

PARISH OF DALGETY.

PRESBYTERY OF DUNFERMLINE, SYNOD OF FIFE.

THE REV. ALEXANDER WATT, A. M. MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Extent, Boundaries.—THIS parish is situated on the northern coast of the Frith of Forth. Its southern boundary stretches about 4 miles along the wooded broken line of beach, that lies betwixt the village of Aberdour and the borough of Inverkeithing. It is nearly of a triangular form, extending in length about 4 miles from south to north, and not exceeding in many places a mile in breadth. It is bounded by Inverkeithing on the west; by Aberdour on the east and north; and by a small part of the parish of Dunfermline on the north-west.

Topographical Appearances.—There is a gradual ascent from the southern to the northern extremity, which stands about 436 feet above the level of the sea. From some of the higher ground on the estates of Fordel and Cockairney, the views are very extensive. They command at one sweep the whole range of the opposite coast from Queensferry as far as the Isle of May.

It may be said that we have two distinct climates in this small parish. In the lower division on the sea coast, which is well wooded, and in a state of good cultivation, the thermometer generally stands some degrees higher than in the upper district, which contains an extensive coal-field, and the soil of which is of a much inferior quality. In spring, the whole parish, like most of those along the sea-coast, is much exposed to the chilling influence of the prevailing east winds. The inhabitants, however, are generally very healthy, and there is no disease peculiar to them except some cases of asthma and rheumatism amongst the colliers, which are occasioned by the nature of their occupation.

Hydrography.—There are no rivers in this parish. There is a lake, however, of considerable extent. It is about three-quarters of a mile in length, and a quarter of a mile in breadth. At the east end of it, stands the old mansion-house of Cockairney, the re-

sidence of Sir Robert Mowbray, Knight, one of the heritors of the parish. On the northern bank, is situated the old mansion-house of Otterston, whence the lake derives its name, which is at present occupied by Lady Torrens, widow of the late Sir Henry Torrens. The lake and all the lands of Otterston form part of the estate of Sir Robert Mowbray of Cockairney. The blending of hill and dale, of wood and water, in this spot, renders it a scene of no common beauty.

There is a picturesquely situated waterfall on the adjoining grounds of Fordel. The stream which forms it winds its course for a considerable way through a darkly wooded glen, where it meets with the outlet of water from the great drainage level of the Fordel colliery, and then rushes over a broken rocky precipice of about fifty feet in height. Near the termination of this glen there is a mineral well, a minute analysis of which is to be found in Professor Jameson's *Philosophical Journal* for the year 1829.

Geology and Mineralogy.—The minerals known in this parish belong to the secondary series of rocks; and, so far as they have yet been discovered, may be said to abound in sandstone, bituminous shale, quartz, rock-limestone, and coal. The general dip of the strata is north-east, varying, in some places, from the dislocations of the minerals by dikes, which, according to their magnitude, more or less derange and alter it. Sandstone abounds all over the parish; but it is of more value in the southern than in the northern division. About the centre of the parish there is a thick bed of exceedingly hard quartz rock. It does not appear at the surface, except in two or three places, being generally concealed by a thick covering of earth. Limestone, which constitutes the basis of the coal formation, extends regularly throughout the parish, under the coal. It is found about 50 fathoms underneath the lower bed of coal, and from the basin shape of the minerals, the lime seldom or ever makes its appearance at the surface; but it is to be found in considerable quantities, both to the east and west, in the adjoining parishes of Aberdour and Inverkeithing.

Fordel coal-works.—Coal, the mineral of the greatest importance, abounds in considerable quantities in this parish. The extensive coal-works on the estate of Fordel, the property of Admiral Sir P. C. H. Durham, G. C. B. form the principal feature of this parish, and the great source of its trade and revenue. The coal on the lands of Fordel has been wrought for nearly 240 years. This has been a valuable property; but its value is now much diminished, in con-

sequence of the great extent of coal which has been wrought out of it. As Sir Philip Durham, however, has in lease the adjoining coal-fields on the estate of Cuttlehill, it is certain that coal will be conveyed through the parish for upwards of 150 years to come. And even when it is exhausted, the extensive minerals to the north, in the neighbouring parish, will, in all probability, be brought through this parish to the shipping port of St David's. From a recent inspection of the strata throughout this parish, and, particularly, from a minute examination of that part of it connected with the mining operations, it is found that the coal-field is much intersected with dikes and dislocations, which very much elevate and depress the strata forming this extensive coal country.

