



No. 9.

THE TRANSACTIONS

AND

JOURNAL OF PROCEEDINGS

OF THE



DUMFRIESSHIRE AND GALLOWAY

Natural History & Antiquarian Society.

SESSION 1892-93.

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Society in the style follows

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Matural History & Ashmerica Society.

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ROBERT MURRAY. JAMES WATT.

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PROCEEDINGS AND TRANSACTIONS

OF THE

DUMFRIESSHIRE AND GALLOWAY

NATURAL HISTORY & ANTIQUARIAN SOCIETY.

SESSION 1892-93.

7th October, 1892.

Rev. Wm. Andson, Vice-President, in the Chair.

New Members.—Miss Wallace and Miss Amy Wallace, Lochmaben. Sir Herbert E. Maxwell, Bart., M.P., was elected an Honorary Member.

Donations.—The Proceedings of the Society of Antiquaries of Scotland, 1891; Contributions to North American Ethnology, Vol. II. (two parts), and Vol. VI., presented by the United States Government; the Testimony of Tradition and the Journal of the Gypsy Lore Society, Vol. II., presented by Mr David MacRitchie, of Edinburgh; Bibliography of the Algonquin Languages (Smithsonian Institute); the Essex Naturalist, 1884-87; also, December, 1891-August, 1892; Report on the Pile-Structures in Naaman's Creek (Peabody Museum); the Belfast Naturalists' Field Club, 1891-92; the Proceedings of the Natural History Society of Glasgow, 1890; the World's Columbian Exposition at Chicago, 1893; Dr Sharp's Scheme of Old Age Pensions; list of Birds of Connecticut, prepared for the Bridgeport Scientific Society; the Transactions of the Canadian Institute, 1892; the Archæological Report of the Canadian Institute, 1891; an appeal to the Canadian Institute on the Rectification of Parliament; the Proceedings of the Rochester (New York) Academy of Science, 1891; Proceedings of the Nova Scotian Institute of Science, 1891; Index Armorial by A. D. Weld-French.

SECRETARY'S REPORT.

The Secretary (Dr E. J. Chinnock) read the Annual Report :-There are now 184 members of the Society, of whom 24 are honorary and 7 life members. Eleven new members were elected during the year, and two new honorary members, Messrs E. G. Baker, of the Botanical Department, British Museum. and Serjeant Alexander M'Millan, of Newton-Stewart. Among the members who have been removed by death may be mentioned Dr John Aitken, Inverness; Mr James Dairon, F.G.S., of Glasgow: Major Herbert George Bowden, one of the Vice-Presidents of the Society; and Mr Francis Maxwell of Gribton. Eight evening meetings and two field meetings have been held. At the former 26 papers were read, some of which were of permanent value, and all of which were interesting. Without disparaging the merit of other contributors. I think the communications of Messrs Andson, J. T. Johnstone, M'Andrew, J. R. Wilson, and Dr Grant Bey, of Cairo were specially worthy of notice. We are particularly rich in botanical contributions, and so long as we have such members as Messrs Bennett, Fingland, Johnstone, M'Andrew, and Scott-Elliot we need have little fear of botany being neglected. Meteorology is also well represented by the Rev. Wm. Andson. Other sciences lack representatives, and papers will be welcomed from any member who feels inclined to join our active circle. An interesting public lecture was delivered in November on Fish Culture by Mr Joseph J. Armistead, under the presidency of Sir Herbert Maxwell. The thanks of the Society are due to the librarian. Mr James Lennox, for his care of the books, to Mr James Davidson for arranging the specimens in the Museum, and to Mr G. F. Scott-Elliot for his exertions in relation to the Herbarium. During the session the first part of his "Flora of Dumfriesshire" made its appearance, and the second part will appear in company with the new volume of the "Transactions" in December. The funds of the Society do not admit of the purchase of portraits of Dumfries worthies just at present. Mr James Barbour could secure a considerable number of such portraits at once if the necessary funds were forthcoming. field meeting in June to Newton-Stewart and that in September to Sanguhar and Crawick Water were very interesting and entertaining, but it is a pity that so few comparatively of our

members avail themselves of the privilege of attending these The bad weather unfortunately prevented the excursions in July and August from taking place. As the subscription is so small it is necessary, in order to insure the wellbeing of the Society, that the number of members should be large. It is a duty incumbent upon every member to try and induce others to join our ranks, if possible as active members, but if this is not practicable at any rate to shew their interest in the objects for which this Society exists by subscribing the small annual fee which is exacted from our ordinary members. I had the pleasure on behalf of the Society of receiving a large party of the members of the Carlisle Natural History Society, who paid a visit to Dumfries on Whit-Monday. Mr James Lennox kindly conducted the visitors over the town, and pointed out the various places and objects of interest, and Mr James Barbour conducted them over the ruins of Caerlaverock Castle. The members of the Carlisle Society hope to join this Society in some excursions in the not distant future.

TREASURER'S REPORT.

The Treasurer (Mr John A. Moodie) read the Annual Report from the 1st October, 1891, to the 30th September, 1892:—

CHARGE.

Balance in Treasurer's hands at close of last	£0	8	$4\frac{1}{2}$
Balance in Savings Bank at close of last Account	0	11	0
Subscriptions from 120 Members at 5s each £30 0 0			
Subscriptions from 13 Members at 2s 6d 1 12 6			
	31		6
Entrance fees from 10 new Members	1	5	0
Arrears recovered from Members	0	15	0
Copies of Transactions sold	0	3	0
Interest on Bank Account	0	10	0
Donation from J.G.H.S	3	0	0
Miscellaneous	0	0	6
Two Subscriptions in advance for next year	0	10	0
	£38	15	$4\frac{1}{2}$
DISCHARGE.			
Paid Salary of Keeper of Rooms	£1	10	0
, for Stationery, Printing, &c	0	19	3
,, ,, Periodicals and Books	2	2	5
Carry forward	£3	11	8

Paid for Coals and Gas 0 4 2 ,, Premium of Insurance 0 4 6 ,, Secretary's outlays and posts 1 1 0 ,, Treasurer's Do. 0 14 0 ,, Expenses of calling Meetings as follows:- Paid for addressing same at 1s 1 4 0 Paid for addressing same at 1s per 100 1 4 0 Paid Robert Johnstone, Printer, printing same 1 0 6 5 7 John Grierson & Son, Joiners, for Botanical Cabinet 2 7 9 Account for printing Transactions for last year 21 0 0 Rent for Free St. George's Hall for Mr Armistead's Lecture 1 0 0 8 0 Balance in Treasurer's hands 0 18 8 8		Brought forward	£3	11	8
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year	,,	and W. A.	2	7	9
Armistead's Lecture 1 0 0 , Miscellaneous Accounts 0 8 0 £37 16 8 Balance in Treasurer's hands 0 18 88	,,	year	21	0	0
#37 16 8 Balance in Treasurer's hands 0 18 8	,,	Rent for Free St. George's Hall for Mr Armistead's Lecture		0	0
Balance in Treasurer's hands 0 18 8	,,	Miscellaneous Accounts	0	8	0
			£37	16	8
£38 15 41		Balance in Treasurer's hands	0	18	81
			£38	15	41/2

Dumfries, October 28th, 1892.—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 Committee for the ensuing Session:—President—Sir James Crichton-Browne, M.D., LL.D., F.R.S.; Vice-Presidents—Rev. William Andson, Messrs Thomas M'Kie, George F. Scott-Elliot, and James G. H. Starke; Secretary—Edward J. Chinnock, LL.D.; Treasurer—Mr John A. Moodie; Librarian—Mr James Lennox; Curator of Museum—Mr James Davidson; Curator of the Herbarium—Mr George F. Scott-Elliot; Members of the Council—Messrs James Barbour, John Brown, Thomas Laing, Robert M'Glashan, Robert Murray, John Neilson, George H. Robb, Philip Sulley, James S. Thomson, and James Watt.

On the motion of Dr Chinnock, a very hearty vote of thanks was passed to Mr Richard Rimmer, Dalawoodie, the retiring President, for his services during the last four years.

4th November, 1892.

Mr James G. H. Starke, M.A., V.P., in the chair.

New Members.—Dr Samuel Brown, Victoria Road; the Rev. Robert M'Intosh, B.D., St. Alban's Villa; and Mr Robert M. Douglas, Alpin House.

Donations.—A copy of the History of Sanquhar, presented by the author, Mr James Brown; a copy of his work on Insecta, presented by the author, Dr David Sharp; the Essex Naturalist, September, 1892; Annals of the New York Academy of Science, December, 1891-May, 1892; Transactions of the New York Academy of Science, 1890-92; Notes on the Records of Scotch Plants for 1891, and the Nomenclature of Potamogetons, presented by the author, Mr Arthur Bennett; a specimen of a new British Alga, presented by Mr William Carruthers. This specimen was accompanied by the following letter from Mr Scott Elliot:-"Mr W. Carruthers, F.R.S., keeper of the Botanical Department, British Natural History Museum, has brought to my knowledge an Algal record which well deserves investigation at the hands of our Botanical Members. In 'Fleming's History of British Animals,' p. 515, Halimeda Opuntia is placed on record as British, with the following remark: - 'I possess a specimen formerly belonging to the late Dr Walker, to which the following note was annexed in his own handwriting :- 'Submarine plant from the rocks at Satterness in Kirkbane. An Bombycina. It covers the rocks with a close turf.' It would be extremely interesting to know if it is really the case that this Alga exists in Kirkcudbright. It is not considered to be Britishnot growing, in fact, anywhere near the British Isles, though specimens, presumably borne by the Gulf stream, have been found, e.g., between Torbay and Dublin, by Mr W. Todhunter (see Thompson's 'Additions to Fauna of Ireland,' p. 254). Johnston's 'British Sponges,' p. 228, there is a figure of Dr Walker's specimen, which is unmistakably Halimeda Opuntia. The plant has been variously classed as a sponge, as a polype, and as an Alga, but it is now known to be one of the Coralline Algæ. I enclose a specimen kindly given to the Society by Mr Carruthers in order to aid in its identification. The plant is, however, bright green when alive."

COMMUNICATIONS.

 Notes on the genus Orobanche in Scotland. By Mr Arthur Bennett, F.L.S.

The recent determination of a new species of Orobanche to Scotland (and to Great Britain) must be pleaded as the reason for these notes.

The whole genus is parasitical on other plants of widely different natural orders, and has its headquarters in the southern parts of Europe, thinning out rapidly as it approaches Scandinavia, in which one species, O. Cirsii (Fries.), occurs in West Gotland, the most northern station I know for any of the genus. O. major, L, occurs in Scania (the southermost pennine of Sweden), and in the province of Halland. It may be noted that O. rubra, Sm., a Scotch species, is extremely rare in Scandinavia.

Of the species that reach Scotland O. rapum, Thuil, occurs in Dumfriesshire, whence I have seen specimens gathered by Miss Witham. It also occurs in Kirkcudbright, but I have not seen a specimen. It has been reported from Fife and the Inner Hebrides, but O. rubra was perhaps the plant seen. It is also reported from Perth, but O. rubra is not recorded from that county, so that what the plant there intended may have been it is difficult to say; anyhow, its recorded place should be carefully searched.

O. minor, Sutton, is only recorded for Fifeshire by Dr Boswell-I should expect it in the three counties of Dumfries, Wigtown, and Kirkeudbright.

O. rubra, Smith.—The counties on record for this in Scotland are Wigtown (J. M'Andrew), Fife, Syme cat. That outlying portion of Argyle included in Westerness (W. Inverness) by Watson; whence I have specimens gathered by Mr Macvicar on the coast cliffs:—Main Argyle (Gourlie, Watson), Mid Ebudes, the middle isles of the Inner Ebudes (Watson), North Ebudes, the northern isles (Rev. E. Linton), West Ross, Outer Hebrides, whence it was reported by Macgillivary in 1830, but remained unnoticed until 1891, when it was gathered by Mr W. S. Duncan in the original station. O. epithymum, D.C., has been considered by some authors as the same plant, but it seems to me that it is a larger form of our usual plant, and O. rubra is placed as a variety of epithymum by Count Solns Laubach, the greatest living

authority on the genus. Taking the specimens I have seen, the Hebridean and Westerness specimens seem referable to O. epithymum, the other Scotch specimens to O. rubra. O. rubra has also been reported for Kirkcudbright by Mr J. M'Andrew. The English botany figure of O. rubra, t. 1011, is not good, and does not convey a good idea of the species.

Orobanche elatior (Sutton) reported from Argyle, but, I have little doubt, this intended the new plant I mention below. O. elatior is not clearly known north of north-east Yorkshire, and perhaps Lincoln, but the latter is very uncertain, and requires confirmation. In Europe O. elatior occurs in Denmark and North Germany, so there is no great improbability that it may be found in Southern Scotland; it grows on Centaurea, Scabiosa, Knautia arvensis, and perhaps Cardnus lanceolatus.

