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THE ENCYCLOPÆDIA BRITANNICA A DICTIONARY OF ARTS, SCIENCES, LITERATURE AND GENERAL INFORMATION

ELEVENTH EDITION

VOLUME IX SLICE IV

England to English Finance

Articles in This Slice

ENGLAND	ENGLEWOOD
ENGLAND, THE CHURCH OF	ENGLISH CHANNEL
ENGLEFIELD, SIR FRANCIS	ENGLISH FINANCE
ENGLEHEART, GEORGE	

ENGLAND. Geographical usage confines to the southern part of the island of Great Britain the name commonly given to the great insular power of western Europe.¹ In this restricted sense the present article deals with England, the predominant partner in the United Kingdom of Great Britain and Ireland, both as containing the seat of government and in respect of extent, population and wealth.

1. TOPOGRAPHY.

England extends from the mouth of the Tweed in 55° 46' N. to Lizard Point in 49° 57' 30" N., in a roughly triangular form. The base of the triangle runs from the South Foreland to Land's End W. by S., a distance of 316 m. in a straight line, but 545 m. following the larger curves of the coast. The east coast runs N.N.W. from the South Foreland to Berwick, a distance of 348 m., or, following the coast, 640 m. The west coast runs N.N.E. from Land's End to the head of Solway Firth, a distance of 354 m., or following the much-indented coast, 1225 m. The total length of the coast-line may be put down as 2350 m.,² out of which 515 m. belong to the western principality of Wales.³ The most easterly point is at Lowestoft, 1° 46' E., the most westerly is Land's End, in 5° 43' W. The coasts are nowhere washed directly by the ocean, except in the extreme south-west; the south coast faces the English Channel, which is bounded on the southern side by the coast of France, the two shores converging from 100 m. apart at the Lizard to 21 at Dover. The east coast faces the shallow North Sea, which widens from the point where it joins the Channel to 375 m. off the mouth of the Tweed, the opposite shores being occupied in succession by France, Belgium, Holland, Germany and Denmark. The west coast faces the Irish Sea, with a width varying from 45 to 130 m.

Counties.	Area Statute Acres.	Population. 1901.
Bedfordshire	298,494	171,240
Berkshire	462,208	256,509
Buckinghamshire	475,682	195,764
Cambridgeshire	549,723	190,682
Cheshire	657,783	815,099
Cornwall	868,220	322,334
Cumberland	973,086	266,933
Derbyshire	658,885	620,322
Devonshire	1,667,154	661,314
Dorsetshire	632,270	202,936
Durham	649,352	1,187,361
Essex	986,975	1,085,771
Gloucestershire	795,709	634,729
Hampshire	1,039,031	797,634
Herefordshire	537,363	114,380
Hertfordshire	406,157	250,152
Huntingdonshire	234,218	57,771
Kent	995,014	1,348,841
Lancashire	1,203,365	4,406,409
Leicestershire	527,123	434,019
Lincolnshire	1,693,550	498,847
Middlesex	181,320	3,585,323
Monmouthshire	341,688	292,317
Norfolk	1,308,439	460,120
Northamptonshire	641,992	338,088
Northumberland	1,291,530	603,498
Nottinghamshire	539,756	514,578
Oxfordshire	483,626	181,120
Rutland	97,273	19,709
Shropshire	859,516	239,324
Somersetshire	1,043,409	508,256
Staffordshire	749,602	1,234,506
Suffolk	952,710	384,293
Surrey	485,122	2,012,744
Sussex	933,887	605,202
Warwickshire	577,462	897,835
Westmorland	503,160	64,303

Wiltshire	879,943	273,869
Worcestershire	480,560	488,338
Yorkshire	3,882,328	3,584,762
Total	32,544,685	30,807,232

The area of England and Wales is 37,327,479 acres or 58,324 sq. m. (England, 50,851 sq. m.), and the population on this area in 1901 was 32,527,843 (England, 30,807,232). The principal territorial divisions of England, as of Wales, Scotland and Ireland, are the counties, of which England comprises 40. Their boundaries are not as a rule determined by the physical features of the land; but localities are habitually defined by the use of their names. A list of the English counties (excluding Wales) is given in the table above.⁴

Hills.—As an introduction to the discussion of the natural regions into which England is divided (Section II.), and for the sake of comparison of altitudes, size of rivers and similar details, the salient geographical features may be briefly summarized. The short land-frontier of England with Scotland (its length is only 100 m.) is in great measure a physical boundary, as considerable lengths of it are formed on the east side by the river Tweed, and on the west by Kershope Burn, Liddel Water, and the river Sark; while for the rest it follows pretty closely the summit of the Cheviot Hills, whose highest point is the Cheviot (2676 ft.). A narrow but well-marked pass or depression, known as the Tyne Gap, is taken to separate the Cheviot system from the Pennine Chain, which is properly to be described as a wide tract of hill-country, extending through two degrees of latitude, on an axis from N. by W. to S. by E. The highest point is Cross Fell (2930 ft.). On the north-west side of the Pennine system, marked off from it by the upper valleys of the rivers Eden and Lune, lies the circular hill-tract whose narrow valleys, radiating from its centre somewhat like wheel-spokes, contain the beautiful lakes which give it the celebrated name of the Lake District. In this tract is found the highest land in England, Scafell Pike reaching 3210 ft. East of the Pennines, isolated on three sides by lowlands and on the fourth side by the North Sea, lie the highmoors of the North Riding of Yorkshire, with the Cleveland Hills, and, to the south, the Yorkshire Wolds of the East Riding. Neither of these systems has any great elevation; the moors, towards their north-western edge, reaching an extreme of 1489 ft. in Urra Moor. The tableland called the Peak of Derbyshire, in the south of the Pennine system, is 2088 ft. in extreme height, but south of this system an elevation of 2000 ft. is not found anywhere in England save at a few points on the south Welsh border and in Dartmoor, in the south-west. Wales, on the other hand, projecting into the western sea between Liverpool Bay and the estuary of the Dee on the north, and the Bristol Channel on the south, is practically all mountainous, and has in Snowdon, in the north-west, a higher summit than any in England—3560 ft. But the midlands, the west, and the south of England, in spite of an absence of great elevation, contain no plains of such extent as might make for monotony. The land, generally undulating, is further diversified with hills arranged in groups or ranges, a common characteristic of which is a bold face on the one hand and a long gentle slope, with narrow valleys deeply penetrating, on the other. Southward from the Pennines there may be mentioned, in the midlands, the small elevated tract of Charnwood Forest (Bardon Hill, 912 ft.) in Leicestershire, and Cannock Chase (775 ft.) and the Clent Hills (928 ft.), respectively north and south of the great manufacturing district of Birmingham and Wolverhampton. Of the western counties, the southern half of Shropshire, Herefordshire and Monmouthshire are generally hilly. Among the Shropshire Hills may be mentioned the isolated Wrekin (1335 ft.), Long Mynd (1674 ft.) and the Clee Hills (Brown Clee, 1805 ft.). The long ridge of the Black Mountain reaches an extreme height of 2310 ft. on the Welsh border of Herefordshire. The Malvern Hills on the other side of the county, which, owing to their almost isolated position among lowlands, appear a far more prominent feature, reach only 1395 ft. In western Monmouthshire, again belonging to the south Welsh system, there are such heights as Sugar Loaf (1955 ft.) and Coity (1905 ft.).



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In the south midlands of England there are two main ranges of hills, with axes roughly parallel. The western range is the Cotswold Hills of Gloucestershire and the counties adjacent on the east running S.W. and N.E. Its highest point is Cleve Cloud (1134 ft.). The uplands of Northamptonshire continue this range north-eastward, decreasing in elevation. The eastern range, beginning in Wiltshire, runs E.N.E. as the White Horse Hills (856 ft. at

the highest point), and after the interruption caused by the gap or narrow valley by which the river Thames penetrates the hills near Goring, continues N.E. as the Chiltern Hills (850 ft.). The East Anglian ridge continues the line E.N.E., gradually decreasing in altitude. In the south-east of England, the North and South Downs are both well-defined ranges, but are characterized by a number of breaches through which rivers penetrate, on the one hand to the Thames or the North Sea and on the other to the English Channel. Leith Hill in the North Downs reaches 965 ft., and Butser Hill in the South Downs 889 ft.; Blackdown and Hindhead, two almost isolated masses of high ground lying between the two ranges of the Downs towards their western extremity, are respectively 918 and 895 ft. in height. In the north of Hampshire along its boundary with Surrey and Berkshire, in the southern half of Wiltshire (where rises the upland of Salisbury Plain), in Dorsetshire, and the south of Somersetshire, the hills may be said to run in a series of connected groups. They cannot be defined as a single range, nor are they named, as a rule, according to the groups into which they fall, but the general title of the Western Downs is applied to them. One point only in all these groups exceeds 1000 ft. in altitude, namely, Inkpen Beacon (1011 ft.) in the extreme south-west of Berkshire, but heights above 900 ft. are not infrequent. In the northern part of Somersetshire, two ranges, short but well defined, lie respectively east and west of a low plain which slopes to the Bristol Channel. These are the Mendips (Black Down, 1068 ft.) and the Quantocks (Will's Neck, 1261 ft.). The Blackdown Hills, in south-western Somersetshire and eastern Devonshire, reach 1035 ft. in Staple Hill in the first-named county. In western Somersetshire and north Devonshire the elevated mass of Exmoor reaches 1707 ft. in Dunkery Beacon; and in south Devonshire the highest land in southern England is found in the similar mass of Dartmoor (High Willhays, 2039 ft.). The westward prolongation of the great south-western promontory of England, occupied by the county of Cornwall, continues as a rugged ridge broken by a succession of depressions, and exceeds a height of 800 ft., nearly as far as the point where it falls to the ocean in the cliffs of Land's End.

Lowlands.—The localities of the more extensive lowlands of England may now be indicated in their relation to the principal hill-systems, and in this connexion the names of some of the more important rivers will occur. In the extreme north-west is the so-called Solway Plain, of no great extent, but clearly defined between the northern foothills of the Lake District and the shore of Solway Firth. In Lancashire a flat coastal strip occurs between the western front of the Pennine Chain and the Irish Sea, and, widening southward, extends into Cheshire and comprises the lower valleys of the Mersey and the Dee. In the preceding review of the English hill-systems it may have been observed that eastern England hardly enters into consideration. The reason now becomes clear. From Yorkshire to the flat indented sea-coast north of the Thames estuary, east of the Pennines and the slight hills indicated as the Northampton uplands, and in part demarcated southward by the East Anglian ridge in Huntingdonshire, Cambridgeshire and Suffolk, the land, although divided between a succession of river-systems, varies so little in level as to be capable of consideration as a single plain. Its character, however, varies in different parts. The Fens, the flat open levels in the lower basins of the Witham, Welland, Nene and Great Ouse, only kept from their former marshy conditions by an extensive system of artificial drainage, and the similar levels round the head of the Humber estuary, differ completely in appearance from the higher and firmer parts of the plain. The coast-land north of the mouth of the Thames is a low plain; and on the south coast somewhat similar tracts are found in Romney Marsh, and about the shallow inlets (Portsmouth Harbour and others) which open from Spithead. The vales of Kent and Sussex are rich undulating lowlands within the area of the Weald, separated by the Forest Ridges, and enclosed by the North and South Downs. In the south-west there is a fairly extensive lowland in south Devonshire watered by the Exe in its lower course. But the most remarkable plain is that in Somersetshire, enclosed by the Mendips, the Western Downs, Blackdown Hills and the Quantocks and entered by the Parrett and other streams. The midlands, owing to the comparatively slight elevation of the land, are capable of geographical consideration as a plain. But it is not a plain in the sense of that of East Anglia. There is no quite level tract of great extent, excepting perhaps the fertile and beautiful district watered by the lower Severn and its tributary the Upper or Warwickshire Avon, overlooked by the Cotteswolds on the one hand and the Malvern and other hills on the other.

Coast.—The coast-line of England is deeply indented by a succession of large inlets, particularly on the east and west. Thus, from north to south there are, on the east coast, the mouths of the Tyne and the Tees, the Humber estuary, the Wash (which receives the waters of the Witham, Welland, Nene and Great Ouse), the Orwell-Stour, Blackwater and Thames-Medway estuaries. On the west there are Solway Firth, Morecambe Bay, the estuaries of the Mersey and Dee, Cardigan Bay of the Welsh coast, and the Bristol Channel and Severn

estuary. In this way the land is so deeply penetrated by the water that no part is more than 75 m. from the sea. Thus Buckingham appears to be the most inland town in England, being 75 m. from the estuaries of the Severn, Thames and Wash; Colehill, near Birmingham, is also almost exactly 75 m. from the Mersey, Severn and Wash.

The east and south coasts show considerable stretches of uniform uninflected coast-line, and except for the Farne Islands and Holy Island in the extreme north, the flat islands formed by ramifications of the estuaries on the Essex and north Kent coasts, and the Isle of Wight in the south, they are without islands. The west coast, on the other hand, including both shores of the great south-western promontory, is minutely fretted into capes and bays, headlands and inlets of every size, and an island-group lies off each of the more prominent headlands from Land's End northward. The formation of the coast varies from low, shifting banks of shingle or sand to majestic cliffs, and its character in different localities has been foreshadowed in the previous consideration of the hill-systems and lowlands. Thus in the north-east the coast is generally of no great elevation, but the foothills of the Cheviot and Pennine systems approach it closely. On the Yorkshire coast the Cleveland Hills and the high moors are cut off on the seaward side in magnificent cliffs, which reach the greatest elevation of sea-cliffs on the English coast (666 ft.). The Yorkshire Wolds similarly terminate seaward in the noble promontory of Flamborough Head. From this point as far south as the North Foreland of Kent the coast, like the land, is almost wholly low, though there are slight cliffs at some points, as along the coasts of Norfolk and Suffolk, on which the sea constantly encroaches. On the south coast a succession of cliffs and low shores may be correlated with the main physical features of the land. Thus in succession there are the famous white cliffs about Dover, terminating the North Downs, the low coast of Romney Marsh, projecting seaward in Dungeness, the cliffs above Hastings, terminating an offshoot of the Forest Ridges, the low shore between Hastings and Eastbourne, to which succeeds the lofty Beachy Head, terminating the South Downs. A flat coast follows as far as Selsey Bill and Spithead, but the south coast of the Isle of Wight shows a succession of splendid cliffs. The shallow inlet of Poole Bay is followed by the eminence of St Alban's Head, and thereafter, right round the south-western promontory of England, the cliff-bound coast, with its bays and inlets closely beset with hills, predominates over the low shore-line, exhibits a remarkable series of different forms, and provides the finest scenery of its kind in England. The shores of the Severn estuary are low, but the Welsh coast, sharing the general character of the land, is more or less elevated throughout, though none of the higher mountain-masses directly approaches the sea. Low shores correspond to the plains of Cheshire, Lancashire and the Solway, while the intervening coast is of no great elevation, as only the foothills of the Lake District approach it with a gradual slope.

Rivers.	Length Miles.	Drainage Area sq. m.
1. North-east—		
Tweed ⁵	97	1870
Tyne	80	1130
Wear	60	458
Tees	85	708
2. East—		
Humber system ⁶	..	9293
Witham	80	1079
Welland	70	760
Nene	90	1077
Ouse (Great)	160	2607
Yare	60	880
Stour (Suffolk-Essex)	60	407
Thames ⁷	209	5924
3. South—		
Stour (Kent)	40	370
Rother	32	312
Arun	43	370
Avon (Hampshire)	60	1132
Exe	55	584
Tamar	58	384
4. Bristol Channel (south-west)—		
Torridge	45	336
Taw	48	455
Parrett	37	562
Severn ^{8 9}	210	6850

Usk ⁹	70	540
5. North-west—		
(a) Cheshire-Lancashire—		
Dee ⁹	70	813
Mersey ¹⁰	70	1596
Ribble	65	585
(b) Solway—		
Eden	70	1300

A great extent of the English coast is constantly undergoing visible alteration, the sea in some instances receding from the land, and in others gaining upon it. The whole of Romney Marsh, in Kent and Sussex, formerly constituted an arm of the sea, where vessels rode in deep water, carrying produce to ports no longer in existence. Lydd and Romney, though maritime still in name, retaining some of the ancient privileges of the Cinque Ports, have become, through changes in the coast-line, small inland towns; and the same has been the fate of Rye, Winchelsea, and other places in that district. Again, the Isle of Thanet, in the north-eastern corner of Kent, has practically ceased to be an island. The wide estuary of the sea separating it from the mainland, through which ships sailed from the English Channel into the Thames, using it as the shortest route from the south to London, has entirely disappeared, leaving only a flat lowland traversed by branches of the river Stour to mark its former existence. The sea is encroaching over a considerable extent of coast-line on the North Sea as well as on the English Channel. Ravenspur, once an important town of Yorkshire, where Bolingbroke, afterwards Henry IV., landed in 1399, is now submerged; and Dunwich and other ancient ports in East Anglia have met with the same fate. The process of destruction, slow in some places, is so rapid in others that it can be traced even from month to month—the incessant work of the waves washing away the soft strata at the base of the cliffs and leaving the summits unsupported. Many cliffs of the east coast, from the Humber to the mouth of the Thames, are suffering from this destructive action, and instances also occur on the south coast. A royal commission on Coast Erosion was appointed to inquire into this question in 1906 (see *Report*, 1907 sqq.).

Except along the centre of the Irish Sea, at one point off the Tweed and one between Devon and Normandy, the depth of water between England and the nearest land nowhere exceeds 50 fathoms.

Rivers.—The variations in length of the general slope of the land towards successive natural divisions of the coast may be illustrated by a comparative table of the mileage and drainage areas of the principal English rivers. The mileage does not take account of the lesser sinuosities of rivers.

With the exception of those in the Lake District (*q.v.*) the lakes of England are few and insignificant. A number of small meres occur in a defined area in Cheshire.

(O. J. R. H.)

II. PHYSICAL GEOGRAPHY

The object of this section is to give a physical description of England and Wales according to natural regions, which usually follow the geology of the country very closely; although the relationship of configuration and geology is not so simple or so clearly marked as in Scotland.

The land is highest in the west and north, where the rocks also are oldest, most disturbed, and hardest, and the land surface gradually sinks towards the east and south, where the rocks become successively less disturbed, more recent, and softer. The study of the scenery of England and Wales as a whole, or the study of orographical and geological maps of the country, allows a broad distinction to be drawn between the types of land-forms in the west and in the east. This distinction is essential, and applies to all the conditions of which geography takes account. The contrasted districts are separated by an intermediate area, which softens the transition between them, and may be described separately.

The Western Division is composed entirely of Archaean and Palaeozoic rocks, embracing the whole range from pre-Cambrian up to Carboniferous. The outcrops of these rocks succeed each other in order of age in roughly concentric belts, with the Archaean mass of the island of Anglesey as a centre, but the arrangement in detail is much disturbed and often very irregular. Contemporary igneous outbursts are extremely common in some of the ancient formations, and add, by their resistance to atmospheric erosion, to the extreme

ruggedness of the scenery. The hills and uplands of ancient rocks do not form regular ranges, but rise like islands in four distinct groups from a plain of New Red Sandstone (Permian and Triassic), which separates them from each other and from the newer rocks of the Eastern Division. Each of the uplands is a centre for the dispersal of streams; but with only one prominent exception (the Humber) these reach the sea without crossing into the Eastern Division of the country.

The Eastern Division, lying to the east of the zone of New Red Sandstone, may be defined on the west by a slightly curved line drawn from the estuary of the Tees through Leicester and Stratford-on-Avon to the estuary of the Severn, and thence through Glastonbury to Sidmouth. It is built up of nearly uniform sheets of Mesozoic rock, the various beds of the Jurassic lying above the New Red Sandstone (Triassic), and dipping south-eastward under the successive beds of the Cretaceous system. In exactly the same way the whole of the south-east of the island appears to have been covered uniformly with gently dipping beds of Tertiary sands and clays, beneath which the Cretaceous strata dipped. At some period subsequent to this deposition there was a movement of elevation, which appears to have thrown the whole mass of rocks into a fold along an anticlinal axis running west and east, which was flanked to north and south by synclinal hollows. In these hollows the Tertiary rocks were protected from erosion, and remain to form the London and the Hampshire Basins respectively, while on the anticlinal axis the whole of the Tertiary and the upper Cretaceous strata have been dissected away, and a complex and beautiful configuration has been impressed on the district of the Weald. The general character of the landscape in the Eastern Division is a succession of steep escarpments formed by the edges of the outcropping beds of harder rock, and long gentle slopes or plains on the dip-slopes, or on the softer layers; clay and hard rock alternating throughout the series.

The contrast between the lower grounds of the Western and the Eastern Divisions is masked in many places by the general covering of the surface with glacial drift, which is usually a stiff clay composed on the whole of the detritus of the rocks upon which it rests, though containing fragments of rocks which have been transported from a considerable distance. This boulder clay covers almost all the low ground north of the Thames Basin, its southern margin fading away into washed sands and gravels.

The history of the origin of the land-forms of England, as far as they have been deduced from geological studies, is exceedingly complicated. The fact that every known geological formation (except the Miocene) is represented, proves of itself how long the history has been, and how multifarious the changes. It must suffice to say that the separation of Ireland from England was a comparatively recent episode, while the severance of the land-connexion between England and the continent by the formation of the Strait of Dover is still more recent and probably occurred with the human period.

Natural Divisions.—The four prominent groups of high land rising from the plain of the Red Rocks are: (1) the *Lake District*, bounded by the Solway Firth, Morecambe Bay and the valleys of the Eden and the Lune; (2) the *Pennine Region*, which stretches from the Scottish border to the centre of England, running south; (3) **The western division.** *Wales*, occupying the peninsula between the Mersey and the Bristol Channel, and extending beyond the political boundaries of the principality to include Shropshire and Hereford; and (4) the peninsula of *Cornwall and Devon*. They are all similar in the great features of their land-forms, which have been impressed upon them by the prolonged action of atmospheric denudation rather than by the original order and arrangement of the rocks; but each group has its own geological character, which has imparted something of a distinctive individuality to the scenery. Taken as a whole, the Western Division depends for its prosperity on mineral products and manufactures rather than on farming; and the staple of the farmers is live-stock rather than agriculture. The people of the more rugged and remoter groups of this division are by race survivors of the early Celtic stock, which, being driven by successive invaders from the open and fertile country of the Eastern Division, found refuges in the less inviting but more easily defended lands of the west. Even where, as in the Pennine region and the Lake District, the people have been completely assimilated with the Teutonic stock, they retain a typical character, marked by independence of opinion approaching stubbornness, and by great determination and enterprise.

Lake District.—The Lake District occupies the counties of Cumberland, Westmorland and North Lancashire. It forms a roughly circular highland area, the drainage lines of which radiate outward from the centre in a series of narrow valleys, the upper parts of which cut deeply into the mountains, and the lower widen into the surrounding plain. Sheets of standing water are still numerous, and formerly almost every valley contained a single long narrow lake-basin; but some of these have been subdivided, drained or filled up by natural

processes. The existing lakes include Windermere and Coniston, draining south; Wastwater, draining south-west, Ennerdale water, Buttermere and Crummock water (the two latter, originally one lake, are now divided by a lateral delta), draining north-west; Derwent water and Bassenthwaite water (which were probably originally one lake), and Thirlmere, draining north; Ullswater and Haweswater, draining north-east. There are, besides, numerous mountain tarns of small size, most of them in hollows barred by the glacial drift which covers a great part of the district. The central and most picturesque part of the district is formed of great masses of volcanic ashes and tuffs, with intrusions of basalts and granite, all of Ordovician (Lower Silurian) age. Scafell and Scafell Pike (3162 and 3210 ft.), at the head of Wastwater, and Helvellyn (3118), at the head of Ullswater, are the loftiest amongst many summits the grandeur of whose outlines is not to be estimated by their moderate height. Sedimentary rocks of the same age form a belt to the north, and include Skiddaw (3054 ft.); while to the south a belt of Silurian rocks, thickly covered with boulder clay, forms the finely wooded valleys of Coniston and Windermere. Round these central masses of early Palaeozoic rocks there is a broken ring of Carboniferous Limestone, and several patches of Coal Measures, while the New Red Sandstone appears as a boundary belt outside the greater part of the district. Where the Coal Measures reach the sea at Whitehaven, there are coal-mines, and the hematite of the Carboniferous Limestones has given rise to the active ironworks of Barrow-in-Furness, now the largest town in the district. Except in the towns of the outer border, the Lake District is very thinly peopled; and from the economic point of view, the remarkable beauty of its scenery, attracting numerous residents and tourists, is the most valuable of its resources. The very heavy rainfall of the district, which is the wettest in England, has led to the utilization of Thirlmere as a reservoir for the water supply of Manchester, over 80 m. distant.

Pennine Region.—The Pennine Region, the centre of which forms the so-called Pennine Chain, occupies the country from the Eden valley to the North Sea in the north, and from the lower Tees, Yorkshire Ouse and Trent, nearly to the Irish Sea, in the south. It includes the whole of Northumberland and Durham, the West Riding of Yorkshire, most of Lancashire and Derbyshire, the north of Staffordshire and the west of Nottinghamshire. The region is entirely composed of Carboniferous rocks, the system which transcends all others in the value of its economic minerals. The coal and iron have made parts of the region the busiest manufacturing districts, and the centres of densest population, in the country, or even in the world. The whole region may be looked upon as formed by an arch or anticline of Carboniferous strata, the axis of which runs north and south; the centre has been worn away by erosion, so that the Coal Measures have been removed, and the underlying Millstone Grit and Carboniferous Limestone exposed to the influences which form scenery. On both sides of the arch, east and west, the Coal Measures remain intact, forming outcrops which disappear towards the sea under the more recent strata of Permian or Triassic age. The northern part of the western side of the anticline is broken off by a great fault in the valley of the Eden, and the scarp thus formed is rendered more abrupt by the presence of a sheet of intrusive basalt. Seen from the valley, this straight line of lofty heights, culminating in Crossfell, presents the nearest approach in England to the appearance of a mountain range. In the north the Pennine region is joined to the Southern Uplands of Scotland by the Cheviot Hills, a mass of granite and Old Red Sandstone; and the northern part is largely traversed by dykes of contemporary volcanic or intrusive rock. The most striking of these dykes is the Great Whin Sill, which crosses the country from a short distance south of Durham almost to the source of the Tees, near Crossfell. The elevated land is divided into three masses by depressions, which furnish ready means of communication between east and west. The South Tyne and Irthing valleys cut off the Cheviots on the north from the Crossfell section, which is also marked off on the south by the valleys of the Aire and Ribble from the Kinder Scout or Peak section. The numerous streams of the region carry off the rainfall down long valleys or dales to the east and the south, and by shorter and steeper valleys to the west. The dales are separated from each other by high uplands, which for the most part are heathery moorland or, at best, hill pastures. The agriculture of the region is confined to the bottoms of the dales, and is of small importance. Crossfell and the neighbouring hills are formed from masses of Carboniferous Limestone, which received its popular name of Mountain Limestone from this fact. Farther south, such summits as High Seat, Whernside, Bow Fell, Penyghent and many others, all over 2000 ft. in height, are capped by portions of the grits and sandstones, which rest upon the limestone. The belt of Millstone Grit south of the Aire, lying between the great coal-fields of the West Riding and Lancashire, has a lower elevation, and forms grassy uplands and dales; but farther south, the finest scenery of the whole region occurs in the limestones of Derbyshire, in which the range terminates. The rugged beauty of the south-running valleys, and especially of Dovedale, is enhanced by the rich woods which still clothe the slopes. There are remarkable features underground as well as on the surface, the caverns and subterranean streams of Yorkshire and Derbyshire being amongst the deepest that have yet been explored. Compared with the rugged and picturesque scenery of the Lower Carboniferous rocks, that of the Coal Measures is, as a rule, featureless and

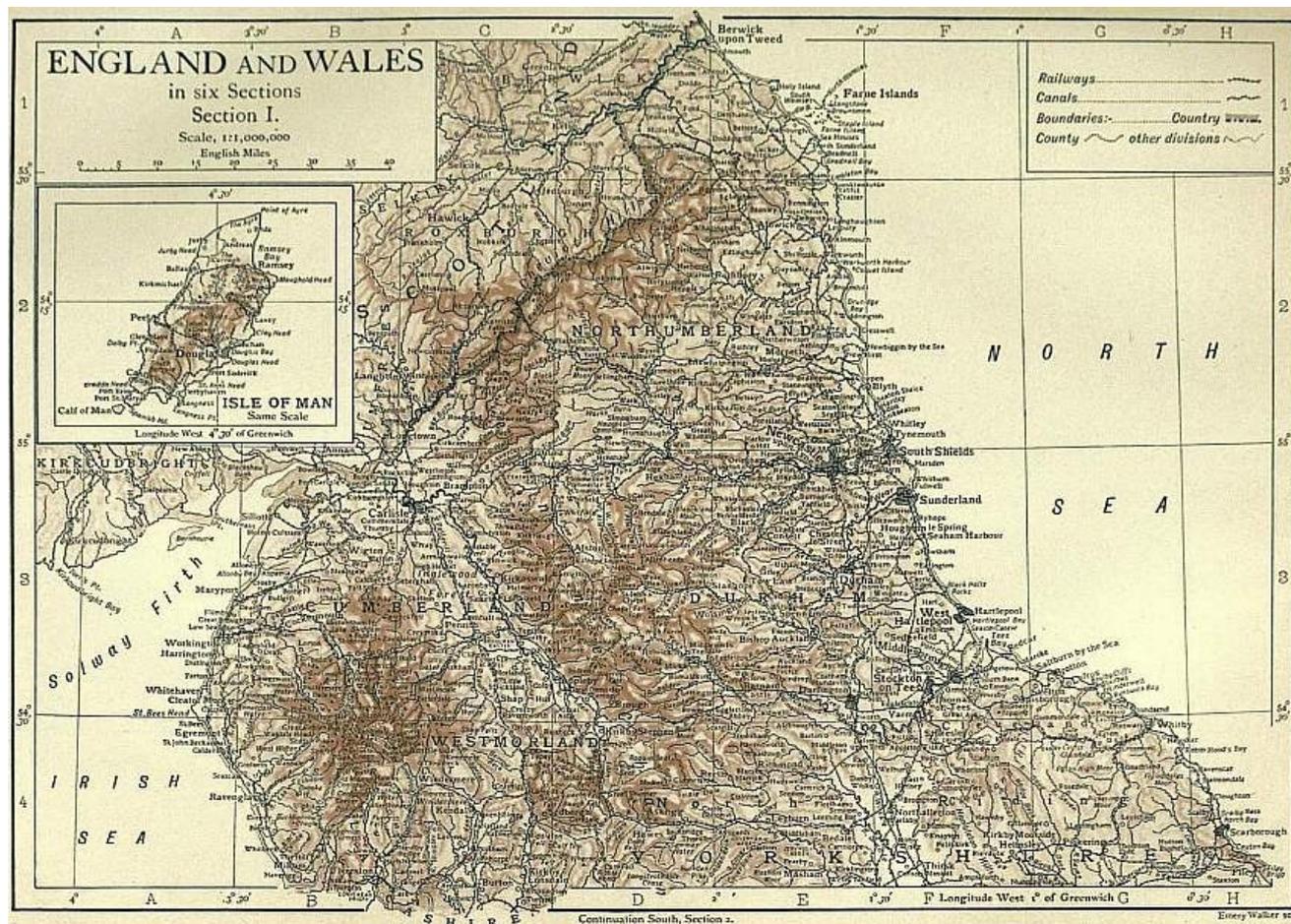
monotonous. The coal-fields on the eastern side, from the Tyne nearly to the Trent, are sharply marked off on the east by the outcrop of Permian dolomite or Magnesian limestone, which forms a low terrace dipping towards the east under more recent rocks, and in many places giving rise to an escarpment facing westward towards the gentle slope of the Pennine dales. To the west and south the Coal Measures dip gently under the New Red Sandstone, to reappear at several points through the Triassic plain. The clear water of the upland becks and the plentiful supply of water-power led to the founding of small paper-mills in remote valleys before the days of steam, and some of these primitive establishments still exist. The prosperity and great population of the Pennine region date from the discovery that pit-coal could smelt iron as well as charcoal; and this source of power once discovered, the people bred in the dales developed a remarkable genius for mechanical invention and commercial enterprise, which revolutionized the economic life of the world and changed England from an agricultural to an industrial country. The staple industry of the district in ancient times was sheep-rearing, and the villages in nearly all the dales carried on a small manufacture of woollen cloth. The introduction of cotton caused the woollen manufactures on the western side to be superseded by the working up of the imported raw material; but woollen manufactures, themselves carried on now almost entirely with imported raw material, have continued to employ the energies of the inhabitants of the east. Some quiet market-towns, such as Skipton and Keighley, remain, but most of them have developed by manufactures into great centres of population, lying, as a rule, at the junction of thickly peopled valleys, and separated from one another by the empty uplands. Such are Leeds, Bradford, Sheffield, Huddersfield and Halifax on the great and densely peopled West Riding coal-field, which lies on the eastern slope of the Pennines. The iron ores of the Coal Measures have given rise to great manufactures of steel, from cutlery to machinery and armour-plates. High on the barren crest of the Pennines, where the rocks yield no mineral wealth, except it be medicinal waters, Harrogate, Buxton and Matlock are types of health resorts, prosperous from their pure air and fine scenery. Across the moors, on the western side of the anticline, the vast and dense population of the Lancashire coal-field is crowded in the manufacturing towns surrounding the great commercial centre, Manchester, which itself stands on the edge of the Triassic plain. Ashton, Oldham, Rochdale, Bury, Bolton and Wigan form a nearly confluent semicircle of great towns, their prosperity founded on the underlying coal and iron, maintained by imported cotton. The Lancashire coal-field, and the portion of the bounding plain between it and the seaport of Liverpool, contain a population greater than that borne by any equal area in the country, the county of London and its surroundings not excepted. In the south-west of the Pennine region the coal-field of North Staffordshire supports the group of small but active towns known collectively from the staple of their trade as "The Potteries." On the north-east the great coal-field of Northumberland and Durham, traversed midway by the Tyne, supports the manufactures of Newcastle and its satellite towns, and leaves a great surplus for export from the Tyne ports.

Wales.—The low island of Anglesey, which is built up of the fundamental Archaean rocks, is important as a link in the main line of communication with Ireland, because it is separated from the mainland by a channel narrow enough to be bridged, and lies not far out of the straight line joining London and Dublin. The mainland of Wales rises into three main highlands, the mountain groups of North, Mid and South Wales, connected together by land over 1000 ft. in elevation in most places, but separated by valleys affording easy highways. The streams of the southern and western slopes are short and many, flowing directly to the Bristol Channel and the Irish Sea; but the no less numerous streams of the eastern slopes gather themselves into three river systems, and reach the sea as the Dee, the Severn and the Wye. The mountain group of *North Wales* is the largest and loftiest; its scenery resembles that of the Scottish Highlands because of the juxtaposition of ancient Palaeozoic rocks—Cambrian and Ordovician, often altered into slate—and contemporaneous volcanic outbursts and igneous intrusions. Here rises the peak of Snowdon (3560 ft.), the culminating point of South Britain, and near it half a dozen summits exceed 3000 ft., while Cader Idris, farther south, though slightly lower, presents a singularly imposing outline. The mild winter climate has fringed the coast with seaside resorts, the rugged heights attract tourists in summer, and the vast masses of slate have given rise to the largest slate quarries in the world. The heavy rainfall of the upper valleys unfits them for agriculture, and the farms are poor. There are several lakes: that of Bala being the largest, except the old lake of Vyrnwy, reconstituted artificially to store the rainfall for the water-supply of Liverpool, 68 m. distant. The Vyrnwy is tributary to the Severn; but north of it the streams gather into the Dee, and flow eventually northward. *Mid Wales* is built up, for the most part, of Silurian or Ordovician rocks, practically free from igneous intrusions except in the south-west. There the resistance of a series of igneous dykes gives prominence to the Pembroke peninsula, in which the fine fjord-like harbour of Milford Haven lies far out towards the Atlantic. The coast north of Pembroke and Merioneth has been worked into the grand sweep of Cardigan Bay, its surface carved into gently rounded hills, green with rich grass, which sweep downward into wide rounded valleys. Plinlimmon (2468 ft.) is the highest of the hills, and forms a sort of hydrographic

centre for the group, as from its eastern base the Severn and the Wye take their rise—the former describing a wide curve to east and south, the latter forming a chord to the arc in its southward course. Mid Wales is mainly a pastoral country, and very thinly peopled. A group of artificial lakes, one of them exceeded in area only by Windermere, has been formed in the valley of the Elan, a tributary of the Wye, for the supply of water to Birmingham. The group of heights of *South Wales*, running on the whole from west to east, marks the outcrops of the Old Red Sandstone and Carboniferous strata which lie within a vast syncline of the Silurian rocks. The Brecon Beacons of Old Red Sandstone are the highest (2907 ft.), but the Black Mountain bears a number of picturesque summits carved out of Millstone Grit and Carboniferous Limestone, which rise frequently over 2000 ft. Throughout Hereford, and in part of Monmouthshire, the Old Red Sandstone sinks to a great undulating plain, traversed by the exquisite windings of the Wye, and forming some of the richest pasture and fruit lands of England. This plain formed an easy passage from south to north, and since the time of the Romans was a strategical line of the greatest importance, a fact which has left its traces on the present distribution of towns. Around the western and northern edge of the Old Red Sandstone plain the underlying Silurian rocks (and even the Cambrian and Archaean in places) have been bent up so that their edges form hills of singular abruptness and beauty. Of these are the Malvern Hills, east of Hereford, and in particular the hills of Shropshire. Wenlock Edge, running from south-west to north-east, is an escarpment of Silurian limestone, while the broad upland of Long Mynd, nearly parallel to it on the north, is a mass of Archaean rock. The Wrekin, the Caradoc and Cardington Hills are isolated outbursts of pre-Cambrian volcanic rocks. The outer rim of the Welsh area contains a broken series of coal-fields, where patches of Carboniferous strata come to the surface on the edge of the New Red Sandstone plain. Such are the coal-fields of Flint in the north, the Forest of Wyre and the Forest of Dean, close to the Severn, on the east. The great coal-field on the south is a perfect example of a synclinal basin, the Millstone Grit and Carboniferous Limestone which underlie the Coal Measures appearing all round the margin. This coal-field occupies practically the whole of Glamorgan and part of Monmouth, and its surface slopes from the Black Mountain and Brecon Beacons to the sea as a gently inclined plateau, scored by deep valleys draining south. Each chief valley has a railway connecting a string of mining villages, and converging seaward to the busy ports of Newport, Cardiff and Barry (a town created on a sandy island by the excavation of a great dock to form an outlet for the mines). In the north of the field, where the limestone crops out and supplies the necessary flux, Merthyr Tydfil has become great through iron-smelting; and in the west Swansea is the chief centre in the world for copper and tin smelting. The unity and ruggedness of the highlands of Wales have proved sufficient to isolate the people from those of the rest of South Britain, and to preserve a purely Celtic race, still very largely of Celtic speech.

Cornwall and Devon.—The peninsula of Cornwall and Devon may be looked upon as formed from a synclinal trough of Devonian rocks, which appear as plateaus on the north and south, while the centre is occupied by Lower Carboniferous strata at a lower level. The northern coast, bordering the Bristol Channel, is steep, with picturesque cliffs and deep bays or short valleys running into the high land, each occupied by a little seaside town or village. The plateau culminates in the barren heathy upland of Exmoor, which slopes gently southward from a general elevation of 1600 ft., and is almost without inhabitants. The Carboniferous rocks of the centre form a soil which produces rich pasture under the heavy rainfall and remarkably mild and equable temperature, forming a great cattle-raising district. The Devonian strata on the south do not form such lofty elevations as those on the north, and are in consequence, like the plain of Hereford, very fertile and peculiarly adapted for fruit-growing and cider-making. The remarkable features of the scenery of South Devon and Cornwall are due to a narrow band of Archaean rock which appears in the south of the peninsulas terminating in Lizard Head and Start Point, and to huge masses of granite and other eruptive rocks which form a series of great bosses and dykes. The largest granite boss gives relief to the wild upland of Dartmoor, culminating in High Willhays and Yes Tor. The clay resulting from the weathering of the Dartmoor granite has formed marshes and peat bogs, and the desolation of the district has been emphasized by the establishment in its midst of a great convict prison, and in its northern portion of a range for artillery practice. The Tamar flows from north to south on the Devonian plain, which lies between Dartmoor on the east and the similar granitic boss of Bodmin Moor (where Brown Willy rises to 1345 ft.) on the west. There are several smaller granite bosses, of which the mass of Land's End is the most important. Most of the Lizard peninsula, the only part of England stretching south of 50° N., is a mass of serpentine. The great variety of the rocks which meet the sea along the south of Cornwall and Devon has led to the formation of a singularly picturesque coast—the headlands being carved from the hardest igneous rocks, the bays cut back in the softer Devonian strata. The fjord-like inlets of Falmouth, Plymouth and Dartmouth are splendid natural harbours, which would have developed great commercial ports but for their remoteness from the centres of commerce and manufactures. China clay from the decomposing granites; tin and copper ore, once abounding at the contacts between the

granite and the rocks it pierced, were the former staples of wealth, and the mining largely accounts for the exceptional density of population in Cornwall. Fishing has always been important, the numerous good harbours giving security to fishing-boats; and the fact that this coast is the mildest and almost the sunniest, though by no means the driest, part of Great Britain has led to the establishment of many health resorts, of which Torquay is the chief. The old Cornish language of the Celtic stock became extinct only in the 18th century, and the Cornish character remains as a heritage of the time when the land had leisure to mould the life and the habits of the man. Projecting farthest of all England into the Atlantic, it is not surprising that the West country has supplied a large proportion of the great naval commanders in British history, and of the crews of the navy.



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Between the separate uplands there extends a plain of Permian and Triassic rocks, which may conveniently be considered as an intermediate zone between the two main divisions. To

The midland plain.

the eye it forms an almost continuous plain with the belt of Lias clays, which is the outer border of the Eastern Division; for although a low escarpment marks the line of junction, and seems to influence the direction of the main rivers, there is only one plain so far as regards free movement over its surface and the construction of canals, roads and railways. The plain usually forms a distinct border along the landward margins of the uplands of more ancient rock, though to the east of the Cornwall-Devon peninsula it is not very clear, and its continuity in other places is broken by inliers of the more ancient rocks, which everywhere underlie it. One such outcrop of Carboniferous Limestone in the south forms the Mendip Hills; another of the Coal Measures increases the importance of Bristol, where it stands at the head of navigation on the southern Avon. In the north-west a tongue of the Red rocks forms the Eden valley, separating the Lake District from the Pennine Chain, with Carlisle as its central town. Farther south, these rocks form the low coastal belt of Lancashire, edged with the longest stretches of blown sand in England, and dotted here and there with pleasure towns, like Blackpool and Southport. The plain sweeps round south of the Lancashire coal-field, forms the valley of the Mersey from Stockport to the sea, and farther south in Cheshire the salt-bearing beds of the Keuper marls give rise to a characteristic industry. The plain extends through Staffordshire and Worcester, forming the lower valley of the Severn. The greater part of Manchester, all Liverpool and Birkenhead, and innumerable busy towns of medium size, which in other parts of England would rank as great centres of population, stand on this soil. Its flat surface and low level facilitate the construction of

railways and canals, which form a closer network over it than in other parts of the country. The great junction of Crewe, where railways from south-east, south-west, east, west and north converge, is thus explained. South of the Pennines, the Red rocks extend eastward in a great sweep through the south of Derbyshire, Warwick, the west of Leicestershire, and the east of Nottingham, their margin being approximately marked by the Avon, flowing south-west, and the Soar and Trent, flowing north-east. South and east of these streams the very similar country is on the Lias clay. Several small coal-fields rise through the Red rocks—the largest, between Stafford and Birmingham, forms the famous “Black Country,” with Wolverhampton and Dudley as centres, where the manufacture of iron has preserved a historic continuity, for the great Forest of Arden supplied charcoal until the new fuel from the pits took its place. This coal-field, ministering to the multifarious metal manufactures of Birmingham, constitutes the centre of the Midlands. Smaller patches of the Coal Measures appear near Tamworth and Burton, while deep shafts have been sunk in many places through the overlying Triassic strata to the coal below, thus extending the mining and manufacturing area beyond the actual outcrop of the Coal Measures. A few small outcrops occur where still more ancient strata have been raised to the surface, as, for instance, in Charnwood Forest, where the Archaean rocks, with intrusions of granite, create a patch of highland scenery in the very heart of the English plain; and in the Lickey Hills, near Birmingham, where the prominent features are due to volcanic rocks of very ancient date. The “Waterstones,” or Lower Keuper Sandstones,—forming gentle elevations above the softer marls, and usually charged with an abundant supply of water, which can be reached by wells,—form the site of many towns, such as Birmingham, Warwick and Lichfield, and of very numerous villages. The plain as a whole is fertile and undulating, rich in woods and richer in pasture: the very heart of rural England. Cattle-grazing is the chief farm industry in the west, sheep and horse-rearing in the east; the prevalence of the prefix “Market” in the names of the rural towns is noticeable in this respect. The manufacture of woollen and leather goods is a natural result of the raising of live stock; Leicester, Coventry and Nottingham are manufacturing towns of the region. The historic castles, the sites of ancient battles, and the innumerable mansions of the wealthy, combine to give to central England a certain aesthetic interest which the more purely manufacturing districts of the west and north fail to inspire. The midland plain curves northward between the outcrop of the Dolomite on the west and the Oolitic heights on the east. It sinks lowest where the estuary of the Humber gathers in its main tributaries, and the greater part of the surface is covered with recent alluvial deposits. The Trent runs north in the southern half of this plain, the Ouse runs south through the northern half, which is known as the Vale of York, lying low between the Pennine heights on the west and the Yorkshire moors on the east. Where the plain reaches the sea, the soft rocks are cut back into the estuary of the Tees, and there Middlesbrough stands at the base of the Moors. The quiet beauty of the rural country in the south, where the barren Bunter pebble-beds have never invited agriculture, and where considerable vestiges of the old woodland still remain in and near Sherwood Forest, has attracted so many seats of the landed aristocracy as to earn for that part the familiar name of “the Dukeries.” The central position of York in the north made it the capital of Roman Britain in ancient times, and an important railway junction in our own.

Five natural regions may be distinguished in the Eastern Division of England, by no means so sharply marked off as those of the west, but nevertheless quite clearly characterized. The first is the Jurassic Belt, sweeping along the border of the Triassic plain from the south coast at the mouth of the Exe to the east coast at the mouth of the Tees. This is closely followed on the south-east by the Chalk country, occupying the whole of the rest of England except where the Tertiary Basins of London and Hampshire cover it, where the depression of the Fenland carries it out of sight, and where the lower rocks of the Weald break through it. Thus the Chalk appears to run in four diverging fingers from the centre or palm on Salisbury Plain, other formations lying wedge-like between them. Various lines of reasoning unite in proving that the Mesozoic rocks of the south rest upon a mass of Palaeozoic rocks, which lies at no very great depth beneath the surface of the anticlinal axis running from the Bristol Channel to the Strait of Dover. The theoretical conclusion has been confirmed by the discovery of Coal Measures, with workable coal seams, at Dover at a depth of 2000 ft. below the surface.

The Eastern Division is built up of parallel strata, the edges of the harder rocks forming escarpments, the sheets of clay forming plains; and on this account similar features are repeated in each of the successive geological formations. The rivers exhibit a remarkably close relation to the geological structure, and thus contrast with the rivers of the Western Division. There are two main classes of river-course—those flowing down the dip-slopes at right angles to the strike, and cutting through opposed escarpments by deep valleys, and those following the line of strike along a bed of easily eroded rock. A third class of streams, tributary to the second, flows down the steep face of the escarpments. By the study of the adjustment of these rivers to their valleys, and of the relation of the valleys to the general

The eastern division.

structure, Professor W. M. Davis has elaborated a theory of river classification, and a scheme of the origin of surface-features which is attractive in its simplicity. The Thames is the one great river of the division, rising on the Jurassic Belt, crossing the Chalk country, and finishing its course in the Tertiary London Basin, towards which, in its prevailing west-to-east direction, it draws its tributaries from north and south. The other rivers are shorter, and flow either to the North Sea on the east, or to the English Channel on the south. With the exception of the Humber, they all rise and pursue their whole course within the limits of the Eastern Division itself.

The Eastern Division is the richest part of England agriculturally, it is the part most accessible to trade with the Continent, and that least adapted for providing refuges for small bodies of men in conflict with powerful invaders. Hence the latest of the conquerors, the Saxon and other Germanic tribes, obtained an easy mastery, and spread over the whole country, holding their own against marauding Northmen, except on the northern part of the east coast; and even after the political conquest by the Normans, continuing to form the great mass of the population, though influenced not a little by the fresh blood and new ideas they had assimilated. The present population is so distributed as to show remarkable dependence on the physical features. The chalk and limestone plateaus are usually almost without inhabitants, and the villages of these districts occur grouped together in long strings, either in drift-floored valleys in the calcareous plateaus, or along the exposure of some favoured stratum at their base. In almost every case the plain along the foot of an escarpment bears a line of villages and small towns, and on a good map of density of population the lines of the geological map may be readily discerned.

The Jurassic Belt.—The Jurassic belt is occupied by the counties of Gloucester, Oxford, Buckingham, Bedford, Northampton, Huntingdon, Rutland, Lincoln and the North Riding of Yorkshire. The rocks of the belt may be divided into two main groups: the Lias beds, which come next to the Triassic plain, and the Oolitic beds. Each group is made up of an alternation of soft marls or clays and hard limestones or sandstones. The low escarpments of the harder beds of the Lias are the real, though often scarcely perceptible, boundary between the Triassic plain and the Jurassic belt. They run along the right bank of the Trent in its northward course to the Humber, and similarly direct the course of the Avon southward to the Severn. The great feature of the region is the long line of the Oolitic escarpment, formed in different places by the edges of different beds of rock. The escarpment runs north from Portland Island on the English Channel, curves north-eastward as the Cotteswold Hills, rising abruptly from the Severn plain to heights of over 1000 ft.; it sinks to insignificance in the Midland counties, is again clearly marked in Lincolnshire, and rises in the North Yorkshire moors to its maximum height of over 1500 ft. Steep towards the west, where it overlooks the low Lias plain as the Oolitic escarpment, the land falls very gently in slopes of Oxford Clay towards the Cretaceous escarpments on the south and east. Throughout its whole extent it yields valuable building-stone, and in the Yorkshire moors the great abundance of iron ore has created the prosperity of Middlesbrough, on the plain below. The Lias plain is rich grazing country, the Oxford Clay forms valuable agricultural land, yielding heavy crops of wheat. The towns of the belt are comparatively small, not one attains a population of 75,000, and the favourite site is on the Lias plain below the great escarpment. They are for the most part typical rural market-towns, the manufactures, where such exist, being usually of agricultural machinery, or woollen and leather goods. Bath, Gloucester, Oxford, Northampton, Bedford, Rugby, Lincoln and Scarborough are amongst the chief. North of the gap in the low escarpment in which the town of Lincoln centres, a close fringe of villages borders the escarpment on the west; and throughout the belt the alternations of clay and hard rock are reflected in the grouping of population.

The Chalk Country.—The dominating surface-feature formed by the Cretaceous rocks is the Chalk escarpment, the northern edge of the great sheet of chalk that once spread continuously over the whole south-east. It appears as a series of rounded hills of no great elevation, running in a curve from the mouth of the Axe to Flamborough Head, roughly parallel with the Oolitic escarpment. Successive portions of this line of heights are known as the Western Downs, the White Horse Hills, the Chiltern Hills, the East Anglian Ridge, the Lincolnshire Wolds and the Yorkshire Wolds. The rivers from the gentle southern slopes of the Oolitic heights pass by deep valleys through the Chalk escarpments, and flow on to the Tertiary plains within. The typical scenery of the Chalk country is unrelieved by small streams of running water; the hills rise into rounded downs, often capped with fine clumps of beech, and usually covered with thin turf, affording pasture for sheep. The chalk, when exposed on the surface, is an excellent foundation for roads, and the lines of many of the Roman "streets" were probably determined by this fact. The Chalk country extends over part of Dorset, most of Wiltshire, a considerable portion of Hampshire and Oxfordshire, most of Hertfordshire and Cambridgeshire, the west of Norfolk and Suffolk, the east of Lincolnshire, and the East Riding of Yorkshire. From the upland of Salisbury Plain, which corresponds to the axis of the anticline marking the centre of the double fold into which the strata of the

south of England have been thrown, the great Chalk escarpment runs north-eastward; fingers of Chalk run eastward one each side of the Weald, forming the North and South Downs, while the southern edge of the Chalk sheet appears from beneath the Tertiary strata at several places on the south coast, and especially in the Isle of Wight. Flamborough Head, the South Foreland, Beachy Head and the Needles are examples of the fine scenery into which chalk weathers where it fronts the sea, and these white cliffs gave to the island its early name of Albion. The Chalk is everywhere very thinly peopled, except where it is thickly covered with boulder clay, and so becomes fertile, or where it is scored by drift-filled valleys, in which the small towns and villages are dotted along the high roads. The thickest covering of drift is found in the Holderness district of Yorkshire, where, from the chalk cliffs of Flamborough Head to the sandspit of Spurn Point, the whole coast is formed of boulder-clay resting on chalk. Of the few towns in the Chalk country, the interest of which is largely historical or scholastic, Salisbury, Winchester, Marlborough and Cambridge are the most distinguished. Reading flourishes from its position on the edge of the London Tertiary Basin, Croydon is a suburb of London, and Hull, though on the Chalk, derives its importance from the Humber estuary, which cuts through the Chalk and the Jurassic belts, to drain the Triassic plain and the Pennine region. The narrow strip of Greensands appearing from beneath the Chalk escarpment on its northern side is crowded with small towns and villages on account of the plentiful water-supply. The distinction between the low grounds of the Jurassic belt and the Chalk country is not always very apparent on the surface, and from the historic point of view it is important to recognize the individuality of the Eastern plain which extends from the Vale of York across the Humber and the Wash into Essex. The Eastern plain thus includes a portion of the Triassic plain in the north, a portion of the Jurassic and Chalk belts in the middle, and a portion of the Tertiary plain of the London Basin in the south.

The Fenland.—The continuity of the belts of Chalk and of the Middle and Upper Oolites in the Eastern Plain is broken by the shallow depression of the Wash and the Fenland. The Fenland comprises a strip of Norfolk, a considerable part of Cambridgeshire, and the Holland district of Lincoln. Formerly a great inlet with vague borders of lagoons and marshes, the Fenland has been reclaimed partly by natural processes, partly by engineering works patiently continued for centuries. The whole district is flat and low, for the most part within 15 ft. of sea-level; the seaward edge in many places is below the level of high tide, and is protected by dykes as in Holland, while straight canals and ditches carry the sluggish drainage from the land. The soil is composed for the most part of silt and peat. A few small elevations of gravel, or of underlying formations, rise above the level of 25 ft.; these were in former times islands, and now they form the sites of the infrequent villages. Boston and King's Lynn are memorials of the maritime importance of the Wash in the days of small ships. The numerous ancient churches and the cathedrals of Ely and Peterborough bear witness to the share taken by religious communities in the reclamation and cultivation of the land.

