and collecting materials for future research, especially in reference to the Hindu drama and philosophy. During this period he published, jointly with E. Burnouf, his first work, *Essai sur le Pâli* (Paris, 1826). On his return to Bonn he studied Arabic, and took the degree of Ph.D., his dissertation discussing the Arabic notices of the geography of the Punjab (*Commentatio geographica atque historica de Pentapotamia Indica*, Bonn, 1827). Soon after he was admitted *Privatdozent*, and in 1830 was appointed extraordinary and in 1840 ordinary professor of Old Indian language and literature. In spite of a tempting offer from Copenhagen, in 1841, Lassen remained faithful to the university of his adoption to the end of his life. He died at Bonn on the 8th of May 1876, having been affected with almost total blindness for many years. As early as 1864 he was relieved of the duty of lecturing.

In 1829-1831 he brought out, in conjunction with August W. von Schlegel, a critical annotated edition of the *Hitopadeśa*. The appearance of this edition marks the starting-point of the critical study of Sanskrit literature. At the same time Lassen assisted von Schlegel in editing and translating the first two cantos of the epic

Rāmāyana (1829-1838). In 1832 he brought out the text of the first act of Bhavabhūti's drama, *Mālatīmādhava*, and a complete edition, with a Latin translation, of the *Sānkhya-kārikā*. In 1837 followed his edition and translation of Jayadeva's charming lyrical drama, *Gītagovinda* and his *Institutiones linguae Pracriticae*. His *Anthologia Sanscritica*, which came out the following year (new ed. by Johann Gildemeister, 1868), contained several hitherto unpublished texts, and did much to stimulate the study of Sanskrit in German universities. In 1846 Lassen brought out an improved edition of Schlegel's text and translation of the "Bhagavadgītā." He did not confine himself to the study of Indian languages, but acted likewise as a scientific pioneer in other fields of philological inquiry. In his *Beiträge zur Deutung der Eugubinischen Tafeln* (1833) he prepared the way for the correct interpretation of the Umbrian inscriptions; and the *Zeitschrift für die Kunde des Morgenlandes* (7 vols., 1837-1850), started and largely conducted by him, contains, among other valuable papers from his pen, grammatical sketches of the Beluchi and Brahui languages, and an essay on the Lycian inscriptions.

Soon after the appearance of Burnouf's *Commentaire sur le Yaçna* (1833), Lassen also directed his attention to the Zend, and to Iranian studies generally; and in *Die altpersischen Keilinschriften von Persepolis* (1836) he first made known the true character of the Old Persian cuneiform inscriptions, thereby anticipating, by one month, Burnouf's *Mémoire* on the same subject, while Sir Henry Rawlinson's famous memoir on the Behistun inscription, though drawn up in Persia, independently of contemporaneous European research, at about the same time, did not reach the Royal Asiatic Society until three years later. Subsequently Lassen published, in the sixth volume of his journal (1845), a collection of all the Old Persian cuneiform inscriptions known up to that date. He also was the first scholar in Europe who took up, with signal success, the decipherment of the newly-discovered Bactrian coins, which furnished him the materials for *Zur Geschichte der griechischen und indo-skythischen Könige in Bakterien, Kabul, und Indien* (1838). He contemplated bringing out a critical edition of the *Vendidad*; but, after publishing the first five fargards (1852), he felt that his whole energies were required for the successful accomplishment of the great undertaking of his life—his *Indische Altertumskunde*. In this work—completed in four volumes, published respectively in 1847 (2nd ed., 1867), 1849 (2nd ed., 1874), 1858 and 1861—which forms one of the greatest monuments of untiring industry and critical scholarship, everything that could be gathered from native and foreign sources, relative to the political, social and intellectual development of India, from the earliest times down to the Mahommedan invasion, was worked up by him into a connected historical account.

LASSEN, EDUARD (1830-1904), Belgian musical composer, was born in Copenhagen, but was taken as a child to Brussels and educated at the Brussels Conservatoire. He won the *prix de Rome* in 1851, and went for a long tour in Germany and Italy. He settled at Weimar, where in 1861 he succeeded Liszt as conductor of the opera, and he died there on the 15th of January 1904. Besides many well-known songs, he wrote operas—*Landgraf Ludwig's Brautfahrt* (1857), *Frauenlob* (1861), *Le Captif* (1868)—instrumental music to dramas, notably to Goethe's *Faust* (1876), two symphonies and various choral works.

LASSO (Lassus), ORLANDO (*c.* 1530-1594), Belgian musical composer, whose real name was probably Roland Delattre, was born at Mons, in Hainault, probably not much earlier than 1532, the date given by the epitaph printed at the end of the volumes of the *Magnum opus musicum*; though already in the 16th century the opinions of his biographers were divided between the years 1520 and 1530. Much is reported, but very little known, of his connexions and his early career. The discrepancy as to the date of his birth appears also in connexion with his appointment at the church of St John Lateran in Rome. If he was born in 1530 or 1532 he could not have obtained that appointment in 1541. What is certain is that his first book of madrigals was published in Venice in 1555, and that in the same year he speaks of himself in the preface of Italian and French songs and Latin motets as if he had recently come from Rome. He seems to have visited England in 1554 and to have been introduced to Cardinal Pole, to whom an adulatory motet appears in 1556. (This is not, as might hastily be supposed, a confusion resulting from the fact that the ambassador from Ferdinand, king of the Romans, Don Pedro de Lasso, attended the marriage of Philip and Mary in England in the same year.) His first book of motets appeared at Antwerp in 1556, containing the motet in honour of Cardinal Pole. The style of Orlando had already begun to purify itself from the speculative and chaotic elements that led Burney, who seems to have known only his earlier works, to call him "a dwarf on stilts" as compared with Palestrina. But where he is orthodox he is as yet stiff, and his secular compositions are, so far, better than his more serious efforts.

In 1557, if not before, he was invited by Albrecht IV., duke of Bavaria, to go to Munich. The duke was a most intelligent patron of all the fine arts, a notable athlete, and a man of strict principles. Munich from henceforth never ceased to be Orlando's home; though he sometimes paid long visits to Italy and France, whether in response to royal invitations or with projects of his own. In 1558 he made a very happy marriage by which he had four sons and two daughters. The four sons all became good musicians, and we owe an inestimable debt to the pious industry of the two eldest sons, who (under the patronage of Duke Maximilian I., the second successor of Orlando's master) published the enormous collection of Orlando's Latin motets known as the *Magnum opus musicum*.

Probably no composer has ever had more ideal circumstances for artistic inspiration and expression than had Orlando. His duty was to make music all day and every day, and to make it according to his own taste. Nothing

was too good, too severe or too new for the duke. Church music was not more in demand than secular. Instrumental music, which in the 16th century had hardly any independent existence, accompanied the meals of the court; and Orlando would rise from dessert to sing trios and quartets with picked voices. The daily prayers included a full mass with polyphonic music. This amazing state of things becomes more intelligible and less alarming when we consider that 16th-century music was no sooner written than it could be performed. With such material as Orlando had at his disposal, musical performance was as unattended by expense and tedious preliminaries as a game of billiards in a good billiard room. Not even Haydn's position at Esterhaz can have enabled him, as has been said, to "ring the bell" for musicians to come and try a new orchestral effect with such ease as that with which Orlando could produce his work at Munich. His fame soon became world-wide, and every contemporary authority is full of the acclamation with which Orlando was greeted wherever his travels took him.

