
PARISH OF KIRKINTILLOCH *

PRESBYTERY OF GLASGOW, SYNOD OF GLASGOW AND AYR.

THE REV. ADAM FORMAN, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE ancient name of the parish and district is *Caerpen-tulach*, which, in the language of the Cambro-Britons, signifies a “post or stronghold at the head or end of a ridge.” This is entirely in accordance with the topography of the town of Kirkintilloch, and no doubt alludes to the Peel or ancient warlike fort on the line of Roman wall near the present parish church. There is a place named *Kintulach*, which, in 1581, belonged to the abbacy of Dryburgh, and is also called *Ridgend*; both are evidently from the same root, and both constituted part of the reversions of the Earldom of Lennox. The present parish of Cumbernauld formed part of the district of Kirkintilloch, till some time between the years 1507 and 1522, when the name of the whole district was changed to Lenzie, which was the name of the barony belonging to the Noble family of Fleemings, Earls of Wigton. But it

* Drawn up by Rev. William Patrick, author of “A Description of the Plants of Lanarkshire,” &c. &c.

was not till 1659, when a new church was built for the accommodation of the eastern end of the parish at Cumbernauld, (*Cumar-n'-ald*, i. e. the meeting or confluence of streams,) that both parishes settled down to their present forms, each retaining its modern name. The chapel of the Virgin Mary then became the parish church for the inhabitants of the western end, at Kirkintilloch, and is still in use.

Boundaries and Extent.—This parish and the parish of Cumbernauld, although both in the county of Dumbarton, lie quite detached from it, so that the western extremity of Kirkintilloch is about six miles distant from the south-east end of the main body of the county to which it belongs, the county of Lanark coming in on the south, and the county of Stirling on the north, and meeting between them. The portion so detached includes a district about 12 miles long from west to east, and from $4\frac{1}{2}$ to 2 miles broad. It contains $32\frac{1}{2}$ square miles, or about 20,800 English acres; a space nearly equal to that covered by the waters of Lochlomond. The parish of Kirkintilloch forms the western end of this district. From a point between Gallowhill and Boghead in the west, to Dalshannan in the east, it is 6 miles and 6 furlongs in length. The widest place, from Mollinburn in the south, to Auchinvole in the north, is 3 miles and 3 furlongs. It is bounded on the east, by the parish of Cumbernauld; on the north, by the parishes of Kilsyth and Campsie, in the county of Stirling; on the west, by the parish of Cadder; and on the south, by the parishes of Cadder and New Monkland, in the county of Lanark. It contains 8527 Scots acres, or 10,651 English acres, and about 17 square miles.

Topographical Appearances.—The parish constitutes a portion of the northern boundary of the great valley of the Forth and Clyde Canal, stretching from east to west, of considerable extent, and rising very little above the level of the Atlantic and German Oceans. It is cut off from the fertile districts of the Forth by the range of hills a little to the north, called the Campsie Fells, and from the vale of the Clyde on the south by the high lands of Monkland. The bottom of the valley seems at some ancient period to have been washed with a mighty flood, or rather with a continually flowing tide. The banks on the north are high and often abrupt; but on the south they are more undulating, and of no great elevation, consisting chiefly of trap ridges, with rich and extensive arable lands between. The face of the country, therefore,

rises to the south, and declines towards the north; still the slope is so gentle, that very little of it can be said to have a northern exposure. The trap ridges seldom attain any great altitude, except at Stron and Barhill on the east, where the elevated peak, and the abrupt precipitous crag, often assume an alpine appearance. The range of the Campsie Fells on the north, rising often to the height of 1500 feet, affords a friendly shelter from the biting winds of the north; so that the district, upon the whole, exhibits a happy combination of alpine wildness, and of pastoral simplicity; yet enjoying all the advantages of a rich and arable country.

Most of the farmers in the district, from necessity and interest, are great observers of the times and seasons, and many of them have notes, very accurately and copiously kept, of the state of the weather, particularly at the two most important epochs of the year, seed-time and harvest; not only during their own experience, but also during the lifetimes of their fathers and grandfathers. Subjoined are some of the principal of these observations in an abridged form. These rural annals extend as far back as the beginning of the eighteenth century, and relate chiefly to the seasons. *

* The seven ill-years, as they are called, seem to have ended about 1704. On the 27th November preceding, one of the most terrible storms ever known devastated a great part of England, and did much damage in Scotland. In 1709, there were three months of very severe frost, with heavy snows. 1712 was a wet season, with a great flood in harvest. 1714 was very dry; a great frost in 1716; 1723 remarkably dry, no rain till 26th October. 1725 very wet; snow remarkably deep in 1731 and 1736. However, from 1730 to 1740, the seasons were in general very favourable, only some shaking in 1739. The year 1739 was the year of the great hail which happened when all the crops were in ear. It commenced in Galloway, and skirted along the counties of Ayr and Lanark, did much damage in Renfrew and Dumbarton, and broke in a great waterspout in the Campsie Hills. This dreadful storm carried devastation with it wherever it went. One farmer out of all his crops had only three bear-heads left, which happened to be sheltered by a great mugwort bush. The severe frost of 1740 is still spoken of. It in reality commenced in December 1739, and continued nine weeks, or a hundred and three days; a very bad crop followed, with an early frost in harvest. It was in January 1739 that the windy Saturday happened, or exactly a hundred years before the dreadful hurricane of January 1839. An early and good crop in 1742, rendered memorable by the Cambuslang work; a great hail in May 1745. The preceding harvest was very wet; the crop greatly injured. The harvest of 1745 also very bad, great rains and heated *stooks*. From 1746 to 1749 all the crops were good, and meal cheap. 1750, a dry summer, a wet August, but a good harvest; 1751-52, medium seasons; meal 10½d. and 11d. per peck. 1753, light crop, early and dry. 1754, a good crop, preceded by a long and severe frost in winter. 1755, wet seed-time, bad crop, late harvest with frost. 1756, wet late harvest, with a light crop, much shaking; meal rose to 1s. 6d. per peck. 1757, rather dry and early, but corn yielded but little meal, which sold at 1s. per peck. 1758, remarkably good season and fine crop; meal 7½d. per peck. 1759-60-61, were medium seasons; meal low, but in 1761 it rose to 1s. per peck. 1762, snowed eleven days together, late seed-time, dry summer, much corn, fodder scanty. 1763, a frost, which lasted ninety four days, rest of the season favourable, with a tolerable crop; 1764, backward season, and crop rather below mediocrity; 1765, early season, but frost and much rain in harvest. 1766, good seed-time, wet summer, good harvest, corn good in quality. 1767, medium season and crop, first half of harvest

The following is the state of the winds for each month during that remarkable year 1799 :

good, latter half very wet. 1768, early crop, but light and deficient; 1769, tolerable good crop. 1770, crop in good land excellent, high lands deficient, fodder plentiful. 1771, very bad crop, ill secured, and heated. 1772, rather late, and scarcely a medium. In the month of June in this year, hailstones of great size fell in many places, in some places it is said as large as nutmegs. 1773, a terrible storm in March, rest of the season rather favourable, a tolerable crop. 1774, dreadful storm, September 30, and again in December 5, 6, 7, which did much damage by sea and land; altogether a wet late season, with a low average crop; 1775, great storm October 19, and again in November, the rest of the season excellent, and prices low. 1776, medium season and crop. 1777, late season, and crop indifferent. 1778, much the same as last. 1779, a great frost, which lasted eighty-four days, the season otherwise good, with an early harvest and good crop. 1780, a good season, but not equal to the last. 1781, good season and crop, but much shaking. 1782, a severe bad season in May and June; hailstones of immense size fell in some places; frost in harvest, a complete failure in the crop. There are no distinct notes from this time till 1799, which was a very bad season, with a poor late crop; meal 2s. per peck, potatoes 8d. the small peck, and hay 1s. 4d. per stone. At the end of the following year, 1800, oatmeal was 3s. per peck, pease-meal, 2s., potatoes, 10d. small peck, hay, 1s. 9d. per stone. There was a great failure of the crops all over Britain, attributed to the great drought of the summer. In 1801, there was the best seed-time in the memory of man—the year throughout was good, with a plentiful crop of every kind, and an early dry harvest. The first eight months of the year 1802 were the worst in remembrance; the four last were fine; a late but plentiful crop, and all well got in. There was plenty of grain on the acre, but it did not meal so well as last year; beef 1s. per pound, mutton 9d., butter 1s. 5d., cheese 9d., eggs per dozen 1s. 3d., peck loaf 3s. 2d., oatmeal 1s. 3d., potatoes a poor crop and watery, 1s. per peck. In 1803, a good crop, dry harvest, grain plentiful, oatmeal 1s. 4d. per peck. The last seven months of 1804 all good weather, with the best crop, full and ripe, and well got in, that occurred since 1801; oatmeal 1s. 5d. per peck. In 1805, meal at same price, a plentiful crop of every kind. In the harvest of 1806 there was a great drought, followed by a wet November and December, corn, beans, and potatoes were all got in in fine order. 1807, a poor crop, oatmeal 2s., hay 2s., pease, beans, and potatoes bad; 1808, a fine crop, well got in; potatoes, pease, and beans above an average, altogether a remarkably fine harvest. 1809, a good harvest, grain plentiful, but high priced; oatmeal in June 2s. in July 1s. 30d. per peck. 1810, a beautiful warm sunny harvest; no rain from 3d September till near the end of October, the best harvest and wheat seed-time remembered; barometer above fair for six weeks together; oatmeal 1s. 6d., potatoes 9d. 1811, a great comet appeared near Ursa Major on the 9th September, extraordinary rains, frost, and winds in spring and beginning of summer, a medium crop. 1812, crop not all housed till the beginning of September, plentiful but dear; meal 2s. 4d. and potatoes 1s. per peck. 1813, a good harvest, and a most excellent return of all sorts of crops, meal 1s. 6d. potatoes 1s. per peck. 1814, a remarkably fine harvest, plenty of grain, but little straw, meal 1s. 5d. per peck, potatoes 9d. per peck of forty-two pounds. 1815, a plentiful harvest all safely housed, oatmeal 1s. 3d. per peck, potatoes 9d., beef and mutton per stone 10s. 6d., skim cheese 5d. and sweet milk cheese 9d. per pound. 1816 was an uncommonly cold wet year, no sunshine; a poor crop of every kind over all Europe, wheat L. 3, 10s. per boll oats L. 2, barley L. 2, 10s., oatmeal 2s. per peck, quartern loaf 1s. 5d. 1817 was the worst crop ever known in the west of Scotland; the month of August was particularly bad. 1818, a plentiful crop of every kind in Scotland, but a poor crop in the south-east of England, potatoes very plentiful, and of a fine quality; harvest began in early places on the 10th of August; new oats and barley in the Falkirk and Haddington markets on the 13th of August; oatmeal 1s. 5d. and potatoes 1s. the peck. 1819, trees early in leaf, but destroyed by the frost early in June; no equinoctial blast in autumn; the longest set of dry warm weather in September since 1800; crop finished over all the country by the end of that month, very plentiful and well got in; oatmeal 1s. 2d. per peck. The Radicals in great commotion, especially towards the latter end of the year. 1820, harvest begun, but not generally, by the end of August, and was very generally finished by the end of September. Upon the whole, a plentiful crop, and all safe. In November best beef 10s. 8d. per stone, oatmeal 17s. 6d. per boll, butter 1s. per pound, all very cheap.