The Weald.—The dissection of the great east and west anticline in the south-east of England has resulted in a remarkable piece of country, occupying the east of Hampshire and practically the whole of Sussex, Surrey and Kent, in which each geological stratum produces its own type of scenery, and exercises its own specific influence on every natural distribution. The sheet of Chalk shows its cut edges in the escarpments facing the centre of the Weald, and surrounding it in an oval ring, the eastern end of which is broken by the Strait of Dover, so that its completion must be sought in France. From the crest of the escarpment, all round on south, west and north, the dip-slope of the Chalk forms a gentle descent outwards, the escarpment a very steep slope inwards. The cut edges of the escarpment forming the Hog's Back and North Downs on the north, and the South Downs on the south, meet the sea in the fine promontories of the South Foreland and Beachy Head. The Downs are almost without population, waterless and grass-covered, with patches of beech wood. Their only important towns are on the coast, *e.g.* Brighton, Eastbourne, Dover, Chatham, or in the gaps where rivers from the centre pierce the Chalk ring, as at Guildford, Rochester, Canterbury, Lewes and Arundel. Within the Chalk ring, and at the base of the steep escarpment, there is a low terrace of the Upper Greensand, seldom so much as a mile in width, but in most places crowded with villages scarcely more than a mile apart, and ranged like beads on a necklace. Within the Upper Greensand an equally narrow ring of Gault is exposed, its stiff clay forming level plains of grazing pasture, without villages, and with few farmhouses even; and from beneath it the successive beds of the Lower Greensand rise towards the centre, forming a wider belt, and reaching a considerable height before breaking off in a fine escarpment, the crest of which is in several points higher than the outer ring of Chalk. Leith Hill and Hindhead are parts of this edge in the west, where the exposure is widest. Several towns have originated in the gaps of the Lower Greensand escarpment which are continuous with those through the Chalk: such are Dorking, Reigate, Maidstone and Ashford. Folkestone and Pevensey stand where the two ends of the broken

ring meet the sea. It is largely a region of oak and pine trees, in contrast to the beech of the Chalk Downs. The Lower Greensand escarpment looks inwards in its turn over the wide plain of Weald Clay, along which the Medway flows in the north, and which forms a fertile soil, well cultivated, and particularly rich in hops and wheat. The primitive forests have been largely cleared, the primitive marshes have all been drained, and now the Weald Clay district is fairly well peopled and sprinkled with villages. From the middle of this plain the core of Lower Cretaceous sandstones known as the Hastings Beds emerges steeply, and reaches in the centre an elevation of 796 ft. at Crowborough Beacon. It is on the whole a region with few streams, and a considerable portion of the ancient woodland still remains in Ashdown Forest. The greater part of the Forest Ridges is almost without inhabitants. Towns are found only round the edge bordering the Weald Clay, such as Tonbridge, Tunbridge Wells and Horsham; and along the line where it is cut off by the sea, *e.g.* Hastings and St Leonards. The broad low tongue of Romney Marsh running out to Dungeness is a product of shore-building by the Channel tides, attached to the Wealden area, but not essentially part of it.

The London Basin.—The London Basin occupies a triangular depression in the Chalk which is filled up with clays and gravels of Tertiary and later age. It extends from the eastern extremity of Wiltshire in a widening triangle to the sea, which it meets along an irregular line from Deal to Cromer. It thus occupies parts of Wiltshire, Hampshire, Surrey, Kent, Berkshire, Hertfordshire, the whole of Middlesex, the county of London and Essex, and the eastern edge of Suffolk and Norfolk. The scenery is quiet in its character, but the gravel hills are often prominent features, as at Harrow and in the northern suburbs of London; the country is now mainly under grass or occupied with market and nursery gardens, and many parts, of which Epping Forest is a fine example, are still densely wooded, the oak being the prevailing tree. The coast is everywhere low and deeply indented by ragged and shallow estuaries, that of the Thames being the largest. Shallow lagoons formed along the lower courses of the rivers of Norfolk have given to that part of the country the name of the Broads, a district of low and nearly level land. Apart from the huge area of urban and suburban London, the London Basin has few large towns. Norwich and Ipswich, Yarmouth, Lowestoft, Harwich and Colchester may be mentioned in the north-eastern part, all depending for their prosperity on agriculture or on the sea; and a fringe of summer resorts on the low coast has arisen on account of the bracing climate. Reading and Windsor lie in the western portion, beyond the suburban sphere of London. The Bagshot Beds in the west form infertile tracts of sandy soil, covered with heath and pine, where space is available for the great camps and military training-grounds round Aldershot, and for the extensive cemeteries at Woking. The London Clay in the east is more fertile and crowded with villages, while the East Anglian portion of the basin consists of the more recent Pliocene sands and gravels, which mix with the boulder clay to form the best wheat-growing soil in the country.

The Hampshire Basin.—The Hampshire Basin forms a triangle with Dorchester, Salisbury and Worthing near the angles, and the rim of Chalk to the south appears in broken fragments in the Isle of Purbeck, the Isle of Wight, and to the east of Bognor. On the infertile Bagshot Beds the large area of the New Forest remains untilled under its ancient oaks. The London Clay of the east is more fertile, but the greatness of this district lies in its coast-line, which is deeply indented, like that of the London Basin. Southampton and Portsmouth have gained importance through their fine natural harbours, improved by engineering works and fortifications; Bournemouth and Bognor, from their favourable position in the sunniest belt of the country, as health resorts.

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Communications.—The configuration of England, while sufficiently pronounced to allow of the division of the country into natural regions, is not strongly enough marked to exercise any very great influence upon lines of communication. The navigable rivers are all connected by barge-canal, even across the Pennine Chain. Although the waterways are much neglected, compared with those of France or of Germany, they might still be very useful if they were enlarged and improved and if free competition with railways could be secured. The main roads laid out as arteries of intercommunication by the Romans, suffered to fall into neglect, and revived in the coaching days of the beginning of the 19th century, fell into a second period of comparative neglect when the railway system was completed; but they have recovered a very large share of their old importance in consequence of the development of motor-traffic. Following the Roman roads, the high roads of the Eastern Division very frequently run along the crests of ridges or escarpments; but in the Western Division they are, as a rule, forced by the more commanding relief of the country to keep to the river valleys and cross the rougher districts through the dales and passes. The railways themselves, radiating from the great centres of population, and especially from London, are only in a few instances much affected by configuration. The Pennine Chain has always separated the traffic from south to north into an east coast route through the Vale of York, and a west coast route by the Lancashire plain. The Midland railway, running through the high and rugged country between the two, was the last to be constructed. The most notable

bridges over navigable water affording continuous routes are those across Menai Strait, the Tyne at Newcastle, the Severn at Severn Bridge and the Manchester Ship Canal. It is more usual to tunnel under such channels, and the numerous Thames tunnels, the Mersey tunnel between Liverpool and Birkenhead, and the Severn tunnel, the longest in the British Islands (4½ m.), on the routes from London to South Wales, and from Bristol to the north of England, are all important. The Humber estuary is neither bridged nor tunnelled below Goole.

Density of Population.—The present distribution of population over England and Wales shows a dense concentration at all large seaports, in the neighbourhood of London, and on the coal-fields where manufactures are carried on. Agricultural areas are very thinly peopled; purely pastoral districts can hardly be said to have any settled population at all. There are very few dwellings situated at a higher level than 1000 ft., and on the lower ground the Chalk and the Oolitic limestones, where they crop out on the surface, are extremely thinly peopled, and so as a rule are areas of alluvial deposits and the Tertiary sands. But, on the other hand, the broad clay plains of all formations, the Cretaceous sandstones, and the Triassic plain, are peopled more densely than any other district without mineral wealth or sea trade.

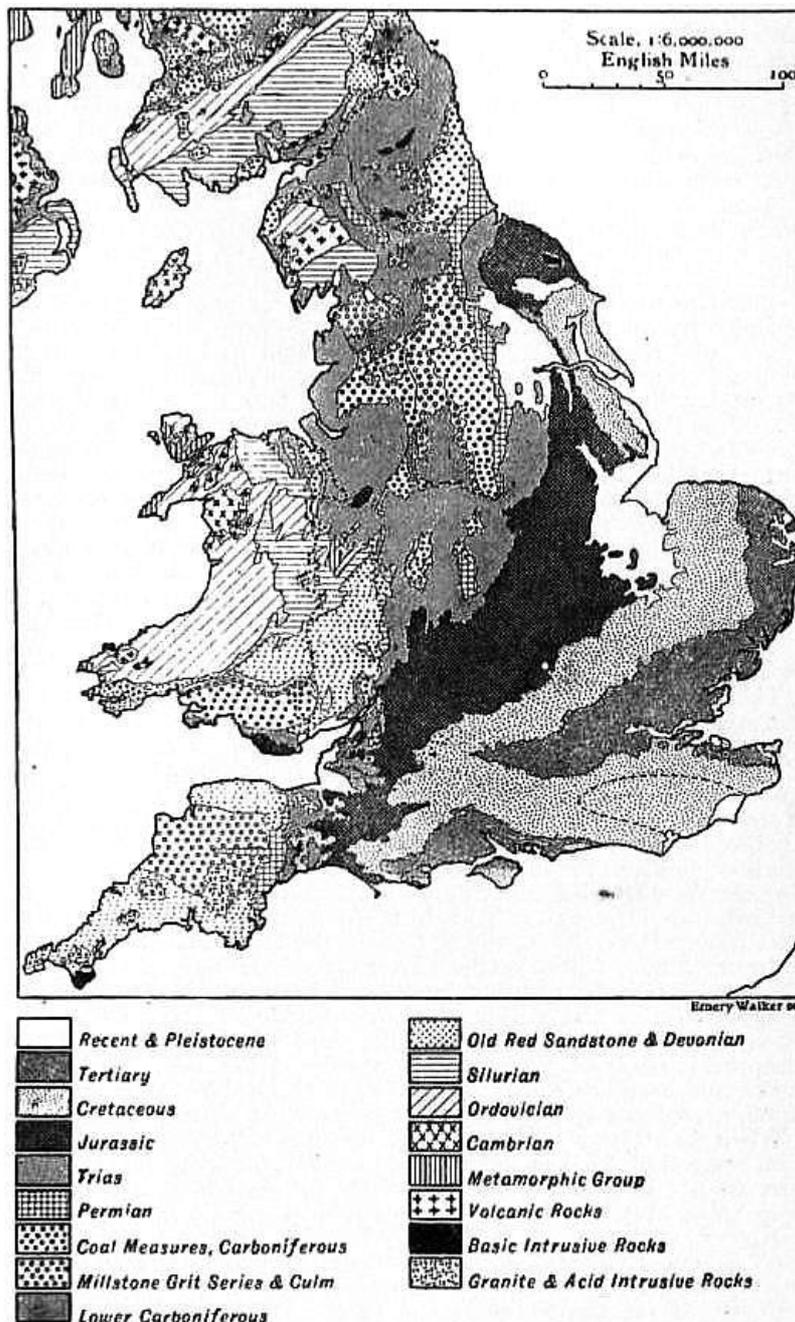
Political Divisions.—In the partition of England and Wales into counties, physical features play but a small part. The forty ancient counties, remnants of various historical groupings and partings, are occasionally bounded by rivers. Thus the Thames divides counties along nearly its whole length, forming the southern boundary of four and the northern boundary of three. Essex and Suffolk, Suffolk and Norfolk, Cornwall and Devon, Durham and Yorkshire, Lancashire and Cheshire, are all separated by rivers, while rivers form some part of the boundaries of almost every county. Still, it is noteworthy that the Severn and Trent nowhere form continuous county boundaries. Watersheds are rarely used as boundaries for any distance; but, although slightly overlapping the watershed on all sides, Yorkshire is very nearly coincident with the basin of the Ouse. The boundaries of the parishes, the fundamental units of English political geography, are very often either rivers or watersheds, and they frequently show a close relation to the strike of the geological strata. The hundreds, or groups of parishes, necessarily share their boundaries, and groups of hundreds are often aggregated to form larger subdivisions of counties. A wider grouping according to natural characteristics may now be recognized only in the cases of Wales, East Anglia, Wessex and such less definite groups as the Home Counties around London or the Midlands around Birmingham. Configuration is only one out of many conditions modifying distributions, and its effects on England as a whole appear to be suggestive rather than determinative.

(H. R. M.)

III. GEOLOGY

For an area so small, England is peculiarly rich in geological interest. This is due in some degree to the energy of the early British geologists, whose work profoundly influenced all subsequent thought in the science, as may be seen by the general acceptance of so many of the English stratigraphical terms; but the natural conditions were such as to call forth and to stimulate this energy in an unusual way. Almost every one of the principal geological formations may be studied in England with comparative ease.

If we lay aside for the moment all the minor irregularities, we find, upon examination of a geological map of England, two structural features of outstanding importance. (1) The first is the great anticline of the Pennine Hills which dominates the northern half of England from the Scottish border to Derby. Its central core of Lower Carboniferous rock is broadly displayed towards the north, while southward it contracts; on either side lie the younger rocks, the coal-fields, the Permian strata and the Triassic formations, the last-named, while sweeping round the southern extremity of the Carboniferous axis of the uplift from its eastern and western flanks, spread out in a large sheet over the midland counties. (2) The second striking feature is the regular succession of Jurassic and Cretaceous rocks which crop out in almost unbroken lines from the coast of Dorsetshire, whither they appear to converge, to the Cleveland Hills and the Yorkshire coast. Lying upon the Cretaceous rocks in the S.E. of England are the two Tertiary basins of London and Hampshire, separated by the dissected anticline of the Weald.



The older rocks in England occupy relatively small areas. Pre-Cambrian rocks are represented by the gneisses of Primrose Hill and schists of Rushton in Shropshire; by the gneisses forming the core of the Malvern Hills, and by the ancient volcanic and other rocks of the Wrekin, Charnwood Forest and Nuneaton. The slates of the Long Mynd, on the Shropshire border, belong to this system. Cambrian strata appear in Shropshire in the form of sandstones and quartzites; in the Malvern Hills they are black shales, while in the Lake District they are represented by the Skiddaw slates. Next in point of age comes the Ordovician system, which is well developed upon the Shropshire border and in the Lake District. In the same two areas we find the Silurian rocks, shales and limestones with grits and flags. In N. and S. Devon are the Devonian limestones, grits and shales; the corresponding Old Red Sandstone type of the system (marls and sandstones) being exposed over a large part of Herefordshire, stretching also into Shropshire and Monmouth. Next in order of succession comes the Carboniferous system, with shales and limestones in the lower members, grits, sandstones and shales—the Millstone Grit series—in the middle of the system, followed by the Coal Measures—a great series of shales with coal, sandstones and ironstone at the top. This important system occupies a large area in England. The limestones and shales are well exposed in Derbyshire, Yorkshire, Northumberland, the Mendip Hills and at Clifton. The Millstone Grit series is prominent in Lancashire, Derbyshire, N. Staffordshire, Yorkshire and in the Forest of Dean. The Coal Measures rest upon the Millstone Grits in most places, generally in synclinal basins. On the eastern side of the Pennine range are the conterminous coal-fields of Yorkshire, Derbyshire and Nottinghamshire, and the coal-field of Durham and Northumberland; on the western side are the Whitehaven, Burnley, S. Lancashire and N. Staffordshire coal-fields. Farther south are the S. Staffordshire,

Warwickshire, Coalbrook Dale, Forest of Wyre, Forest of Dean and Bristol and Somerset coal-fields; while much concealed coal lies under younger formations in the south-east of England, as has been proved at Dover. A large part of N. Devon is occupied by the Culm shales, limestones and grits of Carboniferous age. The principal development of Permian rocks is the narrow strip which extends from Nottingham to Tynemouth; here the Magnesian limestone is the characteristic feature. On the other side of the Pennine Hills we find the Penrith sandstone of the Vale of Eden and the Brockram beds of the Lake District. Red sandstones and conglomerates of this age constitute some of the red rocks which form the picturesque scenery about Dawlish and Teignmouth.

The Triassic rocks, red sandstones, marls and conglomerates cover a broad area in the Midlands in Worcestershire, Warwickshire and Leicestershire, whence they may be followed south-westward through Somerset to the coast at Sidmouth, and northward, round either flank of the Pennine Hills, through Nottinghamshire and Yorkshire to Middlesbrough on the one hand, and upon the other through Staffordshire, Cheshire and Lancashire to Carlisle.

The outcrop of the Lias, mainly clay with thin limestones and ironstones, runs in an almost continuous band across the country from Lyme Regis, through Bath, Cheltenham, near Leicester, and Lincoln to Redcar in Yorkshire. Closely following the same line are the alternating clays and limestones of the Oolitic series. Next in order come the Greensands and Gault, which lie at the base of the Chalk escarpment, between that formation and the Oolites. The Chalk occupies all the remaining portion of the south-east of England, save the Wealden area, and extends northward as far as Flamborough in Yorkshire, forming the Yorkshire Wolds, the Lincolnshire Wolds, the Chiltern Hills, the N. and S. Downs, the Dorsetshire heights and Salisbury Plain. But in the eastern and southern counties the Chalk is covered by younger deposits of Tertiary age; the Pliocene Crags of Norfolk and Suffolk, the Lower London Tertiaries (London Clay, Woolwich and Reading Beds, &c.) of the London Basin comprising parts of Essex, Hertfordshire, Middlesex, Bucks and Berks, and northern Kent. Again, in the Hampshire Basin and Isle of Wight, Eocene and Oligocene formations rest upon the Chalk.

When we attempt to decipher the physical history of the country from the complicated record afforded by the stratigraphical palimpsest, we are checked at the outset by the dearth of information from being able to picture the geographical condition in the older Palaeozoic periods. All we can say is, that in those remote times what is now England had no existence; its site was occupied by seas which were tenanted by marine invertebrates, long since extinct. As for the boundaries of these ancient seas, we can say nothing with certainty, but it is of interest to note the evidence we possess of still older land conditions, such as we have in the old rocks of Shropshire, &c. In the Devonian period it is clear that an elevatory movement had set in towards the north, which gave rise to the formation of inland lakes and narrow estuaries in which the Old Red Sandstone rocks were formed, while in the south of England lay the sea with a vigorous coral fauna. This condition led up to the Carboniferous period, which began with fairly open sea over the south and north of England, but in the centre there rose an elevated land mass from which much of the Millstone Grit was derived; other land lay towards the north. Slowly this sea shallowed, giving rise to the alternating estuarine marine and freshwater deposits of the Coal Measures. Continual elevation of the land brought about the close of the coal-forming period and great changes ensued. Desert conditions, with confined inland seas, marked the Permian and Triassic periods. It was about this time that the Pennine Hills, the Lake District mountain mass, and the Mendip Hills were being most vigorously uplifted, while the granite masses of Cornwall and Devon were perhaps being injected into the Carboniferous and Devonian rocks. From this period, more or less of the Pennine ridge has always remained above the sea, along with much of Cornwall and parts of Devonshire.

In early Jurassic times the sea probably again occupied most of England with the exception of the above-mentioned areas, the Lake District and eastern part of the London Basin; Wales, too, and much of Scotland were land. Elevation gradually caused more land to appear in later Jurassic and early Cretaceous times when a river system, now entirely obliterated, drained into the Purbeck estuary and Wealden lake; but a subsequent depression led to the wide extension of the Chalk sea. By the beginning of the Eocene period we find the sea limited to the S.E. of England, where the London Clay, &c., were being laid down. It was not until quite late in Tertiary time that these islands began to assume anything like their present form. In the earlier part of the Pleistocene period, England and Ireland were still incompletely severed, and the combined activity of certain extinct rivers and the sea had not yet cut through the land connexion with the continent. The last well-marked lowering of the land took place in the Pleistocene period, when it was accompanied by glacial conditions, through which the greater part of northern England and the Midlands was covered by ice; a state of things which led directly and indirectly to the deposition of those extensive boulder clays, sands and gravels which obscure so much of the older surface of the country in all but

the southern counties.

Throughout the whole period of its geological history, volcanic activity has found expression with varying degrees of intensity along what is now the western side of the island, with the exception that in the Mesozoic era this activity was in abeyance. We may note the pre-Cambrian lavas and tuffs of the Wrekin district in Shropshire and the somewhat later volcanic rocks of Charnwood; the porphyrites, andesites, tuffs and rhyolites of the Borrowdale volcanic centre, erupted in the Ordovician period, and the Silurian granites of the same region. The volcanic outbursts which followed became feebler in the Devonian and Carboniferous periods and ceased with the Permian. When again the volcanic forces became active, it was in the early Tertiary era; the evidences for this lie outside the English border.

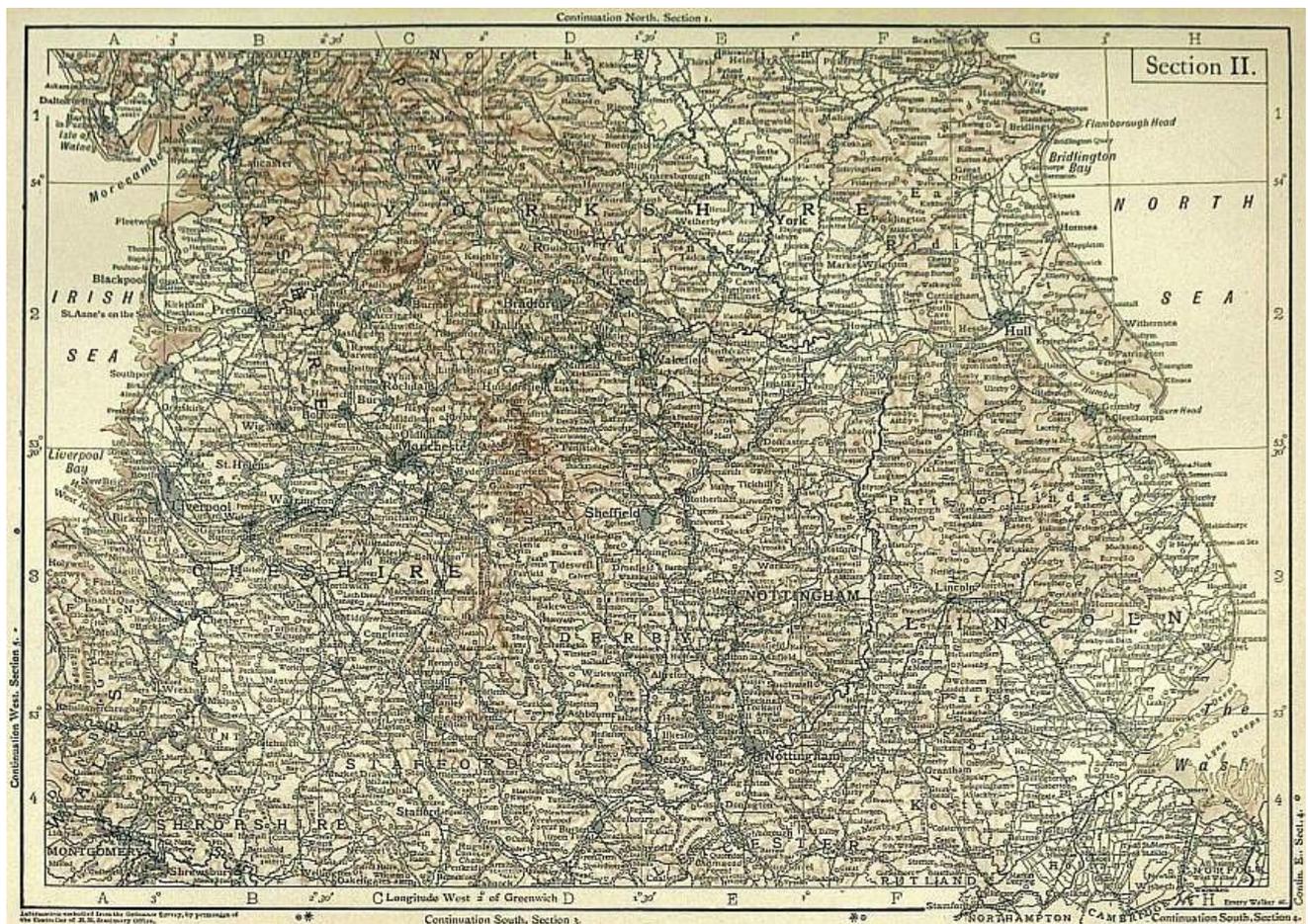
The principal directions of crust movement in England are: (1) north and south, by which the Pennine folds and faults, and the Malvern Hills have been produced; (2) east and west, by which the folds of the Weald and the Mendip Hills, and those of Devonshire have been formed. Another less important direction is N.W. and S.E., as in the Charnwood folding.

Further details of the geology are given under the heads of the counties.

(J. A. H.)

IV. CLIMATE

Temperature.—The mean annual temperature of the whole of England and Wales (reduced to sea-level) is about 50° F., varying from something over 52° in the Scilly Isles to something under 48° at the mouth of the Tweed. The mean annual temperature diminishes very regularly from south-west to north-east, the west coast being warmer than the east, so that the mean temperature at the mouth of the Mersey is as high as that at the mouth of the Thames. During the coldest month of the year (January) the mean temperature of all England is about 40°. The influence of the western ocean is very strongly marked, the temperature falling steadily from west to east. Thus while the temperature in the west of Cornwall is 44°, the temperature on the east coast from north of the Humber to the Thames is under 38°, the coldest winters being experienced in the Fenland. In the hottest month (July) the mean temperature of England and Wales is about 61.5°, and the westerly wind then exercises a cooling effect, the greatest heat being found in the Thames basin immediately around London, where the mean temperature of the month exceeds 64°; the mean temperature along the south coast is 62°, and that at the mouth of the Tweed a little under 59°. In the centre of the country along a line drawn from London to Carlisle the mean temperature in July is found to diminish gradually at an average rate of 1° per 60 m. The coasts are cooler than the centre of the country, but the west coast is much cooler than the east, modified continental conditions prevailing over the North Sea. The natural effect of the heating of the air in summer and the cooling of the air in winter by contact with the land is largely masked in England on account of the strength of the prevailing south-westerly wind carrying oceanic influence into the heart of the country. This effect is well seen in the way in which the wind blowing directly up the Severn estuary is directed along the edges of the Oolitic escarpment north-eastward, thus displacing the centre of cold in winter to the east coast, and the centre of heat in summer to the lower Thames, from the position which both centres would occupy, if calms prevailed, in a belt running from Birmingham to Buckingham. As to how far the narrow portion of the North Sea modifies the influence of the European continent, there seems reason to believe that the prevailing winds blowing up the English Channel carry oceanic conditions some distance inland, along those parts of the continent nearest to England. The Mersey estuary, being partly sheltered by Ireland and North Wales, does not serve as an inlet for modifying influences to the same extent as the Bristol Channel; and as the wind entering by it blows squarely against the slope of the Pennine Chain, it does not much affect the climate of the midland plain.



[\(Click to enlarge.\)](#)

Winds.—The average barometric pressure over England is about 29.94 in., and normally diminishes from south-west to north-east at all seasons, the mean pressure on the south coast being 29.97 and that on the northern border 29.88. The pressure at any given latitude is normally highest in the centre of the country and on the east coast, and lowest on the west coast. The direction of the mean annual isobars shows that the normal wind in all parts of England and Wales must be from the south-west on the west coast, curving gradually until in the centre of the country, and on the east coast it is westerly, without a southerly component. The normal seasonal march of pressure-change produces a maximum gradient in December and January, and a minimum gradient in April; but for every month in the year the mean gradient is for winds from southerly and westerly quarters. In April the gradient is so slight that any temporary fall of pressure to the south of England or any temporary rise of pressure to the north, which would suffice in other months merely to reduce the velocity of the south-westerly wind, is sufficient in that month to reverse the gradient and produce an east wind over the whole country. The liability to east wind in spring is one of the most marked features of the English climate, the effect being naturally most felt on the east coast. The southerly component in the wind is as a rule most marked in the winter months, the westerly component predominating in summer. The west end of a town receives the wind as it blows in fresh from the country at all seasons, and consequently the west end of an English town is with few exceptions the residential quarter, while smoke-producing industries are usually relegated to the east end.

Storms.—On account of the great frequency of cyclonic disturbances passing in from the Atlantic, the average conditions of wind over the British Islands give no idea of the frequency of change in direction and force. The chief paths of depressions are from south-west to north-east across England; one track runs across the south-east and eastern counties, and is that followed by a large proportion of the summer and autumn storms, thereby perhaps helping to explain the peculiar liability of the east of England to damage from hail accompanying thunderstorms. A second track crosses central England, entering by the Severn estuary and leaving by the Humber or the Wash; while a third crosses the north of England from the neighbourhood of Morecambe Bay to the Tyne. While these are tracks frequently followed by the centres of barometric depressions, individual cyclones may and do cross the country in all directions, though very rarely indeed from east to west or from north to south.

Rainfall.—The rainfall of England, being largely due to passing cyclones, can hardly be

expected to show a very close relation to the physical features of the country, yet looked at in a general way the relation between prevailing winds and orographic structure is not obscure. The western or mountainous division is the wettest at all seasons, each orographic group forming a centre of heavy precipitation. There are few places in the Western Division where the rainfall is less than 35 in., while in Wales, the Cornwall-Devon peninsula, the Lake District and the southern part of the Pennine Region the precipitation exceeds 40 in., and in Wales and the Lake District considerable areas have a rainfall of over 60 in. In the Eastern Division, on the other hand, an annual rainfall exceeding 30 in. is rare, and in the low ground about the mouth of the Thames estuary and around the Wash the mean annual rainfall is less than 25 in. In the Western Division and along the south coast the driest month is usually April or May, while in the Eastern Division it is February or March. The wettest month for most parts of England is October, the most noticeable exception being in East Anglia, where, on account of the frequency of summer thunderstorms, July is the month in which most rain falls, although October is not far behind. In the Western Division there is a tendency for the annual maximum of rainfall to occur later than October. It may be stated generally that the Western Division is mild and wet in winter, and cool and less wet in summer; while the Eastern Division is cold and dry in winter and spring, and hot and less dry in summer and autumn. The south coast occupies an intermediate position between the two as regards climate. Attention has been called to the fact that the bare rocks and steep gradients which are common in the Western Division allow of the heavy rainfall running off the surface rapidly, while the flat and often clayey lands of the Eastern Division retain the scantier rainfall in the soil for a longer time, so that for agricultural purposes the effect of the rainfall is not very dissimilar throughout the country.

Sunshine.—The distribution of sunshine is not yet fully investigated, but it appears that the sunniest part is the extreme south coast, where alone the total number of hours of bright sunshine reaches an average of more than 1600 per annum. The north-east, including the Pennine Region and the whole of Yorkshire, has less than 1300 hours of sunshine, and a portion of North Wales is equally cloudy. Although little more than a guess, 1375 hours may be put down as approximately the average duration of bright sunshine for England as a whole, which may be compared with 2600 hours for Italy, and probably about 1200 hours for Norway.

For the purpose of forecasting the weather, the meteorological office divides England into six districts, which are known as England N.E., Midland Counties, England East, London and Channel, England N.W. and North Wales, and England S.W. and South Wales.

(H. R. M.)

V. ENGLISH PLACE-NAMES

English place-names are of diverse origin and often extremely corrupt in their modern form, so that the real etymology of the names can often be discovered only by a careful comparison of the modern form with such ancient forms as are to be found in charters, ancient histories, and other early documents. By the aid of these a certain amount of work has been done in the subject, but it is still largely an unworked field. The most satisfactory method of characterizing English place-nomenclature is to deal with it historically and chronologically, showing the influence of the successive nations who have borne sway in this island. The Celtic influence is to be found scattered evenly up and down the country so far as names of rivers and mountains are concerned; in names of towns it is chiefly confined to the west. Roman influence is slight but evenly distributed. English influence is all-pervading, though in the northern and north-midland counties this influence has been encroached upon by Scandinavian influence. Norman influence is not confined to any particular district.

Celtic.—Though scattered notices of towns, cities and rivers in Britain are to be found in various early Roman writers, it is not till the time of Ptolemy (2nd century), who constructed a map of the island, and of the itinerary of Antonine (beginning of the 3rd century) that we have much information as to the cities and towns of Britain. We there learn that the following place-names are ultimately of Celtic origin:—Brougham, Catterick, York, Lincoln (*Lindum*), Manchester (*Mancunium*), Doncaster (*Danum*), Wroxeter (*Viroconium*), Lichfield (*Letocetum*), Gloucester (*Glevum*), Cirencester (*Corinium*), Colchester (*Camulodunum*), London, Reculver, Richborough (*Rutupiae*), Dover, Lymne, Isle of Wight, Dorchester (*Durnovaria*), Sarum, Exeter (*Isca*), Brancaster (*Branodunum*), Thanet. We also have the names of the following rivers:—Eden, Dee, Trent, Yare, Colne, Thames, Kennet, Churne, Exe, Severn, Tamar. Gildas, writing in the 6th century, speaks of the twenty-eight cities of the Britons. Nennius' *Historia Britonum* gives what purports to be a list of these cities. Of these, excluding Welsh ones, we may with some certainty identify Canterbury (*Caint*), Caerleon-on-Usk, Leicester (*Lerion*), Penzelwood, Carlisle, Colchester, Grantchester (*Granth*), London, Worcester (*Guveirangon*), Doncaster (*Daun*), Wroxeter (*Guoricon*), Chester (*Legion*—this is

Roman), Lichfield (*Licitcsith*) and Gloucester (*Gloui*). Others less certain are Preston-on-Humber and Manchester (*Manchguid*).

In modern place-names the suffix *don* often goes back to the Celtic *dun*, a hill, *e.g.* Bredon, Everdon, but the suffix was still a living one in Saxon times. Of river-names the vast majority are Celtic (possible exceptions will be named later), and the same is true of mountains and hills. The forests of Wyre, Elmet and Sel (wood), and the districts of the Wrekin and the Peak are probably Celtic.

Roman.—We do not owe entire place-names to Roman influence, with the exception of a few such as Chester, Chester-le-Street (L. *strata* [*via*], a road) and Caistor, but Roman influence is to be found in many names compounded of Celtic and Roman elements. The chief of these is the element *chester*—(L. *castrum*, a fort), *e.g.* Ebchester, Silchester, Grantchester. Porchester is entirely Latin, but may not have been formed till Saxon times. The form *caster* is found in the north and east, under Scandinavian influence, *e.g.* Tadcaster, Lancaster; and in the south-west and in the midlands we have a group of towns with the form *cester*:—Bicester, Gloucester, Cirencester, Worcester, Alcester, Leicester, Towcester. Exeter, Wroxeter and perhaps Uttoxeter show the suffix in slightly different form. In names like Chesterton, Chesterford, Chesterholm, Woodchester, the second element shows that the names are of later English or Scandinavian formation. In Lincoln we have a compound of the Celtic *Lindum* and the Latin *colonia*.

Saxon.—The chief suffixes of Saxon origin to be found in English place-names are as follows (some of them being also used independently): *-burgh, -borough, -bury* (O.E. *burh*, fortified town), *e.g.* Burgh, Bamborough, Aylesbury, Bury; *-bourne, -borne, -burn* (O.E. *burne*, -a, a stream), *e.g.* Ashbourne, Sherborne, Sockburn; *-bridge, e.g.* Weybridge, Bridge; *-church, e.g.* Pucklechurch; *-den, -dean* (O.E. *denu*, a valley), *e.g.* Gaddesden, Rottingdean; *-down, -don, -ton* (O.E. *dūn* [Celtic], a hill), *e.g.* Huntingdon, Seckington, Edington; *-ey, -ea, -y* (O.E. *īg*, an island), *e.g.* Thorney, Mersea, Ely; *-fleet* (O.E. *fleot*, an estuary) *e.g.* Benfleet; *-field, e.g.* Lichfield; *-ford, e.g.* Bradford; *-ham* (O.E. *hām*, a home, and *hamm*, an enclosure); these are not distinguished in modern English, *e.g.* Bosham, Ham; *-hall* (O.E. *healh*, a corner), *e.g.* Riccall, Tettenhall; *-head, e.g.* Gateshead; *-hill, e.g.* Tickhill; *-hurst* (O.E. *hyrst*, copse, wood), *e.g.* Deerhurst; *-ing* (patronymic suffix, plural form in O.E.), *e.g.* Basing, Reading; *-leigh, -ley, -lea* (O.E. *lēah*, meadow), *e.g.* Leigh, Stoneleigh, Whalley; *-lade* (O.E. *lād*, path, course), *e.g.* Cricklade; *-land, e.g.* Crowland; *-lock* (O.E. *loca*, enclosure), *e.g.* Porlock; *-minster* (O.E. *mynster*, L. *monasterium*), *e.g.* Axminster, Minster; *-mouth, e.g.* Exmouth; *-port* (O.E. *port*, market-town, a word of Latin origin), *e.g.* Bridport; *-sted, -stead* (O. E. *stede*, a place), *e.g.* Stansted, Wanstead; *-stone, -ston, e.g.* Beverstone, Sherston; *-staple* (O.E. *stapol*, foundation), *e.g.* Barnstaple; *-stow* (O.E. *stow*, place), *e.g.* Stow, Chepstow, Bristol (earlier Bristow); *-tree, -try, e.g.* Coventry, Elstree, Seasalter; *-ton* (O.E. *tūn*, enclosure), *e.g.* Milton; *-wark* (O.E. *geweorc*, fortification), *e.g.* Southwark; *-well, e.g.* Bakewell; *-wich, -wick* (O.E. *wic*, a dwelling), *e.g.* Norwich, Swanage (O.E. Swanawic), Warwick; *-worth, -worthy* (O.E. *weorth, weorthig*, an enclosure), *e.g.* Polesworth, Holsworthy.

Of river names the Blackwater, Witham, Ashburne, Swift, Washburn, Loxly, Wythburn, Eamont are perhaps English and so also may be the Waveney in Suffolk.

Scandinavian.—The following suffixes are Scandinavian in origin, some of them being also used independently: *-beck* (O.N. *bekkr*, stream), *e.g.* Starbeck, Troutbeck; *-by* (O.N. *byr*, town), *e.g.* Whitby; *-dale* (O.N. *dalr*), *e.g.* Swaledale; *-car(r), -ker* (O.N. *kiörr*, marshy ground), *e.g.* Redcar, The Carrs, Muker; *-fell* (O.N. *fjäll*, mountain), *e.g.* Scafell; *-force, -foss* (O.N. *fors*, waterfall). High Force, Wilberfoss; *-garth* (O.N. *garðr*, enclosure), *e.g.* Hoggarths; *-gill* (O.N. *gil*, a deep narrow glen), *e.g.* Skelgill, Dungeon Ghyll; *-holm(e)* (O.N. *hólmr*, island), *e.g.* Axholme, Durham (earlier Dunholm); *-keld* (O.N. *kelda*, well, spring), *e.g.* Threlkeld, Keld; *-lund* (O.N. *lundr*, grove), *e.g.* Snelland, Timberland, Lound; *-how* (O.N. *haugr*, hill), *e.g.* Greenhow; *-scale* (O.N. *skále*, hut, shed), *e.g.* Seascale; *-skew* (O.N. *skógr*, forest), *e.g.* Litherskew; *-thorpe* (O.N. *þorp*, village), *e.g.* Thorpe, Osgathorp; *-thwaite* (O.N. *þveit*, a piece of land), *e.g.* Rosthwaite; *-toft* (O.N. *toft*, a green knoll), *e.g.* Toft, Langtoft; *-with* (O.N. *viðr*, a wood), *e.g.* Blawith, Stowiths.

Tarn (a mountain pool), grain and sike (mountain streams) are also Scandinavian terms.

Norman.—Norman influence has not been very great in English place-nomenclature. The number of places with pure French names is extremely limited; a few such are Beaulieu, Belvoir, Beauchief, Beaudesert, Beaufort, Beaumont, also Theydon *Bois*, War-*boys*. Norman influence is marked more strongly in certain compound place-names, where one of the elements often represents the name of the original Norman tenant or holder, *e.g.* Thorpe *Mandeville*, *Helion* Bumstead, Higham *Ferrers*, Swaffham *Bulbeck*, Stoke *Gifford*, Shepton *Mallet*; similarly names like Lyme *Regis*, *King's* Sutton, *Monks' Kirby*, Zeal *Monachorum*, Milton *Abbas*, *Bishop's* Waltham, *Prior's* Dean, Huish *Episcopi* date from feudal times.

Gallicized forms are also to be found in a few forms like Kirkby-le-Soken, Chapel-en-le-Frith, Alsop-en-le-Dale, Barnoldby-le-Beck. Ecclesiastical influence is to be found in such names as Aldwinkle St Peter, Barford St Martin, Belchamp St Paul, the name of the saint being the name either of the saint to whom the church at that place was dedicated or the patron-saint of the monastery or abbey to whom lands in that district belonged.

(A. Mw.)

VI. POPULATION

Until the beginning of the 19th century there existed no other knowledge of the actual area and population of the country but what was given in the vaguest estimates. But there can be little doubt that the population of England and Wales increased very slowly for centuries, owing largely to want of intercommunication, which led to famines, more or less severe—it being a common occurrence that, while one county, with a good harvest, was enjoying abundance, the people of the adjoining one were starving. The interpretation of certain figures given in the Domesday Survey (which do not cover certain parts of modern England nor take account of the ecclesiastical population) is a matter of widely divergent opinion; but a total population of one million and a half has been accepted by many for the close of the 11th century. In 1377 the levying of a poll-tax provides partial figures from which a total of two to two-and-a-half millions has been deduced, but again divergent views have been expressed as to how far the number was still affected by the Black Death of 1348-1349. It is calculated, on the basis of registers of births and deaths, that the population of England and Wales numbered 5,475,000 in 1700, and 6,467,000 in 1750. From the later part of the 18th century a stronger tendency to increase set in, and at the taking of the first census, in 1801, it was ascertained that the population numbered 8,892,536, being—if the former estimates were approximately correct—an increase of very nearly 2½ millions in little over fifty years. This rate of increase was not only continued, but came to be greatly exceeded.

Since the first census of 1801, regular enumerations of the people of England and Wales have been taken every ten years. The results of these enumerations are published in separate volumes for each county, in a volume of summary tables, and in a general report. In the summaries England and Wales are treated as one, and this treatment is followed here. The following table gives the total numbers of the population of England and Wales at each census, together with the absolute increase, and growth per cent, during each decennial period:—

Dates of Enumeration.	Population.	Increase at each Census.	Decennial Rate of Increase per Cent.
1801, March 10th	8,892,536
1811, May 27th	10,164,256	1,271,720	14.00
1821, May 28th	12,000,236	1,835,980	18.06
1831, May 30th	13,896,797	1,896,561	15.80
1841, June 7th	15,914,148	2,017,351	14.27
1851, March 31st	17,927,609	2,013,461	12.65
1861, April 8th	20,066,224	2,138,615	11.90
1871, April 3rd	22,712,266	2,646,042	13.21
1881, April 4th	25,974,439	3,262,173	14.36
1891, April 6th	29,002,525	3,028,086	11.65
1901, April 1st	32,527,843	3,525,318	12.17

Allowing for a rate of increase equivalent to that which obtained between 1891 and 1901, the estimated population was 34,152,977 in 1905, and 36,169,150 in 1910.

Distribution.—A detailed map of the distribution of population in England and Wales¹¹ shows certain well-defined areas of very dense population. First for consideration, though not in geographical extent, stands the area round London, in Middlesex, Surrey, Kent, Essex and Hertfordshire. A great proportion of this population is purely residential, that is to say, its working members do not practise their professions at home or close to home, but in the metropolis, travelling a considerable distance between their residences and their offices. Just as London, in spite of its manifold industrial interests, is hardly to be termed a manufacturing centre, so the populous district surrounding it is not to be termed an industrial district in the sense in which that term is applied to the remaining regions of dense population which fall for consideration here. London gained its paramount importance

from its favourable geographical position in respect of the rest of England on the one hand and the Continent on the other, and the populous district of the "home counties" owes its existence to that importance; whereas other populous districts have generally grown up at the point where some source of natural wealth, as coal or iron, lay to hand. The great populous area which covers south Lancashire and the West Riding of Yorkshire, and extends beyond them into Cheshire, Derbyshire, Staffordshire and Nottinghamshire, is not in reality a unit. The whole of the lowland in the south of Lancashire has almost the appearance of one vast town, whereas among the hills of the Pennine Chain the population crowds the valleys on either flank and leaves in the high-lying centre some of the largest tracts of practically uninhabited country in England. Moreover, the industries in different parts of this area (for it is strictly an industrial area) differ completely, as will be observed later, though coal-mining is common to all. The other most extensive centres of dense population are the coal-mining or manufacturing districts of Northumberland and Durham, of the midlands (parts of Warwickshire, Worcestershire and Leicestershire), and of South Wales and Monmouthshire; and it is in these districts, and others smaller, but of similar character, that the greatest increase of population has been recorded, since the extensive development of their resources during the 19th century. Thus the preceding counties¹² showed an increase, under normal conditions, exceeding 10% during the ten years 1891-1901, the percentage of increase in 1871-1891 being given for comparison.

Counties.	Increase per cent.	
	1871-1891.	1891-1901.
Middlesex	47.42	45.11
Essex	31.54	39.60
Glamorganshire (S. Wales)	30.72	25.10
Surrey	25.03	24.78
Northumberland	14.42	19.19
Worcestershire	12.12	18.49
Nottinghamshire	19.30	18.09
Durham	21.67	16.62
Leicestershire	17.43	16.46
Kent	13.15	15.95
Hampshire	12.73	15.33
Monmouthshire	12.08	14.97
Yorkshire (E. Riding)	14.31	13.49
Northamptonshire	11.40	13.27
Warwickshire	12.78	12.95
Staffordshire	12.15	12.92
Derbyshire	15.52	12.81
Yorkshire (W. Riding)	15.36	12.70
Cheshire	14.62	12.56
Lancashire	17.92	12.05
Hertfordshire	5.08	10.91

It will be observed that three of the home counties occur in the first four in the above list. It is interesting to note, in this connexion, that the increase of population diminished steadily, in the three decades under notice, within the area covered by the administrative county of London, which is only the central part of urban London (compare the population table of the great urban districts, below). This was 17.44% in 1871-1881, 10.39 in 1881-1891, and 7.3 in 1891-1901. This illustrates the constant tendency for the residential districts of a city to radiate away from its centre, which appears, though in a modified degree, in the case of all the great English cities.

During the period 1891-1901 five English and five Welsh counties showed a decrease per cent in the population. The English counties were:—

	Decrease or Increase(+).		Decrease. 1891-1901.
	1871-1881.	1881-1891.	
Huntingdonshire	8.29	5.51	7.04
Rutland	1.55	3.73	5.59
Westmorland	1.25	+2.96	2.73
Oxfordshire	+1.27	+3.64	1.70
Herefordshire	3.26	4.02	1.62

The Welsh counties were Montgomeryshire, Cardiganshire, Flintshire, Merionethshire and Brecknockshire, the first-named showing the highest decrease, 5.08%, in 1891-1901. These

Urban and rural districts.

counties are principally agricultural, and it is in agricultural districts elsewhere that the increase of population is slightest. But in 1871-1881 a decrease was found in the case of fifteen counties in all, and in 1881-1891 in the case of thirteen, whereas in 1891-1901, although Radnorshire, which returned a decrease previously, now returned an abnormal increase owing to the temporary employment of workmen on the construction of the Birmingham waterworks, the number fell to 10, and the average percentage also fell. This suggested some tendency to return to a state of equilibrium as between urban and rural districts. This is in a measure borne out by the movement of population in the districts classed as purely rural in 1901. In these there was an increase per cent of 14.2 in 1811-1821, which fell off to 2.8 in 1841-1851. A decrease then set in and grew from 0.2 in 1851-1861 to 0.67 in 1881-1891, but in 1891-1901 an increase, 1.95, was once more recorded. But the drain on the rural population continued heavy, for in the same purely rural area, which had a population in 1901 of 1,330,319, the excess of births over deaths was 150,437, but the actual increase of population was only 25,492, leaving a heavy loss (9.6%) to be accounted for by migration, the term used in this connexion in the general report of the Census to include movement of population to any new locality, home or foreign.

Housing.—The total area of England and Wales covered by urban districts (a term which coincides pretty nearly with that of towns, which bears no technical meaning in England) was 3,848,987 acres, and contained a population of 25,058,355 in 1901, the increase in the decade 1891-1901 being 15.2%. The number of inhabited houses in the whole country in 1901, namely 6,260,852, may be compared with the numbers in 1801 (1,575,923) and 1851 (3,278,039); it gives an average of 5.2 persons to each house. This average has decreased with some regularity from a *maximum* of 5.75 in 1821, but there is no certain evidence on which to affirm or deny that the average cubic capacity of dwelling-houses has been maintained. The urban population averaged 5.4 persons to a house, but varied greatly in different towns. Thus, an average below 4.4 is quoted for Rochdale, Halifax, Huddersfield, Yarmouth, Bradford and Stockport, while the average for London was 7.93, and for Gateshead, Newcastle-upon-Tyne and South Shields, in the northern industrial district of the Tyne, and for Devonport, the average exceeded 8. The average of persons to a house in rural districts was 4.6.

Year.	Percentage of		Excess of Estimated over Enumerated Population.
	Increase by Births.	Decrease by Deaths.	
1851-1861	36.19	23.58	122,111
1861-1871	37.56	23.98	78,968
1871-1881	37.89	22.80	164,307
1881-1891	34.24	20.27	601,389
1891-1901	31.57	19.18	68,330

Vital Statistics.—“The increase or decrease of population is governed by two factors: (1) the balance between births and deaths, and (2) the balance between immigration and emigration.”¹³ The following table is therefore given to show (1) the percentage of increase by births and decrease by deaths in each decade from 1851, and (2) the difference at the close of each decade (*i.e.* in the later year mentioned in each line) between the population which would have followed upon the natural increase unaffected by migration and the population as actually enumerated. In the case of (2) the actual population has always been exceeded by the estimate based on natural increase, and this demonstrates an excess of emigration over immigration.

The proportion of males to females is 1000 to 1068, this being a higher proportion of females than any recorded in the 19th century, during which the lowest proportion of females was 1036 in 1821. The proportion rose at each census from 1851. But on the other hand 1000 male children were born against only 965 female, on an average in 1891-1901. This excess of male births, which is usual, has been ascertained to find its equilibrium, through a higher rate of infant mortality among the males, about the tenth year of life, and is finally changed by perilous male occupations and other causes, including the stronger tendency of males to emigration. The proportion of females varies much in different localities, being highest in such districts as London and the home counties, which are residential, and in which, therefore, many domestic servants are enumerated; and Somersetshire, Bedfordshire and other seats of industries which especially occupy women (*e.g.* the straw-plaiting of the county last named). It is lowest, naturally, in the mining districts, as Glamorgan, Monmouth, Durham, Northumberland; but an exception may be noted in the case of Cornwall, where a high proportion of females is attributed to the emigration of miners consequent upon the relative decrease in importance of the tin-mines.

In 1901 the proportion of females to males in urban districts was 1086 to 1000, and in rural districts 1011 to 1000.

Urban Districts of England and Wales with Population exceeding 80,000 (1901).

	Population.		Increase per cent.
	1891.	1901.	
London *	4,228,317	4,536,541	7.3
Liverpool	629,548	684,958	8.8
Manchester	505,368	543,872	7.6
Birmingham	478,113	522,204	9.2
Leeds	367,505	428,968	16.7
Sheffield	324,243	380,793	17.4
Bristol	289,280	328,945	13.7
Bradford	265,728	279,767	5.3
West Ham **	204,903	267,358	30.5
Hull	200,472	240,259	19.8
Nottingham	213,877	239,743	12.1
Salford	198,139	220,957	11.5
Newcastle-upon-Tyne	186,300	215,328	15.6
Leicester	174,624	211,579	21.2
Portsmouth	159,278	188,133	18.1
Bolton	146,487	168,215	14.8
Cardiff (Wales)	128,915	164,333	27.5
Sunderland	131,686	146,077	10.9
Oldham	131,463	137,246	4.4
Croydon **	102,695	133,895	30.4
Blackburn	120,064	127,626	6.3
Brighton	115,873	123,478	6.6
Willesden **	61,265	114,811	87.4
Rhondda (Wales)	88,351	113,735	28.7
Preston	107,573	112,989	5.0
Norwich	100,970	111,733	10.7
Birkenhead	99,857	110,915	11.1
Gateshead	85,692	109,888	28.2
Plymouth	88,931	107,636	21.0
Derby	94,146	105,912	12.5
Halifax	97,714	104,936	7.4
Southampton	82,126	104,824	27.6
Tottenham **	71,343	102,541	43.7
Leyton **	63,106	98,912	56.7
South Shields	78,391	97,263	24.1
Burnley	87,016	97,043	11.5
East Ham **	32,712	96,018	193.5
Walthamstow **	46,346	95,131	105.3
Huddersfield	95,420	95,047	0.4 decr.
Swansea (Wales)	91,034	94,537	3.8
Wolverhampton	82,662	94,187	13.9
Middlesborough	75,532	91,302	20.9
Northampton	75,075	87,021	15.9
Walsall	71,789	86,430	20.4
St Helens	72,413	84,410	16.6
Rochdale	76,161	83,114	9.1

* Administrative county.

** These districts, administratively distinct, belong topographically to Greater London.

The proportion of married adults (aged twenty and upwards) was found to decrease from 1881 to 1901, being 630 per thousand in the former and 604.5 in the latter year. The marriage-rate per thousand has ranged since 1841 from 14.2 in 1886 to 17.6 in 1873, and is evidently closely associated with the general prosperity of the country, for in the latter year the value of the total imports and exports per head of the population of the United Kingdom was at its highest, and in the former year at its lowest. The five years 1895-1899 exhibited a remarkable sequence illustrative of this:—

	Marriage-	Value,
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Years.	Rate.	Exports and Imports.		
		£.	s.	d.
1895	15.0	17	19	3
1896	15.8	18	14	1
1897	16.0	18	14	3
1898	16.3	19	0	5
1899	16.5	20	1	8

The marriage-rate declined, subsequently to the year last quoted in this table, to 15.6 in 1903.

(O. J. R. H.)

Religion.—In attempting to give a concise account of the religious conditions of England we are confronted from the outset with the absence of any trustworthy statistics. A religious census, such as is customary in other countries, has not been taken since 1851; nor is it probable that such a census would be any true indication of the actual religious beliefs of the population. Still less satisfactory, from this standpoint, is the attempt to compile statistics of religious belief from the registrar-general's report on the number of marriages celebrated in the places of worship of the various denominations; for among those who are practically attached to no religious body, and even some Nonconformists, a prejudice survives in favour of having their marriages celebrated and their funerals conducted by the clergy of the Established Church. Nor is the test of "sittings" provided by the various denominations, nor even the number of their communicants, a trustworthy test of the relative number of their adherents. In Wales, for instance, the rivalry of the sects has multiplied chapel accommodation out of all proportion to the population; while everywhere it happens that churches, at one time crowded every Sunday, have been emptied by the shifting of population or other causes. As for the test of communicancy, it is untrustworthy because the insistence on communion as the pledge of membership varies with the different denominations and even with different sections of opinion within those denominations. Any statistics of this nature, then, however useful they may be as a general indication, must not be treated as conclusive.

Whatever disputes there may be as to the relative strength of the various churches and sects, there can be no questioning the fact that the dominant religion in England is Protestant Christianity. Protestantism, indeed, since the Act of Settlement in 1689, has been of the essence of the Constitution, the sovereign forfeiting his or her crown *ipso facto* by acknowledging the authority of the pope, by accepting "the Romish religion," or by marrying a Roman Catholic; and though of late years efforts have been made to modify or to abrogate this provision, the fact that such efforts have met with widespread opposition shows that it still represents the general attitude of the British nation. Protestantism, however, is a generic term which in England covers a great variety of opinions, and a large number of rival religious organizations. The state church, the Church of England as by law established,

The Church of England.

represents the tradition of a time when church and state were regarded as two aspects of one divinely ordered organism. In law every subject of the state is also a member of the Established Church, and can lay claim to its ministrations so long as he or she obeys the ecclesiastical law, which is also the law of the state. No Englishman, whatever his opinions, can be excommunicated without due process of law. The Church of England is thus theoretically coextensive with the English nation, each unit of which is legally assumed to belong to it unless proof be brought to the contrary. To state the theory is, however, to risk giving an entirely false impression of the facts. In practice the Church of England is no longer regarded as coextensive with the state; nor is nonconformity any longer, as it once was, an offence against the law. Since the abolition of the Test Acts and the emancipation of the Catholics no Englishman has suffered any civil disability owing to his religion¹⁴; and the progress of democracy has given to the great so-called "Free Churches" a political power that rivals that of the Established Church. In the matter of the estimation of their relative strength the main grievance of the Nonconformists is that the law classes as members of the Church of England that enormous floating population which is really conscious of no ecclesiastical allegiance at all.