Very soon, with this rapid means of acquiring experience, Orlando's style became as pure as Palestrina's; while he always retained his originality and versatility. His relations to the literary culture of the time are intimate and fascinating; and during his stay at the court of France in 1571 he became a friend of the poet Ronsard. In 1579 Duke Albrecht died. Orlando's salary had already been guaranteed to him for life, so that his outward circumstances did not change, and the new duke was very kind to him. But the loss of his master was a great grief and seems to have checked his activity for some time. In 1589, after the publication of six Masses, ending with a beautiful *Missa pro defunctis*, his strength began to fail; and a sudden serious illness left him alarmingly depressed and inactive until his death on the 14th of June 1594.

If Palestrina represents the supreme height attained by 16th-century music, Orlando represents the whole century. It is impossible to exaggerate the range and variety of his style, so long as we recognise the limits of 16th-century musical language. Even critics to whom this language is unfamiliar cannot fail to notice the glaring differences between Orlando's numerous types of art, though such critics may believe all those types to be equally crude and archaic. The swiftness of Orlando's intellectual and artistic development is astonishing. His first four volumes of madrigals show a very intermittent sense of beauty. Many a number in them is one compact mass of the fashionable harsh play upon the "false relation" between twin major and minor chords, which is usually believed to be the unenviable distinction of the English madrigal style from that of the Italians. It must be confessed that in the Italian madrigal (as distinguished from the *villanella* and other light forms), Orlando never attained complete certainty of touch, though some of his later madrigals are indeed glorious. But in his French chansons, many of which are settings of the poems of his friend Ronsard, his wit and lightness of touch are unfailing. In setting other French poems he is sometimes unfortunately most witty where the words are most gross, for he is as free from modern scruples as any of his Elizabethan contemporaries. In 1562, when the Council of Trent was censuring the abuses of Flemish church music, Orlando had already purified his ecclesiastical style; though he did not go so far as to Italianize it in order to oblige those modern critics who are unwilling to believe that anything appreciably unlike Palestrina can be legitimate. At the same time Orlando's Masses are not among his greatest works. This is possibly partly due to the fact that the proportions of a musical Mass are at the mercy of the local practice of the liturgy; and that perhaps the uses of the court at Munich were not quite so favourable to broadly designed proportion (not length) as the uses of Rome. Differences which might cramp the 16th-century composer need not amount to anything that would draw down the censure of ecclesiastical authorities. Be this as it may, Orlando's other church music is always markedly different from Palestrina's, and often fully as sublime. It is also in many ways far more modern in resource. We frequently come upon things like the *Justorum animae* [Magnum Opus, No. 260 (301)] which in their way are as overpoweringly touching as, for example, the Benedictus of Beethoven's *Mass in D* or the soprano solo in Brahms's *Deutsches Requiem*.

No one has approached Orlando in the ingenuity, quaintness and humour of his tone-painting. He sometimes descends to extremely elaborate musical puns, carrying farther than any other composer since the dark ages the absurd device of setting syllables that happened to coincide with the *sol-fa* system to the corresponding *sol-fa* notes. But in the most absurd of such cases he evidently enjoys twisting these notes into a theme of pregnant musical meaning. The quaintest instance is the motet *Quid estis pusillanimes* [Magnum Opus, No. 92 (69)] where extra *sol-fa* syllables are introduced into the text to make a good theme in combination with the syllables already there by accident! (*An nescitis Justitiae Ut Sol* [*Fa Mi*] *Re Laxatas habenas possit denuo cohibere?*). 238
The significance of these euphuistic jokes is that they always make good music in Orlando's hands. There is musical fun even in his voluminous parody of the stammering style of word-setting in the burlesque motet *S.U.Su. PER. per. super F.L.U.*, which gets through one verse of a psalm in fifteen minutes.

When it was a question of purely musical high spirits Orlando was unrivalled; and his setting of Walter de Mape's *Fertur in conviviis* (given in the *Magnum opus* with a stupid moral derangement of the text), and most of his French chansons, are among the most deeply humorous music in the world.

But it is in the tests of the sublime that Orlando shows himself one of the greatest minds that ever found expression in art. Nothing sublime was too unfamiliar to frighten him into repressing his quaint fancy, though he early repressed all that thwarted his musical nature. His *Penitential Psalms* stand with Josquin's *Miserere* and Palestrina's first book of *Lamentations* as artistic monuments of 16th-century penitential religion, just as Bach's *Matthew Passion* stands alone among such monuments in later art. Yet the passage (quoted by Sir Hubert Parry in vol. 3 of the *Oxford History of Music*) "Nolite fieri sicut mulus" is one among many traits which are ingeniously and grotesquely descriptive without losing harmony with the austere profundity of the huge works in which they occur. It is impossible to read any large quantity of Orlando's mature music without feeling that a mind like his would in modern times have covered a wider field of mature art than any one classical or modern composer known to us. Yet we cannot say that anything has been lost by his belonging to the 16th century. His music, if only from its peculiar technique of crossing parts and unexpected intervals, is exceptionally difficult to read; and hence intelligent conducting and performance of it is rare. But its impressiveness is beyond dispute; and there are many things which, like the *Justorum animae* cannot even be read, much less heard, without emotion.

Orlando's works as shown by the plan of Messrs Breitkopf & Härtel's complete critical edition (begun in 1894) comprise: (1) the *Magnum opus musicum*, a posthumous collection containing Latin pieces for from two to twelve voices, 516 in number (or, counting by single movements, over 700). Not all of these are to the

original texts. The *Magnum opus* fills eleven volumes. (2) Five volumes of madrigals, containing six books, and a large number of single madrigals, and about half a volume of lighter Italian songs (villanellas, &c.). (3) Three volumes (not four as in the prospectus) of French *chansons*. (4) Two volumes of German four-part and five-part *Lieder*. (5) Serial church music: three volumes, containing *Lessons from the Book of Job* (two settings). *Passion according to St Matthew* (*i.e.* like the Passions of Victoria and Soriano, a setting of the words of the crowds and of the disciples); *Lamentations* of Jeremiah; *Morning Lessons*; the *Officia* printed in the third volume of the *Patroncinium* (a publication suggested and supported by Orlando's patrons and containing eight entire volumes of his works); the Seven Penitential Psalms; German Psalms and *Prophetiae Sibyllarum*, (6) one hundred *Magnificats* (*Jubilus B. M. Virginis*) 3 vols., (7) eight volumes of Masses, (8) two volumes of Latin songs not in the *Magnum opus*, (9) five volumes of unpublished works.

(D. F. T.)

LASSO (Span. *lazo*, snare, ultimately from Lat. *laqueus*, cf. "lace"), a rope 60 to 100 ft. in length with a slip-noose at one end, used in the Spanish and Portuguese parts of America and in the western United States for catching wild horses and cattle. It is now less employed in South America than in the vast grazing country west of the Mississippi river, where the herders, called locally cow-boys or cow-punchers, are provided with it. When not in use, the lasso, called *rope* in the West, is coiled at the right of the saddle in front of the rider. When an animal is to be caught the herder, galloping after it, swings the coiled lasso round his head and casts it straight forward in such a manner that the noose settles over the head or round the legs of the quarry, when it is speedily brought into submission. A shorter rope called *lariat* (Span. *la reata*) is used to picket horses.

LAST. 1. (A syncopated form of "latest," the superlative of O.E. *laét*, late), an adjective applied to the conclusion of anything, all that remains after everything else has gone, or that which has just occurred. In theology the "four last things" denote the final scenes of Death, Judgment, Heaven and Hell; the "last day" means the Day of Judgment (see ESCHATOLOGY).

