

Meldrum will consist, in the more extensive communication by travelling, which will take place on the new road, and in the easier access to its home markets. Its inhabitants will also obtain their coals at the port of Newburgh, which is six miles nearer than Aberdeen, where they were formerly supplied with them. Upon the whole, since the publication of the last Statistical Account, the progress of agriculture has in this parish been rapid and extensive, the facilities of communication, by new lines of road, have been greatly increased, and the general aspect of the country is very much improved.

November 1840.

PARISH OF ALFORD.

PRESBYTERY OF ALFORD, SYNOD OF ABERDEEN.

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I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE name of the small river, on the banks of which the church is situated, is Leochal. In the last syllable of this name, we recognize the *Ale*, which, according to Chalmers (*Caledonia*, Vol. i. p. 20), is a common Gaelic name for other rivers in Scotland, signifying "clear stream;" a name very appropriate to the Leochal. The first syllable, Leoch, is the name of the most remarkable mountain which the river touches in its course. Alford is thus *the ford of the river Ale*, in contradistinction to Waterford, the old name of a ford of the larger river Don, about a mile distant. Owing to the situation of the neighbouring high grounds, there has always been an important passage over the small river at the church; and it supports the accuracy of the etymology of the name now given, that we again find the *Ale* in the name of the most important farm on its banks,—Dursale; in which the first syllable—*Durs*, is, it seems, the Gaelic for oak.

Situation, Extent, Boundaries, and Figure.—The parish is the most considerable one, in point of population and extent of cultivated land, in the How (hollow or vale) of Alford; a small district nearly in the centre of Aberdeenshire, well defined by natural

limits. The How, properly so called, includes three other parishes, and is in the form of a trapezium, 10 miles long from east to west, and 8 miles broad at the east end, and 6 at the west. It is bounded on the east by the mountains Benochie, Cairnwilliam, and Mennowy; on the south, by the mountain Correny, and a series of low hills, which form the south part of the parish of Alford; on the west, by the mountain Callievar; and on the north, by a ridge of mountains named Coreen. These mountains, with the exception of the low hills at part of the south side, all rise above the limits of cultivation, and give a peculiarly sheltered aspect to the vale. They are scarcely continuous at any point with other mountain ranges, but spring up round the vale, from the table-land of Aberdeenshire. Their tops are rounded, with the exception of those of Benochie, which are finely serrated.

The river Don flows through the vale almost directly from west to east, entering and leaving it by narrow winding gorges, which penetrate the two loftiest parts of the bounding mountains.

The parish of Alford forms the south-west part of the How. Its extreme length from east to west is 7 miles; extreme breadth from north to south, 3 miles, and area 13.6 square miles nearly. The church is nearly in Lat. $57^{\circ} 13'$, north; and in Long. $2^{\circ} 40'$, west of Greenwich.

The boundary on the west is the crest of Callievar, the loftiest bounding mountain of the How. On the other sides the boundaries are nearly all water-courses; that on the north being the river Don, the outline of whose course is very nearly west and east. The figure of the parish is a semi-ellipse, cut off by the longer axis, represented by the Don.

Surface and Elevation.—In reference to the forms of the surface, the parish is naturally divided into three distinct regions. The river Leochal, running into the Don by a course directly north, cuts off one of these, containing about 5.6 square miles, to the west. This region rises from the bed of the Leochal, which is 420 feet above the level of the sea, westward, by various waving acclivities, to the crest of Callievar, which is 1480 feet above the sea. The cultivation is here, at some points, carried to 950 feet above the sea. The other two regions on the east side of the Leochal are separated from each other by a somewhat waving line, passing from the mouth of the Leochal south-eastwardly, and contain four square miles each. The more westerly of the two, which is the middle region of the parish, consists of four or five

inosculating round-topped hills, of gentle ascent on the north, but steeper to the south, whose bases are 420 feet, and their two highest summits 800 feet above the level of the sea. The most easterly region is a relatively low land, chiefly consisting of two gentle swells, whose bases are 380 feet, and their summits 450 feet above the sea.*

Meteorology.—No regular record has been kept in the parish, of either the thermometer or barometer. In absence of that of the former, we can have recourse to the temperature of perennial

* A magnificent and exceedingly varied view is obtained from the summit of Callievar. Immediately under the eye of the spectator there is seen the richly cultivated and ornamented vale of Alford on the east, traversed by the clear river Don, and bounded at the opposite end by the rocky-summited Benochie. On the west, close at hand, are the contiguous cultivated valleys of Kildrummy and Towie, with the remains of their two ancient castles celebrated in history and song. On the south, the eye obtaining many peeps into cultivated valleys near at hand, commands in the remote distance a splendid range of sixty miles of the loftiest Grampians, extending westwards from the shore of the Mearns, and including Mount Bettach, Mount Keon, Lochnagar, Benmuckduie, Benavon, and Cairngorm. On the north, it commands much of the varied surface of Aberdeenshire in that direction, with views of the Moray Frith and German Ocean beyond.

Mean Results during each month, for seven years, of a register of the thermometer, kept at Alford, Aberdeenshire; about latitude, $57^{\circ} 19' N.$; 420 feet above the sea, and 26 miles inland from the coast at Aberdeen. Also, the extremes of both heat and cold in each month, the mean of each year, the mean from April to September both inclusive, and from July to September both inclusive, and the quantity of rain that fell in the five last years, with the fair and rainy days. The thermometer was registered at $9\frac{1}{2}$ A. M. and $8\frac{1}{2}$ P. M.

Months.	Temp. at		Mean.	Highest during the Month.	Lowest during the Month.
	9 h. 15 m. A. M.	8 h. 30 m. P. M.			
1833.					
January,	28.07	30.00	29.08	44°	11°
February,	35.07	35.14	35.10	46	21
March,	36.79	35.33	36.06	45	26
April,	44.46	41.25	42.85	62	27.5
May,	56.50	53.87	55.16	72.5	34
June,	54.58	53.38	53.98	67	38
July,	58.00	56.60	57.30	76	39
August,	53.60	52.12	52.96	64	40
September,	51.95	50.86	51.40	60	33
October,	46.60	46.42	46.51	61	28
November,	38.57	38.35	38.46	58	20
December,	35.90	36.14	36.02	47	20
	45.024	44.128	44.573	mean of the year.	
1834.					
January,	38.°3	36.°8	37.°55	52°	23°
February,	38.39	38.78	38.58	55	24
March,	41.67	39.51	40.59	57	20
April,	45.86	42.96	44.41	56	25
May,	55.61	51.74	53.67	70	21
June,	61.13	56.46	58.29	70	36
July,	62.45	60.06	61.25	81	42
August,	59.9	57.67	58.78	74	37
September,	54.03	51.03	52.53	70	31
October,	47.8	46.77	47.28	62	29
November,	41.76	41.63	41.69	60	20
December,	42.29	40.25	41.27	53	21
	49.01	46.97	47.99	mean of year.	

springs, which it is known indicates the mean temperature of the place. Several of these, not remote from the manse, have their

Months.	Temp. at 9. h. 15 m. A. M.	Temp. at 6 h. 30 m. P. M.	Mean.	Highest during the Month.	Lowest during the Month.	Rain in inches.
1835.						
January,	34.°61	34.°55	34.°58	52°	7°	0.75
February,	38. 57	38. 37	38. 47	59	24	2.95
March,	40. 63	37. 06	38. 845	55	21	3.5
April,	45. 53	42. 13	43. 83	59	27	2.375
May,	49. 9	47. 16	48. 53	64	26	2.6
June,	57. 76	54. 90	56. 33	82	35	1.8
July,	59. 41	58. 48	58. 945	73	42	1.6
August,	59. 93	58. 58	59. 255	79	40	2.275
September,	53. 2	51. 23	52. 215	66	35	5.2
October,	44. 25	43. 19	43. 72	56	26	8.35
November,	41. 03	41. 33	41. 18	52	21	4.5
December,	35. 45	35. 13	35. 29	47	12	1.8
	46. 689	45. 1758	45. 9825	mean of year.		37.7
1836.						
January,	36. 03	36. 2	36. 115	46	22	3.3
February,	35. 0	34. 3	34. 65	46	14	5.25
March,	38. 40	36. 6	37. 5	52	13	3.6
April,	42. 63	39. 4	41. 015	59	22	3.075
May,	52. 83	51. 16	51. 995	71	30	1.3
June,	57. 03	55. 6	56. 315	74	38	1.65
July,	56. 12	55. 93	56. 025	73	41	5.6
August,	55. 19	54. 54	54. 865	69	31	2.35
September,	49. 86	48. 73	49. 295	60	31	5.6
October,	45. 38	44. 54	44. 96	62	25	4.9
November,	37. 36	37. 28	37. 32	48	26	5.575
December,	36. 12	36. 9	36. 51	51	11	3.35
	45. 1625	44. 265	44. 713	mean of year.		45.55
1837.						
January,	35. 19	34. 19	34. 69	45	18	2.3
February,	37. 03	36. 39	36. 71	50	25	3.3
March,	38. 9	31. 96	32. 93	46	8	1.25
April,	39. 18	37. 23	38. 205	54	20	1.75
May,	47. 38	45. 83	46. 605	60	32	1.8
June,	56. 5	55. 96	56. 23	77	28	1.9
July,	58. 87	58. 41	58. 64	69	44	7.8
August,	55. 25	55. 83	55. 54	76	33	4.9
September,	51. 56	51. 8	51. 68	64	38	2.75
October,	48. 93	48. 38	48. 655	60	25	.7
November,	38. 13	37. 46	37. 785	57	25	1.45
December,	38. 9	39. 32	39. 11	57	22	2.15
	45. 068	44. 306	44. 73	mean of year.		32.05
1838.						
January,	28. 74	28. 48	28. 61	46	9	3.0
February,	27. 785	27. 357	27. 571	44	12	3.5
March,	37. 258	35. 838	36. 548	52	13	5.4
April,	39. 9	38. 33	38. 815	54	19	3.775
May,	49. 61	46. 41	48. 01	69	21	2.7
June,	55. 0	53. 7	54. 35	66	24	4.2
July,	58. 7	58. 61	58. 655	74	48	1.2
August,	55. 645	54. 774	55. 2095	67	34	3.025
September,	51. 4	50. 4	50. 9	66	28	4.6
October,	43. 741	43. 967	43. 854	57	15	2.85
November,	35. 9	36. 33	36. 115	48	18	4.9
December,	38. 645	38. 32	38. 482	51	21	2.1
	43. 477	42. 7096	43. 0933	mean of year.		41.25

source in a rising ground of about 500 acres, whose mean elevation is 500 feet above the sea. Their temperature has been examined at different seasons of the year, and has been found to vary between 44° and 46° Fahr., giving a mean of 45° Fahr. nearly. The two extremes of heat and cold, as observed at the manse in fifteen years, by the registering thermometer, have been 84° Fahr. the highest, and 4° below zero of Fahr. the lowest.