The Church of England, both in constitution and doctrine, represents in general the mean between Roman Catholicism on the one hand and the more advanced forms of Protestantism on the other (see [EPISCOPACY](#)). Though its doctrine was reformed in the 16th century and the spiritual supremacy of the pope was repudiated, the continuity of its organic life was not interrupted, and historically as well as legally it is the same church as that established before the Reformation. The ecclesiastical system is episcopal, the whole of England

(including for this purpose Wales) being divided into two provinces, Canterbury and York, and 37 bishoprics (including the primatial sees of Canterbury and York). These again are subdivided into 14,080 parishes (1901), the smallest ecclesiastical units, which are grouped for certain administrative purposes into 810 rural deaneries. The sovereign is by law the supreme governor of the church, both in things spiritual and temporal, and he has the right to nominate to vacant sees. In the case of sees of old foundation this is done by means of the *congé d'élire* (*q.v.*), in that of others by letters patent.¹⁵ The bishops hold their temporalities as baronies, for which they do homage in the ancient form, and are spiritual peers of parliament. Only 26, however, have the right to seats in the House of Lords, of whom five—viz. the two archbishops and the bishops of London, Durham and Winchester—always sit, the others taking their seats in order of seniority of consecration. Under the bishops the affairs of the dioceses are managed by archdeacons (*q.v.*) and rural deans (see [ARCHPRIEST](#) and [DEAN](#)). The cathedral churches are governed by chapters consisting of a dean, canons and prebendaries (see [CATHEDRAL](#)). The deaneries are in the gift of the crown, canonries and prebends sometimes in that of the crown, sometimes in that of the bishops. The parish clergy, with a few rare exceptions (when they are elected by the ratepayers), are appointed by patronage. The right of presentation to some 8500 benefices or “livings” is in the hands of private persons; the right is regarded in law as property and is, under certain restrictions for the avoidance of gross simony, saleable (see [ADVOWSON](#)). The patronage of the remaining benefices belongs in the main to the crown, the bishops and cathedral chapters, the lord chancellor, and the universities of Oxford and Cambridge.

In spite of the fact that the Church of England is collectively one of the wealthiest in Christendom, a large proportion of the “livings” are extremely poor. To understand this and other anomalies it is necessary to bear in mind that the church is not, like the established Protestant churches of Germany, an elaborately organized state department, nor is it a single corporation with power to regulate its internal polity. It is a conglomeration of corporations. Even the incumbent of a parish is in law a “corporation sole,” his benefice a freehold; and until the establishment in 1836, by act of parliament, of the Ecclesiastical Commissioners (*q.v.*) nothing could be done to adjust the inequalities in the emoluments of the clergy resulting from the natural rise and fall of the value of property in various parts of the country. Even more extraordinary is the effect of the singular constitution of the church on its discipline. An incumbent, once inducted, can only be disturbed by complicated and extremely costly processes of law; in effect, except in cases of gross misconduct, he is only checked—so far as ecclesiastical order is concerned—by his oath of canonical obedience to the “godly” monitions of his bishop; and, since these monitions are difficult and costly to enforce, while their “godliness” may be a matter of opinion, an incumbent is practically himself the interpreter of the law as applied to the doctrine and ritual of his particular church. The result has been the development within the Established Church of a most startling diversity of doctrine and ritual practice, varying from what closely resembles that of the Church of Rome to the broadest Liberalism and the extremest evangelical Protestantism. This broad comprehensiveness, which to outsiders looks like ecclesiastical anarchy, is the characteristic note of the Church of England; it may be, and has been, defended as consonant with Christian charity and suited to the genius of a people not remarkable for logical consistency; but it makes it all the more difficult to say what the religion of Englishmen actually is, even within the English Church.

The following is a list of the archiepiscopal and episcopal sees of England and Wales—the latter arranged in alphabetical order,—with date of their establishment and amount of emoluments:—

	Year of Foundation.	Annual Emoluments.
Province of Canterbury—		
Canterbury (archbishopric)	597	£15,000
Bangor	c. 550	4,200
Bath and Wells	1139	5,000
Birmingham	1904	3,500
Bristol	1897*	3,000
Chichester	1075	4,200
Ely	1109	5,500
Exeter	1050	4,200
Gloucester	1541	4,300
Hereford	676	4,200
Lichfield	669	4,200
Lincoln	1067	4,500

Llandaff	c. 550	4,200
London	605	10,000
Norwich	1094	4,500
Oxford	1542	5,000
Peterborough	1541	4,500
Rochester	604	3,800
St Albans	1877	3,200
St Asaph	c. 550	4,200
St David's	c. 550	4,500
Salisbury	1075	5,000
Southwark	1904	3,000
Southwell	1884	3,500
Truro	1876	3,000
Winchester	c. 650	6,500
Worcester	c. 680	4,200
Province of York—		
York (archbishopric)	625	10,000
Carlisle	1133	4,500
Chester	1541	4,200
Durham	995	7,000
Liverpool	1880	4,200
Manchester	1847	4,200
Newcastle	1882	3,500
Ripon	1836	4,200
Sodor and Man	1154	1,500
Wakefield	1888	3,000

* Modern refoundation.

The following are suffragan or assistant bishoprics (the names of the dioceses to which each belongs being given in brackets): Dover, Croydon (Canterbury), Beverley, Hull, Sheffield (York), Stepney, Islington, Kensington (London), Jarrow (Durham), Guildford, Southampton, Dorking (Winchester), Barrow-in-Furness (Carlisle), Crediton (Exeter), Grantham (Lincoln), Burnley (Manchester), Thetford, Ipswich (Norwich), Reading (Oxford), Leicester (Peterborough), Richmond, Knaresborough (Ripon), Colchester, Barking (St Albans), Swansea (St. David's), Woolwich, Kingston-on-Thames (Southwark), Derby (Southwell), St Germans (Truro). See also [ENGLAND, CHURCH OF](#); [ANGLICAN COMMUNION](#); [ECCLESIASTICAL JURISDICTION](#); [VESTMENTS](#); [MASS](#).

	Sittings.	Communicants.	Ministers (Pastoral).	Local Preachers.	Sunday Scholars.
Baptists ¹⁶	1,421,742	424,741	2134	5,748	590,321
Congregationalists (1907)	1,801,447	498,953	3197	5,603	729,347
Presbyterian Church of England ¹⁷	173,047	85,755	323	..	98,258
Society of Friends	..	17,442	62,347
Moravians	10,100	2,999	34	..	4,542
Wesleyan Methodists ¹⁸	2,500,000	620,350	2658	20,119	1,039,437
Primitive Methodists ¹⁶	1,017,690	205,407	1101	15,963	477,114
United Methodist Church ¹⁹	738,840	158,095	833	5,577	315,993
Wesleyan Reform Union	47,435	8,717	19	508	23,008
Independent Methodists	33,000	9,732	..	375	28,387
Welsh Calvinistic Methodist	472,089	185,935	900	361	187,484
Countess of Huntingdon's Connexion	12,347	2,469	26	..	3,040
Reformed Episcopal Church	6,000	1,090	28	..	2,600
Free Church of England	8,140	1,352	24	..	4,196

The number of "denominations" by whom buildings were certified for worship up to 1895 was 293 (see list in *Whitaker's Almanack*, 1886, p. 252), but in many instances such "denominations" consisted of two or three congregations only, in some cases of a single congregation. The more important nonconformist churches are fully dealt with under their several headings. The above table, however, based on that in the *Statesman's Year-Book* for 1908, and giving the comparative statistics of the chief nonconformist churches, may be useful for purposes of comparison. It may be prefaced by stating that, according to returns made in 1905, the Church of England provided sitting accommodation in parish and other churches for 7,177,144 people; had an estimated number of 2,053,455 communicants, 206,873

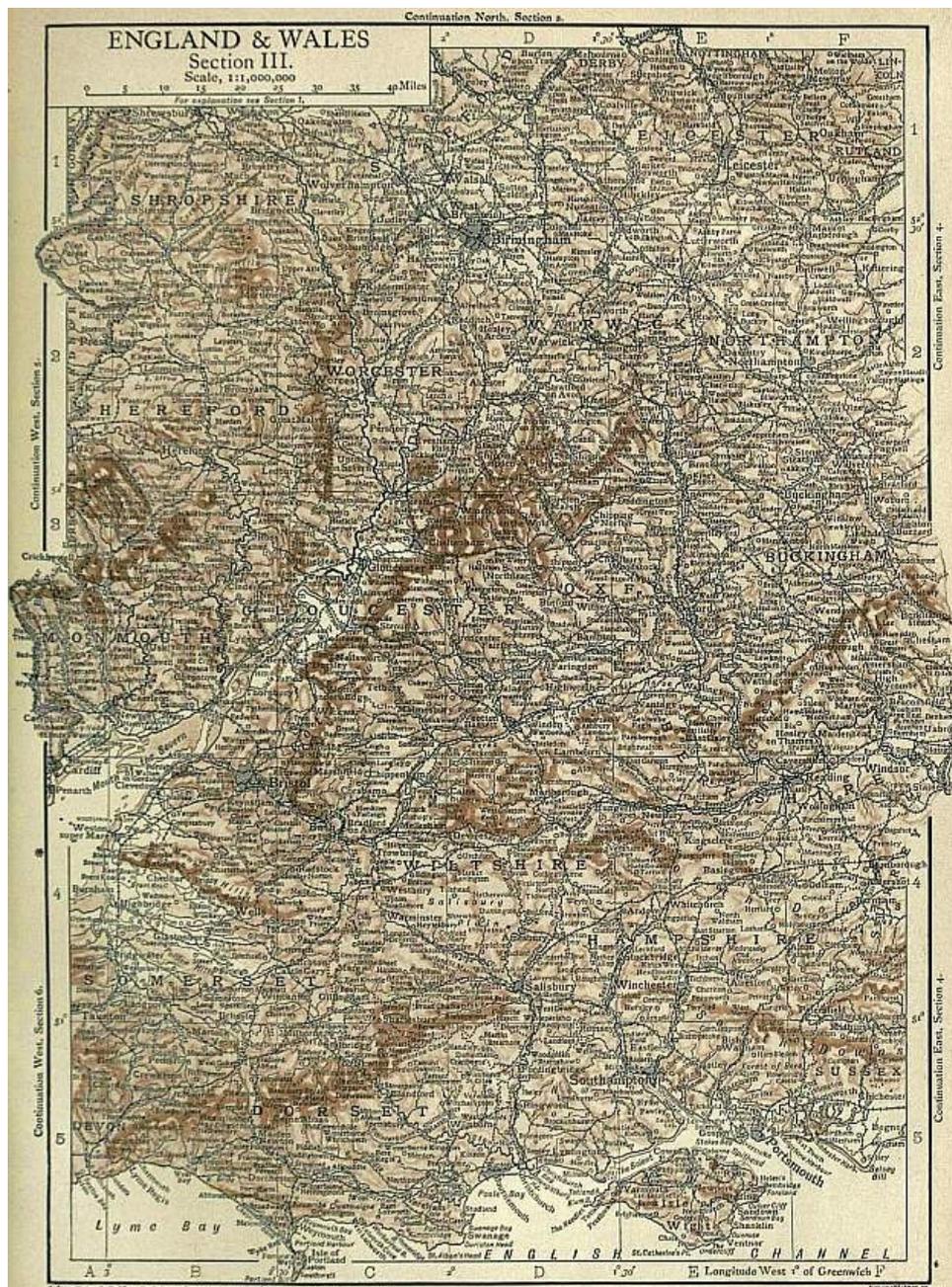
**Other
Protestant
communions.**

Sunday-school teachers, and 2,538,240 Sunday scholars. There were 14,029 incumbents (rectors, vicars, and perpetual curates), 7500 curates, *i.e.* assistant clergy, and some 4000 clergy on the non-active list.

Besides the bodies enumerated in the table there are other churches concerning which similar statistics are lacking, but which, in several cases, have large numbers of adherents. The Unitarians are an important body with (1908) 350 ministers and 345 places of worship. Most numerous, probably, are the adherents of the Salvation Army, which with a semi-military organization has in Great Britain alone over 60,000 officers, and "barracks," *i.e.* preaching stations, in almost every town. The Brethren, generally known, from their place of origin, as the Plymouth Brethren, have "rooms" and adherents throughout England; the Catholic Apostolic Church ("Irvingites") have some 80 churches; the New Jerusalem Church (Swedenborgians) had (1908) 75 "societies"; the Christian Scientists, the Christadelphians, the British Israelites and similar societies, such as the New and Latter House of Israel, the Seventh Day Baptists, deserve mention. The Latter Day Saints (Mormons) had (1908) 82 churches in Great Britain.

Roman Catholicism in England has shown a tendency to advance, especially among the upper and upper-middle classes. The published lists of "converts" are, however, no safe index to actual progress; for no equivalent statistics are available for "leakage" in the opposite direction. The membership of the Roman Catholic Church in England is estimated at about 2,200,000. But though the growth of the church relatively to the population has not been particularly startling, there can be no doubt that, since the restoration of the Roman Catholic hierarchy in 1851, its general political and religious influence has enormously increased. A notable feature in this has been the great development of monastic institutions, due in large measure to the settlement in England of the congregations expelled from France. The Roman Catholic Church in England is organized in 15 dioceses, which are united in a single province under the primacy of the archbishop of Westminster. In December 1907 there were 1736 Roman Catholic churches and stations, and the number of the clergy was returned at 3524 (see [ROMAN CATHOLIC CHURCH](#)).

Roman Catholics.



[\(Click to enlarge.\)](#)

The Jews in Great Britain, chiefly found in London and other great towns, number (1907) about 196,000 and have some 200 synagogues; at the head of their organization is a chief Rabbi resident in London.

Jews. Finally it may be mentioned that a small number of Englishmen, chiefly resident in Liverpool and London, have embraced Islam; they have a mosque at Liverpool. Various foreign churches which have numbers of adherents settled in England have also branch churches and organizations in the country, notably the Orthodox Eastern Church,—with a considerable number of adherents in London, Liverpool and Manchester,—the Lutheran, and the Armenian churches.

(W. A. P.)

VII. COMMUNICATIONS

Roads.—In England and Wales the high-roads, or roads on which wheeled vehicles can travel, are of two classes: (1) the main roads, or great arteries along which the main vehicular traffic of the country passes; and (2) ordinary highways, which are by-roads serving only local areas. The length of the main roads is about 22,000 m., and that of ordinary highways about 96,000. The highways of England, the old coaching roads, are among the best in the world, being generally of a beautiful smoothness and well maintained; they vary, naturally, in different districts, but in many even the local roads are superior to

some main roads in other countries. The supersession of the stage coach by the railway took a vast amount of traffic away from the main roads, but their proper maintenance did not materially suffer; and a larger accession of traffic took place subsequently on the development of the cycle and the motor-vehicle.

The system of road-building by private enterprise, the undertakers being rewarded by tolls levied from vehicles, persons or animals using the roads, was established in England in 1663, when an act of Charles II. authorized the taking of such tolls at "turnpikes" in Hertfordshire and Cambridgeshire. A century later, in 1767, the authorization was extended over the whole kingdom by an act of George III. In its fulness the system lasted just sixty years, for the first breach in it was made by an act of George IV., in 1827, by which the chief turnpikes in London were abolished. Further acts followed in the same direction, leading to the gradual extinction, by due compensation of the persons interested, of the old system, the maintenance of the roads being vested in "turnpike trusts and highway boards," empowered to levy local rates. The last turnpike trust ceased to exist on the 5th of November 1895, and the final accounts in connexion with its debt were closed in 1898-1899. Toll-gates are now met with only at certain bridges, where the right to levy tolls is statutory or by prescription. By the Local Government Act of 1888 the duty of maintaining main roads was imposed on the county councils, but these bodies were enabled to make arrangements with the respective highway authorities for their repair. Under the Local Government Act of 1894 the duties of all the highway authorities were transferred to the rural district councils on or before the 31st of March 1899.

It was not until the close of the 18th century, when the period of road-building activity already indicated set in, that English roads were redeemed from an extraordinarily bad condition. The roads were until then, as a rule, merely tracks, deeply worn by ages of traffic into the semblance of ditches, and, under adverse weather conditions, impassable. Travellers also had the risk of assault by robbers and highwaymen. As early as 1285 a law provided for the cutting down of trees and bushes on either side of highways, so as to deprive lawless men of cover. Instances of legislation as regards the upkeep of roads are recorded from time to time after this date, but (to take a single illustration) even in the middle of the 18th century the journey from the village, as it was then, of Paddington to London by stage occupied from 2½ to 3 hours. But from 1784 to 1792 upwards of 300 acts were passed dealing with the construction of new roads and bridges.

Railways.—The history and development of railways in England, their birthplace, and in Ireland and Scotland, with illustrative statistics, are considered under the heading [UNITED KINGDOM](#). The following list indicates the year of foundation, termini, chief offices and geographical sphere of the chief railways of England and Wales.

1. *Railways with Termini in London.*

(a) NORTHERN.

Great Northern (1846).—Terminus and offices, King's Cross. Main line—Peterborough, Grantham, Newark, Doncaster; forming, with the North-Eastern and North British lines, the "East Coast" route to Scotland. Serving also the West Riding of Yorkshire, Lincolnshire, Nottingham and other towns of the midlands, and Manchester (by running powers over the Great Central metals). This company has so extensive a system of running powers over other railways, and of lines held jointly with other companies, that few of its more important express trains from London complete their journeys entirely on the company's own lines.

Midland (1844, an amalgamation of the former North Midland, Midland Counties, Birmingham & Derby, and other lines).—Terminus, St Pancras; offices, Derby. Main line—Bedford, Leicester, Sheffield, Leeds and Carlisle, affording the "Midland" route to Scotland. Serving also Nottingham, Derby, and the principal towns of the midlands and West Riding, and Manchester. West and North line from Bristol, Gloucester and Birmingham to Leicester and Derby. Also an Irish section, the Belfast and Northern Counties system being acquired in 1903. Docks at Heysham, Lancashire; and steamship services to Belfast, &c.

London & North-Western (1846, an amalgamation of the London & Birmingham, Grand Junction, and Manchester & Birmingham lines).—Terminus and offices, Euston. Main line—Rugby, Crewe, Warrington, Preston, Carlisle; forming, with the Caledonian system, the "West Coast" route to Scotland. Serves also Manchester, Liverpool and all parts of the north-west, North Wales, Birmingham and the neighbouring midland towns, and by joint-lines, the South Welsh coal-fields. Maintains docks at Garston on the Mersey, a steamship traffic with Dublin and Greenore from Holyhead, and, jointly with the Lancashire & Yorkshire Company, a service to Belfast, &c., from Fleetwood.

Great Central (1846; until 1897, when an extension to London was undertaken, called the Manchester, Sheffield & Lincolnshire).—Terminus, Marylebone; offices, Manchester. Main line—Rugby, Nottingham, Leicester, Sheffield, Manchester. The former main line runs from Manchester and Sheffield east to Retford, thence serving Grimsby and Hull, with branches to Lincoln, &c. The main line reached from London by joining the line of the Metropolitan railway near Aylesbury and following it to Harrow. Subsequently an alternative route out of London was constructed between Neasden and Northolt, where it joins another line, of the Great Western railway, from Acton, and continues as a line held jointly by the two companies through Beaconsfield and High Wycombe. Here it absorbs the old Great Western line as far as Prince's Risborough, and continues thence to Grendon Underwood, effecting a junction with the original main line of the Great Central system. This line was opened for passenger traffic in April 1906. The Great Central company owns docks at Grimsby.

(b) EASTERN.

Great Eastern (1862).—Terminus and offices, Liverpool Street. Serving Essex, Suffolk, Cambridgeshire, Norfolk. Joint-line with Great Northern from March to Lincoln and Doncaster. Passenger steamship services from Harwich to the Hook of Holland, Antwerp, Rotterdam, &c.

London, Tilbury & Southend (1852).—Terminus and offices, Fenchurch Street. Serving places on the Essex shore of the Thames estuary, terminating at Shoeburyness.

(c) WESTERN.

Great Western (1835, London to Bristol).—Terminus and offices, Paddington. Main line—Reading, Didcot, Swindon, Bath, Bristol, Taunton, Exeter, Plymouth, Penzance. Numerous additional main lines—Reading to Newbury, Weymouth and the west, a new line opened in 1906 between Castle Cary and Langport effecting a great reduction in mileage between London and Exeter and places beyond; Didcot, Oxford, Birmingham, Shrewsbury, Chester with connexions northward, and to North Wales; Oxford to Worcester, and Swindon to Gloucester and the west of England; South Welsh system (through route from London via Wootton Bassett or via Bristol, and the Severn tunnel), Newport, Cardiff, Swansea, Milford. Steamship services to the Channel Islands from Weymouth to Waterford, Ireland from Milford, and to Rosslare, Ireland, from Fishguard, the route last named being opened in 1906. The line constructed jointly with the Great Central company (as detailed in the description above) was extended in 1910 from Ashendon to Aynho, to form a short route to the great centres north of Oxford.

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London & South-Western (1839, incorporating the London & Southampton railway of 1835).—Terminus and offices, Waterloo. Main line—Woking, Basingstoke, Salisbury, Yeovil, Exeter, Plymouth; Woking, Guildford and Portsmouth; Basingstoke, Winchester, Southampton, Bournemouth, &c. Extensive connexions in Surrey, Hampshire and the south-west, as far as North Cornwall. This company owns the great docks at Southampton, and maintains passenger services from that port to the Channel Islands, Havre, St Malo and Cherbourg.

(d) SOUTHERN.

London, Brighton & South Coast (1846).—Termini, Victoria and London Bridge. Serving all the coast stations from Hastings to Portsmouth, with various lines in eastern Surrey and in Sussex. Maintains a service of passenger steamers between Newhaven and Dieppe.

South Eastern & Chatham (under a managing committee, 1899, of the South-Eastern company, 1836, and the London, Chatham & Dover company, 1853).—Termini—Victoria, Charing Cross, Holborn Viaduct, Cannon Street. Offices, London Bridge Station. Various lines chiefly in Kent. Steamship services between Folkestone and Boulogne, Dover and Calais, &c.

2. Provincial Railways.

The two most important railway companies not possessing lines to London are the North-Eastern and the Lancashire & Yorkshire.

North Eastern (1854, amalgamating a number of systems).—Offices, York. Main line—Leeds, Normanton and York to Darlington, Durham, Newcastle and Berwick-on-Tweed. Connecting with the Great Northern between Doncaster and York, and with the North British at Berwick, it forms part of the "East Coast" route to Scotland. Serving all ports and coast stations from Hull to Berwick, also Carlisle, &c. Owning extensive docks at Hull,

Middlesbrough, South Shields, the Hartlepoons, Blyth, &c.

Lancashire & Yorkshire (1847, an amalgamation of a number of local systems).—Offices, Manchester. Main line—Manchester, Rochdale, Tormorden, Wakefield and Normanton, with branches to Halifax, Bradford, Leeds, Huddersfield and other centres of the West Riding. Extensive system in south Lancashire, connecting Manchester with Preston and Fleetwood (where the docks and steamship services to Ireland are worked jointly with the London & Northwestern company), Southport, Liverpool, &c.

Among further provincial systems there should be mentioned:—

Cambrian.—Offices, Oswestry. Whitchurch, Oswestry, Welshpool to Barmouth and Pwllheli, Aberystwyth, &c.

Cheshire Lines, worked by a committee representative of the Great Central, Great Northern and Midland Companies, and affording important connexions between the lines of these systems and south Lancashire and Cheshire (Godley, Stockport, Warrington, Liverpool; Manchester and Liverpool; Manchester and Liverpool to Southport; Godley and Manchester to Northwich and Chester, &c.).

Furness.—Offices, Barrow-in-Furness. Carnforth, Barrow, Whitehaven, with branches to Coniston, Windermere (Lakeside), &c. Docks at Barrow.

North Staffordshire.—Offices, Stoke-upon-Trent. Crewe and the Potteries, Macclesfield, &c., to Uttoxeter and Derby.

Cross-Country Connexions.—While London is naturally the principal focal point of the English railway system, the development of through connexions between the chief lines by way of the metropolis is very small. Some through trains are provided between the North-Western and the London, Brighton & South Coast lines via Willesden Junction, Addison Road and Clapham Junction; and a through connexion by way of Ludgate Hill has been arranged between main line trains of the South-Western and the Great Northern railways, but otherwise passengers travelling through London have generally to make their own way from one terminus to another. Certain cross-country routes, however, are provided to connect the systems of some of the companies, among which the following may be noticed.

(1) Through connexions with the continental services from Harwich, and with Yarmouth and other towns of the East coast, are provided from Yorkshire, Lancashire, &c., by way of the Great Northern and Great Eastern Joint line from Doncaster and Lincoln to March.

(2) Through connexions between the systems of the South-Eastern & Chatham and the Great Western companies are provided via Reading.

(3) Through connexions between the systems of the Great Central and the Great Western companies are provided by the line connecting Woodford and Banbury.

(4) Through connexions between the Midland and the South-Western systems are provided (a) by the Midland and South-Western Junction line connecting Cheltenham on the north-and-west line of the Midland with Andover Junction on the South-Western line; and (b) by the Somerset & Dorset line, connecting the same lines between Bath, Templecombe and Bournemouth.

(5) The line from Shrewsbury to Craven Arms and Hereford, giving connexion between the north and the south-west, and Wales, is worked by the North-Western and Great Western companies.

Inland Navigation.—The English system of inland navigation is confined principally to the following districts: South Lancashire, the West Riding of Yorkshire, the Midlands, especially about Birmingham, the Fen district and the Thames basin (especially the lower part). All these districts are interconnected. The condition of inland navigation, as a whole, is not satisfactory. The Fossdyke in Lincolnshire, connecting the river Trent at Torksey with the Witham near Lincoln, and now belonging to the Great Northern and Great Eastern joint railways, is usually indicated as the earliest extant canal in England, inasmuch as it was constructed by the Romans for the purpose of drainage or water-supply, and must have been used for navigation at an early period. But the history of canal-building in England is usually dated from about 1760, and from the construction, at the instance of Francis, Duke of Bridgewater, of the Bridgewater canal in South Lancashire, now belonging to the Manchester Ship Canal Company. The activity in canal-building which prevailed during the later years of the 18th century was, in a measure, an earlier counterpart of the first period of railway development, which, proceeding subsequently along systematized lines not applied to canal-construction, and providing obvious advantages in respect of speed, caused railways to withdraw much traffic from canals. Some canals and river navigations have consequently become derelict, or are

Canals and rivers.

only maintained with difficulty and in imperfect condition. The inland navigation system suffers from a want of uniformity in the size of locks, depth of water, width of channels and other arrangements, so that direct intercommunication between one canal and another is often impossible in consequence; moreover, although the canals, like railways, are owned by many separate bodies, hardly any provision has been made, as it has in the case of railways, for such facilities as the working of through traffic over various systems at an inclusive charge. Lastly, the railway companies themselves have acquired control of about 30% of the total mileage of canals in England and Wales, and in many cases this has had a prejudicial effect on the prosperity of canals. Notwithstanding these disabilities, there has been in modern times a new development in the trade of some canals, born of a realization that for certain classes of goods water-transport is cheaper than the swifter rail-transport. Various proposals have been made for the establishment of a single control over all inland waterways.

The lower or estuarine courses of some of the English rivers as the Thames, Tyne, Humber, Mersey and Bristol Avon, are among the most important waterways in the world, as giving access for seaborne traffic to great ports. From the Mersey the Manchester Ship Canal runs to Manchester. The manufacturing districts of South Lancashire and the West Riding of Yorkshire are traversed and connected by several canals following transverse valleys of the Pennine Chain. The main line of the Aire and Calder navigation runs from Goole by Castleford to Leeds, whence the Leeds and Liverpool canal, running by Burnley and Blackburn, completes the connexion between the Humber and the Mersey. Other canals are numerous, among which may be mentioned the Sheffield and South Yorkshire, connecting Sheffield with the Trent. The Trent itself affords an extensive navigation, from which, at Derwent mouth, the Trent and Mersey Canal runs near Burton and Stafford, and through the Potteries, to the Bridgewater Canal and so to the Mersey. This canal is owned by the North Staffordshire railway company. The river Weaver, a tributary of the Mersey, affords a waterway of importance to the salt-producing towns of Cheshire. The system of the Shropshire Union railways and canal company, which is connected by lease with the London & North-Western railway company, carries considerable traffic, especially in the neighbourhood of Ellesmere Port. In the Black Country and neighbourhood the numerous ramifications of the Birmingham Canal navigations bear a large mineral traffic. This system is connected with the rivers Severn and Trent and the canal system of the country at large, and is controlled by the London & North-Western company. The principal line of navigation from the Thames northward to the midlands is that of the Grand Junction, which runs from Brentford, is connected through London with the port of London by the Regent's Canal, and follows closely the main line of the North-Western railway. It connects with the Oxford Canal at Braunston in Northamptonshire, and through this with canals to Birmingham and the midlands, and continues to Leicester. Both the Severn up to Stourport and the Thames up to Oxford have a fair traffic, but the Thames and Severn Canal is not much used. There is some traffic on the navigable drainage cuts and rivers of the Fens, but beyond these, in a broad consideration of the waterways of England from the point of view of their commercial importance, it is unnecessary to go.

See H. R. De Salis, *Bradshaw's Canals and Navigable Rivers of England and Wales* (London, 1904); *Report of Royal Commission on Canals* (London, 1909).

Oversea Communications.—The chief ports for continental passenger traffic are as follows:—

Harwich to Amsterdam, Antwerp, Hamburg, Hook of Holland, Rotterdam (Great Eastern railway); to Copenhagen and Esbjerg (Royal Danish mail route).

Queenborough to Flushing; (Zeeland Steamship company).

Dover to Calais (South-Eastern & Chatham railway); to Ostend (Belgian Royal mail steamers).

Folkestone to Boulogne (South Eastern & Chatham railway).

Newhaven to Dieppe (London, Brighton & South Coast railway).

Southampton to Cherbourg, Havre, St Malo (South-Western railway).

The chief ports for trans-Atlantic traffic are Liverpool and Southampton, and special trains are worked in connexion with the steamers to and from London. The great development of harbour accommodation at Dover early in the 20th century brought trans-Atlantic traffic to this port also. Southampton and Liverpool are the two greatest English ports for all oceanic passenger traffic; but London has also a large traffic, both to European and to foreign ports. The passenger traffic to the Norwegian ports, always very heavy in summer, is carried on chiefly from Hull and Newcastle.

Agriculture.—In the agricultural returns for Great Britain, issued annually by the government, the area of England (apart from Wales) has been divided into two sections, “arable” and “grass,” corresponding with a former division into “corn counties” and “grazing counties,” except that Leicestershire is included not in the “grass” but in the “arable” section. Most of the eastern part of England is “arable,” while the western and northern part is “grass,” the boundary between the sections being the western limit of Hampshire, Berkshire, Oxfordshire, Warwickshire, Leicestershire, Nottinghamshire, and of the East Riding of Yorkshire.

The division is thus as follows:—

<i>Grass Counties.</i>	<i>Arable Counties.</i>
Northumberland.	Yorkshire, East Riding.
Cumberland.	Lincolnshire.
Durham.	Nottingham.
Yorkshire, North and West Ridings.	Rutland.
Westmorland.	Huntingdonshire.
Lancashire.	Warwickshire.
Cheshire.	Leicestershire.
Derbyshire.	Northamptonshire.
Staffordshire.	Cambridgeshire.
Shropshire.	Norfolk.
Worcestershire.	Suffolk.
Herefordshire.	Bedfordshire.
Monmouthshire.	Buckinghamshire.
Gloucestershire.	Oxfordshire.
Wiltshire.	Berkshire.
Dorsetshire.	Hampshire.
Somersetshire.	Hertfordshire.
Devonshire.	Essex.
Cornwall.	Middlesex.
	Surrey.
	Kent.
	Sussex.

The average area under cultivation of all the counties is about .76 of the whole area. The counties having the greatest area under cultivation (ranging up to about nine-tenths of the whole) may be taken to be—Leicestershire, the East Riding of Yorkshire, Lincolnshire, Huntingdonshire, Rutland, Northamptonshire, Bedfordshire and Cambridgeshire. Those with the smallest proportional cultivated area are Westmorland, Middlesex, Northumberland, Surrey, Cumberland, the North and West Ridings of Yorkshire, Lancashire, Durham and Cornwall. Geographical considerations govern these conditions to a very great extent; thus the counties first indicated lie almost entirely within the area of the low-lying and fertile Eastern Plain, while the smallest areas of cultivation are found in the counties covering the Pennine hill-system, with its high-lying uncultivated moors. In the case of Cornwall and Cumberland the physical conditions are similar to these; but in that of Middlesex and Surrey the existence of large urban areas belonging or adjacent to London must be taken into account. These also affect the proportion of cultivated areas in the other home counties. The presence of a widespread urban population must also be remembered in the case of Lancashire and the West Riding of Yorkshire.

The geographical distribution of the principal crops, &c., may now be followed. The grain crops grown in England consist almost exclusively of wheat, barley and oats. Lincolnshire, Norfolk, Suffolk, Essex, Cambridgeshire and the East Riding of Yorkshire are especially productive in all these; the North and West Ridings of Yorkshire produce a notable quantity of barley and oats; and the oat-crops in the following counties deserve mention—Devonshire, Hampshire, Lancashire, Cumberland, Cornwall, Cheshire and Sussex. There is no county, however, in which the single crop of wheat or barley stands pre-eminently above others, and in the case of the upland counties of Cumberland, Westmorland and Derbyshire, the metropolitan county of Middlesex, and Monmouthshire, these crops are quite insignificant. In proportion to their area, the counties specially productive of wheat are Cambridgeshire, Huntingdonshire, Hertfordshire, Bedfordshire and Essex; and of barley, Norfolk, Suffolk and the East Riding of Yorkshire. In fruit-growing, Kent takes the first place, but a good quantity is grown in Cambridgeshire, Norfolk and Essex, in Worcestershire and other western

Distribution of crops.

counties, where, as in Herefordshire, Somerset and Devon, the apple is especially cultivated and cider is largely produced. Kent is again pre-eminent in the growth of hops; indeed this practice and that of fruit-growing give the scenery of the county a strongly individual character. Hop-growing extends from Kent into the neighbouring parts of Sussex and Surrey, where, however, it is much less important; it is also practised to a considerable degree in a group of counties of the midlands and west—Herefordshire, Worcestershire, Gloucestershire and Shropshire. Market-gardening is carried on most extensively on suitable lands in the neighbourhood of the great areas of urban population; thus the open land remaining in Middlesex is largely devoted to this industry. From the Channel and Scilly Islands, vegetables, especially seasonable vegetables, and also flowers which, owing to the peculiar climatic conditions of these islands, come early to perfection, are imported to the London market. Considering the crops not hitherto specified, it may be indicated that turnips and swedes form the chief green crops in most districts; potatoes, mangels, beans and peas are also commonly grown. Beyond the three chief grain crops, only a little rye is grown. The cultivation of flax is almost extinct, but it is practised in a few districts, such as the East and West Ridings of Yorkshire.

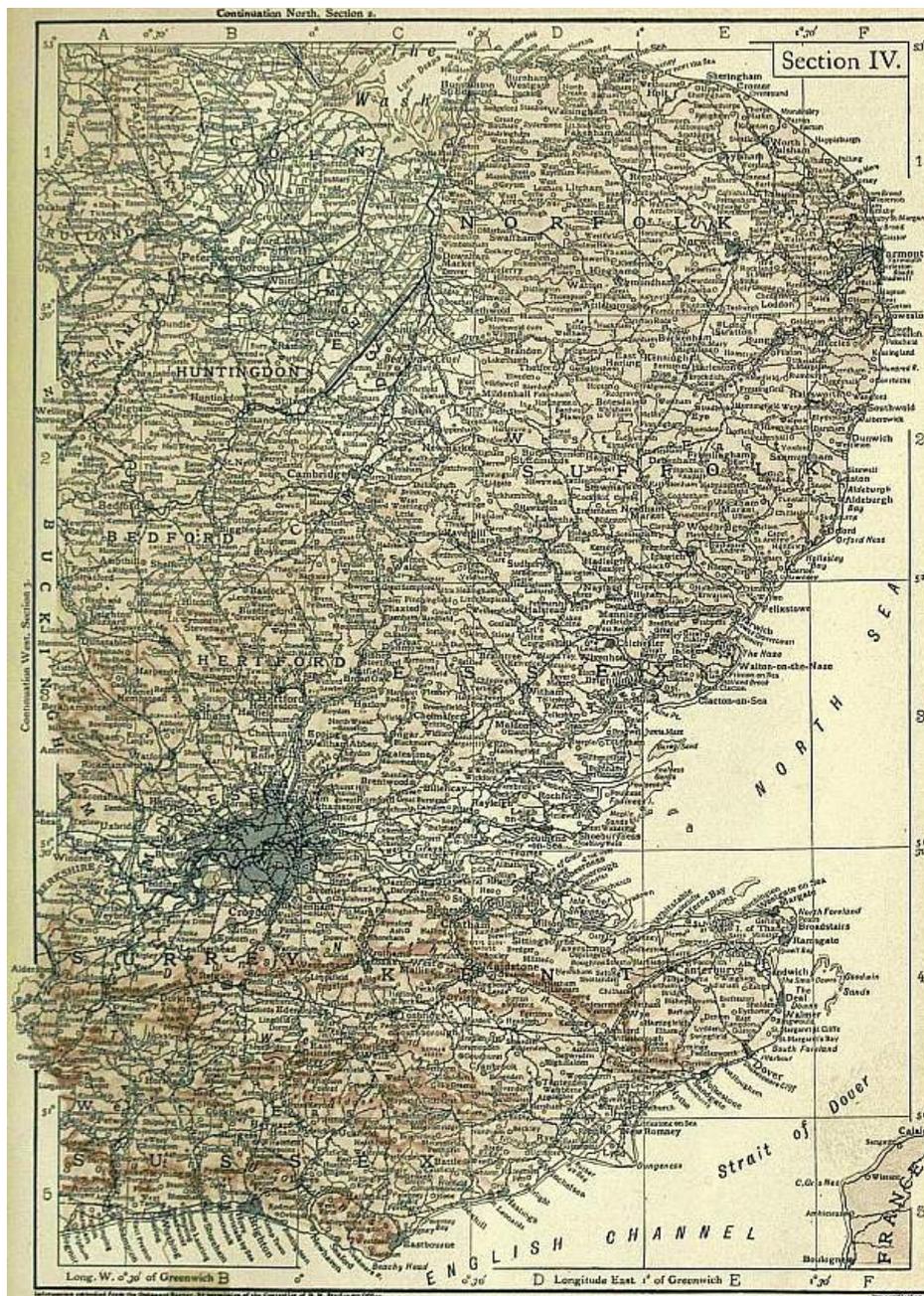
The counties in which the greatest proportion of the land is devoted to permanent pasture may be judged roughly from the list of "grass counties" already given. Derbyshire,

Leicestershire, the midland counties generally, and Somersetshire, have the highest proportion, and the counties of the East Anglian seaboard the lowest. But with lands thus classified heath, moor and hill pastures are not included; and the greatest areas of these are naturally found in the counties of the Pennines and the Lake District, especially in Northumberland, Cumberland, Westmorland and the North and West Ridings of Yorkshire. There is also plenty of hill-pasture in the south-western counties (from Hampshire and Berkshire westward), especially in Devonshire, Cornwall and Somersetshire, and also in Monmouthshire and along the Welsh marches, on the Cotteswold Hills, &c. In all these localities sheep are extensively reared, especially in Northumberland, but on the other hand in Lincolnshire the numbers of sheep are roughly equal to those in the northern county. Other counties in which the numbers are especially large are Devonshire, Kent, Cumberland and the North and West Ridings of Yorkshire. Cattle are reared in great numbers in Lincolnshire, Lancashire and the West Riding of Yorkshire, Devonshire, Somersetshire and Cornwall; but the numbers of both cattle and sheep are in no English county (save Middlesex) to be regarded as insignificant. Pigs are bred most extensively in Suffolk, Norfolk and Lincolnshire and in Somersetshire.

It is often asserted that the scenery of rural England is of its kind unrivalled. Except in open lands like the Fens, the peculiarly rich appearance of the country is due to the closely-divided fields with their high, luxuriant hedges, and especially to the profuse growth of trees. There is not, however, any large continuous forested tract. Certain areas still bear the name of forest where there is now none; the term here possesses an historical significance, in many cases indicating former royal game-preserves. Great areas of England were once under forest. The clearing of land for agricultural purposes, the use of wood for the prosecution of the industries of an increasing population, and other causes, have led to the gradual disforestation of large tracts. There are still, however, some small well-defined woodland areas. The New Forest in Hampshire, the Forest of Dean in Gloucestershire, and Epping Forest, which is preserved as a public recreation-ground by the City of London, are the most notable instances. The counties comprising the greatest proportional amount of woodland fall into two distinct groups—Hampshire, Surrey, Sussex and Kent, with Berkshire and Buckinghamshire; Monmouth, Herefordshire and Gloucestershire. Cambridgeshire, lying almost wholly within the area of the Fens, has the smallest proportional area of woodland of any English county.

The number of persons engaged in agriculture in England and Wales was found by the census of 1901 to be 1,192,167; the total showing a steady decrease (*e.g.* from 1,352,389 in 1881), which is especially marked in the case of females. But the decrease lies mainly in the number of agricultural labourers; the number of farmers is not notably affected, and the increasing substitution of machinery for manual labour must be taken into consideration. The average size of holdings in England may be taken approximately as 66 acres, the average in 1903 being 66.1, whereas in 1895 it was 65.3.

(See also the article [AGRICULTURE](#).)



[\(Click to enlarge.\)](#)

Fisheries.—All the seas round Britain are rich in fish, and there are important fishing stations at intervals on all the English coasts, but those on the east coast are by far the most numerous. On an estimate of weight and value of the fish landed, Grimsby

Sea fisheries.

at the mouth of the Humber in Lincolnshire, stands pre-eminent as a fishing port. For example, the fish landed there in 1903 were of nearly four times the value of those landed at Hull, which was the second in order of all the English stations. Next in importance stand Lowestoft, Yarmouth and North Shields, Boston and Scarborough, and, among a large number of minor fishing stations, Hartlepool and Ramsgate. Great quantities of fish are also landed at the riverside market of Billingsgate in London, but the conditions here are exceptional, the landings being effected by carrier steamers, plying from certain of the fishing fleets, and not taking part in the actual process of fishing. On the south coast Newlyn ranks in the same category with Boston; at Plymouth considerable catches are landed; and Brixham ranks alongside the last ports named on the east coast. The chief fishing centres of the English Channel are thus seen to belong to the coast of Devonshire and Cornwall. On the west coast the Welsh port of Milford takes the first place, while Swansea and Cardiff have a considerable fishing industry, surpassed, however, by that of Fleetwood in Lancashire. Liverpool also ranks among the more important centres. As a comparison of the production of the east, south and west coast fisheries, an average may be taken of the annual catches recorded over a term of years. In the ten years 1894-1903 this average was 6,985,588 cwt. for the east coast stations, 669,759 cwt. for those of the south coast, and 884,932 for those of the west (including the Welsh stations).

Distinctions may be drawn, as will be seen, between the nature and methods of the fisheries on the various coasts, and the relative prosperity of the industry from year to year cannot be considered as a whole. Thus in the period considered the recorded maximum weight of fish landed at the east coast ports was 9,539,114 cwt. in 1903 (the value being returned as £5,721,105); whereas on the south coast it was 736,599 cwt. in 1899, and on the west 1,117,164 cwt. in 1898. Considered as a whole, the individual fish, by far the most important in the English fisheries, is the herring, for which Yarmouth and Lowestoft are the chief ports. The next in order are haddock, cod and plaice, and the east coast fisheries return the greatest bulk of these also. But whereas the south coast has the advantage over the west in the herring and plaice fisheries, the reverse is the case in the haddock and cod fisheries, haddock, in particular, being landed in very small quantities at the south coast ports. Mackerel, however, are landed principally at the southern ports, and the pilchard is taken almost solely off the south-western coast. A fish of special importance to the west coast fisheries is the hake. Among shell-fish, crabs and oysters are taken principally off the east coast; the oyster beds in the shallow water off the north Kent and Essex coasts, as at Whitstable and Colchester, being famous. Lobsters are landed in greatest number on the south coast.

The number of vessels of every sort employed in fishing was returned in 1903 as 9721, and the number of persons employed as 41,539, of whom 34,071 were regular fishermen. The development of the steam trawling-vessel is illustrated by the increase in numbers of these vessels from 480 in 1893 to 1135 in 1903. They belong chiefly to North Shields, Hull, Grimsby, Yarmouth and Lowestoft. There are a considerable number on the west coast, but very few on the south. These vessels have a wide range of operations, pursuing their work as far as the Faeroe Islands and Iceland on the one hand, and the Bay of Biscay and the Portuguese coast on the other.

The English freshwater fisheries are not of great commercial importance, nor, from the point of view of sport, are the salmon and trout fisheries as a whole of equal importance with those of Scotland, Ireland or Wales. The English salmon and trout fisheries may be geographically classified thus: (1) *North-western division*, Rivers Eden, Derwent, Lune, Ribble; (2) *North-eastern*, Coquet, Tyne, Wear, Tees, &c.; (3) *Western*, Dee, Usk, Wye, Severn; (4) *South-western*, Taw, Torridge, Camel, Tamar, Dart, Exe, Teign, &c.; (5) *Southern*, Avon and Stour (Christchurch) and the Itchin and other famous trout streams of Hampshire. The rivers of the midlands and east are of little importance to salmon-fishers, though the Trent carries a few, and in modern times attempts have been made to rehabilitate the Thames as a salmon river. The trout-fishing in the upper Thames and many of its tributaries (such as the Kennet, Colne and Lea) is famous. But many of the midland, eastern and south-eastern rivers, the Norfolk Broads, &c., are noted for their coarse fish.

Mining.—Although the conditions of mining have, naturally, undergone a revolutionary development in comparatively modern times, yet some indications of England's mineral wealth are found at various periods of early history. The exploitation of tin in the south-west is commonly referred back to the time of the Phoenician sea-traders, and in the first half of the 13th century England supplied Europe with this metal. At a later period tin and lead were regarded as the English minerals of highest commercial value; whereas to-day both, but especially lead, have fallen far from this position. The Roman working of lead and iron has been clearly traced in many districts, as has that of salt in Cheshire. The subsequent development of the iron industry is full of interest, as, while extending vastly, it has entirely lapsed in certain districts. However long before it may have been known to a few, the use of coal for smelting iron did not become general till the later part of the 18th century, and down to that time, iron-working was confined to districts where timber was available for the supply of the smelting medium, charcoal. Thus the industry centred chiefly upon the Weald (Sussex and Kent), the Forest of Dean in Gloucestershire, and the Birmingham district; but from the first district named it afterwards wholly departed, following the development of the coal-fields. These have, in some cases, a record from a fairly early date; thus, an indication of the Northumberland coal-supply occurs in a charter of 1234, and the Yorkshire coal-field is first mentioned early in the following century. But how little this source of wealth was developed appears from an estimate of the total production of coal, which gives in 1700 only 2,612,000 tons, and, in 1800, 10,080,000 tons, against the returned total (for the United Kingdom) of 225,181,300 tons in 1900.

The chief minerals raised in England, as stated in the annual home office report on mines and quarries, appear in order of value, thus: coal, iron ore, clay and shale, sandstone, limestone, igneous rocks, salt, tin ore. Coal surpasses all the other minerals to such an extent that, taking the year 1903 as a type, when the total value of the mineral output was very nearly £70,000,000, that of coal is found to approach £61,000,000.

The position of the various principal coal-fields has been indicated in dealing with the

physical geography of England, but the grouping of the fields adopted in the official report may be given here, together with an indication of the counties covered by each, and the percentage of coal to the total bulk raised in each county. **Coal-fields.** These figures are furnished as a general demonstration of the geographical distribution of the industry, but are based on the returns for 1903.

Coal-fields.	Counties.	Percentage.
Northern	Durham	22.37
	Northumberland	7.48
Yorkshire, &c.	Yorkshire (West Riding) ²⁰	17.76
	Derbyshire	9.40
	Nottinghamshire	5.41
Lancashire and Cheshire	Lancashire	15.26
	Cheshire	0.25
	Leicestershire	1.31
Midland ²¹	Shropshire	0.50
	Staffordshire	8.10
	Warwickshire	2.12
	Worcestershire	0.44
Small detached	Cumberland	1.37
	Gloucestershire ²²	0.87
	Somersetshire	0.62
	Westmorland	0.07
	Yorkshire (North Riding) ²⁰	· ·
	Monmouthshire ²³	6.67

The coal-fields on the eastern flank of the Pennines, therefore, namely, the Northern and the Yorkshire, are seen to be by far the most important in England. The carrying trade in coal is naturally very extensive, and may be considered here. The principal ports for the shipping of coal for export, set down in order of the amount shipped, also fall very nearly into topographical groups, thus:—Newcastle, South Shields and Blyth in the Northern District; Newport in Monmouthshire; Sunderland in the Northern District, Hull, Grimsby and Goole on the Humber, which forms the eastern outlet of the Yorkshire coal-fields; Hartlepool, in the Northern District, and Liverpool. The tonnage annually shipped ranges from about 4½ millions of tons in the case of Newcastle to some half a million in the case of Liverpool; but the export trade of Cardiff in South Wales far surpasses that of any English port, being more than three times that of Newcastle in 1903. The coastwise carrying trade is also important, the bulk being shared about equally by Sunderland, Newcastle, South Shields and Cardiff, while Liverpool has also a large share. Of the whole amount of coal received coastwise at English and Welsh ports (about 13½ million tons), London received considerably over one-half (nearly 8 million tons in 1903). The railways having the heaviest coal traffic are the North-Eastern, which monopolizes the traffic of Northumberland and Durham; the Midland, commanding the Derbyshire, Yorkshire and East Midland traffic, and some of the Welsh; the London & North Western, whose principal sources are the Lancashire, Staffordshire and South Welsh districts; the Great Western and the Taff Vale (South Welsh), with the Great Central, Lancashire & Yorkshire and Great Northern systems.

In the face of railway competition, several of the canals maintain a fair traffic in coal, for which they are eminently suitable—the system of the Birmingham navigation, the Aire and Calder navigation of Yorkshire, and the Leeds and Liverpool navigation have the largest shares in this trade.

The richest iron-mining district in England and in the United Kingdom is the Cleveland district of the North Riding of Yorkshire. It produces over two-fifths of the total amount of ore raised in the Kingdom, and not much less than one-half of that raised in England. The richness of the ore (about 30% of metal) is by no means so great as the red haematite ore found in Cumberland and north Lancashire (Furness district, &c.). Here the percentage is over 50, but the ore, though the richest found in the kingdom, is less plentiful, about 1½ million tons being raised in 1903 as against more than 5½ millions in Cleveland. There is also a considerable working of brown iron ore at various points in Lincolnshire, Northamptonshire and Leicestershire; with further workings of less importance in Staffordshire and several other districts. The total amount of ore raised in England is about 12½ million tons, but it is not so high, in some iron-fields, as formerly. Some of the lesser deposits have been worked out, and even in the rich Furness fields it has been found difficult to pursue the ore. The import of ore (the bulk coming from Spain) has consequently increased, and the ports where the principal import trade is carried on are

Iron.

those which form the principal outlets of the iron-working districts of Cleveland and Furness, namely Middlesbrough and Barrow-in-Furness.

The geographical distribution of the remaining more important English minerals may be passed in quicker review. Of the metals, the production of copper is a lapsing industry, confined to Cornwall. For the production of lead the principal counties are Derbyshire, Durham and Stanhope, but the industry is not extensive, and is confined to a few places in each county. Quarrying for limestone, clay and sandstone is general in most parts. For limestone the principal localities are in Durham, Derbyshire and Yorkshire, while for chalk-quarrying Kent is pre-eminent among a group of south-eastern counties, including Hampshire, Sussex and Surrey, with Essex. Fireclay is largely raised from coal-mines, while, among special clays, there is a considerable production of china and potter's clays in Cornwall, Devonshire and Dorsetshire. As regards igneous rocks, the Charnwood Forest quarries of Leicestershire, and those of Cornwall, are particularly noted for their granite. Slate is worked in Cornwall and Devon, and also in Lancashire and Cumberland, where, in the Lake District, there are several large quarries. Salt, obtained principally from brine but also as rock-salt, is an important object of industry in Cheshire, the output from that county and Staffordshire exceeding a million tons annually. In Worcestershire, Durham and Yorkshire salt is also produced from brine.

The total number of persons in any way occupied in connexion with mines and quarries in England and Wales in 1901 was 805,185; the number being found to increase rapidly, as from 528,474 in 1881. Coal-mines alone occupied 643,654, and to development in this direction the total increase is chiefly due. The number of ironstone and other mines decreased in the period noticed from 55,907 to 31,606.

Manufacturing Industries.—There are of course a great number of important industries which have a general distribution throughout the country, being more or less fully developed here or there in accordance with the requirements of each locality. But in specifying the principal industries of any county, it is natural to consider those which have an influence more than local on its prosperity. In England, then, two broad classes of industry may be taken up for primary consideration—the textile and the metal. Long after textile and other industries had been flourishing in the leading states of the continent, in the Netherlands, Flanders and France, England remained, as a whole, an agricultural and pastoral country, content to export her riches in wool, and to import them again, greatly enhanced in value, as clothing. It is not to be understood that there were no manufacturing industries whatever. Rough cloth, for example, was manufactured for home consumption. But from Norman times the introduction of foreign artisans, capable of establishing industries which should produce goods fit for distant sale, occupied the attention of successive rulers. Thus the plantation of Flemish weavers in East Anglia, especially at the towns of Worstead (to which is attributed the derivation of the term worsted) and Norwich, dates from the 12th century. The industry, changing locality, like many others, in sympathy with the changes in modern conditions, has long been practically extinct in this district. Then, when religious persecution drove many of the industrial population of the west of Europe away from the homes of their birth, they liberally repaid English hospitality by establishing their own arts in the country, and teaching them to the inhabitants. Thus religious liberty formed part of the foundation of England's industrial greatness. Then came the material agent, machinery propelled by steam. The invention of the steam engine, following quickly upon that of the carding machine, the spinning jenny, and other ingenious machinery employed in textile manufactures, gave an extraordinary impulse to their development, and, with them, that of kindred branches of industry. At the basis of all of them was England's wealth in coal. The vast development of industries in England during the 19th century may be further correlated with certain events in the general history of the time. Insular England was not affected by the disturbing influences of the Napoleonic period in any such degree as was continental Europe. Such conditions carried on the work of British inventors in helping to develop industries so strongly that manufacturers were able to take full advantage of the opportunities offered by the American Civil War (in spite of the temporary disability it entailed upon the cotton industry) and by the Franco-German War. These wars tended to paralyse industries in the countries affected, which were thus forced to English markets to buy manufactured commodities. That England, not possessing the raw material, became the seat of the cotton manufacture, was owing to the ingenuity of her inventors. It was not till the later part of the 18th century, when a series of inventions, unparalleled in the annals of industry, followed each other in quick succession, that the cotton manufacture took real root in the country, gradually eclipsing that of other European nations, although a linen manufacture in Lancashire had acquired some prominence as early as the 16th century. But though the superior excellence of their machinery enabled Englishmen to start in the race of competition, it was the discovery of the new motive power, drawn from coal, which made

them win the race. In 1815 the total quantity of raw cotton imported into the United Kingdom was not more than 99 millions of pounds, which amount had increased to 152 millions of pounds in 1820, and rose further to 229 millions in 1825, so that there was considerably more than a doubling of the imports in ten years.

The geographical analysis of the cotton industry in England is simple. It belongs almost entirely to south Lancashire—to Manchester and the great industrial towns in its neighbourhood. The industry has extended into the adjacent parts of Cheshire, the West Riding of Yorkshire and Derbyshire. The immediate neighbourhood of a coal-supply influenced the geographical settlement of this industry, like others; and the importance to the manufacture of a moist climate, such as is found on the western slope of the Pennines (in contradistinction to the eastern), must also be considered. The excess of the demand of the factories over the supply of raw material has become a remarkable feature of the industry in modern times.

