No. 10.

THE TRANSACTIONS

AND

JOURNAL OF PROCEEDINGS

OF THE

DUMFRIESSHIRE & GALLOWAY Natural History & Antiquarian Society.

FOUNDED NOVEMBER, 1862.

SESSION 1893-94.



PRINTED AT THE STANDARD OFFICE, DUMFRIES. 1895

-

No. 10.

THE TRANSACTIONS

AND

JOURNAL OF PROCEEDINGS

OF THE

DUMFRIESSHIRE & GALLOWAY Natural History & Antiquarian Society.

FOUNDED NOVEMBER, 1862.

SESSION 1893-94.



PRINTED AT THE STANDARD OFFICE, DUMFRIES.



COUNCIL.



President.

SIR JAMES CRICHTON BROWNE, M.D., LL.D., F.R S.

Pice-Presidents.

REV. WM. ANDSON, THOMAS M'KIE, F.S.A., Advocate. WILLIAM JARDINE MAXWELL, M.A., M.P., Advocate. JAMES GIBSON HAMILTON STARKE, M.A., Advocate

Becretary.

EDWARD J. CHINNOCK, LL.D., M.A., LL.B., Fernbank, Maxwelltown.

Treasurer.

JOHN A. MOODIE, Solicitor, Bank of Scotland.

Librarian.

JAMES LENNOX, F.S.A., Edenbank, Maxwelltown.

Curator of Museum.

PETER M. GRAY, 21 Galloway Street.

Curator of Herbarium.

GEORGE F. SCOTT-ELLIOT, M.A., B.Sc., F.L.S., Newton, assisted by the MISSES HANNAY, Calder Bank, Maxwelltown.

Other Members.

JAMES BARBOUR, Architect. JAMES DAVIDSON, F.I.C. THOMAS LAING, F.E.I.S. JAMES C. R. MACDONALD, M.A., W.S. ROBERT MURRAY. JOHN NEILSON, M.A. GEORGE H. ROBB, M.A. JAMES MAXWELL ROSS, M.A., M.B. JAMES S. THOMSON. JAMES WATT.

CONTENTS.

Page. Secretary's Annual Report 2 Treasurer's Annual Report 2 Treasurer's Annual Report 2 Treasurer's Annual Report 3 Antiquarianism the Handmaid of History. Sir R. T. Reid 3 Nun's Slab in Dundrennan Abbey (Illustrated). R. Brydall 10 Martyr Graves of Kirkeudbrightshire. J. H. Thomson 12 Gleanings relating to Dundrennan Abbey. J. C. Aitken. 2 Early Flowers in 1803. G. Bell
Treasurer's Annual Report 3 Antiquarianism the Handmaid of History. Sir R. T. Reid 5 Nun's Slab in Dundrennan Abbey (Illustrated). R. Brydall 9-35 Botanical Notes for 1893. J. M'Andrew 10 Martyr Graves of Kirkcudbrightshire. J. H. Thomson 12 Gleanings relating to Dundrennan Abbey. J. C. Aitken 5 Early Flowers in 1893. G. Bell 28
Antiquarianism the Handmaid of History. Sir R. T. Reid 5 Nun's Slab in Dundrennan Abbey (Illustrated). R. Brydall 9-35 Botanical Notes for 1893. J. M'Andrew 10 Martyr Graves of Kirkcudbrightshire. J. H. Thomson 12 Gleanings relating to Dundrennan Abbey. J. C. Aitken. 5 Early Flowers in 1893. G. Bell 28
Nun's Slab in Dundrennan Abbey (Illustrated). R. Brydall 9-35 Botanical Notes for 1893. J. M'Andrew 10 Martyr Graves of Kirkeudbrightshire. J. H. Thomson 12 Gleanings relating to Dundrennan Abbey. J. C. Aitken 5 Early Flowers in 1893. G. Bell 28
Botanical Notes for 1893. J. M'Andrew 10 Martyr Graves of Kirkeudbrightshire. J. H. Thomson 12 Gleanings relating to Dundrennan Abbey. J. C. Aitken. 5 Early Flowers in 1893. G. Bell 28
Martyr Graves of Kirkeudbrightshire.J. H. Thomson12Gleanings relating to Dundrennan Abbey.J. C. Aitken5Early Flowers in 1893.G. Bell28
Gleanings relating to Dundrennan Abbey, J. C. Aitken 5 Early Flowers in 1893. G. Bell 28
Early Flowers in 1893. G. Bell 28
•
Antiquities of Kirkbean, S. Arnott 29
Botanical Notes for Moffat District, 1892-93. J. T. Johnstone 36
Meteorology of Dumfries, 1893. W. Andson
Recent Investigations of the Roman Wall (Illustrated). A. D. Murray. 45
A Note on Birds J. Corrie Job Zoological Additions to Kirkeudbright Museum J. M'Kie 56
A List of Wigtownshire Plants. J. M'Andrew
J. G. H. Starke 111
Old Water Supply of Dumfries and Water Supply of the Town. J.
Barbour
Plants of North of England and South of Scotland. A. Bennett 132
Ornithological Notes for 1893. II. Mackay 137
Words of the Dumfriesshire Dialect. J. Shaw 139
Occurrence of Mispickel (Arsenical Pyrites) in the Stewartry of
Kirkcudbright. Patrick Dudgeon 160
Notes on the Rubi and Salices of Upper Nithsdale. James Fingland 160
Field Meetings 163
The Herbarium 163
Rules 163
Honorary and Life Members 165
Ordinary Members

TRANSACTIONS AND PROCEEDINGS

OF THE

Natural History & Antiquarian Society.

SESSION 1893-94.

12th October, 1893.

ANNUAL MEETING.

Mr JAMES GIBSON HAMILTON STARKE, M.A., Vice-President, in the chair.

Donations.—A Collection of Bees, presented by Mr G. F. Scott-Elliot; a Wasps' Nest, presented by Miss A. Wedderburn; the Proceedings of the Society of Antiquaries of Scotland, 1891-2; Proceedings of the Rochester (New York) Academy of Science, Vol. II.; North American Fauna, No. 7 (from the United States Department of Agriculture); Transactions of the Geological Society of Glasgow, Vol. IX., Part 2; Proceedings of the Holmeslale Natural History Club, 1890-2; Essex Naturalist, April-May, 1893; Journal of the Elisha Mitchell Scientific Society, 1892 (Chapel Hill, North Carolina); Transactions of the New York Academy of Sciences, Vol. XI., pp. 49-58; Reports of the Botany and Geology of Sierra Leone, presented by Mr G. F. Scott-Elliot; Report of the Belfast Naturalists' Field Club, 1892-3; Notes on Potamogetons, by Mr Arthur Bennett; Insecta, by Dr David Sharp, F.R.S,

SECRETARY'S REPORT.

The Secretacy (Dr E. J. Chinnock) read the Annual Report :--

The membership of the Society now numbers 143 ordinary members, of whom 13 have been admitted during the session now closing. There are also 7 life members and 24 honorary members, two of whom, Sir Herbert Maxwell and Mr William Thomson of Kirkcudbright, were elected during the closing session. The Society has sustained the loss by death of three members---Mr Robert Maxwell Witham of Kirkconnell; Mr William Hastings, the taxidermist; and Mr James Williamson, of Maxwelltown. Mr Maxwell Witham was one of the most enlightened gentlemen of the district, and always took a lively interest in this Society, which he evinced on many occasions by exhibiting his collection of antiquities and articles of interest. Mr Hastings for many years contributed interesting zoological notes to our proceedings. His place among the honorary members was filled at our September meeting by the election of Mr William Thomson of Kirkeudbright, one of the most indefatigable investigators in Galloway, both in botanical and antiquarian matters. It is an honour to the Society to have his name enrolled among its members.

Eight evening meetings and four field meetings have been held during the session. At the former 25 interesting papers were read, all of which shewed laudable research, and some were very valuable. Without detracting from the merit of the other contributors, the papers communicated by Messrs Andson, Barbour, Cairns, Gray, M'Andrew, and Scott-Elliot may be singled out as particularly good. It is a pity that more members do not take part in our proceedings, either in contributing papers or in attending the discussions.

The thanks of the Society are due to Mr Scott-Elliot for his interest in the herbarium, by his labours in increasing the contributions to it and in classifying and naming the plants. The Misses Hannay are also worthy of especial thanks for their care of the plants during the winter months and for mounting and arranging the specimens. The botanists of the district have formed a Field Club, under the presidency of Mr Scott-Elliot, and have had a very successful summer session, if it can be so called. This new club has the best wishes of our Society for its success and prosperity. Further donations to our herbarium have been made by the Rev. George Wilson of Glenluce, Miss Thomson of Settle, and Mr Tom Brown of Hatfield. Four field meetings were held during the summer to Penpont, Birnswark, Newabbey, and Dundrennan. The thanks of the Society are due to the Rev. George M'Conachie for his interesting description of the ruins of Dundrennan Abbey. On the whole the field meetings were more successful this year than they have been for several seasons.

As the subscription for membership is so small it would be an advantage to the Society if the number of members were increased. After paying for the publication of the Transactions the Treasurer has very little money left for the incidental expenses of the Society. It is therefore the duty of members to try and introduce friends who will take an interest in the work of the Society, and by their subscriptions contribute to its success and usefulness.

TREASURER'S REPORT.

The Treasurer (Mr John A. Moodie) read the Annual Report from 1st October, 1892, to the 30th September, 1893 :

CHARGE.

Balance in Treasurer's hands a	t c	lose of las	st ac	count			£0	18	S_{2}^{1}
Subscriptions from 117 membe	rs a	at 5s each	1	£29	5	0			
Do. from 13 member	s a'	t 2s 6d ea	ch	1	12	6			
						-	30	17	6
Entrance fees from 7 new mem	be	rs					0	17	6
Two subscriptions paid in adva	anc	e for nex	t yea	r			0	10	0
Copies of Transactions sold					•••		0	15	9
Interest on bank account					•••		0	0	8
Donation from Mr Scott-Elliot					•••		- 7	10	0
							£41	10	13
DI	sc	HARGE.							
Paid salary of keeper of rooms							£1	10	0
Paid for stationery, printing, &	c.						0	19	6
Paid for periodicals and books							3	10	5
Paid for coals and gas							0	3	10
Paid premium of insurance		•••		••••			0	4	6
Paid Secretary's outlays and po	osta	iges					1	8	8
Paid Treasurer's do.				•••			1	0	$2\frac{1}{2}$
Car	ry	forward					£8	17	11

Paid expenses of calling meet	0	ht forv s follow			• •		£8	17	$I\frac{1}{2}$
Post cards	0			£3	19	33			
						0			
Paid for addressing same				-					
Paid R. Johnstone, print	er, pri	nting s	ame	1	2	0			
							6	5	$3\frac{1}{2}$
Paid expenses of publishing	Trans	actions	for la	st yea	r as				
follows-				Ű					
Paid for loan of blocks fo	r illust	trations	3	£0	4	1			
Paid Dumfries Standard	for pri	nting 1	Trans-						
actions				19	9	6			
							19	13	7
Miscellaneous							1	8	11
							£36	4	11
Balance in Savings Bank				£4]	0	0			
,, in Treasurer's hands				0.1	15	21			
,, in recention of and do						<u> </u>	5	-5	$2\frac{1}{2}$
							£41	10] :
									2

DUMFRIES, December 7, 1893.—I have examined the foregoing account and the cash book of the society, compared them with the vouchers, and find the balance stated to be correct.

John Neilson.

ELECTION OF OFFICE-BEARERS.

The following were elected office-bearers and members of the Council for the ensuing session :---

President-Sir James Crichton Browne, F.R.S.

Vice-Presidents—Rev. William Andson; Messrs William Jardine Maxwell, M.P.; Thomas M'Kie; and James Gibson Hamilton Starke.

Secretary-Edward J. Chinnock, LL.D.

Treasurer-Mr John A. Moodie.

Librarian-Mr James Lennox.

Curator of the Museum-Mr James Davidson.

Curators of the Herbarium-Mr George F. Scott-Elliot and Miss Hannay.

Members of the Council—Messrs James Barbour, Thomas Laing, James R. C. Macdonald, Robert M'Glashan, Robert Murray, John Neilson, George H. Robb, Dr James Maxwell Ross, James S. Thomson, and James Watt.

Address.

Sir Robert T. Reid, M.A., Q.C., M.P., then delivered an address on "Antiquarianism as the Handmaid of History." He said he was not himself a practical antiquarian ; that was to say, he had not shared in the joys of isolated curiosity discreetly applied to the objects surrounding us, either of nature or history. He could quite understand the ecstatic pleasure that such studies could confer. Indeed he knew in his own family the intense enjoyment that antiquarian research gave to one who, he was sorry to say, was no longer with us. But every educated man must take an interest in antiquarianism from one point of view, namely, regarding it as the handmaid of history He had his theory as to the way in which history had been written in the past; and, although he was not prepared to carry his theory into practice by writing history himself, he had a very shrewd opinion that future generations would require history to be written in a very different style. If they called to mind the histories which we were condemned to study, they would find that they contained for the most part a bare record of events, events of capital importance ; particulars of the most general character about the personal character and conduct and personal appearance of kings and queens, the intrigues of statesmen, a large number of them incompetent or dishonest, many of them both, subjects which formed a very uninteresting record except so far as it was embellished by the intrinsic sublimity or beauty of the events which the chroniclers were obliged to relate. That was not what men were satisfied with now in history. What we wanted was to know the traits of character, the peculiarities. the habits, the points of view of great and distinguished men, who have made the world what it is, and also of the corporate mass of undistinguished men who have been their victims, their instruments, or it might be their dupes in some cases, or who have received the immense advantages that many nations have received from the efforts of many great men. But this sort of information was not to be found in general histories. It was only to be discovered by interpreting and reading between the lines the mass of particulars and details which may be elicited by searching through letters and documents, papers, traditions, and other matters such as appertain particularly to antiquarian research. The historian tells us nothing about these things ; but the antiquary, properly employed, tells us

a great deal. He wished to illustrate what he meant, as far as his recollection unassisted enabled him to do so, by a reference to two or three of the books in which he thought the modern method of history had been successfully adopted; that was to say, books which might be said to be not a kind of map such as was found in the ordinary atlas, but like that of the Ordnance Survey, which would enable us to live again the life of the past, to see with the eves of the men of those days. He took for example such a book as Mommsen's history of Rome. There were chapters dealing with the Etruscan race and history which had impressed themselves upon his mind from youth upwards. The whole of it was founded on antiquarian research. The author gathered a great deal-perhaps too much-from medals, coins, ancient and hardly legible inscriptions. He might have misinterpreted these inscriptions, and his enemies had not been slow to say so; but he had presented vividly and in great part truthfully a subject about which most people knew nothing, or at least very little, until after his labours had been attempted. This was only one illustration of the manner in which that writer had used these particulars. He came to a second and most interesting book, the life of Lord Bacon, in seven great volumes, by Spedding, a well-known book. That was based, of course, in part upon well authenticated and previously known information; but it had been immensely embellished by research, research from letters, from documents hitherto undisclosed, and which had been discovered by the diligence of men animated entirely almost, he supposed, by antiquarian interest, which were utilised by Mr Spedding, and out of which he manufactured a most powerful and dramatic history not only of Bacon himself but of the Elizabethan age in which he lived-a book which gave a far better idea of the times of Elizabeth than any history he knew, beginning with Hume and coming down to the latest attempt. There was a third book which he would refer to in a similar connection, that was Carlyle's life of Frederick the Great. He thought that Carlyle was, in the wide sense and in instinct, one of the greatest antiquarians probably that ever lived, because he had laid under contribution every single thing that could be imagined-portraits, pictures, every small scrap of tradition, folklore. He described almost as an eye-witness the scenes through which his heroes passed, for he had traced the lineaments of nature as they were then and as they have been changed since. Moreover, he had pursued genealogy as if he had nothing else to think of. The first volume of Frederick the Great was almost wholly devoted to an astonishing inquiry into the doings and proceedings of the ancestors of Frederick, and the genealogical accuracy of which, he believed, was considered to be a marvellous feature. But certainly the minuteness with which he dealt with the habits and life and actions not only of Frederick the Great himself but even of the minor actors in the great doings of that period was most astonishing and remarkable. That was the only sort of history which fifty years hence—unless it be for literary beauty and grace—our far more enlightened descendants would consent to read at all. He was satisfied that while the great histories, like that of Gibbon—spreading over an enormous space and an enormous time in the subjects with which they deal, although contracted within comparatively narrow compass themselves—these would be regarded merely as giving a general outline of history, which would have to be filled in with more minute research. fact he believed the future of history would not tend, as people anticipated some fifty years ago, to what was called the philosophy of history—a task which had been attempted with signal failure as far as he could judge—but would tend rather to what he called the photographic methods, so as to enable us to see people again, if possible, almost face to face, and to understand by a thousand little things what was the meaning of the great things which they did and among which they lived. If that was so, it must be largely due to antiquarian labours, not directed merely to small and very minor matters, but directed—at all events chiefly directed -to human events and human records-it was to that source that historians in the future would largely look. This part of the country, he believed, was peculiarly adapted for inquiry of that kind, because the history of the district to which we belong was one of the most interesting in the whole of the United Kingdom. There was no district of which the history was more interesting than the history of the county of Dumfries, if you looked at the part it has borne in the past of this country. It was here that almost the beginnings of Scotch monarchy were laid. Through this county a large number of English armies came as invaders, and a precisely equal number of English armies retired as fugitives. Afterwards this district took an immense share in the period of the Solemn League and Covenant, and also in the conflicts of the

Covenanters in subsequent times. He should like to know more than we do know about those events and the part which our forefathers played in them. He should like to know what they really did in 1745, and why they did it. These were considerations which would go entirely beyond the scope of the address which he was now offering to them. But if antiquarian zeal would direct itself-as indeed it had, he knew-would direct itself fully and sedulously in these paths, he believed that it would furnish most valuable and most interesting materials for the future historian; and in the meantime for the present literary student, to whom such efforts should be communicated. In conclusion, the hon. and learned gentleman said what he had done had been merely to try and show them what he should be were he an antiquarian, and the lines on which he should study; which was indeed presumptuous on his part. He hoped, therefore, they would not imagine, when he had been endeavouring to point out the interest which these subjects had to him, that he meant to disparage the other avenues of antiquarian interest, which he knew abounded, and in which, probably, this district was equally fertile. All that he wished to convey was that, even apart from personal and individual interest attaching to inquiry and research, there was a real future-a great future, he believed-which might be appreciated, and the importance of which might be understood and ascertained even now, for antiquarian studies of the character which bound this society together.

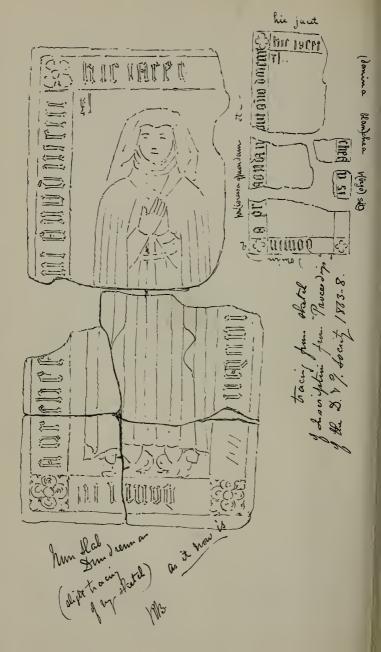
10th November, 1893.

Mr THOMAS M'KIE, Vice-President, in the chair.

New Members.—Mr A. W. Findlay, Solicitor; Mr John Halley, Inland Revenue; Mr John R. Wilkinson, Annan. Mr Alexander D. Murray, of Newcastle, formerly Secretary of the Society, was elected an honorary member.

Donations.—The Proceedings of the Nova Scotian Institute of Science, 1891-2; Report of the Geological Survey of the United States, 2 vols., 1889-90; Report of the Bureau of Ethnology, 1886-7; Prairie Ground Squirrels of the Mississippi Valley; The Bibliography of the Chinookian Languages; Omaha Indian Music





(from the Peabody Museum, Harvard University); two botanical specimens by Mr J. T. Johnstone, of Moffat, *Hirneola auricula* (Jew's ear); it is nncommon, and observed growing on one tree at Lochwood and nowhere else; also a specimen of *Tremellodon* gelatinosum, one of the rare fungi gathered by the Cryptogamic Society during their visit to Moffat in September, 1893. It seems to be general in the district; but as yet Dumfriesshire is the only county in Scotland in which it has been found.

Exhibits.—Mr Starke exhibited some fine specimens of Spanish horse chestnuts grown on his park at Troqueer Holm. Mr James Barbour exhibited a weird stone found in a wall at Dalruscan.

COMMUNICATIONS.

1.—Note on the Inscription on the Nun's Slab in Dundrennan Abbey. By Mr ROBERT BRYDALL, Glasgow.

While visiting the Abbey of Dundrennan last summer, I took the opportunity of comparing an illustrated note in the 1863-8 volume of the Proceedings of the Dumfries and Galloway Natural History and Antiquarian Society with the Nun's Slab, and noticed that the present arrangement of the parts of the stone gives a different reading, with a local suggestion.

According to the old arrangement, as given in the above note, the letters which were then legible read:—"hic jacet . . . chea . . v si . . domina pr . . uondam . . biit ano d MCCCCXL," which was supposed to read at length "hic jacet domina blanchea virgo sit domina prisressa quondam obiit ano domini 1440."

Since that time the lower part of the slab has been fractured, but is still complete; a small portion centaining the letters "v si" has disappeared; the part with the letters "uondam" has been placed to the left of the nun; and the part with the letters which were then read as "chea" to her right. The last four letters read quite as readily "cher," and taking the present arrangement, which seems the correct one, we get "hic jacet nondam . . domina orcher . . . iit ano d MCCCCXL." The "or" in this formerly read as "pr," but as there is no sign of it ever having read otherwise than as "or" we clearly get a hint

at Orchardton in the neighbourhood, with a lady of which the nun's slab thus becomes associated.

Possibly some of the local archaeologists may be able to trace a connection between a lady of the Orchardton family, if there was such a family there in the fifteenth century, and the venerable abbey.

Mr Starke said the lettering was quite distinct on the stone thirty years ago, when his father wrote the paper in question, and he referred to the photograph taken at the time and included in the transactions. There was at that time no doubt about the remaining letters; the only question was about the words that were absent. He referred to a letter of the late Mr Francis Maxwell of Breoch—than whom there was no better authority as supporting the rendering then given, and countenancing the theory that the stone indicated the grave of the last Prioress of Lincluden Abbey. In the letter Mr Maxwell also stated that he was in possession of evidence to shew that the report that the nuns were expelled on account of a slander was unfounded, and that this was done simply because Archibald the Grim wished to convert the abbey into a collegiate church, in order that prayers might be said for the founder and his ancestors and successors.

2.—" Botanical Notes for 1893." By Mr JAMES M'ANDREW.

In continuation of former Botanical Notes for Wigtownshire, I have to report that I spent a few weeks of the past summer (1893) at Portpatrick and Sorbie, and that in addition to plants formerly recorded by me from Wigtownshire, I have now to note the following new plants gathered around Portpatrick by Mr Dugald MacFarlane, Greenock, and myself :---1, Agrostis canina, common on the moors; 2, Trifolium hybridum (alsike clover), common; 3, Avena pubescens, about old Dunskey Castle and Craigoch Burn in plenty. This grass I also found on Physgill shore; 4, Campanula latifolia, in Dunskey Glen. Some of the rarer plants in Dunskey Glen are Bromus asper in great beauty and abundance, Carex pendula, Melica uniflora, Scolopendrium vulgare, Asplenium trichomanes, the two Hepaticæ Lejeunea Mackayii and Lejeunea serpyllifolia, and the Lichens Leptogium tremelloides and Parmelia perlata, by far the most common parmelia on trees. I failed to find Frullania fragilifolia, recorded for Kilitringan Bay.

The rarest mosses I gathered there were Orthotrichum rupestre in Graigoch Burn, and Hypnum vallisclausæ and Hypnum polygamam near Portpatrick. About Portpatrick railway station were Sagina subulata and Sagina apetala; about the Battery was Sagina maritima; along the shore, almost everywhere, was Spergularia rupestris; in several places along the heughs is Agrostis pumila; in the Graigoch Burn I gathered Galium uliginosum, Sedum rhodiola, Viburnum opulus, Rubus saratilis, Hieracium umbellutum; on Cairnpiot I gathered Habenaria viridis, Lastrwa oreopteris, Polypodium phegopteris; and at Morroch Bay Vicia sylvatica; at Port-o'-Spital, Equisetum maximum, Juniperus communis, Carex hirta, and Erodium cicutarium, §c. At Castle-Kennedy we saw Littorella lacustris, Nasturtium palustre, Scutellaria galericulata, Alisma rapunculoides, Typha latifolia, Origanum vulgare, Potamogeton heterophyllus, &c.

As the result of a week's botanising with the Rev. James Gorrie, F.C. Manse, Sorbie, I have to state that, through the kindness of Lady Borthwick, we were permitted the use of the boat for the examination of Ravenstone Loch, which is fast filling up with decayed vegetable matter. Here Mr Gorrie and I found Callitriche autumnalis, Potamogeton pectinatus, Potamogeton pusillus, Eleocharis acicularis, Typha latifolia, Hippuris vulgaris, and on the shore the two mosses Leskea polycarpa and Seligeria pusilla. In a wood near Ravenstone Castle we found an immense quantity of Carex paniculata, with several of its varieties, growing in large tussocks 3 feet high. Carex paladosa was also found here. Near the Castle we gathered-5, Polygonum bistorta, a new record, and Symphytum tuberosum. Also, through the kindness of Sir Herbert Maxwell, we had the use of the boat for Monreith Loch, near Port William. We found Elodea Canadensis fast filling up the shallower parts of the loch. In the woods on the east side we found Geranium phaum. Near Myrton, in a ditch crossing the road, we found the rare grass Catabrosa aquatica, which had been formerly reported from near Port Logan. A visit to Physgill shore and St. Ninian's Cave rewarded us with Orobanche rubra, Carlina rulgaris, Scrophularia aquatica, Euphorbia portlandica, Avena pubescens, Spergularia rupestris, &c. Near Kirkinner I gathered Medicago sativa, Medicago. lupulina, Linaria vulgaris, Silene inflata, Lysimachia vulgaris, Veronica hederatolia, Sparganium simplex,

Ornithopus perpusillus, Petasites valgaris, and Polygonum bistorta, near Barnbarroch House.

In addition to the above five new records for Wigtownshire, Mr Gorrie has found :—6, Salix purparea, on the road to Whithorn, near Castlewig. 7, Carex teretiuscula, var. Ehrhartiana; and 8, Carex acenta, var. gracilescens, both in Prestrie Loch, Whithorn. 9, Carex paniculata, var. simplicior, Ravenstone Wood; and 10, Habenaria albidu, on the farm of Balsier, Sorbie. These are ten new records for Wigtownshire.

KIRKCUDBRIGHTSHIRE.

This summer (1893) I gathered Potentilla reptans and Avena flavescens on the railway embankment in Carlingwark meadow, Castle-Douglas, and Avena flavescens also at the Holme, Balmaelellan. Trifolium hybridum, a new record, is very common. Lophozia Orcadensis, in Knocksheen Burn, New-Galloway, is an additional Hepatic for Kirkeudbrightshire. Lecanora orosthea (Ach.); Lecanora atrynea (Ach.); Parmelia ambigua (Wulf.); and Lecidea neglectella (Nyl.), a new species, are additional Lichens for the New-Galloway district,

DUMFRIESSHIRE.

Mr G. F. Scott-Elliot sends me *Byrum murale*, a new moss record for Moffat.

3.—Martyr Graves of Kirkeudbrightshire. By Rev. JOHN H. THOMSON.

The Martyr Graves of Kirkcudbrightshire have the same characteristics as those in Dumfriesshire, of which I gave an account in a paper read at a meeting of the Society, Nov. 7, 1890. The stones over them seem in most cases to have been first erected in the close of the seventeenth or the early part of the eighteenth century. In most cases the original stones remain, but these original stones have been re-dressed and the letters deepened, and where this has not been done, a new stone, a copy of the old one, lies alongside of what time has spared of it. In every case the stones are kept with scrupulous care by the inhabitants of the surrounding district, and Christians of all denominations have vied with each other in preserving them either by repair, or by renewal, or by fencing them in, or by erecting a more ambitious-looking monument. So far as I have been able to find out there are eighteen martyr monuments in the county.

All these eighteen monuments are noticed, and their inscriptions given, in the Cloud of Witnesses, first issued in 1714.

They are said to be "a gravestone in a clump of trees near the Church of Irongray," where "lyes Edward Gordon and Alexander M^cCubine."

"A stone near Lochenkit or Larghall," where "lyes John Gordon, William Stuart, William Heron, and John Wallace."

"A gravestone in the churchyard, Balmaghie," where "lyes David Halliday, portioner of Mayfield, and David Halliday, once in Glenape."

"A gravestone in the churchyard, Anwoth," where "lyes John Bell of Whitesyde."

"A gravestone in the churchyard, Dalry, Galloway," where "lyeth Robert Stewart, son to Major Stewart of Ardoch and John Grierson."

"A gravestone in the churchyard, Kirkcudbright," on "William Hounture, Robert Smith."

"A stone in the churchyard, Balmaclellan," where "lyeth Robert Grierson."

All these monuments have inscriptions in verse, or, as the Cloud of Witnesses calls them, "Mottoes in verse." The inscription on the stone at Irongray, though shorter than the others, is a fair specimen of their rhyme. It is:

> HERE LYE EDWARD GO RDON AND ALEXANDER M'CUBINE MARTYRES HANGED WITHOUT LAW BY LAGG AND CAP ERUCE FOR ADHERING TO THE WORD OF GOD CHRIST'S KINGLY GOVER MENT IN HIS HOUSE AND THE COVENANTED WORK OF REFORMATION AGAINST TYRANNY PERJUREY AND PRELACY REY NII. H. MAR 3. 1685

AS LAGG AND BLOODIE BRUCE COMMAN'D WE WERE HUNG UP BY HELLISH HAND AND THUS THEIR FURIO US RAGE TO STAY WE DYED NEAR KIRK OF IRON-GRAY HERE NOW IN PEACE SWEET REST WE TAKE ONCE MURDER'D FOR RELIGEONS SAKE.

Besides these mottoes in verse, says the Cloud of Witnesses, there are in the Stewartry of Kirkcudbright "several other monuments, both in churchyards and open fields, the mottoes whereof are in prose, intimating that they died for their adherence to the Covenants and work of reformation."

These monuments are :---

"In the churchyard, Kirkcudbright," where "lyes John Hallume."

"In the churchyard, Kirkandrews, parish of Borgue," where "Ives Robert M'Whae."

"In the churchyard, Girthon," on which it is said, "Within this tomb lyes the corpse of Robert Lennox."

In the Muir of Auchineloy, Girthon parish, where "lies Robert Ferguson."

"On Kirkconnel Hill, Tongland parish," where "lies James Clement."

" In the churchyard, Kells," where "lyes Adam Macwhan."

"In the churchyard, Crossmichael," where "lyes William Graham."

The inscriptions upon these fourteen gravestones are all in the first edition of the Cloud of Witnesses, issued in 1714, so that the fourteen must at least have been erected before that year.

There are three other stones whose inscriptions first appear in the third edition of the Cloud of Witnesses, issued in 1730. They are :—

"A gravestone in the churchyard of Balmaghie," where " lyes George Short."

"A stone in the churchyard of Twynholm," where "lyes Andrew M'Robert."

" Λ gravestone in the churchyard of Kells," where "lyes John Gordon of Largmore."

"A stone at the Caldons, Loch Trool, Kirkcudbrightshire," where "lyes James and Robert Duns, Thomas and John Stevenson, James M'Clure, and Andrew M'Call."

The stone in the churchyard of Kells is notable for the artistic way in which it has been set in a massive granite frame upon a pedestal, so that it can be easily read on both sides. The inscription is very much like the others in prose, with the exception of the Martyr's name and the circumstances of his death. The part in Roman capital letters is the original inscription, while the small type upon the granite frame records how the old stone has been set into its granite frame. The inscription is :—

On other side.

The Righteous shall be in everlasting remembrance

HERE LYES

ADAM MACQWAN

WHO BEING SICK

OF A FEVER WAS

TAKEN OUT OF HIS

BED AND CARRIED

TO NEW TOWN OF GALLOWAY AND THE

NEXT DAY MOST

CRUELLY AND UN

DEATH BY THE COM MAND OF LIEUTENANT

The above stone originally

erected to the memory of ADAM MACWHAN was placed in this granite monument AD 1832

JUSTLY SHOT TO

Psa exi 6

Be thou faithful unto death and I will give thee a crown of life

Rev ii. 10.

GENERAL JAMES DOUGLAS, BROTHER TO THE PUKE OF QUEENSBERRY FOR HIS ADHERENCE TO SCOTLANDS REFORMATION CO. VENANTS NATION AL AND SOLEMN LEAGUE 1685

The expense defrayed by the inhabitants of Kells, after sermon by the Rev. James Maitland, minister of the parish.

4.—Stray Gleanings relating to Dundrennan Abbey. By Mr JOHN CARLYLE AITKEN. (Abridged.)

The following document of the beginning of the fourteenth century, under a more ancient nomenclature, probably in a briefer manner, described the ecclesiastical lands in their fullest ancient foundation, extent, and belongings, the subdivisions in the arrange-

ment, and increase of the descriptive nomenclature and place names, belonging to the advance and improvements in the agriculture and population of later ages, prior to the general disruption of 1560: "Bain's Calendar of Documents Relating to Scotland," therefore, affords the following, under "King Edward wi' the Lang Shanks," as the natives of Scotland loved to call him in their chronicles and elsewhere, viz.:—

No. 1702.

18th December, 1305.

Charter to the Abbot and Convent of Dundraynan, of free warren in the demesne lands of Gairstange, Newlathe, Overlathe, Netherlathe, Aghengaile, Ovre Reraik, Nether Reraik, Roskerald, Aghencarne, Clonginaghe, Barlocwod, Barloc, the Isle of Estholm, the hospital of Crithe, Kirkpatrick Durand, and Aghenkippe in the county of Dungras, and Biskaby and Culgalden in the county of Wigton. Westminster (ch. 33, Edward First, m. 3).

Of the many remarkable Lord Abbots of Dundrennan, one only, the Lord Abbot Jordanus, of 1226 A.D., seems to have survived in the memory of the local place names, his peculiar and rudely rock-bound farm acres still figuring as Jordaneland vel Geordieland, in common speech. The Island of Estholm, Hesting, having also been named Monks' Island. Within the precincts of the Abbey of Dundrennan were the park of Saint Michael's Cloigs and Tait's Croft, so described in 1606 in a relative seisin.

The Rent of the whole great Church Benefices within the Kingdome of Scotland as they were given up at the General Assumption of anno 1561.

The Bishopric of Galloway and the Abbey of Tongland—In money, £1226 14s; beare, 8 chalders 7 bushels; meale, 10 chalders 7 bushels; malt, 8 chalders; salmond, 268.

The Temporalities of the Bishopric of Galloway consisteth of Six Baronies, whereof Tongland and Kirkchrist lyeth under Cree. The other four lyeth above Cree, viz. : Pennynghame, Glassyrtoun, Whitherne, The Inche.

Kirks belonging thereto: Traqueir, Girthoune, Monnygaff, Sennyk.

QUITHORNE.

The Rental of the Priorie of Quithorne -In monie, £1016 3s 4d; beare, 15 chalders 14 bushels 3; meale, 51 chalders 15 bushels.

Kirks belonging thereto, viz. : Quithorne, Glastertoun, Kirkmadin, Sorbie, Congletoune, Mochrum, Kirkmichael in Carriek, Borg, Gelstoune, Kirkdails, Toscartoune, Clashant, Kirkanders, Kirkellan in the Isle of Man.

Abbey of Dundranan-Set in assedation for £500.

The Kirks belonging to it are Dundranan and Kirkmabrec.

ANCIENT TAXT ROLLS IN EXCHEQUER - SCOTLAND.

Extracts ancient Roll of Kirklands (before 1630).

The Bishopric of Galloway						$\pounds344$	8	8	
The Priorie of Whitherne						1033	6	8	
The Abbey of Tungland						-206	13	4	
The Abbey of Dundranan						-516	13	4	
The Abbey of Glenluse						344	8	8	
The Abbey of Saulsett						138	6	8	
Note that the Archdea	\mathbf{the}								
Parsonage of	Penn	ynghan	ıe.						
The Archdeanery of Gallo	way					82	13	0	
The Parsonage of Kirkenn	or					139	6	0	

The Parsonage of Kirkenner	·	 	•	138	6	0
The Parsonage of Wigtonn		 		68	17	0
The Parsonage of Dalry		 		55	0	0
The Parsonage of Partoune.		 		-27	10	0
The Parsonage of Kirkchrys	t	 		25	16	0
The Vicarage of Rerrick		 		20	13	0
The Parsonage of Kells				32	0	0
The Parsonage of Balnaclana	athan	 		27	10	0

ANCIENT TAXT ROLL OF THE STEWARTRIE OF KIRKCUDERYT.

(1654 A.D. ? Rose's Collection.)

Lord Garlies lands			 		$\pounds 52$	0	0
Kenmure and Logane			 		12	13	4
Balmaclellan and Park			 		13	6	8
Corscrahane and Dalbatie			 		10	0	0
Dunrod-Gannik			 		3	6	8
Glen, Skyreburne, and Ovi	ir Pole	rie	 		22	13	4
Ewinstoun, Blackcraig and	l Knoc	knon	 		2	13	4
Hardlands and Moneboy			 		4	0	0
Nether Petcrie and Creech			 		4	13	4
Catbullie			 		10	0	0
Lard Camelane-Murdoch			 		10	0	0
Lard Larg			 	÷	14	0	0
Lard Combearane-Maclurg	e		 		10	0	0
Lard Machrincefoise			 		3	6	8
Lard Cokpule			 		- 30	0	0
Lard Maccullo			 		3	6	8
Lard Nisbet of that ilk			 		7	0	0
Lard Carrletoun-Pitillo			 		7	0	0
Gordoune of Holme			 		4	0	0
Crogo-Gordonne			 		5	0	0

Crogo-Mulligane							£5	0	0
Gordoune of Hardl	ands						1	0	0
Lard Mackittrick for	Killa	chie					3	0	0
Lard Gaitgirth for F	intallo	ch					17	6	8
Laird Gelstoune							42	0	0
Laird Broughtoune							10	13	4
Lard Carineis							62	13	4
Lard Bomby	•••						70	0	0
Lard Apilgirth							16	0	0
Lard Auchlane							2	0	0
	•••						12	13	4
Lard Hempisfeld for							10	0	0
Litle Airds and Adir	ngham	е					20	0	0
Blaiket	••••		•••	• ·			9	6	8
Lard Spottiss	••••						12	13	4
Lard Orchardtoune							15	0	0
Lard Kirkdaill							8	0	0
Latie, Kirkennan, B	alocha	in, Bla	kbully				41	6	S
	•••		•••				14	13	4
Lard Barscaib							3	6	S
Lard Barwhan, in T	wynha	m					50	0	0
Lard of Lag for Dru	mgewa	ine					37	6	8
Balgreddan							6	13	4
Barharrow							- 3	6	8
Eaidzell							5	0	0
Barnbarroch and Ba	rnhou	rie					4	0	0
Lard Kirkconnell						. •	13	6	S
Lard Kilquhanadie		•••					6	13	4
Lochanginnling							3	6	8
Broune of Carsluith							12	13	4
Lard Litiltoune							2	0	0
Lard Drumcoltrane	for Co	chlin a	and W	hytehi	11		-2	13	4
Lard Sipeland							6	13	4
Lard Midlethird							6	13	4
Herres of Maidenpa	pes la	nds					6	0	0
	- 						40	0	0
Lard Balmagie, in 1							20	0	0
Adam Corrie in Kel							8	13	4
Maxwell of Hillis							12	0	0
Lord Garro' (ch)							5	0	0
Dalton, Castlemadie		Killem					6	13	4
Lard Troquhaine							5	6	S
Lard Killarne .							2	0	0
Castramon and Eirg							3	6	S
Culcreoch and Robe	_						5	0	0
Gordoune of Aucher	nreoch						3	6	8
Lard Barnsoull							3	6	8

Gordonstoune						 	± 26	13	1
Erlestoune						 	26	13	4
Grenane						 	14	0	0
Borgis	••					 	20	0	0
Kirkpatriek-I	rongra	У				 	20	0	0
Barnbachill						 	5	0	0
Chapmanleys	•••					 	0	13	4
Prestoune						 	40	0	0
Kirkgunzeone		• • •				 	40	0	0
Half barony o	f Urr-	–Herri	es			 	53	6	8
C									
Summa	totali	3	•••	•••	•••	 £	134	13	4

We here add the characters of alienation associated with the sons of the said John, Lord Hereis, from anthentic contemporary copies. We also thereafter add some other documents gleaned from similar local official sources and contemporary evidences :---

Apud Drumfries the 28th day of Jany., 1567 .- A venerable man Edward Maxwell, commendator of the Monastery of Dundrennan grants to a noble person Sir William Maxwell, of Arde, charter, precept and seisin, with consent of the Convent of Dundrennan, to him his heirs and assignees, of All and whole the the following lands, viz.: the Nine pound land of auld extent, consisting of the eastern section of the lands of Netherlaw, with the titles, fermes, the teinds, multures, and other rights and duties pertaining thereto, and which lands are presently occupied by James Conhar, and are situated within the barony and parish of Rerik, and the Stewartry of Kirkcudbryt : All and haill the Five pound land of auld extent of Culskaddane, and its pertinents, as sitnated within the Sheriffdom and parish of Wigtown, the 13s 4d land of Balquhaffy; 13s 4d land of Faulebay, the 26s 8d land of Culchank, the two merk land of Larglach, the two merk land of Little Marguhirne, the four merk land of Meikle Marguhirne, the two merk land of Knocklosche and Brockloch, the four merk land of Lochinkit, all as situated in the parish of Kirkpatrick-Durham, and the Stewartry of Kirkcudbryt. The Fisheries of Culdoch. and the Crooves thereof in the Water of Dee, with the crofts of land thereto adjacent occupied by the fishermen employed in the said fishings, all of which are situated within the parish and the Stewartry of Kirkcudbryt. The witnesses attesting the charter are mentioned as having been : John Maxwell in Logane ; Hugh Maxwell, of Culnachtrie; Ninian Muirhead, of Littleton; and

Herbert Anderson, notary public, Drumfries, the acting notary in the charter, with others. There were also mentioned as present at the seisin which followed upon the charter in due course : Hugh Maxwell of Culnachtrie, William Maxwell of Munches, Peter Maxwell his brother, William Ewart, Robert Foster, bailie of Kirkcudbright; William Gunnoquhane, Ninian Muirhead, and others specially summoned thereto, &c. The following assenting and consenting parties as laymen having interest also sign the legal instrument personally with their own hands, viz. : Jacobus Houtoun manu propria, John Turnor, Andrew Cunynghame, David Johnstoun, Adam Kutlar. These we take to have been either ecclesiastical dignitaries or otherwise as the ancient Prebendaries who provided the music at the monastery, and in that capacity occupied the stalls in the Chapel of St. Mary at Dundrennan Abbey.