	N.	S.	E.	W.	N.E.	N.W.	S.E.	S.W.
January,	1	10	1	9	2	3	1	4
February,	0	0	0	8	0	3	2	15
March,	1	0	0	8	1	8	4	9
April,	0	0	0	11	7	4	3	3
May,	0	0	0	17	4	6	0	4
June,	0	0	1	21	4	0	2	2
July,	0	0	0	9	0	0	3	19
August,	0	0	0	19	0	2	1	9
September,	0	2	1	7	1	2	8	10
October,	0	0	0	8	6	3	4	10
November,	0	0	0	17	0	6	1	16
December,	0	0	0	19	0	0	0	12
	2	12	3	155	25	36	29	103

Hydrography.—The streams in this district are neither large nor numerous. The water of Kelvin, which is the chief, rises near Orchard, in the parish of Kilsyth, and runs in a direction nearly due west, towards the Clyde, forming the boundary between the counties of Stirling and Dumbarton. Its course through these parishes is far from picturesque, and more resembles a great ditch, or one of the slow sluggish streams of the south, than the “joking burnies,” or “rattling roaring torrents,” which sweep over their channelly or rocky beds in these northern latitudes. Before reaching the Clyde, however, near Glasgow, its stream expands, its banks become elevated, bold, wooded, and highly picturesque, and being studded here and there with elegant country seats, and smart villas, are altogether worthy of the beautiful ballad in their praise, entitled “Kelvin Grove,” so well known, and so deservedly popular in the west of Scotland. Near to Kirkintilloch the Kelvin is crossed by a bridge, and is about forty yards broad. The Luggie, a tributary of the Kelvin, is the next stream of importance. It suddenly bursts up in a large and vigorous spring in the midst of a morass, on the farm of Torbrax, in the parish of Cumbernauld. After entering this parish at Dalshannan, it forms the boundary between it and Lanarkshire till Barbeth, where it entirely enters the parish of Kirkintilloch, and runs by Duntiblae and Oxcang, and joins the Kelvin to the north-west of the town of Kirkintilloch. Throughout the greater part of its course, it keeps by the level grounds, and is, like the Kelvin, a slow muddy ditch-like stream, subject occasionally to great inundations. The banks

The notes from which I quote are not so distinct after this date. It is stated that the average of rain for seven years before 1788, which was a remarkably dry year, was 25 inches, whereas in 1788 it was only 14.5. On the 29th and 30th May 1809, there was the greatest fall of snow ever known at the season of the year. The snow was nearly a foot deep. There was also a great frost, the rivers frozen, and many trees broken down by the weight of the snow.

are mostly low, ragged and ungainly, but near Oxbang and Duntiblae, they are high, imposing, and finely wooded. The Buthland Burn rises at Garnkirk, winds in a romantic manner around the fine old turreted mansion-house of Bedlay, solacing the whole scene with its pleasing and perpetual murmurings, and finally loses itself in the Luggie at Oxbang. Another small streamlet, called the Bord Burn, rises near Croy-mill, crosses below the Forth and Clyde Canal at Shirva, and is soon after swallowed up in the Luggie. All the streams which flow into the Luggie are from the south, whilst those which flow into the Kelvin, with one exception, are from the north. This latter river is the trough of the waters which flow from the bordering counties of Lanark and Stirling. There is a small lake at Gartshore, named the Bord Loch, which covers about four acres of ground. It has some pike, and is frequented by wild ducks and teals. It seems to receive its chief supply of water from a copious spring in the centre, which in the severest frosts is seldom covered with a thick coat of ice. This arises from the spring-well temperature of the water, great part of which is seldom much below 50° of Fahrenheit. Accidents are accordingly said to have occurred here on the ice. There is a tradition of the loss of a great many lives on one occasion, by the ice giving way, when overloaded by curlers. The Forth and Clyde Canal, which forms the most important hydrographical feature of the district, will be mentioned in its proper place.

Geology and Mineralogy.—The district of Lenzie lies on the northern border of the great coal field of Lanarkshire, after all the main seams of the most valuable metals crop out, and where the different beds of limestone on which they rest come to the surface with their accompanying deposits of coal and ironstone. It is also connected on the east with the great carboniferous deposits, which stretch along both sides of the Forth, including on the south side of that river, the district as far east as Blackness, and from Avon Water to the Forth, and the whole range of coal country on the north of that river from Culross to Dollar, and eastward by Dunfermline, Auchterderran, Leven, Largo, Elie, St Monance, and near to St Andrews. Were a geological map of this part of Scotland to be produced, the district of Lenzie would probably be included in the range of these coal fields. It is in vain, however, to search here for any of the main seams of the great Lanarkshire basin, as they are all run out before they reach this locality. This great

district is hemmed in by the porphyritic rocks of the Ochil range on the north, continued in the Campsie hills to Dumbarton, which divide the red sandstone from the coal formation of the Forth and Clyde. Part of the parish of Kirkintilloch, with part of the adjoining parishes of Cumbernauld, Kilsyth, and Campsie, seem at some remote and unknown period to have formed the bottom and sides of a great inland sea or lake, which stretched in an easterly and westerly direction along the valley of the Forth and Clyde Canal. This great basin of water appears to have been studded with islands or inches, as they are sometimes called, the memorials of which are still preserved in the names of the places. Among the still existing chronometers of this sort, which have escaped the wasting influence of the hand of time, and still live as it were to speak and testify for themselves, we may mention Inchbreck and Inchbelly in this parish, and Inchterf, Inchwood, and Netherinch in the parishes of Campsie and Kilsyth. The whole of the tract in which these lost or *ci-devant* islands, if I may so speak, occur, partakes considerably of the character of a lowland valley; but were it necessary absolutely to define its geognostic features, we would rather rank it among the broad flat-bottomed valleys which abound in many places in Scotland. They are less rugged and picturesque in their outlines than mountain vallies, and less extensive than lowland ones. Still this resembles the lowland valley, in so far that it appears to have been originally scooped out by the same natural agencies; and from a careful inspection of the whole, it seems as if a large body of water had passed over it rounding the inequalities, and acting on the masses of strata in proportion to their power of resistance. At the same time, the valley of the Forth and Clyde Canal, especially in so far as it is connected with this parish, has much of the character of a drained lake, or indicates a locality where the rivers or floods, not having had any great velocity, have had time to deposit a considerable quantity of sediment over a flat surface, in the middle of which many islands no doubt appeared. In the country to the north of this valley, and also considerably to the west, in the parishes of Old and New Kilpatrick, there is a continuity or identity of strata, accompanied with various alpine ranges, consisting of whin, chiefly diorite, resting on the lower members of the coal formation. The Campsie range, which borders on the parish of Kirkintilloch, immediately to the north, is of this description; which, although the giant range of these districts is, however, itself mimick-

ed or approximated by various smaller ridges to the south in the parishes of Kirkintilloch and Cumbernauld, which are of similar structure, run in the same easterly and westerly directions, and may all be ascribed to the same geological epoch. The shapes or general forms of these ridges are considerably modified by the currents of water which, at an early period, have apparently flowed between them, probably from east to west, which is indicated not only by the groovings and dressings on rocks, and the abrading effects of the liquid among the materials opposed to its passage, but is also rendered extremely probable by the natural lie of the whole district, and more especially by the fact, that the surface of the river Forth is about five feet lower than that of the river Clyde—a fact ascertained by the levels on the line of the Forth and Clyde Canal.*

The principal deposits of coal in the district of Lenzie are only such as are immediately connected with the carboniferous group of limestones, and all lie in *swilleys*, or small insulated patches, of very inconsiderable length and breadth. These small independent basins are generally of an oval shape, and evidently seem to have been once small lakes or marshes, the strata having been deposited on the bottoms and sides, taking the concave form, which, under such circumstances, we would naturally suppose them to assume. In all of these *swilleys*, the stratum of coal that is of considerable thickness at the base, becomes thinner, and gradually fines off towards the edges, and at last totally disappears. This fact proves that the present basin-shaped position of the strata was their original one; and that the basin, at the period when the coal was deposited, was a detached lake or marsh, and not a part of the bed of the sea. These coal beds are evidently of considerable antiquity, and must have preceded some considerable local convulsions of nature. This is indicated by the fact, that while the small coal-basins at Holland Hirst in the east, and at Shirva on the west, both respectively retain their original or native forms, that at Stron, which lies exactly between them, and on the same line running east and west, the coal has been up-heaved by a great mass of diorite whinstone, which forms a considerable hill, and the whole original basin has accordingly been reversed in its shape, or has become saddle-backed, resembling a cup or basin turned upside

* It is believed that the bed of the Forth has been raised 20 feet. This would give 25 feet of a fall.

down, or lying with its mouth undermost, and the bottom in the air. That this basin was originally of the same form as those at Holland Hirst and Shirva there can be no doubt. The whin-hill at Stron must therefore be of a more recent date, and probably the coal basins of which we are now to speak are of a date posterior to the causes which led to the formation of the great valley in which they are deposited.

The Shirva field, a little to the west of the Stron, is a small *cop* or *swilley*, thrown in and out again by two hitches or troubles, which run along the northern and southern boundaries of the coal basin, which is of an oval form, probably about a mile in length, and half a mile in breadth. The coal here is about six and a-half feet in thickness, is rather soft in its texture, and comes up to the day, as the miners term it, at a very acute angle. It is wrought upon the inclined plane system. About four feet above this coal, there is a two inch coal with a roofing of shale, upon which a four feet post of limestone rests, which is again succeeded by a roof of shale, which reaches to the surface. This limestone resembles that found at Claddens, near Glasgow. About five fathoms below the thick coal, there is another seam of coal thirteen inches in thickness, which is succeeded by a bed of sandstone twenty feet thick. No farther search has been made. This is, upon the whole, a very singular little patch of carboniferous matter, altogether very unlike any other found in the neighbourhood.

At Holland Hirst, in the parish of Cumbernauld, but only a little to the east of the Stron in this parish, there is another singular small independent basin of coal, which, for the sake of connexion, it may not be improper to describe. This field consists of two seams, the upper or main coal, 3 feet thick, and a thin seam of 18 inches. Like that of the Shirva, it forms an oval basin upwards of half a mile in breadth, and from the present workings at the engine at Arneybog eastward to the Red-burn, fully a mile in length. It is cut off from the Netherwood lime-fields by a hitch running east and west, which may be seen crossing the country a little above the Redburn Bridge, at Castlecairy. It is cut off from the Cumbernauld lime-field on the south by a large greenstone ridge, which runs by Craigmarnloch, the back of Cumbernauld Inn, and the picturesque waterfall a little above the old house of Castlecairy. The coal here is thrown in from the north, which would seem to connect it with the Stirlingshire coal-fields. It was sup-

posed to extend considerably to the west, but this, as we shall presently see, has been proved not to be the case from recent borings. The three feet or main coal is three fathoms above the thin or eighteen inch seam, and the calm lime four feet thick, nine feet above the main coal. The thin coal is wrought long-wall, so that all the coal is wrought out. The main coal is wrought "stoop and room," but not so extensively as the former. The engine pit is $38\frac{1}{2}$ fathoms deep, fitted with an excellent engine of eleven horse power, adapted to draw both coals and water. This work as well as the extensive collieries at Banknock, on the opposite side of the canal, belong to the Honourable Admiral Fleming. The works at Shirva belong to Walter Ballantyne, Esq.

In a position almost exactly between these two small insulated basins of coal, and also on the south bank of the canal, is the singular conical coal-field of Stron or Barr-hill. The minerals here are the property of Captain Murray Gartshore, of Gartshore, and William Wallace, Esq. of Auchinvole. This field, as we have seen, is saddle-shaped. The prevailing rock in this locality is a felspatho-pyroxenic trap, which, as already stated, seems to have burst up at a period subsequent to the formation of the coal-field, carrying the coal, &c. along with it. This hill is in a peculiar range of country, namely, exactly in the direction of the anticlinal line, which alters the dip of the metals from east to west, and runs of course in the direction of the strike. If a line were drawn on the map of Scotland from north to south through this hill, it would be nearly the anticlinal line of a large portion of the district. It will pass on between the sources of the Endrick and Carron on the north, causing the one to run east, and the other west. In the south, the same line determines the courses of the numerous waters which run into the Tweed and the Clyde. The Clyde and the Forth alone, with daring impunity, boldly cross and sweep along this line, and at these crossings of the anticlinal line lie the principal coal-fields. The anticlinal line, which here produces the divergence of all the metals, runs up the face of the Barr-hill, by the Stron engine, so that all the metals to the east of that line dip to the east, and all the metals to the west dip to the west. The strike of the metals is due north and south. The dip of the coal-field at Shirva is accordingly to the west, while that at Holland Hirst is to the east. These speculations must be taken with some degree of allowance, but they will be found near the truth. There are two principal seams at Stron, as at Holland Hirst; but the

thin coal is only from 14 to 16 inches thick. The thick or main coal is four feet thick, and lies about seven fathoms below the thin seam. A black band of ironstone lies about seven fathoms above the thin coal. There are besides, five other small and inferior bands of ironstone connected with the seams. The coal here is good for smithy purposes, and a great proportion of it is used on the spot in the making of coke. Mr Wallace has 24 coke-kilns at present in use, and Mr Gartshore 13. These are erected towards the summit of the Barr-hill, nigh to the remains of the Roman wall, and shine forth in a dark night like beacons to all the country round. Admiral Fleming has also extensive works of the same kind at Holland Hirst. About 32 cwt. of coals put into each of these kilns yields a ton of coke. The coals require at least two days to roast; but this depends much on the state of the atmosphere. In March 1834, when coke sold at 16s. 8d. per ton, the expense of working, with the profits, might thus be estimated: Coke per ton, worth 16s. 8d.; working the coal 32 cwt. to a ton of coke, 8s. 8d.; cost and keeping up of kilns and expense of charring, 2s. 6d. By subtracting the two latter sums, or 11s. 2d. from 16s. 8d., there is a clear profit of 5s. 6d. per ton for the landlord and tenant. The above works, including Holland Hirst, send annually to the Glasgow market, by the canal, about 2148 tons of coke.