2. (O.E. *lást*, footstep; the word appears in many Teutonic languages, meaning foot, footstep, track, &c.; it is usually referred to a Teutonic root *lais*, cognate with Lat. *lira*, a furrow; from this root, used figuratively, came "learn" and "lore"), originally a footstep, trace or track, now only used of the model of a foot in wood on which a shoemaker makes boots and shoes; hence the proverb "let the cobbler stick to his last," "*ne sutor ultra crepidam*."

3. (O.E. *hlaest*; the work is connected with the root seen in "lade," and is used in German and Dutch of a weight; it is also seen in "ballast"), a commercial weight or measure of quantity, varying according to the commodity and locality; originally applied to the load of goods carried by the boat or wagon used in carrying any particular commodity in any particular locality, it is now chiefly used as a weight for fish, a "last" of herrings being equal to from 10,000 to 12,000 fish. The German *Last* = 4000 ℔, and this is frequently taken as the nominal weight of an English "last." A "last" of wool = 12 sacks, and of beer = 12 barrels.

LASUS, Greek lyric poet, of Hermione in Argolis, flourished about 510 B.C. A member of the literary and artistic circle of the Peisistratidae, he was the instructor of Pindar in music and poetry and the rival of Simonides. The dithyramb (of which he was sometimes considered the actual inventor) was developed by him, by the aid of various changes in music and rhythm, into an artistically constructed choral song, with an accompaniment of several flutes. It became more artificial and mimetic in character, and its range of subjects was no longer confined to the adventures of Dionysus. Lasus further increased its popularity by introducing prize contests for the best poem of the kind. His over-refinement is shown by his avoidance of the letter *sigma* (on account of its hissing sound) in several of his poems, of one of which (a hymn to Demeter of Hermione) a few lines have been preserved in Athenaeus (xiv. 624 E). Lasus was also the author of the first theoretical treatise on music.

See Suïdas s.v.; Aristophanes, *Wasps*, 1410, *Birds*, 1403 and schol.; Plutarch, *De Musica*, xxix.; Müller and Donaldson, *Hist. of Greek Literature*, i. 284; G. H. Bode, *Geschichte der hellenischen Dichtkunst*, ii. pt. 2, p. 111; F. W. Schneidewin, *De Laso Hermionensi Comment.* (Göttingen, 1842); Fragm. in Bergk, *Poet. Lyr.*

LAS VEGAS, a city and the county-seat of San Miguel county, New Mexico, U.S.A., in the north central part of New Mexico, on the Gallinas river, and 83 m. by rail E. of Santa Fé. Though usually designated as a single municipality, Las Vegas consists of two distinct corporations, the old town on the W. bank of the river and the city proper on the E. bank. Pop. of the city (1890) 2385; (1900) 3552 (340 being foreign-born and 116 negroes); (1910) 3755. According to local estimates, the combined population of the city and the old town in 1908 was 10,000. Las Vegas is served by the Atchison, Topeka & Santa Fé railway, and is its division headquarters in New Mexico. The city lies in a valley at the foot of the main range of the Rocky Mountains, and is about 6400 ft. above the sea. There are high peaks to the W. and within a short distance of the city much beautiful mountain scenery, especially along the "Scenic Route," a highway from Las Vegas to Santa Fé, traversing the Las Vegas canyon and the Pecos Valley forest reserve. The country E. of the city consists of level plains. The small amount of rainfall, the great elevation and the southern latitude give the region a dry and rarified air, and Las Vegas is a noted health resort. Six miles distant, and connected with the city by rail, are the Las Vegas Hot Springs. The old town on the W. bank of the Gallinas river retains many features of a Mexican village, with low adobe houses facing narrow and crooked streets. Its inhabitants are largely of Spanish-American descent. The part on the E. bank or city proper is thoroughly modern, with well-graded streets, many of them bordered with trees. The most important public institutions are the New Mexico insane asylum, the New Mexico normal university (chartered 1893, opened 1898), the county court house (in the old town), the academy of the Immaculate Conception, conducted by the Sisters of Loretto, Saint Anthony's sanatorium, maintained by the Sisters of Charity, La Salle institute, conducted by the Christian Brothers, a Presbyterian mission school and a Methodist manual training and commercial school. There are railway machine-shops, and various manufactories. Las Vegas lies in the centre of an extensive grazing region, has large stockyards and annually ships great quantities of wool. Three of the local newspapers are published in Spanish. Las Vegas was founded in 1835, under the government of the Mexican Republic. On the 15th of August 1846, during the war between Mexico and the United States, Gen. Stephen W. Kearny entered the town, and its alcalde took the oath of allegiance to the United States. There was but little progress or development until the arrival of the railway in 1879. In 1888 the part east of the river was incorporated as a town under the name of East Las Vegas, and in 1896 it was chartered as the city of Las Vegas. The old Las Vegas, west of the river, was incorporated as a town in 1903.

LASWARI, one of the decisive battles of India. It was fought on the 1st of November 1803 between the British under General Lake, and the Mahratta troops of Sindia, consisting of the remnant of Perron's battalions. Laswari is a village in the state of Alwar some 80 m. S. of Delhi, and here Lake overtook the enemy and attacked them with his cavalry before the infantry arrived. The result was indecisive, but when the infantry came up there ensued one of the most evenly contested battles ever fought between the British and the natives of India, which ended in a complete victory for the British.

LATACUNGA (Llactacunga, or, in local parlance, Tacunga), a plateau town of Ecuador, capital of the province of Léon, 46 m. S. of Quito, near the confluence of the Alagues and Cutuchi to form the Patate, the headstream of the Pastaza. Pop. (1900, estimate) 12,000, largely Indian. Latacunga stands on the old road between Guayaquil and Quito and has a station on the railway between those cities. It is 9141 ft. above sea-level; and its climate is cold and unpleasant, owing to the winds from the neighbouring snowclad heights, and the barren, pumice-covered table-land on which it stands. Cotopaxi is only 25 m. distant, and the town has suffered repeatedly from eruptions. Founded in 1534, it was four times destroyed by earthquakes between 1698 and 1798. The neighbouring ruins of an older native town are said to date from the Incas.

LA TAILLE, JEAN DE (*c.* 1540-1608), French poet and dramatist, was born at Bondaroy. He studied the humanities in Paris under Muret, and law at Orleans under Anne de Bourg. He began his career as a Huguenot, but afterwards adopted a mild Catholicism. He was wounded at the battle of Arnay-le Duc in 1570, and retired to his estate at Bondaroy, where he wrote a political pamphlet entitled *Histoire abrégée des singeries de la ligue*, often published with the *Satire Ménippée*. His chief poem is a satire on the follies of court life, *Le Courtisan retiré*; he also wrote a political poem, *Le Prince nécessaire*. But his fame rests on his achievements in drama. In 1572 appeared the tragedy of *Saül le furieux*, with a preface on *L' Art de la tragédie*. Like Jodelle, Grévin, La Péruse and their followers, he wrote, not for the general public to which the mysteries and farces had addressed themselves, but for the limited audience of a lettered aristocracy. He therefore depreciated the native drama and insisted on the Senecan model. In his preface La Taille enunciates the unities of place, time and action; he maintains that each act should have a unity of its own and that the scenes

composing it should be continuous; he objects to deaths on the stage on the ground that the representation is unconvincing, and he requires as subject of the tragedy an incident really terrible, developed, if possible, by elaborate intrigue. He criticizes *e.g.* the subject of the sacrifice of Abraham, chosen by Théodore de Bèze for his tragedy (1551), as unsuitable because "pity and terror" are evoked from the spectators without real cause. If in *Saül le furieux* he did not completely carry out his own convictions he developed his principal character with great ability. A second tragedy, *La Famine ou les Gabéonites* (1573), is inferior in construction, but is redeemed by the character of Rizpah. He was also the author of two comedies, *Le Négromant* and *Les Corrivaux*, both written apparently by 1562 but not published until 1573. *Les Corrivaux* is remarkable for its colloquial prose dialogue, which foreshadows the excellence of later French comedy.