Mention is made in the course of the legal narrative of John Maxwell, the Lord Edward Maxwell's Constable of Thrieve Castle.

Apud Drumfries (on the same) 28th day of January, 1567, the said Lord Edward Maxwell, the commendator of the Monastery of Dundrennan, grants similar charter, precept and seisin in favour of "Robert Maxwell, legitimate son of John, Lord Hereis, but who was then probably in his minority. Robert Foster, burgess of Kirkcudbryt, acts as his deputy or attorney in the instrument, of all and whole of the £5 land of Overlaw, the four merkland (138 $\frac{2}{3}$ acres) of old extent of Nether Hessilfield, also the two Mills of Dundrennan, that is to say, the grain mill of Auchencairn, and 'Redik Mill,' in the Barony of Rerik, and Stewartry of Kirkcudbryt." With the said Robert Foster, and the additional designation of notary public given to Ninian Muirhead, the acting notaries and witnesses are the same as in the other charters of this date here given. John Maxwell again figures "as our Constable of the Threuve" (Castle of the Threave).

Apud Drumfrues the (same) 28th day of Jany., 1567.—The same commendator grants charter, precept and seisin in favour of "James Maxwell, lawful son of John, Lord Hereis," for whom Robert Foster also acts in name of deputy, probably owing to the minority of the grantee of the charter, &c. Of all and whole the seventeen merkland of old extent of Newlaw, the £5 land of Chapeltoun, twenty shilling land of Auchinbinnye, Nether Rerik, the 40s land of Fawgray, 40s land of Mekill Balmangand, the half merk land of Little Balmangand, the 40s land of Rosscarrel, 40s land of Auchleck, the $\pounds 3$ 15s of Forrest, 40s land of Stockane, the two forty shilling lands of Auchencairn, $\pounds 4$ land of Culdoch, all situated in the Barony of Rerik, and the Stewartry of Kirkcudbryt. Witnesses and notaries the same as in the other eharters already mentioned.

Apud Drumfries the 29th of January, 1567 .- Schir Johne Turnor, in Dundrennan, acts as attorney for John Cunynghame, son of David Cunynghame, burgess of Drumfries, alienated and disponed, by sale, &c., to Edward Maxwell, of Drumcoltran, the two-and-a-half merk land of Nether Rerik, in the parish of Rerik, otherwise of Dundrennan, in the Stewartry of Kirkcudbryt, as now presently occupied by John Horner. The charter was dated the 26th of January, 1567. One of the witnesses named was an otherwise well-known Schir John Brice, vicar of the vicarage of Drumfries. On the 15th of August, 1572, the Lord Edward Maxwell, commendator of the Monastery of Dundrennan, granted a charter in favour of Michael Houston of Culreoch, in liferent and in fee to William Houston, his eldest son, containing the five merkland of old extent of Culcloy, situated in the Barony of Busbie, and parish of Whithorn, in the shire of Wigtown, the needful relative seisin following upon this charter, bearing date the 28th of April, 1573. (Hutton MSS.)

At Drumfries 13th September 1596.—Constitute ane honorabil man, Maister Edward Maxwell, Commendator of the Monastery of Dundrennan, who owns and remembers that Robert Maxwell, of Nether Rerik, of befoir by the special desire of the said Commendator had renouncit in his favour the twa merk land and ane merk land of the Five merk land of Nether Rerik. (Records.)

At Kirkeudbryt the 4th of June, 1565.—Maister Alexander Gordon, the Lord Bishop of Galloway, grants the renewal of an expired ninetcen years tack which had been previously granted to Janet Cairns, the spouse of Alexander Inglis, servand to the said Bishop of Galloway, containing right to the lands of Sanct Michael's Cloiss besyde the Monastery of Dundrennan. Among the witnesses mentioned was a certain John Accarson in Galtway. (Reg. Ho. Records.)

According to the "Memorials of Dundrennan," King James the Sixth, in 1621, annexed this Abbey to his chapel royal of Stirling. His annexation was ratified by Parliament of that year, and again in 1633, Symson, the author of "A Large Description of Galloway, by the Parishes in it," writing in or about the year 1684, says: "The Bishop of Dumblane, as Dean of the Chapel Royal of Stirling, is patron of the parish of Rerrick, or Dundrennan, and hath a part of his revenues paid out of the lands of that Abbey. He hath also a Bailery here heritably excercd by the Earl of Nithsdale, whose jurisdiction reacheth over the whole parish, except one Baronie called Kirk Castel, belonging to the Laird of Broughton (Murray). Further, confirmatory of those jurisdictive rights, as vested in the family of Murray, we find that circa 1625 to 1635, John, Earl of Annandale, Viscount Annand, Lord Murray of Lochmaben, granted a charter to John Murray, eldest son of John Murray of Bruchtein, containing right in his favour to all and whole the ten mark land of Kirkcassel, with the pertinents also designed as Drumbellie and other lands.

At Kirkcudbryt 14th December 1634.—John Maxwell, of Newlaw, as the hereditary proprietor of the lands, grants charter and seisin to John Ewart, junior, merchant burgess of Kirkcudbryt, and to his spouse, Helene Ewart, in liferent, and to Andrew Ewart, their son in fee, all and whole of his share and portion of the lands of Newlaw, known as Brownhill, and also three crofts of land which are commonly known as The "Foirsyde of the Bullzean," being as well part of the said lands of Newlaw. He also grants other similar crofts of land, all of which are also situated in the parish of Dundrennan and the Stewartry of Kirkcudbright.—Notarial copy by Robert Glendonyng.

Some two years subsequent to the unfortunate battle of Solway Moss, and the birth of Mary Queen of Scots, and the memorable deathbed adage of her father, King James the Fifth— "It cam' wi' a lass and it will gang wi' a lass !"—in reference to the Scottish Crown, the Abbot or Commendator of Dundrennan was, it seems, a certain Lord Adam Blackader, of the old Berwickshire Border fighting and Covenanting kindred, once familiar in the war feats of the marchlands as a brotherhood called "The Black Band of the Blackaders." The following refers to this Commendator of Dundrennan, who, on the 25th of July, 1544. granted a seisin, following upon the evidence of a precept also granted in favour of Sir Thomas Maclellane of Bombie, who, as we take it, was the builder of "Maclellane's House," in 1572, now still familiar under its later designation of "The Castle of Kirkcudbright," containing a right in the grantee's favour of the ecclesiastical lands known as the three merk land of old extent of Barloquo (Barlocco, in the parish of Rerrick, that now is). The spouse of this Sir Thomas was Marion Kennedy.

The following document, which in all probability was, in the original, drawn up at Dumfries, under the hand of King James the Sixth himself, as the Privy Seal Records bears to have been signed by his Majesty's own hand on the fourth day of April, 1587, only a couple of days after the commission of the slaughter therein mentioned, refers to John Maxwell of Newlaw, in the parish of Dundrennan. Sir John Maxwell of Newlaw was a near relation of Queen Mary's "John Lord Hereis," and figures occasionally in the Records there as a well-known Provost of As we also know, to unite the turbulent Borders of Dumfries. both realms into an Utopian "Myddle Shyres of Great Britain" was long, as a favourite scheme, the ardent desire of King James the Sixth, as Sovereign of both the realms of England and Scotland. We have not seen this document elsewhere noticed in the history of the Maxwell family, who seem to have retained Newlaw and Balmangan, in the parish of Rerrick and Stewartry of Kirkcudbright, for some succeeding century or more, forming marriage alliances with the Gordons of Rusco, the Maclellanes, and others.

Proclamation against the Murtherours of John Maxwell, 1587 A.D. Privy Seal Register.

James, be the grace of God King of Scots, &c., Forsamekill as umquhile John Maxwell of Newlaw, brother-german to our traist Cousing and Counsailor William Lord Heries, being a gentleman ansuerabill in all good qualities to his said progenié and birth, bot speciallie remarkit for the singular good zeal and affectioun quhilk he buir allwayis to Our service, and for that caus standing richt heichlie in Our favcur, being for the special curre quhilk we reposit in his subtilitie and treuth employet be us upon the second of this instant, upon a special piece of service, accompanyeit with the Lieutenant (Sir William Cranstoun) and others of Our Guards,

wes on his way beset and maiste unmercifullie murderit and cut in pieces be Irving of Gretnohill, Johnstone of The Reidhall, and sundrie utheris, thair adherents and complices thieves of detestabil and maist unworthie memorie without respect or reassonabil pretext that micht have mnvit them to sic crneltie : For the quhilks cause and for the special interest whilk we haif in the loss of sic ane gentleman soe far devotit to Our service and in the sayme employit for the tyme, &c. . . Our will is that ye pas to the mercat croces of Drumfries, Lochmabane, &c., denouncing thaim to fyre and sword. Subscrivit with Our (the King's) hand at Drumfries the 4th day of Apryle 1587.

On the 31st of January, 1526, the Abbot and Convent of the Monastery of Dundrennan grant a letter of Bailliery of their monastery to Robert Lord Maxwell, Edward Maxwell of Lochrutton, and to his sons, John Maxwell and Edward Maxwell, with the lands of Muloch in the parish of Rerrick as the fee of office.

King James the Sixth granted a charter to Sir David Murray of Clonyaird, Colvend, brother of John, first Earl of Annandale, and which was dated at Perth the 9th of July, 1606, the legal seisin which followed upon the ground and evidence of this charter, gives a very full enumeration of the lands which had formerly belonged to the Monastery of Dundrennan, commencing in general with "All and haill the Manor Place of auld extent commonly known as the Monastery of Dundrennand, with the towers, fortalices, edifices, houses and gardens within the precincts of the said Monastery. . . . Items. The park of Saint Michael's Cloiss, and Wm. Tait's Croft," the Fisheries of Culdoch, the two grain mills of Dundrennan.

From the Glenriddell MS. we learn that before the year 1789 Alexander Reid of Kirkennan, Galloway, who was also a known miniature painter, and at Dumfries executed a now missing oil portrait of Burns, from the life, which met the approval of the "Scottish Horace Walpole," Charles Kirkpatrick Sharpe of Hoddom, Antiquary, had executed a water-colour drawing of Dundrennan which Captain Grose copied previous to his own personal visit on the 27th of June, 1789, at which time he made for himself a drawing of Dundrennan Abbey on the spot, a circumstance corroborated by the famous Captain's own letter to Major Thomas Henry Hutton of Westmeath. The "Carse" of this Gorse letter we take to be short for "Friars' Carse" of "The Whistle" and other Burns associations, and from the original give here a transcript of its text.

Letter Francis Grose to Major Hutton.

Carse, July 4th, 1789.

DEAR SIR,—I am just returned from Galway (*sic*) and have drawn the Abbeys of Pundrennan and Glenluce. There are no remains of Galset or Withorne, nor the least of Dumfries. . . I have collected several heraldic sculptures at Glenluce and Dundrennan, with the ground plan of the latter. The parcel containing the numbers, &c., shall be sent off this week.—I am, &c., FRS. GROSE.

Note.—In the Hutton collection of MSS, there are this and other ground plans of the monastery of Dundrennan carefully recorded.

The nearest town to the monastery of D. was the ancient regal burgh of St. Cuthbert, Kirkcudbright, the seat of the Courts of Law, of trade and commerce, as well as the occasional residence of the Lord Bishop of Galloway, who here owned several extensive baronies attached to his see of Whithorn. King James the Fourth and his Queen Margaret of England seem to have visited Kirkcudbright more than once on their way to the shrine of St. Ninian, at Whithorn. The town of Kirkcudbright would seem to have risen into wider forms of existence in the middle of the 15th century, and on the general Forfalture of the ancient and noble family of Douglas in the year 1455, which is also that of the oldest surviving charter of the burgh of Kirkcudbright, granted to them by their patrons, the Stewartian Jameses. The most memorable visit of King James the Fourth would seem to have been in anno 1508, when he was hospitably entertained by the Corporation of the place, presided over by Maclellan, the Baron, "Laird of Bombie," who as the hereditary baillie of the extensive baronies of the Bishop of Galloway lying around the town they became to some considerable extent the natural presiding aldermen, provosts, and general defensive guardians of the capital town of a wide and important ancient Stewartry of Galloway. On this occasion it was that the King made to the inhabitant community of Kirkcudbright his first grant of the Castle of Kirkcudbright and its probably extensive landed belongings, many of which are yet at this day in their corporate possession. These gifts would seem to

have been particularly enumerated, defined, and confirmed to them in the following year by a crown charter, dated at Edinburgh, the 26th of February, 1509, wherein the motive, reason, and cause of the gift is mentioned to have been on account of certain aids afforded to King James the Second, his grandfather, when he was engaged in the active and arduous service of the reduction of Thrieve, the great castle and stronghold, key to the conquest of the whole of the ancient noble and imperial lordship of Galloway of old time. There were hardly less important services to King James the Fourth himself in times of then still recent memory and date, when that monarch was at open enmity and war with the whole of the native nobility of his realm of Scotland at large.

Copy of an original Letter from Richard Gough, Author of "Sepulchral Monuments," Editor of "Campden's Britania," &c., to George Paton, Antiquary H.M. Customs, Edinburgh, describing a remarkable oil painting of King James the Fourth, and his Queen Margaret, the sister of King Henry the Eighth of England, and who after the battle of Flodden married secondly Douglas, Earl of Angus. We believe the picture is now at the Palace of Holyrood.

" Enfield, 29th July, 1784.

" In the Queen's Library in the Green Park are two portraits of James the Fourth of Scotland and Margaret of England, brot from Kensington Palace. They are $7\frac{3}{4}$ feet high and three feet wide, serving as doors to an altar piece. The outside of the right hand door has Saint Andrew with his cross supporting a very rich Crown over the King's head, who kneels with his book before him, under a crimson canopy : a youth kneels in another part drest in a scarlet robe, and rich ermine mantle, the arms and crest of Scotland over his head. Perhaps this is the King's younger brother. On the inside of this door is the Trinity represented by the Deity holding a dead Christ, and the dove above. On the other door a Queen kneels in the same Church, richly crowned and coifed and loaded in jewels exquisitely painted, habited in cloth of gold, a book before her. Saint George waves the Banner of England over her, in the foldings of which is an inscription. On the inside of this door is a priest at his devotions, wearing a ring on the fourth finger of his left hand, though neither the King or Queen have rings. An angel with a fillet or nimbus of precious stones round his head plays, while a young man blows the bellows of an organ

whose pipes decrease gradually as the ancient Syrinx. Before the angel is a Book with the Morning and Evening Service, and the following words set to music—'O lux beato' and 'Iam sol recedit igneus.' The notes only on four lines. James the Fourth is represented as very musical, so perhaps this accomplishment may be here alluded to.

"On the side of the desk where the Queen kneels in a lozenge the arms of the Queen Dowager, Scotland, on the dexter, and Oldenburg, Norway, and Denmark on the sinister. Margaret of Denmark survived James the Third three years, and was buried in Trinity Collegiate Church, which she founded, which church may be here represented and alluded to in the figure of the Trinity.

"The Hon. Davis Barrington supposed these the doors of an organ given by James the Fourth to some church in Edinburgh, perhaps of the high altar of Trinity Church, or of an organ given thereto in compliment to his mother. Mr Walpole employed Mr Wale to copy these pictures, but they were never finished."

8th December, 1893.

Mr THOMAS M'KIE, F.S.A., Vice-President, in the chair.

New Member .- Mr William Bowron, Marchmount.

Donations.—The Report of the Canadian Institute, 1892-3; Transactions of the Canadian Institute, 1893; Transactions of the Edinburgh Geological Society, 1892-3; Essex Naturalist, June-September, 1893; Transactions of the Historical Society of Lancashire and Cheshire, 1885 (presented by Mr G. F. Black, Edinburgh); Introduction to Ancient Egyptian by Dr Grant Bey; The Nest and Parasites of Xylocopa Orpifex, a paper by Dr A. Davidson of Los Angeles.

Exhibit.—Mr William Dickie exhibited a specimen of mistletoe growing on the apple, brought by Mr M'Kettrick of Viewfield from Monmouthshire.

COMMUNICATIONS.

1.—*Early Flowers in 1893.* By Mr GEORGE BELL, Lochmaben.

3rd January--Lamium Purpureum.

5th March-Tussilago farfara.

11th March-Primula vulgaris.

17th March-Chrysosplenium Alternifolium.

19th March-Chrysosplenium Oppositifolium.

22nd March-Ranunculus Ficaria; Potentilla Fragariartrum.

26th March-Arabis Thaliana.

April was more productive, and they began to appear very fast.

1st April—Anemone Nemorora; Adoxa Moschatalina; Mercurialis Perennis; Tussilago Petasites; Oxalis Acetosetta.

4th April-Pulmonaria Officinalis; Fragaria Vesea.

- 5th April—Viola canina.
- 7th April-Capsella-bursa-pastoris.
- 9th April—Cochlearis Officinalis; Caltha Palustris; Ranunculus Hederaceus.
- 10th April-Prunus Spinosa.
- 14th April-Plantago Lanceolata ; Cardamine Pratense.
- 15th April-Cherophyllum Sylvestre; Lathyrus Macrorrhisus.
- 16th April-Alchemilla Vulgaris.
- 17th April-Geum Rivale; Galium Cruciata; Myrica Gale.
- 19th April—Ranunculus Auricomus; Vicia Sepium; Viola Palustris; Veronica Hederifolia.
- 22nd April-Veronica Arvensis; Veronica Serpyllifolia.
- 23rd April—Ajuga repens; Prunus Padus; Asperula Odorata; Stellaria Nemorum; Myrrhis Odorata; Saxifraga Granulata; Orchis Mascula.
- 24th April-Veronica Montana; Potentilla Tormentilla.
- 25th April-Lotus Corniculatus; Cytisus Scoparius.
- 27th April—Geum Intermedium; Vicia Sativa; Polygala Vulgaris: Ranunculus repens; Arenaria Trinerves; Viola Tricolor; Stellaria Uliginosa; Montia Fontana; Genista Anglica.

28th April-Lychnis Diurna; Sherardia Arvense.

29th April-Allium Ursinum.

30th April-Cardamine Amara.

The above list does not comprise all the plants that must have been in bloom at that time, as there was a lot of them that I missed.

1st May—Geranium Molle; Stellaria Graminea; Valeriana Divica; Callitriche Aquatica.

2nd May-Pedicularis Sylvatica; Ranunculus Bulborus.

2.—Antiquities of Kirkbean. By Mr SAMUEL ARNOTT.

There is considerable difference of opinion regarding the origin and meaning of the name Kirkbean. Chalmers, in "Caledonia," considers that it may be derived from the Celtic caerben, "the high fort;" but, as M'Kerlie remarks, there are no remains of ancient forts to be found, unless what was known as M'Culloch's Castle may have been one. The same writer gives as an alternative that the name was given to the parish on account of the church having been dedicated to St. Bean. Still another derivation, which appears to find favour with M'Kerlie, is that from the Gaelic ben, the word Kirkbean or Kirkben, signifying the kirk at the base of the mountain, in allusion to its situation at the base of Criffel. In the "Place Names of Galloway" Sir Herbert Maxwell gives the derivation as from Circ Beain, "Bean's Church," which is in practical agreement with one of Chalmers' suggestions. and appears, on the whole, the most likely to be correct. Herbert Maxwell states that St. Bean was Bishop of Mortlach in 1012. Unfortunately the Session records are of too recent date to throw any light upon any variations in the spelling of the name. They do not go any further back than 1747, and in the earlier part of that year the name is spelled Kirkbeen. The minute of 22nd November, 1747, gives the spelling Kirkbean, which from that time was always adopted in the records.

Of the ancient ecclesiastical history of the parish but little is known; but the supposition appears to be a probable one that it was at one time united with what is now Newabbey, then known as Lochkendeloch, and that it was included in the grant by Uchtred, Lord of Galloway, to Holm Cultran Abbey, in Cumberland. It belonged afterwards to Lincluden, and, according to M'Kerlie, the living was at one time said to have been the most valuable in Galloway. This is, however, not now the case

Ancient ecclesiastical remains in the parish can hardly be said to exist. The present church, which appears to occupy the site of the old one, was built in 1776, and nothing in any way connected with the older building can be discovered with the exception of the church bell, which bears the inscription, "Jon. Campbell, minister, 1728." On the top of a pillar erected over a well in the glebe is, however, a Maltese cross, which has formed part of another erection, and which appears to be of some antiquity. It is about 2 ft. across, and, unless it can have been brought from Sweetheart Abbey, may have been been taken from the old church of Kirkbean. Unfortunately, no one can give any information about this cross, which is understood to have been placed in its present position by the Rev. Mr Grierson, who was minister of the parish for a number of years. The tombstones in the churchvard are of no particular interest, unless that erected by Paul Jones over the remains of his father may be considered as worthy of note. Near Kirkbean Village there is a cottage, with some land attached, which bears the name of Chapelgrove. About 50 years ago there existed a tradition that a chapel stood on these lands. May not this have been the Church of St. Bein? A short distance from this is an old well, known as Lady Well, which has given its name to some adjoining houses. This was in use until a few years ago, when some drainage operations in an adjoining field stopped the supply. This was, in all probability, one of the many sacred wells in Galloway, and one would suppose from the name dedicated to the Virgin. No tradition now exists with reference to this well, but very careful inquiry has failed to give me any other reason for this well receiving the name it bears.

There are records of the existence of two Druidical circles in the parish, but at present no trace of these can be found, and tradition fails to give even a hint of their probable sites, for which a careful search was made during the Ordnance Survey in 1893. "Carlisle's Topographical Dictionary of Scotland," vol. ii., says: "On the farm of Ardrie" (now spelled Airdrie) "is a Druidical circle still entire." "The Parliamentary Gazetteer of Scotland," vol. ii., p. 163, says: "On the farm of Ardrie is a Druidical circle." The "History of Galloway," published in 1841, says of the same circle (vol. i., pp. 36): "On the farm of Ardrie, in the parish of Kirkbean, a Druid Temple, consisting of a circle of upright stones. continued entire until a late period." The latter work also states that "in the same parish a similar temple was destroyed in 1790;" and Chalmers' "Caledonia" tells us that "near this Druid Temple, in 1780, when a block of granite was split by gunpowder, an axe made of polished granite, 9 inches long and 6 inches broad, appeared in it. This curious object had a sharp edge, with rounded corners. The axe was perfectly loose and unconnected with the block, though the vacuity that contained it seemed nearly fitted to its size." About the year 1843 an ancient cairn on the farm of Torrorie, and about 25 chains south-west of the farm house, was removed, and under it, close to, but under the surface of the ground, was found a kist vaen, or stone coffin, made of large flagstones, and containing some human bones, which were reinterred on the same spot. A stone was erected on the site of the cairn, and a few years ago this stone, which had fallen, was re-erected for the purpose of a rubbing post for cattle, its supposed use-all memory of its original purpose having been lost. On the neighbouring farm of Ladyland, and about a mile E.N.E. of the village of Mainsriddle, on the top of what is still called "Hangman Hill," which seems of artificial formation, what is described as having been a "large, circular, conical cairn" was removed for building purposes about 1844, and under this cairn was found a kist vaen containing an earthern urn with ashes and some fragments of bones under it. I understand this spot also was marked by a stone, but it is not now to be found. The field has not been ploughed for several years, and as tradition fails to say whether or not the urn was buried along with its contents, it is possible that it might be found were a fresh search made.

With the exception of a small portion of Wreaths Castle, no part of any of the places of strength remains, but some information has been gleaned with regard to them. About three-eighths of a mile E.N.E. of Arbigland there would seem to have been at one time a place of strength, known by the name of "M'Culloch's Castle." This name is now almost forgotten, and the place is better known as the "Look-out," from having been used by the coastguard for the purpose of observation. It is situated close to a precipitous bank above the sea-shore, and appears to have been surrounded on the land side by a fosse, which, judging from the situation, must have been a dry one. This ditch, so far as can be judged from its present appearance, must have been about 16 ft.

in width, and if it formed a complete circle the space enclosed would be about 20 yards in diameter. The only information I have been able to gather as to its former use is given for what it may be worth. This is "that it was used as a place of strength during the invasions of the border thieves and robbers, which at one time greatly infested this locality." In "Caledonia" Chalmers states that at "Burren Hill," in Kirkbean Parish, there are the remains of fortifications, and that the name "Burrin" may be derived from the British "Bur, signifying an enclosure or entrenchment or work thrown up for defence." If Chalmers is correct it is probable that M'Culloch's Castle may be of considerable antiquity.

Of the ancient Cavers or Cavens Castle still fewer traces remain, but a little more information regarding it has been gleaned. At one time, like Wreaths Tower, it belonged to Regent Morton, and is said to have been occupied by him. While King James was under the care of the Earl of Morton he spent his holidays at Cavers Castle, and it was while here that the incident of the flounders is said to have occurred. In the "History of Galloway" it is thus related : "At that time the chief of the clan Aitken held the Castle of Preston. This family were true Scots, poor but proud. One day James visited at the castle, and they were very scarce of provision. The only thing they had to present was a dish of flounders, but they managed to produce two courses by giving first the brown side and then the white side of the flounders, upon which James remarked, 'Odds fish, man ! They's fine fish, but I think the white anes are the best." In passing, I may remark that I can find no mention of any Castle of Preston unless in this anecdote and in M'Kerlie's work. It may have been Wreaths, which is quite near Preston. Like Wreaths, Cavers Castle passed to Lord Maxwell after the execution of Regent Morton; and John Maxwell, who was Bishop of Ross at the time of the coronation of King Charles, in 1633, was a son of the laird of Cavens. There appears to be some doubt as to whether the proper name of this castle should be Cavers or Cavens. In the "History of Galloway" it appears as Cavers and Caveris, and in the reference to the Bishop of Ross it is given as Cavens. The present mansion-house of Cavens is about a mile and a half from the site of the ancient castle, and very near the old house, which was, I understand, comparatively small. In replying to an inquiry for information regarding the old castle, Mr Oswald, the

proprietor, kindly informed me that he believed Cavers to be the proper form, but Cavens is the spelling adopted by the Ordnance Survey. M'Kerlie, in "Lands and their Owners in Galloway," says that the story of James VI. spending his holidays at Cavens " is a mistake so far as the ancient residence of the owners of the barony is concerned, for Wreaths Castle was the building." He also states that Cavens was an after-structure, believed to have been erected in the 17th century. In a succeeding notice of Cavens he says that what is marked down on the Ordnance Survey map as the site of Cavens Castle is only the site of the house which stood on the farm, and in which Dr John Murray resided. I think, however, that M'Kerlie is here in error, as the site of the old castle is on the lands of Torrorie and Hafield, which in Dr Murray's time were not attached to the barony of Preston or to Cavens, and that Dr Murray's house must have been the old mansion-house of Cavens now demolished. What was known as the old Castle of Cavens or Cavers was occupied until about the year 1800, and was afterwards torn down at intervals for building purposes. Sinclair's "Statistical Account" says "the Castles of Cavens and Wreathes: a part only of each are now standing-They were once the property of the Regent Morton, and by him frequently inhabited."

Of the Castle of Wreaths, which is twice mentioned in the Sibbald MSS. as one of the principal houses in Galloway, and which was occupied by Baliol before coming into the possession of the Earls of Morton, only a small portion now remains. No doubt the prevalent Vandalism which deemed these old buildings the most convenient and suitable quarries for building material is responsible for much of this, and on examining the "dry dykes" which are in the vicinity many stones which appear to have formed part of the old castle are to be seen. The only part left standing, which is about 45 feet high, seems to have formed a turret staircase, with three doors branching off. The walls, which are from 3 to 4 feet in thickness, are faced with squared sandstone, apparently from Southerness, and the space between filled with similar stone, granite, and a kind of concrete formed of lime and small pieces of stone. I understand that orders have been given by the proprietor, Mr Oswald of Cavens, that no stones should be taken from what remains of the castle. It is to be regretted, however, that one side which is much exposed to the weather is in much need of pointing. That it was a place of some size may be

gathered from the MSS. before mentioned, and this is supported by traditions of some of the old people and by what can be seen of part of the foundations on the opposite side of the road. Old people say it was a large building, and was surrounded by an extensive forest. There is also a tradition in the district that Queen Mary slept in Wreaths Castle on her way to England after the battle of Langside. This appears to be highly improbable, as Wreaths would be quite out of her course, unless she had intended embarking from Carse Bay, which was used as a harbour long before the present village of Carsethorn was built. I am disposed, however, to think that the tradition of Queen Mary's stay at Wreaths Castle is without any authority, and that it may be dismissed without further enquiry.

Kirkbean at one time contained a burgh of regality, which was in possession of the Regent Morton. According to "Lands and their Owners in Galloway," it was included in the regality of Dalkeith. In looking over the "History of Galloway" (Kirkcudbright, 1841) I noticed in the report made by the Magistrates of Kirkcudbright to the Commissioners of the Convention of Royal Burghs, 25th April, 1692, it is said : "13. As to the 13th article, its answered that they have only two burghs of baronie and regality within their precinct, viz., Monygaff and Prestoun, both inconsiderable as to their trade." Thinking this might refer to Preston in Kirkbean, I wrote Mr John Gibson, town clerk of Kirkcudbright, who very kindly put himself to very considerable trouble in endeavouring to give me information, and whose kindness I desire to acknowledge. Unfortunately the minute book for 1692 is amissing, and none of the others contain any reference to Preston. Mr Gibson, however, asked Mr James Nicholson, whose authority on local antiquities is fully recognised. Mr Nicholson says that the Preston mentioned in the report is the Preston in Kirkbean. I find, however, that, under the Act of Parliament passed in 1747 for abolishing hereditary jurisdiction in Scotland, a claim was made by the representatives of Maxwell of Preston for £800 for "Privilege of regality over the barony of Preston by progress from the family of Nithsdale." This claim was rejected. According to one account it had the privilege of holding three, and according to another four fairs annually. Of the burgh nothing now remains with the exception of a stone cross, although within the last century there are said to have been between 50 and 60

tenants, and tradition says that it also contained "a jail and other public buildings." Sinclair's "Statistical Account" says that "at the cross poinds have lately been comprised." Since the appearance of Sinclair's work the cross appears to have been thrown down, as a few years prior to 1850 it was found lying a few feet below the surface, and was re-erected at the expense of the proprietor on a pyramidal base and surrounded by a wall. The cross itself is about 7 ft. high, the side portions being 1 ft. from the top and 10 in. in length. Its thickness is 3 in. and breadth 6 in. It is formed of two pieces of red sandstone, plastered together in the centre. Like the other property of the Regent Morton in Galloway, after his execution, Preston passed to the family of the Maxwells of Nithsdale.

An account of the antiquities of Kirkbean is hardly complete without a reference to the cottage at Arbigland in which the celebrated Paul Jones was born. This was originally named Beancroft, and was occupied by John Paul, sen., the father of Paul Jones, whose real name was John Paul. As is well known, John Paul, sen., was gardener at Arbigland. The house fell into disrepair; but in 1831 Lieutenant Pinkham, of the U.S. Navy, visited the cottage and asked the then proprietor of Arbigland to allow him to be at the expense of re-building it. For this purpose he left a sum of over £20, and the cottage was put into habitable repair. But for the action of Lieut. Pinkham, Paul Jones' cottage would in all likelihood have long ago disappeared. After its repair the house became known locally as Paul Jones' or Pinkham's cottage. Since that time the building has been considerably enlarged; but the round tool house which stood near it, and in which the future famous seaman is said to have been imprisoned by his father after one of his boyish exploits, no longer exists.

3.—A Further Note on the Nun's Slab at Dundrennan. By Mr ROBERT BRYDALL.

Perhaps it may interest you to have my reasons for suggesting the alteration in reading the inscription. The change of arrangement of the parts of the stone consists in the transposition of two pieces to the right and left.

I assume that a tail has been added to the "o" to make it read "pr(ioressa)"; I would expect a stronger evidence of it on the stone even now, as that part is not quite worn down the

depth of the incised letters. The "a" read in the old form, giving "chea," I also assume as an "r," giving "cher"; the part suggesting the cross bar of the a H may have been more distinct formerly, but at present it looks too indefinite for decision, and may also have been improved upon in the drawing. If you compare the enclosed tracing from my sketch with the drawing in the "Proceedings of the Dumfries and Galloway Society, 1863-8," I think you will see that there is an inaccuracy in the *shape* of the stone with "chea." If this is so, the drawing may be otherwise inaccurate—a stone could'nt grow.

In their present position the lines of the figure fit in quite correctly with the upper and lower stones. If they would do so reversed could, of course, only be ascertained by comparing a rubbing with the stone.

As to the word "quondam," is it not rather out of place to read it between "prioressa" and "qui obiit ?"

My object, of course, is not to overturn any theory, but while looking at the stone it struck me that the lady might be associated with the locality as a probable benefactress to the Abbey, else why find a prioress (?) buried in such a place.

11th January, 1894.

The Rev. WILLIAM ANDSON, Vice-President, in the chair.

New Members.--Mr George Campion, Sheriff-Substitute; the Rev. John R. Denham, St. John's.

Donations.—The Transactions of the Stirling Natural History and Archæological Society, 1892-3; Annals of the New York Academy of Sciences, 1893; Transactions of ditto, 1862-3; Proceedings of the Davenport Academy of Natural Sciences, 1885-9; Four Communion Tokens, presented by Mr R. Rogerson— "Moniaive, 1776; Dumfries, 1766; Sanquhar, 1750; Thornhill, 1828."

COMMUNICATIONS.

1.—Botanical Notes for the Moffat District for 1892-93. By Mr John Thorburn Johnstone.

During the summer of 1892 I had very little time to spare for botanical pursuits, and as a result have not much to record for the season.

PLANTS NEW TO DISTRICT OR RE-CONFIRMED.

Subularia aquatica, L., Loch Skene.
Meliotus arvensis, W., casual plant in own garden.
Trifolium arvense, Barnhill sandpit.
Ornithopus perpusilus, L., Dunfries road at Lochhouse Tower.
Æthusa Cynapium, L., Wamphray and Kirkpatrick-Juxta.
Meum Athamanticum Jacq., pastures on Whitecoomb.
Hieracium umbellatum, L., Alton Mote.
Bromus commutatus, Schrad, Holm fields.

This summer (1893) I visited a number of the small out-ofthe-way Linns in the district, such as Harthope and Greskine in Evan Water, Greigsland Burn, Dykehead Linn, Duff Kinnel, and its tributaries in Johnstone, and various other places. No new plants were recorded, but new stations were found for several of our uncommon plants, showing that they have a wider distribution in the district than might be inferred from the position of the previous recorded stations. Among the most interesting of these plants were :---

Pyrola secunda, gathered in one of the tributaries of Duff Kinnel, this being 16 miles from the nearest of the five stations for it previously known to me.

Hieracium sparsifolium. Also in Duff Kinnel; but the plants are much more luxuriant in their habit than those to be gathered at Beef Tub and Craigmichen Scaurs.

Cardamine impatiens. This I found growing in the stackyard at Middlegill, and it is also growing very abundantly as a garden weed in Kirkpatrick-Juxta Manse garden. It was on the roadside near this manse I found it growing in 1891, when it was reconfirmed for the district. The Rev. Mr Little (a former minister of the parish), who was an ardent botanist, would most probably plant it in the garden some time during his incumbency, where it has thriven so well as to have now become a regular weed, and the specimens I originally gathered on the road-side must have spread from the garden.

The inside of the garden wall at the Manse is also covered with *Ceterach officinarum*, Willd., which in all probability would be planted by the Rev. Dr Singer or Mr Little.

The Rev. Wm. Brodie, the present minister, informs me that both plants have been growing there in abundance all the time he has been resident there.

Arctostaphylus Uva-ursi, Correferron, also a second station.

With the exception of the Hieracia, I have only two plants to record as new to the district. Unfortunately, they are only casuals, and are *Scandix pecten veneris*, casual in garden, and *Sonchus arvensis*, waste ground at Birnock.

In the "Journal of Botany" of May, June, and July, 1893, the Messrs E. F. and W. R. Linton publish a list of Hieracia gathered by them in Scotland, a number of them having stations in this district. They have since named specimens of nearly all of them in a collection I sent up to them for that purpose. Their list, applicable to this district, is as follows :---

Hieracium centripetale, F. J. Hanbury.

- ,, clovense, Linton.
- ., callistophyllum, F. J. H.
- " Langwellense, F. J. H.
- ,, Schmidtii, Tausch.
- ,, buglossoides,* Arvet-Touvet.
- " argentum, Fries.
- ,, nitidum, Backhouse.
- ,, stenolepis, Lindel.
- ,, stenolepis, var. anguinum, W. R. Linton.
- ,, Sommerfeltii, Lindel.
- " rubicundum, F. J. H.
- ", murorum, Linn.
- ,, murorum, var. ciliatum, Almq.
- " murorum, sub. sp. sarcophyllum, Stenstrom.
- " duriceps, F. J. H.
- ., euprepes, F. J. H.
- " stenophyes, W. R. L.
- ,, angustatum, Lindel.
- " strictum, Fr. var. subcrocatum, Linton.

The above Hieracia are pretty evenly distributed over the sub-alpine Linns of the district, as Blacks Hope, Correferrou, Midlaw Burn, Andrew Whinney, Whitecoomb, Grey Mare's Tail, Craigmichen Scaurs, Beef Tub, &c.

^{*} Mr Linton makes out that the *Hieracium* gathered by Mr Backhouse at the Grey Mare's Tail in 1850, and named by him *H. saxifragam*, is the *H. buglossoides* as above. Transactions of the Society, 1885-86, page 150; paper by A. Bennet.

MHYGAN Dry. Nean Vet. Nean Wet. Dew-Point. Temperation = 100, Nean Wet. Mennetice of Seturation = 100, Nean Vet.	Deg. Deg. Deg. 38:1 32'9 37 38:1 30'5 34'8 39:4 45'4 41 40:4 45'4 41'1 61:7 55'2 51'3 61:4 55'2 51'3 61:7 55'2 51'3 61:4 55'2 51'3 61:4 55'2 51'3 61:4 55'2 51'3 61:4 55'3 51'3 61:4 55'3 51'3 61:4 55'3 51'3 61:7 55'3 51'3 61:7 55'3 51'3 61:7 55'3 51'3 61:7 35'7 55'3 61:7 35'7 55'3 61:7 35'7 55'3	48 45.5 42.8 82		V_{ar} .	$10\frac{1}{2}$
Mean Dry. Mean Wet.	Deg. Deg. 341 329 341 329 42 454 542 454 542 555 597 55 597 55 597 55 597 55 597 55 597 55 597 55 597 55 597 55 597 55 598 7 609 57 574 609 57 574 574 572 573 50 574 572 573 573 573 574 574 574 574 574 575 575 575 575 575	45.5		v_{ar}	$10\frac{1}{2}$
	Deg. 241 341 341 341 542 594 594 501 501 400 501 400 501 400 501 400 501 400 501 400 501 400 501 400 501 400 501 501 501 501 501 501 501 501 501 5				
		48			
	S2232081158531			N.W.	13
Days on which		195		ż	
Days on which	Ins. 1'54 4'54 4'54 1'52 2'46 3'09 3'09 3'09 3'09 3'09 3'09 3'09 3'09	32-39			-101
Heaviest in Bandary RA	1118 1118 1118 1118 1118		the Wind during the year.	M	$77\frac{1}{2}$
Monthly Range. Mange. Mean Temp. of Month.	Deg 380 550 550 550 550 555 550 555 555 555 5	40.4 from the	; the	S.W. 70	
	Deg. 36.3 313 38.3 38 38 38 38 38 38 38 38 38 38 38 38 38	10	uring		62
Mean nself. Mean	Deg. 33245 3345 33555 3393 3445 517 517 7496 517 7 362 3 823 3623 3623 3623 3623 3623 3623	41.7	ind d		
Self. Registering Self. Registering Month, Monthy Manum, Monthy Manue,	Deg. 4114 4417 6239 6339 6339 6326 639 639 639 6326 639 6326 639 6326 639 6326	2.99	le W	ഗ്	41
Lowest in tsewod Month.	Deg. 115 119 130 19 19 19 19 19 19 19 19 19 19 19 19 19	15		r.	
ni tzəfiziH Anola	Deg. 51.3 51.3 51.3 51.3 66.7 78.3 885 885 885 885 885 885 885 53 53 53 53 53 53 53 53 53 53 53 53 53	85	tions	S.E	26
Alean for Alonth.	Inches. 30'026 30'026 30'049 30'045 30'045 30'045 30'045 30'049 30'049 29'55 29'55 29'56 29'58 29'58 29'58 29'58 29'58 29'58 29'58 29'58 29'58 29'58 29'58 29'58 29'58 29'58 29'58 29'58 29'58 29'58 20'58 2	29-925	Directions of	E.	$31\frac{1}{2}$
Monthly Range.	Incles., 1768 1709 1709 1709 1709 1728 0°816 1°058 1°120 0°886 0°886 1°124 1°145 1°145 1°145 1°454 1°454 1°454 1°454 1°454 2°140	2.149			
Nionth. N	Inches. 29°265 29°578 29°570 29°510 29°510 29°510 29°530 29°304 29°330 28°974 28°974 28°974 28°974 28°586 28°576	28.560		N.E.	36
highest in Minolf.	Inches. 30'453 30'257 30'457 30'457 30'568 30'568 30'568 30'558 30'533 30'533 30'533 30'533 30'533 30'533 30'533 30'533 30'700	30.700		N.	21
.sutnoIA	1893. Jan. Feb. Mar. April May July Ang. Sept. Oct. Nov.	Year			

2.—Meteorology of Dumfries, 1893. By the Rev. WILLIAM ANDSON.