Climate.—The climate is sufficiently favourable for ripening bear and oats; and no remarkable deficiency in these two sorts of grain occurs, excepting in such unfavourable seasons as occasion a

Months.	Temp. at 9 h. 15 m. A. M.	Temp. at 8 h. 30 m. P. M.	Mean.	Highest during the Month.	Lowest during the Month.	Rain in inches.
1833.						
January,	32.°87	33.°16	33.°015	48°	17°	3.15
February,	35. 1	36. 36	35. 73	46	11	1.0
March,	35. 9	34. 45	34. 175	45	16	2.0
April,	43. 3	40. 46	41. 88	58	12	0.65
May,	48. 16	45. 64	46. 9	65	19	3.35
June,	55. 56	54. 16	54. 86	75	25	3.0
July,	58. 8	56. 96	57. 88	68	38	3.6
August,	56. 32	54. 06	55. 19	68	40	1.925
September,	52. 8	50. 96	51. 88	60	36	4.725
October,	45. 39	46. 45	45. 92	56	26	2.6
November,	39. 86	38. 79	39. 295	51	7	4.0
December,	36. 58	36. 48	36. 53	50	21	6.3
	45. 054	43. 988	44. 521 mean of year.			36.3

Recapitulation of Means and quantity of Rain.

Years.	Mean temp. of years.	Mean temp. of April to Sept. both inclusive.	Mean temp. of July to Sept. both inclusive.	Rain in inches.
1833,	44.°573	52.°27	53.°88	
1834,	47. 99	54. 82	57. 52	
1835,	45. 98	53. 183	56. 8	37.7
1836,	44. 713	51. 592	53. 36	45.55
1837,	44. 73	51. 15	55. 252	32.05
1838,	43. 0933.	50. 9699	54. 9215	41.25
1839,	44. 521	50. 98	54. 98	36.3
Mn. of 7 yrs.	45. 0784	52. 1407	55. 2447	38.57 Mn. of five yrs

Fair Days and Days of Rain or Snow for five years.

Years.	Fair Days.	Rain or Snow, more or less.
1835,	233	132
1836,	204	162
1837,	239	126
1838,	216	149
1839,	195	170

The highest temperature of the seven years (92°) occurred on the 9th June 1835. The lowest temperature (12° below zero of Fahrenheit) on the 15th February 1836. The temperature has been below zero, Fahrenheit, only three times during the last twenty-four years.

The two times of the day chosen for registration, namely, 9 h. 15 m. A. M., and 8 h. 30 m. P. M., are those at each of which the mean temperature of the year occurred at Leith, in 1824 and 1825, when an hourly register of the thermometer was there kept. The temperature at the two hours has not corresponded at Alford; but the mean of the two may yet be nearly the true mean of the year.

deficiency also in all the more cultivated districts of Scotland. Norfolk barley, however, and wheat, both often tried here, too frequently fail to come to maturity, and their cultivation is now rarely attempted. The climate is admirably well adapted for turnips. Potatoes rarely fail, and there are great crops matured of clover and rye-grass. In the general run of seasons, the sowing of oats commences the last week of March, and the sowing of bear is finished by the 1st of May; potatoes are planted about the 10th of May, and turnips sown from the 1st to the 20th of June; hay harvest occurs about the 10th of July, and that of the grain crops begins about the 1st of September.

In stating the nature of the climate, notice must be taken of a serious injury to which the grain crops are exposed, in some of the lowest and most sheltered parts of the parish, owing to the occurrence in some years of a hoar frost during some part of the month of August. Regarding this the following facts have been observed. The frost never occurs but during a calm with a clear sky; the freezing cold is confined to the surface of the earth, or to within a few feet of it; for a thermometer, raised only five or six feet into the air, will indicate a temperature of 39° or 40° , when serious mischief is going on below. The injury is strictly limited to the lower and more sheltered lands, and all the higher and more open lands escape. No injury is sustained in very narrow gorges, through which water flows rapidly, although patches of land in them are otherwise low and sheltered. Spaces round mill sluices and other small waterfalls are also free from injury, and margins of 20 or 30 yards breadth on both sides of the larger and more rapid streams. If a breeze sets in before sunrise, no evil follows, although at some previous hour of the night it has frozen at the surface of the ground. These facts would seem to indicate, that, if a current of air could be artificially created, the evil effects would be warded off.

It has been ascertained also that grain in a very green and milky state sustains no injury from these slight frosts; but that if it approaches very nearly to a state of ripeness, even so much that there shall afterwards be found hardly any deficiency in the usual quantity of meal that it yields, it becomes altogether unfit for seed. It is in this view that great loss is often sustained, for there is no external mark by which the damaged grain can be distinguished. It may, however be recognized at once, by carefully stripping the husks from the kernels, when the longitudinal groove

in these will be observed black and carious, and they may be crumbled with facility between the fingers.

The climate is healthy; and at no season of the year can there be said to be any peculiar prevalent diseases. We are liable to the inroads of the contagious diseases, small-pox, measles, hooping-cough, and scarlet fever; we have also occasionally typhus. The progress and character of this latter, and of scarlet fever, when they appeared here to a serious extent about twelve years ago, were examined by Dr Alexander Murray, who then acted as our medical practitioner; and he gives authority to state, that typhus did not prove so fatal here as it did at that time in other districts, for he lost only one or two out of fifty patients; but that scarlet fever proved very destructive; for, out of 200 patients, 1 in 10 died. These and similar facts subsequently observed, led him to infer that typhus is milder, and scarlet fever more severe than these diseases respectively are in towns. He states also, that the peculiar inclosed character of this valley furnished him with an excellent opportunity to examine the manner of the dissemination of typhus; and that, upon a careful examination, there was unequivocally traced to contagion as large a proportion of cases of that disease as of scarlatina, small-pox, or other diseases, which are admitted by all to arise from contagion, and from no other cause.

Hydrography.—There are numerous small perennial springs of excellent water, especially in the two western hilly regions. A few springs also occur that are slightly chalybeate. In digging recently for a pump near Haughton, on reaching the rock *in situ*, a fountain was opened, which gives out a nauseous gas, and has a strong mineral taste, which excited attention. Some chemical tests, to which it was subjected, indicated that it contains sulphuretted hydrogen, but the matter is not yet fully investigated.

There are no lakes in the parish; and a circumstance deserving of notice is, that there are none connected with the Don or any of its branches; while the tributaries of the parallel river Dee, at no remote distance, either drain or pass through numerous lakes.

The principal river is the Don, which has its source in the parish of Strathdon, about thirty miles westward. It is here about 100 feet broad, and flows with a rapid shallow stream, over a pebbly bottom; having dry grassy banks to the margin of the water. Next in order is the Leochal, which falls into the Don,

after a winding course of twelve miles from its source in the parish of Cushnie. It is about 25 feet wide in its course through this parish, and is rapid and shallow like the Don. The Burn of Bents, a smaller and more sluggish stream, bounds the parish on the east, and the still smaller Burn of Buckie has its course wholly within its middle and eastern regions.

Geology and Mineralogy.—The rocks of the whole parish are of those aggregates, which have been denominated primitive. The minerals composing the aggregates are, quartz, felspar, hornblende, and mica: the species of the aggregates themselves, chiefly those which have obtained the names of granite, syenite, and mica-slate. The varieties of the granite may be pronounced infinite. It varies by an increase or deficiency in different specimens of some of the minerals, quartz, felspar, or mica, of which it is composed; or by an enlargement or diminution of the crystals of these minerals. It also varies greatly in point of colour, and in being sometimes flawed into large or middling blocks, and sometimes shivered into small fragments *in situ*. In some places, definite varieties of it may be seen forming continuous veins for a considerable space; in other places may be seen amorphous beds, in which a great number of varieties are interlaced in the most inextricable confusion. Among other varieties, we have some closely resembling the well known gray granite of Aberdeen, and equally serviceable and durable for building; and others as closely resembling the equally well known red granite of Peterhead.

The syenite can only be considered as a variety of the granite, in which hornblende is substituted for the felspar. In fact, the granite is in some places seen gradually passing into a light-coloured syenite; but some circumstances attend the latter which do not belong to the former. Thus it is never observed shivered *in situ* into small fragments like the granite, but only flawed into large blocks; and while both the aggregates are penetrated by numerous small veins, those of the granite are most frequently quartz, and those of the syenite are almost invariably a smaller granular syenite. The positions of the syenite in relation to other rocks have not been observed to follow any definite order, and it has not, like the granite, been seen forming large veins, but irregular beds.

The mica-slate, which forms the prevailing rock for a considerable space in the north-west part of the parish, is subject

to pass into a great many varieties as well as the granite; and the inclinations of its strata shift, with change of place, into every possible position, and the strata are often greatly contorted. It is penetrated by many small veins of quartz, and many also of numerous varieties of granite, of all dimensions, up to the width of twenty or thirty yards.

Although, in examining these primitive rocks in such a narrow space as this parish, it would not be obvious that they held any definite order in relation to each other, yet, on looking at a larger extent of the neighbouring country, an outline of such an order may be perceived in respect of some of them. Thus the mica-slate in the north-west part of the parish is the south border of a long range of slaty rocks, that appears to pass in the direction of north-east and south-west, of varying but comparatively limited breadth from north-west to south-east. And again, in the south-east part of the parish, are found beds and veins of a peculiar somewhat porphyritic red granite, which are the north edge of a comparatively narrow range of that rock, which is known to extend also from north-east to south-west for a space of twenty-five miles, and probably extends much farther. These ranges of peculiar rocks have no relation to the ranges of mountains, but hold their courses onward equally through mountains and valleys; and their north-west and south-east edges are extremely straggling and irregular.

A remarkable circumstance regarding the rocks of this parish is, that by much the larger part of them is in a state of decomposition; or at least in such a friable state that they may be easily dug into with the pickaxe and spade. The varieties of the gray and red granite are most frequently found in this state; but there are also many parts of the mica-slate in the same condition. The syenite has not been observed friable, with the exception of fragments of it often found included in the friable granite. The friable rocks have no definite position in relation to the hard. Posts of fine building stone, that resist the action of the weather, are in many places quarried in the midst of immense beds of the friable.