His brother, Jacques de la Taille (1542-1562), composed a number of tragedies, of which *La Mort de Daire* and *La Mort d'Alexandre* (both published in 1573) are the chief. He is best known by his *Manière de faire des vers en français comme en grec et en latin*, an attempt to regulate French verse by quantity. He died of plague at the age of 20. His *Poésies diverses* were published in 1572.

The works of Jean de la Taille were edited by René de Maulde (4 vols., 1878-1882). See also É. Faguet, *La Tragédie française au XVI^e^ siècle* (1883).

LATAKIA

(anc. *Laodicea*), the chief town of a sanjak in the Beirut vilayet of Syria, situated on the coast, opposite the island of Cyprus. The oldest name of the town, according to Philo Herennius, was Ράμιθα or Λευκὴ ἀκτή it received that of Laodicea (*ad mare*) from Seleucus Nicator, who refounded it in honour of his mother as one of the four "sister" cities of the Syrian Tetrapolis (Antioch, Seleucia, Apamea, Laodicea). In the Roman period it was favoured by Caesar, and took the name of Julia; and, though it suffered severely when the fugitive Dolabella stood his last siege within its walls (43 B.C.), Strabo describes it as a flourishing port, which supplied, from the vineyards on the mountains, the greater part of the wine imported to Alexandria. The town received the privileges of an Italian colony from Severus, for taking his part against Antioch in the struggle with Niger. Laodicea was the seat of an ancient bishopric, and even had some claim to metropolitan rights. At the time of the crusades, "Liche," as Jacques de Vitry says it was popularly called, was a wealthy city. It fell to Tancred with Antioch in 1102, and was recovered by Saladin in 1188. A Christian settlement was afterwards permitted to establish itself in the town, and to protect itself by fortifications; but it was expelled by Sultan Kala'ūn and the defences destroyed. By the 16th century Laodicea had sunk very low; the revival in the beginning of the 17th was due to the new trade in tobacco. The town has several times been almost destroyed by earthquakes—in 1170, 1287 and 1822.

The people are chiefly employed in tobacco cultivation, silk and oil culture, poultry rearing and the sponge fishery. There is a large export of eggs to Alexandria; but the wealth of the place depends most on the famous "Latakia" tobacco, grown in the plain behind the town and on the Ansarieh hills. There are three main varieties, of which the worst is dark in colour and strong in flavour; the best, grown in the districts of Diryus and Amamareh, is light and aromatic, and is exported mainly to Alexandria; but much goes also to Constantinople, Cyprus and direct to Europe. After the construction of a road through Jebel Ansarieh to Hamah, Latakia drew a good deal of traffic from upper Syria; but the Hamah-Homs railway has now diverted much of this again. The products of the surrounding district, however, cause the town to increase steadily, and it is a regular port of call for the main Levantine lines of steamers. The only notable object of antiquity is a triumphal arch, probably of the early 3rd century, in the S.E. quarter of the modern town. Latakia and its neighbourhood formerly produced a very beautiful type of rug, examples of which are highly prized.

(D. G. H.)

LATEEN

(the Anglicized form of Fr. *latine*, *i.e. voile latine*, Latin sail, so-called as the chief form of rig in the Mediterranean), a certain kind of triangular sail, having a long yard by which it is suspended to the mast. A "lateener" is a vessel rigged with a lateen sail and yard. This rig was formerly much used, and is still the typical sail of the *felucca* of the Mediterranean, and *dhow* of the Arabian Sea.

LA TÈNE

(Lat. *tenuis*, shallow), the site of a lake-dwelling at the north end of Lake Neuchâtel, between Marin and Préfargier. According to some, it was originally a Helvetic *oppidum*; according to others, a Gallic commercial settlement. R. Forrer distinguishes an older semi-military, and a younger civilian settlement, the former a Gallic customs station, the latter, which may be compared to the *canabae* of the Roman camps, containing the booths and taverns used by soldiers and sailors. He also considers the older station to have been, not as usually supposed, Helvetic, but pre- or proto-Helvetic, the character of which changed with the advance of the Helvetii into Switzerland (*c.* 110-100 B.C.). La Tène has given its name to a period of culture (*c.*

500 B.C.-A.D. 100), the phase of the Iron age succeeding the Hallstatt phase, not as being its starting-point, but because the finds are the best known of their kind. The latter are divided into early (*c.* 500-250 B.C.), middle (250-100 B.C.) and late (100 B.C.-A.D. 100), and chiefly belong to the middle period. They are mostly of iron, and consist of swords, spear-heads, axes, scythes and knives, which exhibit a remarkable agreement with the description of the weapons of the southern Celts given by Diodorus Siculus. There are also brooches, bronze kettles, torques, small bronze ear-rings with little glass pearls of various colours, belt-hooks and pins for fastening articles of clothing. The La Tène culture made its way through France across to England, where it has received the name of "late Celtic"; a remarkable find has been made at Aylesford in Kent.

See F. Keller, *Lake Dwellings of Switzerland*, vi. (Eng. trans., 1878); V. Gross, *La Tène un* oppidum *helvète* (1886); E. Vouga, *Les Helvètes à La Tène* (1886); P. Reinecke, *Zur Kenntnis der la Tène Denkmäler der Zone nordwärts der Alpen* (Mainzer Festschrift, 1902); R. Forrer, *Reallexikon der prähistorischen ... Altertümer* (1907), where many illustrations are given.

LATERAN COUNCILS, the ecclesiastical councils or synods held at Rome in the Lateran basilica which was dedicated to Christ under the title of Salvator, and further called the basilica of Constantine or the church of John the Baptist. Ranking as a papal cathedral, this became a much-favoured place of assembly for ecclesiastical councils both in antiquity (313, 487) and more especially during the middle ages. Among these numerous synods the most prominent are those which the tradition of the Roman Catholic church has classed as ecumenical councils.

1. The first Lateran council (the ninth ecumenical) was opened by Pope Calixtus II. on the 18th of March 1123; its primary object being to confirm the concordat of Worms, and so close the conflict on the question of investiture (*q.v.*). In addition to this, canons were enacted against simony and the marriage of priests; while resolutions were passed in favour of the crusaders, of pilgrims to Rome and in the interests of the truce of God. More than three hundred bishops are reported to have been present.

For the resolutions see *Monumenta Germaniae*, Leges, iv., i. 574-576 (1893); Mansi, *Collectio Conciliorum*, xxi. p. 281 sq.; Hefele, *Conciliengeschichte*, v. 378-384 (ed. 2, 1886).

2. The second Lateran, and tenth ecumenical, council was held by Pope Innocent II. in April 1139, and was attended by close on a thousand clerics. Its immediate task was to neutralize the after-effects of the schism, which had only been terminated in the previous year by the death of Anacletus II. (d. 25th January 1138). All consecrations received at his hands were declared invalid, his adherents were deposed, and King Roger of Sicily was excommunicated. Arnold of Brescia, too, was removed from office and banished from Italy.