For some time I have had in my herbarium a specimen of Orobanche labelled as O. elatior, and localised from near Oban, Argyle. While seeing it was not elatior, I failed to make it out until this year, when dissecting its flowers. I found after careful comparison with specimens in the Kew Herbarium and the descriptions and plates in Reichenbach's Icones that it was O. cruenta Bertoloni, O. gracilis, Smith. This is a very interesting addition to our Flora. On what it grows in Argyle I am unable to say, but on the Continent it occurs on Lathyrus pratensis, Lotus corniculatus, Genista tinctoria, Rubus, and on many non. British species.

Of our species it is perhaps most like O. rubra, but differs in the form of the stem scales (leaves), the corolla form, and especially in the calyx, which is bifid, while in O. rubra it is entire and much longer (very rarely a small tooth on one side does occur in rubra); from O. elatior it differs in the sparsely flowered spike, the calyx, the anthers have no hairs, the filaments are not hairy in the middle, and the corolla is not constricted at the base, and the whole plant is less glandular hairy than in O. elatior.

It occurs under many names in European floras, most of them being probably only varieties, or forms induced by situation, the plants on which they grow, or by other local conditions.

I give a few of their names and its distribution:—Orobanche cruenta, Bertolini in Rar. it. pl. Dee. III. 56. O. gracilis (Smith),

Trans. Linn. Soc., Vol. IV., p. 672; O. vulgaris (Gaudin), Fl. Helv., Vol. IV., p. 176; O. caryoplyllaceæ (Schultz), Beitr. 8; O. variegata (Wallroth), Descrip. Orobanche, Figured in "Reichenbach's Plantae Critic," and in his "Icones Flora Germanicæ et Helvetiæ," Vol. XX., t. 700, p. 92 (1862). Portugal, Spain, France, Italy, Austria, Hungary, Bavaria, Montenegro, Bosnia, Bannat, Macedonia.

I hope Mr Macvicar will be enabled to find it next year, and to send me fresh specimens to figure in the Supplement to English Botany now in course of publication.

Dried specimens of Orobanche are very difficult to determine, and should any of the Members of the Club meet with any of the genus, I should be much obliged if they would transmit the specimens to me in the living state. If desired, I will gladly return them after examination, or I will send specimens of our Southern Species, as O. caryopyllacea, pieridis, amethystea, elatior, cærulea, &c., in exchange.

2. Certain points in connection with Cup and Ring Marks. By Mr Frederick R. Coles.

In the first rush of enthusiastic research into any subject of Antiquarian interest-more especially if we can mystify ourselves and others by a free use of the word Pre-Historic-we are all apt to be led into the natural condition of accepting certain elements as positive proofs of the problem we are trying to solve without giving the needful time, thought, and care which the magnitude of the problem demands. Such hastiness is developed perhaps more rapidly and ripens into rash theories more readily when Cup and Ring Marks form the problem than in any other matter. I freely admit having myself been bitten by the Cup and Ring Mark mania to a very sad and severe extent. Time, however, which cures all, has worked a little of the fever out of my Antiquarian ducts; and observations, made at cooler hours, have helped to show that many so-called Pre-Historic sculpturings once reputed to be the work of Archaic Man are really nothing but the curious result of many ages of Nature's handiwork. As the subject is really of more importance than might appear at the first glance, I shall, without further preface,

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arraign the principal offenders, and endeavour to prove my position, that, in the three cases to be quoted, no trace whatever of man's tooling is visible. (1) We must go back some thirty years, and seek, in the pages of the Proceedings of the Society of Antiquaries of Scotland, session 1864, for the first curiously erroneous statement made by the late Sir J. Y. Simpson, who, in his exhaustive monograph on the Cup and Ring sculptures, when about to describe certain cup-hollows on one of the stones in Holywood circle, starts with the extraordinary fiction that "the circle is about 80 feet in diameter!" I need scarcely explain to an audience of Dumfriesians that the circle is, first of all, not a true circle, but an ellipse; and that its longest diameter is 97 yards, and its shortest 78 yards. With its extent, however, I am not at present concerned. Simpson proceeds to say that on the largest stone, about 10 feet long, which has fallen prostrate, there are about thirty cup marks on one end and the sides. Now, there are two stones "about ten feet long;" but the one Simpson indicates must be that on the S.-W. radius (D on diagram). It measures quite 10 feet 6 inches E. and W. and 7 feet 6 inches N. and S., and its height on the inner end is 5 feet-altogether the largest of the seven whinstones in the circle. There is little doubt that this stone was once erect, if so, it would have been exactly radially opposite stone J, which is at present the highest one. But, if it were ever erect, it must have been with its broad end on the ground and its slightly tapering end atop. Now, the odd fact is this, that nearly all the cup-hollows (claimed by Simpson as artificial) are to be found on this broad base! Even were this not the case, these hollows, to my mind, are not in the slightest way indicative of artificial cuttings; two, perhaps more, are very nearly circular, it is true; the majority are decidedly oval and sharpedged, and, instead of occurring in any symmetric group, however rude-and such grouping is one of the characteristic features of true cup marks, whether associated with rings or not-these hollows are at all sorts of irregular distances, and many of them very suspiciously confluent with the natural lines of cleavage in the rock.* Supposing, for a moment, these hollows on the end of this great stone were cut with an intention, we see that by its position they would be invisible

^{*} The girth of this stone is fully 25 feet at its broad end, and only 17 or so at the other.

when the stone was erect. One can hardly credit man, whether of the 19th Century, the Middle Ages, or of Pre-Historic times, with such an abnegation of all sense and economy as to deliberately carve hollows on the under side of an earth-fast monolith! Further, as I hinted, there is another stone on the opposite arc of the circle, which measures 10 feet 3 inches. It also lies prostrate, but is a much flatter stone than the one just discussed. Its present upper surface bears many hollows, some of them quite as nearly circular, though not so deep as the first noticed. Why were these not claimed by Sir James as also artificial? I do not pretend to answer that query. Again, in the same monograph, the author refers to a group of three or four stones lying within the circumference, which, he thinks, may be the fallen remains of a "cromlech." In the attempt to elucidate the facts regarding the position of the stones, I have been at some pains, in conjunction with my friend Mr Rutherford, to draw an accurate plan, which, when finished, I compared with the plan made by the Ordnance Survey to the 25" scale many years ago. The only significant difference is that the O. map shows twelve stones, while, as every one knows, there have been but a eleven for a very long period. In the time of Captain Grose, a plan was made in 1789. It shows twelve stones. I have marked the position of this stone by a X at a point between stones D and E in my plan. This space, however, is blank in the O. map, and its "twelfth stone" is shown at a point some 40 feet N.-W. of stone F. It is almost incredible but perfectly true that this mark on the map, indicating the site of the stone, is an entire blunder, owing to a fault in the zincography! This rather startling information was the result of enquiries I made through a friend, an officer of the Survey Department.

Now, Simpson's supposed "fallen cromlech" is represented in Grose's plan by three separate stones, and in my plan by two—those at K. There is a third, and apparently a very large stone, slightly to the east of these stones, nearly covered by earth. Whether the middle stone of the group ever rested as a capstone upon the other two, and so formed what some are pleased to call a "cromlech," we cannot now affirm. A little digging below these stones might be productive of good results.

One point, however, is quite certain—the so-called "Cup Marks" on the two protruding stones of this group (at K) no

more come under the category of artificial handiwork than do the cup hollows on stone D. They are either pure weatherings, or possibly, relics of some footmarks of Pre-Adamite beast.

Stone F is the only stone in all the Twelve Apostles that bears undoubtedly human toolmarks on it. These occur on its perpendicular long side facing N.-E., and consist of three deep narrow wedge-shaped holes in one row about 16 inches apart, and another similar hole higher up, near the right hand of the stone. These holes were, I believe, bored by some vandal who had set his heart upon splitting up the block to build a dyke; but the thunders of Thorr broke on his head, and the stone was left.

Concerning the other two localities, as I think quite wrongly and unjustifiably raised to the distinction of possessing human handiwork, it is worthy of note that to each of them there is appended a tradition. Which is the more ridiculous it would be hard to say. (2) The "Cow Cloot" in the parish of Parton is the more heinous offender. Here again, but indirectly, Sir James Simpson's monograph has to bear the brunt of a critical examination. He refers to observations made by the Rev. Mr Greenwell. "Appearances of artifical stone-cutting which he believes to be referable to the class described in this memoir. They consist of three or four Cup Hollows of the usual form and size, and a slanting ovoid circle, not unlike that which a cow's foot produces in softish soil." These marks which, I submit, are nothing but weatherings, and, even as such, not of any markedly peculiar form, or depth, or mimicry of artificial work-have been unduly honoured by a page of illustration by my friend Mr Harper in his excellent "Rambles in Galloway"; but, I am glad to state that in conversation he admits that the whole matter was not worth the time and trouble given to it. The legend ascribed to this most inconspicuous and disappointing rock-site is as follows:--"The proprietor [of Upper Arvie], in order to get up arrears of rent 'drove the pun," or, in other words, carried off the hypothecated stock, while a fierce resistance was made by the people, and that over this stone, on which a man had just been praying for relief against his enemies, the cattle passed, followed by an officer on horseback, and that it remains as a memorial to posterity of the cruel deed." The writer of the above could, in his day, recognise not only the four nails on each side of the horse-shoe impression, but the knot of the garter made by the kneeling man! (3) In

Kelton, at a certain point in the march-dike fencing the moor from the arable ground on Hartburn, there is a stone which forms the first step of what is known as the "Chapman's (or Packman's) Stile." The story runs that a certain packman, after committing a murder near this spot, fled, and, in scrambling over the dyke, left the impression of his blood-stained foot here on this stone. The origin of so particularly funny a myth seems to lie in the fact that the shape and size of this weathered hole are exactly those of a good-sized foot or boot—one would be inclined to say of a very much-down-at-heel boot, since the upper portion of the sole is square-edged, while the heelmark is a nearly circular and very deep hollow - the whole purely natural. I had been led to believe, and that by no less good observers than Mr Hornel and the late Mr Hamilton of Ardendee that this was a genuine Cup Mark connected with genuine carved grooves running off at either side and crossed at the end—the toes of the boot-by another groove. I am very certain, however, that had this stone not come under notice during our early petroglyphic mania, no such interpretation would have been placed upon it. Probably the knowledge of the legend led our friends to fit the boot to the story, or the facts to the boot. The general conclusions to be drawn from the above remarks may thus be summarised. (a) Have no regard for cup hollows when found alone unaccompanied by rings, unless they occur in a symmetric grouping. (b) Always doubt cup hollows in proportion to their depth; genuine cups are apt to be very shallow when found on exposed rocks, and if on rocks from which turf has been removed, their hollows usually show clear tool marks. (c) Doubt more especially any site to which a legend or tradition attaches. To none of the sites of genuine Cup and Ring Marks anywhere, so far as I know, the wide world over, is there one scrap of tradition appended. (d) Do not take for granted statements regarding the occurrence of Cup and Ring Marks until, first, you are reasonably convinced of the accuracy of the writer; second, of the nature of the rock where the marks are said to be found; and third, of the genuineness of the cuttings by your own repeated personal observation and careful scrutiny.

N.B.—Since a somewhat heated discussion, started on a mistaken view of my stand-point, took place when the above paper was read, I should like it to be clearly understood that the paper is not to be taken as a monograph on Holywood Circle, but as the expression of my opinion on the "Cup Marks" there.—F.R.C.

3. Kirns in Scotland.

By Mr James G. Hamilton-Starke, M.A., F.S.A.

The ingathering of harvest has been an occasion for rejoicing among all nations since the most primitive times. customs of the Jews are the oldest of which we have an authentic record, we find in the Old Testament that among their festivals there were two connected with the harvest season—the grain harvest (first of barley and a little later of corn), ending sometime between April and June; and the vine harvest in October. The pagan nations of Greece and Rome held similar festivals; but these were revels, without any expression of gratitude to the Divine ruler of the universe. The early Christians, who held these festivals with a religious observance, when taunted by the heathen as to the newness of their scriptural customs, retorted that they were to be found in the "writings of Moses." In the Pentateuch we find the Divine command for harvest feasts, which were to be proclaimed as holy meetings; and the contrast between these and pagan ones is thus well put by Dean Milman in his history of the Jews. "The third of these feasts took place in autumn at the end of the vintage in all southern climes, the great time of rejoicing and merriment. If more exquisite music and more graceful dances accompanied the gathering in of the grapes on the banks of the Cephisus, the tabret, the viol, and the harp which sounded among the vineyards of Hebron were not wanting in sweetness and gaiety; and instead of the frantic riot of Satyrs and Bacchanals the rejoicing was chastened by the solemn religious recollections with which it was associated in a manner remarkably pleasing and picturesque." This religious element is strikingly brought out in the Book of Ruth, where the operations in the field at barley harvest are fully and beautifully described. We see the wealthy and religious Boaz as he enters the harvest field say to his reapers, "The Lord be with you," and their reply "The Lord bless thee." After the interchange of this devout salutation he inquired of his headman who superintended the reapers—young men and maidens—Who is this damsel? And on learning Ruth's name and errand he gave orders that some of the grain should be pulled out of the sheaves, so that she might "without any rebuke" get more than the other gleaners, and she was allowed to glean until both the

barley and the wheat harvest were ended. Then after the grain had been carried in and winnowed on the threshing floor we are told that Boaz "ate, drank, and was merry." It would not, however, be doing full justice to the Greeks were I to omit mention of the beautiful description given by Homer of the wheat and vine harvests, as these two scenes were engraven upon the shield of Achilles, two scenes which rival Hebrew usages. I here give Cowper's translation of the wheat harvest scene:—

There, too, he formed the likeness of a field Crowded with corn, in which the reapers toiled, Each with a sharp-toothed sickle in his hand; Along the furrow here the harvest fell, In frequent handfuls there they bind the sheaves. Three binders of the sheaves their sultry task All plied industrious, and behind them boys Attended, filling with the corn their arms, And offring still their bundles to be bound. Amid them, staff in hand, the master stood, Enjoying mute the order of the field; While shaded by an oak apart his train Prepared the banquet—a well-thriven ox New slain, and the attendant maidens mixed Large supper for the hinds of whitest flour.