The distribution of the woollen industries peculiarly illustrates the changes which have taken place since the early establishment of manufacturing industries in England. It has been seen how completely the industry has forsaken East Anglia. Similarly, this industry was of early importance along the line of the Cotteswold Hills, from Chipping Camden to Stroud and beyond, as also in some towns of Devonshire and Cornwall, but though it survives in the neighbourhood of Stroud, the importance of this district is far surpassed by that of the West Riding of Yorkshire, where the woollen industry stands pre-eminent among the many which, as already indicated, have concentrated there. As the cotton industry has in some degree extended from Lancashire into the West Riding, so has the woollen from the West Riding into a few Lancastrian towns, such as Rochdale. Among other textile industries attaching to definite localities may be mentioned the silk manufacture of eastern Staffordshire and Cheshire, as at Congleton and Macclesfield; and the hosiery and lace manufactures of Nottinghamshire, Derbyshire and Leicestershire.

The metal-working industries also follow a geographical distribution, mainly governed by the incidence of the coal-fields, as well as by that of the chief districts for the production of iron-ore already indicated, such as the Cleveland and Durham and the Furness districts. But the district most intimately connected with every branch of this industry, from engineering and the manufacture of tools, &c., to working in the precious metals, is the "Black Country" and Birmingham district of Staffordshire, Warwickshire and Worcestershire. Apart from this district, large quantities of iron and steel are produced in the manufacturing areas of Lancashire and the West Riding of Yorkshire, and here, as in the Black Country, are found certain centres especially noted for the production of an individual class of goods, such as Sheffield for its cutlery. There is, further, a large engineering industry in the London district; and important manufactures of agricultural implements are found at many towns of East Anglia and in other agricultural localities. Birmingham and Coventry may be specially mentioned as centres of the motor and cycle building industry. The establishment of their engineering and other workshops at certain centres by the great railway companies has important bearing on the concentration of urban population. For example, by this means the London & North Western and the Great Western companies have created large towns in Crewe and Swindon respectively.

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Certain other important industries may be localized. Thus, the manufacture of china and pottery, although widespread, is primarily identified with Staffordshire, where an area comprising Stoke and a number of contiguous towns actually bears the name of the Potteries (*q.v.*). Derby has a similar fame, while the manufacture of glass, important in Leeds and elsewhere in the West Riding of Yorkshire, and in the London district, centres peculiarly upon a single town in South Lancashire—St Helens. Finally, the bootmakers of Northamptonshire (at Wellingborough, Rushden, &c.), and the straw-plaiters of Bedfordshire (at Luton and Dunstable), deserve mention among localized industrial communities.

Occupations of the People.—The occupations of the people may be so considered as to afford a conception of the relative extent of the industries already noticed, and their importance in relation to other occupations. The figures to be given are those of the census of 1901, and embrace males and females of 10 years of age and upwards. The textile manufactures occupied a total of 994,668 persons, of which the cotton industry occupied 529,131. A high proportion of female labour is characteristic of each branch of this industry, the number of females employed being about half as many again as that of males (the proportion was 1.47 to 1 in 1901). The metal industries of every sort occupied 1,116,202; out of which those employed in engineering (including the building of all sorts of vehicles) numbered 741,346. Of the other broad classes of industry already indicated, the manufacture of boots and shoes occupied 229,257, and the pottery and glass manufactures 90,193. For the rest, the numbers of persons occupied in agriculture has been quoted as

1,192,167; and of those occupied in mining as 805,185. Among occupations not already detailed, those of the male population include transport of every sort (1,094,301), building and other works of construction (1,042,864), manufacture of articles of human consumption, lodging, &c. (774,291), commerce, banking, &c. (530,685), domestic service, &c. (304,195), professional occupations (311,618). The service of government in every branch occupied 171,687. Female workers were occupied to the number of 1,664,381 in domestic service generally. Tailoring and the textile clothing industries and trade generally occupied 602,881; teaching 172,873; nursing and other work in institutions 104,036; and the civil service, clerkships and similar occupations 82,635.

IX. TERRITORIAL DIVISIONS, &c.

For various administrative and other purposes England and Wales have been divided, at different times from the Saxon period onwards, into a series of divisions, whose boundaries have been adjusted as each purpose demanded, without much attempt to establish uniformity. Therefore, although the methods of local government are detailed below (Section X.), and other administrative arrangements are described under the various headings dealing with each subject, it is desirable to give here, for ease of reference and distinction, a schedule of the various areas into which England and Wales are divided. The areas here given, excepting the Poor Law Union, are those utilized in the Census Returns (see the General Report, 1901).

England and Wales; Areas. County (ancient or geographical).

Parliamentary Areas	Division. Borough.	

	Administrative County.	
	County Borough.	
	Municipal Borough.	} (City, town)
Administrative Areas	Urban District (other than borough).	
	Rural District.	
	Civil Parish.	
	Poor Law Union.	

Judicial Areas	County Court Circuit. County Court District. Petty Sessional Division	

Ecclesiastical Areas	Province. Diocese. Parish	

Registration Areas	Division. County. District. Subdistrict.	

The ancient counties were superseded for most practical purposes by the administrative counties created by the Local Government Act of 1888. The ancient division, however, besides being maintained in general speech and usage, forms the basis on which the system of distribution of parliamentary representation now in force was constructed. The Redistribution of Seats Act 1885 made a new division of the country into county and borough constituencies. All the English counties, with the exception of Rutland, are divided into two or more constituencies, each returning one member, the number of English county parliamentary areas being 234. In Wales eight smaller or less populous counties form each one parliamentary constituency, while the four larger are divided, the number of Welsh county parliamentary areas being 19. The number of county areas for parliamentary purposes in England and Wales is thus 253, and the total number of their representatives is the same. Outside the county constituencies are the parliamentary boroughs. Of these there are 135 in England, one of them, Monmouth district, being made up of three contributory boroughs, while many are divided into several constituencies, the number of borough parliamentary areas in England being 205, of which 61 are in the metropolis. Of the 205 borough constituencies, 184 return each one member, and 21 return each two members, so that the total number of English borough members is 226. Besides the county and borough

members there are in England five university members, namely, two for Oxford, two for Cambridge and one for London. In Wales there are 10 borough parliamentary areas, all of which, except Merthyr Tydfil and Swansea town division, consist of groups of several contributory boroughs. Each Welsh borough constituency returns one member, except Merthyr Tydfil, which returns two, so that there are eleven Welsh borough members.

The administrative counties, created in 1888, number 62, each having a county council. They sometimes coincide in area with the ancient counties of the same name, but generally differ, in a greater or less degree, for the following reasons—(1) in some cases an ancient county comprises (approximately) two or more administrative counties, in the formation of which names of some ancient divisions were preserved, thus:—

<i>Ancient County.</i>	<i>Administrative County.</i>
Cambridgeshire	Cambridge. Isle of Ely.
Hampshire	Southampton. Isle of Wight.
Lincolnshire	Parts of Holland. Parts of Kesteven. Parts of Lindsey.
Northamptonshire	Northampton. Soke of Peterborough.
Suffolk	East Suffolk. West Suffolk.
Sussex	East Sussex. West Sussex.
Yorkshire	East Riding. North Riding. West Riding.

The Scilly Islands, which form part of the ancient county of Cornwall, without being ranked as an administrative county, are provided with a county council and have separate administration. (2) The administrative county of London has an area taken entirely from the counties of Middlesex, Kent and Surrey. (3) All boroughs which on June 1, 1888, had a population of not less than 50,000, boroughs which were already counties having a population of not less than 20,000, and a few others, were formed into separate administrative areas, with the name of county boroughs. Of these there were originally 61, but their number subsequently increased. (4) Provision was made by the act of 1888 for including entirely within one administrative county each of such urban districts as were situated in more than one ancient county.

The various urban and rural districts are described below (Section X.). The *Civil Parish* is defined (Poor Law Amendment Act 1866) as “a place for which a separate poor-rate is or can be made,” but the parish council has local administrative functions beyond the administration of the poor law. The civil parish has become more or less divorced in relationship from the *Ecclesiastical Parish* (a division which probably served in early times for administrative purposes also), owing to successive independent alterations in the boundaries of both (see [PARISH](#)). *Poor-law unions* are groups of parishes for the local administration of the Poor Laws. Within the unions the local poor-law authorities are the *Board of Guardians*. In rural districts the functions of these boards are, under the Local Government Act of 1894, performed by the district councils, and in other places their constitution is similar to that of the urban and district councils (see [POOR LAW](#)).

Registration districts are generally, but not invariably, coextensive with unions of the same name. These districts are divided into sub-districts, within which the births and deaths are registered by registrars appointed for that purpose. *Registration counties* are groups of registration districts, and their boundaries differ more or less from those both of the ancient and the administrative counties. In England and Wales there are eleven registration divisions, consisting of groups of registration counties (see [REGISTRATION](#)).

(O. J. R. H.)

X. LOCAL GOVERNMENT

The Reform Act of 1832 was the real starting-point for the overhauling of English local government. For centuries before, from the reign of Edward III., under a number of statutes

and commissions, the administrative work in the counties had been in the hands of the country gentlemen and the clergy, acting as justices of the peace, and sitting in petty sessions and quarter sessions. Each civil or "poor law" parish was governed by the vestry and the overseers of the poor, dating from the Poor Law of 1601; the vestry, which dealt with general affairs, being presided over by the rector, and having the churchwardens as its chief officials. In 1782 Gilbert's Act introduced the grouping of parishes for poor law purposes, and boards of guardians appointed by the justices of the peace. The municipal boroughs (246 in England and Wales in 1832) were governed by mayor, aldermen, councillors and a close body of burgesses or freemen, a narrow oligarchy. Reform began with the Poor Law Amendment Act of 1834, grouping the parishes into Unions, making the boards of guardians mainly elective, and creating a central poor law board in London. The Municipal Corporations Act followed in 1835, giving all ratepayers the local franchise. And as a result of the failure of the Public Health Board established in 1848, the royal commission of 1869-1871 led to the establishment in 1871 of the Local Government Board as a central supervising body. Meanwhile, the school boards resulting from the Education Act of 1870 brought local government also into the educational system; and the Public Health Act of 1875 put further duties on the local authorities. By 1888 a new state of chaos had grown up as the result of the multiplication of bodies, and the new Redistribution Act of 1885 paved the way for a further reorganization of local matters by the Local Government Act of 1888, followed by that of 1894. In London, which required separate treatment, a similar process had been going on. The Metropolis Management Act of 1855 established (outside the city) two classes of parishes—the first class with vestries of their own, the second class grouped under district boards elected by the component vestries; and the Metropolitan Board of Works (abolished in 1888), elected by the vestries and the district boards, was made the central authority.

In 1867 the Metropolitan Asylums Board took over its work from the metropolitan boards of guardians. See further [CHARITY AND CHARITIES](#), [PUBLIC HEALTH](#), [EDUCATION](#), [JUSTICE OF THE PEACE](#), [VESTRY](#), &c.

The system of local government now existing in England (see also the article [LOCAL GOVERNMENT](#)) may be said to have been founded in 1888, when the Local Government Act of that year was passed. Since then the entire system of the government of districts and parishes has been reorganized with due regard to the preceding legislation. The largest area of local government is the county; next to that the sanitary district, urban or rural, including under this head municipal boroughs, all of which are urban districts. The parish is, speaking generally, the smallest area, though, as will hereafter be seen, part of a parish may be a separate area for certain purposes; and there may be united districts or parishes for certain purposes. It will be convenient to follow this order in the present article. But before doing so, it should be pointed out that all local bodies in England are to some extent subject to the control of central authorities, such as the privy council, the home office, the Board of Agriculture, the Board of Trade, the Board of Education or the Local Government Board.

The Administrative County.—The administrative county includes all places within its area, with two important exceptions. The first of these consists of the county borough. The second is the quarter sessions borough, which forms part of the county for certain specified purposes only. But the county includes all other places, such as liberties and franchises, which before 1888 were exempt from contribution to county rate. For each administrative county a county council is elected. For purposes of election the entire county is divided into divisions corresponding to the wards of a municipal borough, and one councillor is elected for each electoral division.

The county and the county council.

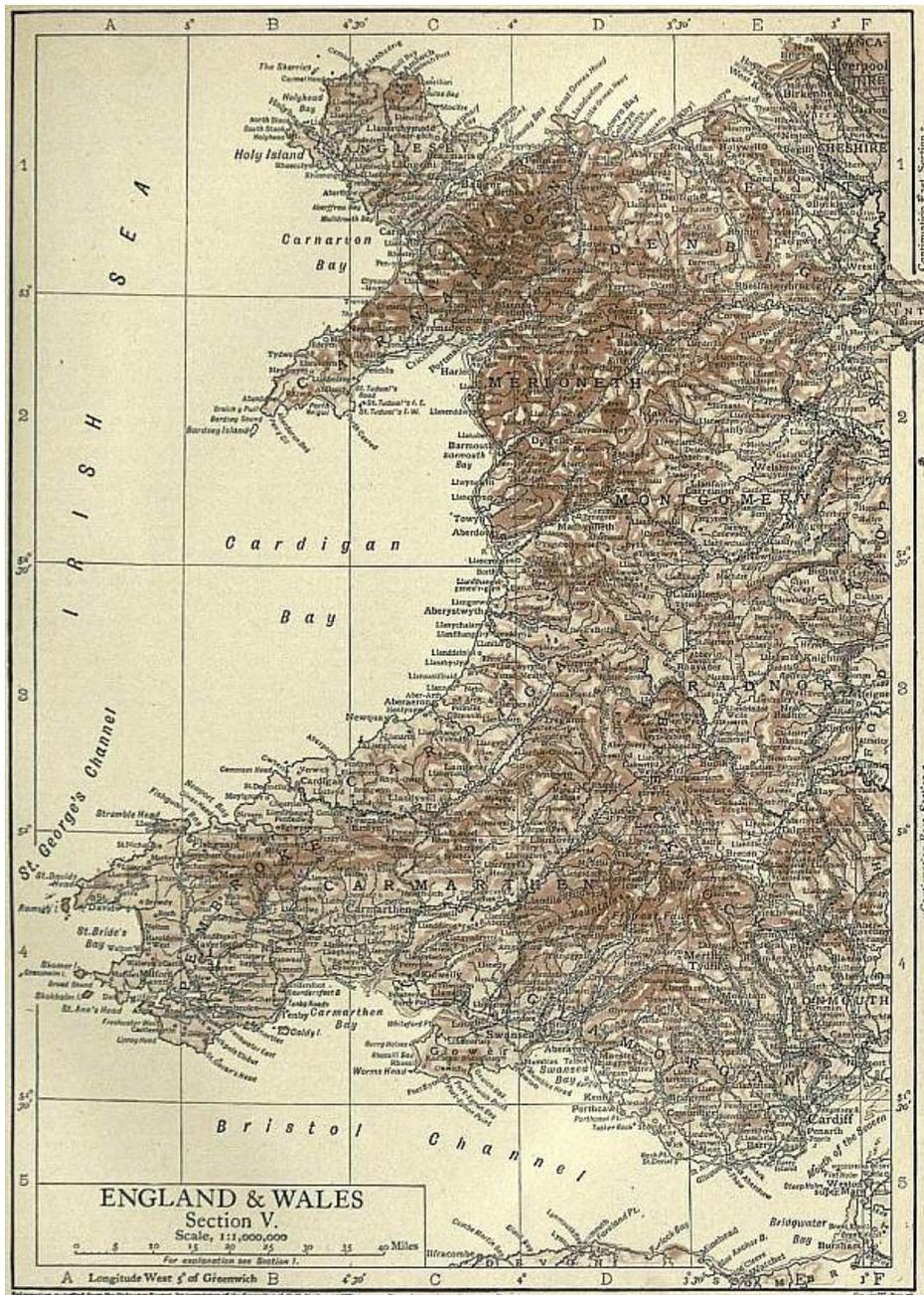
The electors are the county electors, *i.e.* in a borough the persons enrolled as burgesses, and in the rest of the county the persons who are registered as county electors, *i.e.* those persons who possess in a county the same qualification as burgesses must have in a borough, and are registered.

County council elections.

The qualification of a burgess or county elector is substantially the occupation of rated property within the borough or county, residence during a qualifying period of twelve months within the borough or county, and payment of rates for the qualifying property. A person so qualified is entitled to be enrolled as a burgess, or registered as a county elector (as the case may be), unless he is alien, has during the qualifying period received union or parochial relief or other alms, or is disqualified under some act of parliament such as the Corrupt Practices Act, the Felony Act, &c. The lists of burgesses and county electors are prepared annually by the overseers of each parish in the borough or county, and are revised by the revising barrister at courts holden by him for the

purpose in September or October of each year. When revised they are sent to the town clerk of the borough, or to the clerk of the peace of the county, as the case may be, by whom they are printed. The lists are conclusive of the right to vote at an election, although on election petition involving a scrutiny the vote of a person disqualified by law may be struck off, notwithstanding the inclusion of his name in a list of voters.

The qualification of a county councillor is similar to that required of a councillor in a municipal borough, with some modifications. A person may be qualified in any one of the following ways: viz. by being (1) enrolled as a county elector, and possessed of a property qualification consisting of the possession of real or personal property to the amount of £1000 in a county having four or more divisions, or of £500 in any other county, *or* the being rated to the poor rate on an annual value of £30 in a county having four or more divisions, or of £15 in any other county; (2) enrolled in the non-resident list, and possessed of the same property qualification (the non-resident list contains the names of persons who are qualified for enrolment in all respects save residence in the county or within 7 m. thereof, and are actually resident beyond the 7 m. and within 15 m.); (3) entitled to elect to the office of county councillor (for this qualification no property qualification is required, but the office of a councillor elected on this qualification only becomes vacant if for six months he ceases to reside within the county); (4) a peer owning property in the county; (5) registered as a parliamentary voter in respect of the ownership of property in the county. Clerks in holy orders and ministers of religion are not disqualified as they are for being borough councillors, but in other respects the persons disqualified to be elected for a county are the same as those disqualified to be elected for a borough. Such disqualifications include the holding of any office or place of profit under the council other than the office of chairman, and the being concerned or interested in any contract or employment with, by or on behalf of the council. Women, other than married women, are eligible.



[\(Click to enlarge.\)](#)

County councillors are elected for a term of three years, and at the end of that time they retire together. The ordinary day of election is the 8th March, or some day between the 1st and 8th March fixed by the council. Candidates are nominated in writing by a nomination paper signed by a proposer and seconder, and subscribed by eight other assenting county electors of the division; and in the event of there being more valid nominations than vacancies a poll has to be taken in the manner prescribed by the Ballot Act 1872. Corrupt and illegal practices at the election are forbidden by a statute passed in the year 1894, which imposes heavy penalties and disqualifications for the offences which it creates. These offences include not only treating, undue influence, bribery and personation, but certain others, of which the following are the chief. Payment on account of the conveyance of electors to or from the poll; payment for any committee room in excess of a prescribed number; the incurring of expenses in and about the election beyond a certain maximum; employing, for the conveyance of electors to or from the poll, hackney carriages or carriages kept for hire; payments for bands, flags, cockades, &c.; employing for payment persons at the election beyond the prescribed number; printing and publishing bills, placards or posters which do not disclose the name and address of the printer or publisher; using as committee rooms or for meetings any licensed premises, or any premises where food or drink is ordinarily sold for consumption on the premises, or any club premises where intoxicating liquor is supplied to members. In the event of an illegal practice, payment, employment or hiring, committed or done inadvertently, relief may be given by the High Court, or by an election court, if the validity of the election is questioned on petition; but unless such relief is given (and it will be observed that it cannot be given for a *corrupt* as distinguished from an

illegal practice), an infringement of the act may void the election altogether. The validity of the election may be questioned by election petition. Indeed, this is the only method when it is sought to set aside the election on any of the usual grounds, such as corrupt or illegal practices, or the disqualification of the candidate at the date of election. Election petitions against county councillors and members of other local bodies (borough councillors, urban and rural district councillors, members of school boards and boards of guardians) are classed together as municipal election petitions, and are heard in the same way, by a commissioner who must be a barrister of not less than fifteen years' standing. The petition is tried in open court at some place within the county, the expenses of the court being provided in the first instance by the Treasury, and repaid out of the county rates, except in so far as the court may order them to be paid by either of the parties. If a candidate is unseated a casual vacancy is created which has to be filled by a new election. A county councillor is required to accept office by making and subscribing a declaration in the prescribed form that he will duly and faithfully perform the duties of the office, and that he possesses the necessary qualification. The declaration may be made at any time within three months after notice of election. If the councillor does not make it within that time, he is liable to a fine the amount of which, if not determined by bye-law of the council, is £25 in the case of an alderman or councillor, and £50 in the case of the chairman. Exemption may, however, be claimed on the ground of age, physical or mental incapacity, previous service, or payment of the fine within five years, or on the ground that the claimant was nominated without his consent. If during his term of office a member of the council becomes bankrupt, or compounds with his creditors, or is (except in case of illness) continuously absent from the county, being chairman for more than two months, or being alderman or councillor for more than six months, his office becomes vacant by declaration of the council. In the case of disqualification by absence, the same fines are payable as upon non-acceptance of office, and the same liability arises on resignation. Acting without making the declaration, or without being qualified at the time of making the declaration, or after ceasing to be qualified, or after becoming disqualified, involves liability to a fine not exceeding £50, recoverable by action.

The councillors who have been elected come into office on the 8th March in the year of election. The first quarterly meeting of the newly-elected council is held on the 16th or on such other day within ten days after the 8th as the county council may fix.

**Chairman,
&c.**

The first business at that meeting is the election of the chairman, whose office corresponds to that of the mayor in a borough. He is elected for the ensuing year, and holds office until his successor has accepted office. The chairman must be a fit person, elected by the council from their own body or from persons qualified to be councillors. He may receive such remuneration as the council think reasonable. He is by virtue of his office a justice of the peace for the county. Having elected the chairman, the meeting proceeds to the election of aldermen, whose number is one-third of the number of councillors, except in London, where the number is one-sixth. An alderman must be a councillor or a person qualified to be a councillor. If a councillor is elected he vacates his office of councillor, and thus creates a casual vacancy in the council. In every third year one-half of the whole number of aldermen go out of office, and their places are filled by election, which is conducted by means of voting papers. It will be observed, therefore, that while a county councillor holds office for three years, a county alderman holds office for six. The council may also appoint a vice-chairman who holds office during the term of office of the chairman; in London the council have power to appoint a paid deputy chairman.

It may be convenient at this point to refer to the officers of the county council. Of these, the chief are the clerk, the treasurer, and the surveyor. Before 1888 the clerk of the peace was appointed in a county by the *custos rotulorum*. He held office for life

Officers.

during good conduct, and had power to act by a sufficient deputy. Under the act of 1888 existing clerks of the peace became clerks of the councils of their counties, holding office by the same tenure as formerly, except in the county of London, where the offices were separated. Thereafter a new appointment to the offices of clerk of the peace and clerk of the county council was to be made by the standing joint-committee, at whose pleasure he is to hold office. The same committee appoint the deputy-clerk, and fix the salaries of both officers. The clerk of the peace was formerly paid by fees which were fixed by quarter sessions, but he is now generally, if not in every case, paid by salary, the fees received by him being paid into the county fund. The county council may also employ such other officers and servants as they may think necessary.

Subject to a few special provisions in the Local Government Act of 1888, the business of the county council is regulated by the provisions laid down in the Municipal Corporations Act 1882, with regard to borough councils. There are four quarterly

Business.

meetings in every year, the dates of which may be fixed by the council, with the exception of that which must be held on the 16th March or some

day within ten days after the 8th of March as already noticed when treating of elections. Meetings are convened by notices sent to members stating the time and place of the meeting and the business to be transacted. The chairman, or in his absence the vice-chairman, or in the absence of both an alderman or councillor appointed by the meeting, presides. All questions are determined by the votes of the majority of those present and voting, and in case of equality of votes the chairman has a casting vote. Minutes of the proceedings are taken, and if signed by the chairman at the same or the next meeting of the council are evidence of the proceedings. In all other respects the business of the council is regulated by standing orders which the council are authorized to make. Very full power is given to appoint committees, which may be either general or special, and to them may be delegated, with or without restrictions or conditions, any of their powers or duties except that of raising money by rate or loan. Power is also given to appoint joint-committees with other county councils in matters in which the two councils are jointly interested, but a joint-committee so appointed must not be confounded with the standing joint-committee of the county council and the quarter sessions, which is a distinct statutory body and is elsewhere referred to. The finance committee is also a body with distinct duties.

In order to appreciate some of the points relating to the finance of a county council, it is necessary to indicate the relations between an administrative county and the boroughs which are locally situated within it. The act of 1888 created a new division of boroughs into three classes; of these the first is the county borough. A certain number of boroughs which either had a population of not less than 50,000, or were counties of themselves, were made counties independent of the county council and free from the payment of county rate. In such boroughs the borough council have, in addition to their powers under the Municipal Corporations Act 1882, all the powers of a county council under the Local Government Act. They are independent of the county council, and their only relation is that in some instances they pay a contribution to the county, *e.g.* for the cost of assizes where there is no separate assize for the borough. The boroughs thus constituted county boroughs enumerated in the schedule to the Local Government Act 1888 numbered sixty-one, but additional ones are created from time to time.

The larger quarter sessions boroughs, *i.e.* those which had, according to the census of 1881, a population exceeding 10,000, form part of the county, and are subject to the control of the county council, but only for certain special purposes. The reason for this is that while in counties the powers and duties under various acts were entrusted to the county authority, in boroughs they were exercised by the borough councils. In the class of boroughs now under consideration these powers and duties are retained by the borough council; the county council exercise no jurisdiction within the borough in respect of them, and the borough is not rated in respect of them to the county rate. The acts referred to include those relating to the diseases of animals, destructive insects, explosives, fish conservancy, gas meters, margarine, police, reformatory and industrial schools, riot (damages), sale of food and drugs, weights and measures. But for certain purposes these boroughs are part of the county and rateable to county rate, *e.g.* main roads, cost of assizes and sessions, and in certain cases pauper lunatics. The county councillors elected for one of these boroughs may not vote on any matter involving expenditure on account of which the borough is not assessed to county rate.

430

The third class of boroughs comprises those which have a separate court of quarter sessions, but had according to the census of 1881 a population of less than 10,000. All such boroughs form part of the county for the purposes of pauper lunatics, analysts, reformatory and industrial schools, fish conservancy, explosives, and, of course, the purposes for which the larger quarter sessions boroughs also form part of the county, such as main roads, and are assessed to county rate accordingly. And in a borough, whether a quarter sessions borough or not, which had in 1881 a population of less than 10,000, all the powers which the borough council formerly possessed as to police, analysts, diseases of animals, gas meters, and weights and measures cease and are transferred to the county council, the boroughs becoming in fact part of the area of the county for these purposes.

It will be seen, therefore, that for some purposes, called in the act general county purposes, the entire county, including all boroughs other than county boroughs, is assessed to the county rate; while for others, called special county purposes, certain boroughs are now assessed. This explanation is necessary in order to appreciate what has now to be said about county finance. But before leaving the consideration of the area of the county it may be added that all liberties and franchises are now merged in the county and subject to the jurisdiction of the county council.

The county council is a body corporate with power to hold lands. Its revenues are derived from various sources which will presently be mentioned, but all receipts have to be carried to the county fund, either to the general county account if applicable to general county purposes, or to the special county account if applicable to special county purposes. The county council may, with the consent of the Local Government Board, borrow money on the security of the county fund or any of its revenues, for consolidating the debts of the county; purchasing land or buildings; any permanent work or other thing, the cost of which ought to be spread over a term of years; making advances in aid of the emigration or colonization of inhabitants of the county; and any purpose for which quarter sessions or the county council are authorized by any act to borrow. If, however, the total debt of the council will, with the amount proposed to be borrowed, exceed one-tenth of the annual rateable value of the property in the county, the money cannot be borrowed unless under a provisional order made by the Local Government Board and confirmed by parliament. The period for which a loan is made is fixed by the county council with the consent of the Local Government Board, but may not exceed thirty years, and the mode of repayment may be by equal yearly or half-yearly instalments of principal or of principal and interest combined, or by means of a sinking fund invested and applied in accordance with the Local Government Acts. The loans authorized may be raised by debentures or annuity certificates under these acts, or by the issue of county stock, and in some cases by mortgage.

Finance.

The county council must appoint a finance committee for regulating and controlling the finance of the county, and the council cannot make any order for the payment of money out of the county fund save on the recommendation of that committee. Moreover, the order for payment of any sum must be made in pursuance of an order of the council signed by three members of the finance committee present at the meeting of the council, and countersigned by the clerk. The order is directed to the county treasurer, by whom authorized payments are then made.

The accounts of the receipts and expenditure of the county council are made up for the twelve months ending the 31st March in each year, and are audited by a district auditor. The form in which the accounts must be made up is prescribed by the Local Government Board. The auditor is a district auditor appointed by the Local Government Board under the District Auditors Act 1879, and in respect of the audit the council is charged with a stamp duty, the amount of which depends on the total of the expenditure comprised in the financial statement. Before each audit the auditor gives notice of the time and place appointed, and the council publish the appointment by advertisement. A copy of the accounts has to be deposited for public inspection for seven days before the audit. The auditor has the fullest powers of investigation; he may require the production of any books or papers, and he may require the attendance before him of any person accountable. Any owner of property or ratepayer may attend the audit and object to the accounts, and either on such objection or on his own motion the auditor may disallow any payment and surcharge the amount on the persons who made or authorized it. Against any allowance or surcharge appeal lies to the High Court if the question involved is one of law, or to the Local Government Board, who have jurisdiction to remit a surcharge if, in the circumstances, it appears to them to be fair and equitable to do so. It will be seen that this is really an effective audit.

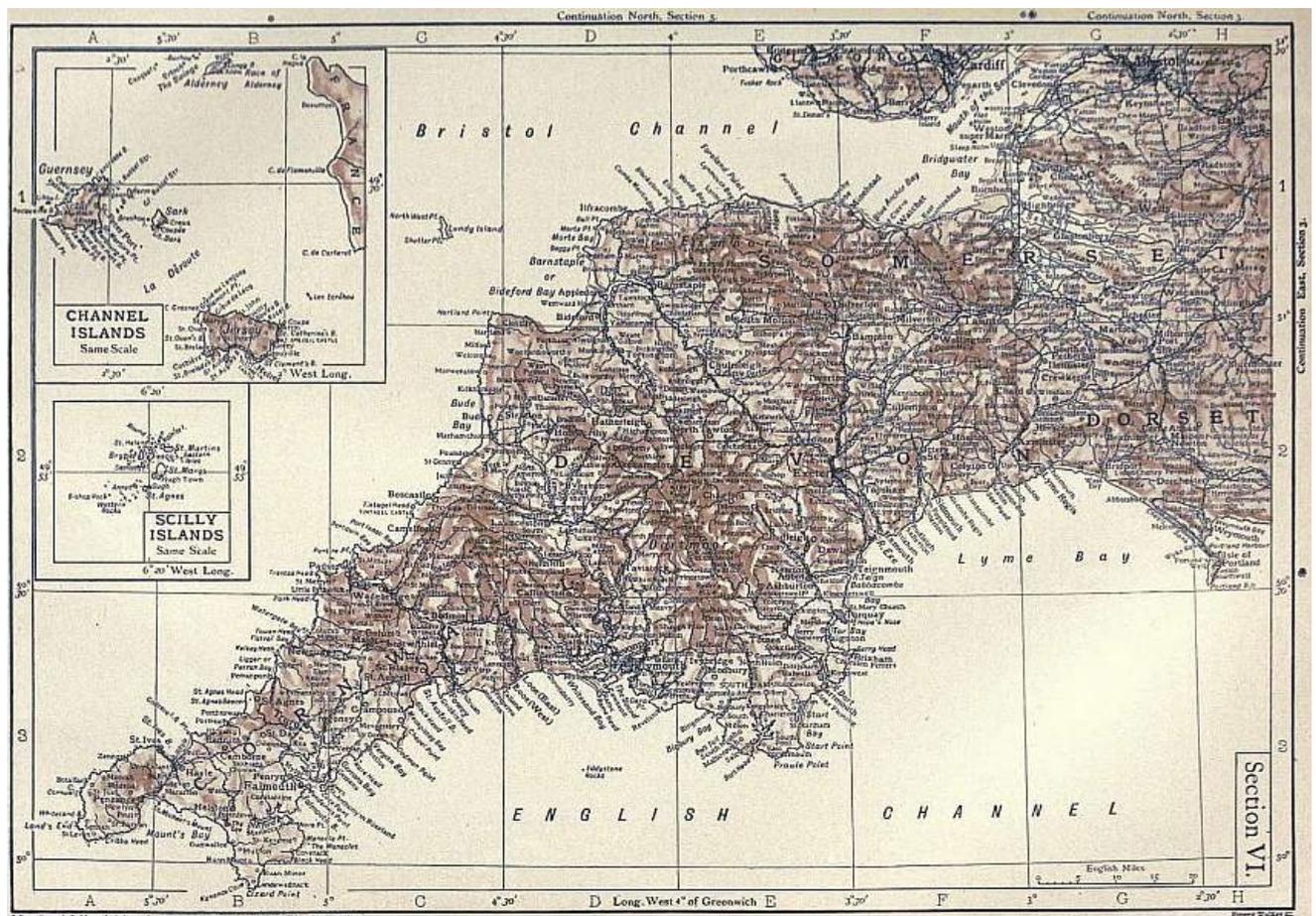
The sources of revenue of the council are the exchequer contribution, income from property and fees, and rates. Before 1888 large grants of money had been made annually to local authorities in aid of local taxation. Such grants represented a contribution out of taxation for the most part arising out of property other than real property, while local taxation fell on real property alone. By the act of 1888 it was provided that for the future such annual grants should cease, and that other payments should be made instead thereof. The

Revenue of county council.

commissioners of Inland Revenue pay into the Bank of England, to an account called "the local taxation account," the sums ascertained to be the proceeds of the duties collected by them in each county on what are called local taxation licences, which include licences for the sale of intoxicating liquor, licences on dogs, guns, establishment licences, &c. The amount so ascertained to have been collected in each county is paid under direction of the Local Government Board to the council of that county. The commissioners of Inland Revenue also pay into the same account a sum equal to 1½% on the net value of personal property in respect of which estate duty is paid. Under the Local Taxation (Customs and Excise) Act 1890, certain duties imposed on spirits and beer (often referred to as "whisky money") are also to be paid to "the local taxation account." The sums so paid in respect of the duties last above mentioned, and in respect of the estate duty and spirits and beer additional duties, are distributed among the several counties in proportion to the share which the Local Government Board certify to have been received by each county during the financial year ending the 31st March 1888, out of the grants theretofore made out of the exchequer in aid

of local rates. The payments so made out of "the local taxation account" to a county council are paid to the county fund, and carried to a separate account called "the Exchequer contribution account." The money standing to the credit of this account is applied: (i.) in paying any costs incurred in respect thereof or otherwise chargeable thereon; (ii.) in payment of the sums required by the Local Government Act 1888 to be paid in substitution for local grants; (iii.) in payment of the new grant to be made by the county council in respect of the costs of union officers; and (iv.) in repaying to "the general county account" of the county fund the costs on account of general county purposes for which the whole area of the county (including boroughs other than county boroughs) is liable to be assessed to county contribution. Elaborate provision is made for the distribution of the surplus (if any), with a view to securing a due share being paid to the quarter sessions boroughs.

The payments which the county council have to make in substitution for the local grants formerly made out of Imperial funds include payments for or towards the remuneration of the teachers in poor-law schools and public vaccinators; school fees paid for children sent from a workhouse to a public elementary school; half of the salaries of the medical officer of health and the inspector of nuisances of district councils; the remuneration of registrars for births and deaths; the maintenance of pauper lunatics; half of the cost of the pay and clothing of the police of the county, and of each borough maintaining a separate police force. In addition to the grants above mentioned, the county council is required to grant to the guardians of every poor-law union wholly or partly in their county an annual sum for the costs of the officers of the union and of district schools to which the union contributes. Another source is the income of any property belonging to the council, but the amount of this is usually small. The third source of revenue consists of the fees received by the different officers of the county councils or of the joint-committee. For example, fees received by the clerk of the peace, inspectors of weights and measures, and the like. These fees are paid into the county fund, and carried either to "the general county account" or, if they have been received in respect of some matter for which part only of the county is assessed, then to the special account to which the rates levied for that purpose are carried. The remaining source of income of a county council is the county rate, the manner of levying which is hereafter stated.



[\(Click to enlarge.\)](#)

Of the powers and duties of county councils, it may be convenient to treat of these first, in so far as they are transferred to or conferred on them by the Local Government Act 1888,

**Powers
transferred
from quarter
sessions.**

under which they were created, and afterwards in so far as they have been conferred by subsequent legislation. Before the passing of the Local Government Act 1888, the only form of county government in England was that of the justices in quarter sessions (*q.v.*). Quarter sessions were originally a judicial body, but being the only body having jurisdiction over the county as a whole, certain powers were conferred and certain duties imposed upon them with reference to various matters of county government from time to time. The principal object of the act of 1888 was to transfer these powers and duties from the quarter sessions to the new representative body—the county council; and it may be said that substantially the whole of the administrative business of quarter sessions was thus transferred.

The subjects of such transfer include (i.) the making, assessing and levying of county, police, hundred and all rates, and the application and expenditure thereof, and the making of orders for the payment of sums payable out of any such rate, or out of the county stock or county fund, and the preparation and revision of the basis or standard for the county rate. With regard to the county rate, a few words of description may be sufficient here. The council appoint a committee called a county rate committee, who from time to time prepare a basis or standard for county rate, that is to say, they fix the amount at which each parish in the county shall contribute its quota to the county rate. As a general rule the poor-law valuations are followed, but this is not universally the case, some county councils adopting the assessment to income tax, schedule A, and others forming an independent valuation of their own. The overseers of any parish aggrieved by the basis may appeal against it to quarter sessions, and it is to be noticed that this appeal is not interfered with, the transfer of the duties of justices relating only to administrative and not to judicial business. When a contribution is required from county rate, the county council assess the amount payable by each parish according to the basis previously made, and send their precept to the guardians of the unions comprising the several parishes in the county, the guardians in their turn requiring the overseers of each parish to provide the necessary quota of that parish out of the poor rate, and the sum thus raised goes into the county fund. The police rate is made for the purpose of defraying the expenses of the county police. It is made on the same basis as the county rate, and is levied with it. The hundred rate is seldom made, though in some counties it may be made for purposes of main roads and bridges chargeable to the hundred as distinguished from the county at large; (ii.) the borrowing of money; (iii.) the passing of the accounts of, and the discharge of the county treasurer; (iv.) shire halls, county halls, assize courts, the judges' lodgings, lock-up houses, court houses, justices' rooms, police stations and county buildings, works and property; (v.) the licensing under any general act of houses and other places for music or for dancing, and the granting of licences under the Racecourses Licensing Act 1879; (vi.) the provision, enlargement, maintenance and management and visitation of, and other dealing with, asylums for pauper lunatics; (vii.) the establishment and maintenance of, and the contribution to, reformatory and industrial schools; (viii.) bridges and roads repairable with bridges, and any powers vested by the Highways and Locomotives Amendment Act 1878 in the county authority. It may be observed that bridges have always been at common law repairable by the county, although, with regard to bridges erected since the year 1805, these are not to be deemed to be county bridges repairable by the county unless they have been erected under the direction or to the satisfaction of the county surveyor. The common-law liability to repair a bridge extends also to the road or approaches for a distance of 300 ft. on each side of the bridge. Of the powers vested in the county authority under the Highway Act 1878, the most important are those relating to main roads, which are specially noticed hereafter; (ix.) the tables of fees to be taken by and the costs to be allowed to any inspector, analyst or person holding any office in the county other than the clerk of the peace and the clerks of the justices; (x.) the appointment, removal and determination of salaries of the county treasurer, the county surveyor, the public analysts, any officer under the Explosives Act 1875, and any officers whose remuneration is paid out of the county rate, other than the clerk of the peace and the clerks of the justices; (xi.) the salary of any coroner whose salary is payable out of the county rate, the fees, allowances and disbursements allowed to be paid by any such coroner, and the division of the county into coroners' districts and the assignments of such districts; (xii.) the division of the county into polling districts for the purposes of parliamentary elections, the appointment of the places of election, the places of holding courts for the revision of the lists of voters, and the costs of, and other matters to be done for the registration of parliamentary voters; (xiii.) the execution as local authority of the acts relating to contagious diseases of animals, to destructive insects, to fish conservancy, to wild birds, to weights and measures, and to gas meters, and of the Local Stamp Act 1869; (xiv.) any matters arising under the Riot (Damages) Act 1886. Under this act compensation is payable out of the police rate to any person whose property has been injured, stolen or destroyed by rioters; (xv.) the registration of rules of scientific societies, the registration of charitable gifts, the certifying and recording of places of religious worship, the confirmation and record of the rules of loan

societies. These duties are imposed under various statutes.

In addition to the business of quarter sessions thus transferred, there was also transferred to the county council certain business of the justices of the county out of session, that is to say, in petty or special sessions. This business consists of the licensing of houses or places for the public performance of stage plays, and the execution, as local authority, of the Explosives Act 1875. Power was given by the act to the Local Government Board to provide, by means of a provisional order, for transferring to county councils any of the powers and duties of the various central authorities which have been already referred to; but although such an order was at one time prepared, it has never been confirmed, and nothing has been done in that direction.

Apart from the business thus transferred to county councils, the act itself has conferred further powers or imposed further duties with reference to a variety of other matters, some of which must be noticed. But before passing to them it is necessary here to call attention to one important subject of county government which has not been wholly transferred to the county council, namely, the police. It was matter of considerable discussion before the passing of the act whether the police should remain under the control of the justices, or be transferred wholly to the control of the county council. Eventually a middle course was taken. The powers, duties and liabilities of the quarter sessions and justices out of session with respect to the county police were vested in the quarter sessions and the county council jointly, and are now exercised through the standing joint-committee of the two bodies. That committee consists of an equal number of members of the county council and of justices appointed by the quarter sessions, the number being arranged between the two bodies or fixed by the secretary of state. The committee are also charged with the duties of appointing or removing the clerk of the peace, and they have jurisdiction in matters relating to justices' clerks, the provision of accommodation for quarter sessions or justices out of session, and the like, and their expenses are paid by the county council out of the county fund. The standing joint-committee have power to divide their county into police districts, and, when required by order in council, are obliged to do so. In such a case, while the general expenditure in respect of the entire police force is defrayed by the county at large, the local expenditure, *i.e.* the cost of pay, clothing and such other expenses as the joint-committee may direct, is defrayed at the cost of the particular district for which it is incurred (see also [POLICE](#)).

Among the powers and duties given to county councils by the Local Government Act 1888, the first to be mentioned, following the order in the act itself, is that of the appointment of county coroners. The duties of a coroner are limited to the holding of inquiries into cases of death from causes suspected to be other than natural, and to a few miscellaneous duties of comparatively rare occurrence, such as the holding of inquiries relating to treasure trove, and acting instead of the sheriff on inquiries under the Lands Clauses Act, &c., when that officer is interested and thereby disabled from holding such inquiries. (For the history of the office of coroner, which is a very ancient one, see that title.) The county council may appoint any fit person, not being a county alderman or county councillor, to fill the office, and in the case of a county divided into coroners' districts, may assign him a district. It has been decided, however, that the power hereby conferred does not extend to the appointment of a coroner for a liberty or other franchise who would not under the old law have been appointed by the freeholders. It may be mentioned that though a coroner may have a district assigned to him, he is nevertheless a coroner for the entire county throughout which he has jurisdiction.

It was provided by the Highway Act 1878 that every road which was disturnpiked after the 31st of December 1870 should be deemed to be a main road, the expenses of the repair and maintenance of which were to be contributed as to one-half thereof by the justices in quarter sessions, then the county authority. By another section of the same act it was provided that where any highway in a county was a medium of communication between great towns, or a thoroughfare to a railway station, or otherwise such that it ought to be declared a main road, the county authority might declare it to be a main road, and thereupon one-half the expense of its maintenance would fall upon the county at large. Once a road became a main road it could only cease to be such by order of the Local Government Board. As already stated, the powers of the quarter sessions under the act of 1878 were transferred to the county council under the Local Government Act of 1888, and that body alone has now power to declare a road to be a main road. But the act of 1888 made some important changes in the law relating to the maintenance of main roads. It declared that thereafter not only the half but the whole cost of maintenance should be borne by the county. Provision is made for the control of main roads in urban districts being retained by the urban district council. In urban districts where such control has not been claimed, and in rural districts, the county council may either maintain the main roads themselves or allow or require the district councils to do so. The county council must in any

case make a payment towards the costs incurred by the district council, and if any difference arises as to the amount of it, it has to be settled by the Local Government Board. In Lancashire the cost of main roads falls upon the hundred, as distinguished from the county at large, special provision being made to that effect. Special provision has also been made for the highways in the Isle of Wight and in South Wales, where the roads were formerly regulated by special acts, and not by the ordinary Highway Acts.

The county council have the same power as a sanitary authority to enforce the provisions of the Rivers Pollution Prevention Acts in relation to so much of any stream as passes through or by any part of their county. Under these acts a sanitary authority is authorized to take proceedings to restrain interference with the due flow of a stream or the pollution of its waters by throwing into it the solid refuse of any manufactory or quarry, or any rubbish or cinders, or any other waste or any putrid solid matter. They may also take proceedings in respect of the pollution of a stream by any solid or liquid sewage matter. They have the same powers with respect to manufacturing and mining pollutions, subject to certain restrictions, one of which is that proceedings are not to be taken without the consent of the Local Government Board. The county council may not only themselves institute proceedings under the acts, but they may contribute to the costs of any prosecution under the acts instituted by any other county or district council. The Local Government Board is further empowered by provisional order to constitute a joint-committee representing all the administrative counties through or by which a river passes, and confer on such committee all or any of the powers of a sanitary authority under the acts.

***Rivers
pollution
prevention.***

A county council has the same power of opposing bills in parliament and of prosecuting or defending any legal proceedings necessary for the promotion or protection of the interests of the inhabitants of a county as are conferred on the council of a municipal borough by the Borough Funds Act 1872, with this difference, that in order to enable them to oppose a bill in parliament at the cost of the county rate, it is not necessary to obtain the consent of the owners and ratepayers within the county. The power thus conferred is limited to opposing bills.

***Parliamentary
and legal
costs.***

The council are not authorized to promote any bill, and although they frequently do so, they incur the risk that if the bill should not pass the members of the council will be surcharged personally with the costs incurred if they attempt to charge them to the county rate. Of course if the bill passes, it usually contains a clause enabling the costs of promotion to be paid out of the county rate. It must not be supposed, however, that the county council have no power to institute or defend legal proceedings or oppose bills save such as is expressly conferred upon them by the Local Government Act. In this respect they are in the same position as all other local authorities, with respect to whom it has been laid down that they may without any express power in that behalf use the funds at their disposal for protecting themselves against any attack made upon their existence as a corporate body or upon any of their powers or privileges.

The county council have also the same powers as a borough council of making by-laws for the good government of the county and for the suppression of nuisances not already punishable under the general law. This power has been largely acted upon throughout England, and the courts of law have on several occasions decided that such by-laws should be benevolently interpreted, and that in matters which directly arise and concern the people of the county, who have the right to choose those whom they think best fitted to represent them, such representatives may be trusted to understand their own requirements. Such by-laws will therefore be upheld, unless it is clear that they are uncertain, repugnant to the general law of the land, or manifestly unreasonable. It may be mentioned that, while by-laws relating to the good government of the county have to be confirmed by the secretary of state, those which relate to the suppression of nuisances have to be confirmed by the Local Government Board. Such confirmation, however, though necessary to enable the council to enforce them, does not itself confer upon them any validity in point of law.

By-laws.

The county council have power to appoint and pay one or more medical officers of health, who are not to hold any other appointment or engage in private practice without the express written consent of the council. The council may make arrangements whereby any district council or councils may have the services of the county medical officer on payment of a contribution towards his salary, and while such arrangement is in force the duty of the district council to appoint a medical officer is to be deemed to have been satisfied. Every medical officer, whether of a county or district, must now be legally qualified for the practice of medicine, surgery and midwifery. Besides this, in the case of a county, or of any district or combination of districts of which the population exceeds 50,000, the medical officer must also have a diploma in public health, unless he has during the three consecutive years before 1892 been

***Medical
officers.***

medical officer of a district or combination having a population of more than 20,000, or has before the passing of the act been for three years a medical officer or inspector of the Local Government Board.

The only other powers and duties of a county council arising under the Local Government Act itself which it is necessary to notice are those relating to alterations of local areas. It

Alterations of local areas.

It may be convenient here to state that certain alterations of areas can only be effected through the medium of the Local Government Board after local inquiry. These cases include the alteration of the boundary of any county or borough, the union of a county borough with a county, the union of any counties or boroughs or the division of any county, the making of a borough into a county borough. In these cases the order of the Local Government Board is provisional only, and must be confirmed by parliament. The powers of a county council to make orders for the alteration of local areas are as follows: When a county council is satisfied that a prima facie case is made out as respects any county district not a borough, or as respects any parish, for a proposal for all or any of the things hereafter mentioned, they may hold a local inquiry after giving such notice in the locality and to such public departments as may be prescribed from time to time by the orders of the Local Government Board. The things referred to include the alteration of the boundary of the district or parish; the division or union thereof with any other district or districts, parish or parishes; the conversion of a rural district or part thereof into an urban district or vice versa. In these cases, after the local inquiry above referred to has been held, the county council, being satisfied that the proposal is desirable, may make an order for the same accordingly. The order has to be submitted to the Local Government Board, and that board must hold a local inquiry in order to determine whether the order should be confirmed or not, if the council of any district affected by it, or one-sixth of the total number of electors in the district or parish to which it relates, petition against it. The Local Government Board have power to modify the terms of the order whether it is petitioned against or not, but if there is no petition, they are bound to confirm, subject only to such modifications. Very large powers are conferred upon county councils for the purpose of giving full effect to orders made by them under these provisions. A considerable extension of the same powers was made by the Local Government Act 1894, which practically required every council to take into consideration the areas of sanitary districts and parishes within the entire administrative county, and to see that a parish did not extend into more than one sanitary district; to provide for the division of a district which did extend into more than one district into separate parishes, so that for the future the parish should not be in more than one county district; and to provide for every parish and rural sanitary district being within one county. An enormous number of orders under the act of 1894 was made by county councils, and, speaking generally, it will now be found that no parish extends into more than one county or county district. Other powers and duties of the county council under the act of 1894 will be noticed hereafter.

Of the statutes affecting county councils passed subsequent to 1888 mention need only be made of the chief.

Previous to the Education Act 1902, county councils had certain optional powers under the Technical Instruction Acts to supply or aid the supply of technical or manual instruction.

Education.

Their duties in respect to education were, however, much enlarged by the act of 1902. That act abolished the old school boards and school attendance committees, and substituted a single authority for all kinds of schools and for all kinds of education. The county council or the council of a county borough is now in every case the local education authority, except that non-county boroughs with a population of over 10,000, and urban districts with a population of over 20,000, may be the local education authorities for elementary education only, but they may relinquish their powers in favour of the county council. For higher education county councils and county boroughs are the sole education authorities, except that non-county boroughs and urban councils are given a concurrent power of levying a rate for higher education not exceeding 1d. in the £. Under the act, an education committee must be established by all authorities. The majority of the members of the committee are appointed by the council, usually out of their own body, and the remainder are appointed by the council on the nomination or recommendation of other bodies. Some of the members of the committee must be women. All matters relating to the exercise of the powers of the education authority (except those of rating and borrowing) must be referred to the committee, and before exercising any of their powers the council must (except in cases of emergency) receive and consider the report of the education committee with respect to the matter in question. As to higher education the local education authority must consider the educational needs of their area and take such steps as seem to them desirable, after consultation with the Board of Education, to supply or aid the supply of education other than elementary, and to promote the general co-ordination of all forms of education. For this purpose they are authorized to levy a rate not exceeding 2d. in the £, except with the consent of the Local Government Board. They must also devote

to the same purpose the sums received by them in respect of the residue of the English share of the local taxation (customs and excise) duties already referred to. See further [EDUCATION](#) and [TECHNICAL EDUCATION](#).

Under the Midwives Act 1902, every council of a county or county borough is the local supervising authority over midwives within its area. The duty of the local supervising authority is to exercise general supervision over all midwives practising within their area in accordance with rules laid down in the act; to investigate charges of malpractices, negligence or misconduct on the part of a midwife, and if a prima facie case be established, to report it to the Central Midwives Board; to suspend a midwife from practice if necessary to prevent the spread of infection; to report to the central board the name of any midwife convicted of an offence; once a year (in January) to supply the central board with the names and addresses of all midwives practising within their area and to keep a roll of the names, accessible at all reasonable times for public inspection; to report at once the death of any midwife or change in name and address. The local supervising authority may delegate their powers to a committee appointed by them, women being eligible to serve on it. A county council may delegate its powers under the act to a district council.

Part of the business transferred from quarter sessions to the council was that which related to pauper lunatics, but the whole subject of lunacy was consolidated by an act of the year 1890, which again has been amended by a later act. The councils of all administrative counties and county boroughs and the councils of a few specified quarter sessions boroughs, which before 1890 were independent areas for purposes of the Lunacy Acts, are local authorities for the purposes of the Lunacy Acts, and each of them is under an obligation to provide asylum accommodation for pauper lunatics. This accommodation may be provided by one council or by a combination of two or more, and such council or combination may provide one or more asylums. The county council exercise their powers through a visiting committee, consisting of not less than seven members, or, in the case of a combination, of a number of members appointed by each council in agreed proportions. In the case of a combination the expenses are defrayed by the several councils in such proportion as they may agree upon, and the proportion may be fixed with reference to either the accommodation required by each council or the population of the district. A county borough may also, instead of providing an asylum of its own, contract with the visiting committee of any asylum to receive the pauper lunatics from the borough. Private patients may be accommodated in the asylums provided by a county council, and received upon terms fixed by the visiting committee. The expenses of lunatic asylums are defrayed in the following manner: The guardians from whose union a lunatic is sent have to pay a fixed weekly sum, which may not exceed 14s. a week. A larger charge is made for lunatics received from unions outside the county, as these do not, of course, contribute anything towards the provision or up-keep of the asylum itself. In addition to the payments by guardians, there is a contribution of 4s. a week from "the exchequer contribution account" already mentioned, and the remaining expenses are defrayed out of the county rate.

Under the Allotments Acts 1887 to 1907, it is the duty of a county council to ascertain the extent to which there is a demand for allotments in the urban districts and parishes in the county, or would be a demand if suitable land were available, and the extent to which it is reasonably practicable, having regard to the provisions of the acts, to satisfy any such demand, and to co-operate with authorities, associations or persons best qualified to assist, and to take such steps as may be necessary. The powers of the Local Government Board under the Allotments Acts were transferred by the act of 1907 to the Board of Agriculture and Fisheries, and by the same act the powers and duties of rural district councils were transferred to parish councils. The county council under these acts has compulsory powers of purchase or hire if they are unable to acquire land by agreement and on reasonable terms. If an objection is made to an order for compulsory purchase or hire, the order will not be confirmed by the Board of Agriculture until after a local inquiry has been held. If the Board of Agriculture is satisfied, after holding a local inquiry, that a county council have failed to fulfil their obligations as to allotments, the board may transfer all and any of the powers of the county council to the Small Holdings Commissioners.