From the harbour of St David's, the southern boundary of the parish, as far north as the drainage level of the Fordel colliery operations,—a distance of about two miles,—the strata appear somewhat regular, dipping to the north-east. They cannot, however, be correctly ascertained in many places, as they have a considerable cover of earth upon them. From the latter point, northwards, they can be most accurately traced.

The outlet of water from the drainage level of the Fordel colliery is 120 feet above the level of the sea, and it is continued northwards nearly three miles through the solid rock. During its course ten dikes are met with of various magnitudes; in some places they do not alter the strata many feet; in others, they are found 100 feet thick, and elevating the strata sixty fathoms. Their direction often varies as well as their angle of inclination from nearly a horizontal to a vertical position. The materials of which these dikes are composed are generally sandstone, more or less indurated with quartz and limestone.

From the point at which coal is first found, the surface rises gently northwards, till it reaches the height of 436 feet above the level of the sea; this forms the northern boundary, and the highest part of the parish. It is found as we proceed northwards, that the strata assumes a greater dip in some places, varying from 1 in 8 to 1 in 3. In very few instances, however, do these dikes deteriorate the coal in quality, but the reverse; for as the miner approaches these dikes, the coal becomes harder, and more difficult to work, and in many cases an extra expense is paid for labour. The coal mines in this parish were not wrought to any considerable extent until within the last thirty years, when the consumption of coal has been very much increased, particularly for steam naviga-

tion. And as this coal-field produces the finest coal for that purpose, the working of it has been much more extensively carried on. The depth of the mining operations at the northern boundary of the parish is 300 feet from the surface, and that of the main drainage level is only about 250 feet; consequently machinery is required to raise the water from the mines, a distance of about 50 feet, instead of which, had the level been carried duly horizontal, the whole of the coal now drained by machinery would have been level free. And thus had due regard been paid at first to the drainage level, the expensive machinery now erected on the works would, in a great measure, have been unnecessary.

The coal-field of this parish extends two miles north and south, and one mile east and west, and forms the basin or trough of the coal-fields in the neighbourhood. For, upon drawing a line in a north-eastern direction from the point at which coal is first found to the extremity of the parish, it appears that the coal and its accompanying strata uniformly rise to the east as well as to the west of that line. To the east it rises rapidly, and throws out the crop of the upper coals before it goes out of the parish; the under ones are found on the verge of the Aberdour parish. At every dike or dislocation of the strata northwards, the coals are thrown further east, until the same coals in quality, though not the same in number, or in thickness, are found to extend into Lochgelly parish, and so on eastwards, throughout the whole of that coal country.

To the westward of this line, the same takes place, but not so rapidly, and this forms the most interesting and valuable coal-field in the western district of Fife. The same dikes and coals can be traced with great regularity from the east of this, to the west of the parish of Dunfermline, with little or no variation in the line of bearing, although they are more or less depressed by the intersection of diagonal dikes changing the direction of the strata.

In order more fully to shew the metals passed through in the progress of sinking for coal, we shall here annex a correct section of the strata as taken from actual measurement.

Section of a pit at Fordel Colliery.