There is here no mention of that charitable Hebrew custom of gleaning which was enjoined by the Mosaic law, and has been observed since then to the present as an equitable claim by the poor. In mediæval times the religious element of offering the first fruits of harvest to God lost its original simplicity, and became so laden with superstitious ceremonies that it resembled a pagan rather than a Christian festival. Hence the religious element fell into disuse at the Reformation; and it is only within the last few years, especially in Scotland, that religious services have been held as an accessory to harvest festivities. The "kirn" in Scotland corresponds to the harvest home in England. It is the Scotch way of pronouncing the word churn, just as church is pronounced kirk; much, meikle; such like, sic-lyke or sicken. In the north of England it is called the mell-supper, which some English antiquaries suppose to be a corruption for meal, and that the Scotch is a corruption of the word corn. I have never heard the word corn pronounced kirn; and in regard to the word mell, the explanation given by Brand and adopted by Strutt in his

"Sports and Pastimes" is the probable one—that it means the promiscuous mingling of master and servants at the same table. Strutt adds—"Probably the mell and the churn supper originated from the Jewish Feast of Tabernacles." The association of a kirn with churning arose from the circumstance that there was always a churning in a farm house before any large supper, in order to provide "Cream crowdie," i.e., cream with oatmeal. There was generally a family tea in the house before the supper in the barn, so that its inmates might give their whole attention to the guests at the kirn. The farmer, also, always paid his harvesters their wages before the kirn began, so that they might have their minds more free for enjoyment. The kirn was generally held some days before Hallowe'en, but, as the poet Burns has recorded, it sometimes took place that night in consequence of a late harvest.

Ae hairst afore the Sherra-Moor, I mind as weel's yestreen; I was a gilpey then—I'm sure I wasna past fifteen.

The simmer had been cauld an' wat,
An' stuff was unco green,
But aye a rantin kirn we gat,
An' just on Hallowe'en
It fell that nicht.

· Sir Walter Scott mentions that he regularly attended the kirns of his neighbour, "Laird Nippy," and that he always himself gave a kirn, which Lockhart thus describes. "Every November before quitting the country for Edinburgh Sir Walter gave a harvest-home on the most approved model of former days to all the peasantry on his estate, their friends and kindred, and as many poor neighbours as his barn could hold. Here old and young danced from sunset to sunrise-John of Skye's bagpine being relieved at intervals by the violin of some 'Wandering Willie'—and the laird and all his family were present during the early part of the evening, he and his wife to distribute the contents of the first tub of whisky punch, and his young people to take their due share in the endless reels and hornpipes of the earthen floor." It was the custom in Scotland towards the end of the reaping to leave a small sheave standing-called the maiden

-at which the harvesters from a distance aimed their hooks, and whoever was skilful enough to cut it, he or she wore a bit of it on their person and led off in the dance at the kirn. The rest was hung up in the farm house until next harvest. The "huik," or hand sickle, has been long ago superseded by reaping machines. It was a short sharp curved instrument similar to what is represented as having been used in the east from the earliest times. The supper and dance were held in the barn, round the sides of which were placed deal boards supported on barrels or other trestles. Supper was laid out on a centre table laden with substantial viands, also whisky, home-brewed beer, and cream crowdie. Dancing was carried on until daybreak, and the barn door always stood wide open. The barn was lighted up with thick dip candles made for the occasion by dipping wick into the melted tallow that had been accumulated in the farmhouse. itinerant fiddler, and sometimes the bagpipes, furnished music, and the dances were chiefly reels and country dances. Songs were given at intervals, and when daybreak appeared all parted wishing to the master that he might live to see "mony mae sic merry kirns."

> To "Auld Lang Syne" they tune their voice, Sae noo the kirn is ended;
> The courtship tiffs that hae been broke, By wedlock will be mended.
> Ower Criffel hill the mune has sunk, Sae aff tae bed they've started,
> Where lads will dream of kirns to come, And lassies—kirns departed.

W. TAYLOR.

Kirns were held all over Scotland 40 years ago, but have been gradually dwindling away, until now in many rural districts they are known only by hearsay, and the barns have been gradually demolished.

N.B.—The English word churn is of Scandinavian origin, for which the Dutch and Germans have kernen, the Icelandic kirna, the Swedish kärna, the Danish kierne. The Scotch kirn is the original way of spelling the English churn.—Editor.

2nd December, 1892.

Mr George F. Scott-Elliot, M.A., Vice-President, in the Chair.

Donations.—The Essex Naturalist for October, 1892; a list of Californian Plants, made by Dr A. Davidson, presented through Mr Fingland, Thornhill. Dr Chinnock, Secretary of the M'Dowall Memorial Committee, presented to the Society the Minute Book of that Committee.

COMMUNICATIONS.

1. The Influence of Insects on Flowers.

By Mr G. F. Scott-Elliot, B.Sc., F.L.S.

One must remember, in order to realise the influence of insects on flowers, that our present Flora is the result of long-continued selection and development. In primeval times the number of species was extremely small, as compared with the present, and those which did exist were of a simple generalised type, and frequented by hordes of miscellaneous insects, none of which displayed the specialised tastes and complex organs of our nineteenth century ones. Now the number of species, both of flowers and insects, is extraordinary, and many show the widest and most varied specialisations. Specialisation is, however, not by any means invariably found at the present day. Thus there are many flowers, like the gowan and daisy, which are common and widely spread, and depend on crowds of insects of all kinds; and alongside these we also find highly specialised plants, like the fig. which depends for its very existence on one particular kind of moth, and these latter highly specialised forms are comparatively rare. Now, in what way did insects exercise their influence, if any? On this point there is so much confusion that one must go to the very beginnings of the theory. Evolution is brought about by variations. Flowers at the tip of the spike are yellow, those just open are a bright rose red, while the older fading flowers are mauve or purple. One sees, therefore, that the flowers of this plant pass through the whole or nearly the whole series of colours which one finds in the vegetable world. There is no certainty as to the cause which produces this change of colour in flowers, but there are some grounds for supposing that

direct sunlight may have led to variation in this direction; there is also a considerable probability that a blue or red colour is expensive, requiring the expenditure of a certain amount of energy. However colour change started, there is no doubt that insects have exercised enormous influence on its further development. Both birds and every group of insects have distinct preferences for certain colours. This is least clearly obvious in the case of beetles, flies, and perhaps the smaller bees, which do not seem to be more attracted by bright colours than they are by vellow or white. Bees distinctly prefer red, and particularly delight in the full purple colour of the bugle and Vicia Cracca. Butterflies appear to like anything bright and vivid, but the common cabbage white butterflies seem to me to prefer their own colour (white) to anything else. Humming-birds have a distinct and special love for a peculiar shade of red, which is not found in any of our British plants. This shade, and a shape corresponding to the long curved beak and head of these birds, is however fairly common wherever they exist in large numbers. Thus I have found members of such utterly different orders as Leguminosa, Rubiacea, Scrophulariacea, Labiata, Tridacea, and the Indian Shot taking on this shape and colour, and in most cases proved that they were visited by birds.

The effect of the artistic preferences of bees is, however, clearly traceable in our own wild flowers. Thus Geranium pratense is a deep purple, and its large flowers are visited chiefly by the larger bumble-bees; Geranium silvaticum has smaller purple flowers, and is also visited by the large bumble-bees, though it is also frequented by numbers of small bees and the higher classes of flies: G. sanquineum is not so distinctly purple, and has an even more mixed clientèle; our other forms-G. molle, G. Robertianum, and G. dissectum have pink flowers of a much smaller size, and appear to be almost entirely dependent on very small bees and flies of the upper and lower classes. Along with this difference of colour there is in the various species a different arrangement of stamens and peculiar methods of ripening, by which each form is thoroughly suited to its main class of visitors. Now, let us consider the Labiate family. We have Salvia pratensis and the common bugle, which are purple, while the Woundwort, Stachys silvaticus, is a strong red, and Wild Thyme is pink, not to speak of Lamium album, which is white. Why should there be this

variety? If one watches the common bugle on a warm, quiet day one can, I think, answer the question. Usually one has not to wait long before one sees a furry, chestnut-coloured bumble (Bombus muscorum) flying back and forwards in wide sweeps, much as a pointer ranges a field of turnips for partridges. Suddenly she will catch sight of a bugle, and immediately fly straight to it, busily probing every flower on the spike with an excited and affectionate hum. One sees at once that the bugle, which is a small plant with a way of growing scattered in single specimens, often in broken ground, requires a conspicuous, easily distinguished colour. The blue Salvia pratensis is also a bumblebee flower; on the other hand, several South American Salvias have a rich red colour, and a shape suited to the humming birds, which are known to visit them. Stackys has a habit of growing in masses, and is a strong red suited to the taste of another Bombus which visits it frequently. Thyme, on the other hand, is partly visited by the hive-bee, and partly by various flies, and its strong scent enables it to do without such a deep and expensive red as one finds in Stachys. I have never studied Lamium album in the field, but as I found it in full bloom as late as October 30th, I am inclined to think it is visited by flies as well as by bumbles; in any case, it is a very conspicuous plant, and easily seen by bees. Our violets also show the advantage to a plant which grows in scattered specimens of a colour conspicuous enough to attract a bumble-bee flying, as they often do, at a rate of ten to twenty miles an hour. It is true that the mountain violet (V. lutea) is yellow, but then this plant is commonly found on bare hillsides, where it has few competitors, and is quite sufficiently conspicuous. The blue variety (amoena) is also common, proving that V. lutea is a variety or incipient species. Again, in the pink order, most of our English forms are white, but Sagina procumbens (Pearlwort) has no petals, as a rule, while Lychnis diurna and the Ragged Robin are pink. I have found this summer that the Pearlwort is visited chiefly by ants, and it is also no doubt largely self-fertilised, hence we may see how it can do without petals. Again, the Day Campion and Ragged Robin are visited almost entirely by bumble-bees. The difference between Lychnis diurna and Lychnis vespertina is perhaps the best possible instance of the way in which insects may have brought about a multiplication of species. L. vespertina has

white flowers, which are scented, and mostly open during the evening. Now, the common ancestor of the two species may have had red flowers, but with a tendency (by reversion to still earlier conditions) to produce white flowers occasionally, just as we see happens with Lychnis Hoscuculli in our own district. This tendency would probably be most frequent in those flowers which open towards evening through the absence of strong sunlight, and such white, late opening flowers would be best visible to evening moths, and be frequently crossed between themselves. The red day flowers of diurna would be visited, as now, by bumble-bees, which retire to rest before the evening moths come out, and hence the flowers of each incipient variety would be constantly crossed with each other, and but seldom with those of the other variety. White colour, late hours, and scent being all directly of service to moth flowers, would be fixed by natural selection, and the two incipient species would diverge more and more widely, and have room to produce the other very minor distinctions which now separate them. Again, why should Lepigonum or Spergularia rubra be pink? It is most unusual in the section of Caryophyllea to which it belongs, and I could not have answered this question before this summer. I now find it is visited not infrequently by hive-bees, and the pink is obviously to assist it against the strong competition of Armeria vulgaris, which often accompanies it. One must, however, be careful not to apply the principle too universally. Most flowers cannot rely entirely on one class of visitors, and though Sir John Lubbock has sufficiently proved by direct experiment that bees do prefer red to yellow and blue to red, still they do not by any means confine their attention to red and blue flowers. Thus the hive-bee visits the common yellow buttercup, and bumble-bees often gather pollen from St. John's Wort and the Willows in early spring. None of these three plants are of course specially given up to bees. Even in cases like that of Lamium album, one must remember that one has mainly to explain why some flowers have turned red or purple; it is not necessary to suppose that all bee-flowers must do so, as they may use their surplus material in other ways.