The thin coal in these collieries is difficult to work. The colliers are paid about 2s. per cart, equal to 3s. 4d., and sometimes as high as 3s. 9d. per ton at the room faces. The main coal, on the other hand, is put out as low as 1s. 8d. per ton, carried to the pit bottom. The average price is 2s. 6d. per cart, equal to 4s. 2d. per ton. Great quantities of fish bones were discovered when digging the engine pit at Holland Hirst; but organic remains are not so common in these strata as in some others.

There are at least five distinct main posts of lime in this district, all apparently entering it from the south, showing it to be the bottom of the Lanarkshire fields; while its surface and principal mineral beds to the east are evidently connected with the carboniferous groups of the coal-fields of the River Forth. The uppermost post of lime occurs at Milncroft, in the parish of New Monkland, exactly on the confines of the district of Lenzie. The second post is the celebrated deposit in Cumbernauld, lying on each side of a deep and romantic ravine, and forming by far the best lime for all purposes in this part of the country. The third post

is the calm-limestone found in the pit at Holland Hirst. The fourth post is the underwood lime thrown out from the Holland Hirst coal by the hitch above alluded to. The fifth post occurs at Shirva. It is the third post or calm-limestone which chiefly runs throughout the parish of Kirkintilloch. This is a very extensive deposit, and, with some of the accompanying upper and lower limestones, runs along the whole of the level tract by Cumbernauld and Bedlay to Glasgow, along the valley of the Forth and Clyde Canal, in this part of the country, and stretches also along the range of the Campsie Fells, where it is in some places 50 or 60 feet in thickness. It is a hard dark-blue lime with few organic remains, and yields but little effervescence with acids. It is well fitted for building purposes, and for smelting iron, but is little used by the agriculturist. A fine section of this limestone is cut through at the viaduct bridge on the Kirkintilloch railway near Bedlay. The Bedlay lime, which yields large supplies to the Monkland iron-works, is of this post.

The ironstone found at Stron belongs to an entirely different group from that found near Airdrie. In the Monklands, the upper black band is found about 25 fathoms above the ell-coal, and Mushet's black band about 15 or 16 fathoms below the splint coal; but all these seams are totally run out before they reach this quarter. The black band of ironstone, however, on the Barr-hill, seems of excellent quality, and may yet be wrought to great advantage. The following journal of a bore at Stron will afford some idea of the order and succession of metals.

1. *Bore at Stron.*

	<i>Ft.</i>	<i>In.</i>		<i>Ft.</i>	<i>In.</i>
Soft brown sand,	7	0	Soft white rock,	4	6
Blue-till,	2	8	Grey fakes in beds,	7	10
Ironstone band,	0	6	Black blaes,	20	5
Dark fakes mixed with blaes,	7	6	Hard black fakes,	8	10
Rock in beds,	7	0	Black blaes,	0	4
Blaes,	0	4	Ironstone band,	0	4
Hard white rock,	5	2	Black blaes mixed with fakes,	8	2
Black blaes,	14	9	Black fakes,	5	9
Ironstone band,	0	3	Blaes,	0	3
Very black blaize,	1	3½	Ironstone band,	1	0
Ironstone band,	0	2	Black blaes,	1	0
Black blaes,	3	7½	Hard blaes,	6	9
Grey fakes,	6	9	Ironstone band,	0	4
Hard fakes,	4	9			
Hard white rock,	2	4			
Very hard rock,	2	2			
				133	6

The depth here is upwards of 22 fathoms, in which there occur six distinct bands of ironstone, many of them very thin, averaging

upon the whole about 2 feet 9 inches in thickness. The 8-inch seam is the best. The coal does not occur in this bore, which was made in the bed of the lake-like valley to the north of the canal. The 7-feet of soft brown sand lying upon blue till has every appearance of aquatic origin. The coal is found on the south side of the canal, to the east and west of this bore, as appears from the following journal, down only to the first workable coal.

	<i>Ft.</i>	<i>In.</i>		<i>Ft.</i>	<i>In.</i>
Blue till mixed with freestone,	19	6	Fire coal of the smithy kind,	2	9
Grey fakes,	2	0	Rock,	0	4
Blaes,	0	6			
Rock in beds,	8	0			
Dark-grey fakes,	1	9			
				34	10

In this journal we have the blue-till on which the soft brown sand in the valley seems to rest; but here it is mixed with shattered fragments of freestone and other rocks, striking memorials, we may imagine, of the destructive effects produced by the eruption of the greenstone rocks from below.

It was long suspected that coal might be found to the west of Holland Hirst, or between that colliery and the colliery at Stron. The experiment was lately made, but proved a failure. The following journal, however, has an additional interest, as having been put down in the ditch of the Roman wall or Graham's dike, on Westerwood farm. At the first breaking of the soil, a nondescript sort of earth was found, containing the debris of many substances, which the borers, for want of a better name, have termed surface. The bore failed in its chief object, the discovery of coal. It is as follows:—

	<i>Ft.</i>	<i>In.</i>		<i>Ft.</i>	<i>In.</i>
Surface,	1	3	Freestone,	2	2
Freestone,	8	0	Dark-grey fakes,	2	2
Dark fakes,	9	0	Dark blaes,	0	2
Blaes,	0	4	Hard kingle,	0	7
Hard rock,	0	2			
Dark fakes,	0	1			
				26	1

Another bore was put down near Wyndford Loch, to the depth of upwards of 33 fathoms. It consisted almost entirely of repeated layers of hard faky matter, or a mixture of freestone and shale, with two seams of coal of a foul coarse quality, about a foot each in thickness, and a coarse limestone of three inches. In one place, on the valley of the canal, after a bore of two fathoms, they were stopped by gravel.

These bores are all on the east side of the parish. We will now examine the west side where it borders with Cadder. We have seen that the calm limestone is the most extensive, and most re-

markable of the stratified rocks in this district. It is found in the pits at Holland Hirst, and also at Woodmill, Bedlay, and all along by Garnkirk, Huggenfield, Robroyston, and Cathcart. Near the Kirkintilloch railway, at Bedlay, it is found in great perfection. It is generally in two plies, separated by blaes. The following journal will afford some idea of the accompanying metals.

	<i>Ft.</i>	<i>In.</i>		<i>Ft.</i>	<i>In.</i>
Blue limestone,	2	0	Hard grey sandstone,	3	4
Shale,	1	3	Light hard sandstone,	3	4
Blue limestone,	3	0	Kingle,	9	5
Dark blaes,	1	2	Hard slaty sandstone,	19	4
Freestone plies and blaes,	9	7	Dark fire-clay & slaty sandstone,	21	9
Coal,	0	8	Dark shale,	11	11
Dark hard fakes,	4	7	Dark fire-clay with ironstone		
Slaty sandstone,	12	1	bolls,	36	7
Coal,	1	4	Dark hardstone,	0	6½
Slaty sandstone,	8	5	Dark freestone and shale,	0	10½
Hard grey sandstone,	11	0	Coal,	0	6
Dark freestone plies,	11	0	Dark freestone and shale,	11	4
Dark fire clay,	5	3	Coal,	2	6
Light sandstone,	2	8	Dark-grey pavement,	0	2

Were I to compare the limestones on the north of the great Lanarkshire basin, with those on its south-western boundaries, I would point out the Calderside lime between the parishes of Blantyre and East Kilbride, as corresponding with Millcroft lime, the Auchintibber as corresponding with the Cumbernauld, but of inferior quality, and the limestones to the west of Kilbride as corresponding with the Netherwood lime. There is nothing equivalent to the calm limestone on the south-west of the county of Lanark. Although this district, therefore, properly speaking, lies at the bottom of the Lanarkshire coal-fields, still it is connected with other fields to the east, particularly with the Falkirk coal-fields, which seems to be cut off from the fields still farther to the east, by traps, as at Bowden and Cockleroy, which rise out from below it. Probably the whole district may here be viewed as one of denudation, which has been cleared of all the upper strata, and finally cleared of the waters which overwhelmed it, by the upheaving of the Campsie and other traps with which it abounds.

The prices of boring in this district, where the metals are seldom at any great depth, are as follows :

First 5 fathoms at 5s. per fathom,	L. 1	5	0
Second do. at 10s. do.	2	10	0
Third do. at 15s. do.	3	15	0
Fourth do. at 20s. do.	5	0	0
Fifth do. at 25s. do.	6	5	0
Sixth do. at 30s. do.	7	10	0

Total 30 fathoms cost . L. 50 10 0

The following will afford an idea of the expense of shanking and mounting a pit on a limited scale in this quarter.

Five fathoms shanking,	L. 19	0	0
A windlas.	1	10	0
A rope and chain,	2	0	0
Five fathoms of pipes for pumping water,	4	10	0
Total for five fathoms,	L. 27	0	0

The following is the average annual rental of the minerals in the parish of Kirkintilloch.

Barr-hill colliery, Mr Gartshore, let to Marshall and Wallace 1834,	L. 225	0	0
Stron, Mr Wallace,	300	0	0
Shirva colliery, Mr Ballantyne,	200	0	0
Orchardtown Limework, Mr Sharp, let to A. Baird, 1834,	50	0	0
1000 Tons of coke at 16s. per ton,	1600	0	0
Total rental per annum for minerals,	L. 2575	0	0

The above is only an estimated rental, taken from the heritors' books, with one exception. Probably the real value is greater.

The trap rocks in this district are often very remarkable. Near Smithston, by the road side, there is a greenstone in which the rock assumes a columnar form. There is a singular ridge of dioritic whinstone at Mollinsburn, through which the new Kirkintilloch road is cut. It runs east and west, and rises up so abruptly as to resemble a great quartern loaf lying on a table. The place where the above road passes, seems like a piece cut out of the loaf.

As to the soils of this district, they are not generally so heavy as farther south; they do not so decidedly incline to clay, and are upon the whole more *grassy*. In the genuine coal-fields, grass is not the favourite herb, but various species of ranunculus, yarrow, daisies, and other insignificant weeds are very prevalent. The bottom of the valley of the great canal is nearly all transported soil. Near Auchinvole, and in several other places, there are beds of water-formed sand of considerable thickness. The ground along the southern part of the Kelvin is of a deep marshy nature, and is often overflowed by the river, particularly near to the junction of the Luggie and Kelvin. The soil of a small tract to the north-east angle is of a light reddish colour, upon a whinstone and gravelly bottom. Around the town of Kirkintilloch, the soil is a light black loam, 16 or 18 inches deep, on a reddish tilly bottom. A strong natural clay prevails throughout the southern and eastern parts of the parish, where it comes more immediately into contact with the genuine coal measures. Tracts of moss, affording a black peat earth, are interspersed, here and there, through-

out the whole district. The following is nearly the amount of peat moss in the parish.

Drum Moss,	- - - - -	40 acres.
Mossfinnin and Bedcow,	- - - - -	40
Barbeth,	- - - - -	12
Muirside Moss,	- - - - -	12
Patches of moss elsewhere,	- - - - -	30
		<hr/>
		134 acres.