As far as is known the rocks are very poor in metallic ores. A poor ore of iron sometimes accompanies the narrow quartz veins; and that metal, disseminated in small quantity, appears to influence the colours of the rocks. A black heavy small sand, found on the strands of the Don, and in the beds of torrents over

friable granite, has been analyzed by Dr Thomson, and found to be the ore of titanium and iron named Iserine. The only simple minerals, in addition to those forming the aggregates of the rocks, are small rock-crystals.

The deposits covering the rocks *in situ*, whose quantity and character could not have been ascertained thirty years ago without great labour undertaken for the purpose, have since been penetrated at a vast number of points by various operations in the course of the improvements in the parish, and have been thus fully exposed. The most remarkable circumstance regarding them is their shallowness on both the high and low grounds. On the north and west faces of the hills they are very thin, not generally more than a foot or two, and at their bases or in hollows, there, very rarely having a depth of five or six feet. At the south and east slopes and bases of the hills they may be considered, on an average, a foot or two deeper than this, or varying from one or two to six or eight feet, with the shallower depths greatly prevailing. On the relatively flat lands in the east part of the parish the deposits cannot be considered as exceeding the average depth of those on the hills. In a very few places only within the parish, and they of very limited extent, in lower hollows, and at the south and east bases of very friable rocks, deposits are seen of a depth of 15 or 20 feet.

The deposits consist entirely of the debris of the underlying or neighbouring rocks, and, according as these are hard or friable, they vary from stony, through sandy, to a sandy brick clay, including, more or less, fragments of hard stone.

The outlayers or dispersed fragments of a great many well-marked rocks are observed invariably at points between the east and south of the rocks *in situ*; sometimes, when the descent of the surface is in that direction, at a great distance from their original places.

No organic remains have ever been found either in the rocks or their covering deposits.

It is abundantly evinced by many facts, that our present valleys have not been scooped out by the rivers which now flow in them. Every stream has formed only a narrow lengthened hollow in the bottom of the irregularly expanding valley through which it has its course. The escarpments that bound the lengthened hollows on both sides are continuous in lines nearly parallel to the streams, and are more steep than any other rising grounds to be

found in the parish. The bottoms of the hollows themselves are flat, and the soil in them and the natural vegetation differ from any to be found above the escarpments. The deposits within them consist of horizontal beds of water-worn and rounded fragments of rocks, of all the different sorts to be found along the whole upper courses of the streams, brought into juxtaposition within narrow spaces. On the contrary, the fragments of rocks found in the deposits above the escarpments are angular, and not much water-worn, some of them not worn at all; and within a given space, they consist of few varieties. The extent and depth of the river hollows are everywhere regulated by three conditions,—the magnitude of the stream, its rapidity, and the hardness or friableness of the materials of the bed; and towards the sources of the streams they diminish to simple drains for the water. In addition to these facts, many localities can be pointed out where it is obvious that, had the rivers ever run at higher levels than the escarpments bounding the present hollows, they would have taken their courses, and formed their junctions by lines very different from those they at present pursue.

The beds of the streams have been very sensibly deepened within the last thirty years, presenting us with a measure by which to estimate the period that may have been required for the excavation of the river-hollows; and which, as a detail of particulars would show, agrees well with the era assigned by historical record to the last general flood.

Soil.—The larger proportion of the soil may be called a friable and dry loam, eminently adapted for the turnip husbandry; but it varies materially with the nature of the subjacent rocks and the deposits covering them. Where these have been friable and worn into a clay by the action of the weather, the subsoil is more or less retentive of too much wet to admit of turnips, without much attention to both under and surface draining; but the soils in this condition produce the best crops of oats. There are also many spouty places caused by springs issuing from the beds and veins of shivered granite, which require under draining, often a delicate and uncertain process where the rocks have no certain order; but the soil in such places is generally highly productive, when the springs can be fairly drained out. The soil of the haugh lands within the river hollows is very friable, and, where separated by drains from the bounding high grounds, always very dry. In respect of staple, all the soils may be called shallow, with the exception of

those of some of the old infields, small parts of every farm to which it was formerly the practice to apply all the dung, to the exclusion of the other lands. Of these the soil is generally deep.

Many boulders, or large detached stones, recently cumbered much of the soil; but they have been to a great extent removed from the arable land within the last thirty years, at great labour and expense, needing often to be blasted with gunpowder.

Zoology.—There are, besides the domesticated races, only twenty-three Mammalia ever seen in the parish. Among these are the red-deer, but rarely, and the variable hare in winter. Three species have lately come into it—the pine-marten and hedgehog about fifteen years ago, and the gray warren-rabbit more recently. They have probably been enticed by a fine cover of woods, now greatly extended.

Major Thomas Youngson, E. I. C. S., very obligingly gave his aid to perfect a list of the Birds; and it appears we have thirty species constantly resident; as many that breed here, but leave us in winter; eleven species that are only winter visitants; thirteen species that are often seen hunting, and six species that have been seen occasionally, among which is the rare nutcracker, seen by Major Youngson. One species (139, *Totanus callidris* of Dr Fleming's British Animals), has been very recently driven away from its breeding haunts, by the extension of cultivation. The *Anser ferus* is nearly banished by the same cause. This came formerly in large flocks, and of all migratory birds kept most regularly to its time—arriving the third week of September, and departing the second week of April.

Our Reptiles are only five,—two lizards, two frogs, and the common toad.

The Fishes are also few. We have the sea-lamprey rarely; the river-lamprey, salmon, common-trout, par, pike, minnow, common eel, and stickleback.

The salmon are not found clean in the Don till the 1st of April. The salmon fry disappear from the river about the middle of May. The grilse begin to come up about the last week of June. The fish after spawning partly return down in winter; but great numbers of the spawned fish remain in the river till the middle of March.

Botany.—Dr Alexander Murray, who examined the botany of this parish several years ago, when he was resident here, has, on solicitation, very obligingly communicated a list of all the flowering plants which are native. We have full reason for thinking his

list a very complete one. It is transmitted along with this account, and must be esteemed curious, as exhibiting the character of the vegetation of a parish in the north of Scotland, as remote from the sea and the higher Scotch alps and large towns, as any other that could be named, having, besides, the peculiarity that the rocks are exclusively the siliceous and argillaceous primitive ones. The whole number of flowering plants is only 306; and we shall give here the numbers that belong to some of the more important natural orders of Hooker's Flora Scotica :

Gramineæ	35	Primulacæ	3	Rosacæ	15
Cyperacæ	19	Labiatae	12	Leguminosæ	15
Juncæ	11	Scrophularinæ	15	Hypericines	4
Orchidæ	7	Boraginæ	5	Geraniacæ	4
Coniferæ	2	Ericæ	4	Caryophyllæ	12
Salicinæ	7	Compositæ	30	Cruciferae	8
Euphorbiacæ	2	Rubiaceæ	6	Ranunculacæ	8
Polygonæ	12	Umbelliferae	7		

Our attention having been directed to the subject by Dr Hooker, we are enabled to give the following heights above the sea, at which some of the cultivated plants succeed in this parish.

Feet.

- 1200 Larch. This valuable tree appears to find, in our region of primitive rocks, a soil well adapted to it. It thrives better than any other tree at the inferior heights, and ripens its wood early.
- 1100 Birch.
- 1050 Scotch fir.
- 1000 Broom.
- 950 Oats ripen fully here, and are attended by all the plants of our common husbandry in full perfection, including potatoes. Greens, and some cabbages, white peas, and flax, also succeed.
- Aller is native.
- 900 Ash, elm, (*Ulmus montana*,) gooseberries ripen.
- 800 Cherries, jargonelle pears, raspberries, hawthorn.
- 750 Beech, *Quercus sessiliflora*.
- 700 *Quercus robur*, (dwarfish).
- 500 Ribstone pippin apple.
- 450 Achan pear, lime, *Salix alba*, laburnum.
- 420 A fine silver fir at Haughton deserves notice, as it shews the species is well adapted to our soil and climate. It is 92 years old, more than 10 feet in girth, and 76 feet high—measuring upwards of 200 cubic feet. It is at present growing very rapidly.

The greatly varied heights and exposure of the lands in this parish afford great facilities for ascertaining the influence of aspect on the various kinds of cultivated plants. Trees and shrubs which have to endure the severity of the winter storms are, on land having a westerly or north-westerly aspect, always comparatively stunted and irregular in their growth. It does not appear, that, among the remaining aspects, any one is much to be preferred to another for these plants. With regard to the annual and herbaceous plants, the effect of aspect appears to be insignificant.

ABERDEEN.

I i

The brairds of grain, and the grasses, are somewhat more forward in spring, on south-lying lands; but when the sun comes near the northern tropic, those on the north-lying lands soon come up with them; and there is scarcely a difference in the earliness of the hay crops, and none at all in that of the grain crops. In short, the influence of aspect on the earliness or lateness of both these crops is quite obscured by the greater influence of a dry or damp subsoil. The earliest ripened grain crops in the parish, every year, are on a piece of the steepest cultivated land in it, having a directly north exposure, but of which the subsoil is uniformly dry.

II.—CIVIL HISTORY.

There is no other account of the parish known than the one in the old Statistical Account. That contains a very interesting description of the then existing state of the parish, especially of its agriculture. The system of the agriculture, to state it in few words, then was, to have about one-third of a farm, denominated infield, always in grain crop; one-third part of this always in bear, to which all the dung of the farm was applied, and the other two-thirds in oats. The other two-thirds of the farm, called outfield, was arranged into eight or ten divisions, each of which bore four or five crops of oats in succession, and was then left uncultivated for four or five years, to bear such grasses as might naturally spring up in it. Such animals, chiefly horses and black-cattle, with a few mountain sheep, were at the same time kept, as could subsist on the outfield leys and natural pastures round the arable land in summer, and on the straw of the grain crops in winter. There was no application of any manure but the dung of the animals. The teams for ploughing consisted each of ten small oxen; and carriages were performed by small horses who did little other work. In the account thus given of it, the imperfections of this agriculture are pointed out with an ability which might have augured, that great improvements, since happily realized, were then near at hand. The printed copies of the account abound with typographical errors, deforming a paper of much interest.