Everyone knows that one of the great subdivisions of botany is that of *Corolliflore*—flowers, that is to say, in which the petals are united to form a corolla. I think, however, few can have

realised that we are probably indebted to insects for the existence of this particularly beautiful group. It seems to me difficult to find any other reason for Corolliflors than their being able to reserve their honey for longlipped insects, which also happen to be the most intelligent and industrious pollen carriers. In other ways a tubular flower is a disadvantage, as material is needlessly wasted in the tube itself in the strong supporting calyx and so on. One might even, I think, trace the variation which led to the formation of tubular flowers a little further back; the petals in a minute forming flower consist of four or five small pimples of jelly-like substance which are arranged in a circle. If these little bulging pimples were arranged closely side by side, they would be likely to run together and rise as a single rim or cylinder instead of as separate projections. If this is true, it explains why luchnis and silene which are tubular flowers, from an insect's point of view, are not Corolliflore, for we find in these forms that the position of the stamens and nectaries would prevent this fusion. At any rate, when a tube of this kind was once produced even in a rudimentary condition (such as we find in the holly and bryony), the advantage in retaining the honey and preserving it for the best insects would be so great that it would be immediately seized upon and improved.

A possibility of indefinite variation was thus afforded, and the variations that actually have occurred are so numerous that it is somewhat difficult to classify them. I think one may, however, trace three distinct types, under which probably 90 per cent. of the Corolliftoræ may be placed:—

- 1. Flowers with a widely open corolla very much like a large *Thalamiflor* whose petals have united—*Campanula*, *Convolvulus*, and the *Foxglove*.
- 2. Flowers with a very narrow tube which ends in a spreading horizontal limb—Primrose, Periwinkle.
- 3. Flowers with distinct upper and lower lip and a short or moderately long tube—Lobelia, Salvia, and almost all the Labiates.

Now every one of these very widely spread types can, I think, be shown to be directly adapted to the shape of the insects which visit them. Thus a Foxglove is almost exactly the shape of a bumble bee's body, and I think we are quite justified in saying that the bee has fashioned the shape of the Foxglove flower exactly as the thumb of an old glove affords the exact pattern of

its wearer's digits. In this first type, in fact, the insects are intended to enter the flower bodily, and the shape of the flower depends upon the size and the usual motions of the insects which enter. Generally speaking, however, this adaptation is not so striking at first sight, because the insects may enter the flower in any direction, and hence its shape will not be that of a bee, but that of a bee's body of revolution so to speak. This can be easily seen if one takes a Bluebell and cuts it into two equal halves, when the space in each half between the corolla and the upright median style will be seen to be very nearly that of a bee's head and tongue. A very striking instance, which at first sight seems contradictory, is that of the Pigwort. This is visited by wasps which in entering bend their bodies into a circle, resting the thorax on the lower lip of the corolla (just as an athlete rests on his waist when about to turn a circle on the horizontal bar), and the shape of the globular corolla is just such as will enable the head of the wasp to accomplish this movement.

The second or Primrose shape is one not often found in British plants, though it occurs e.g. in Forget-me-not. It is typical of flowers which depend mainly on moths and butterflies for carrying their pollen—these insects have an extremely long, thin proboscis, and are unable, from the size of their wings, to enter flowers like a bee, hence they stand on the spreading limbs of a Primrose and plunge their delicate elastic trunks down the narrow tube. In our Flora the Honeysuckle is perhaps the best example of a moth flower, and it has the characteristic long and narrow tube, but it is only in tropical countries, where butterflies are numerous and important enough to be consulted, that flowers of this type reach their full development. In such places there are Rubiaceæ and plants of the Periwinkle order which have tubes four or five inches long, and not nearly a quarter of an inch in diameter.

In the third or Labiate and Eyebright type, the insect, usually a bee, is supposed to stand on the lower lip and thrust his mouth and lips down a tube; the length of this tube varies greatly, and often shows the most exact agreement with the measured length of the particular bee's trunk. The size and character of the corolla lips varies also enormously. Sometimes, as in Lamium, the bee stands comfortably on a broad platform and pushes his head and lips down a long corridor, which ends in a cup of honey, and is often guarded from intruders by a curtain of stiff hairs at

the door. In the Thyme he is supposed to stand on the other flowers, and only his head enters the corolla. In Veronica the lower lip has been suppressed, and the insect is supposed to alight on the style and two spreading stamens.

In all three types, however, if one examines the flower, as compared with the insect, one sees that the shape of the corolla is an almost exact generalised outline of its average visitor's head and mouth parts, affording, of course, play to the ordinary motions on entering or leaving of the latter. Natural selection seems to have ruthlessly pared away any exuberance of shape, until the correspondence is sometimes astonishingly correct.

Another striking effect of insect visitors is shown in the development of nectaries to secrete the honey. In this case the origin of nectaries may very likely be found in insect visits. Primaval insects probably bit and gnawed the flower parts, and possibly the places most affected by them would be the juicy succulent tissues at the base of the stamens and petals. That is the most usual position of nectaries, and a part often attacked by the gnawing beetles now living. A stimulus of this kind would produce a flow of sugar to the part attacked (one can see a similar flow giving rise to abnormal development in the galls produced by insect injury at present). At first this abnormal supply must have been purely irregular, but gradually the flower took to developing regular spots, where a constant exudation took place, and which the insect could readily find. Once this took place one can see both how insects began to develop a sucking mouth, instead of strong biting mandibles, and how the nectaries became gradually more and more definite and constant. In fact, every stage of transition can be almost traced from our present forms. Thus Müller has shown in his "Fertilisation of Plants" a regular series of transitions, from the biting mouths of the sand-wasp and Prosapis to the complicated purely sucking mouths of Bombus and the hive-bee. On the flower side, I was interested this summer by seeing a very small Erupis fly, which was obviously sucking on the petals of Hypericum perforatum, whose flowers show no trace of nectaries, and which are not known to secrete honey. I was compelled to believe that exudation of honey did take place, though in an irregular and unlocalised way, probably as may have been the case with the earliest flowers. Before leaving nectaries, I must point out that their

formation involves a loss to the flower which is usually made up by suppression of other parts. In *Cruciferæ* there are, for instance, only six stamens, but a close study of the flowers renders it probable that the six nectaries are remains of six other stamens which are required to make up the symmetry of the flower. Generally a direct connection between nectaries and missing parts cannot be traced, but well-developed nectaries, as in the higher *Corollifloræ*, usually go along with great reduction in stamens and carpels. One has only to compare the numerous stamens and carpels of buttercups, roses, and mallows with the four or two stamens and two carpels of most *Corollifloræ* to see this clearly.

Very often a regular nectary leads to a kind of bag being formed to hold the honey secreted. A rudimentary cup of this kind occurs in the pouched sepals of some Crucifere; here it has probably been formed by the impression of the nectaries which in the buds occupy the part of the sepals afterwards pouched, and the cavity thus formed being useful as a honey receptacle, has been maintained and improved by selection. In other cases one is disposed to think that insects have directly started a variation of this kind. Thus some buttercups are very near the St. John's Wort in being without any particular spot at which honey is secreted. In the common butter cup, however, exudation of honey is confined to a particular shallow pit just at the base of the petal. If one compares this shallow cavity with a Columbine petal, one can scarcely resist the conclusion that the constant pushing and probing of insects has deepened and elongated this shallow pit till it has come to form the long curved spur of the Columbine. The lengthening of this pit may have gone on for centuries, but as every little increase was of advantage both to flower and insect it seems very possible that it has been produced in this way. Quite similar pits or spurs are found in the Toadflax Butterwort and in violets, and similar structures are extremely common in the orchid family. One orchid, Angræcum sesquipedale, has a spur of this kind eighteen inches long, which is adapted to a kind of hawk moth which has a proboscis about the same length.

There would be no difficulty in multiplying instances to show the influence of insect visitors. I shall, however, forbear to try the patience of members any longer, only pointing out what is perhaps the most important point of all. The differences between two allied species may be of a minute and scarcely visible character, and yet if those differences lead to the flowers being visited by utterly different insects, these two species are as much isolated from one another as if the broad Atlantic rolled between them. Mutual crossing is impossible, and each species is perfectly free to follow any line of variation which it chooses. Isolation of this kind is, as we can see from the study of island farms, a most fruitful cause of new species. Hence the importance of a study of insect visitors is enormous, and it is astonishing to find that whilst there are probably several hundred botanists who can name any British plant presented to them, practically nothing has been done in this direction.

Unfortunately, every little detail requires the most tedious and exasperating work in the field, and the habits and customs of our bees and flies have been even less studied than those of our plants. Any of our members who begin this branch will, however, find a field almost untrodden, and, however, superficial the instances given may be, I hope some may be induced to undertake this most fascinating yet bewildering and difficult branch of botany. In this hope, I recommend them to begin with a careful study of Herbert Spencer, that they may be delivered from the haunting fear of Weismannism, which has long been dead and buried on the Continent, but occasionally returns in this country I must also recommend them to study Müller's "Fertilisation of Plants," and to read carefully and critically Professor Henslow's "Floral Structures." They will find that I am very deeply indebted to all these authors, and to Mr Grant Allen for the theoretical part of this paper.

2. Trade Tokens.

By Mr PHILIP SULLEY, F.R. Hist.S.

Mr Sulley in the first place made some general remarks regarding trade tokens, pointing out that while the whole coinage on record from Anglo-Saxon times to the present did not exceed a thousand different specimens, the trade tokens issued at various times exceeded sixty thousand. The cause of the issue of such

tokens was the lack of small change. He directed attention to a penny of the time of Edward I. in England and John Balliol in Scotland, which was purely the working-man's coin of the day, and represented his day's wage during many a score of years. It was the only coin they had, and to get what was proportionately a half-penny and farthing they broke the penny piece into halves and quarters. For three centuries this state of affairs existed, until Henry VII. made a great reform in the coinage, and he was the first king to put a likeness on coins. Then came Edward the Sixth and Mary the Evil, who issued most base and degraded coins, the result of which was that tradesmen refused to put up with them any longer. Soon the chandler, the grocer, the baker, the vintner, and other trades people, along with many of the principal households, began to issue tokens of their own to be used among their own friends, within their own circle, and in their own town. These they made of all kinds of metal—a few of copper, many of tin and pewter, some of brass, and some even were of leather-stamped. Matters went on in this way till James the Sixth of Scotland journeyed across the Border to become the First of England, the tokens having continually increased. His Blessel Majesty, James, when he went south found he could not take his Scottish "bawbee" with him. As towns like Bristol, Worcester, and Oxford were issuing these copper coins at fair value, and were making an immense profit out of it, he, with Scottish ingenuity, thought he might turn a good trade at it too, and he gave a patent to Lord Harrington in 1613 to issue "good copper farthings." As a matter of fact, they were worth about a fifth of that sum, and consequently his lordship made something like £30,000 a year out of the business. James, however, soon did away with the patent, and gave Lord Harrington some thousands a year to carry on the trade while he himself secured the profits. From 1618 to 1689 the issue of tokens was widespread, and their mottoes were numerous. In 1671 King Charles II, reformed the coinage by the issue of honest copper pennies and farthings, and in the following year he issued an edict putting a stop to the circulation of trade tokens, and succeeded in suppressing them. William III. and Mary, Anne, George I., George II., George III., all managed to supply the requirements of the public substantially for about 100 But then there came a dearth of money, and in

the year 1787 things got so bad that there was no money to pay wages, &c. In that year the Anglesey Copper Company issued copper pennies and farthings to their work-people, and these were so much in demand that in the course of three years they struck 300 tons of the metal. The result was that other people took up the same trade, and these tokens grew to an enormous extent. Ten years afterwards, in the year 1797, George III. put a stop to the business by issuing a very beautiful, though rather cumbersome, twopenny piece of solid copper. That put a substantial check on copper tokens, so much so that they died out about the year 1800; and in 1802 there were only two issued. In 1806 a new penny of good value came from the mint.

