*Communication.—*In the 12th century an Act was passed provid­ing that the highways between market-towns should be at least 20 feet broad. Over the principal rivers at this early period there were bridges near the most populous places, as over the Dee near Aberdeen, the Esk at Brechin, the Tay at Perth, and the Forth near Stirling. Until the 16th century, however, traffic between distant places was carried on chiefly by pack-horses. The first stage-coach in Scotland was that which ran between Edinburgh and Leith in 1610. In 1658 there was a fortnightly stage-coach between Edinburgh and London, but afterwards it would appear to have been discontinued for many years. Separate Acts en­joining the justices of the peace, and afterwards along with them the commissioners of supply, to take measures for the maintenance of roads were passed in 1617, 1669, 1676, and 1686. These provisions had reference chiefly to what afterwards came to be known as “statute labour roads,” intended primarily to supply a means of communication within the several parishes. They were kept in repair by the tenants and cotters, and, when their labour was not sufficient, by the landlords, who were required to “ stent ” (assess) themselves, customs also being sometimes levied at bridges, ferries, and causeways. By separate local Acts the “statute labour” was in many cases converted into a payment called “conversion money,” and the General Roads Act of 1845 made the alteration universal. By the Roads and Bridges (Scotland) Act of 1878 the old organization for the management of these roads was entirely superseded in 1883. The Highlands had good (mili­tary) roads earlier than the rest of the country. The project, begun in 1725, took ten years to complete, and the roads were afterwards kept in repair by an annual parliamentary giant. In the Lowlands the main lines of roads have been constructed under the Turnpike Acts, the earliest of which was obtained in 1750. Originally they were maintained by tolls exacted from those who used them ; but this method was—after several counties had obtained separate Acts for its abolition—superseded throughout Scotland in 1883 by the general Act of 1878, providing for the maintenance of all classes of roads by assessment levied by the county road trustees.

Scotland possesses two canals constructed primarily to abridge the sea passage round the coast,—the Caledonian and the Crinan. The Caledonian Canal, extending from south-west to north-east, a distance of 60 miles along the line of lochs from Loch Linnhe on the west coast to the Moray Firth on the east coast, was begun in 1803, opened while yet unfinished in 1822, and com­pleted in 1847, the total cost being about £1,300,000. Constructed originally to afford a quicker passage for ships to the east coast of Scotland and the coasts of Europe, it has, owing to the increased size of vessels, ceased to fulfil this purpose, its chief service having been in opening up a picturesque route for tourists, assisting local trade, and affording a passage for fishing boats between the east and west coasts. The Crinan Canal, stretching across the Mull of Cantyre from Loch Gilp to Jura Sound, a distance of 9 miles, and admitting the passage of vessels of 200 tons burden, was opened in 1801 at a cost of over £100,000. The principal boat canals arc the Forth and Clyde or Great Canal, begun in 1798, between Grange­mouth on the Forth and Bowling on the Clyde, a distance of 301/4 miles, with a branch to Port Dundas, making the total distance 33 3/4 miles ; the Union Canal between Edinburgh and the Forth and Clyde Canal at Port Dundas, near Glasgow, completed in 1822 ; and the Monkland Canal, completed in 1791, connecting Glasgow with the Monkland mineral district and communicating with a lateral branch of the Forth and Clyde Canal at Port Dundas. Several other canals in Scotland have been superseded by railway routes.

The first railway in Scotland for which an Act of Parliament was obtained was that between Kilmarnock and Troon (9 3/4 miles), opened in 1812, and of course worked by horses. A similar rail­way, of which the chief source of profit was the passenger traffic, was opened between Edinburgh and Dalkeith in 1831, branches being afterwards extended to Leith and Musselburgh. By 1840 the length of the railway lines in Scotland for which Bills were passed was 1911/4 miles, the capital being £3,122,133. The chief railway companies in Scotland are the Caledonian, formed in 1845, total capital in 1884-85 £37,999,933; the North British, of the same date, total capital £32,821,526; the Glasgow and South-Western, formed by amalgamation in 1850, total capital £13,230,849 ;

the Highland, formed by amalgamation in 1865, total capital £4,445,316 ; and the Great North of Scotland, 1846, total capital £4,869,983. The management of the small branch lines belonging to local companies is generally undertaken by the larger companies. By 1849 there were 795 miles of railway in Scotland. The follow­ing table (X.) shows the progress since 1857 (see also Railway, vol. XX. pp. 226-230) :—

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Year. | J | Passengers. | | | Receipts  from  Passenger  Trains. | Receipts  from  Goods  Trains. | Total. |
| i a>l „  S £ First  •2 j Class. | Second  Class. | Third and Mixed Classes. | Total. |
|  | 1857 | 1243'1,823,S42 | 2,180,284 | 10,729,677 | 14,733,503 | £  916,697 | £  1,584,781 | £  2,501,478 |
|  | 1874 | 2700 4,201,473 | 8,709,485 | 30,189,934 | 38,220,892 | 2,350,593 | 3,884,424 | 6,235,017 |
|  | 1884 | 2999∣4,711,500 2,715,932 | | 46,877,642 | 54,305,074 | 2,931,787 | 4,426,028 | 7,357,760 |

*Agriculture.—*Table XI. shows the divisions of land as regards ownership according to the return (the latest) of 1873 :—