Resolutions, ap. Mansi, op. cit. xxi., 525 sq.; Hefele, *Conciliengeschichte*, v. 438-445 (ed. 2).

3. At the third Lateran council (eleventh ecumenical), which met in March 1179 under Pope Alexander III., the clergy present again numbered about one thousand. The council formed a sequel to the peace of Venice (1177), which marked the close of the struggle between the papacy and the emperor Frederick I. Barbarossa; its main object being to repair the direct or indirect injuries which the schism had inflicted on the life of the church and to display to Christendom the power of the see of Rome. Among the enactments of the council, the most important concerned the appointment to the papal throne (Canon 1), the electoral law of 1059 being supplemented by a further provision declaring a two-thirds majority to be requisite for the validity of the cardinals' choice. Of the participation of the Roman clergy and populace, or of the imperial ratification, there was no longer any question. Another resolution, of importance for the history of the treatment of heresy, was the canon which decreed that armed force should be employed against the Cathari in southern France, that their goods were liable to confiscation and their persons to enslavement by the princes, and that all who took up weapons against them should receive a two years' remission of their penance and be placed—like the crusaders—under the direct protection of the church.

Resolutions, *ap.* Mansi, *op. cit.* xxii. 212 sq.; Hefele, *Conciliengeschichte*, v. 710-719 (ed. 2).

4. The fourth Lateran council (twelfth ecumenical), convened by Pope Innocent III. in 1215, was the most brilliant and the most numerously attended of all, and marks the culminating point of a pontificate which itself represents the zenith attained by the medieval papacy. Prelates assembled from every country in Christendom, and with them the deputies of numerous princes. The total included 412 bishops, with 800 priors and abbots, besides the representatives of absent prelates and a number of inferior clerics. The seventy decrees of the council begin with a confession of faith directed against the Cathari and Waldenses, which is significant if only for the mention of a transubstantiation of the elements in the Lord's Supper. A series of resolutions provided in detail for the organized suppression of heresy and for the institution of the episcopal inquisition (Canon 3). On every Christian, of either sex, arrived at years of discretion, the duty was imposed of confessing at least once annually and of receiving the Eucharist at least at Easter (Canon 21). Enactments were also passed touching procedure in the ecclesiastical courts, the creation of new monastic orders, appointments to offices in the church, marriage-law, conventual discipline, the veneration of relics, pilgrimages and intercourse with Jews and Saracens. Finally, a great crusade was resolved upon, to defray the expenses of which it was determined that the clergy should lay aside one-twentieth—the pope and the cardinals one-tenth—of their revenues for the next three years; while the crusaders were to be held free of all burdens during the period of their absence.

Resolutions, *ap.* Mansi, *op. cit.* xxii. 953 sq.; Hefele, *Conciliengeschichte*, v. 872-905 (ed. 2). See also INNOCENT III.

5. The fifth Lateran council (eighteenth ecumenical) was convened by Pope Julius II. and continued by Leo X. It met from the 3rd of May 1512 to the 16th of March 1517, and was the last great council anterior to the Reformation. The change in the government of the church, the rival council of Pisa, the ecclesiastical and

political dissensions within and without the council, and the lack of disinterestedness on the part of its members, all combined to frustrate the hopes which its convocation had awakened. Its resolutions comprised the rejection of the pragmatic sanction, the proclamation of the pope's superiority over the council, and the renewal of the bull *Unam sanctam* of Boniface VIII. The theory that it is possible for a thing to be theologically true and philosophically false, and the doctrine of the mortality of the human soul, were both repudiated; while a three years' tithe on all church property was set apart to provide funds for a war against the Turks.

See Hardouin, *Coll. Conc.* ix. 1570 sq.; Hefele-Hergenröther, *Conciliengeschichte*, viii. 454 sq.; (1887). Cf. bibliography under Leo X.

(C. M.)

LATERITE (Lat. *later*, a brick), in petrology, a red or brown superficial deposit of clay or earth which gathers on the surface of rocks and has been produced by their decomposition; it is very common in tropical regions. In consistency it is generally soft and friable, but hard masses, nodules and bands often occur in it. These are usually rich in iron. The superficial layers of laterite deposits are often indurated and smooth black or dark-brown crusts occur where the clays have long been exposed to a dry atmosphere; in other cases the soft clays are full of hard nodules, and in general the laterite is perforated by tubules, sometimes with veins of different composition and appearance from the main mass. The depth of the laterite beds varies up to 30 or 40 ft., the deeper layers often being soft when the surface is hard or stony; the transition to fresh, sound rock below may be very sudden. That laterite is merely rotted crystalline rock is proved by its often preserving the structures, veins and even the outlines of the minerals of the parent mass below; the felspars and other components of granite gneiss having evidently been converted *in situ* into a soft argillaceous material.

Laterite occurs in practically every tropical region of the earth, and is very abundant in Ceylon, India, Burma, Central and West Africa, Central America, &c. It is especially well developed where the underlying rock is crystalline and felspathic (as granite gneiss, syenite and diorite), but occurs also on basalts in the Deccan and in other places, and is found even on mica schist, sandstone and quartzite, though in such cases it tends to be more sandy than argillaceous. Many varieties have been recognized. In India a calcareous laterite with large concretionary blocks of carbonate of lime is called kankar (kunkar), and has been much used in building bridges, &c., because it serves as a hydraulic cement. In some districts (*e.g.* W. Indies) similar types of laterite have been called "puzzuolana" and are also used as mortar and cement. Kankar is also known and worked in British East Africa. The clay called cabook in Ceylon is essentially a variety of laterite. Common laterite contains very little lime, and it seems that in districts which have an excessive rainfall that component may be dissolved out by percolating water, while kankar, or calcareous laterite, is formed in districts which have a smaller rainfall. In India also a distinction is made between "high-level" and "low-level" laterites. The former are found at all elevations up to 5000 ft. and more, and are the products of the decomposition of rock *in situ*; they are often fine-grained and sometimes have a very well-marked concretionary structure. These laterites are subject to removal by running water, and are thus carried to lower grounds forming transported or "low-level" laterites. The finer particles tend to be carried away into the rivers, while the sand is left behind and with it much of the heavy iron oxides. In such situations the laterites are sandy and ferruginous, with a smaller proportion of clay, and are not intimately connected with the rocks on which they lie. On steep slopes laterite also may creep or slip when soaked with rain, and if exposed in sections on roadsides or river banks has a bedded appearance, the stratification being parallel to the surface of the ground.

Chemical and microscopical investigations show that laterite is not a clay like those which are so familiar in temperate regions; it does not consist of hydrous silicate of alumina, but is a mechanical mixture of fine grains of quartz with minute scales of hydrates of alumina. The latter are easily soluble in acid while clay is not, and after treating laterite with acids the alumina and iron leave the silica as a residue in the form of quartz. The alumina seems to be combined with variable proportions of water, probably as the minerals hydrargillite, diaspore and gibbsite, while the iron occurs as goethite, turgite, limonite, haematite. As already remarked, there is a tendency for the superficial layers to become hard, probably by a loss of the water contained in these aluminous minerals. These chemical changes may be the cause of the frequent concretionary structure and veining in the laterite. The great abundance of alumina in some varieties of laterite is a consequence of the removal of the fine particles of gibbsite, &c., from the quartz by the action of gentle currents of water. We may also point out the essential chemical similarity between laterite and the seams of bauxite which occur, for example, in the north of Ireland as reddish clays between flows of Tertiary basalt. The bauxite is rich in alumina combined with water, and is used as an ore of aluminium. It is often very ferruginous. Similar deposits occur at Vogelsberg in Germany, and we may infer that the bauxite beds are layers of laterite produced by sub-aerial decomposition in the same manner as the thick laterite deposits which are now in course of formation in the plateau basalts of the Deccan in India.