There are two preliminary remarks which I wish to make before proceeding to discuss the meteorological observations taken at Dumfries during the past year, a summary of which is presented in tabular form along with this paper. The first is that

the station was visited by Dr Buchan, the secretary of the Scottish Meteorological Society, on the 10th October last, and that the instruments used, on being compared with his standard barometer and thermometer, were found to retain their former accuracy; and the second is that, by his advice, I now purpose, in giving the means, to compare them with those of the last seven years at Dumfries, during which the observations have been taken, instead of making use of those supplied by Mr Dudgeon's observations at Cargen, as I have hitherto done. There can be no doubt that the more lengthened period must give a more correct mean than the shorter one. But we have to take into account that the stations are different, and the conditions always differ more or less even at places not far distant from one another, according to the environment, and, as experience shows, this is certainly true both in regard to temperature and rainfall in the case of places so near as Dumfries and Cargen. For example, the rainfall at Cargen during the month of December last is reported as amounting to 6.72 in., while at Dumfries it was only 5.55 in.; and for the year as 37.55 in., while at Dumfries it was only 32.39 in.-a difference of fully 5 in. ; and, as a rule, it has been found that, while the rainfall is greater, the temperature also is somewhat lower. Hence it has been thought desirable to adopt the means furnished by the seven vears' observations at Dumfries as the basis of comparison, in preference to those of a different station in the neighbourhood, though having the advantage of a much more extended series of observations.

Barometer.—The highest reading of the barometer during the past year was recorded on the 29th December, when it rose to 30.700 inches; and curiously enough the lowest reading occurred in the same month, when it fell to 28.560 inches at 2 P.M. of the 13th, giving the rather unusual range of 2.140 in. There were other two periods, however, when the fall was nearly as great—one on the 26th February, when the reading was 28.578 in., and the other on the 17th November, when it was 28.586 in. The falls in February and November were accompanied by strong gales of wind and considerable falls of snow; but that of 13th December, although attended by snow passing quickly into rain, and by squally weather, was not remarkable for wind disturbance in this district. The severest storm of the year over the country generally was unquestionably that which occurred between the

17th and the 19th of November, when great damage was done to property in the central and northern parts of Scotland, and an unusual number of ships were wrecked on the coasts, involving the loss, it is estimated, of 350 lives. But in the southern districts the effects of the storm were comparatively little felt. The mean barometrical pressure for the year (reduced to 32 deg. and sea-level) was 29.925 in., which is slightly in excess of that of the last seven years. The highest monthly mean was in April, with a record of 30.125 in., and it was in that month that the smallest rainfall occurred, and also the greatest excess of temperature above the average, amounting to no less than 5.7 deg. But in the months of January, March, May, and November the means were likewise slightly above 30 in. The lowest monthly means were in February, October, and December, ranging from 29:573 in. in February to 29.804 in. in December, in each of which months, as the table shows, there were 23 days on which more or less rain fell.

Temperature-in shade, 4 feet above grass.-The past year has been of quite an exceptional character with regard to temperature. The absolute maximum of 85 deg, on the 18th June is the highest recorded since the 25th June, 1887, when it was 87 deg. The absolute minimum, or lowest temperature of the year, was 15 deg., and was registered on the 5th January, and the annual range of temperature was thus 70 deg. The mean temperature of the year was 49.4 deg., which is the highest recorded at this station since observations were commenced. The next highest was in 1889, when it reached 48.1 deg. But the mean of the last seven years is only 47.5 deg., so that the mean of 1893 is almost 2 deg. above average. I observe that Mr Dudgeon, in his report for the past year, gives 48.8 deg. as the mean for 1893 at Cargen, and adds that it is the highest for 34 years-the nearest approach to it being in 1868, when it was 48.4 deg. There were eight months in which the mean exceeded the normal-viz., from March to August, and again in October and December-the excesses ranging from 1.8 deg. in July to 5.7 deg. in April, and giving an aggregate of 25 deg., while the other four months showed a deficiency ranging from 0.2 deg. to 1.3 deg., but with an aggregate of only 2.9 deg. The number of really warm days, with a maximum of 70 deg. and above, was 61-viz., 9 in April, 4 in May, 19 in June, 11 in July, 15 in August, and 3 in September

-and of these 8 exceeded 80 deg, The warmest month was August, with a mean temperature of 61.4 deg., but June and July fell short of it by only 1 deg.; while March and April were the most remarkable for their excess of temperature above the average, that of March being 4 degs. above, and that of April, as already noticed, no less than 5.7 deg. The coldest month of the year was January, with a mean of 36.9 deg., which was 1.3 deg. below the mean of the last seven years. February, September, and November were also under average, but only to the extent of a fraction of a degree in each case. The number of days on which the protected thermometer fell to and below 32 deg. was 52, with an aggregate of 213 deg. of frost for the year. This compares very favourably with the previous years, with the single exception of 1889, which had indeed 55 nights of frost, but an aggregate of only 193 deg. The average of the seven years is somewhere about 80 nights of frost, and an aggregate of 340 deg. It thus appears that, while there was an exceptionally large number of warm and sunny days, there was also a considerably smaller number than usual of cold nights with the thermometer falling below the freezing point. The spring and summer months from March to August were peculiarly warm and genial, with an amount of bright sunshine to which we are little accustomed in our changeable climate. I noted at the time that as early as the end of March cherry, pear, and plum blossom began to unfold, and that roses and other summer flowers not only came early into bloom, but continued to flower to a very late period in the season, and we heard of instances not a few of a second partial crop of strawberries being gathered.

Rainfall.—The heaviest rainfall of the year occurred on the 13th February, when 1.18 inches were registered, in connection with a south-westerly storm, with a fall of the barometer to 28.800 inches. This was the only day on which the rainfall exceeded an inch in the 24 hours. The next heaviest was on the 18th July, with a record of 0.94 inches. The wettest month was December, the amount in that month being 5.55 in., with 23 days on which it fell, and February, which is often a dry month, exhibits the next amount in point of quantity, viz., 4.54 in., spread over the same number of days. The driest month was April, on which 1.16 in. fell. But January, March, June, September, and November were all under the normal, each of them showing less than 2

inches, and a total of 9.13 in., as compared with an average for these months of 17.12 in. From the 7th of March to the middle of April there was a period of drought, during which no rain to speak of fell, except on the 15th and 16th of March. The number of days on which rain or snow fell was 195 (rain, 183; snow, 12), on 26 of which, however, the fall did not exceed one hundredth of an inch, and the total amount for the year was 32.39 inches. This is the smallest rainfall of any year since 1887, when it was 30.99 in., and is short of the average of the last 7 years by 3.13 in., the average being 35.54 in. I see that Mr Dudgeon reports the rainfall at Cargen for 1893 as 37.55 in., exceeding that of Dumfries by more than 5 inches, and as being fully 5 inches below the average of the last 34 years. Over the country at large the rainfall of the year was very unequally distributed. In the north of Scotland it was considerably above the average, with a deficiency of sunshine; but in the centre and south the weather was on the whole finer and drier than usual, while in the Midlands and south of England the drought of the early spring and summer months was very severe, and occasioned heavy losses to agriculturists. During the four months from March to June the aggregate rainfall in these districts is reported to have amounted to less than half the average, and in many to less than one-third, the period being absolutely the driest on record.

Hygrometer .- The mean reading of the dry bulb thermometer for the year was 48 deg., and of the wet bulb 45.5 deg., giving a mean of 42.8 deg. as the temperature of the dew point, and a relative humidity of 82, saturation being equal to 100. Although the average difference between the dry and wet bulbs for the year is only 2.5 deg., there were times during the dry period when the actual difference was very much greater. For example, on the 21st April a reading was taken at four P.M., which gave 72 deg. as the reading of the dry, and 58 deg. as that of the wet-a difference of 14 deg. Again, on the 23rd of the same month at 5 P.M. the reading of the dry bulb was 70 deg., and that of the wet 56.7 deg .- a difference of nearly the same amount. This would give a relative humidity of only 42, showing an extremely dry air. At other times, however, the air was saturated or nearly so, bringing the average humidity for the year to 82, which is still less than the average of six years during which the

hygrometrical observations have been taken, that average being 83, and the average difference slightly over 2.3 deg.

Thunderstorms.-I have noted 18 days on which thunder and lightning occurred, or the one of these without the other, viz.: 3 in February, 1 in March, 2 in May, 2 in June, 4 in July, 3 in August, 1 in September, and 2 in October. The most remarkable and by far the severest of these was the storm of the 8th July, when about mid-day the wind suddenly rose to a terrific pitch, more like a tornado or whirlwind than an ordinary gale, and along with repeated peals of thunder and vivid flashes of lightning hailstones of extraordinary size fell, doing great damage to glass and crops. As I was from home at the time I cannot speak from personal observation, but a full account was given in the Standard newspaper of the 12th, of which the following is a brief abstract : "On Friday, the 7th, and Saturday, the 8th, the weather was exceedingly warm and sultry, with a maximum temperature of fully 80 deg. Thunder peals were heard on Friday night, and at a late hour there were vivid and incessant flashes of lightning. About 11 o'clock on Saturday, the 8th, there was a heavy thunder shower, and at mid-day, following upon several peals of thunder, there was a sudden and strong rush of wind up the valley of the Nith from the south-west, and simultaneous with it a fall of hailstones of extraordinary size, most of them of the size of large marbles or pigeon's eggs, but many also of larger dimensions. Some that were measured were found to be an inch and three-quarters in length and two and a half inches in circumference, and others there were in various places which are said to have exceeded these dimensions. In form many of them were flat and roughly circular, with a white core surrounded by clear ice, and another white portion forming the outer coating. The hailstorm lasted barely a quarter of an hour, but the wind, being of hurricane force, not only overturned in its course ricks of corn and hay, and in some cases uprooted trees, but, hurling these large pieces of ice against windows exposed to the south and west, and falling upon conservatories like a shower of stones, caused immense damage to glass, while very serious havoc also was wrought in gardens and orchards, and in growing crops of corn and turnips in the line of its progress. The hailstorm was strictly local in its character, as is usually the case with such storms, and mainly confined to the Nith valley, as far up as the parish of Closeburn. Troqueer. Holywood, and Kirkmahoe parishes suffered severely, but places to the east and west, although experiencing the thunderstorm with heavy rain, appear to have been exempted from the plague of hail." Thunderstorms of exceptional severity occurred in many parts of the country on the same day, or between the 5th and the 10th of the month of July; and my attention has been called to the report of the proceedings of the English Meteorological Society at London, in which it is stated that on the same day and about the same hour as at Dumfries a similar hailstorm passed over Peterborough, and in the neighbourhood of Harrogate and Richmond in Yorkshire, with hailstones of $\frac{2}{3}$ four and five inches in circumference, and some as much as three inches in diameter.

Wind.—The summary of wind directions shows that on 21 days it blew from the north, for 36 from $\frac{3}{2}$ the north-east, on $31\frac{1}{2}$ from the east, on 26 from the south-east, on 41 from the south, on 79 from the south-west, on $77\frac{1}{2}$ from the west, on 43 from the north-west, and that on $10\frac{1}{2}$ it was calm or variable. As usual, the south-west wind was the most frequent, and, taking the south and west along with it, it appears that $197\frac{1}{2}$ days out of the 365 were characterised by winds from these directions, while the northerly and easterly, including the south-easterly and north-westerly, had $157\frac{1}{2}$ days.

3.—Recent Investigations of the Roman Wall between the Tyne and Solway.

By Mr ALEXANDER D. MURRAY, Newcastle.

The Roman Wall between the Solway and the Tyne has been so much and so elaborately written about by antiquaries, and has been so minutely explored, that it might be thought to be the best known and most fully explained antiquity in this country. But as a matter of fact, it still remains something of a mystery; nor does it seem as if the problem of its erection and purpose would ever be satisfactorily solved. At the present time the Newcastle Society of Antiquaries is raising a fund for the purpose of conducting explorations on the sites of the stations, and for generally making a more complete investigation of the whole work than has ever been made before. In the meantime, however, other and independent observers have been drawn to the spot; and a little work published last year by Mr George Neilson, of Glasgow, made some

sensation in antiquarian circles. Mr Neilson, an engineer, familiar with Roman remains, and who had been making a very interesting survey of the Wall of Antonine, spent some days in going over the southern wall. He came to it, as he says, fully permeated with the theory and the explanations so elaborately set forth in Dr Bruce's work, and which, for some time past, has been adopted largely on his authority by most antiquaries. As all who have read this work, or heard the deceased veteran of Roman Archæology in the north discourse, are aware, Dr Bruce had fully persuaded himself that the whole of the elaborate stone and earthwork defences making up what is known as the Roman Wall were parts of one work, erected all at the same time, and with one fixed object, and without doubt erected by the Emperor Hadrian during his long stay of ten years in Britain. He therefore unhesitatingly called it Hadrian's Wall; and as Hadrian's Wall it is commonly known in these days. Within Dr Bruce's lifetime. however, this theory has been sharply contradicted; and now that the old Doctor is gone, it seems very likely that his theory of the wall will not long survive him. Mr Neilson in his little book says that though he went to the Wall fully believing that Dr Bruce was right, that the stone murus and the earth vallum, which runs by its side, were parts of the same work-the one intended to be a defence against the north, and the other a defence against the south—he was soon compelled to abandon this belief, and to come to the conclusion that the murus and the vallum could not possibly have been erected at one time, or as parts of one system of defence. Persons who have not themselves visited the Roman Wall may not be aware how very elaborate the work really is. In only a few places can the whole system be seen in its entirety, the effects of weather and of the tear and wear of fifteen centuries having obliterated the contour of the earthwork over the greater part of the line, even where the stone wall is still more or less discernible. The following is a rough section of murus and vallum, as it may still be seen in a few places, and as it no doubt was along the whole of the route where the character of the country did not render a modification of the plan imperative. The Romans were not easily baffled by natural obstacles, however, and along a large stretch of country to the west of Glurnum Station the fosses have been quarried out of solid rock. which has been built up on their edge to form the aggers. They



of the munu marginal minu stone week on on in went douth agen. mind agen 9400 2222 Jhe - V L · · Q A . -B. -(



disdained to simplify their plan in order to save all this formidable labour, and seem to have only omitted any part of it when the lie of the country was such as to provide the required defence without artificial aid. It is certain, therefore, that every portion of the work was deemed by its makers essential; and though it may be difficult for us now to understand its motive, that must have been perfectly clear at the time.

It will be seen by the sketch that whilst the stone wall, or murus, runs along the northern boundary, with only a fosse in front of it, to make it more difficult to surmount by an enemy approaching from the north, there is quite an extensive system of earthworks behind the murus-that is, on the southern side of it. Those, known as the vallum, comprehend two distinct earth mounds, or aggers, with a fosse between. Generally speaking, this vallum follows the line of the murus, always, however, leaving a space between broad enough to be traversed by a body of troops. But that is not the case throughout the whole length of the wall. A most notable feature of the work is that some miles west of Chesters, where the high ridges of the country begin, the murus follows the crest of this ridge throughout, and does not leave it till the country drops down into the valley of the Irthing at Gillsland. This line of elevated country forms an irregular curve, the convex side being towards the north. The vallum, however, does not keep to the heights. It proceeds in a straight line across the country, leaving the high ground to the north, and forms a string to the bow, joining the line of the murus again just before it drops down suddenly nearly opposite to Greenhead railway station.

This is a very remarkable feature of the wall, and its significance is increased by the fact that about the place where the vallum is farthest apart from the murus, a Roman station occurs on the line of the vallum, which has evidently no connection with the series of stations on the line of the murus. This station, near to Bardon Mill, known as Chesterholm, has been identified with Vindolana. It lies on the edge of a depression, and high above it is the line of the wall, proceeding westward from the great station of Borcovicus, or Housesteads. The divergence of the vallum from the high line of the murus across this stretch of country lends itself to two explanations. Dr Bruce and those who hold with him that the work was all made at the same time—the val-

lum to protect the Romans from attack from the south, and the murus to defend them against the enemy in the north-conceive that the southern defence was more simply and completely effected by running the vallum along an inferior ridge and through lower ground at this part of the route. For my part, I have found the argument difficult to follow; and though I have several times heard Dr Bruce expound it in person and on the spot, it has never seemed to me that there could be any adequate motive for breaking the continuity of the two lines of defence on these uplands. The Romans were a logical and rather pragmatical people in war; and when they formed a plan they stuck to it in spite of all difficulties. Why they should have made this deviation, and even gone to the labour of forming a separate and independent station, away from the line of the wall, to defend this southern line of the vallum, has always appeared to me an inexplicable mystery. It is, however, no mystery at all if we assume that the vallum was an earlier work than the murus; that being thrown up in haste and in a less settled period, the straight line was followed; but that when the permanent stone wall came to be built, better and more thoroughgoing engineering decided that it must scale and follow the crest of the heights, leaving at this section the earlier work far below. In that case, of course, the station of Vindolana would be an earlier camp, established when the vallum was the only wall, and kept up afterwards because the ordinary Roman road followed the vallum along the leveller country.

Let us now consider the features of the valuum a little more minutely. The southern agger, or earth mound, though present all along the route, appears to be more worn away than the rest of the work. Even in places where the fosse remains very distinct, and the north agger also, it has been remarked that the south agger has all but disappeared. This is a fact to be noted, for an important inference has been drawn from it. The next peculiarity to be remarked is that a considerable space always intervenes between this south agger and the fosse; and that in some places, on the edge or lip of the fosse—as shown in the sketch—there is a small agger, known as the marginal mound. The occurrence of this marginal mound has been noted by all competent observers, and also the fact that it is not always present. But Mr Neilson, to whom I have alluded, is, I believe, the first who has made a minute inspection of this mound, with regard to its omission and recurrence, and to give what seems to be a most reasonable explanation. Owing to the vallum very often running through a hilly country, it is usually less or more on the slope. Mr Neilson observed that, when the slope was to the south, the marginal mound was always there; but when the slope was to the north it was usually absent. The object of the mound, he therefore conjectured, was to elevate the southern lip of the fosse wherever it was depressed by the slope of the ground to a lower level than the northern margin, so that defenders standing on the south side of the ditch would always be as high, or a little higher, than those who were were standing on the north side. When this advantage was already given by the slope of the ground there is no marginal mound. The north agger rises very sharp from the fosse, unlike the south agger, and leaves no space between on which armed men could deploy, or even maintain a sure footing. Between the north agger and the stone wall, where the vallum and murus follow the same route, there is always, as has been said, a space wide enough for troops to march along.

Now, is it reasonably possible, looking to these characteristics of the work, to suppose that it could ever have been designed as a defence against foes approaching from the south? In that case, what would have been the use of the south agger or the marginal mound on the southern lip of the fosse? These would have assisted the assailants instead of arresting them. The defenders must be supposed to be on the north side of the fosse, and therefore not at striking distance with the enemy until they were attempting to cross the fosse. There would be no hindrance. therefore, to the latter scaling the south agger, and finding space between it and the fosse to close their ranks, whilst the marginal mound would give them just that advantage in fighting which in those times was always sought for in a position slightly more elevated than that occupied by the foe. No reasoning that I have seen or heard has done anything towards getting rid of the absurdity of supposing the Romans to erect defensive works against an enemy which seem to have been designed rather to give him all the advantage. There is good reason, let me remark, for supposing that these aggers and fosses were not relied upon in their mere naked condition for defending a position. They were probably studded with sharp stakes, forming a palisading

work, such as the native races in the East invariably employ in their fortifications. But however we suppose the valuem to have been furnished with such means of defence, we cannot in any way account for the existence of the southern agger, and especially of its considerable distance from the fosse.

We are told, however, that the difficulty is just the same if we suppose the vallum to have been erected as a defence against the north. How, it is said, are we then to account for the existence of the north agger? Mr Neilson feels this difficulty, and is so much impressed by it that he adopts the theory, not at all original, that the vallum was at first intended as a temporary defence against the north. But after the wall was built-which he supposes must have been very shortly after the formation of the vallum-perhaps in ten years' time, or thereabouts-the earthworks were turned into a defence against the tribes to the south. who may have shown themselves in the interim disposed to be troublesome. To render it fit for that purpose, he supposes the north agger to have been then thrown up; and points to the worn condition of the south agger as suggesting that though it was permitted to remain, it was not kept up, and so has become more nearly obliterated than the rest of the work.

That is an ingenious theory, because it seems to get rid of the more considerable difficulties. Still, it has some weak points. It assumes the necessity of guarding the Roman position from the southern Britons all through the time of the Roman occupation—during most of which, as we know, the country to the south of the wall was so thoroughly Romanised that it possessed towns and villages, and to all appearance a peaceable and dependent people. It also involves the theory that the Romans, though they took pains to turn the vallum into a rear defence, did not show the usual thoroughness of their work by destroying the south agger, which had become worse than useless, or even of using the earth, as they might have done, to construct the north agger.

If now we consider the other theory—that the value was never anything else than a mere primitive defence against the north, erected in earlier times than the stone wall, and allowed to remain, simply because it was there and did no harm, we find many points in our favour. It seems to me that Mr Neilson, by his minute and ingenious investigation of the marginal mound,

its presence and its omission, has almost settled for all reasonable minds the question of the original intention of the vallum. That marginal mound would be an inexplicable absurdity if it were not intended to be used by troops standing on the southern side of the fosse, and repelling an enemy trying to get through the ditch. The space between the fosse and the south agger would allow the Roman soldiers to deploy; and if they were driven back by the enemy, after all succeeding in crossing the fosse, they could then fall back upon supports posted on the top or behind the agger, who meanwhile had been attacking the foe with slings or other missiles. But what of the north agger? Well, it will be observed that it rises almost from the edge of the fosse; and it is quite possible it might be a part of the original defence, rendering it more difficult for the foe to get to close quarters, and especially to cross the fosse, which, of course, it deepens on the northern side. If, however, it be said that such means of defence is contrary to anything known of Roman usuage-as it has been saidand I am no authority on the matter, there is still another explanation. The north agger may have been erected after the murus, but not with the intention of converting the vallum into a barrier against the south. It may have been intended to form a continuous covered way for troops marching along the inside of the wall between one bastion, mile-house, and station, and another. The intention in that case was probably concealment rather than defence, in order to allow the commanders freedom to deploy and mass their troops without either friend or foe knowing what was being done.

Leaving this branch of the subject, which depends upon the actual examination of the remains, let us see what light the known events of history shed upon the question. The first Roman General who penetrated to the northern parts of the island was Agricola, in A.D. 80. That he surveyed the neck of the country between the Tyne and the Solway, and was aware of its narrowness and its practicability as a line of defence, if the limits of the Empire were to be drawn there, we know from allusions in the history of his famous expedition against the Caledonians. It is considered highly probable, indeed, that Agricola established some stations in the district, and made some kind of a road across the isthmus following the valley of the South Tyne and the Irthing. Many antiquaries consider that the Vindolana Station, to which l

have referred, was one of Agricola's camps. But however that may be, it was the Emperor Hadrian who completely subdued and organised the warlike Brigantes, and established Roman rule in orderly fashion in the north of England. He was ten years in Britain, and during a large portion of that period he seems to have been engaged mainly in the north. We learn that part of his policy was to employ the broken native tribes in forced labour, and that roads and other works were made by him, thus compelling the Britons to exhaust their energies in remunerative toil, instead of organising raids and rebellions. He seems to have cared little for Agricola's vague conquests among the wild Caledonians; therefore it consorted with his Conservative policy to defend the southern part of the island from the unreclaimed north. That he founded some if not all the stations across the isthmus, made the road, opened quarries, and formed some sort of continuous defence, seems to be beyond question. But did he erect the stone wall as well as the earthworks comprised in the vallum? I think he erected the vallum, but not the stone wall. The times were still too rough, the situation too undetermined. and the resources within his reach too slender, I fancy, for the completion of those great stone buildings which we find to have existed on the line of the wall. I believe these to have been the slow and gradual product of a more advanced age-when the country to the south of the wall was thoroughly subdued and Romanised. The erection of the vallum, however, was not only feasible, but it might have been expected as in perfect harmony with the conditions of the times.

There was a pause at this point in the march of Roman conquest in Britain. It is evident, however, that the intention of subduing the whole island had not been given up; and twenty years afterwards, in the peaceful reign of Antoninus Pius, a supreme effort was made not only to consolidate the Roman conquest of this island, but to complete it. Lollius Urbicus, with a strong army, marched north, punishing the rebellious tribes on his route. He seems to have made no pause at the barrier erected by Hadrian, but, evidently believing that (to be safe) the Roman dominions must extend farther north, he swept over what are now the Scottish Lowlands, and only paused when he was confronted by the barrier of the Highland mountains. He decided to draw his boundary through the narrow isthmus between the estuaries of

the Forth and the Clyde, and accordingly erected there the turf wall, known as the wall of Antonine. It was a turf wall, differing, therefore, both from the vallum and the murus between the Tyne and the Solway. I think it is an important point to observe that this, intended to be the real barrier between the Roman Empire and the Barbarians, was a far slighter structure than the stone wall we are now considering. Is it reasonable to suppose that, whereas there had been built just twenty years before, according to the theory of Dr Bruce, a substantial stone wall, supported by earth ramparts, across the southern isthmus, Lollius Urbicus would have considered the northern isthmus, henceforth designed to be the real defence against invasion by the Barbarians, adequately defended by a rampart of turf? It is surely more reasonable to infer that no stone wall had at that period been thought of. Lollius Urbicus found that, owing to the character of the ground, a barrier of sods would be more easily and effectively crected than an earth rampart; but apart from that, he seems to have pretty closely followed-according to Mr Neilson-the plan of the southern vallum.

The Wall of Antonine, however, proved just as ineffectual as the vallum of Hadrian in keeping out the Barbarians. After the epoch of the Antonines the Roman Empire had a long period of domestic trouble and anarchy, during which they seem to have neglected to a great degree their British conquests. The northern tribes rose, and were joined by the Caledonians ; and not only the province of Valentia, between the two walls, was ravaged, but the country to the south of Hadrian's Wall. When at last Severus attempted to restore order, and re-conquer the northern province, he suffered a disastrous defeat at the hand of the Picts, and was fain to draw in his legions within the protection of the southern vallum. Then, for the first time, do we find the Romans abandoning their original ambition of conquering the whole island. It is stated by the historians, and it is admitted, that Severus strengthened the Wall. The question is, did he merely repair the murus, which had been erected in the days of Hadrian, or did he set about building that murus, instead of the vallum, which had proved to be ineffectual? I think that all the circumstances and conditions of the situation lead to the conclusion that there had hitherto been nothing but the vallum. It had never previously been intended to be the limit of the Empire. Beyond it was the

Roman province of Valentia, guarded on the north by the Wall of Antonine. But the situation had changed. The Romans had been badly beaten, and had come to the conclusion that the game of keeping the northern province was not worth the candle. It had also been shown that earth and turf ramparts would not keep out the foe. That was the time when, it seems to me, the Romans must have conceived fully the plan of the Wall with'its elaborate defences. It was henceforth to be a real boundary. Chaos was to be permitted to reign outside its limits; but it must be strong enough to keep back the hordes. And it was made very strong and very elaborate. There was the great stone wall itself-some ten feet high, and of enormous strength, flanked by a ditch in front. At every mile of its length was a fort, occupied by a centurion and his cohort. At briefer intervals, at least in the central and wildest parts, were bastions, which held sentries or small parties of soldiers. Then there were the great stations, at distances of three miles or so, each containing an ala or a legion, with a covered way inside the wall, along which soldiers could march rapidly, and concentrate on any threatened spot. All this would have been useless, and worse than useless, so long as there was a Roman province to the northward to be occupied and guarded; but it became a strong and effective defence when it was the extreme limit of the Empire, with a wild and warlike nation roaming over the wilds beyond. This wall did not prove to be impregnable; but it was maintained, and formed on the whole an effective barrier, not only whilst the Romans remained in Britain, but for some considerable time afterwards.

Now, it is objected to this theory of Severus having built the Wall that he was only three years in Britain altogether, and not half that period after his retreat. That would be conclusive against Severus himself having been present to see the wall finished. But it does not place any difficulty in the way of believing that he originated the scheme—or possibly only revived it; and that it was gradually carried out in after times. It is often forgotten that the Roman occupation of Britain, first and last, extended over more than four centuries, affording ample time for the execution of great works, and for their demolition and reconstruction too. The Roman Wall and the stations were probably the labour of many generations, and work continued to be done upon them, in the way of repair and improvement, as long as the Romans were in the country. If that were more strictly kept in view many of the difficulties which antiquaries have found in explaining the phenomena of this great rampart would disappear. They are largely the result of attempts to make everything fit in with a preconceived theory, and especially the rather childish desire to make out everything to be as ancient as possible.

16th February, 1894.

The Rev. WILLIAM ANDSON, Vice-President, in the chair.

New Members.-The Rev. Sir Emilius Laurie, Bart., Maxwelton House.

Donations.—The Report of the Bureau of Ethnology (Smithsonian Institution, Washington) for 1887-8; the Bibliography of the Salishan Languages (from the same); Annals of the New York Academy of Sciences, Vol. VII., 1893; the Report of the Australasian Association for the Advancement of Science, 1893; Annals of the Andersonian Naturalists' Society, Glasgow; and "The Frenches of Scotland," by A. D. Weld-French.

Exhibits.—Mr John W. Dods exhibited and described a number of South African curiosities, including the paraphernalia of a Witch Doetor.

COMMUNICATIONS.

1.-A Note on Birds. By Mr JOHN CORRIE.

The re-appearance of the Quail in the South of Scotland is perhaps the most interesting ornithological event of the year. Glencairn was visited by a pair of these birds during the month of June. When first heard they were quartered in a rather bare pasture field, but they subsequently settled down in a field of corn quite close to the village of Moniaive. Here they remained until the beginning of September. That they remained to nest is almost certain, but harvest is late in Glencairn, and by the time a search for the nest was possible the young had flown. In Bennet's "Pictures of Scottish life and character," published 1830, reference is made to the former existence of Quails in the district.

but for half a century at least they have been unknown. A dead specimen of the common Tern or Sea Swallow was picked up at Marwhirn, three miles north of Moniaive, on the 2nd October last. It measured 12½ inches in length, and was probably a first year's bird. A pair of Wild Swans were shot in the district on the 20th December. They weighed 15 lbs. a-piece, and measured 5 feet in length. This is the first time I have known these birds to occur in Glencairn.

2.—Recent Zoological Additions to the Kirkcudbright Museum. By Mr JOHN M'KIE.

A male specimen of the Shoveller, Spoon-bill Duck, or Broadbill (spatula clypeta), was brought to the Museum on the 23rd of February. It was shot in a secluded loch in the parish of Twynholm, about three miles from Kirkcudbright. Though glad to receive such a fine specimen, yet it is a pity that the pair, which were for some time in the above locality, had not been left undisturbed in their solitary haunt, where very probably they might have bred. For though the Shoveller is generally considered as a winter visitor to this country, yet some occasionally remain to breed; but owing to the extensive system of drainage in this district, however, few localities now remain suited to their habits. The nest of the Shoveller is generally placed in a tuft of grass where the ground is quite dry, and is made of fine grass, the eggs being from 8 to 14 in number and of a greenish buff colour. This adult male has a lead-coloured bill, dilated on each side towards the tip, the irrides yellow, the whole of the head and upper part of the neck green, lower part of the neck, the interscupulars. scupulars, and some of the tertials white, middle of the back dark brown, the point of the wing, the lesser wing coverts, and onter web of some of the tertials pale blue; greater wing coverts white, primaries dark brown, nearly black, the secondaries the same, but the speculum green; rump, upper tail coverts, and tail feathers almost black; breast and all the belly a rich chestnut brown; thighs freckled with dark brown, on a ground of lighter pale brown; the back white; under tail coverts black; legs, toes, and their membranes reddish orange; the nails black.

The female shot at Kirkmahoe has the head and neck mottled with two shades of brown, the feathers on the upper surface of the body darker brown in the centre with lighter brown edges and tips, and under surface of the body pale brown.

The young, half-grown bird was picked up near Kenmure Castle by a dog which was following Col. Maitland, thus shewing that the Shoveller occasionally breeds in the Stewartry.

Fox, male (canis vulpes), caught by a shepherd's dog on the farm of the Isles of Kirkgunzeon, judging from his appearance he must have passed, though not unscathed, through many mishaps incident to fox life before being finally captured, as he had completely lost one fore foot and two of the toes from the other. Nature had repaired the damage caused by the loss of the foot by covering the stump with a hard callosity, so that he would put it to the ground without pain. The toes of the other foot had evidently been lost at a later date, as the parts, though quite healed, appeared more tender. On the day in which he was killed he had escaped from a trap, where he had been caught by one of the hind legs, but was so crippled by it that the shepherd's dog soon ran him down.

A Hunch or Hog-backed Trout (salmo fario) was received from Loch Whinyeon. I believe this description of trout is not uncommon there. Some of these abnormal productions would seem to be hereditary, for whatever may be the exciting cause its continuing in action occasions results as in previous generations.

A Tailless Trout from Loch Enoch was also received. I do not know whether this form should be considered a monstrosity or a special variety. I understand a similar race of tailless trout exists in Loch Islay. Mr J. Harvey Brown observed about 1876 in the river Caron that a contraction of the tail fins of the trout commenced, due it was believed to the continuous pollution of the water through the agency of paper mills; but as there can be no exciting cause of this sort in a mountain tarn like Loch Enoch it must be due to something else. Who knows what?

While some boys were watching the hauling in of the salmon net at Gibhill, near Kirkcudbright, on the 14th of July, they noticed a fish struggling violently in shallow water. One of them rushed in and secured it, and never before having seen a fish like it, brought it to the Museum. It proved to be a Bonito (*Thynnus pelamys*), 19 inches in length and 13 inches in girth, which, being purely a pelagic fish, has rarely been taken in British waters. It is beautifully marked, its back, as was to be expected from its habits, being bluish, becoming silvery at the sides and

beneath, with five longitudinal, dark-bluish bands passing along the side of the body and abdomen, ending posteriously on the lateral line or close to the finlets.

A Thrasher Shark or Sea Fox (squalus vulpes) was caught on the 18th July in a salmon net at Burnfoot Fishery (River Cree) and thoughtfully forwarded to the Museum by Adam Birrell, the tenant. Its length was 5 feet 3 inches and girth 19 inches. The caudal fin or tail being nearly half the length of the body, gives this fish a very elongated appearance. Being pelagic, nature adopts her usual system of protective obscuration by colouring its back and sides like that of the deep blue sea, the belly being greyish white. It is said to be very rarely taken on a line, and gets the name of sea fox from its wary disposition. It manifests an angry disposition towards the whale. I have seen in tropical seas a thrasher continuing an attack upon a whale for several hours, springing high into the air and falling on the head of the whale with great force whenever it appeared above the surface, so that the sound of the blow could be heard at a considerable distance. The motive for these attacks appears unaccountable, seeing that from the form of its mouth and teeth it could not injure a large whale.

On the 9th of October a Topper Shark (galeus vulgaris) was caught on a cod line, having swallowed a fish which had been hooked of about 3 lbs. weight. Its length was 4 feet 10 inches and girth 23 inches; colour, a dark ash above; under surface of head and belly, a dirty white. It is a fierce and ravenous fish, and is said to hunt in couples, which seems to have been the case in this instance, as another was caught by the same fisherman (Tom Beattie) shortly afterwards. It is not uncommon in the Solway during summer.

A fifteen-spined Stickleback (gasterosteas spinachia) was brought to the Museum on 12th of October. It is a pretty little fish, olive above and becoming silvery beneath. A brilliant silvery stripe passes from the snout to beneath the eye. The under surface as far as the anal fin is yellow; dorsal and caudal brown with a lighter edge. This fish, like its fresh-water relative, builds a nest in which to deposit its spawn. It is pear-shaped and about the size of a man's fist. The nest is watched over by the parent fish, supposed to be the male, until the young are able to shift for themselves.

58

On the 18th October there was received a Kingfisher (alcedo ispida) which was shot while hunting along a stream about a mile from Kirkcudbright. This most beautiful of our British birds seems to be on the increase in this neighbourhood, as I have heard of several being seen during the autumn-a rare occurrence in former years. There being a constant demand for the feathers of these birds by the makers of artificial flies, and also for their skins for the adorning of ladies' hats, besides the desire of the bird stuffers to secure a gem so bright and beautiful, furnishes a constant motive for their destruction; while during severe frosts many are often starved to death. With all these hindrances to their increase, to hear of their being more frequently seen was surprising. Ancient superstition attributed many virtues to the kingfisher. Its skin was supposed to be, when kept in a wardrobe, a preservative of woollen stuffs. It likewise averted thunderstorms, and there was a general belief that the dead bird, when hung by a thread, would always turn its bill to the point of the compass from which the wind blew.

A Hare (lepus timidus) of remarkable form and colour was brought to the Museum on the 11th of October. It had been injured when young, so that one of its hind legs was turned up over its back. The stump of its thigh, which touched the ground when it was sitting or slowly hopping, was covered with a hard, horny skin, which must have prevented it from feeling pain when this part was brought into contact with the rough ground. It. showed a wonderful recovery without surgical aid from what must have been a very severe injury. Whatever may have been the exciting cause-whether occasioned by the shock it received when injured, or the long-continued pain it must have endured, or perhaps through insufficient food--its colour, instead of being the ordinary brown of the hare, was a pale grey along the back -not like the grey of the rabbit or that of the blue or varying hare, but a distinctly different grey, the breast and belly being the ordinary brown. The ears were abnormally large.

3.—*The Cairns of Kirkeudbrightshire.* By Mr FREDERICK R. COLES, Cor. Mem., S.A., Scot.

Throughout the very varied scenery of our beautiful Stewartry no relic of pre-historic times is more striking, none more frequently seen, that the vast conical mounds of stones

called caims. Though the strongholds of the early races—the Hill Forts—may, in conjunction with the later Motes and Doons, actually outnumber the cairns, yet the latter, from their unique form, their conspicuous grey-white colour, their oft-times desolate surroundings of boundless heather, become truly the landmarks of the district. They arrest the most unobservant eye, and arouse curiosity in many for whom the other structures have little or no interest. This, no doubt, may be partly explained by the almost universal tradition of gold and treasure being hidden away in the dark recesses of our stone *tumuli*.