Zoology.—At Cumbernauld, at the east end of the district of Lenzie, an ancient breed of white cattle were kept for many ages, after they had disappeared from every other place in Scotland. We have a direct testimony to this fact, from a variety of celebrated and reputable authors, from the earliest periods to the present times. As this district, at one time, belonged to the Cummins, it is probable, that the same breed were also at Hamilton, as the estate of Cadzow also belonged to the same family. They have been long extirpated from Cumbernauld. There is, however, one of the *feræ naturæ* which still keeps its ground there, the nimble and elegant *Cervus capreolus*, or roe. It is very frequent in the woods at Cumbernauld and Castlecairy, and has of late been hunted by hounds trained for the purpose. When attacked, it is very shy of leaving its cover, but when driven to the open field, it does not run swiftly, but seems to leap or bound like a calf, and unless another place of shelter be near, is soon overheated and overtaken. The *Sciurus vulgaris*, or common squirrel, abounds in the woods. The *Lepus cuniculus*, or wild rabbit, is more common in the woods than formerly, and has probably been introduced by the gentlemen of the chace to feed foxes. Better feed them on rabbits than on their tenants' poultry. Along the banks of the canal, in particular, the *Arvicola aquatica*, or water-vole, and *Sorex fodiens*, or water-shrew, are very common. Other quadrupeds common to this part of Scotland are also found. Among the birds of prey, the *Buteo æruginosus*, or gled, and the *Buteo nisus*, or sparrowhawk, are the most destructive. In the last Statistical Account of the parish, drawn up by the Rev. William Dunn, the author states, that "the advantage resulting from our late improvements is attended with one circumstance of which we have reason to complain, which is this, that the use of lime upon our lands, the filth which is conveyed into our rivers, from the coal-works in the neighbourhood, and the machinery which have been erected, have already rendered a salmon-fishery, which was considerable, very insignificant; and indeed there is too much reason to apprehend, that the fish in our

rivers will be almost totally exterminated by the joint effects of these different sources of destruction." The remark is true with regard to the salmon-fishery, which was at one time important enough, to be expressly retained by the family of Cumbernauld, when they dispensed with the rest of their property in this neighbourhood. That the number of fish has generally decreased is also very probable. The chief kinds now found are the following;—the reader, however, will remark, that I am not quite satisfied in my mind as to the *Salmo albus*.

Salmo salar, common salmon
 ——— *fario*, common trout
 ——— *albus*, whiteling or white trout
Esox lucius, common pike

Leuciscus rutelus, roach, *Scotticè*, braize
 ——— *phoxinus*, minnow
Perca fluviatilis, common perch

Botany.—The only thing worthy of remark in the botany of this district is the immense quantity of *Lothyrus salicaria*, or purple-spotted loosestrife, which fringes the southern bank of the canal, and in the months of July and August, when in full blossom, exhibits a rich display of purple spikes of flowers, and altogether presents to the eye a peculiarly gay and captivating appearance. The *Iris pseudacorus*, or yellow water iris, and the *Menyanthes trifoliata*, also contribute to swell the more than usual exuberance of verdure. In this entangled mass of foliage there may be occasionally detected a few specimens of that rare and beautiful plant *Lysimachia thyrsiflora*, or tufted loosestrife, and also some rare *Cariaces*, and a variety of interesting aquatic plants. The *Arenaria verna*, or vernal sandwort, rather a rare plant, occurs in dry gravelly places between Cadder and Kirkintilloch. A variegated variety of the *Urtica urens*, or common nettle, sometimes occurs. The *Sambucus ebulus* abounds in a field on the northern precincts of the parish, near the mansion-house of Glorat. The *Valeriana officinalis* is more common here than in Lanarkshire.

The principal plantations are on the estate of Gartshore. They extend to upwards of 326 acres, and are finely and very imposingly laid off. The trees chiefly planted are larch, spruce, and Scotch fir; but little hard-wood. The principal mansion-houses in the parish are well ornamented with trees, and there are some pretty extensive plantations, as at Boghead, but not so important as to require to be specified.

II.—CIVIL HISTORY.

This district must have been of great importance so far back as the time of the Romans, as it was here that they had one of their principal forts. In the year 1184, the town of Kirkintilloch was erected into a burgh of barony by William the Lion. Before the

year 1195, William, the son of Thorald, who held the manor of Kirkintilloch, granted to the monks of Cambuskenneth the church of Kirkintilloch, with half a carucate of land. William Cummin, afterwards Earl of Buchan, held the manor of Kirkintilloch in 1201. The estates afterwards came into the hands of the Noble family of Fleming. There is in the charter-room at Cumbernauld an ancient charter from Alexander II., dated about 1226. In the "Registrum Magni Sigilli Regum Scotorum," published by order of Government, there is a charter to Malcolm Fleming from King Robert, conveying "totam baroniam de Kirkintolach que fuit quondam Johnis Comyn." In the reign of Robert II. there is a charter of confirmation, dated Kinghorn, 20th July, the fourth year of his reign. This had reference to the claim of William Boyd, son of Thomas Boyd, the former proprietor of the barony of Lygne. The same monarch, by a charter dated Arnele, 19th May, in the third year of his reign, grants "Villa de Kerkentuloch to Gilbert Kennedy, grandson of Malcolm Fleming." In 1526, James V. "ratifies and apprevis the charter of new infestment maid by our soverene Lord to Malcolm Lord Flemyng, making the touns of Biggar and Kerkentuloch, burghis of barony, with the mercat dais, in all punctis, with arteklis, after the form and tenor of the said charter of infestment maid thereupon." In 1672, William Earl of Wigtown built a bridge of three arches over the Luggie, the old bridge being quite ruinous. The building of this new bridge is said to be a "maist necessary and useful bridge for the saife passage of all persons who travel from Edenbro and Stirling to Glasgow and Dumbarton, being situated on the highway leading to and fro these touns." The Earl, in consideration of the expenses he was at in building the new bridge, was permitted by Act of Parliament, for the space of five years after the opening of the same, to exact an imposition of four pennies Scots for every ox, horse, or cow, four pennies for every ten sheep, and eight pennies for every loadened cart. This district formerly belonged to Stirlingshire. Some time between 1507 and 1522, the name of the whole was changed from Kerkentulach to Lenzie. In 1621, an attempt was made to get a new church erected in the middle of the parish, but without success. In 1659, the parishes of Kirkintilloch and Cumbernauld were finally separated. A new church was built at the east end for the new parish, and the chapel of the Virgin Mary, built 1644, became the parish church of Kirkintilloch, as at present.

In 1745, the Highlanders descended directly upon this part of Scotland from the Craw road along the western limb of the Campsie range. A stupid and cruel-minded man fired from a barn bole, and killed one of the rebels as they passed through the town of Kirkintilloch. This wanton and unwarrantable action led to very serious results to the inhabitants of the burgh. They were ordered to give up the murderer to justice, but, on being unable to do so, a heavy fine was imposed upon them. On the return of the Highland host northwards, the town was again put into a great panic, it being reported that they were to come that way, and meant to burn it. An aged person tells me that his father was an eye-witness of the confusion which prevailed on the approach of the much dreaded host. People were flying in all directions, in the utmost despair, taking with them what they valued most; and among the rest, he particularly remarked an infirm old man making his escape with his cow and a chaff-bed thrown over her back. But a more dreadful, and not less dreaded foe, was destined to invade the peaceful burgh of Kirkintilloch well nigh to a century after. This was no less than that appalling scourge, the Asiatic cholera, which visited this place in 1832, after having visited Haddington and Musselburgh. Kirkintilloch was the first station it touched at in the west of Scotland, and if the local agitation was great, the terror of the whole country around was, if possible, still greater. The total number of cases was 96; deaths, 36; cures, 60. Of the 36 fatal cases, 10 were children, 14 females, and 12 full-grown males.

Antiquities.—The castle of Kirkintilloch, on the Kelvin, appears to have been a place of considerable strength, in the end of the thirteenth century, when it belonged to John Comyn, who lost it and the barony of Kirkintilloch, by forfeiture, on the accession of Robert Bruce, when it was given to Sir Robert de Fleeming, ancestor of the Honourable Admiral Fleeming, in consideration of the eminent services rendered in the course of the long and bloody contest, which that monarch carried on with the English, for the possession of the Scottish throne. No traces of this ancient fortress now remain. In the northern side of the parish, there is an ancient square tower, known by the name of the tower of Banheath. This was in ancient times a stronghold of the Boyds, Earls of Kilmarnock, whose armorial bearings are still blazoned above the door. It was at one period surrounded with woods, and had a deer park. In the memory of persons now liv-

ing, the tower was covered with a leaden roof, and was surrounded by a ditch. It is still pretty entire, but in a state of complete disrepair.

But by far the greatest object of curiosity in the district, either to the antiquary, or general reader or scholar, is the remains of the ancient Roman wall, with its peels or forts. It appears that no less than six walls were built along this narrow neck of land by the Romans. The first was built by Julius Agricola, the first of the Romans who penetrated into Caledonia, about A. D. 81. A second wall was built between the Forth and Clyde by Lollius Urbicus about A. D. 138, under the Emperor Antoninus. It was built of turf, and fortified by castles of stone-work. Capitolinus expressly mentions this wall, and memorials of it are preserved in the inscriptions both of the Emperor and General. Carausius, who usurped the empire in Britain towards the end of the third century, according to Rennius, (cap. 19, Edit. Gale,) built or repaired the wall between the Clyde and Forth, about A. D. 289. The marches of the empire were again repaired under the Emperor Valentinian, by his general Theodosius, in A. D. 367, when the province of Valentia was formed. The marches of the empire, or the above wall, was also repaired by Stilicho about A. D. 398. When the Romans finally left this part of the country they caused the Britons first to repair the wall, which was of turf, and of little use. Bede says it was situated between the Forth and Clyde, and begun at a place called Peneltun in Saxon, and Penualin in Pictish, (Nenricus calls it *Cenual*, perhaps Kennal,) about two miles distant from Abercorn, and ended towards the west at Alcluyd or Dumbarton, on the Frith of Clyde. The same authority says it was very broad, and very high, and that the remains of it were to his time. The wall of A. D. 426 was between the Tine and Solway.

It is the remains of the wall described by Bede which are now to be seen. It enters the parish of Kirkiintilloch at Barr, crosses Barr-hill, and then the canal at Shirva, runs in a westerly direction near the south bank of the Kelvin, passes the town of Kirkiintilloch, at the back of the parish church, and leaves the parish near Mr Thomson's of Belfield. The whole distance is about six miles. During that brief space, there have been no less than three distinct forts or castles, which are on high and naturally strong positions, well-fitted to see to a great distance around, and to exercise an extensive *surveillance* not only over the pieces of wall

committed to their keeping, but also over the whole country around. The first of these posts upon the east side stands upon the top of the Barr-hill, a situation so elevated as to command a view of almost the whole length of the wall from east to west; or over a space of country upwards of thirty-two miles from sea to sea. The fort is a square area of 150 yards. About the time the last statistical report of the parish was written, some vaults belonging to it were discovered. They were all entire, covered above with flat bricks, and floored with a mixture of lime, and black and white gravel, with sand, as if from the sea-shore, very unlike any that is now to be found in this neighbourhood. The next of these forts, proceeding westward, is situated three miles distant, at the village of Auchendowie. It is of an oblong rectangular figure, extending 150 yards one way, and 70 another. This fort is now sadly mutilated, and can scarcely be traced. The Forth and Clyde Canal is cut through it. Two miles onward in the same direction is the fort or peel, as it is called by way of distinction. It is situated on a piece of rising ground at the west end of the town of Kirkintilloch. The ditches and forms of the fortifications are still pretty distinct, except on the west side, where they have been lately levelled and turned into a kail-yard. The fort is of an oblong rectangular form, 90 yards in length, and 80 in breadth. It is singular in being situated on the north side of the wall, whereas all the other forts stand upon the south side. From the history of the place subsequent to the time of the Romans, there is more than ground for suspicion that this was one of the strongholds of the Comyns, during the time of the disturbances with the English. Certainly the traces of the remains of the fortifications are much fresher here than at any of the neighbouring stations; and the reason probably is that they are newer, and may therefore be referred to comparatively modern times. That this was once a Roman fort, there can be no doubt; the only question is, as to the remains of the ditches and redoubts now visible. A piece of lead, weighing upwards of 11 stones, of the shape of a cast of pig-iron, was lately found. It has been sawn into two pieces. There are some rude marks on it resembling the Roman numerals for two hundred. Stones bearing inscriptions have also been dug up among the ruins of all these forts. Many of these are in the Hunterian Museum at Glasgow. Mr Dunn, the last minister of Kirkintilloch, mentions one with the words *Legio Secunda Augusta Fecit*. The ditch is in a pretty entire state in many places on the

property of the Honourable Admiral Fleeming, between Castle-cairey and the Barr-hill, and also in this parish. It is sometimes of considerable depth, and twenty or thirty yards broad, covered with a thick coating of verdure. The bottom of it is everywhere pervaded with masses or rather fragments of broken stones. It is here uniformly called Graeme's Dike.

III.—POPULATION.