Land-Owners.—The following gentlemen are the present land-owners of the parish: John Farquharson, Esq. of Haughton, who possesses nearly two-thirds of the parish, and resides here during the summer months; Andrew Farquharson, Esq. of Breda, resident.* Charles Forbes, Esq. of Asloon, not resident; William Stewart,

* Since this was written, the parish has been deprived of this esteemed and valuable inhabitant by his death. The property is now liferented by his widow.

Esq. of Carnaveran, not resident; Duncan, Davidson, Esq. of Tillychetly, not resident; Benjamin Lumsden, Esq. of Kingsford, now building to reside. Five of these gentlemen are freeholders of the county of Aberdeen.

Parochial Registers.—The earliest entry in these is of date 1717. They have been very irregularly kept; but one branch of them is of great historical interest, as showing the inquisitorial character of our church courts in the former part of the last century, till the salutary influence of the General Assembly reduced their practice to a nearer conformity with the general candour and openness of British jurisprudence.

Antiquities.—These are of little note.—A circle of large stones, known by the name of the “Auld Kirk,” gives some countenance to the belief entertained by some persons, that such circles were places of worship to the ancient inhabitants. Two circular camps, recently very distinct, now nearly levelled by the plough, might hardly deserve notice, did not such remains sometimes happily illustrate ancient records. The larger of these contains an area of 25 acres, on the top of a regularly conical low hill named “The Da-mil,” perhaps a corruption of Danehill; the *a* in Dane being provincially pronounced broad. The fortification has consisted of an earthen wall and ditch, strengthened, at intervals of one hundred yards, by round buildings, also of earth, of about fifty feet diameter. The smaller camp is on flat ground near the church, and has the name of the Roundabout; its area little more than an acre; but the vallum and fosse have been of very large dimensions, and much earth for the former has been taken from the inside.

A cairn of stones, in the form of a truncated cone, 120 feet in diameter, and about 25 feet high, having been partly removed, there were discovered under it several chests, formed of flat stones, in which were found ashes and pieces of charcoal, and in one a rude urn of baked earth, in which also were found ashes and pieces of bones. The cairn is on the summit of a hill named Carnaveran, a name interpreted, by a gentleman who speaks Gaelic, “the Cairn of Sorrow.” The contents and the name of this monument thus both unite to show that it was erected to the memory of the dead; and from the former we may infer that it was the practice of the inhabitants at the time to burn their dead.

Modern Buildings.—The church is a substantial building of rubble stone and lime, rough-cast with lime outside, and roofed with

Fouldland slates, which, for lightness and durability, are about equal to those of Eisdale. It is a finely proportioned house, having narrow galleries on three sides, and the whole fitted up and painted with simplicity and beauty. The stair for the galleries is in a building outside the line of the wall; and as the ceiling is flat and not too lofty, there is none of that irregular vertical echo which makes it impossible to hear a speaker at any considerable distance, in so many of our public buildings constructed with too lofty roofs.

There is a substantial mansion-house at Haughton, the seat of the principal heritor, built of finely dressed granite, and of modern construction. There is also a suitable mansion-house at Breda.

There are three meal mills in the parish, with attached drying kilns, built of rubble stone and lime, and roofed with slate. The farm-houses and steadings are all built of durable stone, of which there is everywhere a good supply near at hand. Most of them are with thorough lime; but some are only with clay and sneckpinned with lime. Many of them are roofed with slate, which is getting more into use; but a large part is stob-thatched with straw, and a few with heath, which makes a more durable covering.

III.—POPULATION.

Table of the population at various periods:

	Males.	Females.	Total.
The population in 1755,			990
1795, .	310	353	663
1801, .	310	334	644
1811, .	363	355	718
1821, .	407	419	826
1831, .	444	450	894

The increase of population since 1801 is exclusively owing to the improvement and extension of agriculture.

The whole population resides in the country; the only place having the name of village, consisting of about a dozen cottages, dispersed over a space of three-quarters of a mile.

Yearly average of births for the last seven years,	23
of marriages,	44
The number of persons in 1831 under 15 years of age,	305
betwixt 15 and 30,	252
30 and 50,	205
50 and 70,	100
upwards of 70,	32
Total,	894

Proprietors of land, one constantly residing, and one residing during summer and autumn.

Number of unmarried men, bachelors, and widowers upwards of 50 years of age, 18
 women upwards of 45, 53
 families, 183

Average number of children in each family, at present, is four ; but this includes the families of recently married couples, and therefore does not indicate the number of children to each marriage.

Number of inhabited houses,	176
uninhabited houses,	1
houses building,	1
insane persons,	3
deaf and dumb persons,	1

The ordinary food of the great body of the working people chiefly consists of oat-meal, made into boiled pottage, or brose, or cakes, rendered nutritive and wholesome by an abundant supply of milk, and varied occasionally by potatoes dressed in various ways, and by soups made of greens, turnips, and pot-barley. The ordinary beverage of the working people is an excellent small beer, from malt made of bear of native growth, and hops ; and this, with a larger allowance of malt in it, forms in their diet an excellent substitute for milk, when occasionally the latter becomes deficient in any family during winter. Until about six years ago, the malt was all home made ; and the farmers and their servants, during some part of autumn or winter, found seasons of leisure from their busier occupations to make it, which they could all do very skilfully, so that the making of it virtually cost them nothing. Since that time, however, so many annoying regulations have been introduced in levying the excise duties, that the practice of private malting has, of necessity, been almost entirely abandoned. A system of public malting, since partially introduced, has not much mitigated the privations inflicted by these regulations. It involves an expense, which was before entirely avoided, and may, in the end, subject the whole supply of malt to a monopoly in the hands of the public maltster.

The enforcement of these regulations is complained of by the inhabitants, as the greatest inconvenience to which any fiscal law has ever subjected them ; and as they have never complained of the amount of the duty, the revision of the regulations, with the view of restoring private malting to its recent freedom, might be a boon granted them, without hurt to the revenue.

General Character of the People.—As to their general character, it cannot be spoken of otherwise than in terms of commendation. They are persons whose understandings are practically sound, and enlarged and cultivated by that perpetual exercise of them, to which the infinitely diversified nature and circumstances of their rural pursuits, often requiring the nicest delicacy of judgment in conduct-

ing them, afford a constant excitement. They are not destitute of a serviceable share of that knowledge which is derived from letters; but, with regard to their worldly affairs, experience may be called the great guide of their life.

Their moral qualities are of a yet higher order. They are assiduously industrious, temperate in their desires and enjoyments, affectionate in their families, careful of the education of their children, friendly and obliging to one another, liberal to the poor without the slightest ostentation, and sincere and upright in their dealings with strangers. These qualities secure a peaceable and orderly neighbourhood, where any necessity for the interference of the civil magistrate is almost unknown. A law-plea is an event of the rarest occurrence; and neither tradition nor record states that any inhabitant, native of the parish, was ever accused before a criminal court.

These moral qualities, so beneficial to the individual and the present order of society, have their permanent root in a deep and steady principle of religion; and the same wise practical discretion which regulates their worldly affairs is also a characteristic of their religion. There is perceived among them no loquacious parade of religious knowledge, no casuistical disputation, no delight in controversy, and none of that ostentatious display of piety which is forbidden to a Christian; but they who know them most intimately, know also, that a constant feeling of their dependence upon God, and responsibility to him, rendered active by the promises and hopes of Christianity, directs the general tenor of their life. Happily, the demoralizing practice of smuggling never found its way into the parish: and poaching is unknown.

IV.—INDUSTRY.

Number of males employed in agriculture, as farmers, cottars, and farm-servants, 243
This includes a considerable number of boys under 15 years of age employed about cattle.

Number of males employed in manufactures, trade and handicraft, as masters and workmen, 59

The larger proportion of these last are strictly employed for the purposes of agriculture; as the blacksmith in making agricultural implements and shoeing the horses; the cart and ploughwright; the builder of the thrashing-machines; the mason and house-carpenter in building agricultural houses; the maker of agricultural harness; and, besides, persons of all these handicrafts have crofts of their own, that they manage chiefly by their own labour, and many of them hire themselves out for the harvest.

These circumstances have never been attended to in estimating the relative proportions of the population of the united kingdom that strictly belong to agriculture on the one hand, and to all other classes on the other. The agriculturists have been thus always reckoned much fewer than they are.

Number of educated and professional persons,	9
house servants, males, upwards of 20 years of age,	2
under do. do.	1
female servants,	84

These last are much employed in agriculture, especially during the seasons of hoeing and harvest.

Agriculture.—

Table of contents of the parish in imperial acres.

Arable,	4767 acres.	
Rich green pasture in slips near the rivers, or otherwise incapable of cultivation,	202	} 2779 acres uncultivated.
Uncultivated, but capable of being made arable,	512	
Uncultivated, and unfit for cultivation, but, with the exception of 200 or 300 acres, which are too elevated, fit for planting,	2009	
Moss,	56	
Wood, planted,	1169	
Total imperial acres,	8715	

Plantations.—The species of trees planted to greatest extent are the Scotch and larch firs. There are also many spruce firs (*Pinus abies*) in lands too wet for the other two species. Recent experience has proved the wood of this last tree to be much more durable than any other we have, when used for gate and paling-posts, if put into the ground with the bark on.

It can admit of no doubt, that great error has been committed in planting and managing the Scotch fir, the species first planted here. The plantations of that tree have almost all died before attaining the age of fifty or sixty, or, in the most favourable cases, seventy years. This, of course, involves the necessity of early cutting and sale; and the wood of the early cut trees has no durability, being liable to the attack of worm, which utterly destroys it in thirty or thirty-five years. The wood of young trees of the Braemar native forests suffers equally from worm, while that of the aged trees is equally durable with the best Baltic wood; showing that the durability is entirely dependent on the age of the tree, and that no valuable wood can be obtained from the plantations till the cause of the early death of the trees is discovered and removed.

It seems practically demonstrated by an incident which has occurred in a plantation in this parish, that the generally early death of the planted fir is to be ascribed exclusively to the universal practice, from whence soever it may have arisen, of planting the trees too

thick on the ground, and not giving them spaces at all proportional to the ultimate size of the species. The incident is as follows: In a plantation of oaks at Haughton, made ninety-two years ago, a number of Scotch firs have been planted dispersedly, perhaps intended for shelter to the oaks; and as the latter have not thriven well, the firs have had room from the beginning to occupy spaces proportional to their native growth, and have become large and valuable trees,—at their present age already furnishing wood of an excellent quality. Not one of these trees has ever been known to die naturally; and those which the axe has spared have all a healthy and vigorous aspect, indicating that they might live to the ordinary period of the trees of the native forests. While this has occurred with respect to them, other plantations of fir in the immediate neighbourhood, on soil exactly similar, and planted much more recently, but of the customary thickness, have, some years ago, died out.