The conditions under which laterite are formed include, first, a high seasonal temperature, for it occurs only in tropical districts and in plains or mountains up to about 5000 ft. in height; secondly, a heavy rainfall, with well-marked alternation of wet and dry seasons (in arid countries laterite is seldom seen, and where the rainfall is moderate the laterite is often calcareous); third, the presence of rocks containing aluminous minerals such as felspar, augite, hornblende and mica. On pure limestones such as coral rocks and on quartzites laterite deposits do not originate except where the material has been transported.

Many hypotheses have been advanced to account for the essential difference between lateritization and the weathering processes exhibited by rocks in temperate and arctic climates. In the tropics the rank growth of vegetation produces large amounts of humus and carbonic acid which greatly promote rock decomposition; igneous and crystalline rocks of all kinds are deeply covered under rich dark soils, so that in tropical forests the underlying rocks are rarely to be seen. In the warm soil nitrification proceeds rapidly and bacteria of many kinds flourish. It has also been argued that the frequent thunderstorms produce much nitric acid in the atmosphere and that this may be a cause of lateritization, but it is certainly not a necessary factor, as beds of

laterite occur in oceanic islands lying in regions of the ocean where lightning is rarely seen. Sir Thomas Holland has brought forward the suggestion that the development of laterite may depend on the presence in the soil of bacteria which are able to decompose silicate of alumina into quartz and hydrates of alumina. The restricted distribution of laterite deposits might then be due to the inhibiting effect of low temperatures on the reproduction of these organisms. This very ingenious hypothesis has not yet received the experimental confirmation which seems necessary before it can be regarded as established. Malcolm Maclaren, rejecting the bacterial theory, directs special attention to the alternate saturation of the soil with rain water in the wet season and desiccation in the subsequent drought. The laterite beds are porous, in fact they are traversed by innumerable tubules which are often lined with deposits of iron oxide and aluminous minerals. We may be certain that, as in all soils during dry weather, there is an ascent of water by capillary action towards the surface, where it is gradually dissipated by evaporation. The soil water brings with it mineral matter in solution, which is deposited in the upper part of the beds. If the alumina be at one time in a soluble condition it will be drawn upwards and concentrated near the surface. This process explains many peculiarities of laterites, such as their porous and slaggy structure, which is often so marked that they have been mistaken for slaggy volcanic rocks. The concretionary structure is undoubtedly due to chemical rearrangements, among which the escape of water is probably one of the most important; and many writers have recognized that the hard ferruginous crust, like the induration which many soft laterites undergo when dug up and exposed to the air, is the result of desiccation and exposure to the hot sun of tropical countries. The brecciated structure which many laterites show may be produced by great expansion of the mass consequent on absorption of water after heavy rains, followed by contraction during the subsequent dry season.

Laterites are not of much economic use. They usually form a poor soil, full of hard concretionary lumps and very unfertile because the potash and phosphates have been removed in solution, while only alumina, iron and silica are left behind. They are used as clays for puddling, for making tiles, and as a mortar in rough work. Kankar has filled an important part as a cement in many large engineering works in India. Where the iron concretions have been washed out by rains or by artificial treatment (often in the form of small shot-like pellets) they serve as an iron ore in parts of India and Africa. Attempts are being made to utilize laterite as an ore of aluminium, a purpose for which some varieties seem well adapted. There are also deposits of manganese associated with some laterites in India which may ultimately be valuable as mineral ores.

(J. S. F.)

LATH (O. Eng. *laett*, Mid. Eng. *lappe*, a form possibly due to the Welsh *llath*; the word appears in many Teutonic languages, cf. Dutch *lat*, Ger. *Latte*, and has passed into Romanic, cf. Ital. *latta*, Fr. *latte*), a thin flat strip of wood or other material used in building to form a base or groundwork for plaster, or for tiles, slates or other covering for roofs. Such strips of wood are employed to form lattice-work, or for the bars of venetian blinds or shutters. A “lattice” (O. Fr. *lattis*) is an interlaced structure of laths fastened together so as to form a screen with diamond-shaped or square interstices. Such a screen was used, as it still is in the East, as a shutter for a window admitting air rather than light; it was hence used of the window closed by such a screen. In modern usage the term is applied to a window with diamond-shaped panes set in lead-work. A window with a lattice painted red was formerly a common inn-sign (cf. Shakespeare, *2 Hen. IV.* ii. 2. 86); frequently the window was dispensed with, and the sign remained painted on a board.

LATHE. (1) A mechanical appliance in which material is held and rotated against a tool for cutting, scraping, polishing or other purpose (see Tools). This word is of obscure origin. It may be a modified form of “lath,” for in an early form of lathe the rotation is given by a treadle or spring lath attached to the ceiling. The *New English Dictionary* points out a possible source of the word in Dan. *lad*, meaning apparently a supporting framework, found in the name of the turning-lathe, *drejelad*, and also in *savelad*, saw-bench, *vaeverlad*, loom, &c. (2) One of five, formerly six, districts containing three or more hundreds, into which the county of Kent was divided. Though the division survives, it no longer serves any administrative purpose. It was formerly a judicial division, the court of the lathe being superior to that of the hundred. In this it differs from the rape (*q.v.*) of Sussex, which was a geographical rather than an administrative division. In O. Eng. the word was *laéð*, the origin of which is doubtful. The *New English Dictionary* considers it almost certainly identical with O. Norse *lad*, landed possessions, territory, with a possible association in meaning with such words as *leið*, court, *mótlaeaða*, attendance at a meeting or moot, or with Mod. Dan. *laegd*, a division of the country for military purposes.

LATHROP, FRANCIS (1849-1909), American artist, was born at sea, near the Hawaiian Islands, on the 22nd of June 1849, being the great-grandson of Samuel Holden Parsons, and the son of George Alfred Lathrop (1819-1877), who for some time was United States consul at Honolulu. He was a pupil of T. C. Farrar

(1838-1891) in New York, and studied at the Royal academy of Dresden. In 1870-1873 he was in England, studying under Ford Madox Brown and Burne-Jones, and working in the school of William Morris, where he devoted particular attention to stained glass. Returning to America in 1873, he became known as an illustrator, painted portraits, designed stained glass, and subsequently confined himself to decorative work. He designed the chancel of Trinity church, Boston, and decorated the interior of Bowdoin college chapel, at Brunswick, Maine, and several churches in New York. The Marquand memorial window, Princeton chapel, is an example of his work in stained glass. His latest work was a series of medallions for the building of the Hispanic-American society in New York. He was one of the charter members of the Society of American Artists, and became an associate of the National Academy of Design, New York, of which also William L. Lathrop (b. 1859) an artist who is to be distinguished from him, became a member in 1907. He died at Woodcliff, New Jersey, on the 18th of October 1909.