Mr Sulley proceeded to give particulars of some of the tokens issued at the end of last century. Some were put into circulation by towns, others by private speculators, who adorned theirs with figures of noted persons such as the Prince of Wales, Earl Howe, Nelson, and the Duke of Wellington, while classical subjects also came within their artistic scope. Tokens were likewise issued as advertisements. A celebrated London dwarf, who was on exhibition, had his halfpenny; a menagerie was not behind the times with a coin on which were the kangaroo, armadillo, and rhinoceros; an acrobatic performance had its suitable advertisement; the proprietors of a great lottery followed in line; and another token was issued as an advertisement to a stage coach establishment, with words in praise of Palmer, the founder of stage coaches. Mr Sulley exhibited specimens of these, and among others a Masonic half-penny. A magnificent set of tokens was issued at one time with representations of the principal London buildings. A more remarkable set altogether were the satirical tokens. One Spence, who had seen the inside of a prison five times, and was three times tried for high treason, issued a notable series of the kind in question, and Mr Sulley brought before the meeting specimens, along with others circulated by T. Hardy, tried for high treason in 1794; J. H. Young Erskine, the great advocate; Gibb; and the London Corresponding Society, which was the means of stirring up some notable riots in the English Metropolis. Such tokens, which were circulated in great numbers, were, of course, issued for political objects. The French

Revolution brought a host into circulation, and numbers were struck in honour of the victories of the British arms. In the ten years succeeding 1787 no fewer than 40,000 were put into circulation. In 1811 copper had grown so valuable owing to the great wars that twopenny pieces were worth fivepence, and a large number of silver tokens were issued for the first time in that year. On 17th July, 1817, however, an Act was passed compelling their withdrawal, and that was the end of the system of tokens. In the first period, up to the time of Charles II. there were upwards of 20,000 issued, of which 12,000 were known at the present time, and 40,000 were known to have seen the light from 1787 to 1817. A good many more had doubtless been lost. And the cause of all this was simply the scarcity of change! Coming to Scotland, he found it a very extraordinary thing that, as far as he could ascertain, there was no collection of Scotch trade tokens, or record of them. In the great antiquarian museum in Edinburgh there was not a single one. There were a few in the Paisley Museum. He had some eighty specimens. There were 240 different varieties of Scotch tokens known, but many of them were simply varieties with such minute differences-principally in the dies-that they were only interesting to collectors. He imagined there were 130 different tokens known to be issued in Scotland. The Edinburgh half-pennies were the oldest known to exist, the earliest date being 1787. There was also a Paisley Abbeypenny, for which he would be glad to give £20. He could sell it for £50. (Laughter.) He exhibited an Edinburgh halfpenny of date 1791, payable at Dumfries, the reason of their being made payable at different towns being that Scotch traders went to all the London and other great markets carrying their pennies with them, and the tokens could be exchanged and current coin obtained for them at certain houses in the various towns. He also exhibited tokens with representaions of Edinburgh University and the Register House; and one dated 1796, issued by Campbell, who kept a snuff shop in St. Andrew Street, Edinburgh. The man Spence already referred to issued, he thought, most of the Scotch tokens-about 70 or 80which, with his others, cost him about ten years in jail. However, he was a most indefatigable man. (Laughter.) In connection with the trade done at southern cattle markets by Scotch traders last century, Mr Sulley referred to an iron plate at the Midsteeple indicating the distance to Huntingdon, which had a famous market. The best Scotch tokens of all were those of Dundee, which were remarkable for the way in which they were struck, and which could not be surpassed by any English ones that he knew of. Gatehouse-of-Fleet was the only place within the two counties (Kirkcudbright and Dumfries) which issued a halfpenny of its own, and he exhibited a specimen, on the one side of which was a view of the mill, and on the other the arms of Murray Stewart of Cally. In his collection of tokens some 70 belonged to the period between 1790 to 1797; four belonged to a later period. He had many hundreds of the English ones. He expressed the hope that he had given the Society an interest in Scotch trade tokens. The extraordinary thing in connection with them was that, while there were many records of the English issues, there was no record in Scotland.

Mr James Watt described the proceedings of the Geological Section of the British Association at Edinburgh, 1892.

13th January, 1893.

Rev. Wm. Andson, V.-P., in the Chair.

Donations.—A collection of Grasses and Rushes presented by Mr Tom Brown, late of Auchenhessnane; a collection of Mosses presented by the Rev. George Wilson, of Glenluce; a number of Botanical Specimens presented by Miss Thompson, of Settle; the Essex Naturalist for November, 1892.

COMMUNICATIONS.

1. Botanical Notes for 1892.

By Mr James M'Andrew, New-Galloway.

WIGTOWNSHIRE.

The result of a week's botanizing at Cairnryan, Wigtownshire, in July 1892, was rather disappointing. The village is a very desirable spot for spending a quiet holiday, and is not far from

the famous Glenapp. The shore of Loch Ryan is rather barren in good species of seaside plants, but the glen at Lochryan House, which, by the kind permission of Mr Wallace, I was allowed to visit, is comparatively rich in ferns, flowering plants, and mosses, &c. Here I saw more of Lastrea oreopteris, Polypodium phegopteris and dryopteris (the beech and oak ferns) than I had yet seen in Wigtownshire. The mosses, Pylaisia polyantha, Trichostomum crispulum, hhynchostegium tenellum, and Pottia Heimii, were gathered round Cairnryan, while many trees in the glen had their stems almost covered with the lichen Verrucaria nitida. As far as I am aware the following are six new records for Wigtownshire:—Polygala eu-vulgaris, Malva rotundifolia, Agrimonia Eupatoria var. odorata, Anthriscus vulgaris, Pers., E. of Stranraer; Carex pendula, immediately S. of the Ayrshire boundary; and Carex levigata.

I confirmed Carex remota, Carex Sylvatica, and Melica uniflora for Wigtownshire.

Other good plants seen were Senebiera coronopus, Helianthemum chamæcistus, Sagina maritima, Sagina nodosa, Hypericum androsæmum, in abundance; Trifolium striatum, three miles S. of Cairnryan; Ornithopus perpusillus, Eupatorium cannabinum, Sonchus asper, Veronica polita and hederæfolia, Melampyrum pratense var. hians, Empetrum nigrum, Orchis latifolia, Habenaria conopsea and viridis, Eleocharis pauciflorus, Carex dioica, Kæleria cristata, in abundance; Bromus asper, and Equisetum maximum. I saw Thlaspi arvense in plenty near Dunragit.

KIRKCUDBRIGHTSHIRE.

New records for New-Galloway, Kirkcudbrightshire are—In Kenmure Holms I found this year in abundance Polygala oxyptera; also, the Hepatic Metzgeria linearis, var. hamata, Lindb., in Ballingear Glen, and a new species of lichen on alder trees in Knocknarling Burn, named by Dr W. Nylander, Paris, Lecidea umbralis, and Bryum intermedium at Kenmure, and the lichen Physcia ciliaris on Rerrick shore. Placodium elegans, Link; Opegraphas atra, Pers.; Verrucaria oxyspora, Nyl.; and Verrucaria biformis, Borr, from New-Galloway.

DUMFRIESSHIRE.

As the result of another holiday at Moffat in July and August, 1892, I have been able to add a few more plants to the Moffat List. Mosses—Sphagnum rigidum, var. squarrosulum, Hind Gill; Sphagnum intermedium; Dicranum scoparium, var. orthophyllum; Barbula papillosa (on old trees); Tetraplodon mnioides; Neckera pumila, var. Philippeana, Beld Craig Glen; Orthotrichum leiocarpum; Ulota crispula; Physcomitrium ericetorum; Webera elongata, side of Well Burn and Wamphray Glen; Rhabdoweissia fugax; Anomodon viticulosum, Wamphray Glen; Plagiothecium Borrerianum-13. I was fortunate also in find-Hypnum crista-castrensis on Gallow Hill. It was formerly recorded for the Grey Mare's Tail. HEPATICE.—Lophozia Bantriensis, Well Burn, &c.; Lophozia Schreberi; Lophozia exsecta, Gallow Hill; Lophozia alpestris, and Aneura latifrons. are five new records for Moffat. LICHENS .- New records for the Moffat district are Pannaria pezizoides, Garpel Glen; Cetraria aculeata var. muricata, near the Waterfoot; Physcia cæsia, Verrucaria nitida, Wamphray Glen; Thelotrema lepadinum, Beld Craig Glen; Squamaria gelida, Becomyces roseus and placophyllus, Hind Gill; Spheroph oron frayile, Peltigera spuria, two miles N. of Moffat; Evernia furfuracea var. scobocina, Gallow Hill; Ricasolia late-virens, Lochwood and Beld Craig Glen: Parmelia reddenda, Frenchland Tower; Parmelia ambigua Gallow Hill and near Wamphray Schoolhouse on fir trees; Parmelia Borrera, Parmelia cetrarioides, Lecidea pulverea, Gallow Hill; and Lecidea lucida-18. Among flowering plants Nitella opaca, Bromus commutatus, Trifolium arvense, and Ornithopus perpusillus, found by Mr J. T. Johnstone, are new records for Moffat. Also from the Moffat district recorded in "Journal of Botany" for July, 1892, are Hieracium rubicundum, n. sp., and Hieracium murorum var. sarcophyllum, on Black's Hope by the Messrs Linton.

 $2.\ \ Meteorological\ Observations\ for\ 1892.$

By the Rev. WILLIAM ANDSON.

Lat. 55° 4° N. Long. 3° 36° W. Height above sea level, 60 feet.	HYGROMETER.	Relative Humidity, (Sat = 100.)	88 88 84 84 84 84 84 84 84 84 84 84 84 8	
		Temperature of Dew-point.	Des. 33.1-33.1-33.1-33.1-33.1-33.1-33.1-33.	
		Mean Wet.	Deg. 34-65. 1 2 35-1 2	
	Self-Registering Thermometer Rainfall. H	Mean Dry.	Deg. 35-5 36-4 35-8 43-4 56-4 56-4 56-4 56-4 511-1 411-3 34-2 44-8	
		Days on which it fell,	26 16 10 10 13 13 13 13 13 13 13 13 13 13 13 13 13	
		Tetal JunouiA	In. 25.55 1.755 0.755 0.69 4.155 23.22 23.72 6.80 3.81 3.70 3.81 1.97	
		ni desviest Reavies.	10.00 0.27 0.24 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	
		Mean Temp.	Deg. 385-1 385-1 385-1 387-4 453-3 551-5 571-7 581-4 52-3 436-4 436-4 34-4 46-4 46-4 46-4 46-4	
		Monthly Range.	Deg. 36:1 44:3 44:3 49 45:1 46:7 86:7 86:7 86:7 86:7 86:7 86:7 86:7 8	
		Mean Minimum,	D 831687 831688 831688 8454 4567 4567 4567 8777 8771	
		Mesn Maximum,	Deg. 40.4 44.5 45.56.1 60.6 65.7 65.7 65.7 65.7 89.6 89.6 53.3	
		Lowest in Month.	Der. 19.6 9.3 19.7 22.5 30 30 35.3 41 19.8 33.7 19.8 9	
	BAROMETER. Se	Highestin AinoM	Deg. 557 7 72 68 82 77 77 77 77 77 77 77 77 77 77 77 77 77	
		Mean for Month.	29.775 29.775 29.765 30.061 30.062 29.943 29.847 29.847 29.706 29.913 29.913 29.914 29.913	
		Range.	1.195. 1.807 1.807 1.345 1.035 1.021 1.050 1.154 1.1070 1.402 1.073 1.073 1.073 1.073 1.073 1.073	
		Lowest in blonth.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
		Highest in Alnoid.	Inches. 30-421 30-421 30-571 30-578 30-473 30-440 30-460 30-330 30-330 30-337 30-335 30-335 30-355 30-356	
		Months.	Jan. Feb. Mar. Aprill May June June July Sept. Oct. Nov.	

N. N.E. E. S.E. S. S.W. W. N.Y. 15½ 45½ 34 26 25½ 73½ 71½ 45

Calm or Var.

Barometer.—The highest reading of the barometer recorded during the past year was on the 22nd March, when it rose to 30.630 in.; and the lowest on 2nd February, when it fell to 28.764 in.;

giving an annual range of 1.866 in. The mean barometrical pressure (reduced to 32 degs. and sea level) was 29.901 in., which is a little above average. In March, April, and July the mean monthly pressure was slightly in excess of 30 inches. The lowest monthly mean was in October, which showed 29.706 in.; and on the 9th of the same month there was a fall to 28.956 in. But neither on that day, nor in the beginning of February, when the barometer fell to a still lower point, the lowest of the year, was the fall accompanied by such severe storms of wind or excessive rainfall as are often experienced in connection with such depressions, although the weather was squally at times, and especially during the night. But on the whole there was a marked absence, at least in this district, of storms of any intensity.