It would appear from a variety of circumstances, especially from the prosperous state of some other fir trees in this parish, which, from incidental causes, have enjoyed much room from the time of their being planted, but into the particulars of all which there is not room here to enter, that the proper correction of the error, which has so long prevailed, would be, to plant the trees at first so thin as to give each the space which it would occupy when arrived at full size and maturity of growth; and not to trust to thinning with the axe, which is liable to many objections. Planting in this way would require only 200 or 300 trees to the imperial acre, instead of 3000 or 4000 according to the present practice.

The same error of thick planting, which has proved so fatal to the Scotch fir, has been fully extended to the larch. That species was introduced here sixty or seventy years ago, and the trees were at first planted dispersedly, or among scattered rows of trees around gentlemen's seats. These, having ample room, have, with few exceptions, continued healthy and vigorous. Afterwards larches were planted to a greater extent promiscuously with Scotch firs, or in clumps alternating with these, and equally crowded; and under such management, they are now dying in equal numbers with the Scotch fir.

A better system, in respect to this matter, begins to prevail; for, although thin planting has not been adopted, more attention is paid to early thinning.

Besides the firs, many other species of trees have been planted

in the parish; and there are trees to a great value of these species, now ready for use, especially round-Haughton. The chief of them, in the order in which they are observed to grow most rapidly here, may be thus enumerated;—beech, elm (*Ulmus montana* of Hooker's Flora Scotica), ash, which is the most valuable, gean-tree (*Prunus cerasus*), lime, Scotch plane, mountain-ash (*Pyrus aucuparia*), birch, quaking-ash (*Populus tremula*), aller, and white-beam tree (*Pyrus aria*).

In addition to these, there are a very few black poplars, and willows, as *Salix alba*, *S. decipiens*, *S. lanceolata*. These last prosper well, and might deserve to be more cultivated. There are also a few trees of the *Cytisus laburnum*, which become valuable for household furniture.

There has been planted in the parish also a very considerable number of oaks (*Quercus robur*), and the largest plantation appears to be now ninety-two years old; but the result does not seem to warrant the extension of plantations of that species, as the trees are much inferior in value to ashes and elms planted at the same time, under equal circumstances. This relative failure of the oak might appear surprising, when it is considered, that many remains of oak trees, yet occasionally dug from under the soil, prove it was once a common native. But it has been ascertained by the examination of an old native copse of oak at some distance from this parish, that the native species is not the *Robur* but the *Sessiliflora*; and as that is said to yield only wood of inferior quality, it would not seem expedient to plant it with a view to the value of the wood, however it might be profitable for the bark.

Rent.—The valued rent of the parish is L.3126, 12s. 8d. Scots money. The present gross rent is very evenly L.4000 Sterling; giving, after making an allowance of a small rent for the uncultivated land, nearly 16s. rent per imperial acre of arable land. The rent of grazing and rate of pasturing animals by the year cannot be stated.

Rate of Labour and Mechanical Work.—Fees, besides provisions and lodgings, by the year: a good ploughman, L.13; a boy, L.4 to L.7; a female servant, L.5. For the harvest-work only; a good scythesman, L.2, 15s.; a woman, L.1, 15s. Wages without provisions or lodgings by the day; a labourer, 2s. in summer, and 1s. 4d. in winter; a mason, 2s. 10d.; a carpenter, 2s. 3d.; a tailor, 2s. With provisions, and without lodgings, a female to hoe turnips, 8d. By the rood of thirty-six square yards, a stone and

lime wall two feet thick, including all expenses, L.7, 10s. ; a slated roof, independent of wood-work, L.5, 5s. ; a thatched roof, including value of straw, L.1, 5s. By the square yard, flooring, including joisting, 3s. 6d.

Breeds of Animals.—Horses.—The present principal breed of these has been brought from the south of Scotland and England within the last thirty years. They are of such size that two make an excellent plough. A good many are now bred in the parish, but not quite enow to supply the yearly waste. There are yet also to be found a considerable number of the old breed of small-sized horses ; a healthy race, and of great endurance for the road.

Sheep.—These, with the exception of one flock of black-faced sheep, kept on the hills, at the west end of the parish, consist of a few improved Leicesters, and Merino crosses, kept on account of the wool.

Pigs.—There are very few, of the small Chinese breed ; and they are getting quite out of favour as store beasts.

Black-Cattle.—These form the most important store-beasts. The substratum of the present races is the well-known long-horned black or brown Aberdeenshire breed, a healthy and handsome race, but small. The cows, when now properly fed at all seasons, are great milkers, and their milk peculiarly rich. This breed is, however, now rarely seen pure in this parish, although yet to be got quite pure in some of the neighbouring parishes. Since the introduction of abundance of food by the turnip husbandry, the cultivators have become desirous of having larger animals than their old native breed ; and they have obtained these by crossing it with larger bulls, brought from other parts. The crosses with the Galloway bull have been preferred, and the cattle have lost their characteristic horns. The resident heritors introduced the pure Ayrshire dairy breed ; and many of these, at one time, got dispersed among the farmers, but do not seem to be held in repute.

Table of live-stock in the parish, on the 15th June 1831, just after some of the largest sales of the year had been made :

Large cart and plough horses,	150
Smaller full-grown horses,	90
Horses under four years old,	92
	—212
Milch cows,	425
Work oxen,	48
Young cattle, including calves,	1379
	—1852
Sheep, all kinds,	703
Pigs,	35

The general character of the Husbandry pursued.—The state of the husbandry is, on the whole, highly satisfactory. Perhaps no example could be adduced, at any period, in any other nation, of such a series of beneficial improvements being introduced, in so short a space of time, by steadily progressive but unobtrusive steps, and without any removal of the natives, as those which have converted the rude and unproductive husbandry of 1796 into our present skilful and productive one.

The improvements have consisted chiefly in the regular application of lime, in sufficient quantity, as a manure;—the introduction of a dressed crop of turnips, and crops of artificial grasses, into a regular alternation with the crops of grain;—the substitution of the two horse and two oxen plough, for that drawn by ten oxen;—of the thrashing-machine for the flail; and of the scythe, in harvest, for the sickle;—and also the cultivation of early varieties of oats, in place of the late kind, called common oats, formerly alone cultivated. Regarding some of these, it may not be improper to give a few brief notices.

It might have been deemed, in former times, a thing incredible, that a great extent of land in the centre of Aberdeenshire, twenty-seven miles from the nearest sea-port, should be all sufficiently manured by lime, imported from Sunderland; yet this improvement has been effected on nearly all the arable land of this parish; and it is one on which so much of the increased productiveness of the present husbandry depends, that without it none else would have been of material benefit. The quantity of lime-shells, applied to the imperial acre, is 100 imperial bushels, on the light and dry land; and on the clayey damper soils a little more; but this quantity must not be exceeded, and the lime must be equally spread on the land with the utmost care; as it is found, when used in excess, to induce an utter sterility in respect of grain crops, for which there is no known practicable remedy. For the same reason, it must not be repeated in less than about twenty years, and then in somewhat smaller quantity. The lime, in the first instance, was properly applied either to the dressed turnips or a clean fallow. In applying it for the second time, it has become the practice to harrow it in with bear and grass seeds after turnips, by which means it remains in the surface during the common three years of grass. The cost of 100 bushels lime-shells, at the Aberdeen shore, is L. 3, 4s.; and of the carriage to Alford, L. 2, 8s. These rates were recently about one-fourth more.

The rotation of crops adopted in this parish is a seven-shift. 1. Turnips, with dung put in by double drilling. 2. Bear or oats, with grass seeds, (red and white clover and rye-grass.) 3, 4, 5. Grass; the first year of grass cut for soiling or hay. 6 and 7. Oats. This does not agree with the rigid rule, laid down by most writers on agriculture, that two grain crops ought not to succeed each other. Into the question, whether the rotation might be improved, we shall not enter, farther than to say, that the second crop of oats is, on an average, nearly as productive and somewhat earlier than the first, which is liable to be injured by the grub; that, where the dressing of the turnip crop is properly attended to, the land does not get weedy; that, by this rotation, the quantity of food for the live-stock is so equally adjusted for summer and winter, as not to drive the cultivators to the inconvenient and hazardous expedient of suddenly increasing or diminishing their stock, at either season; that the crops of turnips, returning after considerable intervals, are never infected with any disease; and that the whole soil of the parish is, under the present system, obviously improving from year to year.

The practicability of introducing early varieties of oats, is a result of the increased fertility and cleanness of the land. These varieties would have been exceedingly unproductive on the poor and foul land of former times. We have now varieties which ripen three weeks earlier than the old common oat; and this, since it respects our most important, and, at the same time, latest crop, may be pronounced an advantage equal to what might have been obtained, if it had been possible to shift the parish several degrees to a more indulgent climate. The most favourite varieties of oats are, the early Angus, the red oat, and the Scotch birley.

At one period the potatoe-oat was extensively grown; and in favourable seasons it gave a much greater produce than any other; but in late seasons it becomes even more late than the common oat; and in the unfavourable years of 1816 and 1817, it failed so much more sensibly than every other variety whatever, that any considerable extent of it is not now hazarded.

While on this subject, we may state the common weights of grain. Bear weighs from 52 to 55 lbs. per imperial bushel, being much superior to that which grows near the coast; and early Angus oats weigh from 41 to 44 lbs. per imperial bushel.

Black-cattle form so important a branch of the husbandry, that the management of them must be stated. Respecting them,

the system is that of rearing lean stock for the English markets; the beasts being sold off to the dealers in driving condition, when they reach the age of three or four years, and comparatively few being fed for the shambles. A bullock three years old brings at present from L. 7 to L. 9; and one four years old from L. 11 to L. 14.

The whole cattle are turned out to pasture about the beginning of May, and the milch cows kept as much separated from the others as the facilities of the farm will admit. The milch cows are all housed during the night, and receive cut grass in addition to their pasture. The yeld beasts are allowed to remain day and night in the enclosures, where these are completed; or, where there are no enclosures, are turned during the night into the dung courts. In this latter case they are herded during the day by a boy. In the month of October, the cattle are all housed and bound up in stalls, where they are fed with turnips and oat-straw, so as to keep them in a growing condition, but no more. New calved cows get in winter and spring a little hay, in addition to the turnips and straw.