By the Small Holdings and Allotments Act 1907, Small Holdings Commissioners are appointed by the Board of Agriculture to ascertain the extent of the demand for small holdings, and confer with county councils as to how best to provide them. Local authorities are required to furnish information and give assistance to the commissioners, who report to the board. If the board, after considering the report, consider it desirable, they require the county council concerned to prepare a scheme for the provision of small holdings; if the county council decline to

prepare a scheme, the board may direct the commissioners to do so. A county council may also prepare a scheme on its own initiative. When a scheme has been confirmed, the county council must carry out the obligations imposed on it within a prescribed time; if they make default the board may direct the commissioners to assume all the powers of the county council, and the county council must repay to the board the expenses the commissioners may incur. A county council may delegate, by arrangement, to the council of any borough or urban district in the county their powers in respect of the act. A small holding is defined by the act as one which exceeds 1 acre, but must not exceed 50 acres or £50 annual value. Every county council must establish a small holdings and allotments committee, to which must be referred all matters relating to the exercise and performance by the council of their powers and duties as to small holdings and allotments.

Under the Isolation Hospitals Acts 1893 and 1901, a county council may provide for the establishment of isolation hospitals for the reception of patients suffering from infectious diseases on the application of any local authority within the county, or on the report of the medical officer of the county that hospital accommodation is necessary and has not been provided, or it may take over hospitals already provided by a local authority. The council by their order constitute a hospital district and form a committee for its administration. The committee have power to purchase land, erect a hospital, provide all necessary appliances, and generally administer a hospital for the purposes above mentioned.

The powers and duties of a county council under the Local Government Act 1894 are numerous and varied, and the chief of them are mentioned hereafter in connexion with parish councils. The county council may establish a parish council in a parish which has a population of less than 300, and may group small parishes under a common parish council; in every case they fix the number of members of the parish council. They may authorize the borrowing of money by a parish council, and they may lend money to a parish council. They may hear complaints by a parish council that a district council has failed to provide sufficient sewerage or water-supply, or has failed to enforce the provisions of the Public Health Acts in their district, and on such complaint they may transfer to themselves and exercise the powers of the defaulting council, or they may appoint a person to perform those duties. They may make orders for the custody and preservation of public books, writings, papers and documents belonging to a parish. They may divide a parish into wards for purposes of elections or of parish meetings. They may authorize district councils to aid persons in maintaining rights of common. They may, on the petition of a district council, transfer to themselves the powers of a district council who have refused or failed to take the necessary proceedings to assert public rights of way or protect roadside wastes. They may dispense with the disqualification of a parish or district councillor arising only by reason of his being a shareholder in a water company or similar company contracting with the council, and, as has above been stated, they have large powers of altering the boundaries of parishes.

Among the powers and duties of quarter sessions transferred to county councils were those arising under the acts relating to contagious diseases of animals. These acts were consolidated and amended by a statute of 1894, and the county council remain the local authority for the execution of that act in counties.

Under the Light Railways Act 1896 a county council may be authorized by order of the light railway commissioners to construct and work or contract for the construction or working of a light railway, lend money to a light railway company, or join any other council in these matters.

Among other statutes conferring powers or imposing duties upon county councils, mention may be made of such acts as those relating to sea fisheries regulation, open spaces, police superannuation, railway and canal traffic, shop hours, weights and measures, fertilizing and feeding stuffs, wild birds' protection, land transfer, locomotives on highways and the acquisition of small dwellings. Sufficient has been said to indicate that the legislature from time to time recognizes the important position of the county council as an administrative body, and is continually extending its functions.

The Urban District.—A municipal borough is a place which has been incorporated by royal charter. In the year 1835 the Municipal Corporations Act was passed, which made provision for the constitution and government of certain boroughs which were enumerated in a schedule. That act was from time to time amended, until in 1882 by an act of that year the whole of the earlier acts were repealed and consolidated. A few ancient corporations which were not enumerated in the schedule to the act of 1835 continued to exist after that year, but by an act

council. of 1883 all of these, save such as should obtain charters before 1886, were abolished, the result being that all boroughs are now subject to the act of 1882. A place is still created a borough by royal charter on the petition of the inhabitants, and when that is done the provisions of the act of 1882 are applied to it by the charter itself. The charter also fixes the number of councillors, the boundaries of the wards (if any), and assigns the number of councillors to each ward, and provides generally for the time and manner in which the act of 1882 is first to come into operation. The charter is supplemented by a scheme which makes provision for the transfer to the new borough council of the powers and duties of existing authorities, and generally for the bringing into operation of the act of 1882. If the scheme is opposed by the prescribed proportion (one-twentieth) of the owners and ratepayers of the proposed new borough, it has to be confirmed by parliament. The governing body in a borough is the council elected by the burgesses.

The qualification of a burgess has been incidentally mentioned in connexion with that of a county elector, and need not be further noticed. A borough councillor must be qualified in the same manner as a county councillor, and he is disqualified in the same way, with this addition, that a peer or ownership voter is not qualified as such, and that a person is disqualified for being a borough councillor if he is in holy orders or is the regular minister of a Dissenting congregation. Women, other than married women, are eligible. Borough councillors are elected for a term of three years, one-third of the whole number going out of office in each year, and if the borough is divided into wards, these are so arranged that the number of councillors for each ward shall be three or a multiple of three. The ordinary day of election is the 1st of November. At an election for the whole borough the returning officer is the mayor; at a ward election he is an alderman assigned for that purpose by the council. The nomination and election of candidates and the procedure at the election are the same as have already been described in the case of the election of county councillors. The law as to corrupt and illegal practices at the election is also similar, and the election may be questioned by petition in exactly the same way. A borough councillor must, within five days after notice of his election, make a declaration of acceptance of office under a penalty, in the case of an alderman or councillor of £50, and in the case of a mayor of £100, or such other sums as the council may by by-law determine. A councillor may be disqualified in the same way as a county councillor, by bankruptcy or composition with creditors, or continuous absence from the borough (except in case of illness). In short it may be said that as the provisions relating to the election of borough councillors were merely extended to county councillors by the Local Government Act of 1888 with a few modifications, these provisions, as already stated when dealing with county councils, apply generally to the election of borough councillors. After the annual election on the 1st of November the first quarterly meeting of the council is held on the 9th, and at that meeting the mayor and aldermen are elected. The election of the mayor and aldermen is again the same as has already been

Officers. described in connexion with the election of the chairman and aldermen of a county council. The officers of a borough council are the town clerk and the treasurer, but the council have power to appoint such other officers as they think necessary. All these officers receive such remuneration as the council from time to time think fit, and hold office during pleasure. The provisions with respect to the transaction of the business of the council are also the same in the case of a borough as in that of a county council.

The entire income of the borough council is paid into the borough fund, and that fund is charged with certain payments, which are specifically set out in the 5th schedule to the act of 1882. These include the remuneration of the mayor, recorder and

Finance audit. officers of the borough, overseers' expenses, the expenses of the administration of justice in the borough, the payment of the borough coroner, police expenses and the like. An order of the council for the payment of money out of the borough fund must be signed by three members of the council and countersigned by the town clerk, and any such order may be removed into the king's bench division of the High Court of Justice by writ of *certiorari* and may be wholly or partly disallowed or confirmed on the hearing. This is really the only way in which the validity of a payment by a borough council can be questioned, for, as will be seen hereafter, the audit in the borough is not an effective one. The borough fund is derived, in the first instance, from the property of the corporation. If the income from such property is insufficient for the purposes to which it is applicable, as usually is the case, it has to be supplemented by a borough rate, which may be a separate rate made by the council or may be levied through the overseers as part of the poor rate by means of a precept addressed to them. In the event of the borough fund being more than sufficient to meet the demands upon it without recourse to a borough rate, any surplus may be applied in payment of any expenses of the council as a sanitary authority or in improving the borough or any part thereof by drainage, enlargement of streets or otherwise. The borough treasurer is required to make up his accounts half-yearly, and to submit them, with the necessary vouchers and papers, to the

borough auditors. These auditors are three in number—two of them elected annually by the burgesses. An elective auditor must be qualified to be a councillor, but may not be a member of the council. The third auditor is appointed by the mayor and is called the mayor's auditor. The auditors so appointed are charged with the duty of auditing the accounts of the treasurer, but they have no power of disallowance or surcharge, and their audit is therefore quite ineffective.

Where a borough has not a separate court of quarter sessions, but has a separate commission of the peace, the justices of the county in which the borough is situate have a concurrent jurisdiction with the borough justices in all matters arising within the borough. Where, however, the borough has a court of quarter sessions, the county justices have no jurisdiction within the borough. In all cases, whether the borough has quarter sessions or a separate commission or not, the mayor, by virtue of his office, is a justice for the borough, and continues to be such justice during the year next after he ceases to be mayor. He takes precedence over all justices in and for the borough, and is entitled to take the chair at all meetings at which he is present by virtue of his office of mayor. A separate commission of the peace may be granted to a borough on the petition of the council. A borough justice is required to take the oaths of allegiance and the judicial oaths before acting; he must while acting reside in or within 7 m. of the borough, or occupy a house, warehouse or other property in the borough; but he need not be a burgess nor have the qualification by estate required of a county justice. Where the borough has a separate commission, the borough justices have power to appoint a clerk, who is now paid by salary, the fees and costs pertaining to his office being paid into the borough fund, out of which his salary is paid. The council may by petition obtain the appointment of a stipendiary magistrate for the borough. The crown may also on petition of the council grant a separate court of quarter sessions for the borough, and in that event a recorder has to be appointed by the crown. He must be a barrister of not less than five years' standing, and he holds office during good behaviour; he receives a yearly salary. The recorder sits as sole judge of the court of quarter sessions of the borough. He has all the powers of a court of quarter sessions in a county, including the power to hear appeals from the borough justices; but to this there are a few exceptions, notably the power to grant licences for the sale of intoxicating liquor. The grant of a separate court of quarter sessions also involves the appointment by the council of a clerk of the peace for the borough. It should be added that the grant of a court of quarter sessions to any borough other than a county borough after the passing of the Local Government Act 1888, does not affect the powers, duties or liabilities of the county council as regards that borough, nor exempt the parishes in the borough from being assessed to county rate for any purposes to which such parishes were previously liable to be assessed.

Jurisdiction of justices; quarter sessions.

When a borough is a county of itself the council appoint a sheriff on the 9th of November in every year. And where the borough has a separate court of quarter sessions the council appoint a fit and proper person, not an alderman or councillor, to be the borough coroner, who holds office during good behaviour. If the borough has a civil court the recorder, if there is one, is judge of it. If there is no recorder, the judge of the court is an officer of the borough appointed under the charter.

Sheriff, coroner.

The provisions of the Municipal Corporations Act 1882 relate chiefly to the constitution of the municipal corporation. It does not itself confer many powers or impose many duties upon the council as a body. It does, however, enable a municipal corporation to acquire corporate land and buildings, the buildings including a town hall, council house, justices' room, police stations and cells, sessions house, judges' lodgings, polling stations and the like. The council may borrow money for the erection of such buildings; they may acquire and hold land in mortmain by virtue of their charter, or with the consent of the Local Government Board. Corporate land cannot be alienated without the consent of the same board. The council may convert corporate land, with the approval of the Local Government Board, into sites for workmen's dwellings.

Power to acquire land.

Another duty imposed upon a borough council by the act of 1882 is the maintenance of bridges within the borough which are not repairable by the county in which the borough is locally situate. It may here be mentioned that a city or borough which is a county of itself is liable at common law to repair all public bridges within its limits. In a borough which is not a county of itself the inhabitants are only liable to repair bridges within the borough by immemorial usage or custom.

Borough bridges.

Of the other powers possessed by the council of a borough under the act of 1882, one of the most important is the power to make by-laws for the good rule and government of the

By-laws. borough, and for the prevention and suppression of nuisances not already punishable in summary manner by virtue of an act in force throughout the borough. It will be observed that these by-laws are of two classes. The former do not come into force until the expiration of forty days after a copy of them has been sent to the secretary of state, during which forty days the sovereign in council may disallow any by-law or part thereof. The latter require to be confirmed by the Local Government Board.

Under the act of 1882 every municipal borough might have its own separate police force. As has already been stated when dealing with county councils, boroughs having a population of less than 10,000 according to the census of 1881 can no longer have a separate police force. But for some time before that year it had become the rule not to grant to any new borough with a population of less than 20,000 a separate police force. The

Police. subject of police is separately treated in the *Encyclopaedia Britannica*, and it is not necessary to supplement what is there stated. Under an act of 1893 the borough police may, in addition to their ordinary duties, be employed to discharge the duties of a fire brigade.

The powers and duties of a borough council in the Municipal Corporations Act do not arise or exist to any great extent under that act. In a few cases, those namely of county boroughs, the councils have the powers of county councils. In the quarter sessions boroughs other than county boroughs they have some only of these powers. But in every case the council of the borough have the powers and duties of an urban district council, and, except where they derive their authority from local acts, it may be said that their principal powers and duties consist of those which they exercise or perform as an urban council. These will now be considered.

The district and the district council.

Before the year 1848 there was not outside the municipal boroughs any system of district government in England. It is true that in some populous places which were not corporate boroughs local acts of parliament had been passed appointing improvement commissioners for the government of these places. In many boroughs similar acts had been obtained conferring various powers relating to sanitary matters, streets and highways and the like. But there was no general system, nor was there, save by special legislation, any means by which sanitary districts could be constituted. In the year 1848 the first Public Health Act was passed. It provided for the formation of local boards in boroughs and populous places, such places outside boroughs being termed local government districts. In boroughs the town council were generally appointed the local board for purposes of the act. It was not, however, until 1872 that a general system of sanitary districts was adopted. By the Public Health Act of that year the whole country was mapped out into urban and rural sanitary districts, and that system has been maintained until the present time, with some important changes introduced by the Public Health Acts 1875 to 1907, and the Local Government Act 1894.

The whole of England and Wales is divided into districts, which are either urban or rural. Urban districts include boroughs and places which were formerly under the jurisdiction of local boards or improvement commissioners. The power to constitute new urban districts is now conferred upon county councils, as already stated. There is a concurrent power in the Local Government Board under the Public Health Act 1875, but that power is now rarely exercised, and new urban districts are in practice created only by orders of county councils

Constitution of district councils.

made under the Local Government Act 1888, section 57. Rural districts were first created in 1872. Before that time there was practically no sanitary authority outside the urban district, for although the vestry of a parish had in some cases power to make sewers and had also some other sanitary powers, there was no authority for such a district as now corresponds to a rural district. There were, indeed, highway boards and burial boards which had powers for special purposes, but district authority in the sense in which it is now understood there was none. Before the year 1894 the rural district consisted of the area of the poor-law union, exclusive of any urban district which might be within it, and the guardians of the poor were the rural sanitary authority. Since 1894 this has been changed. By the Local Government Act of that year the guardians ceased to be the rural sanitary authority. The union was preserved as the rural sanitary district, with this qualification, that if it extended into more than one county it was divided so that no rural district should extend into more than one county. Rural district councillors are elected for each parish in the rural district, and they become by virtue of their office guardians of the poor for the union comprising the district, so that there is now no election of guardians in a rural district. Guardians are still elected as such for urban districts, but the rural district council have ceased to be the same body as the guardians and are now wholly distinct. A district councillor, whether urban or rural, holds

office for a term of three years. One-third of the whole council retire in each year, the annual elections being held in March, but there may be a simultaneous retirement of the whole council in every third year if the county council at the instance of the district council so order. The qualification and disqualification of district councillors, whether urban or rural, now depend upon the Local Government Act 1894. Property qualification is abolished. Any person may be elected who is either a parochial elector of some parish within the district or has during the whole of the twelve months preceding his election resided in the district, and no person is disqualified by sex or marriage. The electors both in urban and rural districts are the body called the parochial electors. These are practically the persons whose names appear in the parliamentary register or in the local government register as being entitled to vote at elections for members of parliament or county or parish councillors as the case may be. The election takes place subject to rules made by the Local Government Board, these rules being largely founded upon adaptations of the Municipal Corporations Act 1882. The election is by ballot on the same lines as those prescribed for a municipal election, and the Corrupt Practices Act, the provisions of which have been referred to when dealing with county councils, applies to the elections of district councils. The provisions with reference to election petitions, the grounds upon which they may be presented and the procedure upon them, are the same in every respect as have already been mentioned when dealing with

United districts.

county councils. It may be convenient here to state that the Local Government Board has power to unite any number of districts or parts of districts into what is called a united district for certain special purposes such as water-supply, sewerage or the like. This is done by means of a provisional order made by the board and confirmed by parliament. In such a united district the governing body is a joint board constituted in manner provided by the order, and it has under the order such of the powers of a district council as are necessary for the purposes for which the united district is created. Thus a joint sewerage board would generally be invested by the order with all the powers of a district council relating to the provision and control of sewers and the disposal of sewage. It may also be convenient here to mention another

Port sanitary authority.

special kind of district authority, that is, a port sanitary authority. It is also constituted by order of the Local Government Board, and it may include one or more sanitary districts or parts of districts abutting upon a port. In this case also the authority consists of such members and is elected in such manner as the order determines, and it has such of the powers of an ordinary district council as the order may confer upon it. These relate for the most part to nuisances and infectious disease, having special reference to ships. It has been thought convenient to deal here with district councils, whether urban or rural, together, but the powers of the former are much more extensive than those of the latter, and as the consideration

Powers of urban and rural councils compared.

of the subject proceeds it will be necessary to indicate what powers and duties are conferred or imposed upon urban district councils only. It must be pointed out, however, that when the necessity arises for conferring upon a rural district council any of the powers exercisable only by an urban district council, that can be done by means of an order of the Local Government Board. The necessity for this provision arises because it sometimes happens that in a district otherwise rural there are some centres of population, hardly large enough to be constituted urban districts, which nevertheless require the same control as an urban district.

A district council may from time to time make regulations with respect to summoning, notice, place, management and adjournment of their meetings, and generally with respect to the transaction and management of their business. Three members must

Business and offices.

be present to constitute a quorum. At the annual meeting, which is held as soon as convenient after the 15th April in each year, a chairman for the succeeding year has to be appointed. He presides at all meetings, and in his absence another member appointed by the meeting takes his place. Questions are determined by the majority present and voting, the chairman having the casting vote. Minutes are taken and, if signed at the meeting or the next ensuing meeting, are made evidence. The officers of the council consist of a clerk, a medical officer, a surveyor, one or more inspectors of nuisances and a treasurer. Of these all but the medical officer of health and inspectors of nuisances hold office at pleasure and receive such remuneration as the council may determine. If the urban district is a borough, the town clerk and borough treasurer fulfil the same office for purposes of the Public Health Acts. The salaries of the medical officer of health and inspectors of nuisances are, as to one moiety thereof, paid out of "the exchequer contribution account" by the county council, if they are appointed in accordance with the requirements of the Local Government Board as to qualification, appointment, duties, salary and tenure of office. The orders of the Local Government Board as to these matters are set out in the *Statutory Rules and Orders*. District councils may also employ such other officers and servants as may be necessary and proper for the fulfilment of their duties. Officers and servants are prohibited from being concerned or interested in any

bargain or contract made with their council, and from receiving under cover of their office or employment any fee or reward whatsoever other than their proper salaries, wages and allowances, under penalty of being rendered incapable of holding office under any district council, and of a pecuniary penalty of £50. There are some exceptions to this provision somewhat similar to those already mentioned with respect to the disqualification of members of the council. It may be mentioned here that by an act, called the Public Bodies' Corrupt Practices Act 1889, severe penalties are imposed alike upon members and officers of public bodies for corruption in office.

A district council may appoint committees consisting wholly or partly of members of their own body for the exercise of any powers which in their opinion can properly be exercised by such committees. Such committees do not, however, hold office beyond the next annual meeting of the council, and their acts must be submitted to the council for their approval. If they are appointed for any purposes of the Public Health or Highway Acts, the council may authorize them to institute any proceedings or do any act which the council might have instituted or done, other than the raising of any loan or the making of any rate or contract. A rural district council may delegate their entire powers in any parish to a parochial committee. Such committee may consist wholly of members of their own body or of members of the parish council, or partly of members of both. Such a committee may be subject to any regulations and restrictions imposed upon it by the rural district council.

In dealing with the powers and duties of district councils it will be convenient to treat of these first as they arise under the Public Health Acts, and afterwards as they arise under other statutes. In so far as such powers and duties are common to urban and rural district councils alike they will be referred to as appertaining to district councils. When reference is made to any power or duty of an urban council it is to be understood that the rural council have no such power or duty unless conferred or imposed upon them by order of the Local Government Board. And it must be borne in mind that in a borough the borough council is the urban district council.

The district council are required to cause to be made such sewers as may be necessary for effectually draining their district. This duty may be enforced by the Local Government Board on complaint made to them that the council have failed in performing it, and in the case of a rural district by the county council on complaint of the parish council. All sewers, whether made by the council, by their predecessors, or by private persons, vest in the district council, that is to say, become their property, with some exceptions, of which the principal is sewers made by a person for his own profit. The owner or occupier of any premises is entitled as of right to cause his drain to be connected with any sewer, on condition only of his giving notice and complying with the regulations of the council as to the mode in which the communication is to be made, and subject to the control of any person appointed by the council to superintend the work. Moreover, the owner or occupier of premises without the district has the same right, subject only to such terms and conditions as may be agreed or, in ease of dispute, settled by justices or by arbitration. If a house does not possess a sufficient drain, the occupier may be required to provide one, and to cause it to discharge into a sewer if there is one within 100 ft. of the house, otherwise into a cesspool, as the council may direct. In the case of new houses, these may not be built or occupied in an urban district without their being first provided with sufficient drains as the council may require; and in an urban district it is forbidden to cause any building to be newly erected over a sewer without the consent of the council. For the purpose of sewage disposal a district council may construct any works and contract for the use or purchase or lease of any land, buildings, engines, materials or apparatus, and contract to supply for a period not exceeding twenty-five years any person with sewage. It may be pointed out here that these expressions are defined by the act, the effect of the definitions being shortly that a drain is a conduit for the drainage of one building or of several within the same curtilage, while a sewer comprises every kind of drain except that which is covered by the definition of a drain as above stated. The result has been that district councils frequently find themselves in the position of being responsible for the repair and condition of drains which, by reason of having been laid for more than one house, are sewers vested in and repairable by them. An attempt was made to remedy this state of things by the Public Health Amendment Act 1890, section 19, but the remedy so provided was very partial, and may be said to be confined to the case where two or more houses belonging to different owners are drained into a common drain laid under private land, and ultimately discharging into a sewer in a road or street.

The district council are charged with the duty of enforcing the provision of proper sanitary accommodation (water-closets, privies, ashpits, &c.) for all dwelling-houses, new or old, and for factories, and the maintenance of such conveniences in proper condition. The urban council have power to provide and maintain and

accommodation for houses. make provision for the regulation of urinals, water-closets, earth-closets, privies, ashpits and other similar conveniences for public accommodation.

In the event of a complaint being made to a district council that any drain, closet, privy, ashpit or cesspool is a nuisance or injurious to health, the council may empower their surveyor to enter and examine the premises, and, if the complaint is well founded, they may require the owner to do the necessary works. The district council are not bound to undertake the removal of house refuse from premises, or the cleansing of closets, privies, ashpits and cesspools. They may, however, undertake these duties, and, if the Local Government Board require, they must do so. An urban council and a rural council, if invested with the

Removal of refuse.

requisite power by the Local Government Board, may, and when required by order of that board must, provide for the proper cleansing of streets, and may also provide for the proper watering of streets. When they have undertaken, or are required to perform these duties, a penalty is imposed upon them for neglect. If they do not undertake these duties, they may make by-laws imposing on the occupiers of premises the duty of cleansing footways and pavements, the removal of house refuse, and the cleansing of earth-closets, privies, ashpits and cesspools; and an urban council may also make by-laws for the prevention of nuisances arising from snow, filth, dust, ashes and rubbish, and for the prevention of the keeping of animals on any premises so as to be injurious to health. The keeping of swine in a dwelling-house, or so as to be a nuisance, is made an offence punishable by a penalty in an urban district, as also is the suffering of any waste or stagnant water to remain in any cellar, or within any dwelling-house after notice, and the allowing of the contents of any closet, privy or cesspool to overflow or soak therefrom. Provision is also made for enforcing the removal of accumulations of manure, dung, soil or filth from any premises in an urban district, and for the periodical removal of manure or other refuse from mews, stables or other premises.

With regard to water-supply, district councils have extensive powers. They may provide their district or any part of it with a supply of water proper and sufficient for public and private purposes, and for this purpose they may construct and maintain

Water-supply.

waterworks, dig wells, take on lease or hire any waterworks, purchase waterworks or water, or right to take or convey water either within or without their district, and any rights, powers and privileges of any water company, and contract with any person for the supply of water. They may not, however, commence to construct waterworks within the limits of supply of any water company empowered by act of parliament or provisional order to supply water without giving notice to the company, and not even then so long as the company are able and willing to supply the necessary water. Any dispute as to whether the company are able and willing has to be settled by arbitration. Where the council do supply water, they have the same powers of carrying mains under streets or through private lands as they have with respect to the laying of sewers, as already mentioned. They can charge water rents which depend upon agreements with consumers, or they may charge water rates assessed on the net annual value of the premises supplied. It is to be observed that they are not bound to charge for a supply of water at all, unless they are required to do so in an urban district by at least ten persons, rated to the poor rate, or in a parish in a rural district by at least five persons so rated in the parish. Even then the amount of the rate is left to the council, any deficiency in the cost of the water, in so far as it is not defrayed out of water rates or rents, being borne in an urban district by the general district rate, and in a rural district by the separate sanitary rates made for the parish or contributory place supplied. For the purpose of enabling them to supply water, most of the provisions of the Waterworks Clauses Acts are incorporated with the Public Health Act, and are made available for the district council. They are empowered to supply water by measure if they think fit, and may charge a rent for water-meters. The power of the district council to supply water is strictly limited to their own district, but they may, with the sanction of the Local Government Board, supply water to the council of an adjoining district on such terms as may be agreed upon, or as, in case of dispute, may be settled by arbitration. If any house is without a sufficient supply, and it appears that a supply can be furnished at a reasonable cost, as defined in the Public Health Act and the Public Health Water Act 1878, the owner may be required to provide the supply, and, if he fails, the council may themselves provide the supply and charge the owner with the cost. All public sources of water-supply such as streams, pumps, wells, reservoirs, conduits, aqueducts and works used for the gratuitous supply of water to the inhabitants of the district are vested in the council, who may cause all such works to be maintained and plentifully supplied with pure and wholesome water for the gratuitous use of the inhabitants, but not for sale by them. The council may supply water to public baths or wash-houses, or for trade or manufacturing purposes. In the case of the former the supply may be gratuitous. In the latter case it is to be on terms agreed between the parties. The urban council are required to cause fire-plugs, and all necessary works, machinery and assistance for securing a supply of water in case of fire, to be provided and maintained, and for this purpose they may enter into an agreement with any water company or person. Provision is made for preventing the pollution of water by gas refuse and enabling

a district council, with the sanction of the attorney-general, to take any proceedings they may think fit for preventing the pollution of any stream in their district by sewage. The district council are also empowered to obtain an order of justices directing the closing of any well, tank or cistern, public or private, or any public pump the water from which is likely to be used for drinking or domestic purposes, or for manufacturing drinks for the use of man, if such water is found to be so polluted as to be injurious to health.

Power is given to prohibit the use as dwellings of any cellars, vaults or underground rooms built or occupied after 1875, and with regard to such cellars as were occupied as dwellings before 1875, the continued occupation of these is also forbidden unless they comply with

Cellar dwellings.

certain stringent requirements as to the height of the rooms, height of the ceilings above the surface of the street, open areas in front, effectual drainage, sanitary conveniences appurtenant to the cellars, and the provision of fireplaces.

District councils are required to keep a register of the common lodging-houses in their district. No person is allowed to keep a common lodging-house unless he is registered, and a

Common lodging-houses.

house may not be registered until it has been inspected and approved for the purpose by an officer of the council. Further, the council may refuse to register a keeper unless they are satisfied of his character and of his fitness for the position. The council are empowered to make by-laws for fixing the number of lodgers and separating the sexes therein, promoting

cleanliness and ventilation, giving of notices and taking precautions in case of any infectious disease, and generally for the well-ordering of such houses. The keepers of common lodging-houses are required to limewash their walls and ceilings in the months of April and October in every year, and if paupers or vagrants are received to lodge, they may be required to report as to the persons who have resorted thereto. They must give notice of any infectious disease to the medical officer of health and to the poor-law relieving officer, and they must give free access for inspection. There is no definition of the expression "common lodging-house" in the Public Health Acts, and at one time the courts decided that shelters for the destitute kept by charitable persons were not common lodging-houses. That idea is now exploded, and the acts apply to charitable institutions which receive persons of the class ordinarily received into common lodging-houses.

By-laws may also be made relating to houses let in lodgings which are not common lodging-houses. These by-laws are in practice limited to those inhabited by the poorer classes, although the act imposes no such restriction.

Houses let in lodgings.

The Public Health Acts 1875 to 1907 contain elaborate provisions for dealing with nuisances. Those which are dealt with summarily are thus enumerated:—(1) any premises in such a state as to be a nuisance or injurious to health; (2)

Nuisances.

any pool, ditch, gutter, watercourse, privy, urinal, cesspool, drain or ashpit so foul or in such a state as to be injurious to health; (3) any animal so kept as to be a nuisance or injurious to health; (4) any accumulation or deposit

which is a nuisance or injurious to health; (5) any house or part of a house so overcrowded as to be dangerous or injurious to the health of the inmates, whether or not members of the same family; (6) any factory, workshop or workplace not already under the operation of any general act for the regulation of factories or bakehouses not kept in a cleanly state or not ventilated in such a manner as to render harmless as far as practicable any gases, vapours, dust or other impurities generated in the course of the work carried on therein that are a nuisance or injurious to health, or so overcrowded while work is carried on as to be dangerous or injurious to the health of those employed therein; (7) any fireplace or furnace which does not as far as practicable consume the smoke arising from the combustible used therein, and which is used for working engines by steam or in any mill, factory, dye-house, brewery, bakehouse or gas work, or in any manufacturing or trade process whatsoever; and (8) any chimney not being the chimney of a private dwelling-house sending forth black smoke in such quantity as to be a nuisance. The nuisances above enumerated are said to be nuisances liable to be dealt with summarily. It is the duty of every district council to inspect their district with a view to the discovery of any such nuisances. In the event of such discovery by them or of information given to them of the existence of any such nuisance, the district council are required to serve a notice requiring the abatement of the nuisance on the person by whose act, default or sufferance it arises or continues, or if such person cannot be found, on the owner or occupier of the premises at which the nuisance arises. The notice must require the abatement of the nuisance within a specified time, and must prescribe the works which in the opinion of the council are necessary to be done. If the nuisance arises from the absence or defective construction of any structural convenience, or if there is no occupier of the premises, the notice must be served upon the owner. If the person who causes the nuisance cannot be found, and it is clear that the nuisance does not arise or continue by the act, default or sufferance of the owner or occupier of the premises, the local

authority may themselves abate the nuisance without further order. If the person on whom the notice is served objects to give effect to it, he may be summoned before justices, and the justices may make an order upon him to abate the nuisance, or prohibiting the recurrence of the nuisance if this is likely, and directing the execution of the necessary works. If the nuisance is such as to render a dwelling-house unfit for human habitation, the justices may close it until it is rendered fit for that purpose. Disobedience under the order of justices involves a penalty and a daily penalty for every day during which default continues. Private persons may complain to justices in respect of nuisances by which they are personally aggrieved, and if the district council make default in doing their duty, the Local Government Board may authorize any officer of police to institute any necessary proceedings at the cost of the defaulting council. The district council may, if in their opinion proceedings before justices afford an inadequate remedy, take proceedings in the high court, but in that case, if the nuisance is of a public nature, they must proceed by action in the name of the attorney-general. The provisions as to nuisances are extended to ships by an act of 1885.

It is forbidden to establish within an urban district without the consent of the council any offensive trade, business or manufacture. With regard to any offensive trade which has been established or may be consented to in any urban district, if it is verified by the medical officer or any two legally qualified medical practitioners, or by any ten inhabitants of the district, to be a nuisance or injurious to health, the urban district council are required to take proceedings before magistrates with a view to the abatement of the nuisance complained of.

Any medical officer or inspector of nuisances may inspect any meat, &c., exposed for sale or deposited in any place for the purpose of sale or of preparation for sale and intended for the food of man. This power of inspection is, in districts where the Public Health Act 1890 has been adopted, extended to all articles intended for the food of man. If upon such inspection the meat, &c., appears to be diseased, **Unsound meat.** unsound or unwholesome, it may be taken before a justice for the purpose of being condemned, and the person to whom the meat, &c., belongs or in whose possession it was found is liable to a penalty or, in the discretion of the justices, to imprisonment for three months without the option of a fine.

The Public Health Acts contain important provisions relating to infectious disease. Any person who knows he is suffering from an infectious disease must not carry on any trade or business unless he can do so without risk of spreading the disease. Local authorities may require premises to be cleansed and disinfected; they may order the destruction of bedding, clothing or other articles which have been exposed to infection; they may provide proper places for the disinfection of infected articles free of charge; they may provide ambulances, &c. In the case of a person found suffering from infectious disease who has not proper lodging or accommodation, or is lodging in a room occupied by more than one family, or is on board any ship or vessel, such person may by means of a justice's order be removed to a hospital; a local authority may pay the expenses of a person in a hospital or, if necessary, provide nursing attendance; any person exposing himself or any other in his charge while suffering from infectious disease, or exposing infected bedding, clothing or the like, is made liable to a penalty. Owners and drivers of public conveyances must not knowingly convey any person suffering from infectious disease, and if any person suffering from such a disease is conveyed in any public vehicle the owner or driver as soon as it comes to his knowledge must give notice to the medical officer. It is also forbidden to let houses or rooms in which infected persons have been lodging, or to make false statements to persons negotiating for the hire of such rooms. An act was passed in the year 1890, called the Infectious Diseases Prevention Act. When adopted it enabled an urban or district council to obtain the inspection of dairies where these were suspected to be the cause of infectious disease, with a view to prohibiting the supply of milk from such dairies if the fact were established. The act of 1907 extended the provisions of the act of 1890. It enables a local authority to require dairymen to furnish a complete list of sources of supply if the medical officer certifies that any person is suffering from infectious disease which he has reason to suspect is attributable to milk supplied within his district. It also compels dairymen to notify infectious diseases existing among their servants. The act of 1890 also forbids the keeping for more than forty-eight hours of the body of a person who has died of infectious disease in a room used at the time as a dwelling-place, sleeping-place or workshop. It provides for the bodies of persons dying of infectious diseases in a hospital being removed only for burial, and gives power to justices in certain cases to order bodies to be buried. The diseases to which the act applies are smallpox, cholera, membranous croup, erysipelas, scarlatina or scarlet fever, typhus, typhoid, enteric, relapsing, continued or puerperal fever, and any other infectious disease to which the act has been applied by the local authority of the district in the prescribed manner. The most important provision, however, relating to infectious disease is that contained in the Infectious Disease Notification Act 1889. That was originally an adoptive

act, but it is now extended to all districts in England and Wales. It requires the notification to the medical officer of health of the district of every case in which a person is suffering from one of the diseases above mentioned. The duty of notification is imposed upon the head of the family, and also upon the medical practitioner who may be in attendance on the patient. The medical attendant is entitled to receive in respect of each notification a fee of 2s. 6d. if the case occurs in his private practice, and of 1s. if the case occurs in his practice as medical officer of any public body or institution. These fees are paid by the urban or rural district council as the case may be. The provisions as to notification are applied to every ship, vessel, boat, tent, van, shed or similar structure used for human habitation in like manner as nearly as may be as if it were a building. Exception is made, however, in the case of a ship, vessel or boat belonging to a foreign government. It is not too much to say that this act has been one of the most effectual means of preventing the spread of infectious disease in modern times.

The district council are empowered to provide hospitals or temporary places for the reception of the sick. They may build them, contract for the use of them, agree for the reception of the sick inhabitants of their district into an existing hospital, or combine with any other district council in providing a common hospital.

Hospitals.

As has already been mentioned when dealing with county councils, if a district council make default in providing hospital accommodation, the county council may put in operation the Isolation Hospitals Act. The power given to provide hospitals must be exercised so as not to create a nuisance, and much litigation has taken place in respect of the providing of hospitals for smallpox. Up to the present time, however, the courts have refused to accept as a principle that a smallpox hospital is necessarily a source of danger to the neighbourhood, and for the most part applications for injunction on that ground have failed.

Where any part of the country appears to be threatened with or is affected by any formidable epidemic, endemic or infectious disease, the Local Government Board may make regulations for the speedy interment of the dead, house-to-house visitation, the provision of medical aid and accommodation, the promotion of cleansing, ventilation and disinfection, and the guarding against the spread of disease. Such regulations are made and enforced by the district councils. The provisions of the Public Health Acts relating to infectious disease are for the most part extended to ships by an act of the year 1885.

Epidemics.

District councils may, and if required by the Local Government Board, must provide mortuaries, and they may make by-laws with respect to the management and charges for the use of the same. Where the body of a person who has died of an infectious disease is retained in a room where persons live or sleep, or the retention of any dead body may endanger health, any justice on the certificate of a medical practitioner may order the removal of a body to a mortuary and direct the body to be buried within a time limited by the friends of the deceased or in their default by the relieving officer. A district council may also provide and maintain a proper place (otherwise than at a workhouse or at a mortuary) for the reception of dead bodies during the time required to conduct any *post mortem* examination ordered by a coroner.

Mortuaries.

Under an act of 1879 the district council have power to provide and maintain a cemetery either within or without their district, and they may purchase or accept a donation of land for that purpose. The provisions of the Cemeteries Clauses Act 1847 apply to a cemetery thus provided. These cannot all be referred to here, but it may be noted that no part of the cemetery need be consecrated, but that if any part is, such part is to be defined by suitable marks, and a chapel in connexion with the Established Church must be erected in it. A chaplain must also be appointed to officiate at burials in the consecrated portion. The power to provide a cemetery under the act under consideration must not be confounded with that of providing a burial ground under the Burial Acts. These acts will be mentioned later in connexion with the powers of parish councils, for in general they are adopted for a parish, part of a parish or combination of parishes, and are administered by a burial board, except where that body has been superseded by a parish council or joint committee. It may be mentioned, however, that under the Local Government Act 1894, where a burial board district is wholly in an urban district, the urban council may resolve that the powers, duties and liabilities of the burial board shall be transferred to the council, and thereupon the burial board may cease to exist. And it is provided by the same act that the Burial Acts shall not hereafter be adopted in any urban parish without the approval of the urban council. The distinction between a burial ground provided under the Burial Acts and a cemetery provided under the act of 1879 is important in many ways, of which one only need be mentioned here—the expenses under the Burial Acts are paid out of the poor rate, while the expenses under the act of 1879 are paid in an urban district out of the general district rate, the incidence of which differs materially from

Cemeteries.

that of the poor rate, as will be seen hereafter.

In an urban district the urban council have always had all the powers and duties of a surveyor of highways under the Highway Acts. But before 1894 a rural district council had no power or duty in respect of highways except in a few cases where, by virtue of a provision in the Highway Act 1878, the rural sanitary authority of a district coincident in area with a highway district were empowered to exercise all the powers of a a highway board. Except in these cases the highway authority in a parish was the surveyor of highways, elected annually by the inhabitants in vestry, or in a highway district consisting of a number of parishes united by order of quarter sessions, the highway board composed of waywardens representing the several parishes. By the Local Government Act 1894, there were transferred to the district council of every rural district all the powers, duties and liabilities of every highway authority, surveyor or highway board within their district, and the former highway authorities ceased to exist. The highway authority in every district, rural as well as urban, is therefore the district council. Of the chief duties of a district council with regard to highways, the first and most obvious is the duty to repair. This duty was formerly enforceable by indictment of the inhabitants of the parish, but it is not quite clear whether this procedure is applicable, now that the liability to repair is transferred to a council representing a wider area. Under the Highway Acts it is enforceable by summary proceedings before justices and by orders of the county council, but in either case, if the liability to repair is disputed, that question has to be decided on indictment preferred against the highway authority alleged to be in default. In a rural district any parish council may complain to the county council that the district council have made default in keeping any highway in repair, and the county council may thereupon transfer to themselves and execute the powers of the district council at the cost of the latter body, or they may make an order requiring the district council to perform their duty, or they may appoint some person to do so at the cost of the district council. It is important to observe, however, that an action does not lie against a district council in respect of the failure to repair a highway even at the suit of a person who has thereby been injured. The reason assigned for this doctrine is that the council as highway surveyor stand in the same position as the inhabitants of the parish, against whom such an action would not lie. The district council are, however, liable for any injury caused through negligence on the part of their officers or servants in carrying out the work of repair.

But while rural as well as urban district councils have the powers and duties of surveyors of highways, the provisions of the Public Health Acts relating to streets apply only in urban districts, except in so far as the Local Government Board may by order have conferred urban powers upon a rural district council. These provisions have now to be referred to. It may be convenient to state that the expression "street" is here used in a sense much wider than its ordinary meaning. It is defined by the act to include any highway and any public bridge (not being a county bridge), and any road, lane, footway, square, court, alley or passage, whether a thoroughfare or not. For certain purposes streets as thus defined are divided into two classes, viz. those which are and those which are not highways repairable by the inhabitants at large. But it has to be borne in mind that it is not every highway that is repairable by the inhabitants at large. Before the year 1836 as soon as a way was dedicated to public use and the public had by user signified their acceptance of it, it became without more notice repairable by the parish. Therefore every highway—whether carriage-way, driftway, bridleway or footway—which can be shown to have been in use before 1836, is presumably repairable by the inhabitants at large, the only exceptions being such highways as are repairable by private persons or corporate bodies *ratione clausurae*, *ratione tenurae*, or by prescription. But in the year 1836, when the Highway Act 1835 came into operation, the law was altered. It was possible, just as formerly, to dedicate a way to the use of the public, and it thereupon became a highway to all intents and purposes. But mere dedication did not make the way repairable by the public. That result was not to follow unless certain stringent requirements were fulfilled. When it is shown, therefore, that a highway has been dedicated after 1836, it is not repairable by the inhabitants at large unless it can be shown that these provisions have been complied with, or that it has been declared to be repairable under provisions of the Public Health Acts presently to be mentioned. (There was also power given to justices, by the Highway Act 1862, to declare a private road or occupation road in a highway district to be a public highway repairable by the parish; but this power does not appear to have been acted upon to any extent.)

All streets being highways repairable by the inhabitants at large within an urban district, are vested in and under the control of the urban council. After much litigation it has now been established that this provision does not give the council an absolute property in the soil of the street, but merely such a qualified property in the surfaces as enables them to exercise control. The urban council are required from time to time to cause all such streets to be made up and repaired as occasion may require, and they are empowered to raise,

lower or alter the soil of the street, and to place and keep in repair fences and posts for the safety of foot-passengers. The other class of streets consists of those which are not highways repairable by the inhabitants at large. Under the Public Health Act 1875 such streets may be dealt with in manner following:—If any such street or part thereof is not sewered, levelled, paved, metalled, flagged, channelled, made good or lighted to the satisfaction of the council, the council may cause it to be made up at the expense of the owners of premises fronting the street in proportion to their several frontages. When all or any of the works aforesaid have been executed in the street, and the council are of opinion that the street ought to become a highway repairable by the inhabitants at large, they may by notice to be fixed up in the street declare it to be a highway repairable by the inhabitants at large, and the declaration will be effective unless, within one month after the notice has been put up, the majority of the owners in the street object thereto. An alternative procedure has been provided by the Private Street Works Act, which may be adopted by any urban council. One important point of difference is that under the latter act the council may resolve that the expenses shall be apportioned among the owners not merely according to frontage, but according to the greater or less degree of benefit to be derived by any premises from the works.

Where a house or building in a street is taken down to be rebuilt, the urban district council may prescribe the line to which it is to be rebuilt, paying compensation to the building owner for any damage which he may sustain consequent upon the requirement. Save to this extent, no power is given by the general law to a district council to prescribe a building line. But under an act of 1888 it is provided that it shall not be lawful in any urban district without the consent of the urban authority to erect or bring forward any house or building in any street or any part of such house or building beyond the front main wall of the house or building on either side thereof in the same street.

The control exercised by an urban district council over streets and buildings is to a very large extent exercised through by-laws which they are empowered to make for various purposes relating to the laying out and formation of new streets, the erection and construction of new buildings, the provision of sufficient air-space about buildings to secure a free circulation of air, and the provision of suitable and sufficient sanitary conveniences. The manner in which such by-laws are made and confirmed will be hereafter noticed. In general, the by-laws require plans of new streets to be submitted to the council, and they are required to approve or disapprove of these plans within a month. They cannot disapprove of a plan unless it contravenes the provisions of some statute or by-law; but if a person builds otherwise than according to an approved plan he does so at the risk of having his work pulled down or destroyed. Among the miscellaneous powers of an urban council with respect to streets may be mentioned the power to widen or improve, and certain powers incorporated from the Towns Improvement Clauses Act 1847, with respect to naming streets, numbering houses, improving the line of streets, removing obstructions, providing protection in respect of ruinous or dangerous buildings, and requiring precautions to be taken during the construction and repair of sewers, streets and houses. An urban council may also provide for the lighting of any street in their district, and may contract with any person or company for that purpose. If there is no company having statutory powers of supply within their district, they may themselves undertake the supply of gas, and they may purchase the undertaking of any gas company within their district.

An urban council may acquire and maintain lands for the purpose of being used as public walks or pleasure-grounds, and may support or contribute to the support of such walks or grounds if provided by any other person. They may also contribute to the **Public parks.** cost of laying out, planting or improvement of lands provided for this purpose by any person, in their own district or outside that district, if it appears that the walks or grounds could eventually be used by the inhabitants of that district. An urban council may also provide public clocks or pay for the reasonable cost of repairing and maintaining any public clocks in the district, though not vested in them.

Where an urban council are the council of a borough, and in other cases with the consent of the owners and ratepayers of the district, they may provide market accommodation for their district. They may not, however, establish any market so as to interfere with any market already established in the district under a franchise or charter. For purposes of markets certain provisions of the **Markets and slaughter-houses.** Markets and Fairs Clauses Act 1847 are incorporated with the Public Health Act. The only one of these that need be noticed is that which provides that after the market is opened for public use every person, other than a licensed hawker, who shall sell or expose for sale in any place within the district, except in his own dwelling-place or shop, any articles in respect of which tolls are authorized to be taken shall be liable to a penalty. The tolls which may be taken by an urban council must be approved by the Local Government Board; and any by-laws which they make for the regulation of the market must be confirmed by the same body. An urban council may also provide slaughter-

houses and make by-laws with respect to the management and charges for the use of them. Where they do not provide slaughter-houses, all previously existing slaughter-houses have to be registered and new ones licensed; and no person may lawfully use a slaughter-house which is not either registered or licensed. Licences may be suspended by justices in the event of their being used contrary to the provisions of the act or of the by-laws, and on a second conviction the licence may be revoked. On a conviction of selling or exposing for sale, or having in his possession or on his premises unsound meat, the court may also revoke the licence.

Certain police regulations contained in the Town Police Clauses Act 1847 are by virtue of the Public Health Act 1875 in force in all urban districts. These relate to obstructions and nuisances in streets, fires, places of public resort, hackney carriages and public bathing. An urban council may also license proprietors, drivers and conductors of horses, ponies, mules or asses standing for hiring in the district in the same way as in the case of hackney carriages, and they may also license pleasure boats and vessels, and the boatmen or persons in charge thereof, and they may make by-laws for all these purposes.

Hackney carriages, &c.

Every district council may enter into such contracts as are necessary for carrying into execution the various purposes of the Public Health Acts. A district council being a corporation, the general law applies in the case of a rural council that they must contract under their common seal, the exception to this rule including the doing of acts very frequently recurring or too insignificant to be worth the trouble of affixing the common seal. In the case of an urban council certain stringent regulations are laid down. A contract made by an urban council, whereof the value and amount exceed £50, must be under seal, and certain other formalities must be observed, some of which are imperative; for example, the taking of sureties from the contractor, and the making provision for penalties to be paid by him in case the terms of the contract are not observed. Every local authority may also, for purposes of the act, purchase or take on lease, sell or exchange, any lands. Such lands as are not required for the purpose for which they were purchased must, unless the Local Government Board otherwise direct, be sold. Powers of compulsory purchase of lands are also given under the Lands Clauses Acts, but before these can be put in operation certain conditions must be observed. The Local Government Board must make inquiry into the propriety of allowing the lands to be taken, and the power to acquire the lands compulsorily can only be conferred by means of a provisional order confirmed by parliament.

Contracts, purchase of lands.

With regard to the by-laws which district councils may make for many purposes, the subjects of which have been already from time to time mentioned, it is only necessary to state that these require to be confirmed by the Local Government Board. Such confirmation does not, however, give validity to a by-law which cannot be justified by the provisions of the act, and many by-laws which have been so confirmed have been held to be invalid under the general law as being uncertain, unreasonable or repugnant to the law of the realm. For the guidance of local authorities, the Local Government Board have from time to time issued model series of by-laws dealing with the various subjects for which by-laws may be made, and these are for the most part followed throughout England and Wales.

By-laws.

As a general rule, all the expenses of carrying into execution the Public Health Acts in an urban district fall upon a fund which is called the general district fund, and that fund is provided by means of a rate called the general district rate. To this there are some exceptions. First, in the case of boroughs where from the time of the first adoption of the Sanitary Acts these expenses have been paid out of the borough rate, the expenses continue to be so paid; and in an urban district which was formerly subject to an Improvement Act, the expenses may be payable out of the improvement rate authorized by that act. The general rule, however, prevails over by far the greater part of England and Wales. The general district rate is made and levied on the occupiers of all kinds of property for the time being assessable to any rate for the relief of the poor, subject to a few exceptions and conditions. Of these the first is that the owner may be rated instead of the occupier, at the option of the urban authority, where the value of the premises is under £10, where the premises are let to weekly or monthly tenants, or where the premises are let in separate apartments, or the rents become payable or are collected at any shorter period than quarterly. When the owner is rated he must be assessed upon a certain proportion only of the net annual value of the premises. The owners or occupiers of certain specified properties are assessed in respect of the same in the proportion of one-fourth part only of the net annual value thereof. These properties include tithes, tithe commutation rent charge, land used as arable, meadow or pasture ground only, or as woodlands, market gardens or nursery grounds, orchards, allotments, any land covered with water such as the reservoir of a waterworks company, or used only as a canal or towing-path

Finance.

of the same, or as a railway constructed under the powers of any Act of Parliament for public conveyance. The reason for these partial exemptions apparently is that sanitary arrangements are made chiefly for the benefit of houses and buildings, while the properties just enumerated do not receive the same amount of benefit. The only other point to be noticed in this connexion is that an urban council may divide their district into parts for all or any of the purposes of the act, rating each part separately for those purposes. The expenses of highways in an urban district fall as a rule upon the general district rate, but under certain conditions, which need not be here set out, a separate highway rate may have to be levied. The urban council have extensive powers of amending the rate, and the rate is collected in such manner as the urban authority may appoint.

The expenses of a rural district council are of two kinds. Of these the first is called general expenses, and it includes the expense of the establishment and officers of the council, of disinfection, providing of conveyance for infected persons, and the expenses of highways. These expenses are payable out of a common fund which is raised out of the poor rate of the several parishes in the district, according to the rateable value of each. Special expenses include the expenses of the construction and maintenance and cleansing of sewers, providing water-supply, and all other expenses incurred or payable in respect of a parish or contributory place within the district determined by order of the Local Government Board to be special expenses. The expression "contributory place" means a place other than a parish chargeable with special expenses. For the most part it has reference only to what is called a special drainage district, that is to say, a district formed out of one or more parishes or parts of parishes for the purpose of the provision of a common water-supply, or scheme of sewerage, or the like, and in the event of such a district including part only of a parish, the remaining portion would, so far as the special expenses for which the district was created are concerned, be a separate contributory place. These special expenses are chargeable to each parish or contributory place, and they are defrayed by means of special sanitary rates, such rates being raised on all property assessed to the relief of the poor, but with the same exemptions of certain properties as have been mentioned under the head of general district rate in urban districts.

District councils are empowered to borrow with the sanction of the Local Government Board, subject to certain restrictions and regulations. The money must be borrowed for permanent works, the expenses of which ought in the opinion of the Local Government Board to be spread over a term of years which must not exceed sixty. The sums borrowed must not exceed, with the outstanding loans, the amount of the assessable value for two years of the district for which the money is borrowed; and if the sum borrowed would, with the outstanding loans, exceed the assessable value for one year, the sanction of the Local Government Board may not be given except after local inquiry. The money may be repaid by equal instalments of principal, or of principal and interest, or by means of a sinking fund.

Borrowing powers.

Where the urban council are the council of a borough, their accounts as urban council are made up and audited in the same ineffective manner as has already been mentioned in the case of the accounts of the council under the Municipal Corporations Act, but each of the borough auditors receives remuneration for auditing the accounts of the council as urban district council. Where the urban council are not the council of a borough, the accounts are made up annually, and audited by the district auditor in the same effective manner as has already been mentioned in the case of the accounts of a county council. The accounts of a rural district council are made up half-yearly and are audited in the same way.

Audit.

The Public Authorities Protection Act 1893 was passed to repeal the numerous provisions contained in many acts of parliament, whereby, before legal proceedings could be taken against a public body, notice of action had to be given and the proceedings commenced within a certain limited time. The act applies to all public authorities, including, of course, district councils, and it provides in effect that where any action or legal proceeding is taken against a council for any act done in pursuance or execution, or intended execution, of an act of parliament, or of any public duty or authority, the action must be commenced within six months next after the act, neglect or default complained of, or in the case of a continuance of injury or damage, within six months next after the ceasing thereof. And it provides further that, in the event of the judgment of the court being given in favour of the council, the council shall be entitled to recover their costs taxed as between solicitor and client. Notice of action is abolished in every case.

Proceedings against district councils.

Among other acts which are either incorporated with the Public Health Acts or have been passed subsequently to them, one of the most important is the Housing of the Working Classes Act 1890. It contains three distinct parts. Under the first an urban district council may, by means of a scheme, acquire, rearrange and

Housing of

the working classes.

reconstruct an area which has been proved to be insanitary. The scheme has to be confirmed by the Local Government Board, and carried out by means of a provisional order. The second part of the act deals with unhealthy dwelling-houses, and requires the urban district council to take steps for the closing of any dwelling-houses within their district which are unfit for human habitation. The third part of the act deals with what is called in the act working-class lodging-houses. But the expression is a little misleading, for it includes separate houses or cottages for the working classes, whether containing one or several tenements, and the expression "cottage" may include a garden of not more than half an acre, provided that the estimated annual value of such garden shall not exceed £3. This part of the act may be adopted by a rural district council, but an urban district council can carry it into execution without formal adoption. Land may be acquired for erecting lodging-houses as above defined, and these, when erected, may be managed and let by the council.

Baths and wash-houses.

The urban district council may adopt the provisions of the Baths and Washhouses Acts, and thereunder provide public baths, wash-houses, open bathing-places, covered swimming baths, which they may close in the winter months and use as gymnasia.

Tramways.

Under the Tramways Act 1870 the urban district council may obtain from the Board of Trade a provisional order authorizing the construction of tramways in their district by themselves. Any private persons, and any corporation or company may, with the consent of the council, obtain the like authority, but the Board of Trade have power in certain cases to dispense with the consent of the local authority. Where the order is obtained by a person or body other than the district council, the council may purchase the undertaking at the end of twenty-one years after the tramways have been constructed or at the expiration of every subsequent period of seven years, and the terms of purchase are that the person or company must sell the undertaking upon payment of the then value, exclusive of any allowance for past or future profits of the undertaking, or any compensation for compulsory sale or other consideration whatsoever of the tramway, and all lands, buildings, works, materials and plant suitable to and used for the purposes of the undertaking. It should be observed, however, that although the local authority may themselves construct, and may acquire from the original promoters a system of tramways, they may not themselves work them without special authority of the legislature, and must in general let the working of the undertaking to some person or company.

Bills in Parliament and legal proceedings.