It is with little faith in this tradition that I proceed to place on record some facts regarding our cairns, but with some hope that in the near future measures may be taken towards the better preservation of such of them as are yet left as their builders intended them to be. The Stewartry can, even at this late period, boast of having no fewer than 114 sites of cairns. This is the total at which I have been able to arrive after consulting all the authorities within reach and collating the accounts there given with the sites shown on the Ordnance Map. The north and northwest tracts of country own by far the larger number-e.g., in what we now call the Parish of Minnigaff there are 19 (5 at least unopened); in Kirkmabreck, 11 (all destroyed); in Carsphairn, 9 -that is a total of 39. About a third of the whole are to be found in the mountainous district north of Dalry and west of the Skyreburn. The district next best represented is the parish of Tongland, where there are nine cairns; Anwoth has 8, Girthon, Dalry, and Colvend 7 each. In certain districts the cairns are "conspicuous by their absence"-e.g., Balmaghie, Balmaclellan, Kirkbean, and Borgue appear to have only two each; two parishes, Troqueer and Kirkpatrick-Durham, have only one each, while in Buittle I have not been able to find a single cairn. Out of the 114 cairns noted, the following are not marked on the Ordnance Map-i.e., at Machermore (Minnigaff), Laggan Burn and Newton (Anwoth), Clachan Pluck (2) (Balmaghie), Lochinvar and Knockman (Dalry), Blackerne and the Mile Cairn (Parton), Red Castle (Urr), Tarkirra (Kirkgunzeon), Airdrie (Kirkbean), Powbrade (Colvend), and Slewcairn (2), N. Milton (Kirkcudbright), Barlae and March Cleugh (Kelton), Balannan (2), Barncrosh and beyond Upper Lairdmanach (Tongland), S.-W. of Auchengashel Fort (Twynholm), and another S. of it, and at the Witches' Thorn,

Low Nunton, Conchieton, and Cairneyhill (Borgue)-a total of 29, many of which, it is only fair to point out, are mere grassy rims of stones encircling a hollow. I have examined 65 myself, and of these the following 16 are quite or very nearly quite untouched, and would, no doubt, repay a properly conducted investigation-Cairn Kinna, Cairn north-east of Clachaneasy Bridge, Knockman Cairn, Drumfern Cairn, Rorie Gill's Cairn, and Cairn on the Parliament Knowe (all in Minnigaff); Cairn to the west of Auchenlarie Burn (Anwoth), Cairn at Clachan Pluck (Balmaghie), Meikle Cairn, Minnydow (Kirkpatrick-Durham), Lower and Higher Slew-Cairns, Barnhourie Mill Cairn, Powbrade Cairn (Southwick), Cairn on Galtway Hill (Kirkcudbright), Cairn at the March Cleugh (Kelton), the North Cairn at High Barcaple (Tongland). That only 16 out of 65 should now remain intact surely involves a heavy charge of vandalism against our forefathers. Rifling a cairn seems, indeed, to have been with many a farmer the readiest (and therefore the right) method of obtaining stones for his dykes. But what would said farmer's feelings have been had some thoughtless laird swooped down upon his family grave, say in Kirkmabreck (where not one cairn remains), and made havoc amid his lettered slabs and gilded monuments? What should we ourselves say? And yet, because a cairn is old, and there is a chance when ransacking it of coming on something novel, we let all our better sentiment vanish and cast respect for the ancient dead to the winds ! And after all how little, how very little, have we learnt here in Galloway of the construction and real meaning of cairns, notwithstanding all our digging and trench-cutting. With the single exception of the grave at Conchieton (described fully by me in our "Transactions," vol. 6, page 152), there is positively no authentic evidence regarding the contents of any one of the scores of excavated cairns. We have no account, I mean, accurate enough to be trustworthy of even the contents which were seen after the internal structure-the important part-had been heedlessly rent asunder. Many of these sixty-five cairns are unspoilt to a measurable extent; one can ascertain, that is, their basal circumference, their over-curve diameter, and their height at least approximately. In one or two cases, indeed, examination might prove that the real secret of the cairn had baffled its would-be destroyers, and that though hundreds of cartloads of stones had been removed, still the kist-

vaen was not reached. This has certainly been the case-e.g., with the white cairn close to Corriedhu, half-way between Loch Rinnie Moat and Dalry. Fabulous quantities of stones were carried away, and yet a vast accumulation remains-a grey conical landmark for miles around. In respect of size the cairns vary greatly. I shall take the principal examples in their order. Lagwine Cairn (Carsphairn) heads the list. It is almost exactly circular, and has the enormous diameter of 135 feet. Its present height is 12 ft., but from signs of its having been tampered with, we may be safe in believing its cone-apex originally rose to a greater height. The rim-stones of a huge cairn on the High Lessons field at Kirrouchtree and those of another close by each encircle a space of 120 ft. diameter. At Cairnholy there are now traceable at least two enormous cairns ; that farthest away from the farm-house on the Red Brae must have been oval or barrowshaped. Its diameters are, as near as possible, 120 by 100 feet. Quite close to Uree Bridge is a partially-opened cairn fully 100 ft. across, and even now 14 ft. high. The White Cairn at Corriedhu just mentioned has a clear diameter of 110 ft., with a height of 12 ft. Carlochan Round measures 100 ft. across the débris of its multitudinous stones. It occupied a remarkably conspicuous site 550 ft. above sea level in the heart of Crossmichael. The large cairn west of Auchenlarie Burn, Anwoth, is slightly oblong-oval, and its diameters are 105 by 100 ft., with a height of fully 12 ft. Diameters of 95, 90, and 80 ft. are quite frequent, and thence downwards till we reach such small cairns as that on Culmark Hill, Dalry, 24 ft. wide, and another in the same district almost touching what is called "the old Roman road" at Stranggassel, which measures only 20 ft. across. The smallest of all the cairns I have seen, however, is in Tongland, not many yards north-east of the big cairn on Upper Lairdmannach. It is a mere site, and its diameter is but 12 ft. It is, perhaps, worthy of note that the smallest stone circle in Galloway-10 stones, with a diameter of 21 ft.-is also hard by. I am aware that in many parts of the Stewartry-e.g., in Dalry at Carminnow and the Green Dass.* at Drumfern, at Barstobric, at Plascowmoor, at Barchain, &c., and

^{*} Here I have counted between forty and thirty, chiefly on the south side of the foundation stones of what looks like a line of old wall some 240 yards long.

often in close proximity to a large and lofty cairn-great numbers of small cairns exist, averaging 3 ft. in height and 9 to 12 ft. in diameter. These occur in scores, even in hundreds, frequently very close together. What these may be is at present open to conjecture. Out of many dozens which were opened at Aberlour. under the supervision of Dr Joseph Anderson himself, one alone contained evidences of interment. This one was, however, very much better protected from the destructive agency of the atmosphere by having its stones well mixed with peaty soil; therefore the relics of the skeleton found were preserved. It is just possible that the others, also, once contained interments, but being more loosely covered with stones only, all the contents had perished.[†] In this instance, as in those examined by Mr Robert Service at Mitchellslacks, very slight structure was apparent-an oblong slab horizontal at the base of the cairn, and surrounded. but not built in, with large roundish stones.

[In Chalmers' Caledonia there is mention made of the opening of several cairns, of which the following are the most important: A cairn near Parton, opened in 1740, containing human bones in a stone coffin. One near Gelstoun contained a stone coffin seven feet long, human bones, and a brass helmet. Blackerne Cairn, opened in 1756, contained burnt bones, human teeth, an amber bead, and a ring of silver, all presented to Soc. Antiq. in 1782. Cairnwanie, opened in 1778, contained a stone coffin with a skeleton, an urn, and an earthen pitcher. Another "very large cairn" on Glenquicken Moor, opened about 1809, contained a large skeleton with a green-stone axchead sticking in the left shoulder.]

On coming to consider the actual structure of a cairn, we are, as I have already hinted, hampered by the too obvious fact that no well-described instance—with one solitary exception—of the proper excavation of a cairn (in Galloway) is extant. All we can now gather must be from the remains of the larger cairns, the small stones of which have been so utterly removed as to leave open to the storms the huge kistvaens which occupy the level of the enclosed area. That there were marked differences not only in the relative positions of the kistvaens, but also in the manner of their surroundings, there can be little doubt. For instance, in the two interments at Cairnholy and the one at Newton (all in the same district), we find, in addition to the usual four-sided kist with its lid-stone, tall stones erected at the corners. Compare

this with the conditions, say at Cairnderry, a specially interesting relic. Within the area of its rimstones there have been three burials-one central placed due N. and S., and two others N.E. and N.W. of the first, but at unequal distances. The central kist measures 14 ft. N. and S. by 3 ft. E. and W. outside measurements. The stones forming its sides are 5 to 7 ft. long and 3 to 4 ft. thick. What evidently was the lid-stone has slipped down between the sides. The kist on the N.E. is much smaller, 5 ft. and 3 ft. 6 in. only. Nor are its stones quite so ponderous. The N.E. kist has been more destroyed than the others. It was placed almost on the edge of the cairn, and, probably, in the general ruthless destruction, its side stones were pulled up and scattered. Very similar to this last must have been the single interment in the White Cairn of Glencaird—in this same wild moor borderland between Ayrshire and Galloway. The main difference lies in the dimensions, the grave here being 24 ft. long, and widening from its south-end-barely 2 ft. broad-to the north end, where it is very nearly 4 ft. Two of the huge lid-stones still remain covering this wider part. The Boreland Cairn on Knockman Wood has points of its own meriting notice. It is as yet almost untouched. It is one of the few long-oval cairns in Galloway. Its N. and S. axis measures 54 ft., and its E. and W. 90 ft. Its stones, which are unusually large, rise to a height of some 10 ft. Round the base great bulky stones and boulders are set at pretty regular distances, twenty-one of which are now distinctly visible. At the E. end, between two of the largest of these rim-stones, and scarcely over one foot from their inner side, a small urn has been found burnt to a jet black. It rested on the forced earth at a depth of about 5 ft. below the tops of the large encircling stones. A farther important feature is the position of the kist (or kists) relatively to the height of the accumulated stones. In the still existent cairn at Cauldside the four-sided kistvaen (opened years ago by Mr James Faed) is within a few feet, five or six, of the very summit. No doubt there are others below. In Cairntosh the grave was near the middle of the heap; while at Conchieton the sides of the kist appear to have been driven into the ground ; and in this instance we know from the testimony of the late Mr Gordon that there was but one interment. Although the majority of our larger cairns were reared solitarily in what were once perhaps fertile straths, but now are wilds given up to heather and

grouse, there are localities where two or more are placed in close proximity. The High Lessons and Low Lessons cairns, the N. and S. cairns at Cauldside, the E. and W. Cairns at Clachan Pluck, are separated from each other by but a furlong. The two smallest cairns on the Woodfield, Highbanks, are rather more than 150 yards from each other. At High Barcaple a space of only 31 yards intervenes between the north cairn (which is untouched) and the south cairn, which has nothing to show but a huge kistcover resting on small granite boulders. Two cairns on Auchengassel are only four or five yards apart; the two cairns of Enrick, near Gatehouse-on-Fleet, were raised on a fine conspicuous grassy level hill-top; while at Glaisters, in Kirkgunzeon, three cairn sites can be traced in a remarkable arrangement, two being exactly east and west of each other, and only 21 ft. apart, and the third (a large oval cairn, by the way) lying north-west of the middle one, the rim stones of each having a space of but 10 feet between them. The height of the localities on which the cairns are placed vary from the 2650 feet of the Carlin's Cairn, and the two cairns on Cairnsmore o' Fleet shown respectively on the 2331 and 2152 foot levels, down to that at Barnhourie Mill in Colvend, only 25 feet above sea level.

Nomenclature.—Certain points in the names of our cairns are of interest. Several, of course, are purely Celtic in form and signification, such as Cairn-avel, Cairn-derry, Cairn-wanie, Cairnholy, Cairn-tosh; others are known by personal names—*e.g.*, Pluckhim's Cairn, Coltart's Cairn, Douglas Cairn (on Criffel summit), Cairn Edward, Peter's Cairn, Rorie Gill's Cairn, Cairn Kinna, Sheuchan's Cairn, King's Cairn, and the Carlin's Cairn. A still larger number are known simply by the names of the lands upon which they are situated; while the designation of a few others depends on their colour. Of white cairns there are six, and there is one black cairn. In addition to these are the names Watch Cairn (on Ewanston Moor), the Mile Cairn (near Crofts Moat), and the Meikle Cairn at Minnydow—the last almost implying that on the same farm there was once a Wee Cairn, now invisible.

The Antiquity of the Cairns.—On this topic, to many doubtless of the greatest interest, we cannot speak with certainty for the following good reason: It is possible to have three or half-adozen cairns as like each other as can be—all equally grey, time-

worn, and ancient-looking-and yet hundreds of years might not express the wide gulf of time separating them. For instance, on Glenquicken Moor a great cairn when opened was found to contain the skeleton of a man whose left shoulder was cleft by a greenstone axe. That probably places the battle in which this warrior fell far back into what we call the Stone Age. Now, on the summit of one of the highest hills of the Kells range is a cairn fully as romantically ancient and hoary, you would say, and tradition has always assigned its erection to the efforts of the wife of the miller of Polmaddy, who raised this cairn as a monument to the memory of the Bruce. Again, away out on Dranarndow Moor, there is a cairn not a whit less deserving, to all appearance, of an historic or pre-historic past; and yet we are informed on highly probable grounds that a freebooter of the name of Rorie Gill and his accomplices were buried here, after being executed by the Regent Moray, let us say about the year 1330. It seems absolutely futile, therefore, to judge of a cairn by its mere look and dimensions. At the risk of redundancy, I repeat that it is only by the most careful and deliberate examination of their structure, by abandoning our senseless method of cutting trenches into them from the level of their base and by adopting the only rational method of removing every stone by hand, that we shall add to our scanty knowledge of the fashion in which the different builders of cairns raised these trophies to the dead. And, in conclusion, I think it should be one of the duties of a society such as this rather to discourage indiscriminate excavation, unless the work can be carried out under the watchful eye and control of a specialist.

4.-Scotland in the 18th Century.-By Mr PETER GRAY.

This was the sequel to a former paper on the same subject. After a brief reference to it as having been necessarily confined, almost wholly, to the more important division of the country—the Lowlands—the author continued :—But however wretched the condition of the Lowlands during the early part of that period, that of the Highlands was very much worse, and it remained so much longer. There were, as everyone knows, additional reasons for the fearful depression of Celtic Scotland then. The last Jacobite rebellion had been suppressed, and its embers trodden out with great and, as it now appears to us, unnecessary severity.

The glens were devastated with fire and sword, and finally the entire social system—the clan or patriarchal—was overturned, and the land, which had been the property of the clan and only administered by the chiefs, was handed over under a feudal tenure to the latter, who evicted their too faithful followers to make room for sheep and deer—a course which brought down the scathing censure of Burns, who lashed them with scorpions in his "Address of Beelzebub to the President of the Highland Society."

Throughout the series of these papers I have adduced the evidence of contemporary observers, and as much as possible in their own words. My present illustrations I shall mainly take from a book described in the title-page as "A Tour through the Whole Island of Great Britain," the author being vaguely denominated "a gentleman." My copy is the sixth edition, professing to have been brought down to the year 1761. It is likely to be new to most of my hearers, and the descriptions in it, on the face of them, appear to have been drawn from personal observation rather than compiled from other published sources. The writer, too, seems to be, for his age and country, remarkably free from prejudice, national or other, for he is not slow to give credit where he thinks credit is due. He speaks, for example, very highly of our own town. It is a good town, he says, with large streets, and "full of reputable and wealthy merchants, who trade to foreign parts and employ a considerable number of ships, especially since they have embarked in trade to England and the English Plantations," the open trade to England and its colonies being, he considers, an ample equivalent to the "suppression of their woollen manufacture through the Union," the English supplying these goods better and cheaper than they could make them themselves.

The fourth volume of the Tour is devoted to Scotland, and the portion of it to which I wish now to call attention is the description of Inverness, then as now the capital of the Highlands, "and as such," says the author, "I shall expatiate upon it and the customs and usages of the Highlanders in general." Of the houses of the town he gives a poor account, the walls even of the best of them being "built of stones of irregular sizes, leaving chasms in them which harbour incredible numbers of rats." Before the Union they had been neither sashed nor slated, and to that day they remained unceiled, while through the chinks in the flooring and

holes in the deals everything transacted in a room was visible "The windows that remain unsashed," he from that above it. goes on to say, "have two shutters for the lower half," and the upper only is glazed; so that when it is necessary to keep out the weather nothing can be seen in the street. This manner of constructing their windows is not altogether the effect of penury or parsimony; for in the clan quarrels many were shot from the opposite side of the way, who were discovered sitting in their chambers through the glass." This is a description of the principal houses in Inverness; those of the middling sort are yet lower, and have generally a close wooden staircase before the front, which is lighted by small round or oval holes just big enough for the head to come through, and in summer, or when anything in the street excites the curiosity of those within, they look like so many people with their heads in the pillory. The extreme parts of the town consist of wretched hovels faced and covered with turf, with a bottomless tub or basket in the roof for a chimney.

With all this poverty and meanness our tourist finds much "affectation." "As in London," he says, "many petty retailers dignify their shops with the title of warehouse, so the people beyond the Tweed aggrandise many things in imitation of their ancient allies, the French. A peddling shopkeeper who sells a pennyworth of thread is called a 'merchant,' the person who is sent to buy that thread 'has received a commission,' and, bringing it to the sender, is 'making a report.' A bill to signify that there is a single room to let is called a 'placard,' the doors are called 'ports,' an inclosure of two acres is a 'park,' the wife of a laird of £15 a year is a lady, an alehouse is called a 'change,' and the person who keeps it a 'gentleman.'" The greater part of these "affectations," it is needless to say, are simply adaptations from the French, and many of them still subsist.

There seems to have been abundance of animal food even in the Highlands at this period; but the scarcity of corn, cheap as it was, must have put it out of the reach of the mass of the people, so wretchedly poor were they. "There are salmon and trout," we are told, "in abundance; also hares, partridge, grouse, plover, duck, mallard, woodcook, and snipes; but after Christmas no mutton is to be procured till August, nor any beef till September, and then they may be bought for a penny a pound." This scarcity of butcher meat throughout the greater part of the year, and its abundance and extraordinary cheapness at salting-down time, accounts for the fact stated by Ramsay of Ochtertyre, that the burgesses of Stirling were in the habit at Martlemas of putting in salt a bullock for every person in the family, infants at the breast not excepted. It was really provision for nine months of the year. Our tourist proceeds :—⁶⁵ Swine are seldom seen about the Highlands, but pork is very common in the low countries, and in particular at Aberdeen, where great quantities are pickled and sold to other parts for winter provision. A fowl, which they call a hen, may be purchased for twopence, and there is great plenty of roots and greens."

And there was plenty of good liquor both in Highlands and Lowlands to wash down the abundant provender for those who could afford it. "French claret is to be had in great perfection all over Scotland, except in the heart of the Highlands, and sometimes even there; but the number of English has of late raised the price from 1s 4d to 2s a bottle. French brandy is also to be purchased for four shillings a gallon, and lemons are seldom wanting." This, of course, spells punch.

The unhappy condition of the "greatest number" in the the Highlands about 1760 may be judged of from the following extract :---- 'In this place there are held every year five fairs ; but it is impossible to conceive greater poverty and wretchedness than appear among the people who keep these fairs. Those who bring a small roll of linen or a piece of coarse plaiding under their arms are the most considerable dealers; the rest bring perhaps two cheeses, each of which weighs about two or three pounds; a kid, which at the highest price is sold for 8d; a small quantity of butter in what looks like a bladder, and is sometimes set down upon the dirt in the streets; three or four goat skins, or some other trifle of yet less value. The money which they receive is not, however, carried home, but generally laid out in a horn or wooden spoon, a knife, or a platter, and sometimes a large onion or a carrot, which are dainties not to be procured in their own part of the country, and which they frequently eat raw upon the spot, without salt or bread."

There was a toll at that time of a penny for each foot passenger with goods crossing the bridge at Inverness; but such was the indigence of the people that even women waded the river

with heavy loads over slippery stones, and with the water, when lowest, up to their middle, because they could not afford to pay the impost. Indeed, these poor Highland women seem to have been treated as beasts of burden. It is difficult to believe the anthor when he says that "at low ebb, when the fishing boats lie off at a considerable distance from the shore, the women tuck up their coats to an indecent height and wade to the vessels, when they receive their load of fish for sale;" and that "when they have landed the whole cargo they take the fishermen upon their backs and carry them on shore in the same manner."

As to matters ecclesiastical, we read :—" In this place there are six ministers—three to the English and three to the Irish (Gaelic) Church—who have each of them £100 per annum, none having more than that stipend, nor any less than £50. Their manner of preaching is with a whine, which they call the *sough*; and as they pray extempore, they are often betrayed into ludicrons absurdities. They do not drink so much as a dram without saying a long grace over it; and one of them was suspended for riding on horseback on the Sabbath, though it was occasioned by his not being able to pass a ford on Saturday evening on his way to the kirk. By the general tenor of their preaching and their proceedings as a synod, a stranger would be inclined to think that they held nothing to be a sin but unchastity, nor a virtue but keeping the Sabbath."

After referring to the marriage ceremony and describing penny weddings, the author proceeds to detail the proceedings at funerals. "The people are invited to ordinary burials by a man who goes about with a bell, and at certain stations declares aloud the death of the party, the name and place of abode; this bell is also tinkled before the funeral procession. To the burial of persons of higher rank an invitation is usually given by a printed letter signed by the nearest relation; but sometimes it is general by beat of drum. The company, which is always numerous, meets in the street at the door of the house, a convenient number of whom (strangers are always the first) are then invited into a room, where there are pyramids of cake and sweetmeats, to which some dishes with pipes and tobacco are added, merely because it is an old custom, for it is rare to see any smoking in Scotland. Each of the nearest relations presents wine to every individual of the company, and, as it is expected the guest when he has accepted the favour of one should not refuse it to any of the rest, he is in danger of drinking more than he can conveniently carry. "This accounts for the overloaded condition in which Ochtertyre's potulent young man was discovered on leaving "the house of mourning." "When one set has been thus treated others are introduced, and when all have had their turn they accompany the corpse to the grave, where it generally arrives at noon. The minister is always particularly invited, though he performs no kind of service over the dead of whatever fortune or rank. Part of the company is selected to return to the house, where wine is filled as fast as it can be drunk, till there is scarcely a sober person amongst them. In the end, however, some sweetmeats are put into their hats, or thrust into their pockets, with which they afterwards compliment the women of their acquaintance. This ceremony they call the 'dradgy.'"

Dr Johnson, who visited the Highlands and Western Islands in 1773, gives in his Tour a glowing narrative of the exuberant hospitality with which he was received. Even in the Hebrides he found "neither plenty nor delicacy wanting" at the tables of his hosts. It was after a Hebridean dejeuner that he penned the immortal sentence-" If an epicure could remove by a wish, in quest of sensual gratifications, wherever he had supped he would breakfast in Scotland." He found, too, the crockery for common use to be of "Queen's ware," and silver used on all occasions where it was at the time common in England. But Johnson visited only among the "upper crust" both in Highlands and Islands, and his observations furnish confirmation of the fact that the difference in condition between the classes and the masses there and then was abnormally great. The savage character of the habitations of the people is noticed by him, and even in the dwellings of the better-off classes he found, as he euphemistically observes, "that the house and furniture were not always nicely suited." "We were driven," he says, "once, by missing a passage, to the hut of a gentleman, where, after a very liberal supper, when I was conducted to my chamber, I found an elegant bed of Indian cotton, and spread with fine sheets. The accommodation was flattering; I undressed myself, and felt my feet in the mire. The bed stood on the bare earth, which a long course of rain had softened into a puddle."

9th March, 1894.

Mr JAMES G. H. STARKE, Advocate, Vice-President, in the chair.

New Member.-Mr Duncan James Kay of Drumpark.

COMMUNICATIONS.

1.—A List of Wigtownshire Plants. By Mr JAMES M'ANDREW, Assoc. Bot. Soc. Edin.

Until Mr G. C. Druce, of Oxford, visited Wigtownshire in 1883, and gave a very extensive list of its plants, West Galloway was almost a terra incognita as regards its Flora. Several lists of its rarer plants had been given from 1835 onwards, but the very common plants had not been recorded until Mr Druce's list appeared in the Botanical Record Club for 1883. Previous records of Wigtownshire plants had been given by such names as Prof. Balfour, J. T. Syme, Graham, Arnott, Macnab, Sibbald, Bailey, Horn, Cooper, Maughan, Greville, Winch, &c. Mr Druce's list forms the foundation of the following list. It has been very considerably enlarged by the Rev. James Gorrie, F.C. Manse, Sorbie; Sir Herbert E. Maxwell; Rev. George Wilson, F.C., Glenluce, &c. Personally I have added, from time to time, a great many plants to the Wigtownshire list-the result of holiday botanizing at Port Logan, Drummore, Portwilliam, Isle of Whithorn, Garliestown, Sorbie, Cairnryan, and Portpatrick. The midland and the more northern portions of the county have not been fully explored, but as these parts have a great similarity of moorish land, there is little probability of finding many new plants there.

I very heartily express my indebtedness to Mr G. F. Scott-Elliot for furnishing me with the dates of the first records of many of the Wigtownshire plants, and also to the Rev. James Gorrie, Sir Herbert Maxwell, Rev. George Wilson, &c., who have in various ways given me valuable assistance, and to Mr Arthur Bennett, F.L.S., Croydon, for determining doubtful plants. As a few new plants are still being recorded for Wigtownshire every year, it cannot be affirmed that the following list is complete, but it furnishes the fullest list of the Wigtownshire plants yet published, and additions can be recorded as they occur. I have already in former papers given some observations on Wigtownshire and its Flora, which, therefore, it is unnecessary here to repeat.

Among plants yet to be recorded for Wigtownshire, and likely to be found in that county, are the following :--Ranunculus lingua, Ran. auricomus, Ran. arvensis, Stellaria glauca, Stell. nemorum, Geranium sylvaticum, Epilobium tetragonum, Chrysosplenium alterniflorum, Knautia arvensis, Leontodon hispidus, Potamogeton perfoliatus, Carex riparia, Cicuta virosa, Œnanthe fistulosa, Sambucus ebulus, Valeriana dioica, Lathyrus sylvestris, Carduus heterophyllus, Anthemis nobilis, Vaccinium Vitis-Idæa, Galeopsis versicolor, Rumex hydrolapathum, Scirpus sylvaticus, Blysmus compressus, Phleum arenarium, Millium effusum, Lepturus filiformis, Erysimum alliaria, Cardamine amara, Sinapis arvensis, The following plants require re-discovery :--Brassica &c. monensis, Apium graveolens. Enanthe pimpinelloides, Galium cruciata, Galium mollugo, Limosella aquatica, Rumex sanguineus, Parietaria officinalis, Malaxis paludosa, Ruppia maritima, Cladium germanicum.

Outcasts, escapes, or introduced plants, or those doubtfully native, are distinguished by *Italics*.

When a plant is common and general very few localities are given for it, and when there is no authority given for the locality of a plant it is understood that the plant was seen or gathered by myself.

The numbers are those in the 8th Edition of "The London Catalogue of British Plants, 1886," and the following references and abbreviations are employed in the list :--(1) Mr G. C. Druce, Oxford; (2) Mr Charles Bailey, Manchester; (3) Rev. James Gorrie, F.C. Manse, Sorbie; (4) Sir Herbert E. Maxwell, Monreith; (5) Rev. George Wilson, F.C., Glenluce; (a) Statistical Account of Scotland, 1843; (b) Rev. W. W. Newbould's List; (c) Hooker & Arnott's "British Flora;" (d) Herbarium and Transactions of the Botanical Society of Edinburgh; (e) Dr Hooker's "Students' Flora of the British Islands;" (f) Transactions of the Philosophical Society of Glasgow, 1841-44, Vol. I.; (g) Mr Hewett Watson's "New Botanical Guide," 1837.

3 '	Thalictrum	minus L. Rare. Glencree (b); Glenluce (5).
	,,	Jacquianum K. (flexuosum Bernh.). Not common. On
		R. Cree above Newton-Stewart (1); S. of Inner-
		well.
	• •	flavum L. Rare. Garlieston Bay; Old Tower of Sorbie.
	Anomono	nemorosa L. Frequent. Shin Valley Moss (1);
		orbie (3); Glenluce (5); Cairnryan, &c.
12		us circinatus Sibth. Soulseat Loch.
17	,,	heterophyllus Web. Stranraer Bay (1).
	,,	peltatus Schrank. Bishopburn (1).
	,,	" var. truncatus, Hiern. Near Inner-
		messan (1).
	,,	" var. floribundus, Bab. Frequent. Pen-
		killpond, Garliestown; Ardwell Mill-
		dam; Dowalton Burn, &c.
	,,	,, var. pencillatus (pseudo-fluitans, Syme).
		Black Loch, Castle-Kennedy (1). Lenormandi F. Schultz. Near Portpatrick.
22	**	Hederaceus L. Common. Newton-Stewart (1);
	••	Kirkinner (1); Glenluce (5); Kirkmaiden; Sorbie
		(3); Ardwell; Drummore; Cairnryan; Portpatrick.
	""	sceleratus L. Not common. Port Yerrick; Dowal-
		ton Loch; Shore at Wigtown.
	,,	flammula L. Common (1); Sorbie (3); Cairn-
		ryan ; Portpatrick, &c.
	•,	" var. pseudo-reptans, Syme. Black
		Loch, Castle-Kennedy (1), &c.
	,,	acris L. Abundant (1); Cairnryan; Portpatrick, &c.
30		repens L. Abundant in fields everywhere (1).
50	,,	bulbosus L. The Bushes, Sorbie (3); S. of Cairn-
	,,	ryan; Glenluce (5).
	,,	sardous Cr. (hirsutus, Curt.). On shore N. of Port
		William (1).
	,,	ficaria L. Common. Monreith, &c. (1); Sorbie (3);
		Portpatrick, &c.
		lustris L. Common. Creeside, &c. (1); Sorbie (3);
Glenluce (5); Drummore; Cairnryan; Portpatrick,		

&c.

74

- Trollius europæus L. Not common. Side of R. Cree above Newton-Stewart (1); meadows near Spital Brig, Bladenoch (4); Craichlaw (Macnab); Bridge of Park (5).
- 40 Helleborus viridis L. (Macnab spec.). Aquilegia vulgaris L. Near Glasserton (f). Berberis vulgaris L. Glenluce (5).
- 50 Nuphar luteum Sm. Black Loch, Castle-Kennedy (1); Glasserton (3); near Glenluce (5); Penninghame (a); Barmeal Moor.
 - Nymphœa alba L. Black Loch, Castle-Kennedy (1); Sorbie (3); near Glenluce (5); Penninghame (a); Ardwell Mill Dam.
 - Papaver Rhæas L. Glenluce (5).
 - ,, dubium L. Railside, Newton of Baldoon (1); Penkill, &c.
 - ,, argemone L. With the last (1).
 - Meconopsis cambrica Vig. Whithorn and Penkill Burn (W. Galloway).
- 59 Glaucium flavum Cr. (luteum, Scop.). Portwilliam and Monreith (1); Glenluce (5); S. of Whithorn; Innerwell; Sandhead; Morroch Bay.
 - Chelidonium majus L. (2); Myrton Tower, Mochrum (4); Glenluce (5).
 - Corydalis claviculata Pers. Rare. Baltersan (1); Island in Drumwalt Loch (4).
 - Fumaria pallidiflora var. Borœi, Jord. Portwilliam and Stranraer (1); Drummore.
 - " confusa Jord. Portpatrick; Drummore.
 - ... densiflora DC. Penninghame and Stranraer (1).
- 70 ,, officinalis L. Newton-Stewart (1); Sorbie (3); Garliestown (3); Isle of Whithorn; Cairnryan.
 - Cheirauthus Cheiri L. Glenluce Abbey (5).
 - Nasturtium officinale R. Br. Common. Knockbrix (1); Sorbie (3); Glenluce (5); Ardwell, &c.
 - ,, palustre DC. Side of White Loch, Kennedy (1); Poltanton Burn, Dunragit.
- 80 Barbarea vulgaris R. Br. Side of Bishopburn (1); Barmeal Moor; near Stranraer Station.

Cardamine pratensis L. Baldoon Mains, &c. (1); Sorbie (3); Glenluce (5); Cairnryan; Portpatrick.

- , hirsuta L. Netherbar railsides, &c. (1); Cairmryan; Portpatrick, &c.
- ,, flexuosa With. (sylvatica, Link). Foot of Bar Hill, &c. (1); Dunskey Glen, Portpatrick; Cairnryan Glen, &c.
- 104 Erophila vulgaris DC. (Draba verna). Sorbie (3); Glenluce (5).

Cochlearia officinalis L. Common along the shore. Wigtown (1); Garliestown (3); Cairnryan, &c.

Anglica L. Wigtown sands in abundance.

Hesperis matronalis L. Roadside at Kirkinner (1).

Sisymbrium thalianum Gay. Port Kale, Portpatrick.

- ,, officinale Scop. Roadsides, common (1); Glenluce (5); Cairnryan, Portpatrick, &c.
- 123 Brassica oleracea L. Glenluce (5).
 - ,, rapa var. sativa (H. C. Watson). Newton-Stewart (1).
 - " monensis Huds. (Balfour spec.), (d).
 - ,, sinapis Vis. Glenluce (5).
 - , alba Boiss. Cornfields (1).
- 136 Capsella bursa-pastoris Mœnch. Very common (1); Sorbie (3); Glenluce (5); Cairnryan, &c.
 - Senebiera coronopus Poir. Portwilliam (1); Cock Inn. Glenluce (5); Port Logan; Drummore; Portpatrick, &c.
- 140 Lepidium ruderale L. Very rare. Penkill, Garliestown.
 - " campestre R. Br. Glenluce (5).
 - ,, Smithii Hook. Very common (1); Cairnryan; Portpatrick.
 - Thlaspi arvense L. Isle of Whithorn; near Craignarget; Dunragit.

Teesdalia nudicaulis R Br. Droughdhuil Motehill, Glenluce (5).

- 152 Crambe maritima L. Between Portwilliam and Monreith (1); Kirkmaiden (a); Glenluce (5); Morroch Bay.
 - Cakile maritima Scop. Glenluce (5); Morroch Bay; Isle of Whithorn; Garliestown; Portpatrick; Portwilliam;S. of Drummore; N. of Sandhead in plenty.

- Raphanus Raphanistrum L. Common. Cairnryan; Portpatrick, &c.
 - maritimus Sm. E. of Isle of Whithorn; about Drummore in abundance.
- 162 Helianthemum chamœcistus Mill. Dunskey (Arnott, 1848);
 Glenluce (5); Cairnryan; Portpatrick; Kirkmaiden;
 all the Machars, &c.
 - Viola palustris L. Bishopburn side in meadows (1); Cairnryan; Portpatrick; Grennan Wood, &c.
 - ,, sylvatica Fr. var. Riviniana. Common (1); Sorbie (3); Eggerness; Cairnryan, &c.
 - ,, tricolor L. Penninghame (1); Glenluce (5); Kirkmaiden; Portpatrick; Cairnryan.
 - " arvensis, Murr. Fields near the Ford, Newton (1); Portpatrick; Cairnryan.
 - ., lutea Huds. Glen Razie, &c., var. amœna, Syme (1); Glenluce (5).

177 Polygala vulgaris L. Cairnryan, &c.

- ,, oxyptera Reicht. (or very near it). Drummore, on banks facing the sea.
- ,, serpyllacea Weihe (depressa Wend.). Moss of Shin, &c. (1): Sorbie (3); Glenluce (5); Kirkmaiden; Cairnryan, &c.

Dianthus deltoides L. Mouth of Luce Water (5).

Saponaria officinalis L. ,, ,, (6).

192 Silene cucubalus Wibel (inflata, Sm.) Knockstock (1); Sorbie (3); Kirkinner; Isle of Whithorn.

, maritima, With. Common all along the coast.

- Lychnis alba Mull. (vespertina, Sibth). North Barnkirk (1); Glenluce (5); Garliestown; Portpatrick.
 - , diurna, Sibth. Very common (1); Sorbie (3); Glenluce (5); Dunskey Glen; Cairnryan, &c.
 - ,, Flos-cuculi L. Creeside, &c. (1); Sorbie (3); Portpatrick; Cairnryan, &c.
 - ,, Githago Scop. Cornfields, Wigtown (1); Sorbie (3); Portwilliam (4); Kirkmaiden, &c.
- 212 Cerastium tetrandrum Curt. Isle of Whithorn ; Portpatrick ; Drummore ; Cairnryan.
 - semidecandrum L. S. of Drummore Quay.

- Cerastium glomeratum Thuil. Not common (1); Glenluce (5); Portpatrick.
 - ,, triviale Link. Common (1); Glenluce (5); Portpatrick; Cairnryan.
 - ,, var. near holostioides, Fries. Near the Ford, 2 m. S. of Newton-Stewart (1).
 - arvense L. Near Penninghame, &c. (1).
- 223 Stellaria media Cyr. Common (1); Sorbie (3); Glenluce (5); Cairnryan; Portpatrick.
 - " Holostea L. Netherbar, &c. (1); Sorbie (3); Glenluce (5); Cairnryan; Portpatrick.
 - ., graminea L. Netherbar, &c. (1); Sorbie (3); Glenluce (5); Cairnryan; Portpatrick.
 - ,, uliginosa Murr. Bishopburn Meadows (1); Kirkmaiden; Cairnryan, &c.
 - Arenaria trinervis L. Dunskey Glen; Eggerness Wood; Cairnryan, &c.
 - , serpyllifolia L. Kirkinner (1); W. side of Luce Bay; Portpatrick; Cairnryan.
 - ,, var. leptoclados Guss. Garliestown Bay.
 - ,, peploides L. (Honkenya peploides). Frequent on the shore. Stranraer (1); Glenluce (5); Garliestown; Wigtown; Portpatrick.
 - Sagina maritima Don. Lower Innermessan (1); Portpatrick; Kirkcolm (a); Cairnryan, &c.

var. densa Jord. S. of West Tarbert Bay.

- 240 ., apetala L. N. of Portwilliam; S. of Drummore Quay; Portpatrick Railway Station.
 - ,, procumbens L. Very common.
 - ,, subulata Presl. Torrs Warren (2); Portpatrick Railway Station.
 - ,, nodosa Meyer. Frequent. Near Stranraer (1); Monreith Bay; Garliestown Curling Pond; Dowalton Loch; Portyerrick; Wigtown.

Spergula arvensis, var. sativa, Boenn. Cornfields (1); Portpatrick (2); Glenluce (5); Cairnryan.

Lepigonum rubrum Fr. Near Innermessan (1); Isle of Whithorn; Whitehall, Luce Bay, (2); Portpatrick.

22

12

- Lepigonum salinum Fr. Stranraer (1); Dunskey (Arnott, 1848); Cairnryan, &c.
 - var. neglectum (Kindb.) Port Logan (G. Horn, 1878); Monreith Bay (1).
- marginata Koch. Orchardton Bay (1). 250...
 - rupestre Kindb. Isle of Whithorn; Port Logan (G. Horn): Portpatrick; Physgill shore.
 - Montia fontana L. Common. Sorbie (3); Portpatrick; Cairnryan.
 - var: erectus, Pers (rivularis, Gmel). Newton-Stewart (1).
 - Hypericum Androsæmum L. Kirkmaiden (a); Portpatrick (Balfour spec. at Kew); S. of Old Luce (4); Dunskey Glen; Cairnryan; Glenluce (5); Craigoch Burn, Portpatrick.
 - perforatum L. Creeside (1); Glenluce (5); Portpatrick ; Cairnryan, &c.
 - quadrangulum, var. dubium, Leers. The common 22 Hypericum of Wigtownshire (1); Whithorn (Balfour spec.); Cairnryau; Portpatrick, &c.
 - quadratum Stokes (tetrapterum, Fries). Pen-3.5 ningham (1); Glenluce (5); Sorbie (3).
 - humifusum L. Not common. Castle-Kennedy 22 grounds (1); Portpatrick (a); Sorbie (3); Glenluce (5); Kirkmaiden; Cairnryan.
 - pulchrum L. : Common. Moss of Shin (1); 22 Sorbie (3); Glenluce (5); Cairnryan; Portpatrick.
 - elodes Huds. Near Cardrain (f); Loch Cree (Macnab); Port Logan (Balfour); Dunskey (Arnott); Kirkcowan (4); Glenluce (5); Drummoddie Moss (3), &c.
 - 275 Lavatera arborea L. Maryport, S. of Drummore ; Port Logan ; Innermessan, but evidently planted.
 - Malva moschata L. Galloway (Graham, 1836); Portwilliam (1); near Innerwell; Isle of Whithorn; mouth of R. Luce (5).
 - sylvestris L. Stranraer (1); Ardwell; Drummore; Cairnryan.
 - rotundifolia L. Cairnryan; Ardwell.

2.3

- 284 Tilia vulgaris Hayne. (intermedia DC.). Planted as at Monreith (1); (Balfour spec.)
 - Radiola linoides Roth. (millegrana). Ravenstone Loch; Mull Head; near Portpatrick.
 - Linum catharticum L. Common. Cairnryan; Glenluce (5). ,, usitatissimum L. Wigtown, &c. (1).
 - Geranium sanguineum L. Common on Shore Cliffs, especially the west coast. Mull of Galloway (d); several parts of the Machars coast (4).
 - ,, phœum L. E. side of Monreith Lake (4); Balkail Glen, Glenluce (5).
 - , pratense L. High Drummore.
 - " molle L. Common (1); Sorbie (3); Glanluce (5); Cairnryan; Portpatrick.
- 301 ,. dissectum L. Common. Newton-Stewart (1); Isle of Whithorn, &c.
 - " lucidum L. Near Whithorn (3).
 - ", Robertianum L. Common in woods as at Eggerness, Dunskey Glen, Cairnryan, &c.

Erodium cicutarium L'Herit. Port Logan; Monreith Bay; Glenluce (5); W. side of Luce Bay, &c.

- ", maritimum L'Herit. Portwilliam to Glenluce (Balfour and Graham); Monreith Bay (1).
- Oxalis acetosella L. Frequent in woods ; Outtlewell Plantatiou (1); Sorbie (3); Glenluce (5); &c.

,, corniculata L. Glenluce (5).

Itex aquifolium L. Monreith Park (1); Dunskey Woods; Eggerness Wood; Cairnryan, &c.

Acer Pseudo-platanus L. Very frequent (1).

, campestre L. St Ninian's, &c. (1).

- 320 Genista anglica L. (b).
 - ,, tinctoria L. Common in the South of the Machars; Burrowhead (Balfour spec.)

Ulex europæus L. Very common.

,, Gallii Planch. Glasserton (f); Portwilliam (1); Kirkcolm (a); (Balfour spec.); Loch Galdenoch (Balfour); about Whithorn, &c.

Cytisus scoparius Link. Very common.

Ononis repens L. Abundant in the south of the county as at Monreith Bay; Glenrazie (1); Whithorn (Balfour spec.); Glenluce (5); Sorbie (3).

- Ononis spinosa L. Common about the Isle of Whithorn (Balfour spec.)
 - ", reclinata L. 3 miles N. W. of Mull on Cardrain Farm (Dr Graham); Mull (D. Cooper, 1836), probably now extinct.
- 331 Medicago sativa L. Wigtownshire (d); Garliestown; Kirkinner.
 - . lupulina L. Abundant in the south of the county; Kirkmaiden; Kirkinner; Portpatrick.

" maculata Sibth. Garliestown.

Trifosium pratense L. Abundant.

- ., medium L. Common. Longcastle (1); Glenluce (5); Sorbie (3); Whithorn; Cairnryan, &c.
- .. arvense L. Not common. Kirkmaiden (a); Eggeruess; Drummore; Glenluce (5).
- . striatum L. S. of Drummore ; Dalmannoch Bay, S. of Cairnryan ; Dunragit Creamery.

., hybridum L. All over the county.

- " repens L. Abundant.
- , procumbens L. Frequent. Newton-Stewart (1); Isle of Whithorn ; Sorbie ; Cairnryan, &c.
- " minus (dubium, Sibth.). Common (1); Cairnryan: Portpatrick.

Anthyllis vulneraria L. Sorbie (3); Castle-Kennedy (1); Isle of Whithorn; Cairnryan, &c.

- 366 Lotus corniculatus L. Common (1 and 2); Glenluce (5); Cairnryan, Portpatrick, &c.
 - ", var. crassifolius, Pers. Portpatrick (2).
 - ., pilosus (major Scop.). Common (1); Portpatrick; Cairnryan, &c.
 - Astragalus hypoglottis L. Kirkmaiden (a); Seacliffs from Barrowhead to Glasserton (4); N. of West Tarbert, &c.
 - , glycyphyllos L. 4 m. N. of Portwilliam on west side of the road (4); Portwilliam (Mrs Gilchrist Clark, 1867).
 - Oxytropis uralensis DC. Near Mull (Arnott, 1848); Mull of Galloway (c): N. of West Tarbert in several places.
 - Ornithopus perpusillus L. Castle-Kennedy and Mildriggan (1); Galdenoch (Balfour); Glenluce (Λ. White) (5); Kirkinner; Drummore; Cairnryan, &c.