Many hundred acres of waste land have been reclaimed, chiefly by the plough, within the last thirty years. The method of proceeding is this: As the waste land is all more or less cumbered with stones, these are all first removed when they are seen, or can be dug out with the pick-axe; and those that are large are blasted with gunpowder. The land is then ploughed with a strong plough, drawn by four strong beasts, attended by three or four men, according to the difficulty of the work. Oxen are more patient and fitter for this work than horses. Besides the men in immediate attendance on the plough, a gang of three or four men is stationed round the ploughed land with tramp-picks and spades to clear out the stones exposed in the furrow, and throw them on the ploughed land, and also to clear up the furrow itself where the plough has occasionally been thrown out. All this implies great labour; but the expense incurred in this way does not equal half of that of trenching with the spade.

After the land has remained a year in a ploughed state, the stones are removed, and it is cross-ploughed, reduced with the harrow, and laid up in proper ridges, after receiving dung, if any can be afforded to it from the farm. A proper quantity of lime is then applied and harrowed into the surface of the ridges before winter. In the succeeding spring, oats are sown, and harrowed

in without more ploughing ; and by this management, are generally a productive crop. The new land is then included in the ordinary rotation, but produces better grain than grass for a series of years.

Trenching is seldom had recourse to, but for reclaiming small corners, or other pieces deforming large fields, when they are too difficult for the plough ; and indeed, the expense of it could rarely be vindicated by the returns.

Drains have been executed to a great extent, both open and covered. For the latter sort there are excellent materials everywhere, in the abundance of small stones. They are cut three or four feet deep, or sometimes much deeper, as the case may require, then half-filled with the stones tumbled out of a cart into the drain itself. A thick coat of heath is put over the stones, above which the earth is returned.

An improvement by irrigation, on a small scale, was attempted, several years ago, by one of the proprietors, who had a piece of haugh land irrigated by a properly qualified person, a native of England ; but it did not answer expectation, and the work has been abandoned.

A great extent of heavy stone bulwarks has been executed by the proprietors, along the Don and Leochal, at places where these rivers were liable to wear away the land.

The parish is divided into forty principal farms, and forty-five small ones, named crofts, held of the land-owners. Of the former, three or four contain somewhat more than 200 acres imperial. The remainder vary from 50 to 150 acres ; the larger number being somewhere near 100 acres. Of the crofts, a few contain from 10 to 20 acres ; but the larger part only from 3 to 6 acres. There is also a considerable number of crofts held by sub-lease, to be afterwards referred to.

Leases.—There are leases, enduring for nineteen years, of all the principal farms, and many of the crofts ; but some of the latter are held by a shorter tenure. At the commencement of the improvements, about thirty years ago, the leases were granted for twenty-four years ; and this longer endurance, at that time, formed a desirable security and encouragement to persons engaging with farms, on which everything was to be done ; but now that the improvements are nearly completed, it does not appear that the endurance of nineteen years, now adopted, is objectionable. The same may be said of the other covenants of the leases, some of the most important of which are,—that the tenant shall con-

sume all the fodder on the farm, with the exception of that of the last crop; and, not restricting him absolutely to any particular rotation of crops, that he shall yet never take more than the two customary grain crops in succession after three years grass; and that at the end of his lease he shall leave specified proportions of his farm in grass, of specified ages. Sub-letting is strictly prohibited, with the exception of certain specified crofts, that may be sub-let to farm-servants, or persons of certain handicrafts, needed in the neighbourhood; and, however much this arrangement may be condemned by some persons as interfering with an open trade in farming, yet, it is humbly conceived, none could be more efficient for preserving some of the best interests of society; as it always secures to the proprietor of land the power of excluding persons of bad or doubtful character from among his tenantry. There is at least no doubt entertained, that the peaceable and orderly habits of the people of this parish have been preserved from contamination by the prohibition of sub-letting.

Farm Buildings and Inclosures.—The farm buildings are now in general sufficiently substantial, and laid out on commodious plans. The materials employed in them have been already stated. The arrangements between landed proprietors and their tenants, regarding houses, are not uniform; but the most frequent practice is, that the land-owner advances the necessary rough wood, and the tenant executes the building and work at his own expense, receiving an obligation for payment, at the end of his lease, of the value, determined by arbitration; but limited either to a maximum sum, or to a certain plan and specification of houses, agreed on by the parties. By this system much the larger part is advanced by the tenant; and it would therefore be highly objectionable, were there a want of capital among the tenantry, which happily does not appear to have been the case in this parish. Where the tenant has sufficient capital for the purpose, it is undoubtedly highly expedient, that he should have that deep interest in having the buildings executed economically, and kept in constant repair, which the above arrangement gives him. Experience has proved, here, that the tenants can build and keep houses in repair, much more economically than the land-owners.

About half the arable lands of the parish are enclosed and subdivided; and this improvement, so important to the mixed husbandry, is in the course of being gradually extended to the remainder. The fences are dry-stone walls, the materials for which are either

gathered from the surface, or dug from quarries. The whole expense of a fencible stone wall is 8d. per yard on an average; and at this rate the inclosing and subdividing a farm of 100 acres, possessing ordinary advantages of march fences, is L.150. The common arrangements regarding fences are these,—the plan of the subdivisions must be approved of by the land-owner, and the tenant then receives an obligation from him to be paid at the end of his lease, for such fences as he may build in conformity with the plan. In some cases the land-owner has paid the expense of building and quarrying, the tenant carting the materials.

About thirty years ago, many attempts were made, and much expense was incurred by the proprietors to raise thorn hedges; but the result was so nearly an utter failure at the time, that the planting of hedges was quite given up. As it was observed that there are several solitary thorn trees, of considerable age and great vigour, dispersed over the parish, this furnished a proof, that neither the soil nor climate are unadapted to the plant, and led to the inference, that there had been some mismanagement which occasioned the failure; and the consideration of several circumstances led at the same time to the belief, that the errors had consisted chiefly in planting the thorns too thick, (the distance was six or eight inches,) and clipping them too early and closely. Under these impressions, in 1825, a hedge of 240 yards was planted, of three years' old thorns, placed at 15 inches distance from each other, on land of medium quality, well limed and dunged, and laid perfectly flat across the line of the hedge, to receive the full effect of rain, as the thorn tree is evidently impatient of drought. The hedge was kept clear of weeds; and the shears were no otherwise used than to prevent the plants from rising higher than five feet and a half, and more recently to cautiously reduce the sides to an even line. The success has, in this instance, been complete. The hedge was already fencible in the autumn of 1829 against all but vicious cattle; and has since greatly improved. A desire to obtain thorn hedges has now arisen among some of the tenants, and a considerable extent of them has been planted within the last two years.

Some Improvements suggested.—It is not pretended that, under this head, we could be entitled to discuss the merits of the general plan of husbandry pursued by practical men, who have cautiously examined so many improvements, and adopted those which they have felt best promoted their interests; but there is one defect, attending the present established rotation of crops, on some

of the richest but damp fields, and also on the newly reclaimed lands, that it would be very desirable to remedy. On these lands the pasture of the two last years of grass often fails much; which is evidently owing to the pasture plants, now cultivated, being unsuitable to these soils. The red clover is only biennial, and makes no show in the pastures any where; and the raygrass is the native of a very dry and rich soil, and cannot bear damp, and it also disappears on these soils—so that the white clover only remains, and in too small quantity; and as every plant has naturally its vigour of growth confined to one part of the summer only, it requires more plants than one to make a permanent summer pasture. Under these circumstances, it would surely be desirable to sow, along with the commonly used grass seeds, which answer well enough for the hay crop, some seeds of those grasses, which naturally grow in damp lands, and at the same time are readily eaten by the cattle. Of these there are found several in our richest pieces of natural meadows, one or more of which might answer the purpose; as the roughish meadow-grass, the smooth-stalked meadow-grass, the hard fescue-grass, the meadow foxtail-grass, and the crested dogs-tail-grass. Several of these are indeed often observed to make their appearance naturally, in some considerable quantity, in the pastures we have referred to, after the raygrass fails in them; and, where the land is occasionally left for several years in pasture, come at last to make a rich sward. They would surely succeed if sown.

There is a considerable extent of land, under peculiar circumstances, the management of which might be changed to great advantage. This consists of the flat haugh lands within the narrow lengthened hollows scooped out by the smaller rivers. At present, these streams form generally the marches between neighbouring estates or farms; and each occupier ploughs and crops, in the course of his rotation, the haugh on his own side; where, from the lowness of its situation, the crop is often lost by floods, or the soil carried away if the land is in turnips, and, at the same time, slips of fine grass often cannot be turned to any account. All attempts made to straighten these streams and render them fences have produced only great injury, where the river has any considerable descent; as in the straight course the water acquires an irresistible impetuosity during floods, and undermines and tumbles down its banks, covering and permanently spoiling any flat land below with the debris; so that here is another inconvenience, that the farm can

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have no fence at the river. This, it is conceived, might be all easily mended. The haughs of the river hollows, when left uncultivated, become the most valuable pastures which we possess; and to these they should be exclusively devoted. They could easily be shut in, for their whole length, by fences running parallel to the streams, and so high as to be beyond the reach of floods; and each land-owner or farmer could have his share at either end, divided off by a short fence running across the line of the stream, part of which, near the water, might be a paling for removing from the winter floods. The rich grass, the good shelter, and the sure water for the cattle in these hollows, would make them the most profitable of all; whereas, under the present management, they rent lower than any other lands.

Another improvement would add greatly to the comfort of a great number of individuals. The small crofts are managed under the seven-shift rotation, which has been adopted on the larger farms; and as it is impracticable to fence in all the small divisions of these, on account of the magnitude of the expense in relation to the extent of the land, the cow, which is so necessary to the comfort and health of the cottager's family, and on account of which the croft is rented, becomes the cause of much trouble and wearisomeness to some of them,—for she must be herded on her small patch of grass by one of the children. It would be easy to remedy this by fencing in a proper proportion of the croft, perhaps about three-sevenths, for permanent pasture, the expense of which would not be exorbitant, and leaving the other four-sevenths for a shorter rotation of cropping. The richest land should be chosen for the permanent pasture to insure its being always good; and perhaps the landed proprietors could not more effectually increase the comforts of their cottagers' families than by interfering to enforce this simple arrangement, and giving orders that the grass should never be broken up. The cow could be kept better with little trouble; and the child would be set at liberty to go to school. A system of soiling could not be adopted on these small possessions; as they have no resources in early summer before the grass is sufficiently grown for cutting.