Under the Borough Funds Act 1872 the urban district council may, if in their judgment it is expedient, promote or oppose any local and personal bill or bills in parliament, or may prosecute or defend any legal proceedings necessary for the promotion or protection of the interests of the district, and may charge the costs incurred in so doing to the rates under their control. The power to incur parliamentary costs, however, is subject to several important restrictions. The resolution to promote or oppose the bill must in the first instance have been carried by an absolute majority of the whole number of the council at a meeting convened by special notice, and afterwards confirmed by the like majority. The resolution must have been published in newspapers circulated in the district, and must have received the consent of the Local Government Board or of a secretary of state, if the matter is one within his jurisdiction; and further, the expenses must not be incurred unless the promotion or opposition has been assented to by the owners and ratepayers of the district assembled at a meeting convened for the purpose of considering the matter, and if necessary, signified by a poll. Moreover, the expenses must, before they can be charged to the rates, be examined and allowed by some person authorized by a secretary of state or the Local Government Board, as the case may be.

Under the Pawnbrokers Act 1872 the licences to pawnbrokers, which were formerly granted by justices, are now granted by district councils.

Adulteration.

Under the Sale of Food and Drugs Acts certain important duties devolve upon medical officers and inspectors of nuisances who are officers of district councils. But for the most part the acts do not impose upon district councils themselves any special powers or duties, although, as a matter of fact, prosecutions for offences are usually undertaken by the district councils, and the expenses of the execution of the acts are paid out of their funds. In quarter sessions boroughs, however, where the council have the duty of appointing a public analyst, they are under an obligation to put the acts in force from time to time, as occasion may arise. The acts themselves must be consulted for the procedure, beginning with the taking of samples and ending with the conviction of an offender.

**Rivers
pollution.**

have been incidentally noticed when dealing with county councils, whose powers under the acts are precisely the same.

**Electric
lighting.**

Under the Electric Lighting Acts the Board of Trade may license any district council to supply electricity, or may grant to them a provisional order for the same purpose. A similar licence or order may be granted to a private person or company to supply electricity within the district of a district council, but in that case the consent of the district council must be given, unless the Board of Trade, for special reasons, dispense with such consent. These licences are now rarely applied for or granted, and the provisions which were formerly contained in the provisional orders have now been consolidated by the Electric Lighting Clauses Act 1899, the effect of which will be to make provisional orders uniform for the future. It is now almost the exception, at least in urban districts, to find a district council which has not obtained a provisional order under these acts, and for the most part the undertakings of local authorities in the way of supplying electricity have been very prosperous.

Allotments.

Under the Allotment Acts district councils were empowered to provide allotments for the labouring population of their district, if they were satisfied that there was a demand for allotments, that these could not be obtained at a reasonable rent by voluntary arrangement, and that the land could be let at such a price as would not involve a loss to the council. The district council might acquire land, let it and regulate it, and they might provide common pasture. These powers were, by an act of 1907, transferred to parish councils.

**Public
libraries.**

The urban district council execute the Public Libraries Acts for their district, and the rate for the expenses of the acts, which may not exceed 1d. in the £, is in a borough in the nature of a borough rate, and in any other urban district in the nature of a general district rate. Under the acts not only public libraries, but also public museums, schools for science, art galleries and schools for art, with the necessary buildings, furniture, fittings and conveniences, may be provided for the inhabitants of the district. Land may be acquired, and money borrowed, for the purposes of the acts.

A great number of other statutes confer powers or impose duties upon district councils, such as the acts relating to town gardens, agricultural gangs, fairs, petroleum, infant life protection, commons, open spaces, canal boats, factories and workshops, margarine, sale of horse-flesh and shop hours.

**The parish
and the
parish
council.**

Before the passing of the Local Government Act 1894 there was really nothing in the form of local government for a parish. It is true that the inhabitants in vestry had certain powers. They could adopt various acts, which will be more particularly referred to hereafter, and they could appoint the persons who were to carry these acts into execution. They elected the churchwardens and overseers, the highway surveyor, if the parish was a separate unit for highway purposes, and the waywardens if it was included in a highway district. But there was nothing in the nature of a representative body exercising any powers of government in the parish regarded as a separate area. Under the act of 1894 this was changed. In every rural parish, that is to say, in every parish which is not included within an urban district, there is a parish meeting, which consists of the parochial electors of the parish. As already stated, these are the persons whose names are on the parliamentary and local government registers. If the parish has a population exceeding 300, a parish council must be elected. If it has a population of 100 or upwards, the county council are bound to make an order for the election of a parish council if the parish meeting so resolves. Where there is no parish council, as will be seen hereafter, the various powers conferred upon a council are exercised by the parish meeting itself. Two or more parishes may be grouped together under a common parish council by order of the county council if the parish meetings of each parish consent. An annual parish meeting in every rural parish must be held on the 25th day of March or within seven days before or after that date; and if there is no parish council, there must be at least one other parish meeting in the year. At the annual parish meeting the parish council, if there is one, is elected, and the members of the council, who originally held office for one year only, now, under a subsequent act, hold office for three years. Any person who is a parochial elector, or who has for twelve months preceding the election resided in the parish, or within 3 m. thereof, may be elected parish councillor, and the number of councillors is to be fixed from time to time by the county council, not being less than five nor more than fifteen. Women, whether married or single, are eligible.

The council are elected in manner provided by the rules of the Local Government Board. The rules now in force will be found in the *Statutory Rules and Orders*. They are very similar

to those which are in force with reference to the elections of district councils, which have already been noticed. If a poll is demanded, it must be taken under the Ballot Act, as applied by the rules, and for all practical purposes it may be taken that the election proceeds in the same manner as that of a district council. The parish council elects a chairman annually. He may be one of their own number, or some other person qualified to be a parish councillor. The council is a body corporate, may hold land in mortmain, and can appoint committees for its own parish or jointly with any other parish council. Among the powers conferred upon a parish council are those of appointing overseers and of appointing and revoking the appointment of assistant overseers. Churchwardens are no longer overseers, and the parish council may appoint as overseers a number of persons equal to the number formerly appointed as overseers and churchwardens. It may be useful to mention here that for purposes of the administration of the poor law, overseers no longer act, their duties in that respect having been superseded by the guardians. They remain, however, the rating authority so far as regards the poor rate and nearly all other rates, the exceptions being the general district rate in an urban district and the borough rate in a borough, made by the town council. They still have power to give relief to poor persons in case of sudden and urgent necessity, but their principal duty is that of rating authority, and they are bound to make out the lists for their parishes of jurors and electors. No payment is made to them. The office is compulsory, but certain persons are privileged from being elected to it. The assistant overseer, who was formerly nominated by the inhabitants and vestry and then formally appointed by justices, is now, as has been stated, appointed by the parish council. He holds office at pleasure, and receives such remuneration as the council fix, and he performs all the duties of an overseer, or such of them as may be prescribed by the terms of his appointment. There may be in a parish a collector of rates appointed by the guardians. In that event, an assistant overseer cannot be appointed to perform the duties of collector of rates, but, on the other hand, the parish council may invest the collector with any of the powers of an overseer. The parish council may appoint a clerk, who may be either one of their own number without payment, or the assistant overseer, rate collector or some other fit person, with remuneration.

Powers to appoint overseers.

Among the duties transferred to parish councils may be mentioned the provision of parish books and of a vestry room or parochial office, parish chest, fire engine or fire escape, the holding or management of parish property, other than property relating to affairs of the church or held for an ecclesiastical charity, the holding or management of village greens or of allotments, the appointment of trustees of parochial charities other than ecclesiastical charities in certain cases, and certain limited powers with reference to the supply of water to the parish, the removal of nuisances, and the acquisition of rights of way which are beneficial to the inhabitants.

Powers and duties of parish councils.

Among the most important of the matters which concern a rural parish is the administration of what are commonly called the adoptive acts. These include the Lighting and Watching Act, the Baths and Washhouses Acts, the Burial Acts, the Public Improvement Act and the Public Libraries Acts. The Lighting and Watching Act was formerly adopted for a parish, or part of a parish, by the inhabitants in vestry, who elected lighting inspectors, of whom one-third went out of office in every year. The inspectors took the necessary steps for having the parish lighted (the provisions as to watching having been obsolete for many years), and the expenses of lighting were raised by the overseers upon an order issued to them by the inspectors. The owners and occupiers of houses, buildings and property, other than land, pay a rate in the £ three times greater than that at which the owners and occupiers of land are rated and pay for the purposes of the act. Now this act, like the other adoptive acts, can only be adopted by the parish meeting, and where adopted for part only of a parish, must be adopted by a parish meeting held for that part. After the adoption of the act it is carried into execution by the parish council, if there is one, and if not, by the parish meeting, and the expenses are raised in the same manner as heretofore.

Lighting and Watching Act.

The Baths and Washhouses Acts have already been referred to in dealing with district councils, and it is sufficient to say that they are now adopted and administered in a rural parish in the manner pointed out with reference to the Lighting and Watching Act. The same may be said of the Burial Acts, but these are sufficiently important to require special notice.

Baths and Washhouses Acts.

These acts contain provisions whereby burials may be prohibited in urban districts, and churchyards or burial grounds already existing may be closed when full. Formerly, when the acts had been adopted by the vestry, it was necessary to appoint a burial board to carry the acts into execution and provide and manage burial grounds. Now, in a rural parish which is coextensive with an area for which the acts have been adopted, the burial board is abolished and the acts are administered by the parish

Burial Acts.

council; and the acts cannot be adopted in a rural parish save by the parish meeting. If the area under a burial board in 1894 was partly in a rural parish and partly in an urban district, the burial board was superseded, and the powers of the board are exercised by a joint committee appointed partly by the urban district council and partly by the parish council, or parish meeting, as the case may be. In a rural parish where there is no parish council, though the acts are adopted by the parish meeting, it is still necessary to elect the burial board, and that board will be elected by the parish meeting. The distinction between a burial ground under the Burial Acts and a cemetery provided under the Public Health Acts has already been noticed. A burial ground, properly so called, has to be divided into consecrated and unconsecrated portions, and the former really takes the place of the parish churchyard; and the incumbent of the parish church, the clerk, and the sexton continue to receive the same fees upon burials in the consecrated portion as they would have done in the parish churchyard. It has been mentioned that a portion of the burial ground must be left unconsecrated. But this is subject to one important exception, that the parish meeting may unanimously resolve that the whole of the burial ground shall be consecrated. In that case, however, the parish council may, within ten years thereafter, determine that a separate unconsecrated burial ground shall also be provided for the parish. The expenses of the execution of the Burial Acts are provided by the overseers out of the poor rate upon the certificate of the body entrusted with the execution of them. In the event of the acts being adopted for a portion only of a rural parish, the burial board, or the parish meeting, may by resolution transfer all the powers of the board to the parish council.

The Public Improvement Act, when adopted, enables a parish council to purchase or lease, or accept gifts of land for the purpose of forming public walks, exercise or play grounds, and to provide for the expense by means of a parish improvement rate. Before any such rate is imposed, however, a sum in amount not less than at least half of the estimated cost of the proposed improvement must have been raised by private subscription or donation, and the rate must not exceed sixpence in the £.

Public Improvement Act.

The Public Libraries Acts enable the authority adopting them to provide public libraries, museums, schools for science, art galleries and schools for art. The expenses in a rural parish are defrayed by means of a rate raised with, and as part of, the poor rate, with a qualification to the effect that agricultural land, market gardens and nursery grounds are to be assessed to the rate at one-third only of their rateable value.

Public Libraries Acts.

The expenses of a parish council may not, without the consent of a parish meeting, exceed the amount of a rate of threepence in the £ for the financial year; but with the consent of the parish meeting the limit may be increased to sixpence, exclusive of expenses under the adoptive acts. If it is necessary to borrow, the consent of the parish meeting and of the county council must be obtained. The expenses are payable out of the poor rate by the overseers on the precept of the parish council.

Finance: expenses of parish council.

One of the most important powers conferred upon a parish council is that which enables them to prevent stoppage or diversion of any public right of way without their consent and without the approval of the parish meeting. The council may also complain to the county council that the district council have failed to sewer their parish or provide a proper water-supply, or generally to enforce the provisions of the Burial Acts; and upon such complaint, if ascertained to be well founded, the county council may transfer to themselves the powers and duties of the district council, or may appoint a competent person to perform such powers and duties. In a parish which is not sufficiently large to have a parish council, most of the powers and duties conferred or imposed on the parish council are exercised by the parish meeting. It may be convenient here to add that where, under the Local Government Act 1894, the powers of a parish council are not already possessed by an urban district council, the Local Government Board may by order confer such powers on the urban council. This has been done almost universally, as far as regards the power to appoint overseers and assistant overseers, and in many cases urban councils have also obtained powers to appoint trustees of parochial charities.

The foregoing is a sketch of the scheme of local government carried out in England and Wales. No attempt has been made to deal with poor law (*q.v.*) or education (*q.v.*). The local administration of justice devolving upon the justices in quarter or petty sessions is hardly a matter of local government, although in one important respect, that, namely, of the licensing of premises for the sale of intoxicating liquors, it may be thought that the duties of justices fall within the scope of local government. It will be seen that the scheme, as at present existing, has for its object the simplification of local government by the abolition of unnecessary independent

General observations.

authorities, and that this has been carried out almost completely, the principal exception being that in some cases burial boards still exist which have not been superseded either by urban district councils or by parish councils or parish meetings. There are also some matters of local administration arising under what are called commissions of sewers. These exist for the purpose of regulating drainage, and providing defence against water in fen lands or lands subject to floods from rivers or tidal waters. The commissioners derive their authority from the Sewers Commission Acts, which date from the time of Henry VIII., from the Land Drainage Act 1861, and from various local acts. It is unnecessary, however, to consider in any detail the powers exercised by commissioners of sewers in the few areas under their control.

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(A. McM.; T. A. I.)

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- 1 The general questions capable of a single treatment for England, Scotland and Ireland are considered under [UNITED KINGDOM](#).
- 2 Measurements made on a map on the scale of 12½ m. to 1 in., the coast being assumed to run up estuaries until the breadth became 1 m., and no bays or headlands of less than 1 m. across being reckoned. The coast-line of Anglesea and the Isle of Wight, but of no other islands, is included.
- 3 A separate topographical notice is given under the heading [WALES](#), but the consideration of certain points affecting Wales as linked with England is essential in this article.
- 4 The figures given here are for the ancient or geographical counties. Section IX., on *Territorial Divisions*, indicates the departures from the ancient county boundaries made for certain purposes of administration. Each county is treated in a separate article in the topographical, geological, economical and historical aspects. Further topographical details are given in separate articles on the more important hill-systems, rivers, &c.
- 5 Partly belonging to Scotland.
- 6 The principal members of the Humber-system are the Ouse of Yorkshire (121 m. long from the source of the Swale or Ure) and the Trent (170 m.), *qq.v.* for their numerous important tributaries.
- 7 Including the Medway (680 sq. m.) in the drainage area.
- 8 Including the Wye (1609 sq. m.) and the Lower Avon (891 sq. m.) in the drainage area.
- 9 These rivers have their earlier courses in Wales, and flow at first to some point of east. Of wholly Welsh rivers only the Towy and the Teifi are comparable in length and drainage area with the smaller rivers in the above list (see [WALES](#)).
- 10 From the source of its headstream the Goyt.
- 11 As in Bartholomew's Survey Atlas of England and Wales (1903).
- 12 The figures are for Registration Counties (see classification of *Territorial Divisions*, below).
- 13 Census of England and Wales, 1901; General Report, p. 15.
- 14 Certain great offices of state are closed to Roman Catholics.
- 15 The actual selection of the bishops is in practice in the hands of the prime minister for the time being. This formerly led to purely political appointments; but it is usual now to select clergymen approved by public opinion.
- 16 In 1906.
- 17 There are in addition some thousands of Presbyterians unconnected with the church, including members of the Church of Scotland.
- 18 Great Britain and Ireland, 1906.
- 19 On September 17, 1907, the United Methodist Free Churches, the Methodist New Connexion, and the Bible Christians were united under the name of the United Methodist Church.
- 20 The figure 17.76 is the percentage for the whole of Yorkshire.
- 21 The West Midlands (Shropshire, &c.) include the coal-fields of Shrewsbury, Leebotwood, Coalbrookdale, the Clee Hills and the Forest of Wyre.
- 22 The Forest of Dean coal-field is in Gloucestershire.
- 23 The coal-field of Monmouthshire belongs properly to, and in the Report is classified with, the great coal-field of South Wales.

ENGLAND, THE CHURCH OF. The Church of England claims to be a branch of the Catholic and Apostolic Church; it is episcopal in its essence and administration, and is established by law in that the state recognizes it as the national church of the English people, an integral part of the constitution of the realm. It existed, in name and in fact, as the church of the English people centuries before that people became a united nation, and, in spite of changes in doctrine and ritual, it remains the same church that was planted in England at the end of the 6th century. From it the various tribes which had conquered the land received a bond of union, and in it they beheld a pattern of a single organized government administered by local officers, to which they gradually attained in their secular polity. In England, then, the state is in a sense the child of the church. The doctrines of the English Church may be gathered from its Book of Common Prayer (see [PRAYER, BOOK OF COMMON](#)) as finally revised in 1661, with the form of ordaining and consecrating bishops, priests and deacons, with the exception of the services for certain days which were abrogated in 1859; from the XXXIX Articles (see [CREEDS](#)), published with royal authority in 1571; and from the First and Second Books of Homilies of 1549 and 1562 respectively, which are declared in Article XXXV. to contain sound doctrine.

Precursors.—Christianity reached Britain during the 3rd century, and perhaps earlier, probably from Gaul. An early tradition records the death of a martyr Alban at Verulamium, the present St Albans. A fully grown British Church existed in the 4th century: bishops of London, York and Lincoln attended the council of Arles in 314; the church assented to the council of Nicaea in 325, and some of its bishops were present at the council of Rimini in 359. The church held the Catholic faith. Britons made pilgrimages, to Rome and to Palestine, and some joined the monks who gathered round St Martin, bishop of Tours. Among these was Ninian, who preached to the southern Picts, and about 400 built a church of stone on Wigton Bay; its whiteness struck the people and their name for it is commemorated in the modern name Whithorn. From northern Britain, St Patrick (see [PATRICK, ST](#)) went to accomplish his work as the apostle of Ireland. Early in the 5th century Britain was infected by the heresy of Pelagius, himself a Briton by birth, but in 429 Germanus, bishop of Auxerre, and Lupus, bishop of Troyes, recalled the church to orthodoxy and, according to tradition, led their converts to victory, the "Hallelujah victory," over the Picts and Scots. When the Britons were hard pressed by Saxon invaders large bodies of them found shelter in western Armorica, in a lesser Britain, which gave its name to Brittany. A British Church was founded there, and bishops, scholars and recluses of either Britain seem constantly to have visited the other.

**Christianity
in Roman
Britain.**

**The British
church.**

The Saxon invasion cut off Britain from communication with Rome; and the British Church having no share in the progressive life of the Roman Church, differences gradually arose between them. The organization of the British Church was monastic, its bishops being members, usually abbots, of monasteries, and not strictly diocesan, for the monasteries to which the clergy were attached had a tribal character. The monastic communities were large, Bangor numbered 2000 monks. From Gildas, a British monk, who wrote about 550, we gather that the bishops were rich and powerful and claimed apostolical succession; that though governed by synods the church lacked discipline; that simony was rife, and that bishops and clergy were neglectful. He evidently draws too dark a picture, for religious activity was not extinct. Gildas himself and others preached in Ireland, and from them the Scots, the dominant people of Ireland, received a ritual. The organization of the Scotie Church in Ireland was similar to that of the British Church. Its monastic settlements or schools were many and large, and were the abodes of learning. Bishops dwelt in them and were revered for their office, but each was subject to the direction of the abbot and convent. In 565 (?) St Columba, the founder and head of several Scotie monasteries, left Ireland and founded a monastery in Hii or Iona, which afforded gospel teaching to the Scots of Dalriada and the northern Picts, and later did a great work in evangelizing many of the Teutonic conquerors of Britain. By 602 the British Church, in common with the Irish Scots, followed practices which differed from the Roman use as it then was; it kept Easter at a different date; its clergy wore a different tonsure, and there was some defect in its baptismal rite. The conquerors of Britain—Saxons, Angles and Jutes—were heathens; the Britons gradually retreated before them to Wales, and to western and northern districts, or dwelt among them either as slaves or as outlaws hiding in swamps and forests, and they made no attempts to evangelize the conquering race.

About 587 a Roman abbot, Gregory, afterwards Pope Gregory the Great, is said to have seen some English boys exposed for sale in Rome and asked of what people they were, of what kingdom and who was their king. They were "Angli," he was told, of Deira, the modern Yorkshire, and their king was Ælle. "Not 'Angli,'" said he,

Foundation

struck with the beauty of the fair-haired boys, "but 'angeli' (angels), fleeing from wrath (*de ira*), and Ælle's people must sing Alleluia." He wished himself to go as a missionary to the English, but was prevented. After he became pope he sent a mission to England headed by Augustine. The way was prepared, for Æthelberht, king of Kent, had married a Christian, a Frankish princess Berhta, and allowed her to worship the true God. She brought with her a bishop who ministered to her in St Martin's church outside Canterbury, but evidently made no effort to spread the faith. Augustine and his band landed probably at Ebbsfleet in 597. They were well received by Æthelberht, who was converted and baptized. On the 16th of November Augustine was consecrated by the archbishop of Arles to be the archbishop of the English, and by Christmas had baptized 10,000 Kentish men. Thus the fathers of the English Church were Pope Gregory and St Augustine. Augustine restored a church of the Roman times at Canterbury to be the church of his see. The mission was reinforced from Rome; and Gregory sent directions for the rule of the infant church. There were to be two archbishops, at London and York; London, however, was not fully Christianized for some years, and the primatial see remained at Canterbury. Augustine held two conferences with British bishops; he bade them give up their peculiar usages, conform to the Roman ritual, and join him in evangelizing the English. His haughtiness is said to have offended them; they refused, and the English Church owes nothing to its British predecessor. The mission prospered, and bishops were consecrated for Rochester, and for London for the East Saxons. After Augustine and Æthelberht died a short religious reaction took place in Kent, and the East Saxons apostatized. In 627 Edwin, king of Northumbria, who had married a daughter of Æthelberht, was converted and baptized with his nobles by Paulinus, who became the first bishop of York. As Edwin's kingdom extended from the Humber to the Forth and included the Trent valley, while he exercised superiority over all the other English kingdoms, except Kent, his conversion promised well for the church, but he was slain and his kingdom overrun by Penda, the heathen king of Mercia, the central part of England. Penda's victories endangered the cause of Christianity. The Roman mission was dying out. Kent and East Anglia, which was evangelized by Felix, a Burgundian bishop sent from Canterbury, were settled in the faith. Though Bernicia, the northern part of Northumbria, was little affected by the gospel, and after Edwin's death heathenism became dominant in his kingdom, Christianity did not die out in Northumbria. The East Saxons had heard the gospel, and in 634 the conversion of the West Saxons was begun by Birinus, an Italian missionary. Central England and the South Saxons, however, were wholly untouched by Christianity.

The work of the Romans was taken up by Scotie missionaries. Oswald, under whom the Northumbrian power revived, had lived as an exile among the Scots, and asked them for a bishop to teach his people. Aidan was sent to him by the monks of Iona in 635, and fixed his see in Lindisfarne, or Holy Island, where he founded a monastery. Sainly, zealous and supported by Oswald's influence, he brought Northumbria generally to accept the gospel. The conversion of the Middle Angles and Mercians, and the reconversion of the East Saxons, were also achieved by Scots or by disciples of the Scotie mission. After Aidan's death in 651 the differences between the Roman and Scotie usages, and specially that concerning the date of Easter, led to bitter feelings, were inconvenient in practice, and must have hindered the church in its warfare against heathenism. Oswio, who reigned over both the Northumbrian kingdoms, was, like his brother Oswald, a disciple of the Scots, his son and his queen, the daughter of Edwin, held to the Roman usages, and these usages were maintained by Wilfrid, who on his return from Rome in 658 was appointed abbot of Ripon. By Oswio's command a conference between the two parties was held at the present Whitby in 664. Oswio decided in favour of the Roman usages. This was the end of the Scotie mission. The Scots left Lindisfarne, and their disciples generally adopted the Roman usages. The Scots were admirable missionaries, holy and self-devoted, and building partly on Roman foundations and elsewhere breaking new ground, they and their English disciples, as Ceadda (St Chad), bishop of the Mercians, and Cuthbert, bishop of Lindisfarne, who were by no means inferior to their teachers, almost completed the conversion of the country. But they practised an excessive asceticism and were apt to abandon their work in order to live as hermits. Great as were the benefits which the English derived from their teaching, its cessation was not altogether a loss, for the church was passing beyond the stage of mission teaching and needed organization, and that it could not have received from the Scots.

Its organization like its foundation came from Rome. An archbishop-designate who was sent to Rome for consecration having died there, Pope Vitalian in 668 consecrated Theodore of Tarsus as archbishop of Canterbury. The Scots had no diocesan system, and the English bishoprics were vast in extent, followed the lines of the kingdoms and varied with their fortunes. The church had no system of

English Church.

government nor means of legislation. Theodore united it in obedience to himself, instituted national synods and subdivided the over-large bishoprics.

At his death, in 690, the English dominions were divided into fourteen dioceses. Wilfrid, who had become bishop of Northumbria, resisted the division of his diocese and appealed to the pope. He was imprisoned by the Northumbrian king and was exiled. While in exile he converted the South Saxons, and their conversion led to that of the Isle of Wight, then subject to them, in 686, which completed the evangelization of the English. After long strife Wilfrid, who was supported by Rome, regained a part of his former diocese. Theodore also gave the church learning by establishing a school at Canterbury, where many gained knowledge of the Scriptures, of Latin and Greek, and other religious and secular subjects. In the north learning was promoted by Benedict Biscop in the sister monasteries which he founded at Wearmouth and Jarrow. There Bede (*q.v.*) received the learning which he imparted to others. In the year of Bede's death, 735, one of his disciples, Egbert, bishop of York, became the first archbishop of York, Gregory III. giving him the *pallium*, a vestment which conferred archiepiscopal authority. He established a school or university at York, to which scholars came from the continent. His work as a teacher was carried on by Alcuin, who later brought learning to the court and Frankish dominions of Charlemagne. The infant church, following the example of the Irish Scots, showed much missionary zeal, and English missionaries founded an organized church in Frisia and laboured on the lower Rhine; two who attempted to preach in the old Saxon land were martyred. Most famous of all, Winfrid, or St Boniface, the apostle of Germany, preached to the Frisians, Hessians and Thuringians, founded bishoprics and monasteries, became the first archbishop of Mainz, and in 754 was martyred in Frisia. He had many English helpers, some became bishops, and some were ladies, as Thecla, abbess of Kitzingen, and Lioba, abbess of Bischofsheim. After his death, Willehad laboured in Frisia, and later, at the bidding of Charlemagne, among the Saxons, and became the first bishop of Bremen. Religion, learning, arts, such as transcription and illumination, flourished in English monasteries. Yet heathen customs and beliefs lingered on among the people, and in Bede's time there were many pseudo-monasteries where men and women made monasticism a cloak for idleness and vice. In the latter part of the 8th century Mercia became the predominant kingdom under Offa, and he determined to have an archbishop of his own. By his contrivance two legates from Adrian I. held a council at Chelsea in 787 in which Lichfield was declared an archbishopric, and seven of the twelve suffragan bishoprics of Canterbury were apportioned to it. In 802, however, Leo III. restored Canterbury to its rights and the Lichfield archbishopric was abolished.

The rise of Wessex to power seems to have been aided by a good understanding between Egbert and the church, and his successors employed bishops as their ministers. Æthelred, who was specially under ecclesiastical influence, went on a pilgrimage to Rome, and before his departure made large grants for pious uses. His donation, though not the origin of tithes

Later Anglo-Saxon times.

in England, illustrates the idea of the sacredness of the tenth of income on which laws enforcing the payment of tithes were founded. His pilgrimage was probably undertaken in the hope of averting the attacks of the pagan Danes. Their invasions fell heavily on the church; priests were slaughtered and churches sacked and burnt. Learning disappeared in Northumbria, and things were

little better in the south. Bishops fought and fell in battle, the clergy lived as laymen, the monasteries were held by married canons, heathen superstitions and immorality prevailed among the laity. Besides bringing the Danish settlers in East Anglia to profess Christianity in 878, Alfred set himself to improve the religious and intellectual condition of his own people (see [ALFRED](#)). The gradual reconquest of middle and northern England by his successors was accompanied by the conversion of the Danish population. A revival of religion was effected by churchmen inspired by the reformed monasticism of France and Flanders, by Odo, archbishop of Canterbury, Oswald, archbishop of York, and Dunstan (see [DUNSTAN](#)), who introduced from abroad the strict life of the new Benedictinism. King Edgar promoted the monastic reform, and by his authority Bishop Æthelwold of Winchester turned canons out of the monasteries and put monks in their place. Dunstan sought to reform the church by ecclesiastical and secular legislation, forbidding immorality among laymen, insisting on the duties of the clergy, and compelling the payment of tithes and other church dues. After Edgar's death an anti-monastic movement, chiefly in Mercia, nearly ended in civil war. In this strife, which was connected with politics, the victory on the whole lay with the monks' party, and in many cathedral churches the chapters remained monastic. The renewed energy of the church was manifested by councils, canonical legislation and books of sermons. In the homilies of Abbot Ælfric, written for Archbishop Sigeric, stress is laid on the purely spiritual presence of Christ in the Eucharist, but his words do not indicate, as some have believed, that the English Church was not in accord with Rome. The ecclesiastical

revival was short-lived. Renewed Danish invasions, in the course of which Archbishop Alphege was martyred in 1012, and a decline in national character, injuriously affected the church and, though in the reign of Canute it was outwardly prosperous, spirituality and learning decreased. Bishoprics and abbeys were rewards of service to the king, the bishops were worldly-minded, plurality was frequent, and simony not unknown. Edward the Confessor promoted foreign ecclesiastics; the connexion with Rome was strengthened, and in 1062 the first legates since the days of Offa were sent to England by Alexander II. A political conflict led to the banishment of Robert, the Norman archbishop of Canterbury. An Englishman Stigand received his see, but was excommunicated at Rome, and was regarded even in England as schismatical. When William of Normandy planned his invasion of England, Alexander II., by the advice of Hildebrand, afterwards Gregory VII., moved doubtless by this schism and by the desire to bring the English Church under the influence of the Cluniac revival and into closer relation with Rome, gave the duke a consecrated banner, and the Norman invasion had something of the character of a holy war.

Before the Norman Conquest the church had relapsed into deadness: English bishops were political partisans, the clergy were married, and discipline and asceticism, then the recognized condition of holiness, were extinct. The Conqueror's relations with Rome ensured a reform; for the papacy was instinct with the Cluniac spirit. In 1070 papal legates were received and held a council by which Stigand was deposed. Lanfranc, abbot of Bec, was appointed archbishop of Canterbury and worked harmoniously with the king in bringing the English Church up to the level of the church in Normandy. Many native bishops and abbots were deposed, and the Norman prelates who succeeded them were generally of good character, strict disciplinarians, and men of grander ideas. A council of 1075 decreed the removal of bishops' sees from villages to towns, as on the continent; the see of Sherborne, for example, was removed to Old Sarum, and that of Selsey to Chichester, and many churches stately than of old were built in the Norman style which the Confessor had already adopted for his church at Westminster. In another council priests and deacons were thenceforward forbidden to marry. William and Lanfranc also worked on Hildebrandine lines in separating ecclesiastical from civil administration. Ecclesiastical affairs were regulated in church councils held at the same time as the king's councils. Bishops and archdeacons were no longer to exercise their spiritual jurisdiction in secular courts, as had been the custom, but in ecclesiastical courts and according to canon law. The king, however, ruled church as well as state; Gregory granted him control over episcopal elections, he invested bishops with the crozier and they held their temporalities of him, and he allowed no councils to meet and no business to be done without his licence. Gregory claimed homage from him; but while the king promised the payment of Peter's pence and such obedience as his English predecessors had rendered, he refused homage; he allowed no papal letters to enter the kingdom without his leave, and when an anti-pope was set up, he and Lanfranc treated the question as to which pope should be acknowledged in England as one to be decided by the crown. The Conquest brought the church into closer connexion with Rome and gave it a share in the religious and intellectual life of the continent; it stimulated and purified English monasticism, and it led to the organization of the church as a body with legislative and administrative powers distinct from those of the state. The relations established by the Conqueror between the crown, the church and the pope, its head and supreme judge, worked well as long as the king and the primate were agreed, but were so complex that trouble necessarily arose when they disagreed. William Rufus tried to feudalize the church, to bring its officers and lands under feudal law; he kept bishoprics and abbeys vacant and confiscated their revenues. He quarrelled with Anselm (*q.v.*) who succeeded Lanfranc. Anselm while at Rome heard the investiture of prelates by laymen denounced, and he maintained the papal decree against Henry I. Bishops were vassals of the king, holding lands of him, as well as officers of the church. How were they to be appointed? Who should invest them with the symbols of their office? To whom was their homage due? (see [INVESTITURE](#)). These questions which agitated western Europe were settled as regards England by a compromise: Henry surrendered investiture and kept the right to homage. The substantial gain lay with the crown, for, while elections were theoretically free, the king retained his power over them. Though Henry in some degree checked the exercise of papal authority in England, appeals to Rome without his sanction were frequent towards the end of his reign. Stephen obtained the recognition of his title from Innocent II., and was upheld by the church until he violently attacked three bishops who had been Henry's ministers. The clergy then transferred their allegiance to Matilda. His later quarrel with the papacy, then under the influence of St Bernard, added to his embarrassments and strengthened the Angevin cause.

During Stephen's reign the church grew more powerful than was for the good either of the

Norman times.

state or itself. Its courts encroached on the sphere of the lay courts, and further claimed exclusive criminal jurisdiction over all clerks whether in holy or minor orders, with the result that criminous clerks, though degraded by a spiritual court, escaped temporal punishment. Henry II., finding ecclesiastical privileges an obstacle to administrative reform, demanded that the bishops should agree to observe the ancient customs of the realm. These customs were, he asserted, expressed in certain constitutions to which he required their assent at a council at Clarendon in 1164. In spirit they generally maintained the rights of the crown as they existed under the Conqueror. One provided that clerks convicted of temporal crime in a spiritual court and degraded should be sentenced by a lay court and punished as laymen. Archbishop Becket (see [BECKET](#)) agreed, repented and refused his assent. The king tried to ruin him by unjust demands; he appealed to Rome and fled to France. A long quarrel ensued, and in 1170 Henry was forced to be reconciled to Becket. The archbishop's murder consequent on the king's hasty words shocked Christendom, and Henry did penance publicly. By agreement with the pope he renounced the Constitutions, but the encroachments of the church courts were slightly checked, and the king's decisive influence on episcopal elections and some other advantages were secured. The church in Wales had become one with the English Church by the voluntary submission of its bishops to the see of Canterbury in 1192 and later. The Irish Church remained distinct, though the conquest of Ireland, which was sanctioned by the English pope Adrian IV. (Nicholas Breakspear), brought it into the same relations with the crown as the English Church and into conformity with it. Under the guidance of ecclesiastics employed as royal ministers, the church supported the crown until, in 1206, Innocent III. refused to confirm the election of a bishop nominated by King John to Canterbury; and representatives of the monks of Christ Church, in whom lay the right of election, being at his court, the pope bade them elect Stephen Langton whom he consecrated as archbishop. John refused to receive Langton and seized the estates of Christ Church. Innocent laid England under an interdict in 1208; the king confiscated the property of the clergy, banished bishops and kept sees vacant. Papal envoys excommunicated him and declared him deposed in 1211. Surrounded by enemies, he made his peace with the pope in 1213, swore fealty to him before his envoy, acknowledged that he held his kingdom of the Roman see, and promised a yearly tribute for England and Ireland. Finally he surrendered his crown to a legate and received it back from him. The banished clergy returned and an agreement was made as to their losses. Langton guided the barons in their demands on the king which were expressed in Magna Carta. The first clause provided, as charters of Henry I. and Stephen had already provided, that the English Church should be "free," adding that it should have freedom of election, which John had promised in 1214. As John's suzerain, Innocent annulled the charter, suspended Langton, and excommunicated the barons in arms against the king. On John's death, Gualo, legate of Honorius III., with the help of the earl marshal, secured the throne for Henry III., and he and his successor Pandulf, as representatives of the young king's suzerain, largely directed English affairs until 1221, when Pandulf's departure restored Langton to his rightful position as head in England of the church. Reforms in discipline and clerical work were inculcated by provincial legislation, and two legates, Otho in 1237 and Ottoboni in 1268, promulgated in councils constitutions which were a fundamental part of the canon law in England. Religious life was quickened by the coming of the friars (see [FRIARS](#)). Parochial organization was strengthened by the institution of vicars in benefices held by religious bodies, which was regulated and enforced by the bishops. It was a time of intellectual activity, in character rather cosmopolitan than national. English clerks studied philosophy and theology at Paris or law at Bologna; some remained abroad and were famous as scholars, others like Archbishops Langton, and Edmund Rich, and Bishop Grosseteste returned to be rulers of the church, and others like Roger Bacon to continue their studies in England. The schools of Oxford, however, had already attained repute, and Cambridge began to be known as a place of study. The spirit of the age found expression in art, and English Gothic architecture, though originally, like the learning of the time, imported from France, took a line of its own and reached its climax at this period. Henry's gratitude for the benefits which in his early years he received from Rome was shown later in subservience to papal demands. Gregory IX., and still more Innocent IV., sorely in need of money to prosecute their struggle with the imperial house, laid grievous taxes on the English clergy, supported the king in making heavy demands upon them, and violated the rights of patrons by appointing to benefices by "provisions" often in favour of foreigners. Churchmen, and prominently Grosseteste, the learned and holy bishop of Lincoln, while recognizing the pope as the divinely appointed source of all ecclesiastical jurisdiction, were driven to resist papal orders which they held to be contrary to apostolic precepts. Their remonstrances were seldom effectual, and the state of the national church was noted by the Provisions of Oxford

The Angevin kings.

in 1258 as part of the general misgovernment which the baronial opposition sought to remedy. The alliance between the crown and the papacy in this reign diminished the liberties of the church.

Edward I., who was a strong king, checked an attempt to magnify the spiritual authority by the writ *Circumspecte agatis*, which defined the sphere of the ecclesiastical courts, put a restraint on religious endowments by the Statute of Mortmain, and desiring that every estate in the realm should have a share in public burdens and counsels, caused the beneficed clergy to be summoned to send proctors to parliament. The clergy preferred to make their grants in their own convocations, and so lost the position offered to them. For some years clerical taxation by the crown was carried on with the good-will of the papacy; it was not oppressive for unbeneficed clergy and incomes below ten marks were exempt, and in theory the clergy were celibate. Papal demands, however, were additional burdens. In 1296 Boniface VIII., by his bull *Clericis laicos*, forbade the clergy to grant money to lay princes, and Edward's request for a clerical subsidy was in 1297 refused by convocation led by Archbishop Winchelsea. The king thereupon outlawed the clergy. The northern province yielded, the southern held out longer; but finally the clergy made their peace severally, each paying his share, and the royal victory was complete. Winchelsea joined the baronial opposition which forced Edward to grant the "Confirmation of the Charters." Edward procured his disgrace from Clement V., and in return allowed Clement to exact so much from the church that the doings of the papal agents provoked an indignant remonstrance from parliament in 1307. With that exception the king's dealings with the church were statesmanlike. He employed clerical ministers and paid them by church preferments, but his nominations to bishoprics did not always receive papal confirmation which had become recognized as essential. His weak son Edward II. yielded readily to papal demands. The majority of the bishops of the reign, and specially those engaged in politics, were unworthy men; religion was at a low ebb; plurality and non-residence were common. By the constitution *Execrabilis* John XXII. ordered that all cures held in plurality save one should be vacated, and, which was not so well, "reserved" all benefices so vacated for his own appointment. As the residence of the popes at Avignon from 1308 to 1377 brought them under French influence, Englishmen during the war with France were specially displeased that large sums should be drawn from the kingdom for them and that they should exercise patronage there. In the reign of Edward III. the popes, though appointing to bishoprics by provision, did not give them to foreigners, but they appointed foreigners, enemies of England, to lesser preferments, deaneries and prebends. In 1351 the Statute of Provisors declared provisions unlawful. Capitular elections, however, remained mere forms; the king nominated, and the popes provided, and took advantage of their claim to appoint to sees vacant by translation. Papal interference in suits concerning temporalities was checked by a law of 1353 (the first statute of *Praemunire*), which made punishable by outlawry and forfeiture the carrying before a foreign tribunal of causes cognizable by English courts. This measure was extended in 1365, and in 1393 by the great statute of *Praemunire*. Indignant at the law of 1365, Urban V. demanded payment of the tribute promised by John, which was then thirty-three years in arrear, but parliament repudiated the claim. The Black Death disorganized the church by thinning the ranks of the clergy, who did their duty manfully during the plague. In the diocese of Norwich, for example, 800 parishes lost their incumbents in 1349, 83 of them twice over (Jessopp). Large though insufficient numbers were instituted to benefices and unfit persons received holy orders. The value of livings decreased and many lay vacant. Some incumbents deserted their parishes to take stipendiary work in towns or secular employments, and unbeneficed clergy demanded higher stipends. Greediness infected the church in common with society at large. Yet Chaucer's ideal parish priest must have represented a familiar type, so that we may believe that much good work was here and there unobtrusively done by the clergy. Prominent among abuses were the sale of pardons, and the extortions of the ecclesiastical courts; their decrees were enforced by excommunication, and on a writ issued to the sheriff an excommunicated person would be imprisoned until he satisfied the demands of the church. The state needed money and attacks were made in parliament on the wealth of the church. Already, in 1340, Edward III., who quarrelled with Archbishop Stratford on political grounds, had appointed lay ministers, and in 1371 William of Wykeham, bishop of Winchester, and other clerical ministers were turned out of office and succeeded by laymen. A political crisis in 1376 was followed by a struggle between the bishops and John of Gaunt, duke of Lancaster, the head of the anticlerical party, who allied himself with John Wycliffe (*q.v.*). He was unpopular, and when the bishops cited Wycliffe before them in St Paul's, the duke's conduct provoked a riot and the proceedings ended abruptly. Wycliffe held that the church was corrupted by wealth; that only those in grace had a right to God's gifts, and that

**13th and
14th
centuries.**

temporal power belonged only to laymen and not to popes nor priests. Later he attacked the papacy itself, which in 1378 was distracted by the great schism; by 1380 he condemned pilgrimages, secret confession and masses for the dead. While holding the presence of Christ in the Eucharist, he denied a change of substance in the elements, arguing that accidents or qualities, such as form and colour, could not exist without substance. He taught that Holy Scripture was the only source of religious truth, to the exclusion of church authority and tradition, and he and his followers made the first complete English version of the Bible. His opinions were spread by the poor priests whom he sent out to preach and by his English tracts. That his teaching had any direct effect on the insurrection of 1381, though commonly believed, appears to be an unfounded idea; many priests were concerned in the rising, and specially the mendicant orders, Wycliffe's bitter enemies, but the motives of the insurrection were essentially secular (Oman, *The Great Revolt of 1381*). The reaction which followed extended to religion, and Wycliffe's doctrines were condemned by a church council in 1382. Nevertheless he died in peace. He had many disciples, especially in Oxford and in industrial centres. The Lollards, as his followers were called, had supporters in parliament and among people of high rank in the court of Richard II., and the king's marriage to Anne of Bohemia brought about the importation of Wycliffe's writings into Bohemia, where they had a strong influence on the religious movement led by Hus. At first the bishops were not inclined to persecute, and the earlier Lollards mostly recanted under pressure, but their number increased.

With the accession of the Lancastrian house the crown allied itself with the church, and the bishops adopted a repressive policy towards the Lollards. By the canon law obstinate heretics were to be burnt by the secular power, and though England had hitherto been almost free from heresy, one or two burnings had taken place in accordance with that law. In 1401 a statute, *De heretico comburendo*, ordered that heretics convicted in a spiritual court should be committed to the secular arm and publicly burned, and, while this statute was pending, one Sawtre was burned as a relapsed heretic. Henry V. was zealous for orthodoxy and the persecution of Lollards increased; in 1414 Sir John Oldcastle, Lord Cobham, who had been condemned as a heretic, escaped and made an insurrection; he was taken in 1417 and hanged and burned. Lollardism was connected with an insurrection in 1431; it then ceased to have any political importance, but it kept its hold in certain towns and districts on the lower classes; many Lollards were forced to recant and others suffered martyrdom. The church was in an unsatisfactory state. As regards the papacy, the crown generally maintained the position taken up in the previous century, but its policy was fitful, and the custom of allowing bishops who were made cardinals to retain their sees strengthened papal influence. The bishops were largely engaged in secular business; there was much plurality, and cathedral and collegiate churches were frequently left to inferior officers whose lives were unclerical. The clergy were numerous and drawn from all classes, and humble birth did not debar a man from attaining the highest positions in the church. Candidates for holy orders were still examined, but clerical education seems to have declined. Preaching was rare, partly from neglectfulness and partly because, in 1401, in order to prevent the spread of heresy, priests were forbidden to preach without a licence. While the marriage of the clergy was checked, irregular and temporary connexions were lightly condoned. Discipline generally was lax, and exhortations against field-sports, tavern haunting and other unclerical habits seem to have had little effect. Monasticism had declined. Papal indulgences and relics were hawked about chiefly by friars, though these practices were discountenanced by the bishops. On the other hand, all education was carried on by the clergy, and religion entered largely into the daily life of the people, into their gild-meetings, church-ales, mystery-plays and holidays, as well as into the great events of family life—baptisms, marriages and deaths. Many stately churches were built in the prevailing Perpendicular style, often by efforts in which all classes shared, and many hamlet chapels supplemented the mother church in scattered parishes. The revival of classical learning scarcely affected the church at large. Greek learning was regarded with suspicion by many churchmen, but the English humanists were orthodox. The movement had little to do with the coming religious conflicts, which indeed killed it, save that it awoke in some learned men like Sir Thomas More a desire for ecclesiastical, though not doctrinal, reform, and led many to study the New Testament of which Erasmus published a Greek text and Latin paraphrases.

During the earlier years of the 16th century Lollardism still existed among the lower classes in towns, and was rife here and there in country districts. Persecution went on and martyrdoms are recorded. The old grievances concerning ecclesiastical exactions remained unabated and were further strengthened by an ill-founded rumour that Richard Hunne, a Londoner who had refused to pay a

The 15th century.

The Reformation

era. mortuary, was imprisoned for heresy in the Lollards' tower, and was found hanged in his cell in 1514, had been murdered. Lutheranism affected England chiefly through the surreptitious importation of Tyndale's New Testament and heretical books. In 1521 Henry VIII. wrote a book against Luther in which he maintained the papal authority, and was rewarded by Leo X. with the title of Defender of the Faith. Henry, however, whose will was to himself as the oracles of God, finding that the pope opposed his intended divorce from Catherine of Aragon, determined to allow no supremacy in his realm save his own. He carried out his ecclesiastical policy by parliamentary help. Parliament was packed, and was skilfully managed; and he had on his side the popular impatience of ecclesiastical abuses, a new feeling of national pride which would brook no foreign interference, the old desire of the laity to lighten their own burdens by the wealth of the church, and a growing inclination to question or reject sacerdotal authority. He used these advantages to forward his policy, and when he met with opposition, enforced his will as a despot. The parliament of 1529 lasted until 1536; it broke the bonds of Rome, established royal supremacy over the English Church, and effected a redistribution of national wealth at the expense of the spirituality. It began by acts abolishing ecclesiastical exactions, such as excessive mortuaries and fees for probate, and by prohibiting pluralities except in stated cases, application to Rome for licence to evade the act being made penal. Henry having crushed his minister Cardinal Wolsey, archbishop of York, declared the whole body of the clergy involved in a *praemunire* by their submission to Wolsey's legatine authority, and ordered the convocation to purchase pardon by a large payment, and by acknowledging him as "Protector and Supreme Head of the English Church and Clergy." After much debate, the acknowledgment was made in 1531, with the qualification "so far as the law of Christ allows." A "supplication" against clerical jurisdiction and legislation by convocation was obtained from the Commons in 1532, and Henry received from convocation the "submission of the clergy," surrendering its legislative power except on royal licence, and consenting to a revision of the canon law by commissioners to be appointed by the king. A bill for conditionally withholding the payment of *annates*, or first-fruits, to Rome was passed, and Henry took advantage of the fear of the Roman court lest it should lose these payments, to obtain without the usual fees bulls promoting Cranmer to the see of Canterbury in 1533, and thus was enabled to gain his divorce. Cranmer pronounced his marriage to Catherine null, and declared him lawfully married to Anne Boleyn. Clement VII. retorted by excommunicating the king, but for that Henry cared not. Appeals to Rome were forbidden by statute, and the council ordained that the pope should thenceforth only be spoken of as bishop of Rome, as not having authority in England. In 1534 the restraint of annates was confirmed by law, all payments to Rome were forbidden, and it was enacted that, on receiving royal licence to elect, cathedral chapters must elect bishops nominated by the king. The papal power was extirpated by statute, parliament at the same time declaring that neither the king nor kingdom would vary from the "Catholic faith of Christendom." The submission of the clergy was made law. Appeals from the archbishops' courts were to be to the king in chancery, and were to be heard by commissioners, whence arose the Court of Delegates as the court of final appeal in ecclesiastical cases. The first-fruits and tenths of benefices were given to the king, and his title as "Supreme Head in earth of the Church of England" was declared by parliament without the qualification added by convocation. Fisher, bishop of Rochester, and Sir Thomas More, lately chancellor, the two most eminent Englishmen, were beheaded in 1535 on an accusation of attempting to deprive the king of this title, and some Carthusian monks suffered a more cruel martyrdom in the same cause. Meanwhile New Testaments were burnt, and heretics, or reformers, forced to abjure or, remaining steadfast, were sent to the stake, for though the heresy law of Henry IV. was repealed, heresy was still punishable by death, and persecution was not abated. By breaking the bonds of Rome Henry did not give the church freedom; he substituted a single despotism for the dual authority which pope and king had previously exercised over it. In 1535 Cromwell, the king's vicar-general, began a visitation of the monasteries. The reports (*comperta*) of his commissioners having been delivered to the king and communicated to parliament in 1536, parliament declared the smaller monasteries corrupt, and granted the king all of less value than £200 a year. A rebellion in Lincolnshire and another in the north, the formidable Pilgrimage of Grace, followed. The suppression of the greater houses was effected gradually, surrenders were obtained by pressure, and three abbots who were reluctant to give up the possessions of their convents for confiscation were hanged. Monastic shrines and treasuries were sacked and the spoil sent to the king, to whom parliament granted all the houses, their lands and possessions. Of the enormous wealth thus gained Henry spent a part on national defence, a little on the foundation of the bishoprics of Westminster, dissolved in 1550, Bristol, Chester, Gloucester, Oxford and Peterborough, and gave the lands to men either useful to or favoured by himself, or sold them to rich

purchasers. In 1536 he dictated the belief and ceremonial of the church by issuing Ten Articles which were subscribed by convocation. This first formulary of the English Church as separate from Rome did not contravene Catholic doctrine, though it showed the influence of Lutheran models. Another exposition of Anglican doctrine was made in the *Institution of a Christian Man* or "Bishops' book," in some respects more likely to satisfy those attached to the tenets of Rome, in others, as in the distinct repudiation of purgatory and the declaration that salvation depended solely on the merits of Christ, showing an advance. It was published in 1537 with Henry's sanction but not by authority. In that year licence was granted for the sale of a translation of the Bible, and in 1538 another version called Matthew's Bible, was ordered to be kept in all churches (see [BIBLE](#)). Pilgrimages were suppressed and images used for worship destroyed. Denial of the king's supremacy, denial of the corporal presence in the Eucharist, and insults to Catholic rites were alike punished by cruel death. The publication abroad of the king's excommunication rendered an assertion of orthodoxy advisable for political reasons, and in 1539 came the Act of the Six Articles attaching extreme penalties to deviations from Catholic doctrines. The backward swing of the pendulum continued; Cromwell was beheaded and three reforming preachers were burnt in 1540. Prosecutions for heresy under the act were fitful: four gospellers were burnt in London in 1546, of whom the celebrated Anne Askew was one. Cranmer, however, did not lose the king's favour. A fresh attempt to define doctrine was made in the *Necessary Doctrine and Erudition of a Christian Man*, the "King's Book," published by authority in 1543, which, while repudiating the pope, was a declaration of Catholic orthodoxy. A *Primer*, or private prayer-book, of which parts were in English, as the litany composed by Cranmer, and virtually the same as at present, was issued in 1546, and further liturgical change seemed probable when Henry died in 1547.

Henry, while changing many things in the church, would not allow any deviation in essentials from the religion of Catholic Europe, which was not then so dogmatically defined as it was later by the council of Trent. Edward VI. was a child, and the Protector Somerset and the council favoured further changes, which were carried out with Cranmer's help. They issued a book of *Homilies* and a set of injunctions which were enforced by a royal visitation. Pictures and much painted glass were destroyed in churches, frescoed walls were whitewashed, and in 1548, the removal of all images was decreed. Parliament ordered that bishops should be appointed by letters patent and hold their courts in the king's name. An act of the last reign granting the king all chantries and gilds was enlarged and enforced with cruel injustice to the poor. On the petition of convocation parliament allowed the marriage of priests; and it further ordered that the laity should receive the cup in communion. A communion book was issued by the council in English, the Latin mass being retained for a time. Many German reformers came to England, were favoured by the council, and gained influence over Cranmer. The first Book of Common Prayer was authorized by an Act of Uniformity in 1549; it retained much from old service books, but the communion office is Lutheran in character. It excited discontent, and a serious insurrection broke out in the West, the insurgents demanding the revival of the Act of the Six Articles and the withdrawal of the new service as "like a Christmas game." After Somerset's fall the government rapidly pushed forward reformation. A new *Ordinal* issued with parliamentary approval in 1550 was significant of the change in sacramental doctrine, and the four minor orders disappeared. Altars were destroyed and tables substituted. Five bishops, Bonner of London, Gardiner of Winchester, and Heath of Worcester, then already in prison, and two others, were deprived; and the Lady Mary, who would not give up the mass, was harshly treated. The reformers were not tolerant; for a woman was burnt for Arianism in 1550 and a male Anabaptist in 1551. Under the influence of foreign reformers, who took a lower view of the Eucharist than the Lutheran divines, Cranmer soon advanced beyond the prayer-book of 1549. A second prayer-book, departing further from the old order, appeared in 1552, and without being accepted by convocation was enforced by another Act of Uniformity, and in 1553 a catechism and forty-two articles of religion were authorized by Edward for subscription by the clergy, though not laid before convocation. A revision of the canon law in accordance with the act for "submission of the clergy" was at last undertaken in 1551, but the only result was a document entitled *Reformatio legum ecclesiasticarum*, which never received authority. Edward died in 1553. Apart from matters of faith, the church had fared ill under a royal supremacy exercised by self-seeking nobles in the name of the boy-king. Convocation lost all authority and bishops were treated as state officials liable to deprivation for disobedience to the council. Means of worship were diminished, and the poor were shamefully wronged by the suppression of chantries, gilds and holy days; even the few sheep of the poor brethren of a gild were seized to swell a sum which from 1550 was largely diverted from public purposes to private gain. Churches were despoiled of their plate; the old bishops were forced, the new more easily persuaded, to give up lands belonging to their

sees, and rich men grew richer by robbing God.