In 1751, the Rev. Dr Erskine, at that time minister of Kirkintilloch, afterwards of Edinburgh, found the population to be as follows :

Families in the town,	195
" " in the country,	226
Persons in the town above eight years of age,	575
" " in the country, do. do.	796

The addition of the Seceders and Quakers, at that time in the parish, made up 1400 examinable persons, which, being taken at one-half of the population, will give 2800 of a population. This is Mr Dunn's data, deducible from Dr Erskine's returns, but it is erroneous. Dr Erskine gives the total families in town and country at 421; and if we allow four to a family, which is a fair enough calculation for those times, it will give a total population of 1664. The return of souls to Dr Webster in 1755 was 1696, so that the total increase in four years was only 32 souls. The number of inhabitants in the parish in 1791 was as follows :

In the town,	1536
In the country,	1103
Total,	2639

This shews an increase in forty years of 943.

Population in 1801,	3210
" " 1811,	3740
" " 1821,	4580
" " 1828,	5518
" " 1831,	5888

The increase in ten years, from 1791 to 1801, is 570; from 1801 to 1811, the next ten years, 530; from this last period till 1821, it is 840; 938 for seven years, from 1821 to 1828; and for three years from 1828 to 1831, the increase was 370; so that in the ten years before 1831 the total increase was 1308. The gross average *annual* increase for the whole period is rather more than 81 per annum. The full particulars of the census of 1828 are in the hands of Mr John Moffat, merchant in Kirkintilloch. The following are its general results.

	Above 12 years of age.	Below 12 years of age.	Total.
Landward,	928	418	1346
Burgh,	2755	1417	4172
Total,	3683	1885	5518

The increase per annum at this period, Mr Moffat supposes to be about 120. The result of the Government census of 1831 is as follows :

Males,	3006
Females,	2882
Total,	5888

The following are the general outlines of the census for the purposes of the Church Commission in 1836.

Districts.	No. of souls.	Above 12.
1. Barr,	328	223
2. Shirva,	202	157
3. Eastside,	555	441
4. Hight Street, north side,	676	436
5. High Street, south side,	163	102
6. Hillhead,	673	455
7. Waterside,	353	245
8. Gartshore,	284	206
9. Middlemuir,	92	63
10. Cowgate,	1362	1061
11. Townhead,	1222	802
Omitted in Townhead,	20	15
12. Gallowhill,	116	78
13. Belfield, &c.	110	56
	6156	4390

The lists are uncommonly accurately taken down, and neatly and carefully assorted ; but it is probable some of those who were entrusted with them have got bewildered in one department, namely, in ascertaining the numbers above twelve years of age, and those above seven. The proportion of those above twelve years of age is probably here too great. The average number of proclamations and baptisms in the *parish church* for the last eight years are as follows, (premising in the meantime that by the Church Commission returns, there are in the parish 18 bachelors, heads of families, 91 old maids, and 80 widows.)

Years.	Proclamations.	Baptisms.
1830,	50	107
1831,	60	99
1832,	41	120
1833,	44	89
1834,	44	104
1835,	61	107
1836,	62	105
1837,	42	107
	404	33

The proclamations, as here given, are at the rate of one marriage to about every 113 individuals, which is about the usual average in this quarter of Scotland, sometimes a little more, and sometimes a little less. In Hamilton it is 117, and in England generally 120. There is one baptism to every 60 persons, which is about twice too much : the true number is probably about 30. According to this computation, the total number of baptisms in the parish, among Churchmen and Dissenters, will be about 1600 or upwards. The deaths, as far as can be ascertained, are about one to 120. Members of families, 1114 ; inhabited houses, 615 ; houses, uninhabited or building, 1. Illegitimate births about 7 per annum.

State of Landed Property.—In the beginning of the fourteenth century, the whole parish, excepting the burgh lands of Kirkintilloch, and the barony of Western Gartshore, (which has for many ages been possessed by that ancient and respectable family, Gartshore of Gartshore,) was the entire property of the Noble family of Flemings, Earls of Wigton. Lord Elphinstone, in 1735, married Clementina, the only daughter and heiress of John, the last Earl, at whose death in 1778, the male line of that house became extinct. Lady Clementina Fleming lived till 1799, when she died at the advanced age of eighty. The Honourable Admiral Fleming, second son of John, eleventh Lord Elphinstone, is now the heir-general to the whole Wigton estates. The last of the property in this parish belonging to the family was sold off in 1757, but they still retain the feu-duties, and some other casualties of feudal superiority. Admiral Fleming has held some of the highest appointments in the British navy, and is now on the chief command at Portsmouth. He is equally distinguished for his public and private worth and intelligence ; and it is to him, and that excellent patriot, the late Sir Peter Murray of Auchtertyre, the father of Captain Gartshore of Gartshore, that the public are indebted for the very superior roads which everywhere intersect this district of country.

The family of Gartshore, as above stated, is of great antiquity, and has long resided in this part of the country. The present representative of the family, Captain Murray Gartshore, second son of Sir Peter Murray of Auchtertyre, with his excellent and amiable lady, a daughter of Sir Howard Douglas, Bart. her Majesty's Commissioner for the United States of the Ionian Islands, has of late resided chiefly on his estate in this parish, where he is universally beloved and respected. It is understood that he is about to erect a new house among the fine plantations near the Barr-hill. To

judge from the plans, the building will be at once elegant and commodious, and will add not a little to the picturesque beauty of the district.—Major Berry has an elegant and commodious seat near the town of Kirkintilloch, and many fine villas and manor houses of wealthy and respectable individuals are scattered in different parts of the parish. Owing to the gradual dismemberment of the Wigton estate, which, at one period, extended over many neighbouring parishes, the property has been very equally distributed, and is now in the hands of a great many proprietors. In this respect, it may be considered as a model of a parish so circumstanced, and it may therefore not be improper to give an analysis of the present state of property, so as to make figures speak, instead of words.

In the roll of the real valuation of the parish, there are no less than 311 proprietors of lands and houses, so that every nineteenth person nearly is possessed of some heritable property. The number of female proprietors is 52, with a gross yearly income of L. 839, 7s. 10d. It may not be uninteresting to observe the proportion in which this considerable sum is distributed among them. They constitute nearly one-sixth of the whole proprietors, but the proportion of their gross yearly income is only about one-twentieth. The numerals indicate the number of individuals, and the sums their annual income from property. They are put down promiscuously as they occur on the roll.

No. of persons.	Annual income.	No. of persons.	Annual income.
1	L. 5 10 0	28	L. 4 0 0
2	5 18 0	29	8 1 6
3	71 3 0	30	11 0 0
4	8 1 6	31	3 15 0
5	5 5 0	32	6 0 0
6	36 0 0	33	2 11 0
7	69 1 4	34	7 14 0
8	9 0 0	35	5 2 0
9	6 5 6	36	60 0 0
10	5 14 0	37	29 10 0
11	5 18 9	38	85 0 0
12	2 0 0	39	17 0 0
13	22 16 0	40	21 0 0
14	4 15 0	41	25 0 0
15	7 8 9	42	11 19 0
16	6 1 6	43	17 2 9
17	17 14 6	44	26 18 11
18	12 13 6	45	7 10 0
19	1 4 0	46	18 12 0
20	1 5 0	47	16 16 0
21	21 2 0	48	4 5 0
22	16 4 1	49	4 14 0
23	4 5 0	50	6 14 9
24	27 19 0	51	2 0 0
25	3 8 0	52	16 17 6
26	29 15 0		
27	9 0 0	Total,	L. 839 7 10

The old original Scotch valuation of the parish is L. 5085. The real rental is L. 14,600 Sterling, which being allocated at 3d. per pound Sterling, as at present, brings a yearly income of L. 121, 13s. 4d. The total number of names of heritors upon the roll is 309, of whom 189 pay minister's stipend, and 144 school-master's salary. The number of proprietors of land of L. 50 and upwards is 33. There are also as follows: L. 10 or under per annum, 40 proprietors; L. 10 to L. 20, 15 do.; L. 20 to L. 50, 31 do.; L. 50 to L. 100, 19 do.; L. 100 to L. 150, 4 do.; L. 150 to L. 200, 5 do.; L. 200 to L. 300, 4 do. This calculation does not include the larger estates. The following are the principal:

Estates.	Acres.	Rental of Lands.	Woods.	Minerals.
Gartshore,	1518	L. 1488 6 0	L. 220 0 0	L. 250 0 0
Oxgang,	131	387 0 0	.	200 0 9
Shirva,	170	380 0 0	.	900 0 0
Auchinvole,	151	271 0 0	.	

There are eleven principal tenants, with sundry smaller ones on the estate of Gartshore, and about eight tenants on Oxgang. There are in the parish 3076 acres, 2 roods, and 19 falls under cultivation, which yields an average annual rental of L. 8468, 4s. 6d. The net produce of lands and houses is as follows:

Districts.	Annual net rentals.
1. Hillhead, east side,	L. 722 2 10
2. Burgh lands, East Muir, south-east side,	265 11 11
3. Including Woodhead, Woodmill, Dalshannan,	} 822 4 6
4. Hole, Barbeth, &c. &c.	
5. Drum, Drumbreck, Gartshore, &c.	2185 10 3
6. Tintock, East Muir, Luggie bank, &c.	1231 11 0
7. Waterside, Solesgirth, &c.	110 11 4
8. Woodilee, Caefmuir, Oxgang, &c.	925 16 0
9. Muirhead, Greens, Boghead, &c.	554 2 0
10. Industry, Backrow, &c.	386 15 0
11. Freeland Place, Townhead east, &c.	660 15 3
12. Townhead, east and west, Canal bank, &c.	442 7 0
13. Cowgate east, Broadcroft, and Blackcauseway,	617 7 9
14. Cowgate west, Blackloch, &c.	1017 6 0
15. High Street, north and south sides,	774 3 10
16. Bellfield, Westermains, &c.	1993 4 2
	<hr/> L. 13,759 9 6

The landward proprietors are about 128, with upwards of 105 tenants under them. The following table will show the comfortable circumstances in which many of the inhabitants of this parish are placed, in regard to that degree of comfort which depends on the possession of property. The kinds of property are lands, houses, and feus;—the numeral letters indicate the number of persons condescended upon:

DUMBARTON.

N

Proprietors.	Annual income from land.	Annual income from houses.	Annual income from feus.
1	L. 135 0 0	L. 359 0 0	
2	322 0 0	22 13 0	L. 28 11 6
3	190 0 0	141 0 0	44 13 1
4	19 0 0	52 5 0	0 0 0
5	46 0 0	116 5 10	0 0 0
6	11 10 0	130 14 3	1 4 0
7	9 0 0	69 0 0	6 5 6
8	290 0 0	13 0 0	0 0 0
9	45 0 0	81 0 0	0 0 0
10	10 0 0	45 0 0	0 0 0
11	141 0 0	50 0 0	0 0 0
12	28 0 0	81 0 0	0 0 0

As a contrast with the above, we may give some statistics relative to the more dependent classes, which will speak for themselves.

Districts.	Farmers.	In their families.	Weavers.	In their families.
1. Barr,	19	133	8	54
2. Shirva,	9	63	14	91
3. Eastside,			52	280
4. High Street, north side,	3	11	43	160
5. High Street, south side,	0	0	4	16
6. Cowgate,	1	3	104	477
7. Townhead,	3	14	135	823
8. Hillhead-Gallowhill,	3	16	64	202
9. Waterside,	0	0	41	273
10. Middlemuir,	0	0	14	97

Here we have 471 weavers heads of families, with 2473 dependent on them; or making up parts of their families; whereas 38 farmers with their large incomes and greater need of assistance, have only 240 living along with them, either as dependents or as members of their households. The average number of individuals in a weaver's family is five and a fraction; in a farmer's family, six and a fraction; but the means of support cannot be calculated by the same ratio.

In speaking of the habits of the people collectively, we may say with Mr Dunn in the last report of the parish, that they are in general "a virtuous and industrious people." "The pride of mind," he continues, "and impatience of contradiction, which the possession of landed property frequently inspires, perhaps, may occasion too many law-suits." In this respect, they are certainly *naturally* not more pugnacious than their neighbours, although the great subdivision of property among them creates also a subdivision of rights, and, of course, furnishes a greater opening for law-suits. This is certainly one evil arising from an extensive subdivision of heritable rights, but it has also its counterbalancing

advantages, and one of the most remarkable of these is the encouragement of virtuous and industrious habits, arising out of the habitual sentiments of self-respect and self-dependence. This is no imaginary statement; its effects have been manifested in the remarkable fact, that, with the increase of trade and manufactures, a rapidly multiplying population, and in an extensive district of country, within a few miles of Glasgow, no poor's rate was ever imposed by law, till within these few years past: all was done by voluntary contributions. This fact of itself speaks volumes in behalf of the orderly, industrious, and virtuous habits of the people of Kirkintilloch.