Fisheries.—In former times, the Don was celebrated for the abundance of its salmon; and so excellent was the rod-fishing in this vale, even within the memory of the present generation, that one gentleman killed, in the course of one season, no fewer than forty fish out of a single pool of the river, which was, at the same

time, fished in by many other individuals. There are twenty-seven such pools in this parish, so that the fishery must have been an important one; but now, owing to the river being diverted from its bed near the sea for manufacturing purposes, no salmon are found in it here, excepting after high floods that fill the bed, and enable the fish to make their way over the weirs. The Don and the Leochal are both remarkably fine trouting streams.

Average gross amount of Raw Produce raised in the Parish.—

The following table of this was made up after a very particular inquiry of nearly all the possessors of land, the answers to which, it is believed, were generally given with great accuracy and fidelity. The yearly value of pasture, turnips, and fodder could be ascertained only from the yearly gross profit of black-cattle, young horses, sheep, and pigs; and this has been estimated not only by the particular inquiries, but by an average applied to the whole number of beasts from certain known stocks, of which regular accounts have been kept, the results derived from these two sources agreeing well with each other.

Table of yearly produce.

Oats, 6500 quarters, at L. 1, 2s. 6d.	L. 7312	10	0
Bear, 1100 do. at L. 1, 7s. 6d.	1512	10	0
Potatoes, 150 tons, at L. 2,	300	0	0
Beasts, yearly profit, including whole dairy,	4450	0	0
Hay, 64,800 imperial stones, at 4d.	1080	0	0
Grass for soiling horses four months,	540	0	0
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	L. 15195	0	0

This sum is distributed as follows, viz.

Remains attached to the cultivation.			
Hay and grass for horses,	L. 1620	0	0
Oats for horses, 600 quarters,	675	0	0
Oats for seed, 1100 do.	1287	10	0
Bear for seed, 150 do.	206	5	0
For provisions for agricultural labourers, including harvest hands,			
Oats, 960 quarters,	1080	0	0
Part of dairy,	250	0	0
Bear for malt and pot barley, 100 quarters,	187	10	0
Potatoes,	75	0	0
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Total attached to the cultivation,	L. 5281	5	0
Rent,	4000	0	0
		<hr/>	
		9281	5 0
Remains for money-wages, interest of capital; and to replace wasting capital, and refund lime, &c.		<hr/>	
		L. 4913	15 0

In making the inquiries regarding the yearly produce, it was easy at the same time to obtain the following table of agricultural capital employed in the parish; and it is deemed too important to be withheld, as there is no branch of the statistics of the country regarding which greater ignorance prevails. The capital of

manufactures and commerce is brought together in immense masses, that powerfully strike the senses, and its magnitude is readily allowed. That of agriculture is dispersed, in relatively small parts, over an immense extent of surface; and the total amount, although, including the value of the land, it vastly outweighs that of all other real capital, is too often overlooked by the statesman and political economist.

In the following table, the value of the cattle is deduced from a careful determination of the average value of some stocks, by persons of competent skill; the prime cost of the horses in the same manner; the value of the farm-steadings is ascertained by some which are of the common construction, recently valued by arbitration; that of the fences by the common well-established rate; and that of the machines, implements, harness, &c. by inquiries of the original makers.

Table of capital.

Capital that requires to be replaced wholly in ten or twelve years.		
150 superior work-horses, at L. 30,	L. 4500	0 0
30 inferior do. L. 15,	450	0 9
153 carts, at L. 10,	1530	0 0
112 ploughs, at L. 3, 10s.	392	0 0
46 turnip-dressers, at L. 2,	92	0 0
200 harrows, at 15s.	150	0 0
153 sets of harness, at L. 5, 10s.	841	10 0
Inferior harness for oxen, &c.	78	0 0
75 dozen corn bags, at L. 1, 10s.	112	10 0
80 wheel-barrows, at L. 1,	80	0 0
Pick-axes, spades, hay implements, baskets, &c.	200	0 0
	L. 8426	0 0
Capital that requires to be replaced wholly in a lease of nineteen years.		
Lime, prime cost at Aberdeen for 4767 acres, at L. 3, 4s., is L. 15,254, 8s., but is applied only in the course of the first seven years; on an average of the lease, exclusive of the recovery of the L. 15,254, 8s., interest must be had for	L. 6200	0 0
N. B.—Carriage of lime supposed done by the farm-horses and labourers.		
Drains, about L. 2000, under the same conditions as the prime cost of lime; the average yearly capital needing interest over the recovery of the L. 2000 is	800	0 0
	7000	0 0
Capital that requires to be replaced, but more slowly:		
32 thrashing-machines, at L. 70,	L. 2240	0 0
46 turnip-sowers and 46 rollers, at L. 5, 10s. a set,	253	0 0
46 barn fans, at L. 3, 10s.	161	0 0
Corn measures and weights,	92	0 0
Dairy implements,	138	0 0
Farm steadings in whole, L. 8750. Tenants' share,	7000	0 0
Fences, only one-half yet completed, which is	3750	0 0
	13634	0 0
Capital always a year advanced before there is any return:		
Maintenance and wages for 249 labourers, at L. 16,	L. 3888	0 0
Hay, oats, and grass for horses,	2295	0 0
Seed corn and grass seeds,	1748	15 0
	7926	15 0

Capital which replaces itself over profits :	
1852 black cattle, at L. 5, 10s.	L. 10,186 0 0
32 young horses, at L. 15;	480 0 0
Sheep and pigs,	400 0 0
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	11,066 0 0
Whole capital requiring interest,	L.48,052 15 0

There are some small branches of farming capital, as the furniture and bedding for farm-servants, which cannot be estimated, being mingled with property, which, as far as it is used by the farmer and his family, is not capital but expenditure.

It will now be seen how far the L. 5913, 15s. left for paying money wages and interest of capital, and replacing wasting capital, is adequate to these purposes. The money wages of 243 constant labourers is L.2916; to which is to be added at least one-fifth for additional labourers in harvest, making in all L.3499, 4s.; leaving only L.2414, 11s. for replacing capital and affording interest,—a sum totally inadequate for these purposes.

In short, the fact cannot be denied, that, since the year 1820, agriculture has not been in a prosperous condition. The cultivators of this parish have, however, hitherto happily escaped that ruin, which has long since overtaken those of so many other parts of the kingdom; and it is a question of great interest, “To what causes do they owe the exemption?”

The first and most obvious is, that the tenantry here have not been speculators. Their capital is their own, the well-earned fruit of their industry and economy; and when the money-price of their produce fell, they were not caught with a money debt, to the liquidation of which that produce would have then proved unequal.

The second cause is, their habitual temperance, which enabled them instantly, on the fall of prices, to retrench any superfluity to which more prosperous times had given encouragement.

The third, that the farmers and their families are, to a very great extent, their own labourers, and so can subsist by the wages of their labour, when their capital fails to yield them a proper return.

The last, that the agricultural resources of the parish were not as yet all rendered fully available at the period when the prices fell. The new fields that had just then only been added to the cultivation, or were in the course of being cultivated, have, since enlarged their produce in quantity, to make up in part for the low price; and they have thus been enabled to struggle on, though

not deriving that emolument from their capital to which they might be well entitled.

There are at present, however, obvious symptoms in a gradual but continued fall of the wages of labour, and the difficulty with which workmen can obtain employment, and the earnestness with which they solicit it, that matters are, from period to period, getting worse, and that the distress is probably approaching this parish, which we have hitherto so fortunately escaped; and it thus becomes a question of deeper interest than the former, "To what is the present depressed state of the agriculturist owing?"

We shall look in vain for the cause of the depression in any thing peculiar to his particular pursuit; for the same depression is unhappily extended to every branch of productive industry. We shall find a sufficient cause for the whole in one disastrous act of the Legislature, and that is the act of 1819, restoring a metallic currency.

Gardens and Orchards.—There are good gardens at Haughton and Breda; and a considerable orchard at the former; but we cannot state the amount of the produce.

Woods.—The annual fellings and thinnings of wood have produced on an average yearly, for some time past, about L. 250; but this bears no relation to the actual value of wood now growing in the parish, which is great, but cannot be estimated without an extensive survey by professional men.

Before concluding the subject of agriculture, it deserves notice, that through some cause which we cannot explain, the contents of this parish are considerably overrated in the Statistical Account of it published by Sir John Sinclair. The arable land is made equal to 4500 imperial acres, whereas some old plans with which we are favoured, along with more recent surveys, prove it was then only about 4000 imperial acres. The wood also is stated as being then equal to 875 imperial acres, whereas it cannot have exceeded 500 imperial acres. The whole parish is made nearly 10,000 imperial acres, and we have found it only 8715.

Manufactures.—These are very trifling. The six weavers weave various fabrics for home use, of home-spun yarns, from materials chiefly imported; and there is a small manufactory, by some women, of stockings also for home use. It is probable the whole value does not amount to L. 200.

V.—PAROCHIAL ECONOMY.

Market-Town.—The nearest market-town with which the parish

has a regular communication, and to which the disposable grain is chiefly sent, is Aberdeen, at twenty-seven miles' distance.

Means of Communication.—A daily post from Aberdeen passes through the parish; and the Alford post-office is at the border of it. The parish is admirably well accommodated with good roads. A turnpike road, of which there are three miles and a half in the parish, leads to Aberdeen; and in the other direction extends to Strathdon, at the distance of eighteen miles west. A branch turns north to Huntly, joining there the great north road. A finely kept road, executed under the authority of the Parliamentary Commissioners for Highland Roads and Bridges, crosses the parish from north to south at the broadest part; and farther south crosses in succession two lines of turnpike roads, opening a fine communication in many directions on that side. There is only one deficiency,—in the Parliamentary road not being extended over the Cairn-a-mont. The extension of that road, there, would shorten our distance from Brechin and Dundee about twenty-five miles; and the distance from Huntly to these places nearly twenty miles. The commutation roads within the parish, made by an assessment of L. 2 on every L. 100 valued rent, and all the private roads, are mostly in a good state of repair. These good roads have afforded facilities for communication and land-carriage, without which the agricultural improvements could not have been executed.

A stage-coach passes through the parish three times a-week to Aberdeen.

Bridges.—We possess also the advantage of all necessary bridges. A beautiful granite bridge, over the Don, about a mile from the church, was built by the Parliamentary Commissioners in 1810, at an expense of L. 2000; and more recently another was built by them over the Leochal, close at the church, in the line of their road. These works are of the utmost utility, not only to the parish but the public at large, being in the line by which many thousands of cattle pass yearly to the south. The expense of the bridges and Parliamentary road was L. 5000 in all, one-half of which was derived from subscriptions by the gentlemen in the neighbourhood.