Vicia hirsuta Koch. Rather common (1); Ardwell; Sandhead, Kirkmaiden; Cairnryan, &c.

- sylvatica L. Drummore (Macnab, 1835); N. of Drummore on the shore in abundance; Glenluce (5);
 mouth of Dunskey Glen; Morroch Bay, &c.
- ,, ,, var. condensata. Portwilliam beach (1).
- ., sepium L. Frequent. Penninghame (1); Cairnryan; Portpatrick, &c.
- 388
- , lutea L. On the beach in N. end of New England Bay.
- " sativa L. Kirkinner (1); Kirkmaiden; Cairnryan, &c.
- ., angustifolia Roth. Carsegoun and Portwilliam (1): Whauphill; Cairnryan, &c.
 - lathyroides L. S. of Drummore in fields.

Lathyrus pratensis L. Common (1); Glenluce (5); Isle of Whithorn; Cairnryan, &c.

- sylvestris L. On the Cree N. of Newton-Stewart.
- ", macrorrhizus Wimmer (Orobus tuberosus). (b); Outtlewell Plantation (1); The Forest, Sorbie, &c.

- Prunus communis Huds. (spinosa, L). Common. Penninghame (1); Glenluce (5), &c.; a dwarf var. on the shingle at Portwilliam.
 - ,, institutia L. Lochnaw (Balfour spec.); Penninghame (1), &c.
 - " avium L. Near Whauphill, &c. (1).
 - " padus L. W. of Glenluce Village (5).

Spiræa ulmaria L. Very common.

- Rubus idæus L. Netherbar, &c. (1); Glenluce (5); Cairnryan; Portpatrick, &c.
 - ,, suberectus Anders. Newton-Stewart (1).
 - " plicatus W. and N. Wigtownshire (Top. Bot. Ed. II).
 - " affinis, W. and N. Do. Do.
 - " rhamnifolius W. and N. Newton-Stewart (2).
 - ,, umbrosus Bab. (polyanthemos Lindb.). Near Whithorn (2).
 - " Sprengelii Weihe. Near Newton-Stewart (2).
 - ., Radula Weihe. Netherbar and Newton-Stewart (1); Whithorn (2).

[,] Cracca L. Do.

palustris L. (e) but likely a mistake.

Rubus Kochleri Weihe. Penninghame (1).

- corylifolius Sm. Netherbar (1); Whithorn (2). ...
- cæsius L. S. of Portwilliam (1).
- saxatilis L. Creeside (1); Craigoch Burn, Portpatrick.
- 478 Geum urbanum L. Frequent. Newton-Stewart (1); Sorbie (3); Glenluce (5); Cairnryan, &c.
 - intermedium Ehrh. Rare. Creeside above Newton-Stewart (1).
 - rivale L. Growing with urbanum (1); Glenluce (5); Portpatrick; Cairnryan. &c.
- 481 Fragaria vesca L. Frequent. Newton-Stewart (1); Glenluce (5); Grennan Wood; Cairnryan, &c.
 - Potentilla fragariastrum Ehrh. (b). Sorbie (3); Glenluce (5).
 - tormentilla Scop. Abundant,
 - procumbens Sibth. Frequent. Netherbar (1); Isle of Whithorn; Sorbie (3); Cairnryan, &c.
 - reptaus L. Carsegoun (1); S. of Drummore Quay; Port Logan Harbour
 - anserina L. Common (1); Sorbie (3); Glenluce 3.5 (5), &c.
 - comarum Nestl. (comarum palustre L.). Frequent. Luce Moss (1); (Balfour); Glenluce (5); Cairnryan; Portpatrick.
 - Alchemilla arvensis Scop. Newton-Stewart (1); Sorbie (3); Glenluce (5); &c.
 - vulgaris L. Creeside (1); Glenluce (5), &c.
- 501 Agrimonia Eupatoria L. North Balfern (1); Monreith Bay (1); Glenluce (5); Isle of Whithorn; Port Logan, &c.
 - odorata Mill. N. of Cairnryan.

 - Poterium officinale L. N. of Eggerness Point. Rosa spinosissima L. Between Monreith and Portwilliam (1); Whitehall, Luce Bay (2); Ardwell; Sandhead; Cairnryan, &c.
 - pimpinellifolia L. Torrs Warren (2).
 - Sabini Woods. Monreith (1).
 - mollis Sm. Near Whithorn (2).
 - mollissima Wild. Frequent (1).
 - var. cœrulea Woods. Creeside (1).
 - tomentosa Sm. Penninghame (1); Newton-Stewart (2).

Rosa rubiginosa L. Monreith, Landberrick (1).

,, canina var. lutetiana Lem. Not infrequent (1).

- ,, ,, var. dumalis Bech. Newton-Stewart (1).
- ,, ,, var. urbica Lem. Penninghame (1).
- ,, ,, var. dumetorum Thuil. Wigton (1).
- ,, ,, var. subcristata Baker. Near Whithorn (2).
- 530 Pyrus aucuparia Gœrt. Carsegoun Moss, &c. (1); Glenluce (5).
 - " malus, var. acerba DC. Penninghame, &c. (1).
 - ", ", var. mitis, Wallr. St. Ninian's (1).

Cratægus Oxyacantha L. Hedges, &c., probably not wild (1), &c.

Saxifraga granulata L. Woods at Galloway House (3); Glenluce (5).

Chrysosplenium oppositifolium L. Woods by Creeside, &c. (1); Glenluce (5); Dunskey Glen, &c.

Parnassia palustris L. General. South Barbuchany (1); Sorbie (3); Glenluce (5); Portpatrick, &c.

Ribes grossnlaria L. Outcast. Quarry at St. Ninian's, &c. (1). ,, nigrum L. Do. do.

Cotyledon umbilicus L. Introduced from nurseries, Glenluce (5).

Sedum rhodiola (roseum Scop). Cliffs at Dunskey (Arnott, 1848); mouth of Craigoch Burn, Portpatrick.

- ,, telephium L. Penninghame (1); Glenluce (5); Sandhead; Cairnryan.
- , anglicum Huds. Common on dry banks, &c. (1); (Greville Herb., 1835); Glenluce (5); &c.
- , acre L. Common along the shore. Stranraer (1); Glenluce (5); Cairnryan, &c.

rupestre L. Lochnaw (Balfour, 1835); (f).

Sempervivum tectorum L Glenluce (5).

Drosera rotundifolia L. Moss of Shin, &c. (1); Drummoddie Moss (3); Glenluce (5); Dowalton Loch; Portpatrick, &c.

, anglica Huds. Carsegoun Moss (1).

" intermedia Hayne. Glenluce (5); Capenoch Moss.

Hippuris vulgaris L. Glenluce (5); N. of Sandhead; The Dunskey Lakes; Ravenstone Loch; Rieferpark. Sorbie (3).

- Myriophyllum spicatum L. Bishopburn (1); Barmeal; Ravenstone Loch; Monreith Loch.
 - alterniflorum DC. Black Loch; Cree River at Newton (1); Penkill pond.
- Callitriche stagnalis Scop. Peuninghame (1); Knockbrix (1); Torrs Warren (2), &c.
 - ,, hamulata Kuetz. Bishopburn, &c. (1); Cairnryan, &c.
 - ,, autumnalis L. Lochnaw (f) and (2); Ravenstone Loch; Soulseat Loch.
- 587 Lythrum salicaria L. Frequent. Stoneykirk (Balfour and Arnott); Bisphopburn; Ardwell; Glenluce (5); Sorbie (3).
 - Peplis portula L. Torrs Warren (2); Ardwell Milldam; Port Logan (Arnott, 1848); The Lakes, Dunskey, &c.
 - Epilobium angustifolium L. In several places, as Craigoch Burn, near Colfin.
 - ,, hirsutum L. Frequent. Bladenoch (1); near Garliestown; Tonderghie; Powton, Sorbie (3); Portpatrick; Kirkmaiden, &c.
 - ,, parviflorum Schreb. The common Epilobium of Wigtown (1); Port o' Spital.
 - " montanum L. Common. Cairnryan; Portpatrick.
 - ,, obscurum, Schreb. Common. Stranraer (2); Cairnryan; Portpatrick, &c.
 - , palustre L. Boggy meadows at Penninghame (1); Cairnryan; Portpatrick, &c.
 - Circœa lutetiana L. Dunskey Glen; Eggerness and Galloway House woods (3); Grennan Wood; Glenluce (5); Castle-Kennedy; Cairnryan Glen, &c.
 - Hydrocotyle vulgaris L. Common. Fields by Bishopburn (1); Monreith (1); Sorbie (3); Glenluce (5); Grennan Wood, &c.
 - Eryngium maritimum L. Cowans (Arnott); Port Logan (a); Monreith Bay (1 and 4); mouth of R. Luce (5); S. of Drummore.
 - Sanicula europœa L. Woods of Creeside (1); Eggerness Wood; Cairnryan, &c.
 - Conium maculatum L. Portpatrick; Monreith (1); near Glenluce (5); Garliestown; Drummore; side of Ravenstone Loch, &c.

Apium graveolens L. Mull of Galloway (d); (Balfour spec.).

- ,, nodiflorum Reichb. Common. Moss of Shin, &c. (1); Kirkmaiden (Graham, 1836); Sorbie (3); &c.
- inundatum Reichb. Ditch at Dunskey Castle (Arnott);
 Loddanree (2); Ravenstone Loch; Kirkmaiden;
 Sorbie (3); Enoch near Portpatrick, &c.
- Carum verticillatum Koch. Abundant. First record Burgess in 1789; Sorbie (3); &c.
- Sium erectum Huds. (angustifolium). Drummore (d); frequent in ditches and lochs west of the Isle of Whithorn.
- 637 Ægopodium podagraria L. Very common about farm houses, &c. (1).

Pimpinella saxifraga L. Frequent. Whauphill (1); Penninghame (1); Garliestown, &c.

Conopodium denudatum Koch. (Bunium flexuosum). Wigtown, &c. (1); Sorbie (3); Glenluce (5); &c.

Myrrhis odorata Scop. Frequent. Between Kirkinner and Stewarton (1); Sorbie (3); Portpatrick, &c.

Chærophyllum temulum L. E. of Portwilliam; Cairnryan, &c.

Anthriscus sylvestris Hoffm. Common. Newton-Stewart; Cairnryan; Portpatrick, &c.

vulgaris Pers. E. of Stranraer.

- Crithmum maritimum L. Mull of Galloway (a); (Balfour spec.); near Burrowhead and E. of Isle of Whithorn; Glasserton shore (4); Kirkcolm (a), &c.
- (Enanthe pimpinelloides L. Mull (Balfour); (Graham, 1836); (Macnab).
 - " Lachenalii Gunel. Cowans (Arnott, 1848). Common all along the shore in damp places.

crocata L. Very common in ditches, &c.

- Æthusa cynapium L. Rather rare. Glenluce (5); Drummoral Farm, Isle of Whithorn.
- Menm athamanticum Jacq. Rare. Meadow near Spital Brig, Bladenoch (4).
- Ligusticum scoticum L. Port Float (Arnott, 1848); Clanyard Bay; E. of Isle of Whithorn; Portencorkrie Bay; N. and S. of Portpatrick.

- Angelica sylvestris L. Common. Glenluce (5); Cairnryan; Portpatrick.
- Heracleum sphondylium L. Do.
- Daucus carota L. Common. Dunskey (Arnott, 1848); Portpatrick (Syme); Glenluce (5); Sorbie (3); Portwilliam, &c.
 - " gummifer Lam. (maritima). Wigtownshire (c).
- Caucalis anthriscus Huds. Common. Glenluce (5); Cairnryan; Portpatrick, &c.
 - nodosa Scop. Rare. Portwilliam.
- Hedera helix L. Common. Dunskey Woods; Eggerness Woods; Cairnryan, &c.
- Adoxa moschatellina L. Portpatrick (a); Sorbie (3); Lochside, Monreith (4); Glenluce (5).
- Sambucus nigra L. Frequent. Glenluce (5); Cairnryan; Portpatrick, &c.
- Viburnum opulus L. Waulkmill, Sorbie (3); Glenluce (5); Craigoch Burn, Portpatrick.
- 689 Lonicera periclymenum L. Frequent. Glenluce (5); Cairnryan; Portpatrick, &c.
 - Galium boreale L. Not common. By the R. Cree (a) and (1). ,, cruciata Scop. Glenluce (5).
 - "verum L. Abundant. Sorbie (3); Glenluce (5); Cairnryan; Portpatrick, &c.
 - ,, mollugo L. (b).
 - , saxatile L. Very common. Cairnryan ; Portpatrick, &c.
 - ., palustre L. Common. Creeside (1); Cairnryan; Portpatrick, &c.
 - var. Witheringii, Sm. Moss of Shin (1).
 - " uliginosum L. (b); Portpatrick (confirmed in 1893).
 - ,, littorale Breb. On the shingle at Portwilliam, &c. (1). ,, aparine L. Common. Cairnryan; Portpatrick, &c.
 - Asperula odorata L. Woods by Creeside (1); Glenluce (5); Dunskey Glen; Cairnryan, &c.
 - Sheradia arvensis L. Common in fields. Wigtown (1); Sorbie (3); Glenluce (5); Kirkmaiden, &c.
 - Valeriana officinalis var. Sambucifolia, Syme. Common. Creeside (1); Glenluce (5), &c.
 - , pyrenaica L. Woods at Airlour, Monreith, probably introduced (4).

70(

Valerianella olitoria Pollich. Port Yerrick; S. of Cairnryan; Drummore; Wigtown; Townhead, Sorbie (3).

,, dentata, Pollich. Wigtownshire (Top. Bot. Ed. II.); (Graham, 1836); Orchardton Bay

var. Mixta, Dufr. (Macnab, 1837).

Scabiosa succisa L. Frequent. Castle-Kennedy (1); Eggerness; S. of Port Logan; Glenluce (5); Portpatrick, &c.

arvensis L. Glenluce (5).

Eupatorium cannabinum L. Frequent on the shore. Monreith Bay (1); Glenluce (5); Port o' Spital; Physgill (3); Drummore; Isle of Whithorn, &c.

Solidago virgaurea L. Frequent. Eggerness Wood; Creeside (1); Glenluce (5); Dunskey Glen, &c.

Bellis perennis L. Very common everywhere.

- Aster tripolium L. Frequent on the shore. Orchardton Bay (1); Bay of Luce (4); Port Logan, &c. (Arnott); Glenluce (5); Portencorkrie Bay, &c.
- 735 Filago germanica L. Kirkinner (1); Sorbie (3); frequent about Drummore.
 - ,, minima Fr. Torrs Warren (2); Drummore; Ardwell beach; Dunragit, &c.

Antennaria dioica Gærtner. Frequent. Shin Moss (1); Sorbie (3); Capenoch Moor; E. of Burrowhead, &c.

- Gnaphalium uliginosum L. Common. Netherbar (1); Glenluce (5); Portpatrick; Cairnryan, &c.
 - " sylvaticum L. Not common. Borrow Moss (1); Forest, Sorbie ; Cairnryan, &c.

Inula Helenium L. Sorbie (3); E. of Glenluce (5); near Port o' Spital.

,, crithmoides L. Wigtownshire (c); Mull (Arnott, 1848); occasionally on W. coast from Portpatrick to Mull of Galloway; East Tarbert.

Pulicaria dysenterica Goertn. Mull of Galloway (Maughan and c); Monreith Bay; Portpatrick.

- Bidens cernua L. Not common. On shore between Cruggleton and Garliestown (f); near Tonderghie.
 - " tripartita L. Ardwell Milldam, near Sandhead.

^{(1).}

- Achillea millefolium L. Common. Sorbie (3); Glenluce (5); Cairnryan; Portpatrick, &c.
 - " ptarmica L. Common. Meadows by Bishopburn (1); Glenluce (5); Cairnryan; Portpatrick; &c.
- Chrysanthemum Segetum L. Common. Wigtown (1); Meadows by Bishopburn (1); Glenluce (5); Cairnryan; Portpatrick, &c.
 - leucanthemum L. Common. Newton (1); Meadows by Bishopburn (1); Glenluce (5); Cairnryan; Portpatrick, &c.
- Matricaria inodora L. Abundant. (Greville, 1835; also Balfour, Babington, Arnott).
 - ", var. maritima L. Stranraer, &c. (1); Portpatrick; occasionally along the shore.

Tanacetum vulgare L. Glenluce (5).

- Artemisia vulgaris L. Frequent. Netherbar (1); Glenluce (5); Isle of Whithorn; Drummore; Innermessan; Portpatrick, &c.
 - ,, maritima L. E. of Burrowhead (Graham, 1836); at S. end of Port Yerrick Bay.
- Tussilago farfara L. Very common. Creeside (1); Sorbie (3); Glenluce (5); Cairnryan, &c.
- Petasites vulgaris, Desf. Monreith (1); Mouth of R. Luce (5); Whithorn; Palmallet Burn; Craigoch Burn, Portpatrick; Mildriggan, &c.
- 781 Senecio vulgaris L. Common. Newton-Stewart (1), &c.; Cairnryan; Portpatrick.
 - ,, sylvaticus L. Borrow Moss (1); Glenluce (5), &c.; Cairnryan; Portpatrick.
 - ., Jacobœa L. Abundant. Glenluce (5), &c.; Cairnryan; Portpatrick.
 - " var. flosculosus Jord. Monreith Bay (1).
 - " aquaticus Huds. Frequent. Not uncommon (1); Cairnryan; Portpatrick, &c.
 - ,, Saracenicus L. Monreith Woods (4); Morroch Bay; near Port o' Spital.
 - ,, Carlina vulgaris L. West coast of Kirkmaiden (Balfour spec.); near Portpatrick (Balfour, 1843); opposite Mull Farm and Port Logan (Arnott, 1848); Burrowhead; Eggerness Shore; Physgill Shore; Morroch Bay.

Arctium minus Schk. Perhaps frequent. St Ninian's (1).

- ,, intermedium Lange. Perhaps frequent. Newton-Stewart (1).
- Carduus pycnocephalus Jacq. (tenuiflorus, Curt.) Port Logan; Portwilliam; Drummore; Garliestown; Cairnryan; Innermessan.

., crispus L. Portwilliam (1); Isle of Whithorn. Cnicus lanceolatus Willd. Abundant.

,, palustris Willd. Do.

,, ,, var. alba. Penninghame (1); W. of High Drummore.

arvensis Hoffm. Abundant.

Centaurea nigra L. Very common.

- " cyanus L. Occasionally in corn fields as at Whitehills, Sorbie (3).
- Lapsana communis L. Common. Sorbie (3); Glenluce (5); Cairnryan; Portpatrick.
- Crepis virens L. Frequent in two or three forms. Cairnryan; Portpatrick.
 - " paludosa Mœnch. Creeside (1); Dunskey Glen; Cairnryan Glen, &c.
- Hieracium pilosella L. Netherbar (1): Castle-Kennedy (1); Sorbie (3); Kirkmaiden, &c.
 - ", murorum L. Creeside (1).
 - ,, vulgatum Fr. Outtlewell Plantation (1); Dunskey Glen; Cairnryan, &c.
 - ,, umbellatum L. Culkae, Sorbie; Craigoch Burn, Portpatrick.

boreale Fr. Creeside (1); The Forest, Sorbie.

- 877 Hippocheeris radicata L. Common. Glenluce (5); Cairnryan; Portpatrick.
 - Leontodon hirtus L. Portpatrick; N. of Sorbie Station on railway embankment.
 - " autumnalis L. Abundant and variable (1); Cairnryan; Portpatrick, &c.

Taraxacum officinale Web. Common (1); Glenluce (5); Cairnryan; Portpatrick, &c.

Sonchus oleraceus L. Common (1); Glenluce (5); Cairnryan; Portpatrick, &c.

••

- Sonchus asper Hoffm. Frequent. Wigtown (1); Cairnryan; Portpatrick, &c.
 - " arvensis L. Rather frequent (1); Sorbie; Cairnryan; Portpatrick, &c.
- Lobelia Dortmanna L. White Loch, Castle-Kennedy (1); in a loch near the boundary of Kirkcolm and Leswalt (a); Barlochart Loch, Glenluce (5).
- Jasione montana L. Common (Balfour, 1843); Glenluce (5); Cairnryan, &c.
- Campanula latifolia L. Dunskey Woods (1893).
 - " rotundifolia L. Abundant (1); Glenluce (5); Cairnryan; Portpatrick, &c.
- Vaccinium Oxycoccos L. Carsegoun Moss, &c. (1); Glenluce (5); Capenoch Moss; Cairnryan; Portpatrick, &c.

myrtillus L. Cairnryan; Portpatrick, &c.

- Andromeda polifolia L. Borrow Moss (1); Drummoddie Moss (3); Mosses in Mochrum and Glasserton (4); New Luce (R. Lupton).
- Calluna Erica DC. (Vulgaris, Sal.). Common on the moors and mosses (1).
- Erica tetralix L. Do. Do. ,, cinerea L. Do. Do.

Pyrola minor L. Woods by Creeside above Newton (1).

- Statice limonium L. Top. Bot. (Maughan in Hooker's Scot. Flora).
 - " bahusiensis (rariflora, Drejer). (Graham, 1835); (Arnott, 1848); Orchardton Bay; Garliestown Bay.
 - " auricolœfolia Vahl. (spathulata). Mull of Galloway (d);

(Balfour, 1843); Mull of Syninness.

- , ,, var. occidentalis (Lloyd). N. of Mull of Galloway on we-t side.
- ,, ,, var. intermedia (Syme). N. of Mull of Galloway on west side.

938 Armeria maritima Willd. Common all along the shore (1).

Primula vulgaris Huds. Cree wood (1); Monreith (1); Glenluce (5); Eggerness; Cairnryan; Portpatrick, &c.

,, veris L. (b).

Lysimachia vulgaris L. Not common. Claunch Moor, Sorbie (3); Milldriggan Burn; Ravenstone Loch; near Old Castle of Mochrum.

- nummularia L. Ardwell Mill-dam, near Sandhead.
- ,, nemorum L. Castle-Kennedy (1); Glenluce (5); Grennan Wood, Drummore; Dunskey Glen; Cairnryan, &c.
- Glaux maritima L. Common on the shore. Garliestown (3); Mochrum coast (4); Glenluce (5); &c.
- Anagallis arvensis L. General (1); Glenluce (5); Cairnryan; Portpatrick, &c.
 - " carulea Schreb. Glenluce (5).
 - ,, tenella L. Frequent (1); Portpatrick (Balfour, 1843); Dunskey (Arnott, 1848); Sorbie (3); Glenluce (5); Monreith Bay; Ravenstone Loch: Dowalton Loch, &c.

Samolus valerandi L. Frequent on the shore (1); Glenluce (5); Garliestown Bay, &c.

Fraxinus excelsior L. Frequent.

Ligustrum vulgare L. Wigtown, &c. (1), but planted.

Erythræa centaurium Pers. All along the shore (1); Monreith Bay (1); (Arnott, 1848).

" var. capitata Koch. Plentiful on the W. coast of Kirkmaiden, &c.

littoralis Fr. Kirkcolm (a); (Balfour, spec. 1843).

- Gentiana campestris L. Castle-Kennedy grounds (1); E. of Burrowhead; Eggerness; Ravenstone; Mull Head; Glenluce (5); Cairnryan; Portpatrick.
- Menyanthes trifoliata L. Frequent. Shin valley (1); Sorbie (3); abundant (4); Glenluce (5); Barnbarroch

pond, &c.

Polemonium cæruleum L. Naturalised at Castle-Kennedy (1).

Symphytum officinale L. Frequent. Near Myrton Lodge, Monreith; Isle of Whithorn; Glenluce (5).

- " " var. flore fere nigro. Kirkcolm (a); (Graham, 1835).
- ,, ,, var. patens Sibth. Newton (1).
- ,, tuberosum L. Ravenstone.

987 Borago officinalis L. Creeside (1).

3.3

- Anchusa sempervirens L. Isle of Whithorn; Drummore; Druchtag, Glenluce (5) and (4); Penninghame (a).
- Lycopsis arvensis L. Portwilliam (1); Morroch Bay; Sandhead, S. of Drummore; Portpatrick, &c.
- Mertensia maritima Gray. N. of West Tarbert (Balfour spec.); Morroch Bay; Gillespie, Glenluce (5); Port Kale, Portpatrick; Mochrum sea coast (4).
- Myosotis cœspitosa Schultz. Wigtown (1); Ardwell Milldam, near Sandhead, &c.
 - ,, palustris With. Wigtown (1).
 - " var. strigulosa M. & K. Castle-Kennedy (1); Portpatrick.
 - ,, repens Don. Barbuchany (1); Cairnryan; Portpatrick, &c.
 - " arvensis Willd. Penninghame (1); Cairnryan; Portpatrick, &c.
 - ,, arvensis, var. umbrosa, Bab. Eggerness Wood; Dunskey Glen; Cairnryan Glen, &c.
 - versicolor Reichb. St. Ninians (1); Torrs Warren
 (2); Sorbie (3); Glenluce (5), &c.
- Lithospermum officinale L. Old Abbey of Luce (f); (Balfour spec, 1843).
- Echium vulgare L. Near Portpatrick (a); Portwilliam (1)doubtfully wild.
- Calystegia sepium R. Br. South Balfern (1); Glenluce (5); Portpatrick, &c.
 - ,, soldanella R. Br. Portwilliam (1) and (4); Glenluce (5); Port Logan Bay; Killiness, Drummore; Cowans (1848); Knock Bay, Portpatrick.
- Convolvulus arvensis L. On roadside S. of Whithorn; Glenluce (5); Portencorkrie Bay; Garliestown; Portpatrick.
- Solanum dulcamara L. Frequent. St. Ninian's (1); Sorbie (3); Glenluce (5); Orchardton Bay; near Port Logan; Penninghame (a), &c.
 - " nigrum L. (Graham, 1836); (Balfour spec.); Sandhead; Portwilliam.
- Hyoscyamus niger L. Rigg Bay, Garliestown (3); Glenluce (5).

Verbascum thapsus L. Kirkmaiden (a); Garliestown (3) Glenluce (5); Morroch Bay, &c.

Linaria cymbalaria Mill. Outcast as at Isle of Whithorn; scarcely naturalised (4).

- purpurea L. Ruins of Castle-Kennedy (1).
- ,, vulgaris Mill. Frequent. Sorbie (3); Penninghame (1); Newton-Stewart Station; Kirkinner; Portpatrick.
- 1039 Scrophularia aquatica L. Drummullin Burn, N. of Isle of Whithorn; Physgill Glen (3); near Portpatrick.
 - " nodosa L. Common. Garliestown (3); Glenluce (5); Cairnryan; Portpatrick, &c.
 - Minulus luteus L. Glenluce (5); near mouth of Dunskey Glen.

Limosella aquatica L. Sorbie (3); requires confirmation.

Digitalis purpurea L. Very common. Glenluce (5); Cairnryan; Portpatrick, &c.

- Veronica hederœfolia L. Dinvin, near Portpatrick; E. of Stranraer; Kirkinner manse.
 - ,, polita Fr. Penninghame (1); Sorbie (3); Cairnryan; Portpatrick, &c.
 - " agrestis L. Common. Barbuchany (1); Cairnryan; ; Portpatrick, &c.
 - " persica Poir. (Buxbaumii). Wigtown (1); roadside near Stranraer (2).
 - ,, arvensis L. Common (1); Sorbie (3); Glenluce (5); Cairnryan; Portpatrick.
 - ,, serpyllifolia L. Common. Penninghame (1); Torrs Warren (2); Cairnryan; Portpatrick.
 - ,, officinalis L. Common. Netherbar (1); Glenluce (5); Sorbie (3); Cairnryan; Portpatrick.
 - " chamædrys L. Common. Sorbie (3); Cairnryan; Portpatrick, &c.

" scutellata L. Frequent. W. of High Drummore in a loch : Portpatrick, &c.

- ,, anagallis L. Frequent. Newton-Stewart (1); Innermessan, &c.
- " beccabunga L. Common. Newton-Stewart (1); Sorbie (3); Glenluce (5); &c.

,,

- Euphrasia officinalis L. Very common. Castle-Kennedy (1); Sorbie (3), &c.
- Bartsia odontitis Huds. Very common. Netherbar (1); Sorbie (3); Glenluce (5); &c.
 - ., viscosa L. (Graham, 1836); Portwilliam (d); (Balfour spec.); Eldrig Loch, Mochrum (4).
- Pedicularis palustris L. Common. Barbuchany (1); Sorbie (3); Glenluce (5), &c.
 - , sylvatica L. Common. Carsegoun Moss (1); Sorbie (3); Glenluce (5), &c.
- Melampyrum pratense, var. hians. Woods by Cree side, near Newton (1); Wood of Park, Glenluce (5); Cairnryan.
- Rhinanthus crista-galli L. Common. Barbuchany (1); Sorbie (3); Glenluce (5); &c.
- Orobanche rubra Sm. Between Dunskey Castle and Portpatrick (f); Physgill shore, near St. Ninian's Cave.

1092 Utricularia vulgaris L. Dowalton Loch.

- ,, minor L. Bog near Kirkcowan (4); Capenoch Moss.
- Pinguicula vulgaris L. Ravenstone and Dowalton Lochs; Glenluce (5); Cairnryan; Portpatrick, &c.
 - ,, lusitanica L. Kirkcolm (a); Fell of Mochrum (4); Wigtown (a); Kirkcowan (a); Capenoch Moss.

Mentha alopecuroides Hull. An outcast, Stranraer (1).

- ,, viridis L. Railside, but not near houses.
- , hirsuta L. (aquatica). Bishopburn (1); Ardwell Mill Daun, near Sandhead; Sorbie; Portpatrick.
- , ,, var. subglabra Baker. Ardwell Mill Dam.
- " sativa L. Castle-Kennedy (1).
- " arvensis L. Penninghame (1); Portpatrick, &c.
- Lycopus europæus L. (Graham, 1836); near Glenluce (d); Drummoddie Moss (3); Monreith Lake; Garliestown Bay; W. of Isle of Whithorn; Lochnaw (Balfour, 1843); Castle-Kennedy.

Origanum vulgare L. Castle-Kennedy (1); Sorbie Burn (3).

- Thymus serpyllum Fr. Common (1); Glenluce (5); Cairnryan; Portpatrick, &c.
 - ., chamædrys Fr. Not common. Newton-Stewart (1); S. of Port Logan on the heughs.

Calamintha clinopodium Benth. Monreith (4); Garliestown Bay. acinos Clairv. Between Castle-Kennedy Station ,, and Soulseat Loch. Nepeta glechoma Benth. Newton-Stewart (1); Garliestown Bay; Cairnryan; Portpatrick, &c. Scutellaria galericulata L. Frequent on shingle on the shore. Side of Black Loch, Castle-Kennedy (1); locally abundant (4); Cairnryan, &c. minor Huds. Glenluce (d); Portwilliam (Bal-,, four spec.); in wet places N. of Portwilliam. Prunella vulgaris L. Common. Castle-Kennedy (1); Sorbie (3); Glenluce (5), &c. var. alba. Penninghame (1). 1135 Stachys betonica Benth. Glenluce (5). palustris L. Bishopburn side (1); Portpatrick (Bal-,, four); Kirkmaiden; Cairnryan, &c. ambigua Sm. Cardrain (Arnott, 1848). 22 sylvatica L. Penninghame (1); Grennan Wood, ,, Drummore; Glenluce (5); Cairnryan; Portpatrick. &c. arvensis L. Carsegoun (1); Drummoral, Drummore; ,, Sorbie, Cairnryan, Portpatrick. &c. Galeopsis tetrahit L. Common. (1) in corn fields, &c. var. bifida Boem. Along with the type. •• ,, Newton-Stewart (1); Portpatrick, &c. Lamium amplexicaule L. South Balfern (1); Isle of Whithorn; Kirkmaiden; Sorbie; Portpatrick, &c. intermedium L. Kirkinner (1); Morroch Bay; Ard-,, well; Sandhead (Graham, 1836); Kirkcolm (a); Cairnryan; Portpatrick. purpureum L. Very common. Sorbie (3); South " Balfern (1); Cairnryan, &c. album L. Wigtown (3); Glenluce (5). Teucrium scorodonia L. Locally common. Netherbar (1); Glenluce (5); Eggerness; Isle of Whithorn; Cairnryan, Portpatrick. Ajuga reptans L. Bishopburn side (1); Glenluce (5); Dunskey Glen; Eggerness Wood; Barnbarroch;

Cairnryan, &c.

- Plantago major L. Very common everywhere. Newton-Stewart (1).
 - " lanceolata Reich. Very common everywhere.
 - " maritima L. Very common on the shore and sometimes inland, as at Barmeal; Sorbie (3).
 - ", coronopus L. Common on the shore along with the last, as at Portpatrick.
- Littorella lacustris L. Round pond, Castle-Kennedy (1); Ardwell Mill-dam, near Sandhead; The Lakes, Dunskey.
- Scleranthus annuus L. Common. Carsegoun (1); Kirkinner (1); Cairnryan, Portpatrick, &c.
- 1181 Chenopodium album L. Newton (1).

22

23

- " var. viride. Common. Cairnryan; Port patrick, &c.
- " var. candicans, Lam. Wigtown (1).
- " paganum, Reich. Newton (1).
- , rubrum L. Glenluce (Balfour, 1843).
- Bonus Henricus L. Penninghame hamlet (a); Beoch Bridge, Cairnryan.
- Beta maritima L. Morroch Bay; N. of Portwilliam; Cowans, Port Logan (Arnott, 1848).
- Atriplex littoralis, var marina, L. S. of Garliestown in Rigg Bay.
 - " patula, var. erecta, Huds. Kirkinner (1); Glenluce (Balfour, spec. 1843).
 - ,, var. angustifolia Sm. Garliestown (1).
 - " hastata Huds (Smithii, Syme). Wigtown (1).
 - " deltoidea Bab. Bladenoch side (1).
 - " Babingtonii Woods. Garliestown (1); (Balfour spec.); Portpatrick, &c.
 - ,, laciniata L. (arenaria, Woods). (Balfour, 1843); Garliestown; New England Bay; S. of Drummore; Port Kale, Portpatrick, &c.
 - , portulacoides L. Mull of Galloway (d); (Graham, 1843); (Balfour spec.)

Salicornia herbacea L. Orchardton Bay (1); Wigtown Bay. Suæda maritima Dum. Isle of Whithorn; Rigg Bay; Wigtown Bay.

Salsola Kali L. Lag Point, Monreith Bay (1); Garliestown
Bay ; Sandhead ; S. of Drummore. Polygonum convolvulus L. Common. Newton-Stewart
(1); Sorbie (3); Glenluce (5); Cairnryan;
Portpatrick, &c.
avioularo L. Vory common (1); Sorbie (3);
Glenluce (5), &c.
", ", var. littorale, Link. Stranraer (1);
Portpatrick.
" Roberti, Loisel (Raii). Morroch Bay; Stran-
raer (1); Garliestown, &c. Mull of Gallo-
way (d); (Balfour spec.); Graham, 1836).
" maritimum L. Mull of Galloway (d).
1210 ,, hydropiper L. Common. Carsegoun (1);
Cairnryan; Portpatrick, &c.
" persicaria L. Common. Newton (1); Sorbie
(3); Cairnryan; Portpatrick, &c.
" lapathifolium L. St. Ninian's (1); Sorbie (3);
Cairnryan ; Portpatrick, &c.
" lapathifolium var. incana. Sorbie, &c.
,, amphibium L. Penkill Dam; The Lakes, Dunskey, &c.
,, amphibium var. terrestre, Leers. Frequent.
Borrow Moss (1); Cairnryan; Portpatrick,
&c.
Rumex conglomeratus Murr. Wigtown (1).
" sanguineus L. (Balfour, 1843).
" " var. viridis, Sibth. Frequent. Egger-
ness Wood; Cairnryan; Portpatrick.
", obtusifolius L. Common. Newton-Stewart (1);
Eggerness Wood; Cairnryan: Portpatrick.
" crispus L. Frequent (1). Cairnryan; Portpatrick.
" aquaticus L. (domesticus, Hartmann). Newton-
Stewart (1).
" acetosa L. Abundant (1); Cairnryan; Portpatrick.
" acetosella L. Do. Do.
 " accessena II. 190. Daphne mezereum L. Naturalised in Monreith Woods (4). " laureola L. Naturalised (4). Hyppophæ rhamnoides L. Rigg Bay; Eggerness Wood; Innerwell; Portpatrick, &c.

- Euphorbia helioscopia L. Common. Newton-Stewart (1); Sorbie (3); Cairnryan, &c.
 - paralias L. Morroch Bay ; N. of Portwilliam.
 - " portlandica L. Mull of Galloway (d); shore of Glasserton parish (4); Physgill shore, near St. Ninian's Cave; S. of Dunman; near Portpatrick.
 - ,, peplus L. Creeside (1); Sorbie (3); Glenluce (5); Cairnryan; Portpatrick.
 - exigua L. Isle Farm; Isle of Whithorn.
- Mercurialis perennis L. Eggerness and Monreith Woods; Grennan Wood; Dunskey Glen; Cairnryan Glen; Ravenstone; Glenluce (5).
- Ulmus montanus Stokes. Newton (1).
 - ,, campestris, var. suberosa. Ehrh. Castle-Kennedy (1).

Humulus lupulus L. Penninghame (1); Sorbie (3); Glenluce (5); Portpatrick, &c.

1266 Urtica dioica L. Very common.

12

", urens L. Frequent. South Balfern (1); Isle of Whithorn; Glenluce (5); Sorbie (3): Stranraer; Ardwell; Drummore; Cairnryan; Portpatrick, &c.

Parietaria officinalis L. Recorded for Glenluce Abbey.

- Myrica gale L. Shin Valley, &c. (1); Torrs Warren (2); Glenluce (5); Cairnryan; Portpatrick, &c.
- Betula alba var. verrucosa Fr. Shin Valley (1); Glenluce (5).

, glutinosa var. pubescens Wallr. Monreith (1).

- Alnus glutinosa L. Shin Valley (1); Glenluce (5); Cairnryan; Portpatrick, &c.
- Corylus avellana L. Outtlewell Plantation (1); Glenluce (5); Cairnryan; Portpatrick, &c.
- Quercus robur var. pedunculata Ehrh. Newton (1); Cairnryan, &c.
 - ", ,, var. sessiflora Salisb. Creeside (1); Glasserton, Whithorn, and Mochrum (4).

Castanea sativa Mill. (vulgaris). Monreith (1).

Fagus sylvatica L. Common (1); Glenluce (5); Portpatrick. Salix pentandra L. Moss of Shin (1); Roadside, Castlewig.

Salix alba L. Common (1); Cowans (Arnott, 1848).

- " purpurea L. Roadside opposite Castlewig (3).
- " viminalis L. Bishopburn Side (1).
- " Smithiana Willd. Newton-Stewart (1).
- " ferruginea Anders. Bishopburnside (1).
- " cinerea L. Rather common (1).
- ,, ,, var. aquatica Sm. (Arnott, 1848).
- ,, aurita L. Carsegoun (1).
- " caprea L. Bishopburn Side (1); (Arnott, 1848).
- " nigricans Sm. Shin Valley (1).
- ,, ,, var. cotonifolia Sm. On roadside between Newton-Stewart and Glenluce (g); (Maughan in Hooker's Flor. Scot.).
- , repens L. North of Luce Moss (1); Portpatrick.
- , ,, var. fusca. (Arnott, 1848).
- 1311 Populus alba L. Glenluce (5).
 - " tremula L. Minnick Water (4); Glenluce (5); Craigoch Burn, Portpatrick.
 - ", nigra L. Newton (1).
 - Empetrum nigrum L. S. of Port Logan on the heughs (4); Glenluce (5); Cairnryan hills; Portkale, Portpatrick.
 - Juniperus communis L. Moors of Penninghame (4); Glasserton, Whithorn, and Mochrum shores (4); N. of

West Tarbert; Morroch Bay; E. of Burrowhead.

- Taxus baccata L. Penninghame (1).
- Pinus sylvestris L. Moss of Cree (1); Glenluce (5).

Elodea Canadensis Mich. Monreith Lake.

- Malaxis paludosa Sw. Reported from near the Mull of Galloway in Hooker's Flor. Scot. (Winch.).
- Listera cordata R. Br. Inshanks Moor and Mull Head ; S. of Portpatrick.
 - ,, ovata R. Br. Wigtown (1); Eggerness Wood; Outtlewell; Ravenstone, Cairnryan Glen, &c.
- Orchis pyramidalis L. $3\frac{1}{2}$ m. N. of Portpatrick (d); Killiness Point, S. of Drummore (Graham, 1835); Castle-Kennedy (1).
 - " mascula L. Common. Glenluce (5); Portpatrick.
 - " incarnata L. Barbuchany (1); Ravenstone Loch.
 - ,, latifolia L. Monreith (1); Dunskey Castle; Ravenstone Loch; Cairnryan.

Orchis maculata L. Frequent. Barbuchany (1); Sorbie (3); Glenluce (5); Cairnryan; Portpatrick.

- Habenaria conopsea Benth. Mark of Luce Moss (1); abundant on Fell of Mochrum (4); Capenoch Moor; Cairnryan; (Balfour, 1843).
 - albida R. Br. Balsier, Sorbie (3).
 - ", viridis R. Br. Frequent. Barbuchany (1); Sorbie (3); Cairn Piot; Kirkmaiden; Cairnryan; (Graham, 1835).
- 1367 Habenaria bifolia R. Br. Not common. Sorbie (3); Kirkmaiden.
 - " ochroleuca Ridley (chlorantha). Common. (Graham 1835); Barbuchany (1); Cairnryan.

Iris fatidissima L. Naturalised in Monreith Woods (4).