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Owners holding each | | Number of Owners. | Estimated  Acreage. | Gross  Annual  Value. | Average Rental per Acre. | | Percentage of Total Acreage to each Owner. |
| Less than 1 acre |  | 113,005 | 28,177 | £  5,800,046 | £ 8. 205 17 | | •1 |
| More than 1 acre and less than 10.. | | 9,471 | 29,327 | 1,433,106 | 48 1 | 7 | .2 |
| „ 10 | 50.. | 3,469 | 77,619 | 843,471 | 10 1 | 7 | •4 |
|  | 100.. | 1,213 | 86,483 | 380,345 | 4 | 8 | •5 |
| ., 100 | 500.. | 2,367 | 556,372 | 1,674,773 | 3 | 0 | 2∙9 |
|  | 1,000.. | 826 | 582,741 | 1,263,524 | 2 | 3 | 31 |
| » 1,000 „ | 2,000.. | 596 | 835,242 | 1,179,756 | 1 | 8 | 4∙4 |
| „ 2,000 „  » 5,000 ,, | 5,000.. 10,000.. | 587 | 1,843,378 | 1,946,507 | 1 | 1 | 9∙7 |
| 250 | 1,726,869 | 1,043,519 | 0 12 | | 91 |
| „ 10,000 „ | 20,000.. | 159 | 2,150,111 | 965,166 | 0 | 9 | 11∙3 |
| „ 20,000 „ | 50,000.. | 103 | 3,071,728 | 945,914 | 0 | 6 | 16∙2 |
| ,, 50,000 ,, | 100,000.. | 44 | 3,025,616 | 588,788 | 0 | 4 | 16·0 |
| 100,000 and upwards ... |  | 24 | 4,931,884 | 623,148 | 0 | 3 | 26∙1 |
| No areas |  | 11 |  | 10,740 |  |  |  |
| No rental |  | 11 | 1,147 |  |  |  |  |
| Total |  | 132,136 | 18,946,694 18,698,804 | | 1 | 0 | 100·0 |

Scotland, as compared with either England or Ireland, is em­phatically a country of large proprietors. Taking the population of 1871 as the basis of comparison, a little over 39 per cent. of the population of Scotland have a share in the ownership of the soil, the proportion in England and Wales being about 5 per cent., while in Ireland it is only about 1·7. On an average each owner in England possesses 33 acres, in Scotland 143, and in Ireland 293. While in Ireland, however, only a little over one-half of the number of proprietors possess less than 1 acre, and in England about five- sevenths, this class in Scotland amounted to about five-sixths of the whole. They possessed only 1 per cent. of the total area, the re­maining 99·9 being possessed by 19,131 persons, while 171 persons held 58·3, and 68 persons 42·1. Whereas in England 1 and in Ireland only 3 proprietors held upwards of 100,000 acres each, in Scotland there were 24 persons who each held more than this amount, and together they possessed 26·1 per cent. of the total area. The excessive size of the properties of Scotland may bo partly accounted for by the fact that a large proportion of the land is so mountainous and unproductive as to be unsuitable for division into small properties ; but two other causes have also powerfully co-operated with this, viz., the wide territorial authority exercised by some of the lowland nobles, as the Scotts and Douglases, and such powerful Highland nobles as the Argylls and Breadalbanes, and the stricter law of entail introduced by the Act of 1685 (see Entail, vol. viii. p. 452). The largest estates are thus in the hands of the old hereditary families. The almost absolute power anciently wielded by the landlords, who within their own territories were lords of regality, tended to hinder in­dependent agricultural enterprise, and it was not till after the abolition of hereditary jurisdictions in 1746 that agriculture in Scotland made any real progress.

The following table (XII. ) gives a classification of the holdings of Scotland in 1875 and 1880 :—

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Years. | 50 Acres and under. | | From 50 to 100 Acres. | | From 100 to 300 Acres. | | From 300 to 500 Acres. | | From 500 to 1000 Acres. | | Above 1000 Acres. | | Total. | |
| Number. | Area in Acres. | Number. | Area in Acres. | Number. | Area in Acres. | Number. | Area in Acres. | Number.1 | Area in Acres. | Number. | Area in Acres. | Number. | Area in Acres. |
| 1875 | 56,311 | 666,356 | 9878 | 697,620 | 11,823. | 1,980,081 | 1967 | 729,885 | 691 | 427,478 | 126 | 109,675 | 80,796 | 4,611,095 |
| 1880 | 55,280 | 653,295 | 9726 | 721,844 | 12,348 | 2,082,914 | 2007 | 750,295 | 661 | 418,650 | 79 | 114,298 | 80,101 | 4,741,296 |

It will be observed that nearly one-half of the total area of the hold­ings is occupied by those possessing from 100 to 300 acres each. The holdings over 300 acres are generally sheep farms, and it is to the enterprise of the medium class of holders that the agricultural progress of Scotland is chiefly due. A society of improvers in the knowledge of agriculture was founded in 1723, but ceased to

exist after the Rebellion of 1745 ; and the introduction of new and improved methods, where not the result of private enterprise, has been chiefly associated with the efforts of the Highland Society, instituted in 1783, and latterly known as the Highland and Agri­cultural Society. A great stimulus was also afforded in the be­ginning of the 19th century by the high prices obtained during the