His younger brother, George Parsona Lathrop (1851-1898), born near Honolulu on the 25th of August 1851, took up literature as a profession. He was an assistant editor of the *Atlantic Monthly* in 1875-1877, and editor of the Boston *Courier* in 1877-1879. He was one of the founders (1883) of the American copyright league, was prominent in the movement for Roman Catholic summer schools, and wrote several novels, some verse and critical essays. He was the author of *A Study of Nathaniel Hawthorne* (1876), and edited the standard edition (Boston, 1883) of Hawthorne's works. In 1871 he married in London the second daughter of Nathaniel Hawthorne—Rose Hawthorne Lathrop (b. 1851). After his death Mrs Lathrop devoted herself entirely to charity. She was instrumental in establishing (1896) and subsequently conducted St Rose's free home for cancer in New York City. In 1900 she joined the Dominican order, taking the name of Mother Mary Alphonsa and becoming superioress of the Dominican community of the third order; and she established in 1901 and subsequently conducted this order's Rosary Hill home (for cancerous patients) at Hawthorne, N.Y. She published a volume of poems (1888); *Memories of Hawthorne* (1897); and, with her husband, *A Story of Courage: Annals of the Georgetown Convent of the Visitation of the Blessed Virgin Mary* (1894).

LATIMER, HUGH

(*c.* 1490-1555), English bishop, and one of the chief promoters of the Reformation in England, was born at Thurcaston, Leicestershire. He was the son of a yeoman, who rented a farm "of three or four pounds by year at the uttermost." Of this farm he "tilled as much as kept half a dozen men," retaining also grass for a hundred sheep and thirty cattle. The year of Latimer's birth is not definitely known. In the *Life* by Gilpin it is given as 1470, a palpable error, and possibly a misprint for 1490.[1] Foxe states that at "the age of fourteen years he was sent to the university of Cambridge," and as he was elected fellow of Clare in 1509, his year of entrance was in all likelihood 1505. Latimer himself also, in mentioning his conversion from Romanism about 1523, says that it took place after he was thirty years of age. According to Foxe, Latimer went to school "at the age of four or thereabout." The purpose of his parents was to train him up "in the knowledge of all good literature," but his father "was as diligent to teach him to shoot as any other thing." As the yeomen of England were then in comparatively easy circumstances, the practice of sending their sons to the universities was quite usual; indeed Latimer mentions that in the reign of Edward VI., on account of the increase of rents, the universities had begun wonderfully to decay. He graduated B.A. in 1510 and M.A. in 1514. Before the latter date he had taken holy orders. While a student he was not unaccustomed "to make good cheer and be merry," but at the same time he was a punctilious observer of the minutest rites of his faith and "as obstinate a Papist as any in England." So keen was his opposition to the new learning that his oration on the occasion of taking his degree of bachelor of divinity was devoted to an attack on the opinions of Melanchthon. It was this sermon that determined his friend Thomas Bilney to go to Latimer's study, and ask him "for God's sake to hear his confession," the result being that "from that time forward he began to smell the word of God, and forsook the school doctors and such fooleries." Soon his discourses exercised a potent influence on learned and unlearned alike; and, although he restricted himself, as indeed was principally his custom through life, to the inculcation of practical righteousness, and the censure of clamant abuses, a rumour of his heretical tendencies reached the bishop of Ely, who resolved to become unexpectedly one of his audience. Latimer, on seeing him enter the church, boldly changed his theme to a portrayal of Christ as the pattern priest and bishop. The points of comparison were, of course, deeply distasteful to the prelate, who, though he professed his "obligations for the good admonition he had received," informed the preacher that he "smelt somewhat of the pan." Latimer was prohibited from preaching in the university or in any pulpits of the diocese, and on his occupying the pulpit of the Augustinian monastery, which enjoyed immunity from episcopal control, he was summoned to answer for his opinions before Wolsey, who, however, was so sensible of the value of such discourses that he gave him special licence to preach throughout England.

At this time Protestant opinions were being disseminated in England chiefly by the surreptitious circulation of the works of Wycliffe, and especially of his translations of the New Testament. The new leaven had begun to communicate its subtle influence to the universities, but was working chiefly in secret and even to a great extent unconsciously to those affected by it, for many were in profound ignorance of the ultimate tendency of their own opinions. This was perhaps, as regards England, the most critical conjuncture in the history of the Reformation, both on this account and on account of the position in which Henry VIII. then stood related to it. In no small degree its ultimate fate seemed also to be placed in the hands of Latimer. In 1526 the imprudent zeal of Robert Barnes had resulted in an ignominious recantation, and in 1527 Bilney, Latimer's most trusted coadjutor, incurred the displeasure of Wolsey, and did humiliating penance for his offences. Latimer, however, besides possessing sagacity, quick insight into character, and a ready and formidable wit which thoroughly disconcerted and confused his opponents, had naturally a distaste for mere theological discussion, and the truths he was in the habit of inculcating could scarcely be controverted, although, as he stated them, they were diametrically contradictory of prevailing errors both in doctrine and practice. In December 1529 he preached his two "sermons on the cards," which awakened a turbulent controversy in the university, and his opponents, finding that they were unable to cope with the dexterity and keenness of his satire, would undoubtedly have

succeeded in getting him silenced by force, had it not been reported to the king that Latimer “favoured his cause,” that is, the cause of the divorce. While, therefore, both parties were imperatively commanded to refrain from further dispute, Latimer was invited to preach before Henry in the Lent of 1530. The king was so pleased with the sermon that after it “he did most familiarly talk with him in a gallery.” Of the special regard which Henry seemed to have conceived for him Latimer took advantage to pen the famous letter on the free circulation of the Bible, an address remarkable, not only for what Froude justly calls “its almost unexampled grandeur,” but for its striking repudiation of the aid of temporal weapons to defend the faith, “for God,” he says, “will not have it defended by man or man’s power, but by His Word only, by which He hath evermore defended it, and that by a way far above man’s power and reason.” Though the appeal was without effect on the immediate policy of Henry, he could not have been displeased with its tone, for shortly afterwards he appointed Latimer one of the royal chaplains. In times so “out of joint” Latimer soon became “weary of the court,” and it was with a sense of relief that he accepted the living of West Kington, or West Kineton, Wiltshire, conferred on him by the king in 1531. Harassed by severe bodily ailments, encompassed by a raging tumult of religious conflict and persecution, and aware that the faint hopes of better times which seemed to gild the horizon of the future might be utterly darkened by a failure either in the constancy of his courage or in his discernment and discretion, he exerted his eloquence with unabating energy in the furtherance of the cause he had at heart. At last a sermon he was persuaded to preach in London exasperated John Stokesley, bishop of the diocese, and seemed to furnish that fervent persecutor with an opportunity to overthrow the most dangerous champion of the new opinions. Bilney, of whom Latimer wrote, “if such as he shall die evil, what shall become of me?” perished at the stake in the autumn of 1531, and in January following Latimer was summoned to answer before the bishops in the consistory. After a tedious and captious examination, he was in March brought before convocation, and, on refusing to subscribe certain articles, was excommunicated and imprisoned; but through the interference of the king he was finally released after he had voluntarily signified his acceptance of all the articles except two, and confessed that he had erred not only “in discretion but in doctrine.” If in this confession he to some extent tampered with his conscience, there is every reason to believe that his culpable timidity was occasioned, not by personal fear, but by anxiety lest by his death he should hinder instead of promoting the cause of truth. After the consecration of Cranmer to the archbishopric of Canterbury in 1533 Latimer’s position was completely altered. A commission appointed to inquire into the disturbances caused by his preaching in Bristol severely censured the conduct of his opponents; and, when the bishop prohibited him from preaching in his diocese, he obtained from Cranmer a special licence to preach throughout the province of Canterbury. In 1534 Henry formally repudiated the authority of the pope, and from this time Latimer was the chief co-operator with Cranmer and Cromwell in advising the king regarding the series of legislative measures which rendered that repudiation complete and irrevocable.

