Kentish Town, Harwich, Ostend, and Calais had been found at a depth of about 1000 feet below the sea-level. Some slight hope was entertained of the occurrence of Coal- measures, as in the Boulonnais the Carboniferous limestone, where last seen, dips south. The boring was continued to a depth of 1905 feet, the Oxford Clay being reached. The chief result was the discovery of the unusual thickness of the Kimmeridge Clay, which began at 275 feet from the surface and continued to a depth of about 1469 feet. The most practical result was the finding of thick beds of gyp­sum (at about 160 feet), which were before unknown in the Weald and are now worked at Netherfield. From Beachy Head to Selsey Bill there lies, south of the Downs, a low and level tract belonging to the Tertiary period, of which there is no such record at any other place in England. The towns of Hove, Worthing, Littlehampton, Bognor, &c., are built on gravel, sand, and loam of the Post-Pliocene or Pleistocene series, and these superficial beds overlie the Eocene series in patches and contain a large fossil fauna. Remains of the mammoth occur in the mud deposit (or *Lutraria* clay) of this district, and the Chichester museum contains the greater portion of a fine skeleton of the *Elephas antiquus* obtained off Selsey Bill. Of the British Quater­nary fossils forty-five are peculiar to Selsey, and twenty others probably find here their earliest place in British geological history. The Bracklesham beds occur at the bay of that name, and their main divisions extend from Wittering on the west to the Barn Rocks, east of Selsey Bill, a distance of 7 miles. They are full of fossil shells, particularly nummulitic.@@1

An analysis of the flora of the county was placed before the British Association in 1872 by Mr W. B. Hemsley (*Report,* 1872 p. 128), who stated the total number of indigenous plants to be 1000, to which 59 introduced species must be added. The most interest­ing features of the flora are the number of species to the county area, the species peculiar to certain formations, viz., the Chalk (56), maritime species (76), and the rare species, especially of the Atlantic and Scottish types. Amongst the rarer marsh plants are *Isnαrdiα palustris, Scirpus triqueter, S. carinatus, Pyrola media, Habeneria albida, Festuca sylvatica* of the “ Scottish ” type of Watson ; this last is not found in adjoining counties. A prominent feature of the Wealden flora is the extent of heath land and the large size the heath attains. The fauna includes 29 species of *Mammalia.* The birds are very numerous, no less than 291 species having been recorded. There are about 76 species of general migratory visitors. Of the 216 species of marine fishes found round the British coasts 106 have been observed off Sussex, and there are also 19 freshwater fish.@@2

The county presents two distinct climates, that of the coast district being mild, equable, and dry, whilst that of the Wealden district is continental, extreme, and rainy. The coast rainfall is about 25 to 26 inches annually and that of the Weald about 33 inches ; this is due partly to the South Downs, which rise up in the path of the rain-clouds, and partly to the large extent of forest. In the wet years of 1852 and 1872 the rainfall at several Wealden stations exceeded 50 inches. At Crowborough Beacon the average yearly rainfall from 1871 to 1884 was 38T6 inches ; at Brighton during the same period it was only 28·87. Temperature in the Weald at Uckfield has ranged from 98° Fahr. on 14th July to - 4° on 20th January 1838. The mean daily range of temperature in the Weald is about half as much again as on the coast. The in­fluence of the sea in modifying the temperature of the coast district is specially noticeable in the autumn months, when the temperature is higher than in the Weald and other parts of England northwards, and fashion has (perhaps unconsciously) selected the period from September to November for the Brighton season. Sea-bathing, first introduced about the middle of the 18th century, together with the fresh pure air, has turned the stream of health-seekers from Bath and Tunbridge Wells and other watering-places into Sussex. The poor but populous fishing-town of Brighthelmston developed into the fashionable town of Brighton ; the new town of Worthing sprang up in Broadwater parish ; and the fishing village of East­bourne rose in importance. The Cinque Port town of Hastings afterwards developed its fashionable suburb St Leonards, and Sea­ford was also resorted to ; in the western part of the county the hamlet of Bognor became a fashionable place. The opening of the

railway from London to Brighton in 1840, soon followed by coast lines from east to west, occasioned a great increase in the coast towns, and now almost the entire coast (except in its steep parts) presents a line of fashionable “health resorts” unequalled in any English county ; these indeed form the special distinguishing feature of Sussex amongst other counties.