- ,, pseudacorus L., var acoriformis Bor. Frequent. Bladenoch side (1); Glenluce (5); Cairnryan; Portpatrick, &c.
- Narcissus pseudo-narcissus L. Naturalised (4); Old Castle of Gillespie (5).
- Pologonatum multiflorum All. Townhead, near Garliestown (3).
- Allium vineale L. Frequent on the heughs, S. of Cruggleton Castle; Cardrain; Kirkmaiden; Portpatrick.
 - " ursinum L. Glen Cree (1); Eggerness Woods; Grennan Wood; Cairnryan Glen; Glenluce (5); Portpatrick in Dunskey Glen.
- Scilla verna Huds. Portpatrick (Arnott, 1848); common all along the shore.
 - " nutans Sm. (hyacinthus non-scriptus). Glen Cree (1); Eggerness (4); Cairnryan; Portpatrick.

Ornithogalum umbellatum L. Naturalised (4).

- Narthecium ossifragum Huds. Abundant (4); Sorbie (3); Glenluce (5); Cairnryan, &c.
- Juncus bufonius L. Common. Barbuchany (1); Sorbie (3); Glenluce (5); Cairnryan, &c.
 - " squarrosus L. Frequent. Shin Valley Moss (1); Sorbie (3); Glenluce (5); Cairnryan, &c.
 - Gerardi, Lois. Common along the shore. (Balfour spec.); Glenluce (5); Cairnryan, &c.

Juncus glaucus Ehrh. Monreith Bay (1); Wigtown; near Millisle Station; Knock Bay, Portpatrick.

- ", effusus L. Very common.
- ,, conglomeratus L. Common, as at Portpatrick on the moors, &c.
- ., maritimus, Lam. Kirkcolm (a); West Tarbert (Balfour spec.); N. of Portwilliam; Port Kale, Portpatrick.
- ,, supinus, Moench. Moss of Cree (1); Dowalton Loch; about Portpatrick, &c.
- " supinus, var. fluitaus, Fr. Capenoch Moor; Cairnryan; Machars generally.
- ,. obtusiflorus, Ehrh. Common in the S. of the Machars; Glenluce (5); Balfour spec.).
- ,, lamprocarpus, Ehrh. Frequent. Newton-Stewart (1); Portpatrick, &c.
- , lamprocarpus, var. nigritellus, Don. Torrs Warren (2).
 - acutiflorus, Ehrh. Very common.
- 1449 Luzula pilosa Willd. (vernalis DC.). Frequent in woods. Creeside (1); Cairnryan; Dunskey Glen.
 - ,,, maxima DC. (sylvatica Beck). Glen Cree (1); Grennan Wood; Dunskey Glen; The Forest; Cairnryan.
 - ,, campestris DC. Carsegoun (1); Portpatrick; Cairnryan, &c.
 - , multiflora Lej. Frequent. Moss of Shin (1); Portpatrick ; Cairnryan, &c.
 - " " var. congesta Koch. Moss of Shin (1); Portpatrick ; Cairnryan, &c.

Typha latifolia L. Castle-Kennedy; Sorbie (3); Monreith

Lake; Ravenstone Loch; Prestrie Loch; Dowalton Loch: Barmeal; Glenluce (5).

- Sparganium ramosum Curt. Common. Bishopburn (1); Glenluce (5); Enoch, Portpatrick, &c.
 - simplex Huds. Chapelrossan (Arnott); Bishopburn (1); Dunskey Lakes; Kirkmaiden, &c.
 affine, Schnizl (natans) (b).
 - ,, minimum Fr. Castle Kennedy (1); Capenoch Moor; (Balfour spec.).

- Arum maculatum L. Glenluce Abbey (5); St. Medan's Cave, Kirkmaiden (5); west coast of Kirkmaiden (Dr Gemmell).
- Lemna minor L. Frequent. Baldoon (1); Tonderghie; Sorbie (3); Glenluce (5); Kirkmaiden; Cairnryan; Portpatrick, &c.
- Alisma plantago L. Bishopburn (1); Glenluce (5); Ardwell Mill-dam, near Sandhead; Dunskey Lakes.
 - ,, ranunculoides L. Whithorn (d) ; Isle of Whithorn ; N. of Burrowhead, Sorbie ; Dowalton Loch ; Kirkmaiden ; Portpatrick ; Black Loch, Stranraer (Hooker's Flor. Scot.).
 - ,, ranunculoides, var. sub-repens. Black Loch and Round Loch, Castle-Kennedy (1).
- Elisma natans Buch. Black Loch, 6 m. North of Stranraer (c).
- Triglochin palustre L. Frequent. Monreith (1); Isle of Whithorn; Ravenstone Loch; Kirkmaiden; Cairnryan; Portpatrick.
 - , maritimum L. Frequent along the shore as at Port Yerrick.

1479 Potamogeton natans L. In ditches in the mosses; Sorbie (3); Portpatrick; Capenoch.

27

• 9

- polygonifolius Poir. (oblongus). Bishopburn (1); Cairnryan, &c.
- polygonifolius, var. ericetorum. Borrow Moss (1).
- ,, rufescens Schrad. Bishopburn (1).
- " heterophyllus Schreb. Black Loch, Castle-Kennedy (1); Sorbie,
- ,, Zizii Roth. Bishopburn (1).
- " prælongus Wulf. Bishopburn (1).
- , crispus L. Baldoon (1); Milldam, Isle of Whithorn; Penkill, near Sorbie Station in Sorbie Burn; Black Loch, Castle-Kennedy.

pusillus L. Baldocn (1); Ersock Loch; Barmeal dam; Ravenstone Loch.

, pectinatus L. Ravenstone Loch.

- Ruppia maritima, likely R. rostellata, Koch. Stranraer (Greville).
- Zostera marina L. Stranraer (1); Portwilliam.
- Eleocharis acicularis, Sm. Castle-Kennedy Lochs (1); Ravenstone Loch.
 - " palustris R. Br. White Loch, Castle-Kennedy (1); Monreith Lake; Cairnryan; Portpatrick, &c.
 - , multicaulis Sm. Lochnaw (f); Capenoch Moss; Portpatrick.
 - pauciflorus Lightf. Portpatrick (Balfour spec.); Wigtownshire (Typ. Bot. Ed. II.); Barbuchany (1); Cairnryan Hills.
 - cæspitosus L. Common on the moors. Carsegoun Moss (1); Cairnryan, &c.
 - " fluitans L. Ditches in the mosses. Capenoch Moss; Portpatrick, &c.

Savii, Seb. and Maur. (numidianus, Vahl). Frequent on the West Coast (c); Kirkcolm (a); Mull (Graham, 1835); Kirkmaiden; Portpatrick.

- , setaceus L. Frequent. Monreith (1); Dowalton Loch; Cairnryan; Portpatrick, &c.
- , lacustris L. Monreith Lake; Palmallet Pond; Ardwell Mill-dam, Sandhead.
- , maritimus L. Port Logan (Arnott); Creeside (1); Wigtown; Kirkcolm (a); Garliestown Bay.
- ,, rufus Wahl. Frequent along the shore as at Garliestown and Wigtown.
- 1543 Eriophoron vaginatum L. Mosses rather common (1); Cairnryan Hills; Portpatrick Moors.
 - angustifolium Roth. Mosses abundant (1); Cairnryan Hills; Portpatrick Moors.

latifolium Hoppe. Newton-Stewart (1).

Rhynchospora alba Vahl. Moss of Cree (1); Capenoch Moss; (Balfour spec.); Stranraer (J. T. Syme).

Scheenus nigricans L. Frequent along the shore. Monreith (1); Claunch Moor, Sorbie (3); Portpatrick, &c.

- -

Claudium germanicum Schrad. (mariscum). Wigtownshire (Hooker's Student's Flora) ; Ravenstone (Macnab).

Carex dioica L. High Baltersan (1); Cairnryan Hills.

- ,, pulicaris L. Barbuchany (1); common on Cairnryan Hills, &c.
- ,, disticha Huds. (intermedia). In several places at Isle of Whithorn; old Sorbie Tower; Knock Bay, Portpatrick.
- " arenaria L. Glenluce (1); Garliestown Bay; N. of Portwilliam; west side of Luce Bay; Portpatrick, &c.
- ,, teretiuscula Good. (diandra, Schreb). Round the Isle of Whithorn ; Enoch Moor, Portpatrick.
- ,, teretuiscula, var. Ehrhartiana, Hoppe. Prestrie Loch, Whithorn (3).
- " paniculata L. High Arrow Loch; Loch N. of Cutreoch; Capenoch Moss; Dowalton Loch; Ravenstone Wood.
- ,, paniculata, var. simplicior, Anders. Ravenstone.
- ,, paniculata, var. or form pseudo-Bœnninghauseniana. Ravenstone (3).
- ,, vulpina L. Frequent along the shore. Bladenoch side (1); Garliestown Bay; Cairnryan; Portpatrick, &c.
- " muricata L. Carsegoun (1); Garliestown; Sorbie; Grennan Wood by roadside; Cairnryan; Portpatrick; Castle-Kennedy.
- " muricata, var. pseudo-divulsa. Ravenstone (3).
- ., echinata, Murr. (stellulata). Common. High Baltersan (1); Cairnryan, &c.
- ,, remota L (b). Cairnryan; Genoch Woods.
- ,, curta, Good. Shin Valley (1); Dunskey Lakes, east-end, &c.
- ,, ovalis, Good. Shin Valley (1); Cairnryan, Portpatrick, &c.
 - ,, acuta, var. gracilescens, Almquist. Prestrie Loch, Whithorn (3).
 - ,, Goodenovii, J. Gay (vulgaris). Common. Moss of Cree (1); Cairnryan; Portpatrick, &c.

1577

Carex glauca, Murr. (flacca, Schreb.). Frequent. Moss of Cree (1); Cairnryan; Portpatrick, &c.

- , pilulifera L. Moss of Shin (1); Portpatrick, &c.
- ", prœcox, Jacq. (verna, Chaix). Newton (1); Moss of Shin (1); Portpatrick, &c.
- " pallescens L. Shin Valley (1); Cairnryan, &c.
- " panicea L. Common. Baltersan (1); Shin Valley (1); Cairnryan, &c.
- ", pendula Huds. On the shore on rocks N. of Cairnryan; Dunskey Glen.
- , sylvatica Huds. (b). On the roadside N. of Cairnryan.
- , lævigata Sm. Cairnryan.
- " binervis Sm. Common. Moss of Shin (1); Lochnaw (Balfour); Cairnryan, &c.
- , distans L. Frequent along the shore, as at Isle of Whithorn ; Portpatrick ; (Balfour spec.).
- .. punctata, Gaud. Rare. Craigs of Garchew.
- ,, fulva, Good. Isle of Whithorn, &c.; Cairnryan; Portpatrick Moors.
- ,, fulva, var. Hornschuchiana, Hoppe. Between Penninghame and South Barbuchany (1).
- ., extensa, Good. Occasionally along the shore. West of Mull (Macnab spec., 1835); N. of Portwilliam; S. of Portpatrick; Isle of Whithorn; Kirkmaiden (a).
- ,, flava L. Common. Baltersan (1); Cairnryan; Portpatrick; Dowalton Loch.
- ,. flava, var. minor, Towns. Castle-Kennedy, &c. (1).
- ,, flava, var cyperoides, Marss. (Œderi, Auct, non Ehrh.) Garliestown Curling Pond.
- " Œderi Ehrh. Kirkmaiden Parish; Portpatrick.
- " filiformis L. Prestrie Loch, Whithorn (3).
- ,, hirta L. Frequent. Baldoon (1); Kirkmaiden Parish; Garliestown; The Forrest, Sorbie; Knockencurr; Cairnryan; Portpatrick; Port o' Spital, &c.
- .. paludosa Good. (acutiformis, Ehrh.). Monreith Lake ; Ravenstone ; Portencorkrie Bay.
- ,, rostrata Stokes (ampullacea, Good.). Common. Shin Valley (1): Castle-Kennedy.

Carex vesicaria L. Common. Bishopburnside (1).

- 1636 Phalaris canariensis L. Outcast. Portwilliam; Garliestown; Cairnryan; Drummore, &c.
 - ,, arundinacea L. Common. Creeside (1); Cairnryan; Portpatrick; Kirkinner, &c.
 - Anthoxanthum odoratum L. Very common (1).
 - Alopecurus geniculatus L. Common. St. Ninian's (1); Cairnryan; Portpatrick, &c.
 - ,, pratensis L. Common. Newton (1); Cairnryan; Portpatrick, &c.
 - Agrostis canina L. Common on moors as about Portpatrick and Ravenstone.
 - ,, alba L. Very common (1). Newton (1).
 - " alba, var. stolonifera, L. Common. Cairnryan; Portpatrick, &c.
 - " vulgaris, With. Abundant. Cairnryan; Portpatrick, &c.
 - ", vulgaris, var. pumila. (f); Penninghame (1); about the Old Battery, Portpatrick.
 - Annmophila arundinacea Host (arenaria). Killiness (Arnott, 1848); W. side of Luce Bay; N. of Port
 - william; S. of Drummore.
 - Aira caryophyllea L. Frequent (1); Cairnryan; Portpatrick, &c.
 - ,, præcox L. Frequent (1); Castle-Kennedy (1); Cairuryan; Portpatrick, &c.

Deschampsia cæspitosa Beauv. Abundant everywhere.

" flexuosa Trin. Frequent. Borrow Moss (1); Sorbie (3); Portpatrick; Capenoch Moor; Inshanks; Cairnryan.

Holcus mollis L. Common. Cairnryan ; Portpatrick, &c.

- " lanatus L. Common. Cairnryan; Portpatrick, &c.
- Avena pubescens, Huds. Craigoch Burn, &c.; Portpatrick; Physgill Shore.
 - " strigosa, Schreb. Common in cornfields; Newton-Stewart (1); Sorbie; Cairnryan; Portpatrick, &c.

1684 Arrhenatherum avenaceum Beauv. Very common everywhere.

fatua L. Wigtown (1).

- Sieglingia (Triodia) decumbens Bernh. Common on the moors. Moss of Shin (1); Portpatrick.
- Phragmites communis Trin. Frequent. Baldoon (1); Monreith Lake; Ravenstone; Portpatrick.
- Cynosurus cristatus L. Very common. Newton (1); Cairnryan; Portpatrick.
- Kœleria cristata Pers. Frequent. (Arnott, 1848); Portpatrick (Hooker in Flor. Scot.); Cairnryan.
- Molinia cœrulea, Moench. Common on the moors. Borrow Moss (1).
- Catabrosa aquatica Beauv. Port Logan, Port Gill (Arnott); Balcraig, near Myrton.
 - Melica uniflora Retz. Not common. Glen Cree (1); Cairuryan Glen; Dunskey Glen.
 - Dactylis glomerata L. Very common everywhere.
 - Briza media L. Frequent. Monreith (1); Claunch Moor, Sorbie (3).

Poa annua L. Very common everywhere.

- " nemoralis L. Rare. Carsegoun (1).
- " pratensis L. Very common.
- " " var. subcœrulea Sm. Stranraer (1).
- ", trivialis L. Common. Newton-Stewart (1), &c.
- Glyceria fluitans R. Br. Common. Newton-Stewart (1), &c.
 - ,, maritima, Wahl. Occasionally on the shore. Stranraer (1); N. of Portwilliam; Portpatrick.
- Festuca loliacea Huds. (Graham, 1836); (Balfour spec.); Stranraer (1); E. of Drummore; Portpatrick.
 - ,, sciuroides Roth. Frequent. Penninghame (1); Sorbie; S. of Drummore; Cairnryan; Portpatrick.
 - ., ovina L. Common. Borrow Moss (1); Cairnryan; Portpatrick.
 - ", var. capillata, Hackel (tenuifolia Sibth). Newton (1).
 - ,, ,, var. major S. Portwilliam (1).
 - ", rubra, var. arenaria, Osb. Wigtown, &c. (1).
 - ,, fallax, Th. (rubra, var. duriuscula, L.). Newton (1), &c.
 - ,, elatior L. Garlieston (1); Orchardton Bay; Reifer Park; Kirkmaiden; &c.

Festuca elatior, var. pratensis, Aust. Creeside, &c. (1).

, arundinacea, Schrad. Mr Arthur Bennett in Scottish Naturalist of July, 1891.

1731 Bromus giganteus L. Glen Cree (1); Cairnryan Glen.

- ., asper Murr. S. of Maryport; Grennan Wood; Dunskey Glen.
- ,, sterilis L. Gamekeeper's Cottage, Dunskey, Portpatrick.
- ,, secalinus, var. velutinus, Schrad. (Graham, 1835); near Sandhead (g).
- ,, racemosus L. Common. Carsegoun (1); Cairnryan; Portpatrick.
- .. commutatus, Schrad. Wigtown (1).
- " mollis L. Common. Newton (1); Sorbie; Cairnryan; Portpatrick.

,. arvensis L. S. of Drummore Quay.

Brachypodium sylvaticum, Roem. and Schult. Common in woods and glens. Monreith; Eggerness; Grennan Wood; Dunskey Glen; Cairnryan Glen.

Lolium perenne L. Abundant.

Agropyron caninum Beauv. Frequent. Cairnryan Glen; Dunskey Glen.

- ,. (Triticum) repens Beauv. Abundant.
- " acutum DC. Wigton (1); Sorbie (3); Cairnryan; Portpatrick.
 - , junceum Beauv. Frequent on the shore. (Arnott, 1848); Port o' Spital, &c.

Pteris aquilina L. Very common.

Cryptogramme crispa, R. Br. Dowalton Loch (3).

- Lomaria spicant, Desv. Frequent. Outtlewell (1); Glenluce (5); Cairnryan, &c.
- Asplenium adiantum-nigrum L. Frequent. Near Garliestown and Millisle; Eggerness Point; Glenluce (5); Cairnryan; Dunskey Glen.
 - marinum L. On rocks on the shore. Garchew; Glenluce (5); Caves near Portpatrick (4); Physgill shore; (Balfour spec.)

Nardus stricta L. Very common on the moors. Moss of Shin (1); Cairnryan; Portpatrick.

Asplenium trichomanes L. Cree Bridge (1); between Garliestown and Sorbie; Glenluce (5); Eggerness shore; Dunskey Glen; Cairnryan.

,, ruta-muraria L. Portpatrick ; Isle of Whithorn ; Cairnryan, &c.

Athyrium filix-fœmina Roth. Frequent as in Dunskey Glen.

,, var. erectum, Syme. Dunskey Glen.

"

33

var. convexum, Newm. Barbuchany (1); Dunskey Glen.

1781 Ceterach officinarum Willd. Bridge over the Bishopburn; near Glenluce (5); Walls of Morton Hall Gardens.

Scolopendrium vulgare Symons. In a ditch between Penkill and Garliestown Bay; in a ditch between Palmallet Pond and the Shore; Glenluce (5); Dunskey Glen, &c.

Cystopteris fragilis Bernh. Dowalton Loch; Glenluce (5).

Polystichum lobatum Presl. Dowalton Loch; Cairnryan Glen; Glenluce (5); Portpatrick Mill.

> . lobatum, var. acculeatum, Syme. Dowalton Loch; Glenluce (5); Dunskey Glen.

Lastræa oreopteris Presl. Cairnryan Glen; Glenluce (5); Cairnpiot.

" filix-mas Presl. Common as in Dunskey Glen.

- , ., var. Borreri, Newm. Barbuchany (1); Cairnryan Glen; Dunskey Glen.
- " cristata Presl. Wigtownshire (Heath's British Ferns).
- , spinulosa Presl. Near the Bishopburn (1).
- ., dilatata Presl. Common. Glenluce (5); Cairnryan; Portpatrick.

Polypodium vulgare L. Abundant.

- Phegopteris dryopteris Fée. Dowalton Loch; Glenluce . (5), &c.
 - ,, polypodioides Fée. Glenluce (5). Cairnryan Glen ; Cairnpiot, &c.

Osmunda regalis L. Near Anchenvalley (f); in some of the mosses; near Glenluce (5); Sorbie (3); Forest Moor (3); near Gillespie Farm.

Ophioglossum vulgatum L. Portpatrick (a); Dowalton Loch; Claunch Moor, Sorbie (3).

- Botrychium lunaria Sw. Near Portpatrick ; The Bushes, Sorbie (3) ; Glenluce (5) ; Ravenstone.
- Equisetum maximum Lam. Dunskey Glen; Monreith: Cairnryan; S. of Sandhead; Stoneykirk (Arnott, 1848).
 - , maximum, var. serotinum, Λ. Br. S. of Portwilliam on Monreith Bay (1).
 - , arvense L. Newton-Stewart (1); Sorbie⁺(3); Portpatrick; Cairnryan, &c.
 - ., sylvaticum L. Not common. Shin Valley (1); Cairnryan Glen; The Lakes, Dunskey.
 - ,, palustre L. Frequent. Barbuchany (1).
 - ,, limosum Sm. Bishopburnside (1); Ardwell Mill-dam; The Lakes, Dunskey; Ravenstone; Castle-Kennedy Lochs; Monreith Lake.
- 1822 Lycopodium selago L. Dowalton Loch; Kilitringan Fell, Portpatrick; between Portpatrick and Stranraer.
 - clavatum L. Glenluce (5); between Portpatrick and Stranraer.
 - Selaginella selaginoides Gray. Mull Head; Capenoch Moss, &c.
 - Isoetes lacustris L. Loch Magillie, E. of Stranraer (2).
 - Pilularia globulifera L. Round Pond, Castle-Kennedy (1). Chara fragilis Desv. Barbuchany (1).
 - " polyacantha A. Br. Loch N. of Burrowhead and Loch N. of Cutreoch.
 - ,, contraria Kuetz. N. of W. Tarbert.

• •

- ., vulgaris L. (fœtida, A. Br.) Mill Dam, Isle of Whithorn; Capenoch Moor.
- 1857 Nitella opaca Agardh. Dowalton Loch; Enoch, Portpatpatrick.

2.—Monastic Orders connected with Dumfries and Neighbourhood 500 Years Ago. By Mr JAMES G. H. STARKE, M.A.

There have been many papers read to this Society upon the history and architecture of the Monastic buildings in this district; but in none of them has more than a passing allusion been made to the various Orders of Monks to whom they belonged, and it has

therefore occurred to me to supply this blank in our Transactions. In treating of the subject there is room for an appeal to the eye as well as to the ear, and I am indebted to Mr M'Lellan Arnott for chalk drawings of the costumes or "habits" of these Orders to illustrate this paper.



The period from the first erection of stone Monastic buildings in Scotland until their demolition extends from the 12th century to the Reformation of the 16th century; and they were most numerous and prosperous 500 years ago. At a little later period, viz., A.D. 1400, Lincluden Abbey was being changed from a Nunnery into a Collegiate institution, and a new church was being erected, beautiful to us even in its ruins, in which services continued to be performed after the Reformation. On this point Mr M'Dowall writes: "The Galloway Monasteries were about the last to yield. Lincluden withstood the shock of the Reformation longer than its sister establishments."

The religious sentiment which led to the erection of Monasteries goes back to Pagan times, when the deserts of Egypt became peopled by Hermits and Anachorites of both sexes, and small communities were also formed called Coenobites, who had everything in common, and withdrew from the world for religious exercises and contemplation. This Monastic system became linked with Christianity in the second century, when, owing to the persecution of Christians by the Roman Emperors and their provincial governors, they had to flee into solitary places to save their life in this world and in the hope of saving their souls in the life to come. In the course of time a religious life presented itself to many of all creeds and countries as the only one worth living; and in the habits of the Monastic orders men and women, young and old, beheld a similar, but greatly more attractive, profession and dress than that of the soldier in his regimentals.

A new direction was given to this spirit when, at the call of Peter the Hermit and St. Bernard of Clairvaux, thousands of young men joined the Crusades to drive the infidel out of the Holy Land—a religious war which lasted from A.D. 1096 to A.D. 1274.

Orders of Chivalry had existed before the Crusades to protect females from the lawlessness of the age, but their bloody combats in this cause represented mere physical force, and, as a rule, it was only within a Monastery that females found a safe refuge. The Crusades gave a religious turn to chivalry, but still represented the physical force, while the monastic life included the spiritual strength of the nation. I should mention that the support which the Church of Rome gave to the Crusades was a powerful factor in the spread of the influence of that Church and consequent gradual extinction of the Culdee organisation in Scotland.

The leading founders of the Monastic system in Great Britain were St. Augustine in England, St. Columba in Scotland, and St. Patrick in Ireland—all about the 6th century. But the Monastic buildings then erected were few in number and insignificant in appearance—chiefly of timber and wicker work—and in Scotland we must come to the latter half of the Middle Ages to find those Cathedrals and Abbeys being erected, the ruins of which as we now see them give but a faint idea of their original grandeur and beauty.

There were Cathedrals in existence before Abbey churches, but many of the latter subsequently became the Cathedrals of Episcopal sees; and here I should explain the difference between what is known as the Secular and the Regular clergy, from which difference arose long and bitter jealousies between the two (especially in Scotland) until by the founding of Collegiate institutions a sort of compromise for peace was effected.

The Secular clergy were those who traced their spiritual descent from the Apostles, Bishops (or Presbyters), Priests, and Deacons, and at a later period from the Bishop of Rome as Pope and his College of Cardinals. The Regular clergy were those who from the 2nd century downwards came under Monastic rules and vows under the authority of the Superior of the particulur Order to which they attached themselves.

In short, the Secular clergy were those who officiated in spiritual matters as the clergy of a district (called some time in the 12th century "parishes") under a Bishop; and the Regular clergy were those who ignored Episcopal jurisdiction and the parochial clergy. The Seculars seem to have been so called, says Sir W. Scott, "because they lived after the fashion of the *seculum* or age, unbound by those ties which sequestrate from the world." Each thought their system to be based upon the strongest feature of primitive Christianity; but as they differed regarding the importance of the Monastic or ascetic life, a bitter rivalry ensued, and it was not until the 15th century (when all religious Orders were trying to reform themselves) that by the erection of Collegiate institutions a sort of compromise was effected.

The Collegiate institutions were clerical corporations founded by generous landowners, untrammelled by Monastic vows, independent of Episcopal jurisdiction, and so, like the large Monasteries, free from ecclesiastical interference and taxation, but open to the spiritual services of the parish priest. They were under a Provost or Dean, who, with a number of Prebendiaries or Canons, constituted the supreme authority of the Chapter. These had their stalls in the choir, their common seal, and possessed lands and endowments. At the Reformation there were 38 of these institutions in Scotland from Tain in the north to Lincluden in the south. There would be a Chantry-priest, or it might be the curate of the parish, to say prayers and chant prescribed services with special reference to the founder and his family. The Chantry was either a small enclosure within a church or a small chapel by itself, in which the priest resided. He was a humble functionary, and his ordinary dress was a long frieze cassock with a leathern girdle. Outside of the old town wall of Dumfries, on that hillock where St. Mary's Church now stands, was a Chantry Chapel to the memory of Sir Christopher Seton, described in the Transactions of this Society for session 1864.

The bitter jealousy which so long prevailed between the Secular and the Regular clergy may be still seen represented in the sarcastic, grotesque, and often coarse caricatures of each other that are carved upon the *miserere* seats within the chancel and the gargoyles outside of ancient Cathedrals and Abbey or Minster churches. The Monks regarded the Secular clergy with contempt, and considered those only entitled to the name of "religious" who belonged to a Monastic Order.

Having now described the origin and growth of the Monastic system, and explained wherein it differed from the Episcopal organisation, which it tried to supersede, I now proceed to notice those Orders who owned monasteries in Dumfries and its neighbourhood 500 years ago.

I begin with the oldest Order—the *Benedictines*—who possessed Lincluden Abbey as a Nunnery from A.D. 1164 until it was changed into a Collegiate institution about A.D. 1400. This Order was founded by St. Benedict of Clugny about A.D. 529, and came soon afterwards to England. He took as its motto the words of the Apostle Paul: "Ye are dead, and your life is hid with Christ in God." It became a wealthy and learned Order, and universal throughout the west for four centuries of the Middle Ages. Their abbeys were almost always built in or near to towns, and often upon an eminence; and they were distinguished by the richness and often magnificence of their architecture in contrast with the plainness of abbeys of the Cistercian Order, immediately to be noticed. St. Benedict added manual labour to the religious life, observing that idleness was the great enemy of the soul; and he also made the vows of obedience, poverty, and chastity perpetual.

This is the only abbey they possessed in the district, and I here show you drawings of a Monk and of a Nun of the Order. The habit of both was a large black woollen robe, covering the body to the feet, with a plain black scapulary; the Nuns wore a black veil and a white wimple over the chest and neck, which sometimes also covered the chin; and also a cowl or coif, which covered the forehead.

The Benedictine was the parent of among others the *Cistercian* Order, which owned the large Abbeys of Dundrennan and Sweet-Heart, called in later time the New Abbey.

This Order was founded by St Bernard at Citeaux, in Burgundy, A.D. 1098, and introduced into England a century later. It was a reformed Order of the Benedictine, adhering to the strict letter of its rules and inculcating silence, except to the Abbot. and simplicity of habit and diet. The sites of its abbeys

are to be found in secluded valleys, so that the popular saying was "Bernard loved the valley and Benedict the hill." They preferred the cultivation of the soil to the pursuit of literature, and were excellent farmers and horticulturists. Their abbeys were marked by plainness of architecture, and in having either no tower or a very short one. Their inmates passed a peaceful life in these sequestered glens, and Sir W. Scott makes Abbot Boniface, of St. Mary's, regret that he had ever left Dundrennan Abbey. The Abbot says : "I fancy to myself the peaceful towers of Dundrennan, where I passed my life ere I was called to pomp and trouble. I can almost fancy that I see the Cloister garden, and the pear trees which I grafted with my own hands."

Dundrennan Abbey was founded by Fergus, Lord of Galloway, A.D. 1142; and Sweetheart A.D. 1284 (Fordun says 1275), by Devorgilla, daughter of Allan, Lord of Galloway, aud widow of John Balliol, who died A.D. 1269, by whom she became the mother of John Balliol, afterwards King of Scotland. She buried her husband's heart at its high altar, and hence the name, which was afterwards changed to New Abbey, as being of more recent erection than Dundrennan. Devorgilla died A.D. 1289, and was buried in the same spot as she had placed her husband's heart. The last Abbot of Sweetheart was Gilbert Brown, who died in Paris, to which he had been banished in 1612.

Beyond the names of its founders and abbots no records or legends have been preserved. It and Dundrennan lay outside of the world's busy thoroughfares, and no history of them has survived.

The habit of the monks of this Order was a white robe in the form of a cassock, with black scapular and hood, and a black woollen girdle; of the nuns a white tunic, a black scapular and girdle, a black veil, and white wimple.

Within the ruins of Dundrennan are two sepulchral effigies —one of an Abbot of this Cistercian Order, which the late Mr Bloxam, the eminent ecclesiastical antiquary, described in a letter to me as "the best effigy of a Cistercian monk I have seen anywhere." The other is an incised slab of a Nun, supposed to have been the last Prioress of Lincluden ; but, at all events, of a Nun, on the same high authority of Mr Bloxam, who thus wrote to me : "I was much interested in the incised slab of a Nun, not, I think, au Abbess. She appears clad in cowl, mantle, wimple, and veil;

had she been an Abbess she would have had the pastoral staff. I think it very probable that this slab may have been removed to Dundrennan from Lincluden." Now upon this opinion I have to remark that when Mr Bloxam wrote it he had not had his attention drawn to the undisputed date of A.D. 1440 upon this slab, which was 40 years after the time when Lincluden had ceased to be a Nunnery, and when its Prioress-if this be her tombstonehad ceased to carry the pastoral staff. I regret now that I omitted to bring this historical fact to Mr Bloxam's attention when we visited the ruins, several years before Mr M'Dowall's book on Lincluden was published. I think that the want of a pastoral staff is owing to this historical circumstance, and that the representation of sheep under her feet was intended to show she was not only a Nun but had exercised authority. I think it is also probable that she died as a religieuse in old age, attending the services of Dundrennan Church, and so at death was buried within its precincts. Where no nunnery existed, or where it had been dissolved, as at Lincluden, the inmates and female religiouses were always made welcome to accommodation within or adjacent to an abbey of the same or a similar Order.

> " And then our Provincial Hath power to assoylen All sustren and brothern That be'th of our Order." —Piers Plowman.

There need, therefore, be no surprise at finding the tombstone of this Nun of Lincluden, after its suppression, within the walls of Dundrennan, seeing that the Benedictine was the parent of the Cistercian Order.

The Abbey of Holy-wood—sacrum boscum, or monasterium sacri memoris, i.e., of the holy grove, as it is called in ancient documents—belonged to the *Premonstratensians*, a branch of the great Augustinian Order, which included all Orders not based upon the rules of St. Benedict. This Order was first established in a meadow (pre'), said to have been pointed out (*montre*) by the Virgin to St. Nerbert in France, A.D. 1120, and was introduced into England A.D. 1134. They discarded the black habit as well as the rule of St. Benedict, and wore a white woollen cloak and a white four square cap to signify purity of mind and body.

The Abbey is said to have been founded some time in the

12th century by a Lord of Kirkconnel; and there is an engraving of it as it appeared in the middle of the 18th century in Cardonnel's Antiquities of Scotland, small in size, because apparently only the pre-Reformation Chancel made use of for Presbyterian worship down to 1779, when its stones were built into the present parish Church. It stood on the S.E. corner of the present churchyard, and vestiges of its foundation were to be seen some years ago.

Its Abbot sat in the great Parliament of 1290 as Abbot de Der-Cougal, or holy-wood, in the diocese of Glasgow, and he swore fealty to Edward 1st at Berwick in 1296. In 1568 its Abbot— Thomas Campbell—assisted Mary Queen of Scots in her flight, and his title was therefore forfeited. In 1587 the Abbey became vested in the King; and in 1617, by an Act of Parliament, its lands were erected into a free Barony of Holywood. The Abbot's Seal on a lease, dated 1557, represents a bird sitting on an acorn on the branch of an oak. All the Abbots of this Order met once a year at Prémontre. Keith, in his notice of religious houses in Scotland, says—" Johannes de Sacro Bosco, who is famous for his book De Sphoera, is believed to have been a religious of this Abbey." An effigy of this great mathematician was removed from the Church to that of Terregles by Lord Maxwell at the Reformation.

The monks of Holywood possessed much land in Nithsdale and Galloway, and it is said that between the years 1172-80 all the churches in Galloway were granted to it by William the Lion, specially Tongland, Whithorn, and Soul's Seat. Almost all the land in the parish of Dunscore belonged to it, and to a Priory at Friars' Carse.

As there are no remains in this district of a monastery of this Order, I would recommend the student to visit the Abbeys of Dryburgh, Jedburgh, and Hexham, all within reasonable distance, and of the Augustinian Order.

Some time in the 13th century various orders of Friars came to this country from Italy, wearing the monastic habits, but not under monastic vows; and who, instead of loving seclusion and an ascetic life, devoted themselves to active religious duties everywhere, in rivalry of the purochial clergy, whom they accused, not without reason, of negligence in their spiritual duties, especially to the poor. Some were famed as preachers, others as confessors and missionaries, and nearly all of them as mendicants. But the Friars' frock and cowl were often worn by imposters, like Friar John in the Canterbury Tales of Chaucer, and the adage was true— *Cucullus non facit monachum.* Their monasteries, known as Friaries, were in cities and towns; and their churches different from the monks in being less encumbered with pillars and aisles, so as to be better fitted for preaching to large audiences. They kept up an intimacy with the subordinate officials of monasteries in their constant peregrinations, and different chiefly from monks in being by profession beggars. They called each other Fratres, and their superior Master, and sometimes Warden.

There were four great Orders of this religious brotherhood.

(1) Dominicans, or preaching Friars, called also Black Friars, because they wore a black cassock over white robes; hence likewise called "Magpies," because of the mixture of the two colours. They came to England A.D. 1220.

(2) Franciscans, or Grey Friars, who came to England A.D. 1224.

(3) Carmellites, or White Friars, but for long their cassock was white, striped with brown, like the bourhonse of the Arab Bedouin, and hence called in Paris in jest Freres barres - i.e., in prison bars.

(4) Augustinian, or Austin Friars, also called White Canons.

As the chief characteristic of the Dominican friars was preaching and praying, that of the Franciscan was begging; and to this Order belonged a large monastery in Dumfries occupying all the ground between the present Church of Greyfriars and the Nith, at which time Buccleuch Street, Castle Street, and Irish Street were fields and gardens. Their church is believed to have stood where Comyn's Court is, now approached by that long narrow street called from the French a Vennel. I saw some remains of that monastery 30 years ago in a large vaulted room with a huge fireplace, supposed to have been the kitchen of the Refectory, which ran behind Mr Lennox's shop, who tells me there is still some ancient mason work in his cellars. This Monastery was founded by Devorgilla, who gave the Friars authority to levy dues on persons and animals crossing the bridge. The Friars were great bridge makers. and these dues would be partly for its upkeep and partly for their own maintenance. The original bridge would, I think, be constructed chiefly of timber, but the main features of it have no doubt been preserved in the subsequent stone erection. One striking feature remained until 1769, and this was the Port or Gateway, with the toll-keeper's residence on the centre of the bridge. At this point there would be a drawbridge in the original wooden structure, so that until payment to the toll-keeper a yawning gulf prevented any one from crossing it. On many a stormy night of that far distant time the toll-keeper, wrapt in slumber, would leave the belated traveller to stay until daybreak at either end of the bridge; and some house of rest would be the earliest building erected in what is now the Maxwelltown end, to refresh those who had travelled from the wilds of Galloway to Dumfries.

The Franciscan Order was founded by St. Francis of Assise in Italy, and came to Scotland about A.D. 1230. They were also called "Minorites"—*i.e.*, *fratres minores*, or lesser brethren—either because the Dominicans had preceded them or as a sign of their humility. They were also called "Cordelliers," from the thick rope which they wore round the waist. Their highest official was called Minister, the elect of all, yet the servant of all. Their habit was a long grey robe over a black tunic, a grey hat, and a strong cord for a girdle, hanging down in front to the feet, with three large knots on it. They had eight monasteries in Scotland, and it was at the high altar of their church in Dumfries that the Red Comyn was slain by Robert Bruce and his friends A.D. 1305. It is believed that the learned John Duns Scotus was an inmate ; and military knights and pilgrims, when dying, asked to be buried in the Franciscan habit, as a sure passport to heaven.

In addition to the above, there were two Orders of religious knights who owned lands and churches in this district, called Knights Templars or Red Friars, and Knights of St. John, called Knights Hospitallers—the former founded to send money to free captives and protect pilgrims in the Holy Land; the latter to maintain an hospital for those of them who became sick or disabled on the journey.

They originated in the East, and settled in Scotland in the 13th century, and throughout this district their lands are still called Temple land, or Templand, a list of which is given in M'Dowall's "History of Dumfries." One of their principal houses was at Kirkstyle, in the parish of Ruthwell, and many sculptured stones, with sword and cross upon them, have been dug up. Their houses were called Hospitals; their churches Temples; and their superior the Master of the Temple. Their headquarters were in Fleet Street, London, still called The Temple, with its beautiful circular-shaped church, which dates from A.D. 1185, in which services are still given. Their habits were white, with a red Malteseshaped cross on the mantle over the heart, as so admirably depicted before you, with the others, to illustrate this paper, by Mr M⁴Lellan Arnott.

The old order changes alike in Church and State-even the proud knights "their swords are rust, their bones are dust." But the spirit that animated these Orders at their origin was good, and cau never die. The Monks kept the lamp of literature lit through what has been well called the Dark Ages, and their Monasteries were safe asylums to rich and poor ; while the religious knights were the first to inculcate true chivalry and courtesy towards women. The Monastic system broke down at last because it had departed from its primitive simplicity of life and allied itself with wealth and worldly power. In regard to these Abbeys, as we call them, which were only the churches of the Abbeys, we wonder how they could have been filled with worshippers. But we must remember that the ancient Church of Scotland was almost wholly monastic, and that most of the parish churches became subject to a monastery. Abbeys and Priories were to be met with everywhere, and the monastic habit was a familiar dress not only in country districts but in the town of Dumfries 500 years ago. These buildings contained within their walls a vast number of persons, and outside of them were baronies, villages, granges, and hamlets, of which the names only now survive. In the neighbourhood of Dumfries there were the baronies of Torthorwald, Rockhall, Mouswald. Lincluden, Holywood, and Drumsleet, then inhabited by vassals and by dependants and artisans in every vocation of life.

3. — The Old Water Supply of Dumfries, and the Progress of the Water Supply in the Town. By Mr JAMES BARBOUR, Architect.

Prior to the construction of the existing gravitation works, more than forty years ago, the town derived its supply of water chiefly from the river Nith. The minor sources consisted of surface wells and pump and draw wells.

The river was long and justly celebrated for the superior quality of its water. A distinguished native of Dumfriesshire, Christopher Irvin, of Bonshaw, professor in the University of Edinburgh, in his work entitled Historia Scotica Nomenclatura, written about the year 1638, says in reference to the Nith : " It is the clearest river in Scotland." The Copper Plate Magazine, published in London in the year 1793, contains an engraved view of the town, after the well-known artist, Alexander Reid, with descriptive letterpress, where it is said : " Dumfries is fortunate in the possession of three essential particulars conducive to the health and happiness of man-the extreme beauty of its situation, the salubrity of its atmosphere, and the lightness and softness of its waters ;" and in M'Diarmid's Picture of Dumfries we read that "in point of size the Nith ranks fifth among the rivers of Scotland, and its waters, when unagitated, rival in purity those of the silver Tweed itself, even where it rises within a few miles of the village of Moffat." It is interesting to find the traditional estimate of the Nith confirmed. Of three samples of water submitted for analyses in connection with the proposed introduction of a new supply in 1849, all of which were reported to be good, that drawn from the river ranked the highest in regard to purity.

Three wells in Dumfries will be remembered, namely, the Doctor's Well, St. Allan's or the Three Wells, and the Dock Well. all now drained away. They are marked on the Ordnance Map of the town, as well as one in Maxwelltown named Maggie Broatch's Well. The water of the Doctor's Well was believed to possess healing virtues, and was resorted to for many causes-chiefly for the cure of sore eyes. The well is mentioned in J. Russel Walker's list of holy wells in Scotland, but classified as doubtful. St. Allan's wells, the most important, were situated beside the Mill Burn, at the foot of a lane on the south side of St. Michael Street, and consisted of a group of three square stone basins, each backed by an arched recess, all neatly built of dressed stone. They were doubtless of ancient date. Until about fifteen years ago the water, which was bright in appearance and pleasant to the taste, was held in esteem and extensively used; but a sample having been found by analysis to be very impure, the authorities, after some hesitation, caused the wells to be closed. A number of the deep wells were originally draw wells afterwards fitted with pumps. All the houses in the newer streets, such as Castle Street, and Bnccleuch Street, were provided with pumps; but the main parts of the town where the houses are crowded together, and where the mass of the population resided, were almost wanting in this respect, and such wells as did exist, considering their surroundings, could scarcely be free from impurities.