When Mary succeeded her brother, the deprived bishops were restored, some reforming bishops were imprisoned, and Cranmer, who was implicated in the plot on behalf of Lady Jane Grey, was attainted of treason. As regards doctrine, religious practices and papal supremacy, Mary was set on bringing back her realm to the position existing before her father's quarrel with Rome. Her first parliament repealed the ecclesiastical legislation of Edward's reign, and convocation formally accepted transubstantiation. Seven bishops were deprived in 1554, four of them as married, and about a fifth of the beneficed clergy, though some received other benefices after putting away their wives. Apparently Mary at first believed that her authority would be accepted in religious matters; but she met with opposition, partly provocative, for Wyatt's rebellion consequent on her intended marriage to Philip of Spain was closely connected with religion, and more largely passive in the noble resolution of those who chose martyrdom rather than denial of their faith. To the nation at large, though not averse from the old doctrines and practices of the church, a return to the Roman obedience was distasteful. Nevertheless, Cardinal Pole was received as legate, and the title of Supreme Head of the Church having been dropped, a parliament carefully packed, and the fears of the rich appeased by the assurance that they would not have to surrender the monastic lands, he absolved the nation in parliament and reunited it to the Church of Rome on November 30, 1554, the clergy being absolved in convocation. Parliament repealed all acts against the Roman see since the twentieth year of Henry VIII. The heresy laws were revived, and a horrible persecution of those who refused to disown the doctrines of the prayer-book began in 1555, and lasted during the remainder of the reign. Nearly 300 persons were burned to death as heretics in these four years, among them being five bishops: Hooper of Gloucester, Ferrar of St David's, Ridley of London, and Latimer (until 1539) of Worcester in 1555, and Archbishop Cranmer in 1556. The chief responsibility for these horrors rests with the queen; the bishops who examined the accused were less zealous than she desired. The most prominent among them in persecution was Bonner of London. The exiles for religion were received at Frankfort, Strassburg and Zürich. At Frankfort a party among them objected to the ceremonies retained in the prayer-book, and, encouraged by Calvin and by Knox, who came to them from Geneva, quarrelled with those who desired to keep the book unchanged. Mary died in 1558. Her reign arrested the rapid spoliation of the church and possibly prevented the adoption of doctrines which would have destroyed its apostolic character; the persecution by which it was disgraced strengthened the hold of the reformed religion on the people and made another acceptance of Roman supremacy for ever impossible.

Elizabeth's accession was hailed with pleasure; she was known to dislike her sister's ecclesiastical policy, and a change was expected. An Act of Supremacy restored to the crown the authority over the church held by Henry VIII., and provided for its exercise by commissioners, whence came the court of High Commission nominated by the crown, as a high ecclesiastical court; but Elizabeth rejected the title of Supreme Head, and used that of Supreme Governor, as "over all persons and in all cases within her dominions supreme." An Act of Uniformity prescribed the use of the prayer-book of 1552 in a revised form which raised the level of its doctrine, and injunctions enforced by a royal visitation re-established the reformed order. All the Marian bishops save two refused the oath of supremacy and were deprived, and eight were imprisoned. Of the clergy generally few refused it; for only some 200 were deprived for religion during the first six years of the reign. Bishops for the vacant sees were nominated by the crown and elected by their chapters as in Henry's reign; Matthew Parker was canonically consecrated archbishop of Canterbury. The orthodoxy of the church was vindicated by Bishop Jewel's *Apologia ecclesiae Anglicanae*. Adherents to Rome vainly tried to obtain papal sanction for attending the church services, and were forced either to disobey the pope or become "recusants"; many were fined, and those who attended mass were imprisoned. Meanwhile a party, soon known as Puritans, rebelled against church order; the exiles who had come under Genevan influence objecting on their return to vestments and ceremonies enjoined by the prayer-book. There was much nonconformity in the church which the queen ordered the bishops to correct. Parker, though averse to violent measures, insisted on obedience to his "Advertisements" of 1566, which, though not formally authorized by the queen, expressed her will, and became held as authoritative, and some of the refractory were punished. A company engaged in irregular worship was discovered in London in 1567 and a few persons were imprisoned by the magistrate. Active opposition to the government was stirred up by Pius V., and in 1569 a rebellion in the north, where the old religion was strong, was aided by papal money and encouraged by hopes of Spanish intervention. In 1570 Pius published a bull excommunicating and deposing the queen.

Elizabethan settlement.

Thenceforward recusants had to choose between loyalty to the queen and loyalty to the pope. They lay under suspicion, and severe penal laws were enacted against Romish practices. About 1579 many seminary priests and Jesuits came over to England as missionaries; some actively engaged in treason, all were legally traitors. The country was threatened with foreign invasion, plots against the government were detected, and the queen's life was held to be endangered. The council hunted down these priests and their abettors, and many were executed, martyrs to the doctrine of the pope's power of deposition. The number put to death in this reign under the penal laws was 187. The papal policy defeated itself; a large number of the old religion while retaining their faith chose to be loyal to the queen rather than lend themselves to the designs of her enemies. From 1571 recusants can no longer be reckoned as nonconforming members of the English Church: the law recognized them as separate from it. The church's doctrine was defined in the catechism of 1570, and in the revised articles of religion which appeared as the XXXIX. Articles in 1571, and its law by a body of canons published with authority in 1576, the attempt at codification made in the *Reformatio legum* having been laid aside.

From 1574 the Protestant Nonconformists strove to introduce Presbyterianism. Cause for grievance existed in the state of the church which had suffered from the late violent changes. Elizabeth plundered it, and laymen who owned the rectories **The Nonconformists.** formerly held by monasteries followed her example; bishoprics were impoverished by the queen and parish cures by her subjects, and the reform of abuses was checked by self-interest. As bishops, along with some able men, Elizabeth chose others of an inferior stamp who consented to the plunder of their sees and whom she could use to report on recusants and harry nonconformists. Separation, or Independency, began about 1578 with the followers of Robert Browne, who repudiated the queen's ecclesiastical authority; two Brownists were executed in 1583. The nonconformists remained in the church and continued their efforts to subvert its episcopal system. Elizabeth, though personally little influenced by religion, understood the political value of the church, and would allow no slackness in enforcing conformity. Archbishop Grindal was sequestered for defending "prophesyings," or meetings of the Puritan clergy for religious exercises. The House of Commons, in which there was a Puritan element, repeatedly attempted to discuss church questions and was sharply silenced by the queen, who would not allow any interference in ecclesiastical matters. Whitgift, who succeeded Grindal in 1583, though kind-hearted, was strict in his administration of the law. Violent attacks were made upon the bishops in the Martin Marprelate tracts printed by a secret press; their author is unknown, but some who were probably connected with them were executed for publishing seditious libels. Whitgift's firmness met with success. During the last years of the reign the movement towards Presbyterianism was checked and nonconformity was less prominent. The church regained a measure of orderliness and vigour; its claims on allegiance were advocated by eminent divines and expounded in the stately pages of Hooker. The queen, who had so vigorously ordered ecclesiastical affairs, died in 1603.

On the accession of James I. the Puritans expressed their desire for ecclesiastical change in the Millenary Petition which purported to come from 1000 clergy; their requests were moderate, a sign of the success of Whitgift's policy, but some could not **The Puritan rebellion.** have been granted without causing widespread dissatisfaction. At a conference between divines of the two parties at Hampton Court in 1604, James roughly decided against the Puritans. Some small alterations were made in the prayer-book, and a new version of the Bible was undertaken, which appeared in 1611 as the "authorized version." In 1604 convocation framed a code of canons which received royal authorization. Refusal to obey them was punished with deprivation, and, according to S. R. Gardiner, about 300 clergy were deprived, though a 17th century writer (Peter Heylyn) puts the number at 49 only, which W. H. Frere (*History of the English Church, 1558-1625*, p. 321) thinks more credible. Conformity could still be enforced, but before long the Puritan party grew in strength partly from religious and partly from political causes. They would not admit any authority in religion that was not based on the scriptures; their opponents maintained that the church had authority to ordain ceremonies not contrary to the scriptures. In doctrine the Puritans remained faithful to the Calvinism in which most Englishmen of the day had been brought up; they called the high churchmen Arminians, and asserted that they were inclined to Rome. The Commons became increasingly Puritan; they were strongly Protestant and demanded the enforcement of the laws against recusants, who suffered much, specially after the Gunpowder Plot of 1605, though they were sometimes shielded by the king. The Commons regarded ecclesiastical jurisdiction with dislike, specially the Court of High Commission, which had developed from the ecclesiastical commissions of Elizabeth and was hated as a means of coercion based on prerogative. The

bishops derived their support from the king, and the church in return supported the king's claim to absolutism and divine right. It suffered heavily from this alliance. As men saw the church on the side of absolutism, Puritanism grew strong both among the country gentry, who were largely represented in the Commons, and among the nation at large, and the church lost ground through the king's political errors. A restoration of order and decency in worship and the introduction of more ceremonial begun in James's reign were carried on by Laud (*q.v.*) under Charles I. Laud aimed at silencing disputes about doctrine and enforcing outward uniformity; the Puritans hated ceremonial and wished to make every one accept their doctrines. Many of the reforms introduced by Laud after he became archbishop in 1633 were needful, but they offended the Puritans and were enforced in a harsh and tyrannical manner, for he lacked wisdom and sympathy. Under his rule nonconforming clergy were deprived and sometimes imprisoned. The cruel punishments inflicted by the Court of Star Chamber of which he was a member, the unpopularity of the High Commission Court, his own harsh dealing, and the part which he took in politics as a confidential adviser of the king, combined to bring odium upon him and upon the ecclesiastical system which he represented. The church was weak, for the Laudian system was disliked by the nation. A storm of discontent with the course of affairs both in church and state gathered. In 1640 Charles, after dissolving parliament, prolonged the session of convocation, which issued canons magnifying the royal authority and imposing the so-called "*et cetera* oath" against innovations on all clergy, graduates and others. The Long Parliament voted the canons illegal; Laud was imprisoned, and in 1642 the bishops were excluded from parliament. The civil war began in 1642; in 1643 a bill was passed for the taking away of episcopacy, in 1645 Laud was beheaded, and parliament abolished the prayer-book and accepted the Presbyterian directory, and from 1646 Presbyterianism was the legal form of church government. Many, perhaps 2000, clergy were deprived; some were imprisoned and otherwise maltreated, though a fifth of their former revenues was assigned to the dispossessed. The king, who was beheaded in 1649, might have extricated himself from his difficulties if he had consented to the overthrow of episcopacy, and may therefore be held a martyr to the church's cause. The victory of the army over the parliament secured England against the tyranny of Presbyterianism, but did not better the condition of the episcopal clergy; the toleration insisted on by the Independents did not extend to "prelacy." Churchmen, however, occasionally enjoyed the ministrations of their own clergy in private houses, and though their worship was sometimes disturbed they were not seriously persecuted for engaging in it. Non-delinquent or non-sequestered private patronage and the obligation of tithes were retained. Community of suffering and the execution of Charles I. brought the royalist country gentry into sympathy with the clergy, and at the Restoration the church had the hold upon the affection of the laity which it lacked under the Laudian rule.

On the king's restoration the survivors of the ejected clergy quietly regained their benefices. The Presbyterians helped to bring back the king and looked for a reward. Charles II. promised them a limited episcopacy and other concessions, but his plan was rejected by the Commons. A conference at the Savoy between leading Presbyterians and churchmen in 1661 was ineffectual, and a revision of the prayer-book by convocation further discontented nonconformists. The parliament of 1661 was violently anti-Puritan, and in 1662 passed an Act of Uniformity providing that all ministers not episcopally ordained or refusing to conform should be deprived on St Bartholomew's day, the 14th of August following. About 2000 ministers are said to have been ejected, and in 1665 ejected ministers were forbidden to come within five miles of their former cures. Though some bishops and clergy showed kindness to the ejected, churchmen generally approved of this oppressive legislation; they could not forget the wrongs inflicted on their church by the once triumphant Puritans. Nonconformist worship was made punishable by fine and imprisonment, and on the third offence by transportation. In 1672 Charles, who had secretly promised the French king openly to profess Roman Catholicism, issued a Declaration of Indulgence which applied both to Romanists and Protestant Nonconformists, but parliament compelled him to withdraw it, and, in 1673, passed a Test Act making reception of the holy communion and a denial of transubstantiation necessary qualifications for public office. Later, when the dissenters found friends among the party in parliament opposed to the crown, the church supported the king, and the doctrine of passive obedience was generally accepted by the clergy. The church was popular, and among the great preachers and theologians who adorned it in the Caroline period were Jeremy Taylor, Pearson, Bull, Barrow, South and Stillingfleet. The lower clergy were mostly poor, and their social position was consequently often humble, but the pictures of clerical humiliation after 1660 are generally overcoloured; the assertion that they commonly married servants or cast-off mistresses of their patrons has been disproved,

**The
Restoration
period.**

and it is certain that men of good family entered holy orders. In accordance with an agreement between Archbishop Sheldon and Lord Chancellor Clarendon, the clergy ceased to tax themselves in convocation, and from 1665 have been taxed by parliament. James II., though a Romanist, promised to protect the church, and the clergy were on his side in the rebellion of the duke of Monmouth, who was supported by dissenters. The church and the nation, however, were strongly Protestant and were soon alarmed by his efforts to Romanize the country. James dispensed with the law by prerogative and appointed Romanists to offices in defiance of the Test Act. In 1688 he ordered that his declaration for liberty of conscience, issued in the interest of Romanism, should be read in all churches. His order was almost universally disobeyed. Archbishop Sancroft and six bishops who remonstrated against it were brought to trial, and were acquitted to the extreme delight of the nation. James's attack on the church cost him his crown.

Sancroft and eight bishops would not belie their belief in the doctrines of divine right and passive obedience by swearing allegiance to William and Mary, and the archbishop, five bishops and over 400 clergy were deprived. Certain of these nonjuring bishops consecrated others and a schism ensued. The loss to the church was heavy; for among the nonjurors were many men of holy lives and eminent learning, and the fact that some suffered for conscience' sake seemed a reproach on the rest of the clergy. After 1715 the secession became unimportant. Protestantism was secured from further royal attack by the Bill of Rights; and in 1701 the Act of Succession provided that all future sovereigns should be members of the Church of England. That the king's title rested on a parliamentary decision was destructive of the clerical theory of divine right, and encouraged Erastianism, then specially dangerous to the church; for William, a Dutch Presbyterian, gave bishoprics to men personally worthy, but more desirous of union with other Protestant bodies than jealous for the principles of their own church. A bill for union was rejected in the Commons, where the church party had a majority, though one for toleration of Protestant dissenters became law. William, anxious for concessions to dissenters, appointed a committee of convocation for altering the liturgy, canons and ecclesiastical courts, but the Tory party in the lower house of convocation was strong and the scheme was abortive. A long controversy began between the two houses: the bishops were mostly Whigs with latitudinarian tendencies, the lower clergy Tories and high churchmen. During most of the reign convocation was suspended and the church was governed by royal injunctions, a system injurious to its welfare. It had been the bulwark of the nation against Romanism under James II., and the affection of the nation enabled it to preserve its distinctive character amid dangers of an opposite kind under William III. Its religious life was active; associations for worship and the reformation of manners led to more frequent services, the establishment of schools for poor children, and the foundation of the Society for Promoting Christian Knowledge (S.P.C.K.) and for the Propagation of the Gospel in Foreign Parts (S.P.G.). This activity and the discord between the two houses of convocation continued during Anne's reign. Anne was a strong church-woman, and under her the church reached its highest point of popularity and influence. Its supposed interests were used by the Tories for political ends. Hence the Occasional Conformity Act, to prevent evasion of the Test Act, and a tyrannical Schism Act, both repealed in 1718, belong rather to the history of parties than to that of the church. So, too, does the case of Dr Sacheverell, who was prosecuted for a violently Tory sermon. His trial, in 1710, caused much excitement; mobs shouted for "High Church and Dr Sacheverell," and the lightness of his sentence was hailed as a Tory victory. Queen Anne is gratefully remembered by the church for her "Bounty," which gave it the first-fruits and tenths (see [ANNATES](#) and [QUEEN ANNE'S BOUNTY](#)).

With the accession of the Hanoverian line the church entered on a period of feeble life and inaction: many church fabrics were neglected; daily services were discontinued; holy days were disregarded; Holy Communion was infrequent; the poor were little cared for; and though the church remained popular, the clergy were lazy and held in contempt. In accepting the settlement of the crown the clergy generally sacrificed conviction to expediency, and their character suffered. Promotion largely depended on a profession of Whig principles: the church was regarded as subservient to the state; its historic position and claims were ignored, and it was treated by politicians as though its principal function was to support the government. This change was accelerated by the silencing of convocation. A sermon by Hoadly, bishop of Bangor, impugned the existence of a visible church, and the "Bangorian controversy" which ensued threatened to end in the condemnation of his opinions by convocation, or at least by the lower house. As this would have weakened the government, convocation was prorogued, letters of business were withheld, and from 1717 until 1852 convocation, the church's constitutional organ of reform, existed only in name. Walpole during his long ministry, from

Revolution period.

The 18th century.

1721 to 1742, discouraged activity in the church lest it should become troublesome to his government. Preferment was shamelessly sought after even by pious men, and was begged and bestowed on the ground of political services. In this the clergy, apart from the sacredness of clerical office, were neither better nor worse than the laity; in morality and decency they were better even at the lowest point of their decline, about the middle of the century. While the church was inactive in practical work, it showed vigour in the intellectual defence of Christianity. Controversies of earlier origin with assailants of the faith were ably maintained by, among others, Daniel Waterland, William Law, a nonjuror, Bishop Butler, whose *Analogy* appeared in 1736, and Bishop Berkeley. A revival of spirituality and energy at last set in. Its origin has been traced to Law's *Serious Call*, published in 1728. Law's teaching was actively carried out by John Wesley (*q.v.*), a clergyman who from 1739 devoted himself to evangelization. Though his preaching awoke much religious feeling, specially among the lower classes, the excitement which attended it led to a horror of religious enthusiasm, and his methods irritated the parochial clergy. Some of them seconded his efforts, but far more regarded them with violent and often unworthily expressed dislike. While he urged his followers to adhere to the church, he could not himself work in subordination to discipline; the Methodist organization which he founded was independent of the church's system and soon drifted into separation. Nevertheless, he did much to bring about a revival of life in the church. Several clergy became his allies, and some preached in Lady Huntingdon's chapels before her secession. These were among the fathers of the Evangelical party: they differed from the Methodists in not forming an organization, remaining in the church, working on the parochial system, and generally holding Calvinistic doctrine, being so far nearer to Whitfield than to Wesley, though Calvinism gradually ceased to be a mark of the party. The Evangelicals soon grew in number, and their influence for good was extensive. They laid stress on the depravity of human nature, and on the importance of conscious conversion, giving prominence to the necessity of personal salvation rather than of incorporation with, and abiding in, the church of the redeemed. Prominent among their early leaders after they became distinct from the Methodists were William Romaine, Henry Venn and John Newton. Bishop Porteus of London sympathized with them, Lord Dartmouth was a liberal patron, and Cowper's poetry spread their doctrines in quarters where sermons might have failed to attract. Religion was also forwarded in the church by the example of George III. During his reign the progress of toleration, though slow and fitful, greatly advanced both as regards Roman Catholics and Protestant dissenters. The spirit of rationalism, which had been manifested earlier in attacks on revelation, appeared in a movement against subscription to the Articles demanded of the clergy and others which was defeated in parliament in 1772. The alarm consequent on the French Revolution checked the progress of toleration and was temporarily fatal to free-thinking; it strengthened the position of the church, which was regarded as a bulwark of society against the spread of revolutionary doctrines; and this caused the Evangelicals to draw off more completely from the Methodists. The church was active: the Sunday-school movement, begun in 1780, flourished; the crusade against the slave-trade was vigorously supported by Evangelicals; and the Church Missionary Society (C.M.S.), a distinctly Evangelical organization, was founded. Excellent as were the results of the revival generally, the Evangelicals had defects which tended to weaken the church. Some characteristics of their teaching were repellent to the young; they were deficient in theological learning, and often in learning of any kind; they took a low view of the church, regarding it as the offspring of the Protestant reformation; they expounded the Bible without reference to the church's teaching, and paid little heed to the church's directions. Dissent consequently grew stronger. By the Act of Union with Ireland the Churches of England and Ireland were united from the 1st of January 1801, and the continuance of the united church was declared an essential part of the union. No provision, however, was made giving the Irish clergy a place in convocation, which was evidently held unlikely to revive. The union of the churches was dissolved in 1871 by an act of 1869 for disestablishing the Irish Church.

Apart from the Evangelical revival, religion was advanced in the church. In 1811 the education of the poor was provided for on church principles by the National Society; the Church Building Society was founded in 1818; and the colonial episcopate was started by the establishment of bishoprics in Calcutta in 1814, and in Jamaica and Barbados in 1824. Yet reforms were urgently needed. In 1813, out of about 10,800 benefices, 6311 are said to have been without resident incumbents (*The Black Book*, p. 34); the value of some great offices was enormous, while many of the parochial clergy were wretchedly poor. The repeal of the Test Act, long practically inoperative, in 1828, and Catholic emancipation in 1829, mark a change in the relations of church and state; and the Reform Bill of 1832 transferred political power from a class which generally supported the church to classes in which dissent was strong. The

The Oxford Movement.

national zeal for reform was directed towards the church, not always in a friendly spirit. Yet wholesome changes were effected by legislation: dioceses were rearranged and two new bishoprics founded at Manchester and Ripon, the bishopric of Bristol, however, being suppressed; plurality and non-residence were abolished; tithes were commuted, and the Ecclesiastical Commission, which has effected reforms in respect of endowments, was permanently established in 1836. Some changes and proposals alarmed churchmen, specially as legislation for the church proceeded from parliament, while convocation remained silenced. Latitudinarian opinions revived, and the church was regarded merely as a human institution. Among the clergy generally ritual observance was neglected and rubrical directions disobeyed. A few churchmen, including Keble and Newman, set themselves to revive church feeling, and Oxford became the centre of a new movement. The publication of Keble's *Christian Year* prepared its way, and its aims were declared in his assize sermon at Oxford on "National Apostasy" in 1833. Its promoters urged their views in *Tracts for the Times*, and were strengthened by the adherence of Pusey. Hence they were nicknamed Tractarians or Puseyites. Their cardinal doctrine was that the Church of England was a part of the visible Holy Catholic Church and had unbroken connexion with the primitive church; they inculcated high views of the sacraments, and emphasized points of agreement with those branches of the Catholic Church which claim apostolic succession. Their party grew in spite of the opposition of low and broad churchmen, who, specially on the publication of Tract XC. by Newman in 1841, declared that its teaching was Romanizing. In 1845 Newman and several others seceded to Rome. Newman's apostasy was a severe blow to the church, though permanent injury was averted by the steadfastness of Pusey. The Oxford movement was wrecked, but its effect survived both in the new high church party and in the church at large. As a body the clergy rated more highly the responsibilities and dignity of their profession, and became more zealous in the performance of its duties and more ecclesiastically minded. High churchmen carried out rubrical directions, and after a while began to introduce changes into the performance of divine service which had not been adopted by the early leaders of the party, were deprecated by many bishops, and excited opposition.

In 1833 the supreme jurisdiction of the Court of Delegates was transferred to the judicial committee of the privy council. Before this court came an appeal by a clerk named Gorham, whom the bishop of Exeter refused to institute to a benefice because he denied unconditional regeneration in baptism, and in 1850 the court decided in the appellant's favour. The decision was followed by some secessions to Rome, and high churchmen were dissatisfied that spiritual questions should be decided by a secular court. The "papal aggression" of that year, by which Pius IX. appeared to claim authority in England, roused violent popular indignation which was used against the high church party. However, it afforded an argument for the revival of convocation, and, chiefly owing to the exertions of Bishop Wilberforce of Oxford, convocation again met in 1852 (see [CONVOCATION](#)). Meanwhile broad church opinions were gaining ground to some extent owing to a reaction from the Oxford movement. Among the clergy the broad church party was comparatively small, but it included some men of mark. In 1860 appeared *Essays and Reviews*, a volume of essays by seven authors, of whom six were in orders. The book as a whole had a rationalistic tendency and was condemned by convocation: two of the essayists were suspended by the Court of Arches, but its judgment was reversed by the judicial committee. Crude attacks on the authority of the Scriptures and the position of the English Church with respect to it having been published by Colenso, bishop of Natal, he was deposed by his metropolitan, Bishop Gray of Cape Town, in 1863, but the judicial committee decided that the bishop of Cape Town had no coercive jurisdiction over Natal. Convocation declared Colenso's books erroneous, abstaining in face of this judgment from acknowledging as valid the excommunication which Bishop Gray pronounced against him. It followed from the decision of the council that the English Church in a self-governing colony is a voluntary association. Opposition to the dogmatic principle in the church was maintained. Some practices introduced by clergy desirous of bringing the services of the church to a higher level came before the judicial committee in the case of *Westerton v. Liddell* in 1857, with a result encouraging to the ritualists, as they then began to be called. An increase in ritual usages, such as eucharistic vestments, altar lights and incense, followed. In 1859-1860 disgraceful riots took place at St George's-in-the-East, London, where an advanced ritual was used. In 1860 the English Church Union was formed mainly to uphold high church doctrine and ritual, and assist clergy prosecuted for either cause, and in 1865 the Church Association, mainly to put down such doctrine and ritual by prosecution. A royal commission appointed in 1867 recommended that facilities should be granted for enabling parishioners aggrieved by ritual to gain redress, and in 1870 that a revised lectionary and a shortened form of service

**The church
and the law
courts.**

should be provided. A new lectionary was approved by the two convocations and enacted, and convocation having received letters of business in 1872 and 1874 drew up a shortened form of prayer which was also enacted, but the commission had no further direct results. Between 1867 and 1871 two decisions of the judicial committee were adverse to the ritualists, and by exciting dislike to the court among high churchmen indirectly led to an increase in ritual usages. Among those who adopted them were many self-devoted men; their practices, which they believed to be incumbent on them, were condemned as illegal, yet they saw the rubrics daily disregarded with impunity by others who trod the easy path of neglect. In 1873 a declaration against sacramental confession received the assent of the bishops, and in 1874 Archbishop Tait of Canterbury introduced a bill for enforcing the law on the ritualist clergy; it was transformed in committee, and was enacted as the Public Worship Regulation Act. It provided for the appointment of a new judge in place of the old ecclesiastical judges, the officials principal, of the two provinces. Litigation increased, the only check on prosecutions being the right of the bishop to veto proceedings, and in 1878-1881 four clergymen were imprisoned for disobedience to the orders of courts against whose jurisdiction they protested. In consequence of the scandal raised by this mode of dealing with spiritual causes, a royal commission on ecclesiastical courts was appointed in 1881, but its report in 1883 led to no results, and the bishops strove to mend matters by exercising their veto. Advanced and illegal usages became more frequent. Proceedings in respect of illegal ritual having been instituted against Bishop King of Lincoln, the archbishop of Canterbury (Benson) personally heard and decided the case in 1890, and his judgment was upheld by the judicial committee (see [LINCOLN JUDGMENT](#)). The spiritual character of the tribunal and the authority of the judgment which sanctioned certain usages and condemned others, had a quieting effect. Increase in ritualism, however, caused agitation in 1898, and in 1899 and 1900 the two archbishops, Temple of Canterbury and Maclagan of York, delivered "opinions" condemning the use of incense and processional lights, and the reservation of the consecrated elements. Finding himself unable to put down illegal practices, Bishop Creighton of London adopted a policy of compromise which was followed by other bishops, and encouraged illegality. Disregard of law both in excess and defect of ritual being common, a royal commission on ecclesiastical discipline was appointed in 1904. The commissioners presented a unanimous report in 1906, its chief recommendations being, briefly, that practices significant of doctrines repugnant to those of the English Church should be extirpated; that the convocations should prepare a new ornaments rubric, and frame modifications in the conduct of divine service; that the diocesan and provincial courts and the court of final appeal should be reformed in accordance with the recommendations of 1883, the last to consist of a permanent body of lay judges who on all doubtful questions touching the doctrine or use of the church should be bound by the decision of an episcopal assembly; that the Public Worship Regulation Act should be repealed, and the bishops' power of veto abolished.

Since the Oxford movement the church has developed wonderful energy. Yet it is beset with difficulties and dangers both from within and without. Within, besides difficulties as regards ritual, it has to contend against rationalism, which has been stimulated by scientific discoveries and speculations, and far more by **Present life.** Biblical criticism. While this criticism has been used by many as a means to a fuller comprehension of divine revelation, much of it is simply destructive, and has led to ill-considered expressions of opinion adverse to the doctrine of the church. From without, the church has been threatened with disestablishment both wholly and as regards the dioceses within the Welsh counties; and the education of the poor, which from early days depended on its care, has largely been taken out of its hands (see [EDUCATION](#)). The amount contributed by the church to elementary education, including the maintenance of Sunday schools, in 1907-8 was £576,012. During the last sixty years the church has strengthened its hold on the loyalty of the nation by its increased efficiency. Its bishops are laborious and active. Since 1876 the home episcopate has been increased by the creation of the dioceses of Truro, St Albans, Liverpool, Newcastle, Southwell, Wakefield, Bristol, Southwark and Birmingham, so that there are now (1910) thirty-seven diocesan bishops, aided by twenty-eight suffragan and eight assistant bishops, and a further subdivision of dioceses is contemplated. At no other time probably have the clergy been so industrious. As a rule they are far better instructed in theology than forty years ago, but they have not advanced in secular learning. Changes in the university system have contributed to draw off able young men to other professions which offer greater worldly advantages. The poverty of many of the clergy stands in strong contrast to the wealth around them. Of 14,242 benefices 4704 are said to be below £200 a year net value. The value of £100 tithe rent charge has sunk (1909) to £69: 18 : 5¼, the average value since the Commutation Act of 1836 being £94 : 3 : 2¾. The number of assistant clergy is (1910) about 7500, in spite of the hardships often

attending clerical life, the supply of men being kept up. The Queen Victoria Clergy Fund and other voluntary associations and various educational institutions have been founded to relieve clerical distress. In the church at home there is much energy in numberless directions: cathedral churches have become centres of religious activity, and in parish churches the administration of the Holy Communion and weekday services are frequent. Many of the laity co-operate in church work and liberally support it. During the years 1898-1907 598 churches were built or rebuilt, and during twenty-four years, 1884-1907, the voluntary offerings for church building were £27,612,709, and for endowments and parsonages £6,116,592, yet church extension fails to keep pace with the increase of the population. Evangelistic efforts, the relief of the sick and poor, and the inculcation of temperance are zealously carried on. Good work is done by twenty-six sisterhoods and several institutions of deaconesses, and one or two communities of celibate clergy. In the British colonies and India the episcopate consists (1909) of seven archbishops with two coadjutors; there are also seventy diocesan bishops, and in other parts of the world thirty missionary bishops. The S.P.G. has 847 ordained ministers, including thirty chaplains in Europe, besides many female missionaries; the C.M.S. has 793 ordained ministers, and many other missionaries of both sexes; the Zenana Missionary Society has a staff of 1288; other church societies for foreign missions are vigorous, and the S.P.C.K. in addition to its work at home spends large sums in furthering the church abroad. The benefits arising from conference have increasingly been valued since the revival of convocation. Appreciation of the importance of lay support and counsel has led to the institution of two voluntary elective assemblies called Houses of Laymen, one for each province, and in 1905 an association of the four houses of convocation and the two lay assemblies was formed with the name of the Representative Church Council. During the last forty years diocesan conferences, in which the laity are represented, have become universal, while ruridecanal and other meetings of a like kind are general. An annual church congress, established in 1861, held its forty-ninth meeting in 1909. Of wider importance are the Lambeth conferences, held since 1878 at intervals of ten years, to which the bishops of the English Church and the churches in communion with it are invited, and meet under the presidency of the archbishop of Canterbury. The first of these conferences, which illustrate the dignity of the see founded by St Augustine and now the head of a vast quasi-patriarchate, was held under the presidency of Archbishop Longley in 1867 (see [LAMBETH CONFERENCES](#) and [ANGLICAN COMMUNION](#)).

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(W. HU.)

ENGLEFIELD, SIR FRANCIS (c. 1520-1596), English Roman Catholic politician, born probably about 1520, was the eldest son of Sir Thomas Englefield of Englefield, Berkshire, justice of the common pleas. His mother was Elizabeth, daughter of Sir Robert Throckmorton, one of the well-known Catholic family of Coughton, Warwickshire. Francis, who succeeded his father in 1537, was too young to have taken any part in the opposition to the abolition of the Roman jurisdiction and dissolution of the monasteries; and he acquiesced in these measures to the extent of taking the oath of royal supremacy, serving as sheriff of Berkshire and Oxfordshire in 1546-1547, and accepting in 1545 a grant of the manor of Tilehurst, which had belonged to Reading Abbey. He was even knighted at the coronation of Edward VI. in February 1547. But the progress of the Reformation during that reign alienated him, and he attached his fortunes to the cause of the princess Mary, whose service he entered before 1551. In August of that year he was sent to the Tower for permitting Mass to be celebrated in Mary's household. He was released in the following March, and permitted to resume his duties in Mary's service. But in February 1553 he was again summoned before the privy council, and may have been in confinement at the crisis of July; perhaps he was only released on Mary's triumph, for his name does not appear among those who exerted themselves on her behalf before the middle of August. He was then sworn a member of the privy council like many others who owed their promotion to their loyalty rather than to their political abilities. Their numbers swelled the privy council and sadly impaired its efficiency; but Mary resisted the various attempts to get rid of them because she liked staunch friends, and regarded them as a salutary check upon the abler but less scrupulous members who had served Edward VI. as well as herself. Englefield sat as M.P. for Berkshire in all Mary's parliaments except that of April 1554, but received no higher political office than the lucrative mastership of the court of wards.

He was an ardent believer in persecution, was present at Hooper's trial, sought Ascham's ruin, and naturally lost his office and his seat on the privy council at Elizabeth's succession. He retired to the continent before May 1559, and from that time until his death was an active participant in all schemes for the restoration of Roman Catholicism. At first his ideas took such comparatively mild forms as inducing the pope to send a legate to persuade Elizabeth to return to the fold; but gradually they grew more violent and treasonable, until Englefield became the close confidant of Cardinal Allen, Parsons and the "jesuited" Catholics, who advocated forcible intervention by Spain and the succession of the infanta; in 1585 Englefield thought that Mary's succession, peaceful or other, would not be satisfactory unless it were owing to Spanish support and she were dependent on Philip. Englefield lived first at Rome, then in the Low Countries, and finally at Valladolid. He was blind for the last twenty years of his life, and received a pension of six hundred crowns from Philip. He had been outlawed in 1564 and his estates sequestered, but they were not forfeited until 1585, when an act of attainder was passed against Englefield. Even then some legal difficulties stood in the way of their appropriation by the crown, for Englefield, obviously with an eye to this contingency, had conditionally settled them on his nephew Francis. The long arguments on the point are given in Coke's *Reports*, and a further act was passed in 1592 confirming the forfeiture to the crown. The nephew, however, eventually recovered some of the family estates, and was created a baronet in 1612. His uncle was alive in September 1596, but apparently died at Valladolid about the end of that year. His tomb there used to be shown to visitors as that of an eminent man.

See *Dict. of Nat. Biog.* xvii. 372-374; but additional light has been thrown on Englefield's career since the date of that article by the publication of the Spanish and Venetian Calendars, the Hatfield MSS., the Acts of the Privy Council, and the Letters and Papers of Henry VIII.

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(A. F. P.)

ENGLEHEART, GEORGE (1752-1829), English miniature painter, the great rival of Richard Cosway, was born at Kew in October 1752, and received his artistic training first under George Barret, R.A., and then under Sir Joshua Reynolds. He started on his own

account in 1773, and exhibited in that year at the Royal Academy. He continued the active pursuit of his profession down to 1813, when he retired, and his fee-book, still in existence, records the names of his sitters, and the amount paid for each portrait, proving that he painted 4853 miniatures during that period of thirty-nine years, and that his professional income for many years exceeded £1200 a year. During the greater part of his life he resided in Hertford Street, Mayfair, where he lived till he retired. He died at Blackheath in 1829, and was buried at Kew.

He painted George III. twenty-five times, and had a very extensive circle of patrons, comprising nearly all the important persons connected with the court. He made careful copies in miniature of many of the famous paintings executed by Sir Joshua Reynolds, and in some cases these constitute the only information we possess respecting portraits by Sir Joshua that are now missing. His fee-book, colours, appliances and a large collection of his miniatures still remain in the possession of his descendants.

His nephew, JOHN COX DILLMAN ENGLEHEART (1784-1862), also a miniature painter, entered George Engleheart's studio when he was but fourteen years of age. He first exhibited at the Royal Academy in 1801, and sent in altogether 157 works. He was a man of substantial means, and in his time a very popular painter, but his health broke down when he was forty-four years old, and he had to relinquish the pursuit of his profession. He lived at Tunbridge Wells for some years and died there in 1862.

See *George Engleheart*, by G. C. Williamson and H. L. D. Engleheart (1902).

(G. C. W.)

ENGLEWOOD, a city of Bergen county, New Jersey, U.S.A., near the Hudson river, 14 m. N. by E. of Jersey City. Pop. (1900) 6253, of whom 1548 were foreign-born and 386 negroes; (1905) 7922; (1910) 9924. It is served by a branch of the Erie railway, and by an electric line connecting with a ferry (at Fort Lee) to New York. Englewood is primarily a residential suburb of New York. The site rises terrace above terrace from the marshes in the valley of the Hackensack to the top of the palisades overlooking the Hudson, from which Englewood is separated by the borough of Englewood Cliffs (pop. in 1905, 266). There are several fine residences, a hospital, a public library and the Dwight school for girls (1859). The site of Englewood was for a long time a part of "English Neighbourhood," and was known as Liberty Pole; but until 1859, when the place was laid out, there were only a few houses here, one of which was the "Liberty Pole Tavern." In 1871 Englewood was set off from the township of Hackensack and was incorporated as a separate township, and in 1896 it was chartered as a city; but the act under which it was chartered was declared unconstitutional, and in 1899 Englewood was rechartered as a city by a special act of the state legislature.

ENGLISH CHANNEL (commonly called "The Channel"; Fr. *La Manche*, "the sleeve"), the narrow sea separating England from France. If its entrance be taken to lie between Ushant and the Scilly Isles, its extreme breadth (between those points) is about 100 m., and its length about 350. At the Strait of Dover, its breadth decreases to 20 m. Along both coasts of the Channel, cliffs and lowland alternate, and the geological affinities between successive opposite stretches are well marked, as between the Devonian and granitic rocks of Cornwall and Brittany, the Jurassic of Portland and Calvados, and the Cretaceous of the Pays de Caux and the Isle of Wight and the Sussex coast, as well as either shore of the Strait of Dover. The English Channel is of comparatively recent geological formation. The land-connexion between England and the continent was not finally severed until the latter part of the Pleistocene period. The Channel covers what was previously a wide valley, and may be described now as a headless gulf. The action of waves and currents, both destructive and constructive, is well seen at many points; thus Shakespeare Cliff at Dover is said to have been cut back more than a mile during the Christian era, and the cliffs of Grisnez have similarly receded. Of the opposite process notable examples are the building of the pebbly beaches of Chesil Bank and near Tréguier in Côtes du Nord, and the promontory of

Dungeness. The total drainage area of the English rivers flowing into the Channel is about 8000 sq. m.; of the French rivers, including as they do the Seine, it is about 41,000 sq. m.

From the Strait of Dover the bottom slopes fairly regularly down to the western entrance of the Channel, the average depths ranging from 20 to 30 fathoms in the Strait to 60 fathoms at the entrance. An exception to this condition, however, is found in Hurd's Deep, a narrow depression about 70 m. long, lying north and north-west of the Channel Islands, and at its nearest point to them only 5 m. distant from their outlying rocks, the Casquets. Towards its eastern end Hurd's Deep has an extreme depth of 94 fathoms, and in it are found steeper slopes from shoal to deep water than elsewhere within the Channel. Nearing the entrance to the Channel from the Atlantic, the 100 fathoms line may be taken to mark the edge of soundings. Beyond this depth the bottom falls away rapidly. The 100 fathoms line is laid down about 180 m. W. to 120 m. S.W. of the Scilly Isles, and 80 m. W. of Ushant. Within it there are considerable irregularities of the bottom; thus a succession of narrow ridges running N.E. and S.W. occurs west of the Scillies, while only 4 m. N.W. of Ushant there is a small depression in which a depth of 105 fathoms has been found. As a general rule the slope from the English coast to the deepest parts of the Channel is more regular than that from the French coast, and for that reason, and in consideration of the greater dangers to navigation towards the French shore, the fairway is taken to lie between 12 and 24 m. from the principal promontories of the English shore, as far up-channel as Beachy Head. These promontories (the Lizard, Start Point, Portland Bill, St Alban's Head, St Catherine's Point of the Isle of Wight, Selsey Bill, Beachy Head, Dungeness, the South Foreland) demarcate a series of bays roughly of sickle-shape, the shores of which run north and south, or nearly so, at their western sides, turn eastward somewhat abruptly at their heads, and then trend more gently towards the south-east. On the French coast the arrangement is similar but reversed; Capes Grisnez, Antifer and La Hague, and the Pointe du Sillon demarcating a series of bays (larger than those on the English coast) whose shores run north and south on the eastern side, and have a gentler trend westward from the head.

The configuration of the coasts is perhaps the chief cause of the peculiarities of tides in the Channel. From the entrance as far as Portland Bill the time of high water is found to be progressively later in passing from west to east, being influenced by the oceanic tidal stream from the west under conditions which are on the whole normal. But eastward of a line between Portland Bill and the Gulf of St Malo these conditions are changed and great irregularities are observed. On the English coast between Portland Bill and Selsey a double tide is found. At Portland this double tide corresponds approximately with the time of low water in the regular tidal progression, and the result is the occurrence of two periods of low water, separated by a slight rise known locally as "gulder." But farther east the double tide corresponds more nearly with the time of high water, and in consequence either the effect is produced of a prolonged period of high water, or there are actually two periods of high water, as at Southampton. Various causes apparently contribute to this phenomenon. The configuration of the coast line is such as to present at intervals barriers to the regular movement of the tidal wave (west to east), so that reflex waves (east to west) are set up. In the extreme case at Southampton the tidal effect is carried from the outer Channel first by way of the Solent, the strait west of the Isle of Wight, and later by way of Spithead, the eastern strait. Finally the effect of the tidal stream entering the Channel through the Strait of Dover from the North Sea must be considered. The set of this stream towards the Strait of Dover from the east corresponds in time with that of the Channel stream (*i.e.* the stream within an area defined by Start Point, the Casquets, Beachy Head and the mouth of the Somme) towards the strait from the west; the set of the two streams away from the strait also corresponds, and consequently they alternately meet and separate. The area in which the meeting and separation take place lies between Beachy Head and the North Foreland, the mouth of the Somme and Dunkirk. Within this area, therefore, a stream is formed, known as the intermediate stream, which, running at first with the Channel stream and then with the North Sea stream, changes its direction throughout its length almost simultaneously, and is never slack. Under these conditions, the time of high water eastward of Selsey Bill as far as Dover is almost the same at all points, though somewhat earlier at the east than at the west of this stretch of coast. The configuration of the French coast causes a very strong tidal flow in the Gulf of St Malo, with an extreme range at spring tides of 42 ft. at St Germain, compared with a range of 12 ft. at Exmouth and 7 ft. at Portland. In the neighbourhood of Beer Head and Portland and Weymouth Roads the streams are found to form vortices with only a slight movement. On the eastern (Selsey-Dover) section of the English coast the *maximum* range of tide is found at Hastings, with a decrease both eastward and westward of this point.

Westerly winds are most prevalent in the Channel. The total number of gales recorded in

the period 1871-1885 was 190, of which 104 were south-westerly. Gales are most frequent from October to January (November during the above period had more than any other month, with an average of 2.1), and most rare from May to July. It appears that gales are generally more violent and prolonged when coincident with spring tides than with neaps. The winds have naturally a powerful effect on the tidal streams and currents, the latter being in these seas simply movements of the water set up by gales, which may themselves be far distant. Thus under the influence of westerly winds prevailing west of the Iberian Peninsula a current may be set up from the Bay of Biscay across the entrance of the Channel; this is called Rennell's current. Fogs and thick weather are common in the Channel, and occur at all seasons of the year. Observations during the period 1876-1890 at Dover, Hurst Castle and the Scilly Isles showed that at the two first stations fogs most frequently accompany anticyclonic conditions in winter, but at the Scilly Isles they are much more common in summer than in winter, and accompany winds of moderate strength more frequently than in the case of the up-Channel stations.

(O. J. R. H.)

Salinity and Temperature.—The waters of the English Channel are derived partly from the west and partly from the English and French rivers, and all observations tend to show that there is a slow and almost continuous current through it from west to east. The western supply comes from two sources, one of which, the more important, is the relatively salt and warm water of the Bay of Biscay, which enters from the south-west and has a salinity sometimes reaching 35.6 pro mille (parts of salt per thousand by weight); the other consists of a southerly current from the Irish Channel, and is colder and has a salinity of 35.0 to 35.2 pro mille. As the water passes eastwards it mixes with the fresher coastal water, so that the salinities generally rise from the shore to the central line, and from east to west, though south of Scilly Islands there is often a fall due to the influence of the Irish Channel. The mean annual salinity decreases from between 35.4 and 35.5 pro mille in the western entrance to 35.2 pro mille at the Strait of Dover on the central axis, and to about 34.7 pro mille under the Isle of Wight and off the Bay of the Seine. The English Channel may be divided into two areas by a line drawn from Start Point to Guernsey and the Gulf of St Malo. In the eastern area the water is thoroughly mixed owing to the action of the strong tidal currents and its comparatively small depth, and salinities and temperatures are therefore generally the same from surface to bottom; while westward of this line there is often a strongly marked division into layers of different salinity and temperature, especially in summer and autumn, when the fresher water of the Irish Channel is found overlying the salt water of the Bay of Biscay. The salinity of the English Channel undergoes an annual change, being highest in winter and spring and lowest in summer, and this change is better marked in the eastern area, where the mean deviation from the annual mean reaches 0.3 pro mille, than it is farther west with a mean deviation of 0.1 pro mille. There is also reason to believe that there is a regular change with a two-year period, years of high maximum and low minimum alternating with years of low maximum and high minimum. Variations of long period or unperiodic also occur, which are probably, and in one case (1905) almost certainly, due to changes taking place some months earlier far out in the Atlantic Ocean.

The mean annual *surface* temperature increases from between 11° C. and 11.5° C. at the Strait of Dover to over 12° C. at the western entrance.¹ The yearly range in the eastern area is considerable, reaching 11° C. off the Isle of Wight and 10° C. in the Strait of Dover; westward it gradually decreases to 5° C. a short distance north-west of Ushant. The mean maximum temperature, over 16° C., is found under the English coast from Start Point to the Strait of Dover about the 1st of September and off the French coast eastward of Cape la Hague about eleven days later. In the western area the maximum temperature is about 15° C. and occurs between September 1 and 11. The mean minimum surface temperature is between 5° C. and 6° C. at the eastern end, and increases to over 9° C. off the coast of Brittany. Owing to the thorough mixing of the water in the eastern area the temperatures are here generally the same at all depths, and the description of the surface conditions applies equally to the bottom. In the western entrance, on the other hand, the bottom temperature is often much lower than on the surface; the range here is also much less, about 3° C., and the maximum is not reached till about the 1st of October, or from three weeks to a month later than on the surface.

A detailed account of the mean conditions in the English Channel will be found in *Rap. et procès-verbaux*, vol. vi., and *Bulletin supplémentaire* (1908) of the Conseil Permanent International pour l'Exploration de la Mer (Copenhagen).

(D. J. M.)

Cross-Channel Communication.—An immense amount of time and thought has been expended in the elaboration of schemes to provide unbroken railway communication

between Great Britain and the continent of Europe and enable passengers and goods to be conveyed across the Channel without the delay and expense involved by transshipping them into and out of ordinary steamers. These schemes have taken three main forms: (1) tunnels, either made through the ground under the sea, or consisting of built-up structures resting upon the sea bed; (2) bridges, either elevated high above the sea-level so as to admit of the unimpeded passage of ships under them, or submerged below the surface; and (3) train ferries, or vessels capable of conveying a train of railway vehicles with their loads. A tunnel was first proposed at the very beginning of the 19th century by a French mining engineer named Mathieu, whose scheme was for a time favourably regarded by Napoleon, but it was first put on a practical basis more than fifty years later by J. A. Thomé de Gamond (1807-1876), whose plans were submitted to the French emperor in 1856. This engineer had begun to work at the problem of cross-Channel communication twenty years previously, and had considered the possibility of a submerged tunnel or tube resting on the sea-level, of steam ferries plying between huge piers thrown out from both coasts, and of a bridge, for which he prepared five different plans. He again brought forward his scheme for a tunnel, in a modified form, in 1867, and exhibited his plans in the Universal Exhibition of that year. About the same time an English engineer, William Lowe, of Wrexham, was also working at the idea of a tunnel. Geological investigation convinced him that between Fanhole, a point half a mile west of the South Foreland light, and Sangatte on the French coast, 4 m. W. of Calais, the Dover grey chalk was continuous from side to side, and he considered that this stratum, owing to its comparative freedom from water and the general absence of cracks and fissures, offered exceptional advantages for a tunnel. He and Thomé de Gamond joined forces, and their plans were adopted by an international committee whose object was to popularize the idea of a tunnel both in England and France. Its engineers on the English side were Lowe, Sir James Brunlees and Sir John Hawkshaw, the last of whom in 1866 had made trial borings at St Margaret's and near Sangatte; and on the French side Thomé de Gamond, Paulin Talabot and Michael Chevalier. In 1868 they reported that there was a reasonable prospect of completing the tunnel in ten or twelve years at a cost not exceeding ten millions sterling. They admitted, however, that there was some risk of an influx of the sea, but pointed out that this risk could be determined by driving preliminary driftways, as suggested by Lowe, and for this purpose asked for financial aid from the imperial treasury. A commission of inquiry then appointed by the French ministry of public works reported favourably on the plans, though it declined to recommend a grant of money; but the further progress of the scheme was interrupted by the outbreak of the Franco-German war.

The tunnel was by no means the only plan in evidence at this period for securing continuous railway communication between England and France. An iron tube, resting on the bottom of the sea, had been proposed by Tessier de Mottray in 1803, and had again been considered by Thomé de Gamond in 1833; but after 1850 projects of this kind might almost be counted by the dozen. Some of the structures were to be of iron, others of concrete or masonry, and some were to be floated a moderate distance below the surface. One of the most carefully worked out plans was that of J. F. Bateman and J. Revy, who proposed to construct a continuous tube, 13 ft. in internal diameter, of iron rings each 10 ft. long, each ring being built out from the completed portion of the tube by means of a horizontal chamber or bell, which slid telescopically over the last few rings previously put in place, and was moved forward by hydraulic power. About the same time Zerah Colburn produced plans for a tube constructed of 1000 ft. sections, which were to be built in dry dock and then successively attached by a ball and socket joint to the completed portion, the whole being raised from the bottom and dragged out to sea, by the aid of a large number of ships, as each section was attached and launched. Thomas Page, again, the builder of Westminster Bridge, proposed to place eight conical steel shafts at intervals across the Strait of Dover, and to connect them by long sections of tube lowered from the surface, the whole structure being covered with concrete when finished. No attempt was made to put any of these plans into execution, and the same was true of several bridge schemes propounded about the same time; in one of these, spans one-half or three-quarters of a mile in length were contemplated, while another required 190 towers, 500 ft. apart and rising 500 ft. above the water-level, which obviously would have constituted an intolerable nuisance to navigation. The case, however, was different with a train ferry which was vigorously advocated by Sir John Fowler. His proposal was to employ steamers 450 ft. long, with a beam of 57 ft. and a speed of 20 knots, having railway lines laid down on their decks on and off which railway vehicles could be run directly at each side of the strait. Dover was to be the English port, while on the French coast a new harbour was to be formed at Audresselles, between Calais and Boulogne. This plan in 1872 received the sanction of the House of Commons, but was rejected in the House of Lords by the casting vote of the chairman of the committee. According to another similar ferry scheme, which was worked out by Admiral Dupuy de

Lôme in 1870, a new maritime station was to be constructed at Calais, so far off the shore that it would command deep water at every state of the tide, and connected with the French railways by a bridge.

After the conclusion of the Franco-Prussian War, negotiations concerning the tunnel were resumed between the French and British governments, and in 1872 the latter intimated that it had "no objection in principle." After some further communications between the two governments in 1874, settling the basis on which the enterprise should be allowed to proceed, a joint commission was appointed to arrange details relating to jurisdiction, the right of blocking the tunnel, &c., and this commission's report was accepted as a basis of agreement between the governments. In 1875 the Channel Tunnel Company obtained an act authorizing it to undertake certain preliminary works at St Margaret's Bay. In the same year the French Submarine Railway Company obtained a concession, with the obligation to spend a minimum of 2,000,000 francs in making investigations; in fact it took over 3000 samples from the bottom of the sea in the strait, and made over 7000 soundings, and also sunk a shaft at Sangatte and started a heading. The English company did not do so much, for it failed to raise the money it required and its powers expired in 1880. Moreover, it was not the only company in the field, and its programme was not universally accepted as the best possible. Some authorities, such as Sir Joseph Prestwich, doubted whether the tunnel should be attempted in the chalk because of the likelihood of fissures being encountered while others who thought the chalk suitable were dissatisfied with the actual plans and formed a rival "Anglo-French Submarine Railway Company." In 1882 another tunnel company made its appearance. In 1874 the South Eastern Railway Company had obtained powers to sink experimental shafts on its property between Dover and Folkestone, and in 1881 to acquire lands, including the beach and foreshore, in that area in connexion with a Channel tunnel. These powers resulted, in 1882, in the formation of the Submarine Continental Railway Company which in that year sought parliamentary sanction for a tunnel, starting from a point west of Dover, at Shakespeare's Cliff; and at the same time the resuscitated Channel Tunnel Company applied for powers to make one from Fanhole, instead of St Margaret's Bay as in its former scheme. The whole question of the tunnel was then widely discussed and considered by various committees, the last of which—a joint select committee of the Lords and Commons—in 1883 expressed the opinion by a majority that it was "inexpedient that parliamentary sanction should be given to a submarine communication between England and France." This decision for the time being disposed of the question of making a tunnel, and though Sir Edward Watkin, one of its most prominent advocates, brought bill after bill before parliament to authorize experimental works in connexion with it, all were rejected. In 1882 the government interfered with the operations then in progress, and they were ultimately discontinued. They included a driftway 7 ft. in diameter which was driven for a distance of about 2300 yds. eastwards under the sea at an inclination of 1 in 72 from the bottom of a shaft sunk to a depth of 164 ft. in the chalk marl at Shakespeare's Cliff.

About this time the Channel Bridge and Railway Company took in hand the design of a bridge, the preliminary plans for which were exhibited in the Paris Exhibition of 1889. The terminal points were Folkestone and Cap Grisnez, and for the sake of facilitating the laying of the pier foundations it was proposed to take the bridge over the Varne and Colbart shoals. The main girders were to be nearly 59 yds. above the sea-level, the railway itself being more than 20 ft. higher still, and the spans were to vary in length between 540 and 108 yds. As the result of a survey of the sea bottom made in 1890, a modification in the line of the bridge was adopted, and it was taken direct from Cap Blancnez to the South Foreland. It was found that in this way an excellent bottom would be obtained for the foundations, and the length of the bridge would be 3 m. less, the number of piers, by employing spans of 434 and 542 yds. alternately, being reduced to 72. The cost of this structure was estimated at £28,320,000, exclusive of interest on capital during the period of construction, which was put at seven years. The same company also worked out plans for a moving chariot or platform, capable of holding a railway train and supported by long legs on a submerged causeway or track constructed of steel or armoured concrete 45 or 50 ft. below low-water level. No attempt has been made actually to carry out either this project or that of a bridge.

In 1905 the question of establishing a train ferry from Dover across the Channel was brought forward by the Intercontinental Railway Company, and in the following year the Channel Ferry (Dover) Act was passed authorizing the work. About the same period the Channel Tunnel Company, which had amalgamated with the Submarine Railway Company, awoke to activity and started a campaign in favour of its scheme; but the bill which it promoted was opposed by the government and accordingly was withdrawn in March 1907.