	<i>Fath.</i>	<i>Fect.</i>	<i>In.</i>		<i>Fath.</i>	<i>Ft.</i>	<i>In.</i>
Surface sand and clay,	4	2	6	Dark-grey freestone,	2	1	8
White freestone,	1	2	0	Soft light freestone,	2	0	9
Dark yellow do.	0	2	3½	Blae,	0	2	10
Soft blae and bands,	1	4	0	Blawlowan coal,	1	0	3
Blue blae,	1	1	2	Grey freestone bands,	0	1	10
Dark grey freestone,	2	1	8½	Light yellow freestone,	1	2	6½
Do. with bands,	0	4	3	Dark-yellow do.	0	2	8
Yellow freestone,	1	3	5	Do. mixed with blae,	0	3	3½

	<i>Fath.</i>	<i>Ft.</i>	<i>In.</i>		<i>Fath.</i>	<i>Ft.</i>	<i>In.</i>
Lighter mixed with blae,	0	1	10½	Yellow freestone,	1	2	9
Very hard freestone,	0	5	4½	Blae,	0	4	6
Blae and bands,	0	1	8	Coalthief coal,	0	5	8
Mynheer coal,	0	4	0	Freestone post,	1	4	9
Do. hard grey freestone,	0	2	4	Grey bands,	0	3	0
Light do.	1	5	7½	White freestone,	0	3	0
Blae,	1	2	4½	Very hard do.	0	0	5
Grey freestone,	1	5	6	Coal,	0	1	3
Do.	0	2	5	Blae,	0	4	0
Very hard freestone,	1	1	8	White freestone,	1	3	6
Softer do.	0	2	7	Ironstone bands,	0	0	5
Blae,	0	3	9	Freestone,	2	4	7
Black blae,	1	0	5	Blae and bands,	1	0	2
Very hard do. bands,	0	5	2	Main splint coal,	0	4	9
Blae and freestone,	2	3	7				
Dark-grey bands,	0	2	8	Total depth,	49	2	0½

There are thus only four workable seams of coal, named the Blawlowan, Coalthief, Mynheer, and Splint.—The Blawlowan is a soft cubical coal, it is generally used in lime-works, burns slowly, and produces white ashes.—The Mynheer is an excellent splint coal, burns with little ashes, is used for steam-machinery, but it is best adapted for household purposes.—The Coalthief is a strong cubical coal, free of all iron pyrites, burns clean, works large, and is principally used by distillers and manufacturers.—The Main Splint is a very superior coal to the other three. It burns free of ashes, leaves a small cinder, is very bituminous, works large, and has an exceedingly strong flame when burning, and from its durability and superior quality, is considered the best in Scotland for steam navigation and household purposes, for which immense shipments are made all over the continent.

Having given a short account of the coal-field of this parish, and its connection with those of the adjoining parishes, we shall shortly state the quantity of coal still remaining to be wrought. This, we are sorry to say, is reduced to a comparatively small extent, as may be easily conceived from the length of time during which it has been wrought. There is, it is generally believed, coal to work on the Fordel estate for thirty years at a moderate rate, as there still remains one or two coal-fields untouched, but the mining apparatus not being directed in that quarter, it may be some time before they are explored. I am also inclined to think that there are several great coal seams throughout the parish, particularly in the southern division, and which may soon be examined, especially those lying in the direction of the strath, in front of Fordel House, where evident proofs of a coal formation have been traced. It may be sufficient at present to mention, that in the parishes of Aberdour, Dalgety, Inverkeithing, and Dunfermline, there are coal-fields

which will last many centuries at the present extent of sales, which may be estimated at nearly 230,000 tons.

The average annual sales from Fordel colliery may be estimated at nearly 70,000 tons. The mode by which the coals are conveyed to the shipping harbour is by a wooden railway laid with beech and fir, having wood-sleepers every two feet apart. The road is laid double, having one fir rail below, and a beech rail above. Waggon containing three tons are drawn by one and sometimes by two horses, to the shipping port of St David's, and emptied into the vessels by machines erected for that purpose. This waggon way is upheld at a very great expense; but extensive operations have been going on for some time, preparing a new line of road for an iron railway, which, when finished, will be an immense saving annually, independently of the greater facility and expedition with which shipments may then be made. The superior quality of the Fordel coal is now known over the whole of Europe, and being particularly adapted for steam navigation, it has gained an ascendancy over most of the Scotch and English coal for that purpose. Besides being so well adapted for all household uses, it is also much in request by bakers, brewers, manufacturers; and large exports are made to the continent and to America, which is in a great measure to be attributed to the exertions of the spirited proprietor of the works, Admiral Sir Philip Durham, G. C. B. who has used every means, and has spared no expense, in proving the superior qualities of the Fordel coal, especially for the purpose of raising steam.