Ecclesiastical State.—The situation of the church is sufficiently convenient for all the parish. It was built in 1804 and enlarged in 1826, and accommodates 550 persons. At a temporary division, arranged among the heritors, it was recommended to them

to adopt the principle of a former practice in dividing parish churches in Scotland, by which six feet of the area from end to end was allotted to the kirk-session for the right ordering of public worship, and celebration of the communion. This was listened to; and the whole table-seats, or equivalent seats for them where some of them were preferred by the principal tenants for their private seats, were assigned to the session for the above purposes. These seats accommodate 140 persons; and the part of them not immediately necessary for the ordering of the worship, the session leave open to all such families, promiscuously, as have not sufficient room of their own. This arrangement has answered admirably well; and every soul of the parish, who comes to the church, finds a seat of which no one is entitled to dispossess him.

The manse was built in 1718. It is a small house, not sufficient for the accommodation of a family; but arrangements are in progress for enlarging it.

The glebe contains $4\frac{1}{2}$ imperial acres of arable land, besides a garden of nearly half an imperial acre.

The stipend, which exhausts the teinds, consists of L.161, 8s. 8d. in money; 53 bolls, 3 firlots, 1 peck, $3\frac{1}{2}$ lippies meal; and 4 bolls, 1 firlot, 1 peck, $1\frac{5}{16}$ lippies bear, payable by the fiars prices of Aberdeenshire. The Crown is patron of the church.

The number of families attending the Established Church is 176; of individuals, 858. Episcopalian families, 2; of individuals, 9. Seceder families, 5; of individuals, 26. Roman Catholic individual, 1.

Divine service is very well attended at the Established Church; and the average number of communicants is 455.

No collections have been made in the church for purposes extra parochial, excepting for the General Assembly's Highland Schools, and Foreign Missions. The average of the collections for these has been L.9, 7s. 6d.

Education.—The parochial school is the only one in the parish. The branches of instruction taught at it are, Latin, practical mathematics, book-keeping, arithmetic, writing, and reading, and instruction in the truths of religion.

The school salary is L.28, 18s. 9 $\frac{1}{2}$ d.; allowance for garden, L.2, 2s. 9d.; a legacy to the teacher, yearly, L.2. Total, L.34, 1s. 6 $\frac{1}{2}$ d. School fees per quarter, Latin, mathematics, or book-keeping, 5s.; arithmetic, 3s. 6d.; reading and writing, 2s. 6d.; reading, 2s. Fees are not taken from poor people.

The teacher has not at present the legal accommodation ; but is as well provided for by the heritors, and with his own consent, in an excellent farm-house, with a proper teaching room near it, somewhat more central for the parish than the church.

All the inhabitants have learnt to read and write, and always have been, and now are, alive to the benefits of education.

Charitable and other Institutions.—The parish makes a yearly collection for the Infirmary at Aberdeen, and so possesses the right of sending patients there. It collects also for a pauper lunatic fund, at present in the course of being established under the management of the presbytery. There were two Friendly Societies in the parish ; but, having felt annoyed by the act 1828, in some manner that we do not pretend to explain, the most important of them is dissolved. It is much to be regretted that anything should have disconcerted these voluntary associations ; for they certainly here served to ward off pauperism from not a few persons. Their rates might not have been judiciously established at first ; but, with the usual prudence of the people, they had introduced clauses in their regulations, that their expenditure should be limited by their income, which would ultimately have secured their stability and efficiency. At present all spirit for such societies is quite extinguished, under the apprehension that the laws regarding them may be again changed.

Poor and Parochial Funds.—The average number of poor receiving parochial aid is 7, chiefly aged females. The average sum given to each cannot easily be stated, as the allowances vary continually, according to circumstances carefully ascertained every half year by the kirk-session.

The sums for their relief are yearly :

Collections in the church,	L. 27 10 0
Interest of L. 200 legacies, after deducting L. 2 of one legacy left, to the schoolmaster of the parish,	6 0 0
Interest of L. 190, gradually saved,	5 4 0
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	L. 38 14 0

The L.130 form a fund, to which the session, with consent of the heritors, can have recourse for supplying the wants of a more numerous poor, who would require aid in any year of great scarcity.

A plan, adopted by the inhabitants, for providing for peculiar cases of distress, has succeeded so well, that it deserves to be described.

When any great loss has overtaken a poor family, as loss by

fire, or the sickness of the father on whose labour they depended, or the death of their cow, which they have not funds to replace, or any other event has occurred which makes it necessary to aid them, and it is obvious, at the same time, that the most effective method of doing so is, to give them a considerable aid at once, to restore them to that condition in which they shall be again able to make provision for themselves, in that case, the principal inhabitants and their sons, having obtained the sanction of the kirk-session, form themselves into committees, and personally make collections for the family in their respective districts, of money or meal as the case may require. These collections, managed with great prudence, have never failed to answer the intended purpose, and have restored to independence some families which might otherwise have continued long burdensome to the public funds.

But we should ill represent the manner in which the wants of the poor are supplied, were we to exhibit only the amount of the public funds and collections. That which passes through the hands of the kirk-session is only a part of the alms of the inhabitants of the parish. They are perpetually ministering to the necessities of their poor neighbours in many other ways. The farmers, with their servants and horses, repair their dwellings, and cart home their fuel. They frequently send them supplies of all the sorts of provisions which their produce affords. When a poor person or family has no cow, milk is supplied from the cows of some family in the neighbourhood; and it has occurred only rarely, in some peculiar cases, that the kirk-session have needed to hire nurses for the sick paupers; for all around them watch them with an affectionate care that could admit of no purchase, and be compensated by no earthly reward; and the poorest of all are as liberal of these last valuable services as any other persons.

There is a general disposition among the poor to refrain from seeking parochial relief; and it has been discovered active under such privation, as to excite a great curiosity to ascertain all the motives by which they are actuated. A feeling of degradation is not the only motive; for there is no reproach attached to unavoidable poverty among the inhabitants; besides, experience has proved in many other parts of the kingdom, that where this motive is unaided by any other, it soon ceases to be effective; and, moreover, those very persons who are so reluctant to receive aid from the public funds, take, without any reluctance, the aid offered them by an individual, and make no attempt to conceal their doing

so. A particular inquiry has often elicited from themselves, that they are actuated by another motive. The public fund for the supply of the poor is in their eyes too sacred to be applied to, but when an overwhelming necessity compels. To that fund they themselves have willingly contributed, in their better days, from motives of the noblest order, whose power does not diminish as they approach the close of life. They must not undo their own charitable deed, by taking off the poor man's money.

There is no difficulty whatever experienced in supplying the wants of the poor, in a competent manner, on the truly Christian plan which we have now described. There was even no difficulty in the years of great scarcity, 1799-1800, and 1816-1817, when the numbers of the poor were greatly increased; for the kirk-session, on an appeal to the heritors and inhabitants, were immediately answered with supplies adequate to the urgency of the case.

Fairs.—Two very considerable annual fairs are held in the parish for the sale of black-cattle, one on the Tuesday before the second Wednesday of June, new style, and the other on the Friday after the second Thursday of September, old style. There is also a fair for black-cattle and horses, and the sale of grain by sample, on the first Monday of every month, from November to May, both inclusive.

Inn.—There is one inn in the parish.

Fuel.—Of fuel there is a great deficiency. The mosses are nearly exhausted; and the mere cutting, carting, and breaking up the fire wood, which is very inferior, consisting only of thinnings, make it as expensive as English coal. Recourse is, therefore, of necessity had to this last for a large part of the supply; and the prime cost and sea and land carriage to Alford of a ton of Newcastle coal is L.1, 15s.

MISCELLANEOUS OBSERVATIONS.

It has been seen that there are many things in this parish which favourably influence the intellectual, moral, and religious character of the inhabitants, in which perhaps there has been little change for nearly a century. Respecting their physical condition, very valuable improvements have taken place since the time of the former Statistical Account. They are much better lodged, and, on the whole, better clothed. The great improvements in agriculture have raised for them much extended resources; of the benefit of which, however, the act of 1819 has in a great measure deprived them. The more import-

ant differences between the old agriculture and the new, we have already detailed. The result of the new is, that, after supplying an increased population, the parish can now export about double the quantity of grain, and more than double the number of beasts, and these of a greatly improved quality; at the same time it has been enriched and highly ornamented, by extensive additional plantation.*

* November 1840.—The above account was written so far back as the year 1831; all the materials for it having been collected in the summer of that year, excepting the thermometrical tables, which are added now. It is necessary to notice several improvements which have been since adopted in the parish, and some others of a more extended nature, by which it has been benefited.

1. On the 3d December 1831, the Vale of Alford Agricultural Association was instituted, through the influence of the Honourable the Master of Forbes, and has since been liberally aided by him and the other land-owners of the Vale. Many inhabitants of this parish are members; and it has greatly promoted a spirit of agricultural improvement.

2. The regulations of excise, complained of in the Account, as preventing the inhabitants from making malt of their own bear, have been, through the exertions of the Honourable Captain Gordon, M. P. for Aberdeenshire, much modified, and deprived, in a great degree, of their objectionable character.

3. The facility of transporting cattle by steam-ships has made many farmers devote their attention to the feeding of beasts for the London market, which they find much more profitable than rearing store beasts only.

4. Bulls of the short-horned breed of England have been introduced, for crossing the native breeds of cattle; by which animals are produced of quicker growth, larger size, and much more profitable in every view than any before bred here.

5. A Vale of Alford Saving's Bank was instituted in 1839, which is very popular in this parish, and promises great benefit to the labouring population.

6. A parish library was, in 1839, established by subscription, under very judicious regulations. It already possesses a good collection of the best English books, which are much read.

7. In 1836, a liberal subscription was raised by the heritors and inhabitants, to build a school-room for a female school, and dwelling house for the mistress, both of a commodious and substantial kind. The teaching in the school commenced in 1837, and is continued with great success. It has been endowed with a yearly salary to the mistress by the Society for Propagating Christian Knowledge. This is our greatest improvement. The young girls of both rich and poor receive the proper instruction in religion, literature, and the branches peculiar to their sex, while resident at home, and under their parents' eye.

It would be a breach of duty not to add, that, in 1832, the heritors of the parish made a judicious and handsome addition to the manse. It is now a large and very commodious house. The heritors, also, some years ago, raised the schoolmaster's salary to the legal maximum.

November 1840.