IV.—INDUSTRY.

Total families,	1114
Families employed in agriculture, as farmers, cottars, and farm-servants,	118
in trade, handicraft, manufactures, &c.	961
not in any of the above employments,	35
Number of wholesale merchants, capitalists, bankers, professional persons, and other educated men,	50
Occupiers employing labourers,	34
not employing labourers,	72
Labourers in agriculture,	152
Employed in manufactures and machinery,	724
Retail trade, handicraft, or maltsters,	214
Males twenty years of age,	1367
Male-servants twenty years,	1
under twenty,	2
Female servants,	129

When the last statistical account of the parish was drawn up, there were—weavers, 185; stockingmakers, 11; smiths, 15; house-carpenters and cabinet-makers, 20; masons, 10; shoemakers, 10; saddlers, 4; coopers, 6; a good many tailors, and a few hair-dressers. At that period, namely, 1791, there were in the burgh 1536; but in 1828, when the total population was 5518, there were in the burgh 4172. The following is the state of the principal trades at present, as drawn up by Mr William Moffat, preacher of the Gospel: Slaters, 5; masons, 12; house-carpenters and cabinet-makers, 30; tailors, 20; bakers, 12; shoemakers, 24; blacksmiths and locksmiths, 10; house-painters and glaziers, 4; hair-dressers, 2; saddlers, 2; weavers, 2000.

It will be observed, that there is a decrease in the stocking-making trade, also among the saddlers and coopers, and an astonishing increase among the weavers. Some of these articles are probably supplied from Glasgow. In the Church Extension list I also find the following *heads* of families, namely, 7 founders, 10 printers in cloth, 13 sailors, 5 maltmen, 20 merchants and grocers, 7 carters, 2 plasterers, 2 thatchers, 2 quarriers, 1 mill-

wright, 3 gardeners, 2 sawers, 2 carriers, 2 butchers, 1 musician, 2 calenderers, 6 hatters, 3 painters, 1 nailer, 4 toll-keepers, 60 labourers, 3 surgeons—there are 7 in all.

Agriculture.—The lands are for the most part arable, but still the proportion is not so great as might at first sight be imagined. The total number of Scots acres in the parish is 8527; but by the returns of Messrs Shaw and Miller, two most able practical men, who made up an estimate of the rental of the landward part of the parish in August 1836, which is attested by the sheriff of the bounds, it appears that there are only 3076 acres, 2 roods, and 19 falls, under regular cultivation, leaving an overplus of 5451 acres. A large proportion of this residuum is taken up by the town of Kirkintilloch, and the rest by the canal, railway, public and private roads, hedges and fences of all sorts, which are numerous, farm-houses, streams, and burns, and a few straggling villages.

The only uncultivated land in the parish is towards the east end, about Stron and Barr-hill, and the mosses already alluded to. Altogether the waste lands, with the above exceptions, do not amount to, perhaps, more than 300 acres, if so much. To this amount we may add other 300 acres now under wood, chiefly larch, spruce, and Scotch fir, with a sprinkling of hard-wood. These yield good returns, or may be expected to do so. The average rent of land per acre throughout the parish is about L. 1, 10s. But the average will be better shown as follows: In 131 properties in the hands of the same number of proprietors, and of 108 tenants, the proportion between the number of acres, and the rental per annum, generally on a lease of nineteen years, is as follows: I shall put them down at random, as taken from the books of the heritors, and from other sources of information.

Acres.	Annual rental.	Acres.	Annual Rental.
93	L. 140 0 0	12	22 0 0
70	122 0 0	80	130 0 0
65	65 0 0	70	110 0 0
50	80 0 0	45	95 0 0
30	90 0 0	190	175 0 0
28	80 0 0	80	105 0 0
50	172 0 0	175	111 0 0
9	32 0 0	43	70 0 0
8	26 0 0	70	94 0 0
80	170 0 0	30	45 0 0
60	120 0 0	160	350 0 0
45	100 0 0	190	295 0 9
80	70 0 0	151	271 0 0
80	83 0 0	44	130 0 0
57	60 0 0	36	40 0 0
80	50 0 0	28	55 0 0
80	60 0 0	19	55 0 0
72	160 0 0		
50	55 0 0	2252	L. 3928 0 0

The total number of acres is 2252, and the total annual ren-

tal of these acres L. 3828 Sterling; the average is L. 1, 9s. 6½d. or L. 1, 10s. nearly per acre. There is very little permanent pasture except at Barr-hill. The best land in the parish is at Shirva. Oats, barley, hay from sown grasses, flax, pease, beans, and a small proportion of wheat, are the principal crops sown. The usual rotation of crops in dry lands is for the *first* year a white crop; for the *second* year a green crop; on the *third* year the land is sown down, partly with wheat, barley, or oats, and in the *fifth* and *sixth* years it is allowed to lie in pasture. In wet lands, generally two white crops are taken, or one of them in flax, which is chiefly sown towards the east end of the parish. The other crops are as above. In the third year, some farmers sow down with barley and rye-grass; and where that does not answer, they plant potatoes; in the fourth year, there is a hay-crop, and the fifth and sixth are pasture. Flax is not so much sown now as formerly. Flax, after paying expenses, may be worth from L. 5 to L. 6 per acre; oats at 5 bolls per acre, L. 3, 10s.; wheat from L. 9 to L. 10; hay from L. 5 to L. 6 on clean land; barley, L. 5; potatoes, L. 16 per acre. The price of manure for an acre of land, if well done, is L. 8, 2s. The price of labouring it, L. 1. Dung is sold at 4s. and 4s. 2d. per square-yard. There is 1½ square-yard in a ton. One hundred tons costs by the Canal L. 20, or 5s. per ton. Horse and cow-dung is sold in Kirkintilloch at 6s. per ton. About four carts of dung are required for an acre of potatoes, which will cost L. 10. An acre of potatoes, when laboured by the spade, costs about L. 1, 10s., for labour by the plough, L. 1, 1s. Calculating the expense of labour as above, by the plough, per day, there will be for three men, 6s.; three women, 3s.; a plough and two horses, 12s., = L. 1, 1s. The best men-servants for agricultural labour may be had at from L. 16 to L. 20 per annum, with board and washing; boys at from L. 4 to L. 10. The best women-servants are hired at from L. 9 to L. 10 per annum; inferior, L. 6; labourers in winter earn 9s. per week, in summer, 12s.; masons, L. 1, 1s., and carpenters, 18s. The rate of wages in the following trades from 1810 to 1820 was,—

	1811.		1812.		1813.		1814.		1815.		1816.		1817.		1818.		1819.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Masons per day,	2	10	3	0	3	0	3	0	3	0	3	0	3	4	3	2	2	6
Joiners & Carpenters,	3	0	3	0	3	0	3	0	3	0	3	0	3	0	3	0	2	4
Masons labourers' do.	1	10	1	10	1	10	1	10	1	10	1	10	1	10	1	6	1	3
Slaters' ditto.	3	4	3	4	3	4	3	4	3	6	3	4	3	4	3	4	3	4
Sawyers' do.	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0
Blacksmiths' do.	2	6	2	6	2	6	2	6	2	6	2	8	2	8	2	8	2	6
Plasterers' do.	3	6	3	6	3	6	3	8	3	8	3	6	3	6	3	6	3	6

The working hours of masons and all who labour in the open air, are reduced from 1st November to 1st March, and from that month till November are again increased, and of course the wages bear the same proportion. In the above calculations, allowance is made for these alterations, and the average only is given.

There are about 148 horses in the parish, employed entirely in agricultural labour, which is at the rate of 4 horses to every 100 acres. In the town of Kirkintilloch, there are 20 common carter's horses, taxed at 10s. 6d. each for road-money. There are also in the parish about 740 cows; generally about 12 or 14 milch-cows, or, including young cattle, 20 in all to the hundred acres of arable land. There are, besides, a number kept by private individuals, for retailing the milk to the public. The horses are of the Clydesdale breed, but rather small. The cows are of the Ayrshire breed, and very good of their kind. Mr Anderson of Smithston, on the eastern borders of the parish, has been long celebrated for the excellent sorts of cattle reared by him. He and his father, who was also a skilful rearer of cattle, have contributed much to the amelioration of the breed both of the horse and of the dairy-stock of cattle in the district. He was one of the prize-takers at the late great cattle-show in Glasgow. The average rent of grazing is at the rate of L. 2, 10s. per ox or cow grazed, and at the rate of 10s. per ewe or full-grown sheep pastured for the year. But these latter are very few in number. The keep of a horse per annum to the farmer who has every thing within himself, is about L. 12.

There has not been so much draining in this parish as in some others, but to this general remark there are many individual exceptions. Mr Horn of Braes is well known as one of the most able and successful agriculturists in the west of Scotland, and has drained more than any other person in the parish. Messrs Stewart of Barbeth, and Inglis of Woodhead, have brought in a good deal of moss. The following are the estimated expenses of draining and improving one acre of mossy marshy land.

	Per Acre.
Tiles per acre,	L.6 0 0
Casting drains 8d. per rood, and soles for tiles of wood,	1 0 0
Casting and filling, 1s. per rood,	0 4 0
For delving,	3 10 0
For putting one inch of sand on surface,	2 0 0
For dung,	3 2 0
	<hr/>
	L.15 16 0

In every hundred acres of arable land, there may be 20 acres in oats, 8 acres in potatoes or green crops, 20 acres in hay, 6 acres in wheat or barley, and fully one-half in pasture. There may be in the whole parish annually about 615 acres of oats, 246 acres of potatoes, 615 acres in hay, and 184 in wheat or barley, which, out of 3076 arable acres, leaves 1660 for white and green crops, and 1416 for pasture, which latter amount is probably a little below the mark.

Produce.—Proceeding upon the above data, the average gross amount of produce raised in the parish, as nearly as can be ascertained, will be as follows:—

Produce of grain of all kinds, whether cultivated for the food of man or the domestic animals,	L. 5900	0	0
Potatoes, turnips, &c.	3800	0	0
Hay,	2000	0	9
Pasture,	1500	0	0
Flax,	200	0	0
Gardens and orchards,	200	0	0
Thinning woods,	100	0	0
Minerals,	2575	0	0
	<hr/>		
	L. 16,275	0	0

An acre of oats in this parish is worth about L. 6 Sterling; wheat, L. 8; hay from L. 3 to L. 6; potatoes, L. 12. The above estimate does not include the manufactures. The mills for working up the agricultural produce are

	Acres of land attached.	Value per annum as rental.
Woodmills, oats, flour, &c.	6	L. 40 0 0
Duntiblae, do. do.	3	70 0 0
Fergushill, flax,	20	50 0 0
Boghead, do.	12	25 0 9
Hole, do.	45	95 0 0
		<hr/>
		L. 280 0 0

Woodmills is the property of Mr Wilson, and has been lately completely fitted up with new machinery of the most approved construction, with a thrashing mill attached. Thirlage is still in use in the corn-mills.

Manufactures.—The principal manufacture in the town is that of cotton goods for exportation. The principal manufacturers are Mr John Marshall, and Mr Grey of Duntiblae. Mr Marshall at one period employed from 1200 to 1400 hands, and at present from 500 to 800. The trade here is chiefly in lappets for the East India trade, with a few purls and victories for the South American trade. Lappets are muslins with raised flowers in imitation of tambouring; purls are a gauze with lappeting on it; victories

are a sort of thin gauze web. The lappets are woven in the usual way, with the aid of a wheel with catches, and a spring which raises and depresses the needles which form the flowers. The thread is never changed, but always comes through the same needle, and hence resembles tambouring. This trade is at present most depressed. Mr Marshall employs 44 journeymen, who have everything provided. They can make 6s. and 7s. per week each. This work goes all to India, from whence letters are often received in two months. In 1835, there were 1600 weavers in the town of Kirkintilloch; according to the statement of Mr Marshall, there are now about 2000 weavers. Perhaps the cotton trade, in shape of wages alone, will bring into the town of Kirkintilloch, L. 700 per week, or L. 36,400, per annum, which is only at the moderate allowance of 7s. per week each, or L. 18, 4s. Sterling per annum. Among the 2000 weavers, there are only, however, 471 male heads of families, and, allowing five to each family, it will make 2355 individuals in all, but from actual surveys, the number dependent on these 471 heads of families is 2473. Now, if we take this latter number as the gross amount of weaving population, we will find that there is only about one-fifth not employed at work, so that there must be a great deal of clubbing, or of the joining of wages together, which may make up a good common income. A weaver's wife can wind pirns for three looms, which, at 3d. each, yield 9d. per day.