In the present state of the coal trade in the river Forth, there is little encouragement to make any extensive improvements. It has undergone a complete change within the last twenty-five years. And this has been particularly the case since 1820, when a more extensive sale of English coal was introduced into the Scotch market. In 1824, the prices revived a little, which gave a new stimulus to the coal proprietors, but at present they are again much reduced.

The following are the prices at which coals are put on board vessels at the harbour of St David's from the Fordel colliery: Best splint great coal, 9s. per ton; chew coal, 6s. 6d.; mixed household coal, 6s. 6d.; small coal, 3s. 10d. And even at these very reduced prices it is difficult to effect the ordinary sales; and in many cases coals are sold at the cost price.

Salt-works.—In connection with the colliery and railway for the exportation of coal at St David's, there are very extensive salt-works upon the best principles. There is a steam-engine for drawing the

salt water at flood tides into a large reservoir, which contains as much water as is necessary for a week's consumption. This completely secures the deposition of all mud and sand, so that the water becomes quite pure before it is used for making salt. There are large salt pans, which make annually about 30,000 bushels, the sales of which amount to about L. 1600.

Harbours.—The harbour at St David's seems originally to have been very indifferently constructed, as appears from the remains of the old pier. Within these four years, the proprietor, Sir Philip Durham, has made great improvements, at an expense of nearly L. 2000, so that vessels of 450 to 500 tons burden can come in and load with safety, and command from seventeen to eighteen feet of water. These extensive additions were much wanted, without which it would have been impossible to have effected the present extensive sales. All that is now wanting is the finishing of the new railway to make Fordel colliery, with the harbour of St David's, one of the most complete coal-works in Scotland. The annual circulation of money at the Fordel and Cuttlehill collieries, and at the salt-works at St David's may be estimated at nearly L. 22,000. The number of men, women, and children who derive their support from the above works exceeds 800, or nearly two-thirds of the whole parish. When we consider the various advantages of which such works are productive to the parish, and to the neighbourhood, they reflect the highest honour on their benevolent proprietor, who for many years has received little emolument from them. The number of houses occupied by the families of work-people belonging to the colliery is about 130. The number of men employed is 100; unmarried men and boys, 186; women and girls, 120; making a total of 536, actually employed. This number is independent of those who are engaged in the shipping of coals, in the salt-works, and in driving waggons, which require upwards of 50 horses.

These people are paid every fourteen days. Their wages are very good; a collier, when the work is going on well, can earn about 3s. per day. They have likewise very comfortable houses and gardens, which are kept up at the expense of the proprietor. The only fossil remains found in the strata are some simple petrifications of a species of fern now extinct. There are also some bivalves, and other shells amongst the argillaceous schistus. In the upper part of the parish, there are frequently found trunks of trees, next to the strata beneath the moss, petrified into a soft sandstone;

the outer part of them is generally very perfect, and is covered with coaly matter.

The soil in this parish is very various. In the southern parts it consists generally of a deep strong loam, mixed with clay. The sloping banks lying to the south are of a lighter and drier nature. Where the coal formation commences the soil is generally wet and stiff, and there are also a few mossy swamps covered with heath.

II.—CIVIL HISTORY.

Land-owners.—The whole lands in the parish belong to three proprietors, who are generally resident, viz. the Right Honourable the Earl of Moray, who resides at Donibristle; Admiral Sir P. C. H. Durham, G. C. B. at Fordel House; and Sir Robert Mowbray, Knight, at Cockairney. There has lately been built on the grounds of the Earl of Moray, a dwelling-house, which is at present occupied by P. Anislie, Esq. who acts as his Lordship's Commissioner. It has been named St Colme House, being situated nearly opposite the island of that name in the Frith of Forth.

III.—POPULATION.