There were three public pumps between Queensberry Square and Assembly Street. One of them stood at the Fish Cross, a little below the Midsteeple, and the well still exists under the pavement. The Town Council minutes relating to it give the impression that much inconvenience must have been experienced on account of the scarcity of water in the centre of the town. The well, as the minutes show, was built in the year 1719. On 10th August instructions were given that workmen be employed to dig any three or more places upon the streets where it is thought proper draw wells may be built. A few months later, 10th November, it is minuted that the Magistrates and Council, considering that the inhabitants do much injury to the draw well now made a little below the new Council-house by drawing water furth thereof too early in the morning and too late at night, do restrict the time during which water may be drawn to the part of the day between the hours of seven in the morning and four in the afternoon. Other regulations followed, such as that none should draw continuously to the injury of their neighbours ; that none should wash anything to spoil the water; and as if pressing need sometimes resulted in breaking the well open, it is ordained that no one injure the lock or chain. In the year 1738 it was ordered that a leaden pump be fitted to the well. Finally, before 1840, all the three public pump wells had been closed, for what reason is not stated.

Notwithstanding the attempts to find water by sinking wells in the streets and elsewhere, the river continued to be the source of supply for all but very limited sections of the town. The method of distributing the water, an important feature of the old system, was carried on mainly by water-drawers or burn-drawers, as they are designated in the Council's minutes, who perambulated the streets with water-carts, calling "Water! water!" and supplying those of the inhabitants who responded to the call, the price for two cans of water being one-halfpenny. Notwithstanding the distance of the river, much water was also conveyed by hand, and a necessary part of the stock of utensils in every house consisted of two water-cans and a hoop. The cans were carried one in either hand, the hoop being used as a rest.

The usual place for filling the carts was the watering-place opposite the foot of Bank Street, and the process, a slow one, was carried on in this way. The cart having been drawn well into the stream, the waterman, holding in his hands a long pole, on one end of which was fixed a tin vessel, stood on the cart, and proceeded to dip the tin vessel into the water, drawing up what was caught and filling it into the cart, one vesselful after another, till the barrel was filled.

In the state of accounts incurred by the Committee of Health in connection with the cholera of 1832, the names of three waterdrawers appear, with their charges --William German, for water, £3 19s 2d; Widow Brannaghan, water-drawer, 11s 6d; Robert M'Phearson, for water, 2s. German is remembered as being helpful to aged and weak customers, carrying the water for them to the head of close or stair. His turnont, it is said, was not of a high order, but between him and his aged and ill-fed horse subsisted mutual affection, and he often desired to reward the faithful animal with a feed of corn, but the fulfilment of the wish was interfered with by a feeling of dryness with which he was himself much troubled. As both could not be satisfied, resort was had to an ancient method of ascertaining the will of providence—lots were cast, and the lot of the horse was to lose invariably.

German lived at the Townhead, a poor part of the town then, and his cart at night stood in a recess off the street. Unsuspected by him or his customers, the cart was sometimes utilised in a way not very consistent with its main purpose. Many vagrants were about, and as little provision existed for their housing at night any kind of shelter was welcomed, and German's water-barrel found occupants. A gentleman remembers that, when a boy, he had the curiosity one night to climb upon the cart, lift the leathern cover of the top opening, and look in, when he was surprised to find the barrel occupied by three beggar boys, evidently for the night.

From our standpoint, at least, there is no difficulty in coming to the conclusion that the old water supply of the town was wholly faulty and inadequate. A glance at the Ordnance Map surveyed in the year 1850, on which the pumps then existing are marked, shows forcibly of how little account these could have been, even if the wells had been, as they were not, fairly productive and pure. The three surface wells mentioned, besides being very distant from the populous parts of the town, yielded but a triffing supply, and two of them were liable to be submerged when the river was high; and in regard to the river itself, while there is no doubt of the superior purity of its water, it must have been, at the point usually drawn from, contaminated by sewage, and far more largely, in consequence of a practice which, if now discontinued, was prevalent only a few years ago—the custom of making the river a sink for the reception of all kinds of refuse. When to this is added the discolouration of the water during floods, and the inefficient, cumbersome, and objectionable method of its distribution, it may well be conceived that water famine must have been an often recurring circumstance in the town ; and at no time could the supply be said to approach a sanitary standard either as to quantity (the circumstances being considered) or quality.

Although a better supply of water was urgently needed, the movement in that direction for a long time made but little progress. This was partly due to the peculiar relation in which the governing authority stood to the question. It was not generally recognised as a part of the duty of such authority to enforce or to provide a supply of water. The usual course, in case of a supply being desired, was to establish a joint stock company, who obtained an Act of Parliament and undertook the construction of the works as a speculation. In the present instance the scheme was not sufficiently tempting, and therefore the several efforts which were from time to time made to start a company proved a failure.

The earlier Acts of Parliament for police purposes proceeded on similar lines, no provision being made in them for introducing a supply of water. In the year 1681 Dumfries obtained from the Scottish Parliament of Charles II. a Local Police Act, and another was passed in favour of the town in the 51st year of the reign of George III., but neither of them contained water clauses. The General Police Act of 1833 first conferred on local authorities powers in that direction, and gradually as the importance of the question came to be recognised, they were amplified in succeeding Acts, until now the providing of a plentiful supply of pure water occupies a foremost place in the sanitary work of which local authorities have charge. The Town Council minutes show that about the beginning of last century proposals had been made to bring water in pipes to the town, but not until more than a

hundred years later did the question come to be seriously entertained. In 1832 the movement commenced which, after much debate and many vicissitudes during a period of nearly twenty years, culminated in the successful carrying out of the existing gravitation works. The reason which seems to have weighed in its promotion was one of convenience mainly; but the idea of sanitation was also present, inasmuch as the cleansing of the streets and flushing of such sewers and channels as existed was in view. The desirableness of attaining a higher standard of purity does not seem to have exercised much if any influence, and the importance of this aspect of the question was as yet almost overlooked.

Thus, during the Cholera of 1832, while the general and local boards of health urged attention to cleanliness, ventilation, temperance, guarding against partaking of unripe fruit, no word of warning was given against the use of impure water. And in the Courier newspaper of the time the only mention I find of water in connection with the cholera has reference to certain ignorant and evil-disposed persons who, according to the editor, had spread false reports to the effect that the presence of the epidemic in the town was due to the wells having been poisoned by the doctors. He mentions, also, that a gentleman from Castle-Douglas informed him that the wells of that place had all been cleaned, in order to satisfy popular clamour, a person having been seen shaking something over them. The popular view was in this instance in advance of the scientific, which frequently happens, the scientist being weighted by the necessity of providing reasons and proofs. The connection between cholera and impure water was established in the year 1856, when in one of the districts of London it was proved that of the inhabitants using the water of one company, which was comparatively pure, the deaths from cholera in 1853-4 were 37 per 10,000, whereas of those using the water of another company, which was impure, the deaths from cholera reached 130 per 10,000.

There is little doubt it was in consequence of the alarm caused by the outbreak and spread of cholera in the country that steps were first taken in the direction of introducing a better supply of water into the town, and just before the disease reached Dumfries a survey had been begun with that view. The work occupied several weeks, and the position arrived at appears from the Town Council minute of 1st November, 1832. The Provost stated that the Council were already aware that Mr James Colquhoun, civil engineer, from Sheffield, had been making some surveys in the neighbourhood, and had found that a stream of water sufficient to supply the town with good and wholesome water might be introduced from a place called Nunland Hass, on the ground of Mr M-Culloch of Ardwell, within about three miles of the town, on the road from Dumfries to Portpatrick by Castlehill, and that he (the Provost) had good hope of bringing about an agreement to get the water.

A year later, 21st October, 1833, he reported that the whole arrangements were nearly completed for bringing water into the town by pipes from Nunland, and that before engaging further in an undertaking of this magnitude he thought it right to request Mr James Jardine, civil engineer, to come out from Edinburgh on Monday, the 28th current, to make a survey of the springs at Nunland and to report. Mr Jardine accordingly made an inspection, and on the same day reported that these springs, together with four others falling into the Goldilea Burn which might be utilised, yielded over 6000 cubic feet of water in 24 hours ; that according to returns submitted to him the inhabitants of Dumfries, exclusive of the landward portion, amounted to nearly 9000, and the portion of these who would likely be willing to pay for water was 4000. The ordinary quantity of water required by each inhabitant, young and old, for domestic purposes is one cubic foot per day, and as much more for those who use baths and waterclosets, estimated to number in process of time about 2000. From these data it appeared to him that the springs would afford a sufficient supply of water to the aforesaid 4000 inhabitants for a considerable number of years. This looks a very inadequate scheme, providing only ten gallons per head per day for less than half the population, and it shows how little progress had yet been made towards forming a correct estimate of the ultimate requirements of the town.

Mr Jardine's report was followed, November 17th, by the issue of Parliamentary notice of the intention of the Town Council to apply for a new Act for police purposes, and for supplying the town and burgh with water ; and, alternatively, to bring in a separate bill for power to supply said town with water by pipes from Nunland. That it was not the intention of the Council, how-

ever, to undertake to construct the works themselves is shown by the terms of the minute of 19th November. Mr Broom having explained and read Mr Jardine's report, the Provost said he thought it would be most advisable for a joint-stock company to take up and carry through the scheme ; and Mr Broom stated that the former Council never intended to carry through the project with the public funds. The measures were merely preliminary, and by proving the practicability of the scheme inducing a company to take it up. At a meeting of the inhabitants, held 1st January, 1834, to consider what should be done, the proposal to apply for new bills was disapproved on account of expense, and it was resolved instead to adopt the General Police Act. The water supply scheme was now postponed indefinitely, and, beyond being mooted once or twice, the question lay dormant until the beginning of the year 1848, when it again came to the front.

In the interval, through the exertions of scientists, by Government Commission reports, and in other ways, public opinion, without which schemes of this kind could not be enforced, was stimulated and ripened for the advancement of sanitary reform, and the wave gave impetus to the proceedings in favour of the introduction of water here. "Sanitary improvements," says a writer in the local newspaper of 1st February, 1848, "seem now to have cast railways and almost every other topic into the shade." Under such favourable circumstances did the revival of the water-supply movement take place; but the difficulty as to the method to be adopted in carrying out the scheme remained, and the circumstance that Dumfries and Maxwelltown were separate burghs added to it. At a Town Council meeting, held 14th January, a Committee was again appointed to make arrangements for the formation of a water company. Time went on without any approach to the accomplishment of that end; and meantime, on May 30th, it was reported in the local newspapers that cholera had appeared at Constantinople. About six months later, 16th November, the epidemic reached Dumfries, where for the space of two months it continued to decimate the town. The visitation still further impelled and made imperative the introduction of water; and light as to the method of proceeding came at last. The town of Stirling had obtained a water bill in favour of the Town Council. This was an example, and, influenced by it, on 6th March, 1849, it was resolved that the scheme here should not be left to private enterprise, but should be managed by the Corporation, supported by the inhabitants. The Town Council of Maxwelltown also agreed to co-operate with the Dumfries Council in whatever steps might be deemed necessary for the introduction of a supply of water.

The difficulties which had so long retarded the project having now been cleared away, the forwarding of it was carnestly set about, and the right man appeared in the right place at the right time. Mr Wm. Gale, engineer to the Gorbals Water Company, being in Dumfries on his way from Strauraer, the Joint Committee of the Council and community, which had been organised to arrange the preliminaries of the important undertaking, held a special meeting on April 21st for the purpose of having an inter-view with Mr Gale. That gentleman expressed himself confident that they need be at no loss in the matter from the quantity of water suspended on the hills on both sides of them. He advised that it was preferable to introduce water by gravitation rather than by mechanical means, and that good soft water was to be preferred to that of the springs. Subsequently, after a perambulatory survey of the district, Mr Gale reported in favour of taking the supply from Dalscairth burn or Tinwald hills. Measurements having been made, however, it was found to be doubtful if an adequate supply was obtainable from either of these sources; and the Committee considered Torthorwald burn, which received the drainage of 1200 acres, would be the best. The Nith, Lochaber, Lochrutton, a stream at The Grove, and other places, were also considered. At a meeting on 31st July the Committee strongly urge the importance and necessity of obtaining an adequate sup-ply of good water; advise steps to be taken for the introduction of a Bill next session on similar grounds to that obtained last year for the burgh of Stirling; and considering the difficulty of the choice of a site, they suggest that the reports by the Committee and Mr Gale's report be referred to Mr James Jardine, chief or consulting engineer to the Edinburgh Water Company, for his advice and guidance. It is well known, they say, that Mr Jardine, a native of the county, is intimately acquainted with the geology of the district. Mr Jardine, after obtaining information and visiting the town, gave an opinion decidedly in favour of the Lochrut-ton scheme. Taking the population at 15,000, he proposed to provide 30 gallons per day for each individual for domestic pur-

poses, and one-fifth more for manufacturing and other purposes. The loch was a store already made, and by constructing a distributing tank on Corbelly Hill of a capacity for two days' supply, a 9-inch diameter pipe between them, and a 13-inch diameter distributing pipe, would be sufficient to convey the quantity required. This, he thought, would be much cheaper than raising the water from the Nith. He preferred the gravitation principle, observing that the mechanical power of man soon comes to rest and requires frequent repairs, while the power of gravity, with which the Almighty endowed water, is immutable, and slumbers not nor sleeps.

A meeting of the inhabitants was held on 6th November, when the action of the Committee and Mr Jardine's scheme were approved of unanimously, and the whole documents were referred back to the Town Councils of Dumfries and Maxwelltown to obtain an Act of Parliament the first session, Mr Gale to be engineer, and Mr Newall local engineer, in the preparation of the Parliamentary plans.

Every one was not satisfied. It will not be seriously maintained, writes one, that our beautiful limpid river, oft rushing in majesty and great power, and giving notes of varied and sweet sounds, possesses any deleterious qualities whatever. "What must our enterprising youth now in distant lands think," says another, "when they hear a sound wafted to them from Nith's flowery banks—surely not from genuine Dumfriesians—that the ample supply of water from our pure flowing streams and St. Allan's and other wells, which could be made to give any quantity of water, are now ungratefully despised, and that an Act of Parliament is intended to be applied for to take water from Lochrutton Loch. . . Up Dumfriesians ! Now's the time ! Don't let the foe advance a step further."

Ultimately opposition was organised and promoted at great expense, and much feeling was imported into the dispute. As the lapse of time may not have been sufficient to remove all trace of the feud, it is my desire not to enter on debatable ground. Suffice it to say, that the Bill applied for was passed, and the works, as designed by Mr Gale, were successfully carried through under his direction by the Water Commissioners appointed under the Act. It is due to the memory of two gentlemen, Mr Thomas Harkness, solicitor, and Mr Newall, architect, to record that, from the commencement of the movement until the scheme was fairly floated, they in particular were ever active in promoting it at the Council Board, and the latter also from time to time performed much professional service. He assisted Mr Jardine in 1833 and 1848 in obtaining data, and made up the estimates of the cost of the various schemes. He was associated with Mr Gale as local engineer in the preparation of the Parliamentary plans of Lochrutton scheme, and part of the work performed by him consisted in surveying the loch when covered with ice, and taking soundings, and in preparing a chart of it showing the depth and the nature of the bed at many different points. The bed he found consisted mostly of *debris* of rock.

It has been mentioned that Mr Jardine, the consulting engineer, whose guidance was sought in 1833, and again in 1848, and on whose recommendation the existing works were undertaken, was a native of Dumfriesshire. It may be added that he was engineer to the Edinburgh Water Company, and carried out the Crawley Springs water scheme there, which works were designed by another well-known Dumfriesian, Thomas Telford. Mr Leslie succeeded him as engineer to the company in the year 1846.

The very modest gravitation water supply works constructed for the purpose of introducing a suitable supply of water to the burghs of Dumfries and Maxwelltown, and inaugurated with some ceremony on the 21st day of October, 1851, have proved to be beneficial beyond the approach of any other work ever carried out in the place, saving life, and promoting health directly, and making possible and efficient other important means to that end, contributing to the advancement of trade and general prosperity, and in every house saving labour and adding to convenience and comfort. By a touch of the finger this wonderful element, endowed with the power of gravity, comes at your call, not sluggishly as if unwilling, but bounding as if in delight to serve you.

During the discussion which followed, Dr MAXWELL ROSS showed a series of lantern slides he had had prepared to illustrate the collection and distribution of water supplies, and various

modes and effects of pollution of the same. In describing these he dwelt at some length on the lessons to be learnt from the Broad Street pump epidemic and the more recent outbreak of cholera at Hamburg, drawing attention to the efficacy of properly prepared and kept sand filters.

20th April, 1894.

Mr THOMAS M'KIE, F.S.A., Vice-President, in the chair.

New Members.—Mr Alexander Malcolm of Priestlands House, and the Rev. H. M. B. Reid of Balmaghie.

Donations.—The Proceedings of the Linnean Society, 1875-1886 (from Mr W. Robinson Douglas); the Report of the Smithsonian Institution, Washington, for 1891; Cardiff Naturalists' Society Report, 1892-3; History of the Berwickshire Naturalists' Club, 1892; Transactions of the Botanical Society of Edinburgh, 1892-3; Essex Naturalist, October-December, 1893.

Exhibit.—Mr Peter Gray exhibited a specimen of the gagea lutea, found at The Grove.

COMMUNICATIONS.

 Notes on the Plants of Northumberland and Durham, in relation to their extension Northwards to Dumfries, Kirkcudbright, and Wigtown.

By Mr ARTHUR BENNETT, F.L.S., Croydon.

If you look at a map of Great Britain you will see that Northumberland extends some 20 miles northwards of the most northerly point of any of the three Scotch counties named above; and that the extreme southern point of Wigton about cuts the two counties of Durham and Cumberland into equal portions, thus including under equal latitudes some 70 miles south to north of England and Scotland.

In 1868 Mr J. G. Baker, in the Flora of Northumberland and Durham, gave a list of species which, while reaching these two counties, failed to reach Scotland.

They numbered 77 species. 28 of these reach Cheviotland, 18 stop short in Tyneland, and 31 in Durham. Looking to these

132

77 species (or rather most of them), we may discuss how far on present knowledge they are likely to be natives of the three Scotch counties, as many really seem to have as fair claims to notice as they do in the two English counties named above. They are :

Humulus lupulus.—I doubt much if this can be held certainly native north of the Midland Counties of England ; but it seems as well established in South Scotland as in North England.

Arundo calamagrostis. — This has been gathered by Mr M·Andrew in Kirkcudbright, as a native plant. This is, however, still to the south of the English station, "near Alnwick, Cheviotland."

Manchia erecta.—No Scottish record as a native, or as an alien (?), but I see no reason why one of the three counties should not produce it; extends to Cheviotland; an early flowerer on sunny grassy banks.

Euphorbia amygdatoides.—Cheviotland. In the Transactions for 1891-2, p. 13, this species is reported by Mr Scott-Elliot for "Cowhill." This interested me greatly, and I got Dr Traill of Aberdeen, when at Kew, to discuss it with Mr Scott-Elliot and myself, but he acknowledged it could not be held native at Cowhill. It loves the sunny edges of woods on limestone, and in Surrey grows with Myosotis sylvatica, a species that extends north to Kincardine, and the South Hebrides.

Juncus diffusus. Cheviotland. Perth only in Scotland.

Verbena officinalis.-Reported from Fife.

Agrimonia odorata.—Here we have a distinct advance northwards in records. Kirkcudbright (Prof. Oliver); Stirling (Craig-Christie); Clyde Isles (Syme).

Orchis morio.—Cheviotland, Cumberland. Reported from Edinburgh and Orkney. I look for this as a plant of Southern Scotland; it grows in Sweden in at least four of the southern provinces; in Norway, near the sea; but not in Finland. In Denmark in at least three of the islands.

Atropa Belladonna.-Cheviotland only as a denizen.

Helmintha echoides.—Here again an advance northwards. Berwick (Cleghorn); Roxburgh (Brotherston); Haddington (Syme).

Solanum nigrim.—Wigton, Balfour. In several counties as an introduced plant.

Chenopodium urbicum.-As a colonist only in Cheviotland.

Galium tricorne.-Cheviotland, in corn and barley fields.

Hippohae rhamnoides.—In several Scotch counties, but planted.

Lepidium latifolium.—Native in Northumberland ; as a casual north to Ross.

Rosa rubiginosa.—Cheviotland and Cumberland, with the usual mark of introduction. Of late years there is a decided tendency to call this a native plant far northwards. Mr Druce says "as wild as the other roses" in Inverness; and Mr P. Ewing finds it on rocks by the sea far from gardens in South Hebrides; and the Rev. E. S. Marshall in Ross.

Orobanche minor.-In Fife (Syme).

Rosa systyla .-- Cumberland. No good Scottish locality.

Narcissus pseudo-narcissus.—Cumberland. Not truly wild in Scotland (Watson).

I have omitted such species as *Populus alba*, *Ulmus campestris*, *Ribes grossularia* and *nigrum*, and *Rubi*, as no certain determinations can be come to with these.

Stopping short in Tyneland (18).

Myosurus minimus.

Medicago maculata. — In Wigton (M⁴Audrew). Reported for five other Scotch counties.

Myriophyllum verticilliatum.—Not a plant of the extreme north, but in Sweden to Vesternorlands; very rare in Norway.

Bryonia dioica.—Reported from Ayr. A good example of Watson's English type, although he calls it English-germanic.

Apera spica-venti.—Although given by Paton, this plant is a southern type, doubtfully native north of Norfolk, Cambridge, and Bedford.

Hordeum sylvaticum.—Although not a northern grass, yet it often grows with *Triticam caninum*, and where that occurs might be looked for. In Denmark, Southern Sweden, but not in Finland.

Chenopodium glaucum.-Fife, not native, if anywhere (Syme).

Chenopodium murale.—Better claim as a native than the last. Often found by the sea-side.

Scrophularia aquatica.—New, north to Cheviotland, Berwick, and Edinburgh; this, or *Erharti*, surely will occur in the three counties.

Convallaria multiflora.—Recorded for Dumfries. Recorded as new to county by Mr Scott-Elliot in the last vol. of Transactions. In Norway, South Sweden, and Finland.

Helleborus iuridis.—Very difficult to say where native, probably only in the south of England.

Laluca muralis.—Cumberland (Stirling); Perth (Miller); but probably not native. In Mid and South Norway, and Sweden north to Vesterbotton.

Orchis ustulata.—Cumberland. In Denmark and Southern Sweden, but not in Finland; yet *Herminium monorchis* occurs there; rarely in the Aland Isles.

Tamus communis.—Cumberland. General throughout all England; but not recorded for any part of Scandinavia. It reaches Holland, but not Mecklenburgh.

Cuscuta trifolii.—To Perth, only on clover. It is by no means confined to clover in the south. I have seen it on Lotus, and other leguminosis plants. Stopping short in Durham (31).

Picris hieracoides. Roxburgh (Brotherston); as introduced.

Daphne mezereum.-Native only in South England, but probably sown by birds in the north.

Cornus sanguinea.—Cumberland (wild). Stirling (Kidston). Generally dispersed over all Europe, except the extreme north. In Sweden and Norway; but seems to be a doubtful native in all its recorded Scottish stations.

Acer campestre.—Not accepted by Watson as a native of Scotland, yet recorded for many stations and counties. It would be well to faithfully record its surroundings when found.

Lysimachia nummularia.—I cannot see why this should not be native in Scotland, yet Watson doubts it. Carefully recorded stations, with all the characters of any dubious plants with them, are needed.

Viola odorata.—Mr Watson says that although seen by him in many counties, the only ones he could look upon it as native are Lincoln and Surrey.

Hypericum montanum.—In Scotland in Ayr. In Sweden north to provinces of Upland and Vermland. In North and South Norway, but not in Finland or Northern Russia, but nearly generally dispersed over Europe. A lover of dry, shady situations on limestones.

Mentha pulegium.—In Ayr (Duncan Cat), and Berwick (one locality). Not recorded from Scandinavia

Rhamnis catharticus.—Dunifries, 1843. Queried in Top. Botany. Reported for four other Scotch counties as an introduced plant.

Polypodium calcareum.—Perth (Dr White). Reported also for North Aberdeen. Robert Dick also reported it for Caithness; it has not been confirmed, but he was usually a careful recorder.

Ophrys muscifera.—Westmoreland. There seems no reason why this plant should not reach Scotland. Norway, north to 67° N. latitude, and south. Sweden, from Scania north to Norland. In Finland in the Aland Isles, and the province of Carelia Onegensis.

Colchicum autumnale.—Reported for Edinburgh and Perth. In Scandinavia, in Denmark only.

Hottonia palustris.—Westmoreland. Reported for Forfar (not reliable), Denmark, Sweden from Scania (generally) north to Geffleborgslän. Not in Finland.

Linum perenne.—Kirkcudbright (M'Andrew); Dumfries (Dr Davidson). In Kirkcudbright only. Reported from Edinburgh.

Ligustrum vulgare.-Now recorded for 13 Scotch counties north to Inverness (S. Grieve).

Carduns eriophorus.—Reported from 6 Scottish counties, but with doubt, not indigenous. Not in Scandinavia or Finland; in north Germany, central and east Russia.

Onobrychis sativa.—Likely native to mid-England only, not beyond.

Hordeum maritimum.—Reported from Perth and Forfar; given by Nyman as Scot. Not in Scandinavia or Finland, and rare in Slesvig and north Germany.

Iris foctidissima.—Reported from Wigton, Ayr, and Clyde Isles. A species with a restricted distribution. England, Ireland, Spain, Portugal, France, and Italy, elsewhere probably an escape.

Butomus umbellatus.--Reported from several Scottish counties; a probable native in Perth (F. B. White); in Finland, Sweden, Denmark, very rare in Norway (Blytt, 1892).

Hydrocharis morsus-rana.—Edinburgh (an error?), Denmark, Sweden, Scania, north to Gefleborgslän, Finland in 15 provinces. Ophrys apifera.—Reported from Lanark. Specularia hybrida.— Has been gathered in Fife and Hadding-ton as a casual.

I have omitted mention of such plants as Cypripidium, Cacaulis daucoides, Bupleurum rotundifolium and tenuissimum, Papaver hybridum and Ranunculus paviflorus as not likely to be atives of Scotland.

It will be seen that since 1868, the date of Baker's Flora of Northumberland and Durham, that many records northwards have been made, hence it is interesting historically to review now and again the status of dubious native species in Scotland that "thin out" rapidly northwards from the mid-English counties.

In Dumfries, especially, a large number of alien species and escapes evidently occur; and, so much is this a feature of the flora, that care should be used to show these plants plainly as not natives or entering into the real flora of the county.

2.—Ornithological Notes for 1893. By Mr HUGH MACKAY, Dumfries.

Within the past twelve months several interesting specimens have come under my notice which are not altogether unworthy of note. The appearance of the quail in such unusual numbers in the district last summer is already too well known to require mention. During the months of July and August I received large numbers of owls from various parts of the country. The long-eared species were by far the most numerous, and from their emaciated condition it was not difficult to perceive that death was due to starvation, as scarcely one bird out of every dozen had been shot or trapped. This great mortality is attributed principally to the cessation of the vole plague, for when the voles were numerous the owls flocked from all parts of the country attracted by the abundant food supply. At first I was inclined to think that this mortality was due to some peculiar disease amongst the long-eared species, as the very few tawny and short-eared owls which were brought to me were in fairly good condition, and had been either shot or trapped. My theory, however, proved incorrect, as I afterwards learned that hundreds of owls had been found dead in other vole infested districts. Many of these birds were so emaciated that scarcely a particle of flesh remained upon the bones, and several which I weighed averaged from four to six ounces, whereas the normal

weight is from ten to twelve ounces. The long-eared species is still the most numerous in the district, the tawny and short-eared species comes next, while the barn owl appears to be the scarcest of all.

On the 19th of November Mr Hume, gunsmith, brought me a fine specimen of the shoveller duck *(Spatula Clypeata)*, which had been sent him from the parish of Carlaverock. This species is chiefly a winter visitor, although a few remain with us all the year round.

A specimen of the grey phalarope (*Phalaropus fulicarious*) was sent to me from Gribton on 24th November. Two or three specimens were obtained during the winter of 1892-93, but so far as I can learn the specimen referred to is the only one recorded during the past winter.

A specimen of the Little Auk (*Mergullus alle*) was found on the railway near Loch Skerrow on 20th December. About the same time a specimen was picked up in the streets of Sanquhar, and another was found a month later on Eskdalemuir, near Lockerbie. All three specimens were obtained immediately after stormy weather.

On the 3rd of February Mr Davidson, fisherman, sent me a beautiful adult male specimen of the red-breasted merganser *(Mergus Serrator)*. Immature specimens are frequently met with in the Solway. It is on very rare occasions that adult male birds are found.

Mr Turner gave me a specimen of the fork-tailed petrel (*Procellaria leucorrhoa*) to set up. It was caught in the nets on Carlaverock shore in the beginning of January. This species breeds on St. Kilda, and is known to many as the St. Kilda Petrel.

About the end of February a specimen of the great grey shrike or butcher bird (*Lanius excubitor*) was brought to me from Terregles village. It is two years since a specimen was recorded.

A specimen of the common buzzard (*Buteo vulgaris*) was sent to me during the winter from Newabbey parish. These birds are annually becoming scarcer owing to the incessant war waged against them by gamekeepers, who imagine that the larger the bird the more harm it must do. Now, the common buzzard preys very little upon birds of any kind, its principal food being rats, mice, moles, and young rabbits. Indeed, the erop of the specimen referred to was distended with rabbit's flesh when opened. Several specimens were observed in the neighbourhood of Criffel last winter.

Gullimots and young razorbills were exceptionally numerous last winter. Mr Turner informs me that he has not known them to be so plentiful for the last ten years.

3.— Words, new to me, collected from the Dumfriesshire Dialect during the last 30 years.

By Mr JAMES SHAW, Tynron.

The collection of words which I present has been gathered together at intervals, as opportunity presented, or as curiosity stimulated. It is by no. means exhaustive; indeed, I believe that with attention the number of such words could easily be doubled. It is strange how few of them are to be found in the works of our more popular authors who have made us acquainted with Scotch characters and manners. The percentage of them in the "Waverley Novels" is only five, and there are only two or three of them in the writings of Burns, and six or seven in Ramsay; none, I think, in Fergusson, while a very few of them are found in Hislop's "Collection of Scottish Proverbs." A few of them are in the writings of Hogg, the Ettrick Shepherd, but here I have not had the advantage of consulting a vocabulary to these works. The words here submitted may, to some extent, have been known in Renfrewshire, but they must either have become obsolete before my day, or been current in the parts of it away from those in which the first half of my life was spent. Now, while Dumfriesshire dialect has introduced me to a great many new words, it at the same time presents blanks by not containing many old words familiar to me in childhood. Indeed, the obverse side of the shield should contain a paper on words in Renfrewshire new to a Dumfriesshire man. I fear, however, that unless work of this kind is attended to at an early date the crop will be a poor one. National education is upon us, and words not in the English dictionaries are treated as so much base coin. Powerful influences are at work in favour of the exclusive use of reputable words, and one of the most powerful of all is the open derision or suppressed laugh which assails the unfortunate individual who trips in his talk, and substitutes a word from the native Poric for one that has the patronage of the schoolmaster. It is

well for us that we have in Dr Jamieson's "Scotch Dictionary" such an excellent collection. Testing this collection by the words I have gathered, I am astonished, not so much at a few omissions as at the laborious and exhaustive collation he has made. Generally when I got a new word I opened his dictionary, and with a little painstaking I found it in some form or other there. With a few words my search was long-continued. Dialect is not under reins like the Queen's English. It runs a good deal loose at its own free will. Gaelic scholars tell us a Skye man could scarcely make himself intelligible in the Isle of Arran, nor a native of Sutherland understand the patois of Breadalbane. It is the same with the dialects of English. Consonantal and vowel changes, depending on Grimm's law and on multiform divergent circumstances, changes like those so admirably discussed in Piele's introduction to Greek and Latin etymology are to be met with. Thus I look for Feume, and I get it under Veem; I look for Rauner, and get it under Rander; for Haizard, and it is written Rizzard; for Witter, and it is under Otter; for Kenshes, meaning "favours," and I get it under Kinchis, a kind of rope ; and just in the middle of the discussion on ropes, one of its meanings is "unexpected advantages," which I believe is my Kenches thus cavalierly disposed of. My Gameril is entered Cameril. Yaupish, meaning "hungry," is entered Yape or Yap. Terminal d jumps in and out. The consonant r is of mercurial temperament, and you cannot predicate on which side of the vowel it will be found. In rare cases initial letters or syllables disappear, as Toush for Cartouche, and Orts for Worts. As for vowels, you are pretty much in the position of the student of those Hebrew manuscripts, which have none. Peile says that there is much reason to believe Indo-Europeans begun with one vowel only, the sound of a in father, which has become, by the law of least action, the father of the other vowels that require a very little less stress to articulate. In the Scotch dialect a often betrays a tendency to escape from itself; e and i change places, and altogether hardly a single district abides exactly by the vowel sounds of another. As to etymology, I have, with very few exceptions, let that alone. My impression is that the study of dialects proves there is no Scottish nation distinct from English. The Anglo-Saxon in both countries speak dialectical varieties of the same language. I believe there are more words of Celtic origin in the dialect of Renfrewshire than in

that of Dumfriesshire. Taunel, a bonfire; Oe, grandchild; and even Beltane, denoting Whitsunday, are quite unknown, so far as I have enquired, to our Tynron shepherds ; while several Dumfriesshire words not current in Renfrewshire are known in the north of England, or may be found in old English books. As to the sentimental notion that owing to the long alliance of Scotland and France we have derived many words from French, that notion must be received with caution. Max O'Rell, in "Friend Macdonald," gives a list of about forty of these words, a list neither complete nor correct, as it can be shown that great part of them are old English words, some still known to the English peasantry, and going back to the days of Chaucer. I fancy that when words become to be despised as vulgar they have a tendency to be put to humbler uses. The words brisket, the " breast," faiple or firple, the "under lip," and graith, "clothes," are instances of this tendency. I seldom hear these words applied to human beings. The brisket of a sheep, the firple of a horse, and graith, equivalent to "harness," are still current. "Dont tell me I have lugs, said the schoolboy; "naebody but a cuddy-ass has lugs." Another peculiarity in my list is one which might be expected; by far the greater part of the words are monosyllables. Jawbreakers seem to have been avoided by our peasantry. A few words supplied me by correspondents, but which I have not myself heard uttered, are marked " communicated."

Α.

Adderbeads, small round stones supposed to have been formed by adders. Beads from prehistoric graves, made of dark glass.

Aval or Avil, not spelt with v in Jamieson, but with w, as Awald or Awalt. The Dumfriesshire pronunciation agrees with the history of the word. I have heard it used by our shepherds. A sheep lying on its back and unable to right itself was said to have fa'en avil. I believe it was applied to men lying supine when intoxicated, and even a man dying lying on his back was said to die avil, vide Jamieson. Brachet, the ablest French philologist, traces the French word aval, meaning "down stream," to the Latin *ad vallem*, used of a river flowing vale-wards. Its opposite is *ad montem*, meaning towards the hill. The verb avaler, literally "to go aval," signified at first to descend, then became restricted to "to swallow." From aval comes the word avalanche,

literally a mass of snow which slides towards the vale. The word was introduced from Switzerland. When in the vale of Chamouni I heard the avalanche, "that thunder-bolt of snow," I thought how strangely the Swiss and Scotch shepherds were connected by this word, one may say, in the mouths of both. It is not in Scott, Burns, Ramsay, nor Fergusson.

Atherbell, or in Tynron, *Etherbell*, the dragon-fly. Halliwell informs us that in the Isle of Wight the sting or bite of a dragonfly is supposed to be as venomous as that of a snake, and there the local name is snake-stanger. So the Dumfries Etherbell also has reference to the snake or adder.

Ark, a large chest for holding corn or meal; E. English word. In Renfrewshire we had no arks, save these mentioned in the Bible. In my own kitchen I have an ark with a partition, the one part holding oatmeal, the other flour.—" Waverley Novels."

В.

Bairge or Baird, to scold.

Bask, hard, dry. A bask day is a day with a withering wind.

 $\mathcal{B}at,$ state or condition. The two are about a bat—i.e., about the same.

Bee, a hoop or ring of metal put round the foot of a staff to keep it from splitting up.

To Beit or Beit, to help or mend by making addition. To beit a fire, to mend it; to beit a dyke, to make it higher. Burns uses the word in the "Cottar's Saturday Night"—"Or noble Elgin beats the heavenward flame." Chaucer uses the word in the sense of mending a fire.

Berthy, fruitful. A plant, such as a rose, full of vitality and blossom is said to be berthy.

Bensel, force, violence, applied to a wild, stormy day, such a day is said to be a bensel day. In N.E. bensel means to bang or beat.

Benner-gowan. 1 have heard this name applied to the fever-few of our gardens.

Berry, to thrash corn, or man, or child. In the Galloway poem of Aiken Drum, the Brownie says—

I'll berry your crops by the light of the moon.

In the N. of England the thrasher is a berrier, and the flail the berrying instrument.

Basket-hinger, the gold-crested wren. Communicated.

Bilter, a child. This meaning is widely spread, but it appears to mean a minnow in Dumfriesshire. Perhaps a generalised idea of "a little one." However, in Renfrewshire a thriving child was a "big bilter."

Black-dookers, a Galloway word for Cormorants.

Brass, used in Dumfriesshire for money—in Renfrewshire tin. Also, in former it means "coppers." Vide Matthew's gospel.

Bowin, to take the lease of a farm in grass with the live stock on it.

Blaud, to strike.

Bus, a cow-stall, N. of England, pron. Boose.

Billy, brother. "Waverley." Allan Ramsay.

Bink, a bench, a long form used in schools. Allan Ramsay.

Bit, used for place. Have you got a new bit? Have you got a new place or situation?

Bleeze-money, money presented to the teacher at Candlemas. Some old people recollect when candles were lighted as a part of the ceremony.

Boiler, this is the common word for kettle.

Bluidy-fingers, fox-gloves; in Renfrewshire called Dead-men's bells.

Baul or Bauld, we would imagine this to be a variation of the English word bold, which once spelled bald, but the meaning is different. "Are you bauld?" signifies "Are you in good health? Are you strong?" There is an old French word bauld, later baud, meaning gay, pleased, content, which may put in for the origin of ours.

Breem, to burn with desire. East England word.

Brisket, the breast, oftener of dead animals exposed for sale. *Brisky*, a chaffinch; also, Brichtie. Communicated.

Bull dairy, a wild orchis.

Brand, a contemptuous name for a worthless person. Possibly a variant of brat.

Buist, to stamp sheep with the owner's initials.

Bullisters, the fruit of the bullace tree.

Butterblobs, what James Hogg calls Lucken-gowans, the plant Trollius Europaeus.

Beds, hop-scotch. The circular slate driven by the foot is called the bed-stane, but in Renfrewshire the game is known as

the Peeverals and the stone the Peever, a word not given in Jamieson, but evidently allied to the Dumfries peefer, q.v.

Burnbecker, the dipper or water-pyat. Communicated.

Bullfit, the house-martin or swift. Communicated.

Bullering, making a noise, as with gurgling water in the mouth, more generally being rude and noisy or forward. Applied metaphorically to the quick bursting of buds by heat and rain, and to a great growth. "Everythings bullering out."

Blearie, a buttermilk gruel. Probably from an older word blear, thin; given in Jamieson.

Burble, a state of confusion.

Braxy, of or belonging to sheep that have died.

С.

Cair or Ker, the left hand ; Renfrewshire caury.

Caumstane, white stone for rubbing and marking the stone floor; slate-pen, which is called by my scholars caum.—" Waverley Novels."

Carritch, catechism used by Burns.

Cashie, soft, succulent, delicate.

Cawker, the sharpened under part of a horse's shoe. I suppose you know the slang word cawker, a dram.

Charkers or Cherkers, crickets. In Chaucer chirking means a disagreeable sound.

Clink, alert. He was clink at it.

Clyre, a gland in meat.

Crony, a potato. In Clarke's poem on the potato, often attributed to Burns.—Moniaive, 1801.

Cleps, the handle of a pot.

Creucie, a long ladle for melting lead in. The lead was poured out of it into moulds or caulms for shot when country people had assembled for the purpose of shooting for a pig, the best shots securing the best parts of the animal. The word is also in use for a flat hat worn by women something like a sunbonnet. A stand with three legs upholding a lamp.

Cundy, a small opening to carry off water. Sometimes a rabbit-hole is called a cundy; evidently from conduit.

Curmas or Kirmas, a quarrel; evidently from skirmish.

Cameril, a stick crooked so as to be inserted between the hind legs of a carcase when hung up.

144

Choops, the heps of the wild rose. In Renfrewshire the hairy seeds inside were called lice from the irritation they caused if they came in contact with the skin.

Crock, an old ewe. In the south of England this is called a crone. A croaker in Renfrewshire was a slang word for a dead person or animal.

Channel Stones, curling stones. This word points more directly to the origin of the game.

Crones, the small berries of the cranberry; evidently corrupted from cran, which in turn is from crane.

Cipher, a useless, diminutive person ; usually expressed "He's a useless cipher."

Cleuch, a valley, two steep hills. It is called a clough in N. Eng.

Chun, a term applied to the sprouts or germs of barley, but, as I have heard it, to the shoots of potatoes when they begin to spring in the heap. To chun potatoes is to nip off these shoots.

Crottle, small fragments. The dry lichen of the stone dykes, apt to stick to clothes laid on them.

Crot or Crut, a short person.-S. Ayrshire.