See *Blue-book, Correspondence respecting the proposed Channel Tunnel*, Commercial No.

6 (1875); *Blue-book, Correspondence with reference to the proposed Construction of a Channel Tunnel*, C. 3358 (1882); *Blue-book, Report from the Joint Select Committee of the House of Lords and House of Commons on the Channel Tunnel* (1883); F. J. Bramwell, "The Making and Working of a Channel Tunnel," *Proc. Roy. Inst.*, May 1882; Tylden Wright, "The Channel Tunnel," *North of England Inst. Min. and Mech. Eng.* vol. 33 (1882); W. Boyd Dawkins, "The Channel Tunnel," *Manchester Geol. Soc.*, May 1882, and *Brit. Assoc. Rep.* (1882, 1899); E. de Rodakowski, *The Channel Ferry* (London, 1905).

(H. M. R.)

1 50° F. = 10° C.; 60.8° F. = 16° C.

ENGLISH FINANCE. The history of the English fiscal system affords the best example known of continuous financial development, in respect both of institutions and methods. Though certain great periods of change can be readily noticed, yet from the time of the Norman Conquest to the beginning of the 20th century the line of connexion is substantially unbroken. Perhaps the most revolutionary changes occurred in the 17th century, as the outcome of the Civil War, and, later on, the revolution of 1688. But even in this case there was no real breach of continuity. It is, therefore, possible to trace the normal growth and expansion of British finance as one of the aspects of the nation's history.

The primitive financial institutions of England centre round the king's household, or, in other words, the royal economy precedes the national one. Revenue dues collected by the king's agents, rents, or rather returns of produce, from land, and special levies for emergencies form the elements of the royal income, which gradually acquired greater regularity and consistency. There is, however, little or no evidence of any effective financial organization until we approach the 11th century. The influence exercised from Normandy, which so powerfully affected the English rulers at this time, tended towards the creation of records of revenue claims and also of a central treasury.

With the union of England and Normandy under the same head the idea of settled administrative methods was definitely fixed and became of special importance in the field of finance. The systematizing spirit, so characteristic of both the Norman and Angevin kings, produced the great institution of the exchequer (*q.v.*) with its judicial and administrative sides, and its elaborate forms of account and control. Even before this organization was developed the Domesday Survey (see [DOMESDAY BOOK](#))—now recognized as having a purely fiscal object (in Maitland's words "a tax book, a geld book")—shows the movement towards careful observation of the sources of revenue. It is clear that William I. initiated a policy which was followed by his successors, in spite of the serious difficulties of the period of anarchy during Stephen's nominal reign. The obscure question as to the real origin of the special contrivances employed by the exchequer is, strictly speaking, irrelevant to the financial inquirer, who may be content to hold that, granting the existence of some Old English analogies, the system, as it appears in the 12th century, was a peculiar product of the conceptions as to fiscal organization formed by Norman subtlety. It is the manner in which this institution held together and focused the revenues and expenditure of the kingdom that has to be considered. The picture presented by the "Dialogue of the Exchequer" (c. 1176) is that of a comprehensive system which secured the receipt of the royal income, and provided a thorough audit of the accounts by employing processes adapted to the circumstances of the time. It is, in fact, through the description of financial institutions that it is possible to ascertain the forms of revenue possessed by the crown. The ingenuity expended on the administrative machinery of the exchequer had as its aim the increase of the king's resources, an object in which the official class of churchmen and lawyers was deeply interested.

In order to understand the character of English finance in the middle ages it is absolutely essential to bear constantly in mind the identification of the king with the state. Though feudalism (*q.v.*) was, in one of its aspects, a powerful instrument for division of political authority, it, nevertheless, in the particular form in which the Conqueror introduced it into England, enabled the fiscal rights of the crown to be established in a more definite shape than was possible under the older condition. For, in the first place, the actual property of the crown was more carefully administered as each royal manor came under the system of accounting. Again, the various claims or dues of the king took more decidedly the feudal

type and received stricter legal definition. Further, the higher judicial organization assisted the expansion of court fees; while, above all, the increased authority of the state made the casual receipts (for such they were) from trade more profitable.

In a broad view the sources of revenue fall under the following heads:—(1) The royal estates which were distributed over England, derived in part from the possessions of the old English kings, but increased by the confiscations that followed the events of the Conqueror's reign, as well as by the doctrine that unowned land was the king's (*terra regis*). Over fourteen hundred manors appear in Domesday as royal property. The forests, placed under special laws, yielded little revenue, except in the form of penalties on offenders. The rural tenants, who at first paid their rents in produce, gradually commuted them into money payments. As the royal demesne was favourable for the growth of towns the rents derived from urban tenants became a valuable part of the yield from the demesne; this, later, took the shape of a payment from the town as a unit (the *firma burgi*), a method which secured to the burghers freedom from the exactions of the sheriff and which was purchased by special payments. (2) The feudal rights. These included the claim to military service; the three regular aids and the payments of relief at succession to a fief, as also the profits on wardships and marriages. Escheats and forfeitures completed the list. The yield from this source varied with the power of the king and was kept within bounds by the resistance of the tenants as shown in the provisions of Magna Carta. (3) The administration of justice was a lucrative prerogative of the crown. Suitors had to pay for securing the hearing of their cases in addition to the fees for writs, and both amercements and compositions increased the receipts under this head. (4) Two special classes contributed to the royal exchequer. As a great deal of the wealth of the country was in the hands of the church the opportunities afforded by the vacancies of sees, abbasies and priories were utilized for the purpose of securing the profits of these offices during the time in which there was no occupant; and this term was frequently prolonged by the king's action or inaction. The Jews, until their expulsion, were an even more profitable class to the revenue. Being under the absolute control of the crown, they could be taxed at pleasure, either by taking a percentage of their property (*e.g.* in one case, one-fourth), or by levies for alleged offences. The existence of a separate exchequer for the Jews is an indication of their fiscal value. (5) Direct taxation formed an extraordinary or occasional head of revenue. The Danegeld was succeeded by the carucage, and the commutation of military service introduced the scutage, but these forms were of little immediate importance, though very significant for the future course of development. (6) Lastly come the dues claimed at the ports, which contain in germ the customs system of later times, though they rather resemble the harbour charges of modern ports and were very trivial in amount.

The history of the English financial system consists largely in the exhibition of the different fortunes of these several component parts of the exchequer receipts; for it must be remembered that the sheriff was bound to account to that tribunal for all that he should have received, and by this agency the local contributions passed into the king's possession for the service of the state, During the century and a half that lay between the Conquest and the granting of the Great Charter the account given above holds good. The character of the ruler affected the vigour of the fiscal, as well as the general, administration. Henry I. and Henry II. secured much better results than Stephen or John; but the collection of the rent and profits of the royal manors and the feudal and other dues continued as the mainstay of revenue. Indications of change are, however, to be found. Thus the substitution of the "carucage" or plough tax for the "Danegeld" marks an advance towards direct taxation of land through its produce, and the introduction of "scutage" is not only further evidence of the same tendency, but also a step in the development of "money economy" in place of the earlier "natural economy" or system of payments in kind. The special levies or "tallages" imposed at times of need on the towns in the king's demesne appear to have been a doubtful exercise of the royal prerogative, but scientifically they belong to the same class as the Danegeld and scutage. Perhaps the most important advance made in this period is the beginning of taxation of movables, first applied in the Saladin tithe of 1189 and, later, expanded into a general system.

In the reign of John (1199-1216) the loss of Normandy and the concession of the barons' demands by the issue of Magna Carta rendered financial readjustments inevitable. During the long reign of Henry III. the struggle to maintain the privileges granted by the Charter acted on the fiscal system by checking the arbitrary use of tallages, and as a consequence, encouraging the regular assessment of the tax on movables, which was becoming more prominent. The fruitful idea that it was necessary to obtain the consent of the payers of taxes before the imposition operated powerfully in favour of the establishment of bodies representing the several estates. It is through the reaction of constitutional on fiscal

development that the transition from feudal to parliamentary taxation in its earlier form is made.

Almost at the opening of the age of parliamentary taxation one of the older sources of revenue ceased. The pressure of popular opinion forced Edward I. to decree the expulsion of the Jews (1290), though he naturally desired to retain such profitable subjects. It is, indeed, probable that, owing to the exactions practised on them, the Jewish usurers had become less serviceable to the exchequer; while it is certain that the general resources of the kingdom had so increased as to make their contribution relatively much smaller. The first effects of the representative influence in the fiscal domain are the abandonment of the tallages on towns and the decline of scutage as a mode of levy. The tax on movables was framed in a more systematic way. Instead of distinct charges on different classes, or variations in proportion of levy from one-fourth to one-fortieth, the policy of imposing a tax of one-tenth on the towns and one-fifteenth on the counties was adopted. Greater strictness in assessment was sought by the appointment of commissioners for each county, supplied with special instructions as to taxable goods and exemptions. This method continued in force for the tax on movables from 1290 till 1334, though in some cases the proportions imposed on the towns and counties were varied (*e.g.* an eighth and a fifth were granted in 1297, and a tenth and a sixth in 1322). A more general influence was the growing national economy which led to greater activity on the part of the king as administrator, and which also increased the need of the state for revenue. Though the doctrine that "The king should live of his own" was generally accepted as a constitutional maxim, the force of events was making it obsolete. From being an infrequent and uncertain kind of taxation the direct tax on movables, which was practically absorbing the older forms, became usual and regular. Under medieval conditions the collection of a general property tax (for such, in fact, was the nature of "the tenth and fifteenth") presented serious difficulties. Each locality gained by keeping its assessment down to the lowest point, while the borough authorities were naturally not eager to enforce the charge on their fellow-citizens. England in the 14th century was not ripe for a system that has been found hard to make effective in more advanced societies. Hence, from 1334 onward, the method of "apportionment" was employed, *i.e.* the tenth and fifteenth was taken as affording a definite sum measured by the yield on the ancient valuation. As this gave, in the aggregate, between £38,000 and £39,000, "the tenth and fifteenth" became for the future "practically a fiscal expression for a sum of about £39,000"; the total to be divided or "apportioned" between the several counties, cities and boroughs according to their former payments. This settlement, which remained in force for centuries and affected all the later direct taxes, had the great advantages of certainty and adaptability. The inhabitants of any particular town knew their total liability and could distribute it amongst themselves in the manner most convenient to them. From the royal standpoint also the arrangement was satisfactory, for the "tenth and fifteenth" could be multiplied (*e.g.* in 1352 three "tenths and fifteenths" were voted for three years), and supplied a stable revenue for the service of the kingdom. To the parliament the power of regulating the policy of the crown by the bestowal or refusal of grants was naturally agreeable. Thus, all sections of the nation united in support of the system established in 1334, just before the opening of the Hundred Years' War, in connexion with which it was particularly serviceable.

Akin to the tax that has just been described, at least in its nature as a direct impost, is the poll or capitation tax. Financial pressure at the close of Edward III.'s reign (1377) led to the adoption of a tax of fourpence per head on all persons in the kingdom (mendicants and persons under fourteen years being excepted). This "tallage of groats," which seems to be derived by analogy from the hearth money for Peter's pence, was followed by the graduated poll taxes of 1379 and 1380. In the former the scale ranged from ten marks (£6:13:4) imposed on the royal dukes and the viscounts, through six marks on earls, bishops and abbots, and three on barons, down to the groat or fourpence payable by all persons over sixteen years of age. Such a form of taxation approximated—as Adam Smith saw—to an income tax, but it proved to be unproductive, only half of the estimated yield of £50,000 being obtained. The tax of 1380 varied within narrower limits; from twenty shillings to fourpence (or sixty groats to three), with the proviso that "the strong should aid the weak." But this particular tax is chiefly memorable as the occasion—whatever may have been the real causes—of the great "Peasants' Revolt" of 1381. This unlucky association sealed the fate of the poll tax as a fiscal expedient. It was abandoned, with one exception, for nearly three hundred years; and its occasional employment in the 17th century did not result in its permanent revival. Apart from special circumstances it is plain that the "tenth and fifteenth" was better suited than the poll tax for the purpose of English finance. The machinery for collection was ready to hand for the former, while special agents had to gather the latter,

even from the poorest classes. In fact, the episode of the poll taxes may be regarded as an attempt—fortunately unsuccessful—to relieve the propertied classes at the expense of the peasants and poorer burghers. Failure in this respect helped in the maintenance of the settlement of direct taxation devised in 1334.

Parallel with the evolution of direct taxation, but decidedly lagging behind, is the progress of indirect taxation. As already mentioned, the right of levying dues on goods entering or leaving English ports belonged from very early times to the king. Whether this power was, in its origin, due to the protection afforded to traders and thus a kind of insurance, or the result of the royal prerogative of pre-emption is immaterial for finance. What is established is that the “*prisage*” of wine or levy of one cask in ten, and the taking of one-tenth or one-fifteenth of other commodities was in force. Attempts to impose additional dues were forbidden by an important article (41) of the Great Charter which recognized “the ancient and just customs.” One of the earliest effects of parliamentary influence is manifested in the establishment of duties on wool, woolfells and leather by Edward I.’s first parliament. After some efforts by the king to gather increased duties, the “Confirmation of the Charters” (1297) forbade any increases on the amounts fixed in 1275, which were henceforth known as the ancient customs. Another attempt was made to obtain a higher scale of duties by arrangement with the merchants. The foreign traders consented to the royal proposals, which comprised duties on wine, wool, hides and wax, as well as a general tax of 1¼% on all imports and exports. Thus, in addition to the old customs of half a mark (6s. 8d.) per sack of wool and on each three hundred woolfells, and one mark (13s. 4d.) per last or load of leather, the foreign merchants paid an extra duty (or surtax) of 50% and also 2s. on the tun of wine—the so-called “*butlerage*.” The privileges granted in the *Carta Mercatoria* (1303) were probably the consideration for accepting these enhanced dues. The English merchants, however, for the time, successfully resisted the application in their case of the higher charges, and consequently remained under the old *prisage* of wine. In spite of parliamentary opposition, on the ground that they amounted to an infringement of the Great Charter, the new customs were maintained in force. After being suspended in 1311 they were revived in 1322, confirmed by royal authority in 1328, and finally sanctioned by parliament in the Statute of the Staple (1353). They became a part of the permanent crown revenue from the ports, and, with the old customs, were the basis for further development.

Just as the old direct taxes were first supplemented by, and then absorbed in, the general taxation of movables, so the customs, in the strict sense, were followed by the subsidies or parliamentary grants. One great source of English wealth in the 14th century was the export of the peculiarly fine wool of the country, and the political circumstances of Edward III.’s time suggested the manipulation of the trade in this commodity for purposes of policy as well as revenue. Sometimes, in order to influence the towns of Flanders, the export of wool was absolutely prohibited; at others, export duties of varying amounts were imposed on wool, skins and leather. In the early years of the reign these arrangements were settled by agreement with the merchants. The subsidies of this class began in 1340 and henceforward were frequently granted, though complaints were very often made. Thus, in 1348 the Commons objected to the subsidy of an export duty of £2 per sack on wool on the ground that it was really a tax on the landowners, who received a lower price for their wool in consequence of the duty. Bargains between the king and the merchants were forbidden, and this species of taxation was brought under parliamentary control by statutes passed in 1362 and 1371. Along with the special duties on wool there was an increase of the imposts on wine and general goods. By agreement with the merchants a charge of 2s. per tun on wine and 2½% on goods was levied in 1347. Between 1371 and 1376 these dues were established as parliamentary grants under the names of “*Tunnage*” and “*Poundage*,” leaving the older dues intact.

One class or “*estate*” occupied a peculiar position. The clergy still claimed the privilege of self-taxation, and therefore it was convocation, not parliament, that voted the tenths imposed on clerical property. In some instances much heavier charges (*e.g.* in 1296 one-third) were decreed by the king, but the taxation of the clergy declined in productiveness during the 14th century. By the close of the reign of Richard II. the results of the transition from feudalism to a parliamentary constitution were practically complete. In respect to finance the most important of these were: (1) The disappearance or reduction to unimportance of the feudal dues. The fact that this change occurred at, relatively speaking, so early a date is of special significance for English development. (2) The royal demesne, though it had not suffered the losses that the grants of later times inflicted on it, had also lost some of its value as a source of revenue. (3) In compensation the direct taxation of property had become a ready means of supplying the growing requirements of the administration, and the mode of levy had been reduced to a well-recognized form,

unsatisfactory experiments—such as the poll tax—being withdrawn. (4) The growth of import and export duties through the “old” and “new” customs and the subsidies furnished a large part of the requisite funds. In fact, in the course of a little over three hundred years the constituent parts of the public income had, without any violent change, been completely altered in relative value and in organization.

The period of the Lancastrian kings, extending over two-thirds of the 15th century (1399-1471), is noticeable for various experiments in the system of direct taxation. The standard tax—“the tenth and fifteenth”—failed to suit the changed conditions. In consequence of the decay of some of the towns allowances had to be made to them, amounting to over 15% (£6000), which, with other deductions, lowered the yield from a “tenth and fifteenth” to £31,000. As a supplement a land tax, affecting only the large owners, was voted at the rate of 5% in 1404, and repeated with wider scope, but at the lower rate of $1\frac{2}{3}\%$, in 1411. A house tax made its appearance in 1428. Taxes on knight’s fees and other freeholds were also tried, while in 1435 and 1450 the graduated income tax was employed. The minimum rate, $2\frac{1}{2}\%$, applied to incomes under £100 (or under £20 in the tax of 1450), and rose to 10% on the higher incomes. These devices are evidence of the demand for larger revenue, and also of the increasing unfitness of the existing direct taxation. It may be added that they indicate a disposition to adopt foreign models, particularly the methods of taxation in use in France and Italy. As to indirect taxation the receipts seem at first to have declined, and the subsidies were only granted for fixed terms (the victory of Agincourt gained a life grant to Henry V.). After the establishment of Edward IV. on the throne, the idea of a “tenth,” in the literal sense, was taken up and voted (1472) by the two houses as a special military provision; but it failed to bring in the required revenue, and the king had to fall back on grants of the old-established form. Extra taxes on aliens were levied under both Lancastrian and Yorkist rulers with little profit. The most original contribution of Edward IV. to fiscal policy was the “benevolence” (*q.v.*) or payment by wealthy subjects of sums requested by the king. Voluntary in form, these payments were, in fact, compulsory, and became in later times one of the great grievances against which parliament had to struggle.

Broader issues in finance marked the course of the Tudor period, and these were connected with the general history of the time. The era of national monarchies had arrived, necessitating the maintenance of greater military and naval forces, as well as more costly machinery of administration. External policy was affected by the set of ideas that developed into mercantilism (see [MERCANTILE SYSTEM](#)); but so also was fiscal policy. Finance reflected the actions of the personal rule that was the characteristic of the 16th century. Within the period, however, some decided contrasts are to be found. Prudence, carried to parsimony with Henry VII., is followed by lavish prodigality in the case of Henry VIII. Elizabeth, again, presents in her reign a very different financial policy from that of either her father or her grandfather. The desire for a vigorous foreign policy, the hope of encouraging native industry, and the sentiment of retaliation against the trade regulations of other countries are found to interfere with the aim—strictly followed in earlier times—of obtaining the largest possible yield. All the different parts of the public economy were regarded as existing only in order to be utilized for the furtherance of national power. It is this more complex character in policy, coupled with the new influences, that the discovery of America, the Renaissance and the Reformation brought into operation, which gives special interest to the financial problems of the 16th century.

Taking in order the great heads of public income placed at the disposal of the sovereign, it appears that the first head of the old receipts—the crown lands—had been from time to time diminished by grants to the king’s relatives and favourites, but had also gained through resumptions and forfeitures. On the whole, the loss and gain down to the close of the 14th century was probably balanced. The revenue was, however, inelastic, and declined in relative importance. It has been said that “it was in the 15th century that the great impoverishment of the crown estate began.” The Lancastrian kings (especially Henry VI.) lost most of the lands attached to the crown through pressure of expenditure and the wholesale plunder of officials. Though the civil wars of the 15th century brought in many forfeited estates the grants of Edward IV. kept down the increase. But the chief opportunity for aggrandizement was afforded by the dissolution of the monasteries and guilds under Henry VIII. The great mass of property that passed into the royal possession in this way was in part assigned to nobles and officials, while most of the remainder was distributed in the reigns of his children. The dwindling importance of the public revenue from land and rent charges is as noticeable under the Tudors as in earlier times. In like manner the feudal dues had fallen into a very subordinate place notwithstanding the attempts made on particular occasions to enforce them with greater rigour. The force of personal monarchy exercised by the Tudors, depending as it did on popular support, tended to encourage the collection of

dues which had a legal ground in preference to taxation of the community. Of similar character was the employment of the old right of purveyance (*q.v.*), in restraint of which a series of statutes had been passed.

Whatever possibilities of obtaining some additional revenue from the crown lands or prerogative rights may have existed in the 16th century, and these were slight, all the political and social conditions tended more and more to make the need of taxation as the principal financial resource imperative. Amongst the cases of increased calls for funds to maintain the machinery of state, the rise of prices, due to increased supplies of the precious metals, must be included as one of the chief, and its effect extends into the 17th century. It was under this influence that the old forms of revenue became less profitable and that fresh developments were necessitated.

Direct taxation still retained in one of its branches the pattern set in the reign of Edward III. "Tenths and fifteenths" continued to be voted, and for some time all attempts to introduce new methods failed. In 1488 a military grant framed on the model of the abortive tax of 1472 yielded only a little over one-third of the estimate (£27,000 out of £75,000), and the unsatisfactory result prevented further experiments on the part of Henry VII. The foreign policy of Henry VIII.—particularly his French expedition—with its attendant outlay, accounts for the graduated capitation tax of 1513, which was even less in accordance with anticipation than the tax of 1488 (it yielded only £50,000 instead of £160,000). But these failures cleared the way for a more effective form of direct impost, which appeared in the "subsidy" or general tax on land and goods. The first case of this tax (1514) was a modest one-2½%; it, however, soon took on a typical form, so that the subsidy came to mean a charge of 4s. in the pound on land and 2s. 8d. in the pound on goods, a scale evidently devised with reference to the older tenth and fifteenth, which was henceforth put in a subordinate position. The subsidy became the established mode of grant under both Tudors and Stuarts, though by degrees it underwent a change similar to that experienced by its predecessor. The taxing statutes made elaborate provisions for the assessment and collection of the tax in order to secure a full return. Old habits proved too strong and the subsidy "slipped into the same kind of groove as that of the fifteenth and tenth, and became, in practice, a grant of a sum of money of about the same amount as the yield of the last preceding subsidy" (Dowell). The consequence was that each subsidy came, in the middle of the 16th century, to be a sum of £100,000, and at its close only £80,000. The parallel vote of the clergy in convocation (which after 1533 had to be confirmed in parliament) amounted to £20,000. The usual parliamentary proceeding was to vote so many "tenths and fifteenths" and so many subsidies, *e.g.* Elizabeth's first parliament voted her "two fifteenths and tenths and a subsidy," or, taking the usual values, £160,000. At times of crisis such as the arrival of the Armada the votes were enlarged by granting more tenths and fifteenths and subsidies. The history of the subsidy is instructive as to the tendencies of direct taxation in all countries. The assessment becomes inelastic and approximates to a fixed sum. As the subsidy follows the course of the later medieval taxation, so it is the undesigned model of the later land and property tax.

In the history of the port duties under the Tudors the first point for notice is the life grant to each of the sovereigns of the subsidies on wool, hides and leather, together with tunnage at 3s. and poundage at 5%; thus, with the hereditary customs, supplying a considerable revenue for the crown's use. No better indication of the increased power and popularity of the monarchy could be found. The contrast with the suspicious and grudging attitude of the Plantagenet and Lancastrian parliaments is significant of the change in national sentiment. A duty on malmsey (1490) had a retaliatory rather than a fiscal aim, being directed against the Venetians who had imposed restrictions on English trade. In several later cases wine became liable to extra duties, chiefly applied to French trade in further pursuance of the policy of retaliation. Restrictions on import and export as well as the hostile measures against foreign merchants were matters of economic policy rather than finance, but they had the indirect effect of increasing the control exercised at the ports. The loss of Calais (1558) dislocated the system of the staple and cut off one centre of customs revenue; and it was also probably the cause of an important change in the mode of valuing goods for duty. For the declaration on oath of the merchant a fixed valuation was substituted and set forth in a book of rates, the first of its class (1558). Following this reform came more stringent regulations against smuggling and fraud on the part of officials. All through the Tudor period the cost of collection was unduly high. For the first six years of Elizabeth it has been estimated at one-sixth of the gross receipts.

Just as in the 14th century the subsidy had followed the "old" and "new" customs, so in the 16th the "impositions" levied by royal prerogative formed a supplement to the parliamentary

subsidy; but the principal employment of this expedient occurs in the next century. Another significant indication of the future course of indirect taxation was furnished by the grants of monopolies to inventors, producers and traders. These privileges, when they affected important commodities, operated in the same way as taxes farmed out to collectors, and, though the profit to the crown was small, they enhanced prices and excited discontent. The wisdom of Elizabeth (or her ministers) was shown in the promise of redress after the hostile debate of 1601.

From one point of view it may fairly be said that the great struggle of the Stuart kings with the parliament centred round financial issues. It is, at all events, beyond dispute that questions of taxation were the chosen ground of conflict. Taking the period from the accession of James I. to the opening of the Civil War (1603-42) it appears that the legal basis of indirect taxation was tested for the port duties in the "Great Case of Impositions" (known as Bates' case, see [BATES, JOHN](#)), while that of direct taxation was considered in the even more famous "Ship Money" case (for ever associated with the name of Hampden). In parliament the debates deal with impositions, monopolies, the grounds for voting subsidies, and the proper application of the funds granted; in fact, with nearly all the financial questions of the time. Notwithstanding these difficulties and disputes the financial system shows evident signs of expansion and adaptation to the needs of the state.

The direct grants of the parliaments of James I. far exceeded those of earlier periods (in 1606 six "fifteenths and tenths," three lay and four clerical subsidies), but the efforts to extend the other sources of revenue by the exercise of the prerogative naturally reacted on this spirit of liberality. The last "fifteenth and tenth" was voted in 1624, from which date this old-established form disappears, and the subsidy alone is used. In spite of Charles I.'s high-handed policy five subsidies were voted after the Petition of Right had been accepted, and even the Long Parliament made similar grants. Almost at the outbreak of the Civil War it also gave the king a graduated capitation tax. Other modes of direct taxation were used without parliamentary sanction. The collection of the antiquated feudal dues was enforced through the special courts (particularly the Star Chamber) with a rigour long unknown; James had tried the French device of a "tariff of honors." Both kings employed the "benevolence" until the Petition of Right made such a levy illegal. But by far the most serious innovation was the collection of the "ship money," a course forced on Charles by his determination not to meet the representatives of the nation. The writs "embodied the ultimate expression of the ingenuity of the king's advisers in the invention of means to enable him to rule without a parliament." The first writs secured over £100,000, and were followed by five further issues (1634-1639) bringing in an average return of £200,000 or about three lay subsidies. Like the "benevolence," the ship money was declared to be illegal (1641).

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The contest respecting monopolies, settled by Elizabeth's withdrawal, was revived under James I., and had to be finally closed by the Statute of Monopolies (1624), declaring such grants to be utterly void. Certain exceptions (as in the case of the soap-boilers) permitted the raising of revenue by what was in fact a rudimentary excise, and plans for a general excise were discussed, especially as a substitute for the feudal dues, though they were not reduced to practice. In the earlier 17th century the customs show a steady increase. From £127,000 in 1604 they rose to nearly £500,000 in 1641. This fourfold increase was due in part to the growth of English trade, but it was also influenced by the adoption of new "Books of rates" in 1608 and 1635, fixing higher valuations, and by the inclusion of new commodities with definite duties. Wine, currants (the subject of controversy in Bates' case) and tobacco are particularly noticeable. Sugar also appears as a contributory. An interesting development was the adoption on a larger scale of the "farming" system, an evident imitation from France. A distinction was made between the "great," the "petty" and the "sugar" farms, and opportunities for gain were afforded to the officials. On the constitutional side the life grant of subsidies, made in accordance with Tudor usage to James, was temporarily withheld from Charles, a restriction which his own overbearing policy led the parliament to maintain. Practically, the whole customs revenue between 1628 and 1640 was raised by the use of the prerogative without any parliamentary sanction. The Tunnage and Poundage Act of 1641 pronounced definitely against the legality of any extra parliamentary customs and thus closed another of the constitutional problems of finance.

In the progress from the Conquest to the crisis of the Great Rebellion there is noticeable a practically complete shifting of the classes of revenue. The king had ceased "to live of his own"; the royal demesne and the prerogative rights included in feudalism had become very subordinate. The direct taxation of property and income, and the indirect taxation on imported or exported commodities became the principal forms of receipt.

In the long course of English financial history the nearest approach to the new departure and an abandonment of old devices is found at the time of the Civil War and Commonwealth. The actual outlines of the now existing system made their appearances, while the older portions of the revenue—particularly the survivals of feudalism—are eliminated. Thus the Civil War and the Interregnum (1642-60) may be regarded as marking a watershed in the financial history of the country. At the beginning of the struggle both sides had to rely on voluntary contributions. Plate and ornaments were melted down and useful commodities were furnished by the adherents of the king and by those of the parliament. As holding possession of London and the central organization the parliament voted subsidies and a poll tax. Such imports could hardly be levied with success and new forms became necessary. The direct taxation took the shape of a "monthly assessment" which was fixed from time to time, and which was collected under strict regulations, in marked contrast to the lax management of the former subsidies. As the amount for each district was fixed, the systematic collection secured "the more equitable adjustment of the burden of the tax as regards the various taxpayers" without hardship to the community. In spite of its origin, the "assessment" was the model for later taxation of property. The yield of this tax—exceeding for the whole period £32,000,000—is a proof of its importance. Minor contrivances, *e.g.* the "weekly meal" tax, indicate the financial difficulties of the parliament, but are otherwise unimportant. Owing to its control of the sea and the principal ports the parliament was able to command the customs revenue; and in this case also it remodelled the duties, abolishing the wool subsidy and readjusting the general customs by a new book of rates. A more extensive tariff was adopted in 1656, and various restrictions in harmony with the mercantilist ideas of the time were enforced. Thus French wines, silk and wool were excluded from 1649 to 1656. Far more revolutionary in its effects was the introduction of the excise or inland duties on goods—a step which Elizabeth, James I. and Charles I. had hesitated to take. Beginning (1643) with duties on ale, beer and spirits, it was soon extended to meat, salt and various textiles. Meat and domestic salt were relieved in 1647, and the taxation became definitely established under the administration of commissioners appointed for the purpose. Powers to let out the collection to farmers were granted, and a bid for both excise and customs amounted in 1657 to £1,100,000. Confiscations of church lands and those belonging to royalists, feudal charges and special collections helped to make up the total of £83,000,000 raised during the nineteen years of this revolutionary period. Another mark of change was the removal of the exchequer to Oxford, leaving, however, the real fiscal machinery at the disposal of the committees that directed the affairs of the parliament. Under Cromwell the exchequer was re-established (1654) in a form suited for the changes in the finances, the office of treasurer being placed in the hands of commissioners.

A complete reconstruction of the revenue system became necessary at the Restoration. The feudal tenures and dues, with the prerogative rights of purveyance and pre-emption, which had been abolished by order of the parliament, could not be restored. Their removal was confirmed, and the new revenues that had been developed were resorted to as a substitute. Careful inquiry showed that just before the Civil War the king's annual revenue had reached nearly £900,000. The needs of the restored monarchy were estimated at £1,200,000 per annum, and the loyal spirit of the commons provided sources of revenue deemed sufficient for this amount. An hereditary excise on beer and ale was voted as a compensation for the loss of the feudal dues, and temporary excises on spirits, vinegar, coffee, chocolate and tea were added. All differences of "old" and "new" customs and subsidies had disappeared under the Commonwealth. The general or "great statute" (1660) provided a scale of duties—5% on imports and exports, with special duties on wines and woollen cloths—accompanied by a new book of rates. A house tax, levied after the French pattern, on each hearth, was introduced in 1662 and became established. Poll taxes were used as an extraordinary resource, as were the last subsidies, voted in 1663, and then for ever abandoned. Licences on retailers and fees on law proceedings were further aids to the revenue, which, in the later years of Charles II. and in the short reign of his successor, was with difficulty kept up to the level of the increasing expenditure. The Commonwealth assessments were revived on several occasions, and indirect taxation was made more rigorous by the imposition of extra duties on brandy, tobacco and sugar, as also on French linens and silks. A very important development was the placing of the customs (1670) and the excise (1683) in the hands of special commissioners, instead of the system of farming them out to private collectors. The approach to modern conditions is further evidenced by the greater care in the administration. Amongst expert officials Dudley North (*q.v.*), as commissioner of customs, was the most distinguished. In this period, too, the beginning of the public debt as in the appropriation of the bankers' deposits may be found.

The Revolution of 1688 may be regarded both on its constitutional and financial sides as

the completion of the work of the Long Parliament. In the latter respect its chief effects were: (1) the transfer of the administration of the finances from the king's nominees to officials under parliamentary control, (2) the consequent application of the revenue to the purposes designated by parliamentary appropriation, (3) the rapid expansion of the various kinds of revenue, particularly the indirect taxes, (4) the rise and growth of the national debt, combined with the creation of an effective banking system. The greater part of the 18th century was occupied with the working out of these results.

The government of William III. had to face the expenses of a great war and to allay discontent at home. As a preliminary step to the necessary settlement of the revenue a return was prepared, showing the tax receipts at over £1,800,000 and the peace expenditure at about £1,100,000. Parliament accepted the view that £1,200,000 per annum would suffice for the ordinary requirements of the kingdom. It, further, introduced the system of the Civil List (*q.v.*) and assigned £600,000 for the fixed payments placed under that head, leaving the remainder to be appropriated for the other needs of the state. As the "hearth money" had proved to be a very unpopular charge, it was, in spite of its yield (£170,000), given up. The temporary excise duties were voted for "their majesties' lives" and the customs for a limited term. These branches of revenue were altogether insufficient to meet the pressure of the war outlay, and in consequence new heads of taxation—or old ones revived—came into use. A series of poll and capitation taxes were imposed between 1689 and 1698, but were after that date abandoned for the same reason as that for the repeal of the hearth money. The monthly assessment was tried in 1688; then came an income tax followed by "twelve months" assessments in 1690 and 1691. The way was thus prepared for the property tax of 1692, imposing a rate of 4s. in the pound on real estate, offices and personal property. The old difficulties of securing returns made the tax chiefly one on land. It was under the name of "the land tax" that it was generally known. The 4s. rate brought in £1,922,712, a return which declined in the following years. To meet this a fixed quota of nearly half a million (a 1s. rate) was adopted in 1697, the amount to be apportioned in specified sums to the several counties and towns. The framework of the tax remained without substantial change till 1798, the time of Pitt's redemption scheme. In 1696 houses were taxed 2s. each, with higher rates for extra windows. The beginning of the "window tax," licences on pedlars, and a temporary tax on the stocks of companies complete the imposts of this kind. Stamp duties—imitated from Holland—were adopted in 1694 and extended in 1698: they mark the beginnings of the modern duties on transactions and the "death duties." Large additions were made to the excise. Breweries and distilleries were placed under charge, and such important commodities as salt, coal, malt, leather and glass were included in the list of taxable articles, but the two last mentioned were soon relieved for the time. The customs rates were also increased. In 1698 the general 5% duty was raised by the new subsidy to 10%. French goods became liable to surtaxes, first of 25%, afterwards of 50%; those of other countries had to pay similar charges of smaller amount. Spirits, wines, tea and coffee were taxed at special rates. How great was the expansion of the fiscal system may be best realized from the fact that during the comparatively short reign of William III. (1689-1702) the land tax produced £19,200,000, the customs £13,296,000, and the excise £13,650,000, or altogether £46,000,000. In the last year of the reign, the opening one of the 18th century, the returns from these taxes respectively were: land tax (at 2s.), £990,000, customs £1,540,000, excise £986,000, or a total exceeding three and a half millions. The removal of the regular export duties in respect of (a) domestic woollen manufactures, (b) corn, was the only alleviation of taxation, and in both cases it was due to special reasons of policy.

Quite as remarkable as the growth of revenue is the sudden appearance of the use of public loans. In earlier periods a ruler had accumulated treasure (Henry VII. left £1,800,000) or had pledged "his jewels or the customs or occasionally the persons of his friends for the payment" of his borrowings. Edward III.'s dealings with the Florentine bankers are well known; but it was only after the Revolution that the two conditions essential for a permanent public debt were realized, viz.: (1) the responsibility of the government to the people, and (2) an effective market for floating capital. At the close of the war in 1697 a debt of £21,500,000 had been incurred, over £16,000,000 of which remained due at William III.'s death. Connected with the public debt is the foundation of the Bank of England (see [BANKS AND BANKING](#)), which more and more became the agent for dealing with the state revenue and expenditure; though the exchequer continued to exist until 1834 as a real, even if antiquated institution.

Thus it is clear that by the end of the 17th century the new influences which date from the Civil War had brought into being all the elements of the modern financial system. Expenditure, revenue, borrowing to meet deficiencies are all, in a sense, developed into their present-day form. Increase in amount and some refinements in procedure, combined

with improved views of public policy, are the only changes that occur later on.

Regarded broadly, the 18th and 19th centuries exhibit several distinct periods with definite financial aspects. In the ninety years from the death of William III. (1702) to the outbreak of the Revolutionary War with France (1793) there are four serious wars, covering nearly thirty-five years. There is the long peace administration of Walpole, and there are the shorter intervals of rest following each of the contests. From the beginning of the war with the French Republic to the year of Waterloo there is a nearly unbroken war time of over twenty years. The forty years' peace is closed by the Crimean War (1854-56); and another forty years of peace ends with the South African War (1899-1902). During this time the older mercantilism passes into protectionism; and this, again, gives way before the gradual adoption of the free trade policy. At each time of war, taxation (particularly in the indirect form) and debt increase. Financial reform is connected with the maintenance of peace. Among the great financial ministers Walpole, the younger Pitt, Peel and Gladstone are conspicuous; while Huskisson's services in the kindred field of economic policy deserve special notice in their financial bearing.

By taking the several great heads of revenue in order it is comparatively easy to understand the nature of the progress made in subsequent years. (1) The land tax, established on a definite basis in 1692, was the great 18th century form of direct taxation. Varying in rate from 1s. (as in 1731) to 4s. (as in most war years), it was converted by Pitt in 1798 into a redeemable charge on the lands of each parish, and by this process has sunk from the amount of £1,911,000 in 1798 to £730,000 in 1907-1908. The great increase in other heads had impaired the value of the land tax as a fiscal support. (2) Parallel with the movement of the land tax but showing much more rapid growth was the excise of the 18th century. Most of the articles of common consumption were permanently taxed. Soap, salt, candles and leather are described by Adam Smith as taxed, and that taxation is unreservedly condemned by him. In 1739 the excise duties brought in £3,000,000. By 1792 they had risen to £10,000,000. Their continued expansion was due both to the wider area covered and to the increased consuming power of the country. (3) The customs were equally serviceable, and in their case the increased duties were even more considerable. The general 10% of 1698 became 15% in 1704, a fourth 5% was imposed in 1748, and in 1759 the general duties were raised to 25%. Coincidentally with this general extension of the customs duties special articles such as tea were subjected to increased duties. The American War of Independence brought about a further general increase of 10%, together with special extra duties on tobacco and sugar. In 1784 the customs revenue came to over £3,000,000. Two circumstances account for this slower growth. (1) The extreme rigour of the duties and prohibitions, aimed chiefly against French trade; and (2) the absence of care in estimating the point of maximum productiveness for each duty. Swift's famous saying that "in the arithmetic of the customs two and two sometimes, made only one" is well exemplified in England at this time. The smuggler did a great deal of the foreign trade of the country. Efforts at reform were not, however, altogether wanting. Walpole succeeded in carrying several useful adjustments. He abolished the general duties on exports and also several of those on imported raw materials such as silk, beaver, indigo and colonial timber. His most ambitious scheme—that for the warehousing of wine and tobacco in order to relieve exporters—failed, in consequence of the popular belief that it was the forerunner of a general excise. Walpole's treatment of the land tax, which he kept down to the lowest figure (1s.), and his earlier funding plan deserve notice. His determination to preserve peace assisted his fiscal reforms. Pitt's administration from 1783 to 1792 marks another great period of improvement. The consolidation of the customs laws (1787), the reduction of the tea duty to nearly one-tenth of its former amount, the conclusion of a liberal commercial treaty with France, and the attempted trade arrangement with Ireland, tend to show that "Pitt would have anticipated many of the free trade measures of later years if it had been his lot to enjoy ten more years of peaceful administration." One of the financial problems which excited the interest and even the alarm of the students of public affairs was the rapid increase of the public debt. Each war caused a great addition to the burden; the intervals of peace showed very little diminution in it. From sixteen millions in 1702, the debt rose to £53,000,000 at the treaty of Utrecht (1713). In 1748 it reached £78,000,000, at the close of the Seven Years' War it was £137,000,000, and when the American colonies had established their independence it exceeded £238,000,000. Apprehensions of national bankruptcy led to the adoption of the device of a sinking fund, and in this case Pitt's usual sagacity seems to have failed him. The influence of R. Price's theory induced the policy of assigning special sums for debt reduction, without regard to the fundamental condition of maintaining a real surplus.

The revolutionary and Napoleonic wars mark an important stage in English finance. The

national resources were strained to the utmost, and the "whip and spur" of taxation was used on all classes of the community. In the earlier years of the struggle the expedient of borrowing enabled the government to avoid the more oppressive forms of charge; but as time went on every possible expedient was brought into play. One class of taxes had been organized during peace—the "assessed taxes" on houses, carriages, servants; horses, plate, &c. These duties were raised by several steps of 10% each until, in 1798, their total charge was increased threefold (for richer persons four- or fivefold) under the plan of a "triple assessment." The comparative failure of this scheme (which did not bring in the estimated yield of £4,500,000) prepared the way for the most important development of the tax system—the introduction of the income-tax in 1798. Though a development of the triple assessment, the income-tax was also connected with the permanent settlement of the land tax as a redeemable charge. It is possible to trace the progress of direct taxation from the scutage of Norman days through "the tenth and fifteenth," the Tudor "subsidies," the Commonwealth "monthly assessments," and the 18th century land tax, to the income-tax as applied by Pitt, and, after an interval of disuse, revived by Peel (1842). The immediate yield of the income-tax was rather less than was expected (£6,000,000 out of £7,500,000); but by alteration of the mode of assessment from that of a general declaration to returns under the several schedules, the tax became, first at 5%, afterwards at 10%, the most valuable part of the revenue. In 1815 it contributed 22% of the total receipts (*i.e.* £14,600,000 out of £67,000,000). If employed at the beginning of the war, it would probably have obviated most of the financial difficulties of the government. The window tax, which continued all through the 18th century, had been supplemented in the American War by a tax on inhabited houses (one of Adam Smith's many suggestions), a group to which the assessment taxes were naturally joined. During the 18th century the probate duty had been gradually raised, and in 1780 the legacy duty was introduced; but these charges were moderate in character and did not affect land. Though the direct and quasi-direct taxes had been so largely increased, their growth was eclipsed by that of the excise and customs. With each succeeding year of war new articles for duties were detected and the rates of old taxes raised. The maxim, said to have guided the financiers of another country—"Wherever you see an object, tax it"—would fairly express the guiding policy of the English system of the early 19th century. Eatables, liquors, the materials of industry, manufactures, and the transactions of commerce had in nearly all their forms to pay toll. To take examples:—salt paid 15s. per bushel; sugar 30s. per cwt.; beer 10s. per barrel (with 4s. 5d. per bushel on malt and a duty on hops); tea 96% *ad valorem*. Timber, cotton, raw silk, hemp and bar iron were taxed, so were leather, soap, glass, candles, paper and starch. In spite of the need of revenue, many of the customs duties were framed on the protective system and thereby gave little returns; *e.g.* the import duty on salt in 1815 produced £547, as against £1,616,124 from excise; pill-boxes brought in 18s. 10d., saltpetre 2d., with 1d. for the war duties. The course of the war taxation was marked by varied experiments. Duties were raised, lowered, raised again, or given some new form in the effort to find additional revenue. Some duties, *e.g.* that on gloves, were abandoned as unproductive; but the conclusion is irresistible that the financial system suffered from over-complication and absence of principle. In the period of his peace administration Pitt was prepared to follow the teaching of *The Wealth of Nations*. The strain of a gigantic war forced him and his successors to employ whatever heads of taxation were likely to bring in funds without violating popular prejudices. Along with taxation, debt increased. For the first ten years the addition to it averaged £27,000,000 per annum, bringing the total to over £500,000,000. By the close of the war period in 1815 the total reached over £875,000,000, or a somewhat smaller annual increase—a result due to the adoption of more effective tax forms, and particularly the income tax. The progress of English trade was another contributing agency towards securing higher revenue. The import of articles such as tea advanced with the growing population; so that the tea duty of 96% yielded in 1815 no less than £3,591,000. It is, however, true that by the year just mentioned the tax system had reached its limit. Further extension (except by direct confiscation of property) was hardly possible. The war closed victoriously at the moment when its prolongation seemed unendurable.

A particular aspect of the English financial system is its relation to the organization of the finance of territories connected with the English crown. The exchequer may be plausibly held to have been derived from Normandy, and wherever territory came under English rule the methods familiar at home seem to have been adopted. With the loss of the French possessions the older cases of the kind disappeared. Ireland, however, had its own exchequer, and Scotland remained a distinct kingdom. The 18th century introduced a remarkable change. One of the aims of the union with Scotland was to secure freedom of commerce throughout Great Britain, and the two revenue systems were amalgamated. Scotland was assigned a very moderate share of the land tax (under one-fortieth), and was

exempted from certain stamp duties. The attempt to apply selected forms of taxation—custom duties (1764), stamp duties (1765), and finally the effort to collect the tea duty (1773)—to the American colonies are indications of a movement towards what would now be called “imperialist” finance. The complete plan of federation for the British empire, outlined by Adam Smith, is avowedly actuated by financial considerations. Notwithstanding the failure of this movement in the case of the colonies, the close of the century saw it successful in respect to Ireland, though separate financial departments were retained till after the close of the Napoleonic War and some fiscal differences still remain. By the consolidation of the English and Irish exchequers and the passage from war to peace, the years between 1815 and 1820 may be said to mark a distinct step in the financial development of the country. The connected change in the Bank of England by the resumption of specie payments supports this view. Moreover, the political conditions in their influence on finance were undergoing a revolution. The landed interest, though powerful at the moment, had henceforth to face the rivalry of the wealthy manufacturing communities of the north of England, and it may be added that the influence of theoretic discussion was likely to be felt in the treatment of the financial policy of the nation. Canons as to the proper system of administration, taxation and borrowing come to be noticed by statesmen and officials.

These influences may be followed out in their working by observing the chief lines of adjustment and modification that followed the conclusion of peace. Relieved from the extraordinary outlay of the preceding years, the government felt bound to propose reductions. With commendable prudence it was resolved to retain the income-tax at 5% (one-half of the former rate), and to join with this reduction the removal of some war duties on malt and spirits. Popular feeling against direct taxation was so strong that the income-tax had to be surrendered *in toto*, a course which seriously embarrassed the finances of the following years. For over twenty-five years the income-tax remained in abeyance, to the great detriment of the revenue system. Its revival by Peel (1842), intended as a temporary expedient, proved its services as a permanent tax: it has continued and expanded considerably since. Both the excise and customs at the close of the war were marked by some of the worst defects of a vicious kind of taxation. The former had the evil effect of restricting the progress of industry and hampering invention. The raw materials and the auxiliary substances of industry were in many cases raised in price. The duties on salt and glass specially illustrated the bad results of the excise. New processes were hindered and routine made compulsory. The customs duties were still more restrictive of trade; as they practically excluded foreign manufactures, and were both costly and in many instances unproductive of revenue. As G. R. Porter has shown, the really profitable customs taxes were few in number. Less than a score of articles contributed more than nineteen-twentieths of the revenue from import duties. The duties on transactions, levied chiefly by stamps, were ill-graded and lacking in comprehensiveness. From the standpoint of equity the ground for criticism was equally plain. The great weight of taxation fell on the poorer classes. The owners of land escaped giving any return for the property that they held under the state, and other persons were not taxed in proportion to their abilities, which had been long recognized as the proper criterion.

The grievance as to distribution has been modified, if not removed, by the great development of (1) the income-tax, (2) the “death” or inheritance duties. Beginning at the rate of 7d. per pound (1842-1854), the income-tax was raised to 1s. 4d. for the Crimean War, and then continued at varying rates; reduced to 2d. in 1874, it rose to 5d., then in 1894 to 8d., and by 1909 appeared to be fixed as a minimum at 1s., or 5% on income from property. The yield per penny on the £ has risen almost uninterruptedly. From £710,000 in 1842, it now exceeds £2,800,000, though the exemptions and abatements are much more extensive. In fact, all incomes of £3 per week are absolutely free (£160 per annum is the precise exemption limit), and an income of £400 derived from personal exertion pays less than 5½d. per pound, or 2¼%. The great productiveness of the tax is equally remarkable. From £5,600,000 in 1843 (with a rate of 7d.) the return rose to £32,380,000 in 1907-1908, having been at the maximum of £38,800,000 in 1902-1903, with a tax rate of 6¼%. The income-tax thus supplies about one-fifth of the total revenue, or one-fourth of that obtained by taxation. Several fundamental questions of finance are connected with the taxation of income and have been dealt with by English practice. Small incomes claim lenient treatment; and, as mentioned above, this leniency means in England complete freedom. Again, earned incomes appear to represent lower ability to pay than unearned ones. Long refused on practical grounds (as by Gladstone and Lowe), the concession of an abatement of 25% on earned incomes of £2000 and under was granted in 1907. The question whether savings should be exempt from taxation as income has (with the exception of life insurance premiums) been

decided in the negative. Allowances for depreciation and cost of repairs are partially recognized. Far more important than these special problems is the general one of increased tax rates on large incomes. Up to 1908-1909 the tax above the abatement limit of £700 remained strictly proportional; but opinion showed a decided tendency in favour of extra rates or a "super tax" on incomes above an assigned amount (*e.g.* £5000), and this was included in the budget of 1909-1910 (see [INCOME-TAX](#)).

In close relation with the income-tax is the estate duty, with its adjuncts of Legacy and Succession Duties. After Pitt's failure to carry the succession duty in 1796, no change was made till Gladstone's introduction in 1853 of a duty on land and settled property parallel to the legacy duty on free personality. Apart from certain minor alterations, the really vital change was the extension in 1894 of the old Probate Duty into a comprehensive impost (entitled the Estate Duty) applicable to all the possessions of a deceased person. This "Inheritance Tax"—to give it its scientific title—operates as a complementary property tax, and is thus an addition to the contribution from incomes derived from large properties. By graduation the charges on large estates in 1908-1909 (before the proposal for further increase in 1909-1910) came to 10% on £1,000,000, and reached the maximum of 15% at £3,500,000. From the several forms of the "Inheritance Taxes" the national revenue gained £14,500,000, with 4½ millions as a supplementary yield for local finance. The immense expansion of direct taxation is evident on comparing 1840 with 1908. In the former year the Probate and legacy duties brought in about one million; the other direct taxes, even including the "House duty," did not raise the total to £3,000,000. In 1908 the direct taxation of property and income supplied £51,500,000, or one-third of the total receipts as against less than one-twentieth in 1840.

But though this wider employment of direct taxation—a characteristic of European finance generally—reduced the *relative* position of the taxation of commodities, there was a growth in the absolute amount obtained from this category of duties. There were also considerable alterations, the result of changes in the views respecting fiscal policy. At the close of the Great War the excise duties were at first retained, and even in some cases increased. After some years reforms began. The following articles amongst others were freed from charge: salt (1825); leather and candles (1830); glass (1845); soap (1853); and paper (1860). The guiding principles were: (1) the removal of raw materials from the list of goods liable to excise, (2) the limitation of the excise to a small number of productive articles, with (3) the placing of the greater part (practically nearly the whole) of this form of taxation on alcoholic drinks. Apart from breweries and distilleries, the excise had little field for its work. The large revenue of £35,700,000 in 1907-1908 was derived one-half from spirits (£17,700,000), over one-third from beer, while most of the remainder was obtained from business taxation in the form of licences, the raising of which was one of the features of the budget in 1909. As a feeder of the revenue the excise might be regarded as equal to the income-tax, but less to be relied on in times of depression. Valuable as were the reforms of the excise after 1820, they were insignificant as compared with the changes in the customs. The particular circumstances of English political life have led to perhaps undue emphasis being placed on this particular branch of financial development. Between 1820 and 1860 the customs system was transformed from a highly complicated arrangement of duties, pressing with severity on nearly all foreign imports, into a simple and easily understood set of charges on certain specially selected commodities. All favours or preferences to home or colonial producers disappeared. Expressed in financial terms, all duties were imposed "for revenue only," and estimated in reference to their productiveness. An assimilation between the excise and customs rates necessarily followed. The stages of the development under the guidance of (1) Huskisson, (2) Peel, and (3) Gladstone are commonly regarded as part of the movement for Free Trade; but the financial working of the alteration is understood only by remembering that the duties removed by "tens" or by "hundreds" were quite trivial in yield, and did not involve any serious loss to the revenue. Perhaps the most remarkable feature of the English customs of the 19th century was the steadiness of the receipts. In spite of trade depressions, commercial crises and sweeping changes in rates, the annual revenue in the period 1815-1900 only varied between £19,000,000 and £24,000,000; though, on balance, duties amounting to £30,000,000 were remitted. The potential resources of this branch of revenue were made evident in the rapid rise of the yield by the new taxation imposed for the South African War (1899-1902). In consequence of this increase the customs became equal to the excise in return, and, combined, they collected over £60,000,000 annually from the consumption of commodities. They accordingly afforded a counterpoise to the burden put on income and property, or, more accurately speaking, they obtained due, or somewhat more than due, contribution from the smaller incomes, particularly those of the working class.

The exemption of raw materials and food; the absence of duties on imported, as on home

manufactures; the selection of a small number of articles for duty; the rather rigorous treatment of spirits and tobacco, were the salient marks of the English fiscal system which grew up in the 19th century. The part of the system most criticised was the very narrow list of dutiable articles. Why, it was asked, should a choice be made of certain objects for the purpose of imposing heavy taxation on them? The answer has been that they were taken as typical of consumption in general and were easily supervised for taxation. Moreover, the sumptuary element is introduced by the policy of putting exceptionally heavy duties on spirits and tobacco, with lighter charges on the less expensive wines and beers. Facility of collection and distribution of taxation over a larger class appear to be the grounds for the inclusion of the tea and coffee duties, which are further supported by the need for obtaining a contribution of, roughly speaking, over half the tax revenue by duties on commodities. The last consideration led, at the beginning of the 20th century, to the sugar tax and the temporary duties on imported corn and exported coal.

As a support to the great divisions of income-tax, Death Duties, Excise and Customs, the stamps, fees and miscellaneous taxes are of decided service. A return of £9,000,000 was secured by stamp duties.

In recent years the so-called "non-tax" revenue largely increased, owing to the extension of the postal and telegraphic services. The real gain is not so great, as out of gross receipts of £22,000,000 over £17,500,000 is absorbed in expenses, while the carriage of ordinary letters seems to be the only profitable part of these services. Crown lands and rights (such as vintage charges) are of even less financial value.

One cardinal principle of the greatest English finance ministers has been the avoidance of deficits or undue surpluses. Gladstone's inheritance of doctrine from Peel "was to estimate expenditure liberally, to estimate revenue carefully, to make each year pay its own expenses, and to take care that your charge is not greater than your income." This method of treatment requires that taxation shall be productive in yield, and that it shall be so elastic as to admit of expansion, a function specially assigned to the income-tax. It may also be said to involve due care in the treatment of the national resources. The reaction of ill-chosen taxes on industry is a hindrance to their productiveness and their growth.

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(C. F. B.)

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