In 1755, the population of the parish was stated to be 761. Since that period it has been nearly doubled. The principal cause of its increase is to be attributed to the extension of the Fordel coal-works, and to several small feus, which have been granted by the proprietor on his lands in the neighbourhood of the colliery. The population in the southern division of the parish has greatly diminished of late. The old village of Dalgety, along with the parish school, and some other houses which were situated near the old church, have all been removed, as the properties in that neighbourhood have gradually come into the possession of the Earl of Moray, and have been thrown into his Lordship's extensive enclosures.

The number of individuals residing in villages is as follows:

At St David's, a small village on the sea coast,	142
Hill End, only a small part of which is in the parish,	43
At Crossgates,	176
At Fordel Square,	141
Rows of Collier houses,	798
Population of the parish in 1801,	890
1811,	816
1821,	912
1831,	1300

There has been no obituary kept in the parish for the last fifty years.

lets for L. 240. This estate has also been much improved and sheltered by extensive thriving plantations. There are about 40 acres of moss and swampy ground in the northern division of the parish, a part of which is grazed during the summer months.

The number of acres in the parish which are either cultivated or occasionally in tillage is about 1005. There are about 240 acres of wood. The average rent of land is from L. 2 to L. 3 per acre, and in the northern division from L. 1, 10s. to L. 2.

Produce.—The average value of raw produce raised in the parish is the following :

White crop,	- - - - -	L. 4930
Pasture,	- - - - -	1090
Hay,	- - - - -	690
Potatoes,	- - - - -	1465
Turnips,	- - - - -	340
Salt-works,	- - - - -	1600
Sales at Fordel colliery,	- - - - -	28000
Total yearly value of raw produce,	- - - - -	<u>L. 38055</u>

V.—PAROCHIAL ECONOMY.

Market-Towns.—The nearest market-town is Inverkeithing. There are no villages in the parish except the small shipping port of St David's.

Ecclesiastical State.—A very handsome parish church was erected in the year 1830. The style of the building is Gothic. It is seated to accommodate 500 individuals. It does great honour to the liberality and taste of the heritors, being one of the most handsome small country churches in Scotland; and furnishes a proof of the great improvement which has lately taken place in the style of ecclesiastical architecture. It is more conveniently situated for some of the parishioners than the old church, which stood close to the sea side, while the most populous part of the parish is about four miles distant. The site of the new church is about a mile to the north of the former one, close to the public road, which lies betwixt Aberdour and Inverkeithing. It is still, however, about three miles from the great body of the parishioners.

There are a number of individuals really attached to the Establishment, who are thus unwillingly necessitated to become dissenters, on account of the inconvenient distance at which they are placed from the parish church.

The old church is a very ancient building. It was for many years in a great state of disrepair, and was never well adapted, from its uncentrical situation, to be a place of worship for the parish. It stands about two miles from Donibristle House, close to the sea

shore. It was formerly a Chapel of Ease to the monastery on the Island of Inch Colme, when the seat of the Earl of Moray belonged to the abbots of that monastery. On one of the small galleries is rudely emblazoned the heraldic arms of the Earl of Dunfermline, a family now extinct. Chancellor Seaton, who was created Earl of Dunfermline in 1605, lies interred in a part of the area of the church, along with some other individuals of distinction.

A substantial and well-finished new manse and offices have also been built within the last five years. They are situated on the glebe, and are a few minutes walk from the new church. The glebe is 12 acres in extent, and lets for about L. 1, 12s. per acre. The teinds of the parish are exhausted; their amount is about 15 chalders.

There are no dissenting chapels in the parish, and those of the parishioners who do not belong to the parish church, attend a Burgher meeting-house either at Inverkeithing or at Crossgates. The latter place is very conveniently situated for the colliers, being only about a mile distant from most of them. The number of individuals attending the Established Church is about 400.

Education.—There are two schools in the parish. The parochial schoolmaster has the maximum salary and the legal accommodation. The other school is supported entirely by the fees of the scholars, and a free school-room. The expense of education at the parish school is, 8s. for reading; writing, 10s.; and arithmetic, 12s.,—which are the only branches taught. There are no persons in the parish from six years and upwards who cannot read.