Curbody, active courtship. Jamieson gives the following illustration of it—" She threw water at him and he an apple at her, and so they began curbody"—a lover's quarrel.

Cladscore, twenty-one sheep sold at the price of twenty. Capernoity, irritable.

D.

Dass, a column of the hay stack. Hogg, "Brownie of Blednoch," calls a dass a grassy turf growing in a stream.

Dabbies, shortbread for the Lord's Supper.

Daiman, rare, occasional. Burns' mouse says :

A daiman icker in a thrieve's A sma' request.

Daiver ye, confound ye. Perhaps allied to the Ayrshire Taivert, stupid.

Darg, a day's work. There is a field in Tynron parish known as the four-darg; that is, it takes four days to plough it. Jamieson considers it a corruption of a day wark. In Scott and Burns.

Deaf, without vegetable life. Deaf coals don't burn easily.

Dead man's creesh, Oenanthe crocata, water hemlock.

Debate, struggle. He made a great debate, *i.e.*, he struggled well and kept up his head. In Chaucer it means to fight; and Gibbon calls the wars of the Crusades the World's Debate.

Deck of cards, Moniaive. In Mark Twain s "Huckleberry Finn" we read of "an old ratty deck of cards."

Deer's hair, the scirpus growing on the hills.

Dock, the following entry is in Jamieson :—" Dock, a public walk or promenade in Dumfriesshire on the banks of the Nith."

Donneries, clothes' moths. I have not heard the word, but give it on the authority of Mr R. Armstrong, Thornhill.

Doddy or Doddet, without horns. N.E. Scot.

Dollop, quantity. "The whole dollop," whole piece.

Drachty, designing, cunning.

Draw-moss, the sheathed cotton grass.

 $Dooth, {\rm shady}.~$ The dooth side of the hill is the side towards the north.

Dymond, a wether of the second or third year.

Daised, having lost its strength; daised wood, rotten wood; a daised sack, one ready to burst into holes. Daised, meaning stupid, is not a local word.

Dazed bread in N. Eng. means dough-bread, and dazed meat. meat badly roasted.

Dyooks, Dumfriesshire for ducks.

Dryne, driven, used by old shepherds. "Have you ever dryne sheep over that road."

Duffel, the name of a woollen cloth, dyed blue or various colours, used in Dumfriesshire for petticoats, and in Renfrewshire for cloaks or mantles for women. My mother's aunt had a duffel mantle, which she usually called her duffel.

Е.

Ebb, shallow, narrow.

Eizel or Azle, a hot ember, a cinder.

To Ely or Ailie, to disappear, to vanish.

Eild yows, Renfrewshire yell yows, ewes that are barren.

Ein, Dumfriesshire contraction for even. "Draw the line ein," *i.e.*, draw the line even.

F.

Fauns, rough wet places on the hills ; white spots on moorish or mossy ground. On the stone set up to commemorate the shooting of two Covenanters near where the parishes of Penpont, Tynron, and Dalry join at an elevation of 1500 feet, it is stated that the martyrs were shot on the adjoining Fawns of Altry.

· Faildyke, a wall built of sods.

Fern-year, last year. In Chaucer ferne means "before." Allan Ramsay. S. Ayrshire.

Feil, soft and smooth and warm. An unfeil day is an uncomfortable day. A feil hand is a smooth, warm hand.

Feat, in the ballad of "Aitken Drum" we are told of a newfangled wife fond of a' things feat, in the sense of nice, exact. In Shakespeare's "Tempest" we have the comparative degree, "Look how my garments sit upon me much feater than before." Allan Ramsay. Burns.

Fewing, working or attempting. "He's fewing well at the mawing," He's making a good beginning.

Flauchter-spade, a long two-handed spade for working with in the peat moss. Ramsay.

Flichen, anything small or light, as flichens of soot.

To Fleg, to fly from place to place.

Firple, the Renfrewshire faiple, under lip (more frequently of a horse).

Fitchet, the pole cat. This is an old English word spelt fitchew. It is in Shakespeare. The original meaning is "the beast that smells bad."

Flosh, a swamp, a bog. In this sense it is employed in the title of a popular English novel, "The Mill on the Floss." Flosh is the name of a place near Gasstown, Dumfriesshire.

Foy, an entertainment to a person about to leave a place.— "Waverley Novels."

Fow, a pitch pork.

Flake, a bar.

Fow or *Fooze*, the house-leek. In the "Waverley Novels" it is spelt Fouats.

Irrem or *Fremmit*, strange, foreign. This is one of the Dumtriesshire words used by Burns. It is also used by Ramsay and Scott. Burns says—" And mony a friend that kissed his cup is now a fremit wight." Vide the Five Carlines. So that it was employed by the poet after his residence in Dumfries. The word is spelt fremde in Chaucer, and fremed in Shakespeare. The sense in these is the same. Ramsay. Flapperbags, butter-burs.

Friggle, to work vainly, to work at trifles.

Fleem. I was surprised to hear this word used in the sense of phlegm, spume, but my surprise ceased when it was found as far back as in Chaucer.

Foisonach or Fushloch, waste straw, dried grass, chips of wood, or refuse of that sort.

Forthy, in good condition, applied to cattle. Fettel, condition.

G.

Gaishon, a skeleton; a word found in James Hogg's writings. It also means extremely emaciated.

Gairies, steep, rough rocks; gair means side in the Scotch ballad of "Burd Helen." Gair seems to mean a rough place in the "Brownie of Blednoch."

Gangers, people afoot coming home from church in contrast to those in vehicles.

Gowf, to flaunt about, to coquette. A gowf is a foolish gigglet; Chaucer gofish, foolish.

Gellock, an iron lever or crow-bar.

Gellock, the earwig; Renfrewshire gullacher.

Giyl, the gable ; Renfrewshire gavel.

Ged, a pike ; an old English word allied to goad. The names both of pike and ged are suggested by the shape of its snout.

Gill, a leech.

Gled or Buzzard-gled, the buzzard.-Communicated.

Gliff, a short sleep, a short while, a fright.

Galligaskins, rig-and-fur woollen coverings for the legs.— "Bennett's Tales of Nithsdale."

Groozle, to speak huskily.

Gaubert, a domestic cock that does not crow or lead out the hens gallantly.

Gorrach, to crowdy, or to mix porridge with milk, or to make mud pies. "What are you gorraching there for in the dirt?" is addressed to a child.

Gunner, the yellow-hammer.—Communicated.

Goan, a wooden dish for holding porridge.

Gorlings, nestlings; in Renfrewshire Scuddies. This interesting word is allied to English girl and French garçon. Originally

both girl and garçon were applied to young persons of either sex. —Ramsay.

Gib, or Gibby, a male cat. It is used in this sense in Shakespeare. In Renfrewshire it was a tom cat.

Grizzle, a gooseberry.

Grain, the branch of a tree.

Gryce, a pig. Found in Allan Ramsay, and in several of our Scotch proverbs. Only used by old people. Perhaps the swinecry, gussy gussy, may be a degenerate descendant of gryce.

Grushach, glowing embers; a fire made by heaping peats on coals; a fine glowing fire which is intended to last for an hour or two.—" Waverley Novels."

Grool, the ground refuse of coal or other material. "To sweep out the grool" is to clean the outhouse.

Guddle, to catch fish with the hand. Hogg gave the variant, goupart.

H.

Hurley Hurley, or Hurley Hawkie, a cry to cattle to bring them home from the field to be milked.

Hurchin, an urchin or hedgehog. Skeat traces the word to the Latin *horrere* to bristle, so that the initial h of the original is retained in Dumfriesshire.

Hempie, the hedge-sparrow.-Communicated.

To Harp, to riddle; evidently suggested by the shape of the instrument used in riddling or separating sand and gravel, which is of an oblong shape, containing wires enclosed in a wooden frame.

Heather-bleet, the mire-snipe.

Hefted, domiciled, as of sheep that have got used to their pasture.

Hewl, a cross-grained person.

Hindberries, raspberries. Known as such through N.E. In Chaucer a hine means a farm-servant.

Hirsel, a flock of sheep.

Hod or *Hud*, the back of the fire-place built of stone or clay somewhat like a seat ; applied now to the spaces on each side.

Hoshens, Renfrewshire Huggers; stocking-legs used as gaiters in snowy weather.

Hut, a square basket, which opened at the bottom for carrying manure into the fields—only known to old people, and that as a tradition.

Hummings, what is chafed and left by rats or other rodents. "Give the wean a hum." Chew a piece and feed it therewith.

Hech-Kechan, making much ado about little.

I.

Innerlie, situated in the interior or more populous part of the district, snug, not exposed.

Infestuous, extraordinary.

J.

Jenny-spinner (Renfrewshire: Jennynettle), crane-fly. Jib, to milk closely.

К.

Karson or Kerses, the lady's smock or cuckoo flower. I don't care a curse—*i.e.*, I don't care a kerse.

Kain, part of farm rent paid in kind. This word occurs in the weird old ballad of Tamlane. It is used by Scott, Ramsay.

Kades, sheep-ticks.

Kerk, to scold or nag.

Keelie, the kestrel hawk. In Glasgow keelie is a low word for "thief."

Kent, a walking staff, a cudgel.-" Waverley Novels."

Kecstless, tasteless, insipid.

Ket, irascible, quick tempered.

Kinvaig, a small plaid. So says Bennett's "Tales of Upper Nithsdale." I have not met the word.

To Kist, to enclose in a coffin.

Kir, cheerful, fond, confidential.

Kyaugh or Kyaught, anxiety. Mayne's "Siller Gun." Kyaw, jackdaw.

Kylocs, Highland cattle. "Waverley Novels."

Kedgy, brisk, lively, amorous. E. English word.

Kenches, favours. In Jamieson entered Kinsches, "unexpected advantages." "Waverley Novels."

Kink, to twist a rope. Kink, a twist in a rope. In Brockett's "Glossary of N.E. Country Words."

L.

Laggan-gird, the hoop securing the bottom of a wooden vessel.

To Lair, to stick in the mud or snow. In Renfrewshire the word is applied to the piece of ground one purchases in a churchyard or cemetery.

Lovenanty, 0 strange !

Led farm, a farm held along with another .--- " Waverley Novels."

Let day, a day when you have little to do.

To Leam nuts, to separate the bunch of hazel nuts from the husk.

To Leep, to heat.

Leepst, par-boiled.

To Leese, to pass a coil of rope through the hand unwinding or winding it up again.

Liggat, a wooden gate.

Lunkie, a hole in a dyke left for the passage of sheep, filled up with thorns when inconvenient.

Loper, to coagulate; loper snow, snow in a state of slush. In Renfrewshire the word is laper, and only applied to blood.

Launer, a laundrymaid.

M.

Mankeeper, newt. Because it is believed that it waits on the adder to warn man of his danger.—Jamieson.

Merve or Mervy, ripe, applied to apples when they are sweet and mellow.

To Mein, to pity, to be moan. A mistlie thing, a useful thing which it is awkward to be without.

Moidart, stupid.

Mochrum elders, cormorants. Communicated.

Mow or Mou, a heap of corn.

Minnie, most frequently applied to the mother of a lamb.

Mat, in Dumfriesshire a door mat, called in Renfrewshire a bass; whereas in Renfrewshire a mat meant a thick woollen covering for the bed, generally wrought into a pattern.

Ν.

Nups, the cloudberry. We have Nupberry hill in Closeburn —well named, for there the plant grows.

Niddle, to work quickly with the fingers.

Nibbie, a walking staff, a shepherd's crook.

Nightingales, moths. Communicated.

Nocket, a luncheon.

Nap, a wooden dish. In Renfrewshire "to take your nap off one" is to befool him.

Notour, notorious. Avowedly persisted in in spite of warning. Bennett's "Tales of Nithsdale."

0.

Oon, apparently a contraction of oven, but applied to a large shallow pan with suitable lid in which the guidwives make loaves. Glowing peats are heaped on the top of the lid.

Ρ.

Parrock, a small enclosure in which a ewe is confined when it is desired that she take to a lamb not her own.

Pensy, conceited. Ramsay .- "Waverley Novels."

Paidle, a stake net. Communicated.

Peps, cherry stones.

Pingy, cold, not able to endure cold.

Plut or *plout*, to put down with a plump. A farmer's wife being irritated one morning at the servants grumbling to sup porridge out of the same dish took the pet, I was told, and plutted a lot here and a quantity there along the wooden table in front of each of the grumblers.

Fettles, feet. This word occurs in Clark of Glencairn's Poems, 1801.

Picked calf, a dead born calf. To prevent this mishap introduce a billy-goat into the byre.

Peefer or Pyfer, to whimper, to complain.

A Peefering body, a trifling person.

Pingle, a small tin goblet with a long handle, a pan.

Piskie, dry, shrivelled; applied to grass or to the hair of cattle.

Pry, the carnation carex ; esteemed as an early feeding grass. *Puist, bien*, m easy circumstances.

Puddock-spit. Renfrewshire cuckoo-spit. The froth secreted on stalks of grass around a small immature insect.

Pumrose, by Tynron peasantry takes the place of Primrose. Jamieson has Pumrock.

Puttock, a worthless species of hawk.—Shakespeare. Kirkcudbright, Craigenputtock—a place-name.

Pouts and poultry come from the same root.

Q.

Quickens, couch-grass, allied to the old English word quick, living, used in the Creed, and here applied to this grass, whose vitality is marked. "I am cut to the quick" means to the parts which are very sensitive, very much alive to the pain.

R.

Ramps, allium ursinum. This is an old English word. An old English word for March was Lide.

Eat leeks in Lide, and ramsins in May,

And all the year after physicians may play.

Raskill or Rascal, a young deer. This is Shakespeare's word for a young deer. In Tynron we have Mount Raskill, which I submit is "Deer Hill."

Reeves, or, as it is pronounced in Renfrewshire, *Ree*, a permanent sheep fold surrounded with a wall of stone and feal. In Renfrewshire an enclosed place for coal—the coal ree. Ree also means in Renfrewshire half drunk.

Refeir, "to the refeir," in proportion. "The cook has as much work to the reifer as has the tablemaid."

Ressum or Reisum, a fragment, a small quantity.

Rice or Ryss, brushwood.

And thereupon he had a gay surplice,

As white as is the bloom upon the rise.-Chaucer.

Rittocks, the refuse of tallow when it is first melted or strained.

Rookits, balls of minced meat or fish with bread crumbs.

Rizzard, to dry, to bleach clothes. In Renfrewshire the word was haizard. "This is a fine day for haizarding the clothes."

Rizzered in the Waverley Novels means half-salted, half-dried fish.

Rizzards, currants. (Sanquhar.)

Road-riddens or *Road-ribbens*, stuff cleared off the road and banked up on the side.

Rime or Rine, the Dumfriesshire word for hoar frost. Ayrshire cranreuch. It can be shown that the two words are variants from the same root. Anglo-Saxon spelt it with an initial h. Curtius connects hrim with the Greek krumos frost.

Rile, Dumfriesshire contraction for ravle, Renfrewshire. To rile worset, to entangle it.

Rip, a regardless fellow.

Ragabus, a tatterdemalion, a vagabond.

Rien, contraction for riven.

Rackingwage, too great a wage. Comp. E. rack-rent.

Red land, ploughed land, so called by many who know it is not red. *Vide* Gladstone's misconceptions of Homeric inability to distinguish colour, founded on paucity of Homeric colour-names. In old Scotch ballads the fox and yellow gold are red.

S.

Sad, firm, steady. "The jelly is sid enough." It means grave or steady in Chaucer.

Scart, the Cormorant—of Gaelic origin. "Waverley Novels." Scowder, to scorch.

Shore, to shore a dog on; to hound on a dog to cattle or sheep, perhaps with the intention of dividing the flock into separate parts.

To shie, to start, as of a horse at a strange object. E.E.

Shott, an ill-grown ewe.

Slid, slippery.

Shoddie, a baby's shoe.

Shine, to fling or throw violently. In Renfrewshire a shine was a quarrel.

Shog-bog, a quaking moss-bog.

Shilbands, cart tops.

Shyle, to make wry faces. Renfrewshire, showl.

Sit, applied to any piece of crockery or furniture. These sit in Dumfriesshire, but stand in Renfrewshire.

Scoory, disreputable in appearance. Λ "scoory-looking blade," a broken-down looking tramp whose face creates sinister suggestions. Sile, to pass through a filter.

Snosh, comfortable. An old snoshie; a fat, comfortable old man.

Squeel, " on the squeel," an expression signifying that buttermilk is becoming too sour for use.

Stank-hen or Stankie, water-hen.

Starn, the pupil of the eye.

Steep, ranunculus flammula, from its acting like rennet.

Steekers, boot or shoe laces.

Sturdied Sheep, sheep suffering from water in the head.

Scrog, a stunted shrub.

Stannerie, lichens yielding a stain or dye.

Stalk, a quantity, "as she has got a stalk of temper"—*i.e.*, is passionate.

Spret, juncus articulatus.

Stool-bent, juncus squarrosus.

Stoothin, lathing plastered,

Storm, applied to a period of frost as well as to wind and rain. Stog, to walk heavily.

Skerry or Scairy, a shadow, a reflection, a metaphor. A woman was telling me how she had employed her Sunday reading in Revelation, when I began to corner her concerning the woman clothed with the sun, explaining how many thousand times it was larger than the earth, and so inconceivably hot that any woman would have melted in a moment, when she answered me rather pat—" Oh ! sir, St. John's account o' her maun be a scairy."

Skly, the place on which one slides.

Skellie, to exaggerate, to narrate incorrectly.

Scraw, a thin turf.

Spell, to add to a story, to exaggerate. In Chaucer spell means a narrative, and so in the word "gospel."

Skelpy, a mischievous girl.

Stangs, to take the stangs, to have a fit of passion.

Spang, to give a high leap.—Ramsay.

Sneel, Dumfries cont. for snivel .- "Waverley Novels."

Strae Sonks, a wreath of straw used as a cushion or load saddle. -- "Bennett's Tales of Nithsdale."

Sonks. seats .- " Waverley."

Spry, active, nimble, lively; also, smart in appearance and in dress. Added by Todd to Johnston. Given by Halliwell as a

Somersetshire word, but certainly more general since I find it both in Dumfriesshire and Mark Twain's "Huckleberry Finn."

Spelk, a piece of wood applied to a fracture, a little bit of thin wood that has run into the hand. Renfrewshire, shelf.

Spung, Jamieson says this is a Galloway word meaning to pick one's pocket. In Renfrewshire a spung was a purse, but the word was used chiefly as a synonym for wealth. "A man with a good spung" was credited with having in his possession valuable deposit receipts.

Saster, a pudding. An old Moniaive man used this word. In Hislop's collection of Sc. prob., we have "ye're as fu's a stappit saster."

Syke, a small rill. North of England word. Also, the gutter in a street.

Squair, the gentle depression between two heights. Possibly it may be a corruption of an older word swyre, applied to the neck in Chaucer. The Northumbrian prov. says—

Little kens the guid wife, as she sits by the fire,

How the wind blaws caul' in hur-burl swire.

Swyre is a place name in Dunscore. It is a hill-road in Selkirkshire. It means neck and hollow in the "Waverley Novels."

Striffen, film of thin skin.

Surfeit, excessively cruel. When a parent cowhide's his child it is surfeit.

To Swap, used as to "vouch." " I'll swap that's true."

Stampcole, a small rick of hay.

Snabbie, the chaffinch.-Communicated.

Swedged, grooved, applied to a horse shoe, or the iron of clogs.

Soult or Soult or Sout, a leap, applied when the plough leaps up by striking a hidden stone. Also used when on a haystack. "Give it a sout"—*i.e.*, leap up so as to press it down. The same word is in English. Summersault, originally written supersault (Skeat), being a leap up or a leap over.

Swab, a loose idle fellow, as "a drunken swab."

To Stell, to place firmly. To stop as when a horse stells on the road.

Sosh, quiet, contented, applied either to man or dog. Vide snosh.

Silver-shakers, a very appropriate name for the beautiful grass, briza media.

Syre, a sewer. Renfrewshire, syver.

Т.

Teep, to stint, to scrimp, to give out sparingly.

Teuk or Took, a bye-taste, a disagreeable taste.

Tae-day, every other day.

Throchstane, a flat tombstone.

Too-fu, a building annexed to a larger.

Teem, to pour out. "It's just teeming," it's raining heavily. North of England word.

To Beteem, to pour, is found in Shakespeare.

Than for then is universal with our peasantry.

Tee-wheet, the lapwing.

Transe, to beat, to castigate. A woman complained to me that the dogs leaped over and trounsed her flower pot in front of her house. In the English Bible of 1531, Judges iv. 15, has "But the Lord trounsed Sisera and all his charettes." Skeat connects this word with trunk and truncheon, and says it originally meant a thick stick for beating with.

Tirr, crabbed. Tir, in Renfrewshire, meant to strip. In this sense Burns uses it concerning the deil. "Whiles on the strong winged tempest flying tirling the kirks." Burns has a "1" more, but that's neither here nor there.

Tore, to talk familiarly in a prolix manner. To flaunt about with girls.

A Tove, a coquettish person of either sex.

Tummock, a tuft, or small plat of rising ground. "The road is kittle o'er thae hills in the dark, for there's sae mony tummocks that ye knock against ye're ready to be knocked down."

Traik, dead sheep lying putrid, carrion.

Tree speeler, the tree-creeper. Communicated.

Trade, used as work. The craws are hauding a great trade -i.e., are busy building their nests.

Trone, a trowel.

To Trone the School, to play the truant.

Tyooch, Dumfriesshire pronunciation of tough. Renfrewshire, tyuch.

Tings, tongs. Renfrewshire, tangs.

Trauchle, to walk in a limping manner.

Ug, to hate, to disgust. Ramsay.

Uncos, news. An old man used to ask :---" What's the uncos to-day ?" (Moniaive.)

Unpurpose, untidy.

W.

Wainted, soured. A Northumbrian word.

Weather-gaw, part of a rainbow seen, the greater part of the bow being intercepted. In the "Waverley Novels" it is the sign of approaching storm.

Weir, to herd, to keep watch over. To wear a gate at sheepshearing, to open and shut it.

Weir, a dam, a hedge. East of England, a pond of water.

Ware or Vare, spring. This is evidently the Latin ver. Of a cold day in summer it is remarked, "it is as cold as a day in ware."

Weerstanes, in a state of hesitation.

Withershins, in the contrary direction. Turning withershins, turning against the sun. Pouring tea withershins, pouring it out in a left-handed manner. In the "Waverley Novels" and in Ramsay.

Orts, vegetable refuse. Wort is the old English word for vegetable. Plant is a more recent Latin word.

Witter, *Wutter*, or *Otter*, a hook, evidently a metaphorical word, it being, like an otter, apt at catching fish.

Ware, the whole of the objects referred to. A variant of the English word gear, which means dress, harness, tackle; but with us more frequently "money."

Wad, blacklead. My scholars ask for wad when they wish to purchase a blacklead pencil. It is a North of England word.

Υ.

Yaul or Yauld, supple, muscular.

Yeddars, blue marks on the body, such as are left betimes by the schoolmaster's cane.

Yim, a particle, an atom, from vimen, a twig.

To Yearn, to curdle. In "Waverley Novels."

Yearning, the stomach of a calf, used for curdling milk. *Youd*, an old mare.

APPENDIX.

Bern, a scorched piece of heather or shrub which can be used for kindling a fire. It is said of a niggardly frugal person, "It's a queer brae that he couldna get a bern off."

Gull. Jamieson says a "chill." I hear it more frequently when one is obliged to have a much lower estimate of any one. "This incident was the first that gave me a gull at him."

Eek, sweat or damp from the body, as "an eek from his head has stained the pillow." We may recollect that the Greek word *ichor* means "juice in the veins of gods." Vide, Skeat.

Goggles. To put the goggles on you, to lead you a dance, to take your nap off one. Jamieson gives goggles as a name for the blinds of horses.

Fiddering, fluttering. "There's a badly spelled letter announcing her engagement. She would be fiddering "-i.e., she would be in a flutter.

Hommel, to take the awns off barley. At a show of curiosities, Moniaive, I saw an oblong instrument with parallel knives which was once used for hommelling barley.

Snisie, half burned. A piece of hard soot is said to be snisled. Ham when singed in the cooking is snisled.

Slipshod. The meaning in Tynron is that the person is wearing slippers without stockings or hose. We all know its metaphorical meaning.

A very interesting paper, entitled "Seal and Rings," was read by Mr John R. WILKINSON, Annan.

11th May, 1894.

The Rev. WILLIAM ANDSON, Vice-President, in the chair.

Donations.—The Report of the Society of Antiquaries of Scotland, 1895; Journal of the Elisha Mitchell Society, Chapel Hill, North Carolina; Transactions of the Banffshire Field Club, 1890-3; a specimen of Mispickel (arsenical pyrites) found in the Stewartry, presented by Mr Patrick Dudgeon. Mr Frank Miller presented, on behalf of Mr Charles Baxter, of High Street,

Annan, the bronze are head found in that gentleman's garden, and exhibited to this Society at the Meeting held in April, 1892.

Exhibit.—Mr James Shaw exhibited a curious specimen of the Bullrush Caterpillar from New Zealand.

Communications,

1.—Occurrence of Mispickel (Arsenical Pyrites) in the Stewartry of Kirkcudbright.

By Mr PATRICK DUDGEON, F.S.A., Cargen.

Having heard that a vein of what was supposed to be mispickel had been found not far from Newton-Stewart, in company with Professor Heddle I visited the place, and found the vein had been opened in two places, and some of the mineral had been taken out. It proved to be mispickel. The vein runs very nearly north and south. We followed what is evidently its course for upwards of a mile and a half. It occurs at the junction of the granite and silurian rocks, commencing about half-a-mile south of the Murray monument, crossing the Palnure Burn, running nearly due south for more than a mile, and then heading to the eastward, where, at about three-quarters of a mile further on, another opening has been made, in which is found chalcopyrite (copper pyrites) associated with mispickel. The vein of mispickel, where it has been opened close to Palnure Burn, is about seven inches in width. It runs through part of the estates of Cairnsmore and Bargaly. The interest to be attached to this discovery is that mispickel is an exceedingly rare mineral in Scotland; in fact, only one rather doubtful locality is mentioned in mineralogical works, although it is abundant enough in some parts of England, notably in Cornwall, Devonshire, and more sparingly in Cumberland. Mispickel is the principal ore from which arsenic is derived. Its chemical composition is-Arsenic, 46.53; sulphur, 19.90; iron, 33.57.

2.—Notes on the Rubi and Salices of Upper Nithsdale. By Mr JAMES FINGLAND, Thornhill.

It can scarcely be out of place to preface these notes with a single remark on a subject which is always interesting to members of a Natural History Society. I think every botanist must have felt delighted with the splendid weather which prevailed in the

spring and summer of 1893. The unusually mild temperature of the middle and end of March and the increasing genial warmth of April affected a very rapid flowering of many of our native plants. Indeed, the earliness of the season was quite phenomenal, and perhaps not exceeded in this century. Our standard floras and text books were quite upset with regard to the time of flowering in many cases. Observations and comments in this connection appeared in the daily papers and elsewhere. I just wish to chronicle one striking illustration which came under my notice. That very small mountain evergreen shrub, the Cowberry (Vaccincum Vitis Idaa), which so much resembles in its foliage our common garden Box, I gathered in fine flower (and in quantity too) in the end of April last year near Leadhills, Lanarkshire, 1400 feet above sea level. Considering the high elevation, I have thought this specially worthy of record. Both Babington and Hooker's Floras give the time of flowering for this plant from June to July.

RUBI.

For some little time I have had a number of specimens of Brambles lying past me which I collected in the district, and which have been examined and named by Mr J. G. Baker, of Kew. I believe one or two are new records for the county. I append the following list :—

- 1. R. suberectus, "typical" (J. G. B.). Near Thornhill.
- 2. R. affinis W. and N. Carron Glen; Roadside to Newmains, Keir; Closeburn Kilns, Thornhill.
- 3. R. polyanthemus, Lindeb. Closeburn.
- 4. R. macrophyllus W. and N., var. amplificatus, Lees. Near Closeburn Castle.
- R. infestus W. and N. "Very characteristic and typical" (J. G. B.). Upper side of New Road, Drumlanrig Bridge.
- 6. R. radula W. and N. Wood S.W. side of Common, Thornhill.
- 7. R. radula, form. Drumlanrig Toll.
- 8. R. koehleri W. and N. Nithbank Wood ; New Road, Drumlanrig ; near Auldgirth (Dunscore Road).
- '6 Form near R. cordifolius, Bab. "New to me" (J. G. B.). A tall and arching plant between the bridge and loch at Drumlanrig. Very handsome plant, with large panicles of fine white flowers.

SALICES.

My collection and examination of our native willows continue to be a fruitful source of novelties. This year I have to announce the discovery of two hybrid willows in my district. One, new to science, Capreola + phylicifolia, is a triple combination, Aurita and Caprea being equally conspicuous, whilst the other constituent is phylicifolia. This interesting find occurred no further away than at the New Loch, Thornhill. The other, from a sandbed in the Nith near Waterside, Morton, is a hybrid between Purpurea and Nigricans. The Rev. E. F. Linton informs me that although known on the continent as Salix discolor, it is a new addition to the British Flora. The double parentage, he also remarks, is well seen in the foliage. Our district, as I mentioned previously, is apparently rich in purpurea hybrids. Some additional forms of Secerneta, White (Purpurea + phylicifolia), have been found, which are very curious and interesting. Other additions are forms of Ambigua, Lutescens, and Cinerea, respectively determined as S. spathulata, S. oleifolia, and S. aquatica of Smith.

I have to express my indebtedness to Rev. E. F. Linton, of Bournemouth, for critical help and for determination of the two new hybrids. I may mention that the Rev. Messrs Linton, the well-known botanists, have for the last ten years been making a special study of British Willows, having collected and cultivated all attainable varieties, and are about to issue prepared sets in fascicles for the next four or five years, sending out a fascicle annually. These sets well illustrate the latest scientific conspectus of the genus, and I am arranging to have several of our Dumfriesshire rarities included in the issue. I append our local list up to date. The numbers attached are references to my herbarium specimens.

- 47. Lutescens + phylicifolia. Between Morton Mill and Waterside in the Nith.
- 147. Capreola + phylicifolia (nor. hyb., Linton). New Loch, Thornhill.
- 208. Purpurea + nigricans. Waterside, Morton.
- 215. Nigricum + caprea. On the Cample, near Gatelawbridge.
- 253. Lutescens + nigricans. On the Mennock, Sanquhar.
- 256. Ludificans + phylicifolia. On the Nith above Kirkconnel.
- 271. Repens + aurita, form spathulata. New Loch, Thornhill.

Very interesting papers were also read by the Rev. ROBERT MACKINTOSH, B.D., on "Cup and Ring Marks near Loch Trool," and by Mr FRANK MILLER, Annan, on "A Few Swedish Antiquities."

FIELD MEETINGS.

On Saturday, June 30th, a visit was paid to Wanlockhead and Leadhills; and on Saturday, September 8th, to Castle-Douglas, Threave Castle, and the Moat of Urr.

THE HERBARIUM.

Miss Hannay reports that plants have been received from the following gentlemen :—Mr Peter Gray, Galloway Street; Mr Somerville, Bute Mansions, Hillhead, Glasgow; and Mr Wyllic, Botanical Gardens, Natal.

>* RULES. *

1. The Society shall be called the "DUMFRIESSHIRE AND GALLOWAY NATURAL HISTORY AND ANTIQUARIAN SOCIETY."

2. The aims of the Society shall be to secure a more frequent interchange of thought and opinion among those who devote themselves to the study of Natural History, Archeology, and Kindred Subjects; and to elicit and diffuse a taste for these studies.

3. The Society shall consist of Ordinary and Honorary Members. The Ordinary Members shall be persons proposed and elected at any Meeting of the Society by a vote of the majority present. The Honorary Members shall be persons distinguished for attainments connected with the objects of the Society, and elected on the recommendation of the Council.

4. Ordinary Members shall on election pay the sum of 2s 6d entrance fee (ladies excepted), and contribute annually 5s in advance, or such other sum as may be agreed upon at the Annual Meeting. When more than one person from the same family joins the Society all after the first shall pay half-fee, and the maximum amount from any one family shall not exceed 10s. By making a single payment of $\pounds 2$ s they become Members for Life.

5. The Office-bearers of the Society shall consist of a President, four Vice-Presidents, Secretary, Treasurer, Librarian, Cura-

RULES.

tor of Museum, and Curator of Herbarium, who, together with Ten other Members, shall constitute the Council, holding office for One Year only, but being eligible for re-election. Three to form a quorum.

6. The WINTER MEETINGS of the Society shall be held on the SECOND FRIDAY of each Month, beginning with October and ending with May, at which papers will be read and discussed, objects of interest exhibited, and other business transacted.

7. The FIELD MEETINGS shall be held on the FIRST SATURDAY of each Month, beginning with June and ending with September, to visit and examine places of interest, and otherwise carry out the aims of the Society. Arrangements for these Meetings shall, as far as possible, be made at the April Meeting.

8. The ANNUAL MEETING shall be held on the SECOND FRIDAY of OCTOBER, at which the Office-bearers and other Members of Council shall be elected, Reports (general and financial) submitted, and other business transacted.

9. A Member may introduce a friend to any Meeting of the Society—such friend not to be admitted more than twice during the Session.

10. The Secretary shall keep a Minute Book of the Society's Proceedings, and a Register of Members, and shall give in a Report at the Annual Meeting.

11. The Treasurer shall collect the subscriptions, take charge of the funds, and make payments therefrom under the direction of the Council, to whom he shall present an Annual Account, to be audited for submission at the Annual Meeting.

12. The Secretary shall at any time call a Special Meeting of the Society on receiving the instructions of the Council, or a requisition signed by Six Members.

13. The Society shall have the right to publish in whole or in part any paper read before it.

14. Members whose subscriptions are in arrears for nine months, and have received notice from the Treasurer, cease to be Members unless satisfactory reasons for non-payment be given to the Council.

15. Alterations of any Rule, or the addition of New Rules, shall only be made with the consent of three-fourths of the Members present at any Meeting, notice of the same having been given at the previous Monthly Meeting.

bonorary Members.

E. G. Baker, F.L.S., British Museum, London. J. G. Baker, F.R.S., Royal Herbarium, Kew. Arthur Bennett, F.L.S., Croydon. George F. Black, Museum of Antiquities, Edinburgh. J. Harvie Brown, F.L.S., Larbert. William Carruthers, F.R.S., British Museum, London. Frederick R. Coles, Edinburgh. Dr Anstruther Davidson, Los Angeles. James Graut (Bey), M.D., LL.D., Cairo. Sergeant Alexander M.Millan, Castle-Douglas. Sir Herbert E. Maxwell, Bart., M.P. Alexander D. Murray (former Secretary), Newcastle. Pr David Sharp, F.R.S., Cambridge. Dr Robert Hibbert Taylor, F.B.S.Ed., Liverpool. Joseph Thomson, F.R.G.S., Thornhill. William Thomson, Kirkcudbright. Joseph Wilson (former Secretary), Liverpool.

Life Members.

Colonel Blackett, Arbigland.
Miss Dobie, Penfillan House, Penpont.
Alexander Young Herries, Spottes.
J. J. Hope-Johnstone, Raehills.
Miss M⁴Kie, Moat House, Dumfries.
Wellwood H. Maxwell, Munches.
William J. Maxwell, M.P., Terraughtie.
William D. Robinson-Douglas, F.L.S., Orchardton.
Sir Mark J. Stewart, Bart., M.P., Southwick.
Captain William Stewart, Shambellie.

Ordinary Members.

John Adair, High Street. Sir Andrew Noel Agnew, Bart., M.A., Lochnaw. John Carlyle Aitken, Kirkcudbright. Miss Aitken, St Albans. Miss Margaret Aitken St Albans. William Allan, Chemist, High Street. Rev. William Andson, Newall Terrace. Joseph J. Armistead, Newabbey.

Samuel Arnott, Carsethorn. William Barber, M.A., Tererran. James Barbour, Architect, St Christopher's. Mrs James Barbour, St Christopher's James H. Barbour, C.E., St Christopher's. Robert Barbour, Belmont. Robert Barbour, Solicitor, Rosemount Terrace. William Bowron, Marchmount. James Brown, Chemist, Sanguhar. Thomas M. Brown, Closeburn Castle. Sir James Crichton Browne, F.R.S. Alexander Bryson, Irish Street. Rev. John Cairns, M.A., Ivy Lodge. Rev. James A. Campbell, Troqueer. George Campion, B.A., Sheriff-Substitute. James Carmont, Irish Street. Frank J. C. Carruthers, Architect, Lockerbie. Rev. Alexander Chapman, M.A., Castledykes. Edward J. Chinnock, LL.D., Rector of Dumfries Academy Dr Frederick H. Clarke, Castle Street. Miss Copland, Abbey House, Newabbey. John F. Cormack, Solicitor, Lockerbie. John Corrie, Moniaive. John M. Crabbie, Duncow. John Cumming, Albany Lodge. James Davidson, F.I.C., Summerville. Hermann F. W. Deane, Moffat. Rev. John R. Denham, S. John's. William Dickie, Laurieknowe. William A. Dinwiddie, Buccleuch Street. John W. Dods, St Mary's Place. Bernard Drummond, Moffat. Patrick Dudgeon, F.S.A., Cargen. Captain Robert Cutlar Fergusson, Craigdarroch. J. Gillon Fergusson, Isle. John R. Fergusson, Castle Street. James Fingland, Thornhill. Rev. James Fraser, M.A., Colvend. Thomas Fraser, High Street, Dalbeattie. William Galloway, Whithorn. Peter Gray, Galloway Street.

166

Mrs Gilchrist, Linwood. John Grierson, Town Clerk. Robert Grierson, Builder, Castle-Douglas. John Gunning, Victoria Road. Mrs Gunning, Victoria Road. Miss Hamilton, Victoria Road. Miss Hannay, Calderbank. Miss Jane Hannay, Calderbank. John Henderson, Solicitor, Claremont. James Herries, Loreburn Park. John Thorburn Johnstone, Moffat. Duncan James Kay, Drumpark. John Kerr, Blountfield, Ruthwell. Thomas Laing, Noblehill. Rev. Sir Emilius Laurie, Bart., M.A., Maxwelton. James Lennox, Edenbank. Miss Lennox, Edenbank. Miss Agnes B. Lennox, Edenbank. James M'Andrew, New-Galloway. James C. R. Macdonald, M.A., W.S., Jeanville. Alexander D. MacDonald, M.D., Castle Street. Mrs James H. M'Gowan, Ellangowan. Thomas M'Gowan, Solicitor, Rotchell. Matthew S. M'Kerrow, Boreland of Southwick. Thomas C. M'Kettrick, Viewfield. John M'Kie, Anchorlea, Kirkcudbright. Thomas M'Kie, F.S.A., Advocate, Moat House. Rev. John D. M'Kinnon, Newall Terrace. Samuel Macmillan, Moffat. Alexander Malcolm, Priestlands. Mrs M'Tier, Ladyfield. Wellwood Maxwell, Kirkennan. William J. Maxwell, Terregles Banks. Frank Miller, Annan. Miss Milligan, Irish Street. John A. Moodie, Solicitor, Irish Street. Thomas A. Moryson, Montague Street. Miss Mounsey, Ludlow. Robert Murray, George Street. Mrs Murray, George Street. John Neilson, M.A., Catherine Street. John Nicholson, Stapleton Grange. Charles S. Phyn, Procurator-Fiscal. Rev. Patrick M. Playfair, M.A., Glencairn. John Primrose, Solicitor, Arundel House.

John Proudfoot, Ivy Bank, Moffat.

Rev. D. Ogilvy Ramsay, D.D., Closeburn.

- Miss Ramsay, Closeburn.
- David W. Rannie, M.A., Conheath.
- Frank Reid, St Catherine's.
- Rev. Henry M. B. Reid, M.A., Balmaghie.
- Sir Robert T. Reid, M.A., M.P., Attorney-General, Mouswald.
- Richard Rimmer, M.A., F.L.S., Dalawoodie.
- George H. Robb, M.A., Nithmount.
- Miss Robb, Castle Street.
- Dr J. M. Robertson, Penpont.
- John K. Rogerson, Gowanlea, Holywood.
- Dr James Maxwell Ross, M.A., Victoria Road.
- James Rutherford, M.D., Crichton House.
- John Rutherford, Jardineton.
- Henry Sawyer, Greenbrae.
- Alexander Scott, Solicitor, Annan.
- Rev. James Hay Scott, M.A., Sanquhar.
- Robert A. Scott, Kirkbank.
- George F. Scott-Elliot, M.A., F.L.S., Newton.
- James Shaw, Tynron.
- Rev. Richard Simpson, B.D., Dunscore.
- James Smith, Commercial Bank.
- James G. Hamilton Starke, M.A., Troqueer Holm.
- John Stevens, M.A., Wallace Hall.
- Peter Stobie, Queen's Place.
- John Symons, Solicitor, Irish Street.
- John Symons, Royal Bank.
- Philip Sulley, F.R. Hist. S., Parkhurst.
- Miss Ethel Taylor, Kirkandrews Rectory, Longtown
- Miss Tennant, Aberdour House.
- Alexander Thompson, Chapelmount.
- Mrs Thompson, Chapelmount.
- Miss Mary Thompson, Chapelmount.
- James S. Thomson, High Street.
- Rev. John H. Thomson, Hightae.
- Alexander Turner, Chemist, Buccleuch Street.
- Miss Wallace, Lochmaben.
- Miss Amy Wallace, Lochmaben.
- William Walls, George Street.
- Thomas Watson, Castlebank.
- James Watt, Milnwood.
- Rev. Robert W. Weir, M.A., Castle Street.
- James W. Whitelaw, Solicitor, Summerhill.
- John R. Wilkinson, Annan.
- James R. Wilson, Solicitor, Sanquhar.
- Mrs Maxwell Witham, Kirkconnell.
- Miss Maud Maxwell Witham, Kirkconnell.
- Dr John M. Wood, Irish Street.
- William M. Wright, Charnwood.

res PAY 95