Temperature (in shade, 4 feet above the grass).—The highest reading of the self-registering protected thermometer was 82 degs. on the 9th June, and only once again (in August) was the maximum of 80 degs. reached. The lowest temperature registered was 9 degs. on the 26th December, giving an annual range of 73 degs. On one other night, in February (the 19th of the month), the thermometer registered a minimum nearly as low, viz., 9.3 These were the lowest readings of the year; but there has been an unusual number of instances in which the temperature fell to and below the freezing point-in January, for example, 16, with an aggregate of 73 degs. of frost; in February, 11, with an aggregate of 66.7 degs; in March, 23, with an aggregate of 112 degs.; in April, 12, with an aggregate of 52 degs; in October, 8, with an aggregate 34.7 degs.; in November, 5, with an aggregate of 14.8 degs.; and in December, 21, with an aggregate of 173.8 degs. There were thus in all during the year 96 days on which the thermometer fell to and below the freezing point, with an aggregate of 557.5 degs. of frost. On the other hand, the number of really warm days on which the thermometer rose to 70 degs. and above was comparatively few, viz., 21, the most of which occurred in July and August. The warmest month was August, with a mean temperature of 58 degs. July came next with 57.7 degs. June had only 55.7. The coldest month was December, with a mean of only 34 degs., which is 4½ degs. below the average. March was also a very cold month, the mean of 37.4 degs. being less than that of February, and nearly 5 degs. 34

under average. With these facts in view, it is not to be wondered at that the mean temperature of the year, taken as a whole-viz., 46 degs.-is considerably below the normal. It is the lowest annual mean recorded at this station since observations were commenced in 1886. In that year it was 46.2 degs During the other years the annual mean ranged from 46.5 to 48.1 degs. The deficiency in the past year appears both in the mean maxima and in the mean minima—that is, both in the day and night temperatures -which for 1892 were mean max. 53.3 degs. and mean min. 37.1 degs., as compared with an average for the previous five years of 54.6 degs. and 40.1 degs. This shows a deficiency of warm days, but in a much greater degree a preponderance of cold nights. Although the number of nights on which the thermometer fell below the freezing point is not very much above the normal, the number of aggregate degrees of frost -viz., 557 degs.-is greatly in excess of that of any previous year, so far as my observations go, these having ranged from 193 degs. in 1889 to about 500 degs. in 1886. This serves to show the intensity of the frost which marked the winter months of 1892, December alone showing an aggregate of 173 degs. And further evidences of this are supplied by the freezing over of the river Nith about Christmas, with ice strong enough to bear skaters, from the Caul to Albany Place, and the continuance of this up to the 5th or 6th January; and also by the number of water-pipes that were burst. There were only two months in which the mean temperature exceeded the average-May and November-in each case only to the extent of 1 deg.; while June was about average, and all the other months below it to an amount ranging from 1 to 41 or 5 degs. The year on the whole, therefore, has been exceptionally cold, as the annual mean clearly indicates; and, so far as reports that have appeared enable us to judge, this deficiency of heat seems to have been general over the whole country. I observe that Mr Dudgeon reports the mean temperature of the past year at Cargen as 45.3 degs., being more than 2 degs. below the average and the lowest for 33 years. A meteorological correspondent in the Scotsman gives the following report of the annual means for 1892 in different parts of the country: Wick, in the extreme north, 44.1 degs.; Aberdeen, 44.6 degs.; Edinburgh, 45.6 degs.; Leith, 46.3 degs.; Ardrossan, 46.4 degs.; Loughborough, in central England, 46.9 degs; Liverpool, 47.5 degs.; London, 48.6 degs.; Scilly Islands, 51.1 degs.; and he adds the statement that, taking Britain as a whole, the means of the year were about a degree and a half below the average; in some places rather more, and in others rather less, but in most lower than in any year since 1879.

Rainfall.—The number of days on which rain or snow fell was 201 (rain 179, and snow 22). The heaviest fall in 24 hours occurred on 29th August, and amounted to two inches, which is the heaviest recorded at this station since observations were begun in 1886. There had been a thunderstorm during the previous night, and on the next day there was an additional fall of 0.60 inches. The result was that the river was heavily flooded, the gauge at the New Bridge showing a depth of 9 feet. There was only one other day on which the fall exceeded one inch, and it occurred in the same month, viz., on 7th August, and amounted to 1.20 inches. There was another occasion in October, however, the 27th of the month, when by a heavy rainfall of 1.4 inches on that and the previous day, combined with the melting of snow on the higher grounds, the river rose to a height of 10 feet at the New Bridge, and flooded the Sands, so as to surround the Hoddam Castle Inn, and farther down extended some way up into Nith Street. The wettest month was August, with a record of 6.80 inches, and the next May, with over 4 inches. The driest months were March and April, March showing only 0.75 inches and April 0.69 inches. These months were exceptionally cold as well as dry, especially March, the temperature of which was four degs. below average. The other months, in respect of rainfall, were about average, or under it, that of January and December in particular amounting to barely one-half of the normal. It is a rare thing for the month of December to register less than 2 inches of rain or snow, as was the case in the past year, and to show a period of 13 days, from the 18th to the 31st, in which no precipitation took place. And I may add, although this does not properly belong to the report of the past year, that this drought, as it may be called, continued through the first five days of January, 1893, making a period of 18 days in which the precipitation amounted to only one hundredth of an inch of melted hoar frost and snow. The total rainfall for the year (including melted snow) was 35.61 inches. Mr Dudgeon reports a total of 39.45 inches at Cargen, and states

it as being 3.44 inches below the average. The average at Cargen, according to his observations over a period of more than 30 years, is about 43 inches. But only twice in seven years' observations at Dumfries has this total been approached, viz., in 1886, when it was 41.13 inches, and in 1891 (a peculiarly wet year), when it was 42.92. The average of the seven years is a fraction less than 37 inches, and this or a little more, say 38 or 39 inches, to allow for the more limited period of observation, is probably nearer the annual average for Dumfries than 43 inches. The year, on the whole, was very unfavourable for agricultural work, for while the coldness of the spring and summer months made the harvest late, the heavy rains of August, and the extremely showery weather of September, extending over 21 days, and of the early part of October, prevented the crops from being gathered in, in many cases at least, till well on in the latter month, and often only after serious damage had been done to their condition.

Hygrometer.—The mean reading of the dry bulb thermometer for the year was 44.8 degs., and of the wet 42.5 degs., a difference of 2.3 degs., as compared with 46.3 degs., and 43.9 degs., in 1891. Temperature of the dew point, 40 degs.; and relative humidity (sat. = 100), 83. Thunderstorms occurred seven times in all—once in May, on the 20th; four times in June, on the 10th, 17th, 19th, and 22nd; once in August, on the 29th; and once in September, on the 3rd; but none of them were severe, with the exception perhaps of that of the 29th August, when the heaviest rainfall of the year was recorded.

A solar halo was observed on the 19th February, and lunar halos on several occasions, but not so frequently as in former years.

The wind observations show as usual a preponderance of westerly winds, the number of days on which it blew from W., S.W., and N.W., being $190\frac{1}{2}$; and from E., S.E., and N.E., $105\frac{1}{2}$; while from due N. the number was $25\frac{1}{2}$; and from due S. $25\frac{1}{2}$; and on 18 days it was calm or variable.

3. Parsee Religion and its Influence on Christianity. By Mr Septimus P. Moore, LL.B., B.Sc., F.L.S.

The following is a short abstract of this very interesting paper:-The Parsee, Zoroastrian, or Magdasian religion was that of the ancient Persians. Taking its rise in Bactria about 1500 B.C., nearly co-eval with the period of Moses, it was the religion of the conquering Persians who delivered the Jews from Babylonian slavery, and who were to some extent their teachers. It remained so until the second Caliph of Islam, Omar, conquered Persia in 642 A.D. Although the Persians were forced to accept Islam, a faithful few held themselves and their religion in precarious safety in the mountainous district of Khorassan, and a few of the more adventurous emigrated to India, where they settled in 716 A.D., their decendants being the Parsees. Haug considers that Avesta is a term which means revelation, and Zend an explanation of that revelation. Zoroaster taught that Athura Magda, the all-wise creator, was the creator of the earth and spiritual life, the possessor of all good things, the good mind, immortality, health, the best truth, devotion, piety, with abundance of every earthly good. These good things he gave to the man who was upright in thought, word, and deed; but he The paper then showed the prevailing punished the wicked. opinions as to the influence of evil, and the punishments which accrued to the wicked. The process of initiation of the young Parsee was described, and also the customs which were observed at the death-bed, and the method pursued in disposing of the bodies of the dead. The entrance of the soul into a future state was also noticed, and the ideas that are held concerning its transition.

The Jews were carried into captivity by the Babylonian King, Nebuchadnezzar, but on the conquest of Babylon by Cyrus, the Persian, they were restored to their native land. The author of the paper maintained with copious arguments that the Jews derived from the Persians the definite belief in a future state, and their ideas of Satan, the spirit of evil, and his subordinate demons.

5th of February, 1893.

Rev. Wm. Andson, Vice-President, in the Chair.

New Members. — Mr Samuel Arnott, Carsethorn, and Mr Hermann Frederick Williams Deane, Dundanion, Moffat. On the motion of the Secretary, the Society recorded its regret at hearing of the death of Mr William Hastings, one of its honorary members, who was distinguished by his devotion to the study of Zoology.

Donations.—The Transactions of the Canadian Institute, Toronto, 1892; the Journal of the Elisha Mitchell Scientific Society, North Carolina.

COMMUNICATIONS.

1. List of Plants found in the Glenluce District of Wigtownshire.

By the Rev. George Wilson, Glenluce.

- 1. Ranunculacee.—(3) Thalictrum minus (8) Anemone nemorosa—Ranunculus, 21 hederaceus, 28 acris, 29 repens, 30 bulbosus, 36 Caltha palustris, 38 Trollius europæus (Bridge of Park).
 - 2. Berberacæ.—46 Berberis vulgaris.
- 3. Nymphæaccæ.—47 Nymphæa alba. Nuphar, 48 lutea (both of these together in Barlockhart Loch).
- 4. Papaveraceæ.—5 Papaver Rhœas. Glaucium, 56 luteum. Chelidonium, 57 majus.
 - 4*. Fumariaceæ.—64 Fumaria officinalis.
- 5. Cruciferæ.—Cakile, 67 maritima. Crambe, 68 maritima. Raphanus, 69 raphanistrum. Sinapis, 71 arvensis. Brassica, 75 oleracea. Sisymbrium, 83 officinale. Cheiranthus, 91 cheiri (Glenluce Abbey). Cardamíne, 94 pratensis. Nasturtium, 110 officinale. Cocklearia, 115 officinalis. Draba, 118 verna. Teesdalia, 132 nudicaulis (Droughdhuil Mote Hill and Torrs). Capsella, 134 bursa-pastoris. Lepidium, 138 campestre. Senebiera, 142 Coronopus (Cock-Inn).
 - 7. Cistaceæ.—Helianthemum, 149 vulgare.
 - 8. Violaceæ.—Viola, 160 tricolor, 162 lutea.
 - 9. Droseracea. Drosera, 163 rotundifolia, 165 intermedia.

- 10. Polygalaceee.—Polygala, 166 vulgaris (from dark to pure white).
- 12. Caryphyllaceæ.—Dianthus, 173 deltoides (Mouth of Luce River). Saponaria, 177 officinalis (Mouth of Luce). Silene, 179 maritima. Lychnis, 188 vespertina and 189 diurna (all shades from dark red to white). Cerasteum, 199 glomeratum, 200 triviale. Stellaria, 207 media. 208 Holostea, 210 graminea. Honkeneya, 216 peploides. Sagina, 225 procumbens. Spergula, 230 arvensis. Spergularia, 231 rubra.
- 16. Hypericacea.—Hypericum, 248 androsemum, 250 perforatum 252 tetrapterum, 254 humifusum, 256 pulchrum, 259 elodes (abundant in marshes among the Sandhills, ditch at Mid Torrs beside highway, Barlockhart Moor, Knock).
 - 17. Malvaceæ.—Malva, 262 moschata (Mouth of Luce).
 - 19. Linaceæ.—Linum, 269 catharticum.
- 20. Geraniaceæ.—Geranium, 273 sanguineum (abundant, Mouth of Luce and on Sea Banks), 274 phœum (Balkail Glen), 278 molle, 284 Robertianum. Erodium, 285 cicutarium, 287 maritimum (Glenluce is given in the books as a locality. It grew in the North-West of Mochrum parish between the rocks and highway along the shore, between the Coves of Garheugh and Craignarget Burn. I have not seen it for thirty years, and fear it is extirpated). Oxalis, 288 acetosella, 289 corniculata.
- 25. Leguminiferæ.—Ulex, 300 Europœus, 302 nanus (grew beside highway on Kirkmabreck, Stoneykirk, but is extirpated) Sarothamnus, 306 scoparius. Ononis, 308 arvensis [reclinata, Cairngaan? Kirkmaiden. I saw it twice, above thirty years ago, but fear it is extirpated.] Trifolium, 323 pratense, 324 medium, 329 arvense. Lotus, 342 corniculatus. Ornithopus, 352 perpusillus (Mouth of Luce), Craigenholly. Vicia, 359 cracca, 361 sylvatica. Lathyrus, 371 pratensis.
- 26. Rosacee.—Prunus, 378 spinosa, 383 Padus (West of Village). Spiræa, 385 Ulmaria. Agrimonia, 387 Eupatoria. Alchemilla, 392 arvensis, 393 vulgaris. Potentilla, 397 Fragariastrum, 400 Tormentilla, 403 anserina. Comarum, 407 palustrae. Fragaria, 408 vesca. Rubus, 410 Idœus. [The Bramble is plentiful, apparently in varieties which I have not studied.] Geum, 454 urbanum, 456 rivale. Rosa, 450 spinosissima, 468 canina. [I have not studied the varieties of