It was, however, the preaching of Latimer more than the edicts of Henry that established the principles of the Reformation in the minds and hearts of the people; and from his preaching the movement received its chief colour and complexion. The sermons of Latimer possess a combination of qualities which constitute them unique examples of that species of literature. It is possible to learn from them more regarding the social and political condition of the period than perhaps from any other source, for they abound, not only in exposures of religious abuses, and of the prevailing corruptions of society, but in references to many varieties of social injustice and unwise customs, in racy sketches of character, and in vivid pictures of special features of the time, occasionally illustrated by interesting incidents in his own life. The homely terseness of his style, his abounding humour—rough, cheery and playful, but irresistible in its simplicity, and occasionally displaying sudden and dangerous barbs of satire—his avoidance of dogmatic subtleties, his noble advocacy of practical righteousness, his bold and open denunciation of the oppression practised by the powerful, his scathing diatribes against ecclesiastical hypocrisy, the transparent honesty of his fervent zeal, tempered by sagacious moderation—these are the qualities which not only rendered his influence so paramount in his lifetime, but have transmitted his memory to posterity as perhaps that of the one among his contemporaries most worthy of our interest and admiration.

In September 1535 Latimer was consecrated bishop of Worcester. While holding this office he was selected to officiate as preacher when the friar, John Forest, whom he vainly endeavoured to move to submission, was burned at the stake for denying the royal supremacy. In 1539, being opposed to the “act of the six articles,” Latimer resigned his bishopric, learning from Cromwell that this was the wish of the king. It would appear that on this point he was deceived, but as he now declined to accept the articles he was confined within the precincts of the palace of the bishop of Chichester. After the attainder of Cromwell little is known of Latimer until 1546, when, on account of his connexion with the preacher Edward Crome, he was summoned before the council at Greenwich, and committed to the Tower of London. Henry died before his final trial could take place, and the general pardon at the accession of Edward VI. procured him his liberty. He declined to resume his see, notwithstanding the special request of the Commons, but in January 1548 again began to preach, and with more effectiveness than ever, crowds thronging to listen to him both in London and in the country. Shortly after the accession of Mary in 1553 a summons was sent to Latimer to appear before the council at Westminster. Though he might have escaped by flight, and though he knew, as he quaintly remarked, that “Smithfield already groaned for him,” he at once joyfully obeyed. The pursuivant, he said, was “a welcome messenger.” The hardships of his imprisonment, and the long disputations at Oxford, told severely on his health, but he endured all with unbroken cheerfulness. On the 16th of October 1555 he and Ridley were led to the stake at Oxford. Never was man more free than Latimer from the taint of fanaticism or less dominated by “vainglory,” but the motives which now inspired his courage not only placed him beyond the influence of fear, but enabled him to taste in dying an ineffable thrill of victorious achievement. Ridley he greeted with the words, “Be of good comfort, Master Ridley, and play the man; we shall this day light such a candle by God’s grace in England as (I trust) shall never be put out.” He “received the flame as it were embracing it. After he had stroked his face with his hands, and (as it were) bathed them a little in the fire, he soon died (as it appeared) with very little pain or none.”

Two volumes of Latimer’s sermons were published in 1549. A complete edition of his works, edited by G. E. Corrie for the Parker Society, appeared in two volumes (1844-1845). His *Sermon on the Ploughers* and *Seven Sermons preached before Edward VI.* were reprinted by E. Arber (1869). The chief contemporary authorities for his life are his own *Sermons*, John Stow’s *Chronicle* and Foxe’s *Book of Martyrs*. In addition to memoirs prefixed to editions of his sermons, there are lives of Latimer by R. Demaus (1869, new and revised ed. 1881),

and by R. M. and A. J. Carlyle (1899).

(T. F. H.)

1 The only reasons for assigning an earlier date are that he was commonly known as “old Hugh Latimer,” and that Bernher, his Swiss servant, states incidentally that he was “above threescore and seven years” in the reign of Edward VI. Bad health and anxieties probably made him look older than his years, but under Edward VI. his powers as an orator were in full vigour, and he was at his book winter and summer at two o’clock in the morning.

LATINA, VIA, an ancient highroad of Italy, leading S.E. from Rome. It was probably one of the oldest of Roman roads, leading to the pass of Algidus, so important in the early military history of Rome; and it must have preceded the Via Appia as a route to Campania, inasmuch as the Latin colony at Cales was founded in 334 B.C. and must have been accessible from Rome by road, whereas the Via Appia was only made twenty-two years later. It follows, too, a far more natural line of communication, without the engineering difficulties which the Via Appia had to encounter. As a through route it no doubt preceded the Via Labicana (see LABICANA, VIA), 244 though the latter may have been preferred in later times. After their junction, the Via Latina continued to follow the valley of the Trerus (Sacco), following the line taken by the modern railway to Naples, and passing below the Hernican hill-towns, Anagnia, Ferentinum, Frusino, &c. At Fregellae it crossed the Liris, and then passed through Aquinum and Casinum, both of them comparatively low-lying towns. It then entered the interval between the Apennines and the volcanic group of Rocca Monfina, and the original road, instead of traversing it, turned abruptly N.E. over the mountains to Venafrum, thus giving a direct communication with the interior of Samnium by roads to Aesernia and Telesia. In later times, however, there was in all probability a short cut by Rufrae along the line taken by the modern highroad and railway. The two lines rejoined near the present railway station of Caianello and the road ran to Teanum and Cales, and so to Casilinum, where was the crossing of the Volturnus and the junction with the Via Appia. The distance from Rome to Casilinum was 129 m. by the Via Appia, 135 m. by the old Via Latina through Venafrum, 126 m. by the short cut by Rufrae. Considerable remains of the road exist in the neighbourhood of Rome; for the first 40 m., as far as Compitum Anagninum, it is not followed by any modern road; while farther on in its course it is in the main identical with the modern highroad.

See T. Ashby in *Papers of the British School at Rome* iv. 1 sq., v. 1 sq.

(T. As.)

LATINI, BRUNETTO (*c.* 1210-*c.* 1294), Italian philosopher and scholar, was born in Florence, and belonged to the Guelph party. After the disaster of Montaperti he took refuge for some years (1261-1268) in France, but in 1269 returned to Tuscany and for some twenty years held successive high offices. Giovanni Villani says that “he was a great philosopher and a consummate master of rhetoric, not only in knowing how to speak well, but how to write well.... He both began and directed the growth of the Florentines, both in making them ready in speaking well and in knowing how to guide and direct our republic according to the rules of politics.” He was the author of various works in prose and verse. While in France he wrote in French his prose *Trésor*, a summary of the encyclopaedic knowledge of the day (translated into Italian as *Tesoro* by Bono Giamboni in the 13th century), and in Italian his poem *Tesoretto*, rhymed couplets in heptasyllabic metre, a sort of abridgment put in allegorical form, the earliest Italian didactic verse. He is famous as the friend and counsellor of Dante (see *Inferno*, xv. 82-87).

For the *Trésor* see P. Chabville’s edition (1863); for the *Tesoro*, Gaiter’s edition (1878); for the *Tesoretto*, B. Wiese’s study in *Zeitschrift für romanische Philologie*, vii. See also the biographical and critical accounts of Brunetto Latini by Thoe Sundby (1884), and Marchesini (1887 and 1890).

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