Poor and Parochial Funds.—The average number of persons upon the poor roll is from 25 to 30, and the sum distributed is from 1s. to 1s. 6d. per week. The annual disbursement is about L. 40. It does not appear that compulsory assessments have ever been introduced into this parish. The three heritors have been in the habit for a considerable period of assessing themselves to make up any deficiencies in the poor's funds. Besides the weekly collections, there is the interest of L. 130 arising from legacies left by individuals to the poor of the parish. Since the new church was opened, however, the weekly collections have been more than sufficient to meet all the demands upon the poor funds, though the number of paupers is rather upon the increase. The heritors had formerly to contribute about L. 10 annually. At present the rare, though much-wished for state of things here obtains, viz. the voluntary Sabbath day offerings of the parishioners supporting all the poor,

and the aged, and the infirm amongst them. This is principally to be assigned to the regularity of the attendance of the heritors' families, and of others, since a comfortable place of worship has been provided. The state of complete disrepair in which the old church remained for upwards of thirty years had the effect of alienating many individuals from the Establishment, who could easily obtain comfortable accommodation in the numerous dissenting chapels in the neighbourhood. And thus many who during life had weekly contributed toward the support of a dissenting place of worship, and towards the maintenance of its poor, have themselves ultimately become applicants for parochial relief. This has had the effect of greatly increasing the demand upon the heritors; and had they not come forward and assessed themselves, and had not many cases of indigence been supplied by the private benevolence of the proprietor of the Fordel coal-works, this parish might long ere now have been subject to all the numerous evils which never fail to attend that self-increasing evil, a legal assessment, and from which, we trust, it is now in the way of farther and farther receding. And we are persuaded that in many country parishes this evil might have been prevented, had the non-resident heritors voluntarily contributed to the parish funds such a sum as might have been reasonably expected from them, had they been weekly in their places in the parish church. * Had this much to be deprecated system ever been introduced into this parish, its principal cause must have been traced to the long period during which no suitable accommodation was provided for the people in their parish church. Much evil results from want of due attention to the comfort of the parishioners in this respect. It not only increases the demand upon heritors to supply their diminished poors' funds, and may thus lead to the introduction of legal assessments, but it goes directly to foster those loose principles, and to induce those habits of idleness and dissipation which give rise to pauperism itself. For an excuse is hereby furnished to the parishioners for withdrawing themselves from the salutary influence of the weekly lessons and ministrations of the gospel, which every enlightened mind will acknowledge are the most efficient of all means for pro-

* This statement is fully corroborated by an experiment made in one of the parishes in East Lothian, where, by pursuing a plan somewhat similar to that which we have suggested, legal assessments were not only prevented, but actually abolished after they had obtained a long and firm footing in the parish.—See an interesting work on this subject, entitled "Considerations addressed to the Heritors and Kirk-sessions of Scotland," by the late Rev. W. Stark, Dirleton.

moting industry, frugality, and prudence amongst our peasantry, and for cherishing that spirit of honest independence which will ever associate degradation with a state of pauperism. We cannot say that any disposition is evinced on the part of the people to refrain from applying for parochial relief. A strict attention, however, is paid to withholding assistance from those who have any private sources of charity from which supplies ought to be afforded them.

MISCELLANEOUS OBSERVATIONS.

In a small parish like this, where there are only three proprietors, and where one-half of the parish belongs to a single nobleman, few changes of any consequence have taken place within the last forty years. The effects of steam-navigation upon our population are very perceptible. In consequence of the increased facilities of communication with the metropolis, their original character has given place, in many respects, to the habits and tastes which more peculiarly distinguish those who are living in the immediate vicinity of a large town. Nothing would be of greater advantage to our coal population than a well-regulated savings bank. A want of prudence and foresight seems to be a very prominent feature in the character of colliers. However great may be their wages, they are sure to make their weekly expenditure keep pace with them. Any system, therefore, which would introduce habits of economy amongst them, might render our colliers the most independent and comfortable class of the labouring community.

Revised June 1836.