- roses, of which I think we have several.] Cratægus, 473 Oxyacantha. Pyrus, 480 aucuparia, 482 malus.
 - 27. Lythraceæ.—Lythrum, 483 Salicaria.
- 28. Onagraceæ.—Epilobium (several species). Circæa, 507 lutetiania (Mouth of Luce).
 - 28*. Haloragiaceæ.—Hippuris, 506 vulgaris.
 - 30. Grossulariaceæ.—Ribes, 514 Grossularia.
- 31. Crassulacea.—Sedum, 520 Telephium, 524 anglicum, 525 acre. Sempervirum, 530 tectorium. Cotyledon, 531 Umbilicus (introduced as a weed from Nurseries).
- 32. Saxifragaceæ.—Saxifraga, 543 granulata. Chrysosplenium, 549 oppositifolium. Parnassia, 551 palustris.
- 33. Umbelliferæ.—Hydrocotyle, 552 vulgaris. Eryngium, 555 maritimum (Mouth of Luce). Ægopodium, 565 Podagraria. Bunium, 569 flexuosum. Ænanthe, 582 crocata. Æthusa, 585 Cynapium. Crithmum, 591 maritimum. Angelica, 592 sylvestris. Heracleum, 597 Sphondylium. Dancus, 599 carota. Torilis, 602 Anthriscus. Chærophyllum, 606 sylvestris. Conium, 610 maculatum (Bridge of Park Mill).
 - 34. Araliaceæ.-Hedera, 614 Helix.
- 37. Caprifoliacea.—Adoxa, 618 Moschatellina, Sambucus, nigra. Viburnum, 621 Opulus. Lonicera, 624 Periclymenum.
- 38. Rubiacea.—Galium, 629 cruciatum, 630 verum, 639 Aparine, 641 Odorata asperula. Sherardia, 643 arvensis.
 - 39. Valerianaceæ.—Valeriana, 646 officinalis.
 - 40. Dipsacea.—Scabiosa, 654 succisa, 656 arvensis.
- 41. Compositæ.—Carduus (several species). Carlina, 671 Arctium, 672 majus. Centaurea, 678 nigra. Chrysanthemum, 685 Leucanthemum. Matricaria, 687 inodora. Tanacetum, 689 vulgare. Achillea, 604 Millifolium, 695 Ptarmica. Artemisia, 697 vulgaris. Gnaphalium, 705 uliginosum. Senecio, 712 vulgaris, 713 sylvaticus, 717 Jacobæa [718 aquaticus?]. Inula, 728 Helenium [in marsh at Bay of Low Sunonness, N.B., Inula crithmoides, so plentiful on the Mull of Galloway is not found on our shore]. Bellis, 73 perennis [near Drumbreddan, Stoneykirk, a variety with a brown spot in the centre of the floret is plentiful]. Aster, 738 Tripolium (on our shore the florets are not toothed nor reflexed), Solidago, 740 Virga-aurea (near Mouth of Luce). Tussilago, 741 Farfara. Petasites, 742 vulgaris (Mouth of Luce). Eupatorium,

743 cannabinum. Lapsana, 745 communis. Hypochæris, 748 radicata. Leontodon(species), 757 Taraxacum officinale (varieties). Sonchus, 763 oleraceus, 765 arvensis. Hieracium, 774 Pilosella (we have several Hieracidæ).

42. Campanulacee.—Lobelia, 809 Dortmanna (Barlochkart Loch). Jasione, 811 montana (very abundant), Campanula, 818

rotundifolia.

43. Ericaceæ.—Vaccinium, 824 Oxycoccos, 827 Myrtillus. Andromeda, 831 polifolia (Challochglas, Mochrum). Erica, 836 Tetralix, 837 cinerea. Calluna, 840 vulgaris.

44. Jasminaceæ.—Fraxinus, 847 excelsior. Ligustrum, 348

vulgare.

46. Gentianacee.—Erythrea, 853 centarium. Gentiana, 862 campestris (Mouth of Luce). Menyanthes, 863 trifoliata.

48. Convolvulacece.—Convolvulus, 866 arvensis, 867 sepium (Mouth of Luce), 868 Soldanella (Do. at High-water mark).

49. Solanaceæ.—873 Solanum, Dulcamara (common). Hyosoyamus, 876 nisger (very rare. I twice saw it on the shore, near Mouth of Luce, and at Gillespie).

50. Scrophulariacee.—Verbascum, 877 Thapsus. Scrophularia, 886 nodosa. Digitalis, 089 purpurea (var. white). Mimulus, 899 luteus (Glenjorrie Burn near Village). Veronica, 908 arvensis, 915 officinalis, 916 Chamcedrys, 920 Beccabunga. Euphrasia, 921 officinalis. Bartsia, 922 Odontites. Pedicularis, 925 palustris. Rhinanthus, 927 Crista-galli. Melampyrum, 930 pratense (Wood of Park).

52. Verbenacee.—Verbena, 942 officinalis. (I found a plant October 2nd, 1877, and again in 1878 on a cutting of the Girvan Railway, near West Borland Bridge. Probably introduced on

the Railway Contractors' trucks from England).

53. Labiata.—Mentha (I think there are several species), Thymus, 959 Serpyllum. Nepeta, 969 Glechoma. Salvia, 970 Verbenaca. Prunella, 972 vulgaris. Scutellaria, 773 galericulata, 974 minor. Stachys, 978 Betonica, 982 sylvatica. Lamium 992 purpureum, 994 album. Ajuga, 996 reptans. Teucrium, 1002 Scorodonia.

54. Boraginacea. — Mertensia, 1007 maritima (Gillespie).
 Lithospermum, 1009 officinale (Glenluce Abbey). Myosotis, 1012 palustris, 1010 versicolor. Anchusa, 1019 arvensis.
 Symphytum, 1023 officinale, 1024 tuberosum?

- 55. Pinguicula, 1020, vulgaris.
- 56. Primulacee.—Primula, 1037 vulgaris. Lysimachia, 1048 nemorum, Anagallis, 1049 arvensis, 1050 cœrulea (rare), 1051 tenella (Mouth of Luce &c.). Glaux, 1053 maritima. Samolus, 1054 Valerandi. Armeria, 1055 maritima. Statice, 1059 occidentalis (Mull of Sunonness).
- 58. Plantaginacee.—Plantago, 1061 major, 1063 lanceolata, 1064 maritima.
 - 61. Chenopodiaceæ.—Chenopodium (several species).
- 62. Polygonaceæ.—Rumex, 1107 acetosa, 1108 acetosella. Polygonum, 1111 covolvulus, 1113 aviculare, 1119 persicaria.
 - 67. Empetraceæ.—Empetrum, 1131 nigrum.
- 68. Euphorbiacea.—Euphorbia, 1133 peplis (and others). Mercuralis, 1146 perennis.
- 71. Urticaceæ.—Urtica, 1150 dioica, 1152 urens. Humulus, 1153 lupulus. Almus (species).
- 72. Amentiferæ.—Quercus, 1156 robur. Fagus, 1158 Sylvatica. Corylus, 1159 avellana. Almus, 1161 glutinosa. Betula, 1162 alba. Myrica, 1164 gale. Populus, 1165 alba, 1167 tremula. Salix (at least four species).
 - 73. Coniferce.—Pinus, 1199 sylvestris.
- 74. Typhacee.—Typha, 1204 latifolia. Sparganum, 1206 ramosum.
- 75. Araceee.—Arum, 1211 maculatum (Glenluce Abbey. I have also seen it above St. Medan's Cave, Kirkmaiden. The leaf is not spotted in either locality. It is also found on the west coast of Kirkmaiden. Dr Gemmell).
 - 76. Lemnaceæ.—Lemna, 1214 minor.
- 77.—Naidaceæ. Potamogeton, species (Mouth of Luce, Genoch).
 - 78. Alismaceæ.—Alisma, 1253 Plantago.
- 80. Orchidacea.—Orchis, 1269 mascula, 1273 maculata. Habenaria viridis?
 - 81. Iridaceæ.—Iris, 1307 Pseudacorus (Barlockhart Burn).
- 82. Amaryllidaceæ.—Narcissus, 1311 pseudo-narcissus (ruins of Old Castle at Gillespie).
- 84. Liliaceæ.—Scilla, 1335 verna (sea banks, very abundant). Allium, 134 ursinum (Balkail Glen. Sea banks, Kilfillan). Narthecium, 1348 ossifragum (common).
 - 86. Juncaceæ (several species).

- 87. Cyperaceæ.—Eriophorum, 1410 gracile. Carex (several species).
 - 88. Gramina (many species).
- 89. Filices.—Pteris, 1606 aquilina. Lomaria, 1608 spicant. Asplenium, 1609 ruta-muraria (Glenluce Abbey), 1612 trichomanes, 1614 marinum, 1616 adiantum-nigrum. Athyrium, 1617 filix-femina (several varieties). Ceterach, 1619 officinarum (Old Bridge of Barlae). Scolopendrium, 1620 vulgare. Cystopteris, 1623 fragilis. Aspidium, 1627 aculeatum, 1628 angulare. Nephrodium, 1629 filix-mas, 1634 dilatatum, 1637 Oreoptoris. Polypodium, 1638 vulgare, 1639 Phegopteris, 1640 Dryopteris. Osmunda, 1644 regalis (formerly abundant, now almost extirpated. At Culroy there were fronds 6 or 8 feet long). Botrychium, 1647 Lunaria (Mouth of Luce, Glenjorrie).
 - 90. Lycopodiaceæ.—Lycopodium, 1648 clavatum.
 - 92. Equisetaceæ. Equisetum (species).
 - 93. Characeæ (there seem to be several species).

My friend, Mr John Thomson, M.D., Edinburgh, a good botanist, marked the London list with me several years ago. I regret that it is so very incomplete. There are many blanks left in the Genera, Rananculus, Viola, Cerastium, Rubra, Rosa Saxifraga, Rumex, and Euphorbia, and I have marked none of the Salices, Potamogetons, or Orchidians. I have marked none of the Juncaceæ, Cyprcaceæ, or Gramina, all of which are plentiful. We are of opinion that there are at least 350 species of plants in Old Luce Parish, beside the Ferns, &c., which are plentiful.

Experts in the Society will find this district well worth visiting. The variety of the Flora is surprising, for there is little variety in the geological formation. We have only the Lower Silurian Sandstone, with a dyke of Diorite on Balcary Fell. No part of the parish attains 600 feet above the level of the sea. The plantations are not very extensive, and I have not marked many of the trees found in them. There are remains of a native forest beside the river Luce. We have a great extent of moor and peat moss, and of sand hills. The salt marsh at the mouth of the Piltanton, the gravel beds and sands at the mouth of the Luce, and at Gillespie, and the rocks along the sea shore from the mouth of the Luce to Auchenmalg Bay, and at Craignarget furnish a great variety of habitat. The mouth of the

Luce is a locality unusually rich in interesting plants, of which I hope it shall not be denuded by being made more publicly known.

The blending of northern and southern species of plants appears to me to be very interesting. I have found the same fact in examining the Mollusca.

I have paid little attention to the Jungermaneæ, Mosses, and Lichens. But I have pleasure in sending you a small collection given me many years ago by the late Rev. Thos. B. Bell, of Leswalt Free Church, marked by himself and the late Dr Greville, of Edinburgh. I have paid little attention to the Algæ and Confervæ. In fresh water springs I have found Batracho-spermum atre and monileforme. The latter is very plentiful in the stony bed of the streams, which drains the great Loch of Mochrum. The variety of plants implies variety of insect life.

In an appendix are given lists of plants found here by some distinguished botanists.

List Copied by Dr JOHN THOMSON, from Transactions of Botanical Society, Edinburgh, 1836-7.

FLOWERS FOUND IN GALLOWAY BY DR GRAHAM.

Artemisia Maritima, East of Burrow Head (not very abundant). Bartsia viscosa, near Port-William (sparingly).

Bromus velutinus b, near Sandhead.

Carex extensa, in one place only.

Erodium maritimum, Coast near Port-William.

Fedia dentata, in many places.

Genista Tinctoria, in many places, from Glasserton to Balmae Head.

Habenaria Chlorantha.

Hilosciadum nodiflorum, in almost every ditch.

Juneus maritimus, abundant.

Lamium intermedium, near Sandhead.

Lycopus Europœus, along shores to southward and eastward of Glenluce.

Malva moschata, along shore.

Œnanthe pimpelloides, abundantly in marshes near sea shore.

Polygonun Raii, in great abundance in many places along south shore.

Scirpus Savii, by roadside near Drumore.

Solanum nigrum, covering large defined patches where seaweed had been dried near Sandhead and Port-William.

Triticum loliaceum, in many places on south shore from Drumore East.

(DR MACNAB.)

Cladium mariscus, Ravenston Loch, Whithorn. Ledia mixta, near Whithorn.

(PROF. BABINGTON.)

Œnanthe ladimalii, near shore. Statice occidentalis, cliffs at Mull.