Besides the cotton trade, there is a calico printfield employing about 120 hands, including printers, mechanics, and labourers. There is also a silk-hat manufactory employing upwards of 20 hands, and an iron foundry well employed. There are two distilleries in constant operation, and one occasional distillery. Of the two in constant operation, the one produces 1800 gallons of whisky per week, and the other 1400 gallons, or in all 3200, which is 116,400 gallons per annum, which at the moderate computation of 6s. per gallon, will yield per annum L. 49,920 Sterling.

The average hours of labour for weavers is 12 hours per day; masons and labourers 10 hours in summer, and 7 in winter; joiners and carpenters 10 hours; shoemakers, blacksmiths, and tailors 12 hours; painters, plasterers, and slaters the same as masons. A labourer's wages per day ought to be equal to the price of a peck of oatmeal.

V.—PAROCHIAL ECONOMY.

Town.—The town of Kirkintilloch is a very ancient burgh of

barony. "It was erected," says the late Rev. William Dunn, "about 1170, by William King of Scots, Baron of Lenzie, and Lord of Cumbernauld; and still holds of the barony of Cumbernauld for the payment of 12 merks Scots of yearly feu-duty." At this rate it was erected into a burgh of barony two years before the city of Glasgow, which was in 1172; but I find from the town's documents, that the true date of the erection of the burgh of Kirkintilloch is 1184. There was a renewal and confirmation of the charter by the Earls of Wigton, first at Cumbernauld, 10th December 1520, and again at Boghall, 10th February 1527. The annual feu-duty is as above, 12 merks or 13s. 4d. per annum. The burgh proprietors have also the teind-tack (dated November 1642,) of the teinds parsonage and vicarage of the burgh lands or Newlands mailing. The town paid on obtaining this grant 550 merks, or L. 30, 11s. 1½d. Sterling. The burgh lands are the thirty-three and a-half Newland mailings, including the town and lands of Boghead and Gartcross. The privileges with which the town is endowed are ample. Its burgeses elect their own magistrates, independently of the lord of the barony. The magistrates are two bailies, and they are annually chosen. They are empowered by the charters of the burgh, to hold courts, levy fines, imprison offenders, or even banish them from their liberties; and, in short, to exercise every right with which the baron himself was invested before the erection of the burgh. These rights, the community have continued, ever since that period, to enjoy undisturbed. They were in no degree affected by the act, by which the British Parliament in 1748 abolished the heritable jurisdictions in Scotland. None are entitled to vote at the election of magistrates, except burgeses being the proprietors of the Newland mailings. They are at present twenty-two in number, sixteen of whom are resident. Courts are held, but at no stated times; a proof that the cases are not numerous. The burgh, besides the above, is possessed of no exclusive privileges, and has no local acts in its favour. There are no local taxes, nor any incorporation of trades. The town's debt is about L. 300 Sterling, the annual revenue about L. 30, the greater part of which is expended in paying the interest on the debt, and in keeping up public buildings. The population of the town at the present moment may be about 4600 souls. There are 180 houses at L. 10 per annum of rent.

The community are possessed of a court-house and jail, with a

steeple and bell, to which an excellent school-room for the town and parish is attached. The public buildings are under the superintendence of the magistrates. They were erected here in 1814. There was formerly an excellent bell in the steeple, 19 cwt. which was cracked; the present town's bell with appendages weighs only 14 cwt.

The total expense of erecting the public buildings, with the parish school-room, is as follows:

Mason work, &c.		Carpenter and mason work.	
Court-room, prison-rooms, and house-below,	L. 145 0 0	Staircase without roof,	L. 30 19 0
Staircase,	93 0 0	Roof of do.	14 14 0
School-room,	89 0 0	Court-room, prison-rooms, and house below,	99 14 0
Grating for windows,	10 0 0	School-room,	200 17 9
	<hr/>		<hr/>
	L. 337 0 0		L. 346 4 9

Prisons.—The total cost, including all of the above items, was L. 683, 4s. 9d., from which deduct L. 15, 16s. for old timber and slates, and the net sum paid is L. 667, 8s. 9d.

The prison is very small, and is used for persons confined for short periods only, and not at all for debtors. It forms part of the town-house, and stands at the cross in the middle of the town. There are only two cells, and there is no airing yard attached.

Means of Communication.—It is to the two distinguished individuals formerly alluded to, that the public is chiefly indebted for the admirable roads which intersect the parish in all directions. Besides the Edinburgh and Glasgow road by Kilsyth, which runs through the parish to the north of the town, there are the following roads, with their respective lengths in the parish:—From Park-burn to Inchbelly, 2 miles; Inchbelly to Shirva, Twechar and Auchinvole, 4; Will-head to Gartcloss, &c., 3; Orogang to Bedcow and Mossfinnin bridge about 3; Townhead to Boghead, 1; Gartcommon to Badenheath, 4; Deerdyke to Shangan, 1; = 19 miles.

The road-money collected is at the rate of L. 2 Sterling on every L. 100 of valuation. It is as follows:—Road money for landward part of the parish, L. 74, 16s. 6d.; do for burgh, L. 63; horses at 10s. 6d. each, viz. twenty belonging to carters in town, L. 10, 10s. = L. 148, 6s.

The first public railway in Scotland, on the modern improved principle, was the "Monkland and Kirkintilloch Railway," which connects the rich coal and mineral districts of the Monklands, with the Forth and Clyde Canal near Kirkintilloch. The act was

obtained in the year 1824, (5 Geo. IV. cap. 49.) The original capital was L. 32,000; but, by a new act in 1833, (3 Wm. IV. cap. 114,) the total capital was raised to L. 52,000. The northern terminus is at Kirkintilloch, and the south-east at Palace Craig, in old Monkland, including a length, in all, of about eleven miles. The distance between the rails is $4\frac{1}{2}$ feet. The railway was at first laid with rails weighing twenty-eight pounds to the yard, but these have been found much too light, and the whole is now in process of being laid with rails weighing forty pounds per yard. No passenger waggons are allowed on this railway. It is connected with the Ballochney, and Glasgow, and Garnkirk railways in the south, and these penetrate into all the great mineral deposits in Lanarkshire. Great quantities of coal and iron are transported by this railway to the depot in the Forth and Clyde Canal. The coal is of very superior quality, and is laid down in the town of Kirkintilloch, at the rate of 15s. per waggon of 48 cwt. In 1835, about 49,000 tons of coals, and 3325 tons of pig-iron were shipped on the canal from the railway.

The Forth and Clyde canal runs for about six miles along the northern border of the parish. It was commenced in 1768, by virtue of an act, 8 Geo. III. cap. 73, but was not finished till 1790. The total length from sea to sea is thirty-five miles. The highest point at Windford Loch is 156 feet above the level of the sea. The average width at the surface is 56 feet, at the bottom 27 feet, and the depth of water is nearly 10 feet. Vessels of 19 feet beam, 68 feet keel, and drawing about 10 feet water, can pass along the navigation. In its course, the canal passes over 10 large aqueduct bridges, and 33 smaller ones; and 33 draw-bridges are thrown over the navigation for the crossing of public and private roads. In all, there are 39 lochs, each 74 feet long between the flood-gates, and 20 feet broad. The canal is supplied with water by eight reservoirs, covering 721 acres. The capital stock of the company in 1820 was L. 519,840; the income in 1836, was L. 63,743, 16s. 7d. The total original expense was L. 345,618, 12s. Allowing eight acres of land to a mile, the mere ditch of the navigation in this parish will occupy 48 acres. There are seven swift iron-boats on the canal for the conveyance of passengers, which travel at the rate of ten miles per hour. The following is the number of passengers booked at the drawbridge of Kirkintilloch, near the manse, for the periods specified, in 1837:

Months 1837.	First week.	Second week.	Third week.	Fourth week.
April, - -	559	387	391	467
May, - -	388	420	490	836
June, - -	463	461	486	551
July, - -	481	505	593	649
August, - -	472	257	579	699
October, - -	326	549	889	519
January, - -	604	229	323	449

The total number of passengers by the canal passage boats from this station alone in seven months is 13,516, or at the rate of 1932 per month, and 23,170 per annum. There is also a daily coach to Glasgow from the Washington Inn at nine morning. In 1832, and for some time before and after, there were five iron steamers with the paddle-wheels in the stern plying on the canal. Their names, tonnage, and power of engines were as follows :

	Tonnage.	Power of Engines.
Lord Dundas, - -	40	16
Cyclope, - -	50	16
Manchester, - -	50	35
Edinburgh, - -	40	16
Union Tug Boat, - -	25	12

These steamers are now discontinued. It was on this same sheet of water, in March 1802, that Mr Symington, in a large vessel with a steam engine of more than twenty horse power, passed over a distance of nineteen miles in six hours, the steamer dragging two loaded vessels after her, and having Lord Dundas, and Mr Speirs of Elderslie on board. It was here also that Mr Symington initiated the American Fulton in the mysteries of steam navigation, two years before he sailed for America to carry his projects into effect.

Gas-Work.—A gas-work has lately been erected for the purpose of supplying the town with gas. The whole is to cost L. 1600 at L. 3 a share, of which 1000 shares are sold; L. 2 a share is only required. The mason-work cost L. 421, the carpenter-work L. 88. The roof is of iron. The main stalk is square, and 50 feet high. The tanks or cylinders are 28 feet diameter, and 10½ feet from the top of the cap to the spring of the foundation. There are 6 retorts; the main pipe is 4 inches diameter.

*Ecclesiastical State.**—The parish church of Kirkintilloch is

* The inhabitants of Kirkintilloch, with the neighbouring parishes of Cadder, Cumbernauld, and Kilsyth, participated largely in the well-known revival of religion which took place at Cambuslang and various other parts in Scotland in 1742. The first appearance of the impressions which were afterwards so largely vouchsafed to many individuals in this district, are recorded by Mr Robe, then minister of Kilsyth, and also by Mr M'Laren, the minister of this parish. They are so very remarkable that they are worthy of being here held up to their "succeeding race," where political religion too much predominates over the vital and spiritual godliness which actuated

situated in the centre of the town, which, being near to the western angle of the parish, is not more than a quarter of a mile distant from one extremity, while it is fully five miles distant from the opposite extremity. It is situated conveniently, however, for the major part of the population. As already stated, the present parish church was formerly the Chapel of the Virgin Mary, and, from a stone above one of its windows, it appears to have been built in 1644, or about fifteen years before the separation of this parish from the parish of Cumbernauld. The ruins of the old parish church is near to Oxcang, where there is still a burying-ground. The present church is in a very miserable state of disrepair. The walls are time-worn and ungainly; the timbers, in general, fragile and insufficient; the galleries inconvenient and crazy, one of them having been lately *taken* down in case of the danger of its *coming* down at an inconvenient season; the seating is fast crumbling into ruins; the walls outside filled up with dust of former generations to the height of four or five feet from the spring of the roofing, and with the walls and flooring, of course, intolerably damp. Under these circumstances, the Presbytery of Glasgow, some years ago, gave a deliverance enjoining the heritors to provide the parish with a new parish church; but a few of the heritors objecting, carried the matter to the Court of Session, where the decree of the Presbytery was reversed. In this case the architect reported, that the existing fabric might be repaired so as to be a serviceable church for from twenty-five to thirty-five years, at an expense of L. 660, while a new church of the same size would cost L. 1280. Mr Dunlop, advocate, is of opinion, that the same decision would have been given here as in the case

the faithful in olden times. The narrative of the above reverend fathers informs us, that, about April 1742, "sixteen children or thereby, in the town of Kirkintilloch, were observed to meet together in a barn for prayer; the occasion of which was, that one of them said to the rest, What need is there that we should always play; had we not better go and pray? Wherewith the rest complied. The minister at that time, the Rev. Mr Burnside, who was succeeded immediately after by Mr M'Laren, as soon as he heard of it, carefully inquired after them, and met frequently with them for their direction and instruction. And as I am informed, (says Mr Robe), they make progress and continue in a hopeful way. This made much noise in the country side, and deep impressions both upon young and old." On Sunday, 20th May following, Messrs Robe and M'Laren preached at Kirkintilloch. Mr Robe says, "There we saw Zion's mighty King appearing in his glory and majesty, and his arrows sharp in the heart of his enemies. Many were awakened there, and brought under great spiritual distress." Some time after we are told, that, in the parish of Kirkintilloch, there were known to the minister to be about 120 under a more than ordinary concern about their salvation, including the praying young, who were now increased to a greater number than formerly mentioned. Mr Whitefield preached about this time both here and at Cumbernauld and Kilsyth. In the latter of these parishes there were at least 300 awakened, in the parish of Cumbernauld, 14 or 15.

of Roskeen, had the architect reported in regard to Kirkintilloch church, that, in consequence of raising the level of the floor, which was required there as in Roskeen case, it would be necessary to heighten the walls, in order to afford proper accommodation to the sitters. The architect, however, had *omitted* all notice of this matter in his report; and when the chargers, on the cause coming into the Inner-House, proposed to put additional queries to him to bring out the facts as to this matter, the Court held them foreclosed, by their not having previously objected to the report, and refused to allow additional queries to be put. It was on this point that the case for the Presbytery was lost; and the church, accordingly, remains in its present ruinous condition.* It contains about 800 sittings, and is generally crowded every Sabbath. The regular communicants average 700. No free sittings, and only a very few pay for their seats. The glebe amounts to 8 acres, including the garden. About 6 acres of the glebe were lately let for L. 14, 10s. per annum.