Sussex is divided into the six rapes@@3 of Hastings, Pevensey, Lewes, Bramber, Arundel, and Chichester. The only rapes which exist for practical purposes are that of Hastings, which has a separate coroner, and the last three, in which the liability to repair bridges falls as of common right upon the rape instead of the county division. The Act 19 Hen. VII. cap. 24 directed that for convenience the county court should be held at Lewes as well as at Chichester, and this apparently gave rise to the division of Sussex into east and west parts, and separate quarter sessions are now held for these two divisions. The boroughs of Hastings, Rye, Brighton, and the city of Chichester have separate commissions of the peace and courts of quarter sessions. There are eighteen petty and special sessional divisions. At the time of the Domesday survey the county con­tained 65 hundreds, but the modem total is 68. Of the 7 municipal boroughs which the county contains Arundel, Chichester, Hastings, and Bye existed long before the passing of the Municipal Corpora­tions Act, 1835 ; Brighton was incorporated in 1854, Lewes in 1881, and Eastbourne in 1883. Winchelsea, Seaford, Pevensey, and Mid­hurst were unreformed corporations existing under old charters, the first being governed by a mayor and the last three by bailiffs, but all their privileges have lately been abolished. “Sussex,” as Mr Freeman observes,@@4 “is no shire, no department, but a component element of England, older than England.” The diocese of Chi­chester is nearly coextensive with the county and the old kingdom of Sussex. In the year 681 the county was converted to Christianity by St Wilfrid (afterwards archbishop of York), who founded the see of Selsey, but in 1075 the see was transferred from Selsey to Chichester. The diocese consists of two archdeaconries, Lewes and Chichester, and five deaneries. There are 322 civil parishes, with parts of seven others.

Prior to the Reform Bill of 1832 Sussex returned twenty-eight members to the House of Commons, two for the county and two each for the boroughs of Arundel, Bramber, Chichester, East Grin­stead, Hastings, Horsham, Lewes, Midhurst, New Shoreham (with the rape of Bramber), Rye, Seaford, Steyning, and Winchelsea. The borough of New Shoreham was in 1771 added to the rape of Bramber. In 1832 Bramber, East Grinstead, Seaford, Steyning, and Winchelsea were entirely disfranchised, the first-named being classed with the worst of the “rotten ” boroughs ; Arandel, Hors­ham, Midhurst, and Rye were each deprived of one member ; the county was divided into two parts (East and West), each returning two members ; and a new borough, Brighton, was created, to which two members were allotted. Chichester and Lewes were each de­prived of one member in 1867, and Arundel was disfranchised in 1868. The Redistribution of Seats Act, 1885, disfranchised Chi­chester, Horsham, Midhurst, New Shoreham (with the rape of Bramber), and Rye, and deprived Hastings of one member. It also divided the county into six (instead of two) divisions, viz., Lewes, Southern or Eastbourne, Eastern or Rye, South-western or Chiches­ter, Northern or East Grinstead, North-western or Horsham, each returning one member. Brighton still retains two members.

According to the latest owners of land *Return* (1873), there were 11 proprietors with more than 10,000 acres each ; 8 of 5000 to 10,000 ; 1015 of 100 and less than 5000 ; of 10 and less than 100 acres, 1677 ; of 1 and less than 10, 2347 ; and of less than an acre, 14,675,— making a grand total of 19,733 landowners, having a gross esti­mated rental of £2,418,522 ; there were in addition 23,738 acres of common or waste lands. The eleven principal landowners were— Lord Leconfield, 30,221 acres ; the duke of Norfolk, 19,217 ; the duke of Richmond, 17,117 ; the earl of Chichester, 16,232 ; the marquis of Abergavenny, 15,364 ; Rev. John Goring, 14,139 ; the earl of Ashburnham, 14,051 ; the earl of Egmont, 14,021 ; Viscount Gage, 13,739 ; the Earl De la Warr, 11,185 ; and the duke of Devon­shire, 11,062. At the time of the Domesday survey there were 15 tenants *in capite,* 534 under-tenants, and 2497 *bordarii* (or cottagers), also 765 *cotarii* (or cottars). The custom of borough-English, by which land descends to the youngest son, prevailed to an extra­ordinary degree in Sussex, and no less than 140 manors have been catalogued in which it was found.@@5 Gavelkind tenure existed in Rye, in the large manor of Brede, and in Coustard manor (in Brede parish).

The coast district has been under cultivation from the time of the Romans and is very fertile, being specially suitable for market gardens and for growing fruit trees. The fig gardens of West Tarring are celebrated. Marshall,@@6 describing the Weald in 1788,

@@@1 Address to Geological Section of British Association, 1882.

@@@2 Good lists of fauna and flora of certain parts of the eastern divi­

sion of the county have been published by the Hastings Literary and Philosophical Society and the Eastbourne Natural History Society.

@@@3 Probably derived from the Icelandic *hreppr,* signifying laud divided by a rope. It is first mentioned in the Domesday survey.

@@@4 *English Towns and Districts,* p. 125.

@@@5 *Suss. Arch. Coll.,* vi. 164.

@@@6 *Rural Economy of the Southern Counties,* &c.