The Report of the Commissioners for Religious Instruction in Scotland calculate the teinds as follows:—

Gross amount of teinds belonging to proprietors:—Meal, 1 boll, 2 firlots, 1 peck, 2 lippies, at L. 1, 6s. 6d.; money, L. 904, 5s. total, L. 905, 11s. 6d. Applied to ministers' stipends and communion-elements out of the gross teinds:—Meal, 123 bolls, 1 firlot, 1 peck, at L. 102, 9s. 4d.; barley, 121 bolls, 2 firlots, 3 pecks, 2 lippies, at L. 133, 4s. 5d.; money, L. 26, 7s. 6d. total, L. 262, 1s. 3d.

Value of the unappropriated teinds belonging to other persons, L. 643, 10s. 3d. The church-lands in the parish are, Vicarland on the East croft of Kirkintilloch, 2 acres; Priestland, 2 acres at Auchinvole, held anciently of the prebends of Biggar; Lady-yard, half an acre in middle of burgh-holm, held of chaplains of Kirkintilloch.

The new church of St David's, upon the Assembly's Church Extension plan, was erected in 1837. It is fitted to contain 1012 sittings, and was erected at the cost of L. 2300. It was opened on Sabbath, 8th June 1837, and the present incumbent was inducted 3d May 1838. St David's is the only church in town *purely* on the voluntary principle. All the rest are more or less endowed, as under:

United Secession, Rev. Andrew Marshall.—House valued at L. 26, 12s.; land, L. 4, 7s. 6d.; feu-duties, 11s. 8d.; total an-

* Since the above went to press, the Church has undergone a thorough repair.

nual endowment, L. 42, 7s. 6d. The stipend is about L. 100 per annum.

Original Burghers, Rev. William Tannahill.—House, L. 24; land, L. 9. Total, L. 33. Besides the above, the United Secession congregation have a place named Orchardyard, worth L. 2 per annum; and the Original Burghers have houses and feus worth L. 8, 9s. per annum. The comparative number of Churchmen and Dissenters is as follows:

Districts.	Estab. Ch.	United Sec.	Old Burg.	Method.
1. Barr,	239	21	24	29
2. Shirva.	164	12	19	—
3. Eastside,	328	108	98	1
4. High Street, north side,	371	125	82	13
5. West High Street, south side,	86	27	23	10
6. Hillhead,	349	209	74	2
7. Waterside,	225	8	114	—
8. Gartshore,	190	35	38	—
9. Middlemuir,	64	4	24	—
10. Cowgate,	682	300	169	18
11. Townhead,	717	242	213	12
12. Omitted in Townhead,	11	—	3	—
13. Gallowhill,	111	—	5	—
14. Cordalet, Bellfield, &c.	46	48	17	—
	<u>3583</u>	<u>1234</u>	<u>903</u>	<u>85</u>

The proportion belonging to the Established Church is 510, more than the half of the whole population; the proportion belonging to the United Secession is 305 less than the fourth; those belonging to the Original Burghers are scarcely a sixth, and those belonging to the Methodists are only about one-seventeenth.

The following is the state of church accommodation in the above districts, the names of which will be ascertained by the corresponding figures, as above:—

Districts.	Seats taken.	Proprietors.	Communicants.
1.	32	49	78
2.	7	3	52
3.	70	10	102
4.	75	4	64
5.	15	46	22
6.	110	40	127
7.	29	41	77
8.	23	18	76
9.	6	38	18
10.	214	54	154
11.	151	—	234
12.	1	4	1
13.	3	—	27
14.	10	—	11
	<u>765</u>	<u>342</u>	<u>1055</u>

The parish has lately been divided, *quoad spiritualia*, into the parish of St David's and the old parish of Kirkintilloch. The

boundaries of the new parish are as follows: From the bridge leading from Campsie on the north, along the coal-road, and then up the High Street to the Cross; thence along the Cowgate and down the Broadcroft to the river Luggie, and by it to the canal; then across the canal by the Hillhead-bridge, onward by the Longmuir road to the Twechar road; then up the Bord-burn and onward to the Moss-water; it is then bounded on the east and north by the parishes of Cumbernauld, Kilsyth, and Campsie. It contains a population of about 2700 souls; a number sufficient for the strongest man's superintendence.

Education.—The instruction at the parochial school consists of English, writing, arithmetic, book-keeping, mathematics, geography, Latin, Greek, and French. The present very able and efficient teacher is the Rev. Andrew Love, a licentiate of the Church of Scotland. The salary is L. 34, 4s. 4½d. paid by 144 heritors. The average wages may be about L. 30; other emoluments about L. 4. The Rev. Mr Love informs me, that his average number of scholars, summer and winter, falls little short of 124. There is also a subscription school, taught by Mr Hendry, and another with a remarkably elegant fabric at Gartshore, taught by Rev. Mr Donald, which is upon a charitable foundation, and was erected by the munificence of a lady of the family of Gartshore. There are, in all, nine schools in the parish, one parochial school, as above, two endowed schools, and the rest unendowed. In 1833, the numbers and ages of those attending school were as follows: numbers of children taught to read under five years of age, 2; five to fifteen, years of age, 480; to write, from five to fifteen years of age; 199 children at parochial school, from Lady-Day to Michaelmas, 124; children at schools not parochial, from Lady-Day to Michaelmas, 522; from Michaelmas to Lady-Day, 545.

The number of children under twelve years of age attending school in the various districts of the parish in 1837, according to the Church Commission Returns is, Barr, 321; Shirva, 11; High Street, north side, 53; West High Street, south side, 19; Hillhead, 49; Waterside, 31; Gartshore, 28; Middlemuir, 11; Cowgate, 102; Townhead, 109; omitted in Townhead, 2; Gallowhills, 8; Cordalet, Bellfield, &c. 18, total 472. The total number of scholars, as far as can be ascertained, may be in all 669, of whom 472 are under twelve years of age, which is at the rate of $9\frac{1}{11}\frac{1}{11}$ ths of the whole population. Children twelve years of age and up-

wards form about half the population, which in this parish will be 8078, —those under twelve, and of course not reaching that age, will be about 2500; of these 472 are attending school, which is about a-third of the number, or one-thirteenth of the whole population.

There are two libraries, namely, a parish library and a subscription library.

Poor and Parochial Funds.—The Gartshore mortification in favour of orphan children was originally about L. 1100. Each orphan is allowed a firloft of oatmeal at a time, or one boll annually. The sum received by each is in no case to be less than L. 1, or more than L. 5 per annum. Some get 1s. 8d. per week in money. The oatmeal in December 1836 was 5s. 10d. per firloft; in July 1837, it was 5s. 2½d.; in December of the same year, 4s., and in June 1838, it was 4s. 4d. per firloft. There were lately 23 orphans on the charity, 12 of whom were boys. The following was the state of accounts in 1836 and 1837: Receipts 1836, received from Miss Galloway, L. 9, 13s. 4d.; lifted from Ship Bank, L. 10; lifted all the money from Ship Bank, L. 20; interest on above sums, L. 3, 13s. 4d.; total L. 43, 6s. 8d. Receipts for 1837, received from Mr Gordon, factor at Gartshore, L. 35.

Some time ago, L. 1000 Sterling was left by John Adam, Esq. London, the interest of which is to be devoted exclusively to the support of the poorest of the poor, or part may go for the education of the same class. The trustees are the heritors and kirk-session. The sum has not yet been realized, but the principal, with interest when it arrives, will amount to a considerable capital. In 1837, there was collected for coals at the parish church, L. 9, 16s.; at St David's, L. 5, 0s. 6d.; from Mr Calder, 10s.; total, L. 15, 6s. 6d. Paid at Glen Collieries, L. 12, 16s.; Cowgate toll, 13 carts, 2s. 6d.; tolls, 11s.; horse, 16s.; total, L. 14, 5s. 6d.

An assessment for the poor was only imposed in 1831. It amounts to twopence per pound:

	1835.	1836.	1837.
Paupers on permanent roll,	39	39	41
Persons not on permanent roll,	130	134	123
<i>Funds.</i>			
	1835.	1836.	1837.
Amount of assessment for support of poor,	L. 98 16 2	L. 98 14 9	L. 100 0 0

The average number of poor is 168, and the average amount of assessment, L. 98, 10s. 4d.

DUMBARTON.

	1835.	1836.	1837.
The actual amount of free funds distributed among paupers on permanent roll,	L. 145 12 0	L. 146 14 5	L. 151 7 2

Total annual amount of funds distributed, L. 173, 17s. 8d.
The highest rate of relief is L. 5, 4s.; the lowest, L. 1, 6s. per annum.

Before the litigation about the parish church before alluded to, the weekly collections at the church door were on an average L. 1, 10s. per week, or L. 62 per annum. On the heritors, who were the chief profitters from these collections, refusing the people who paid them, proper church accommodation, the church door collections fell off to 12s. per week, or L. 39 per annum, which is a diminution of 18s. per week, which has ended in a permanent poor's rate, and a new church must follow in due time to the boot. Such are the unhappy consequences of mutual misunderstandings.

The pensioners in the session 1st August 1837, were 41 in all, 27 of whom were females, and 7 widows. The rates per week were 1 at 6s.; 1 at 2s. 6d.; 1 at 1s. 8d.; 3 at 2s.; 7 at 1s. 6d.; 19 at 1s.; 7 at 6d. &c. The weekly sum paid was L. 2, 9s. 2d. The effects of a poor stent may here be watched with great advantage; and it is desirable that some one would take the trouble of making the results known to the public.

Fairs, &c.—There are three fairs held annually in the burgh, chiefly for the sale of cattle, namely, on 2d Tuesday of May, the last Thursday of July, and the 21st of October. The market-day is on Saturday, but is not much observed. The lintseed Saturdays were formerly great marts for the sale of the commodity, from whence they derived their names; but flax is not now so much cultivated as formerly, and these markets have accordingly declined with the cause which produced them.

The revenue from the post-office is about L. 230 per annum, but is much less since the Campsie post was withdrawn. Letters from Glasgow arrive by a mail gig every morning at six o'clock, and are dispatched at eight o'clock. Letters arrive from Falkirk at eight o'clock, and leave at six o'clock. There is a receiving-house in Cowgate, which closes at half-past seven.

Inns and Alehouses.—There are about 40 inns and alehouses in the parish. These are too frequently viewed as the *causes* of the corruption of morals among the lower orders, whereas they are only the *effects*.

The town of Kirkintilloch lies 49 miles west of Edinburgh, 20 south-west of Stirling, 16 east of Dumbarton, 7 north of Glasgow, 5 south-west of Kilsyth, and 8 south-east of Campsie. The parish is destined to receive an additional advantage from the Edinburgh and Glasgow Railway, which is to pass throughout its whole length. It begins in the west near Pinkerton-hill, runs north by Coulstone, Bishopriggs, Corshill, Miremailing, Claddens, Cadder-moss, Lochside distillery, and Mountain-moss, and enters Kirkintilloch passing Garnebbier, near which it crosses the Monkland and Kirkintilloch railway, passes on by Wamflat, crosses Luggie water west of Drumbreck, and runs on by Mossie, Drumgrew, and Easterboard, where it leaves the parish, and enters Cumberland.

June 1839.