2. Surnames of Kirkcudbrightshire.

By Mr James Shaw, Tynron.

A glance at the names in the Valuation Roll of Kirkcudbright-shire reveals a very different state of matters from that which is patent in conning the Valuation Roll of Dumfriesshire. While in Dumfriesshire one is struck with the agglomeration of certain surnames in certain localities, as of the Scotts in Eskdale, the Jardines, Johnstones, Carruthers, and Bells in Annandale; in Kirkcudbrightshire, although certain surnames are found more frequently than others, they are not found huddled together so much into distinct localities, but are, as it were, peppered all over the surface, the most characteristic names falling here and there without much inclination to gather together or drift into given localities. This has made my examination of Kirkcudbrightshire surnames less interesting than a similar analysis of Dumfriesshire surnames which I attempted last year.

The early history of Kirkcudbrightshire points to a most unsettled state of matters. There was a continual flux and reflux of population in the county. It was an area in which men of different races and callings met and fought. Sometimes one race or clan was successful, sometimes another. Their wars were carried on in barbarous fashion, the victor frequently

aiming at nothing else than the extirpation of the vanquished-During the 5th century British tribes held the country. Anglo-Saxons next overran it, intermarrying with the natives. Colonists from the Irish coasts made frequent descents, and ultimately overawed the inhabitants. Large swarms from the Irish hive in the 9th and 10th centuries, and settlements of their kindred Scots from Cantyre, who arrived in curraghs by sea, strengthened the Celtic invasion. The Scandinavians confined themselves to settlements on the coast. From the Gaelic settlers is said to have come the name of Galloway. The Normans obtained a certain ascendancy in Galloway, but were never popular. After the Galloway contingent returned from England, having there witnessed William the Lion taken captive, the clanchieftains of them threw themselves upon the Galloway Normans, demolished their castles, slew their possessors, or forced them to fly. Burton thinks this story likely to be true from the paucity of Norman names in Galloway.

Alexander Comyn laid the foundation of his family's extensive possessions in Kirkcudbrightshire. The success of Bruce soon afterwards was unfavourable to the Comyns. Galloway was conferred upon Edward Bruce by his brother King Robert. Edward Baliol, assisted by Edward III., obtained a strong footing in Galloway, and resided at Buittle. Sir William Douglas in 1353 over-ran Baliol's territories, and compelled M'Dowal, the hereditary enemy of the Bruces, to change side in politics.

Archibald Douglas, the Grim, the illegitimate son of the famous Sir James Douglas, who fell fighting on the battlefield of Otterburn, obtained in 1388 the superiority of all Galloway. On an islet of the Dee, which several members of our Society have visited, and upon the site of an ancient fortlet, the residence of a former lord of Galloway, he constructed the substantial Castle of Thrieve, the ruins of which are still a figure in the landscape. From this feudal castle, as from a centre, the Douglases for nearly three-quarters of a century ruled Kirk-cudbrightshire with a rod of iron. As an instance of their feudal tyranny, I may be permitted to quote from Burton. Herries of Terregles having offered resistance to Douglas was slain. Next, Douglas called a great muster of his own proper vassals, and of those neighbouring landholders whom he counted as under his banner. One of these, named M'Lellan, and called

the tutor of Bunby (so says Burton, although with us it is written Bombie), as being tutor or guardian to the young laird of that name, refused to attend the meeting. He was seized, and taken to Thrieve Castle. His friends had good grounds to fear for his life. His uncle, Sir Patrick Grey, captain of the King's Guard, busied himself for the captive's safety, and appeared, provided with warrants, at the gates of Thrieve Castle. Sir Patrick got a courteous reception. The guest must accept of hospitality first, business afterwards. It is believed the poor tutor, who had been torn from his stronghold of Raeberry, was alive in Thrieve when Sir Patrick arrived, and that Douglas, suspecting the object of his visit, whispered to an attendant to have him despatched. When the hospitalities were ended Douglas read the warrant. To its full extent he was not in a condition to comply with it. Sir Patrick, however, should have his nephew, though unfortunately he was somewhat changed in condition since his arrival in Douglas Castle-in fact, he was headless!

In the long struggle between the Stewart Kings and the Douglases the latter began to go to the wall, and in 1454 or 1455 the Galloway possessions of the house of Douglas went to the Crown. A small force sufficed to take the Castle of Thrieve. There is a tradition that Mons Meg, the huge cannon now on view at Edinburgh Castle, shot into it two bullets of granite from Bennan Hill, and that the second bullet penetrating through the wall shot off the hand of Margaret Douglas, the fair maid of Galloway, then engaged at dinner. In the present century, when the Castle was being cleared of rubbish and repaired for the reception of French prisoners, the workmen found a massive gold ring with the inscription "Margt. de Douglas," showing that it belonged to that lady. It is supposed to have been on the hand shot off.

DOUGLASES.

A Douglas, descended from a younger branch of this great family, was represented until lately by the Earl of Selkirk, at whose seat, St. Mary's Isle, parish of Kirkcudbright, his sister, married to Hon. Charles Hope, still resides, in possession of the family estates.

The name of Douglas has been perpetuated by an enterprising merchant whose lineage is unknown, so that we have Castle-Douglas, the original name being Causeyend. The change was

made in 1789. The same merchant changed Newton-Stewart into Newton-Douglas, but that name reverted. John, his son, married Mary, daughter of Sir John Heron of Penninghame. His grandson, James, obtained Orchardton, Rerwick, 1788. Sarah Douglas, a descendant, died 1874, aged 88, and her nephew, Robinson, succeeded. Hence the name, W. Douglas-Robinson-Douglas, present proprietor.

There are four small proprietors, Douglas, in Dalry, one tenant in Urr, and another in Dalry. The surname Douglas occurs very sparsely through the rest of the County.

M'Dowalls.

The Scoto-Irish family of the M'Dowalls were the original Lords of Galloway. In the reign of David I. the lordship was held by Fergus, a promoter of religion, to whom the Monastries of Tongland, Whithorn, and Soulseat, the Priory of St. Mary's Isle, and the Abbey of Dundrennan owe their origin. His son, Uchtred, founded the beautiful Abbey of Lincluden. Uchtred's son, Roland, succeeded him; and Roland's eldest son, Alan, was the last and best of the Galloway lords. By his marriage with Margaret, daughter of David, Earl of Huntingdon, and niece of William the Lion, his position in Scotland was second only to that of the king. He was made Chancellor of Scotland by Alexander II. Alan's second wife bore him the famous Devorgilla, whose name is still kept in grateful memory by association with the bridge she built and the Abbey she founded.

There are two M'Dowalls proprietors in Rerwick. Girstinwood in Rerwick was bought by M'Dowall from Cairns of Dundrennan.

John M'Dowall of Slagnaw, Kelton, acquired possession 1781. He is a descendant of the Wigtownshire M'Dowalls, and the true representative of the old historical M'Doualls or M'Dowalls already referred to as being lords of Galloway. M'Dowall is not now a common name in the Stewartry. There used to be M'Doualls possessors of eighteen different estates, as well as M'Dougall of Corruchtrie and Dildawn, and M'Dougall of Borgue. M'Dougal and M'Douall are supposed to be the same.

M'LELLANS.

When the aforesaid Patrick M'Lellan was tutor of Bombie, parish of Kirkcudbright, there were then in Galloway twelve or fourteen knights of the name of M'Lellan. It was this family which has given us the name Balmaclelland, or village of the the M'Clellands, to the parish of that name. Time has swept them out of the parish to which they were once so closely allied.

The name M'Lellan does not appear in Galloway in the time of William Wallace. Subsequently it appears, and the rise of the family was rapid. The charter for Balmaclellan was granted 1466. The Bombie property was then in possession of the family. Thomas M'Lellan was killed by the Gordons of Lochinvar at the door of St. Giles' Church, Edinburgh, 1526. The knights of that name are mentioned about this time as possessors of land in Kelton, Rerwick, Balmaclellan, Kirkmabreck, Troqueer, Kirkgunzeon, Borgue, Minnigaff, Colvend. All their properties have changed hands.

The name is found in the following parishes:—Balmaghie, Kirkcudbright, Kelton, Crossmichael, Kirkgunzeon, Kirkbean, Minnigaff, Lochrutton.

Deanston, Lochrutton, was purchased by A. Clelland, 1872.

MACGHIES.

The original name of the parish of Balmaghie was Balmakethe. The subsequent name is believed to have been given or taken from the Macges, who obtained lands there in the 14th century. In 1606 Alexander M'Ghie of Balmaghie obtained a charter of the lands of the parish. Time has been kinder to the M'Ghies and M'Kies than to the M'Lellans. From twenty to thirty lairdships have belonged to persons of these names. They are truly representative Kirkcudbrightshire surnames.

Five M'Ghies, three M'Kies are tenants in Dalry. The names occur in Balmaclellan, M'Kie six. These names also occur in Minnigaff, Kirkmabreck, Balmaghie, Rerwick, Buittle, Kelton, Crossmichael, Parton, Urr, and Colvend. Auchencairn, once in possession of a family of the name of Cairn, from which it derives its name, was purchased less than twenty years ago by Ivie Mackie, whose progenitors belonged to Girvan.

MAXWELLS.

According to some authorities this was originally a Scoto-Irish family, according to others a Norman. Ewan de Maccuville was at the siege of Alnwick Castle. Eugene de Maccuswell married, not many years after, the daughter of Roland, the Lord of

Galloway. No other name in Galloway, except the Gordons, is in connection with a like number of separate estates in the historian's chronicle; and the larger proportion of the large landlords of this name trace their pedigree back to Roland and his Maxwell spouse.

John Clark Maxwell, the celebrated Professor of Physics, Cambridge, fell heir to his estate of Glenlair, in Parton, through Agnes Maxwell of Middlebie marrying John Clark at the end of last century. In 1702 Captain William Maxwell and Nicolas Stewart, his spouse, had sasine in liferent, and Mr Maxwell, their eldest son, in fee, of the lands and barony of Cairdines or Cardoness, parish of Anwoth, which estate is retained by a descendant. There is another proprietory name in Anwoth a Maxwell.

In Buittle, Wellwood Herries Maxwell of Munches and Terraughtie is the successor of Robert Maxwell, to whom Queen Margaret, daughter of Henry VI. of England, gave a grant of aforesaid lands, reft from the Douglases 1455. This Maxwell was tutor to her son. This family has lands in the parishes of Urr, Troqueer, and Buittle.

Herbert Constable Maxwell Stuart of Terregles is descended from Agnes, daughter of Lord Herries, who married John Maxwell, and, in right of his wife, became fourth Lord Herries, circa 1566.

The Maxwells of Glenlee acquired that property about forty years ago. It was bought by Dr Johnstone, whose son assumed the name of Maxwell. So we may call Glenlee a ghost-Maxwell.

The name of Robert Maxwell Witham of Kirkconnell, Troqueer, carries us a long way back. Janet de Kirkconnell married, circa 1430, Aymer de Maxwell. Dorothy Maxwell, the sole surviving daughter of the house, married, 1844, her cousin, R. S. J. Witham. Hence the double name. 560 years is a long term for unbroken succession.

The late Captain A. P. Constable Maxwell of Kirkland is descended from the old Maxwell stock. A son of the Earl of Nithsdale, who escaped from the Tower, married his cousingerman, C. Stewart, daughter of the Earl of Traquair, and Winifred, her daughter, married W. Constable, baronet, Durham, which accounts for the double name. The estates of Captain C. Maxwell are at present administered by Trustees.

Maxwell of Breoch, or Bracoch, is grandson of Francis Maxwell, whose tall form and enthusiastic speech I remember as an attraction to the meetings of this Society. He died 1867. The Maxwells are the first owners known to history as proprietors of Bracoch, and that as early as 1592. These lands have therefore been 400 years in the family.

Away from these proprietory names the surname Maxwell is sparsely scattered throughout the County.

STEWARTS.

In Minnigaff and Twynholm we find many Stewarts. There is one in Anwoth, one in Rerwick, two in Crossmichael, two in Urr, two in Colvend.

Sir Alan Plantagenet Stewart, Earl of Galloway, is descended from Sir William Stewart of Dalswinton and Garlies. A descendant of this was educated along with James VI., under George Buchanan, and raised to the Peerage as Lord Blantyre. Lord Galloway has large possessions in Minnigaff.

Sir Mark John Stewart, Baronet, of Southwick, Colvend. In 1628 there is Lindsay of Auchenskeoch. 1668, William Lindsay, Southwick. The Lindsays, after 150 years possession, sold out, and the lands were more than once bought and sold. At last, Mr Sprot, a merchant, got the lands, and his daughter, Janet, married Mark Hathorn. The surname Stewart was assumed. Lady Hathorn was mother of the present M.P. for the Stewartry. Lindsay, it may be remarked, is a surname not very rare in Kirkcudbrightshire.

Horatio Murray Stewart of Cally and Broughton is grandson of the Hon. Sir William Stewart, second son of John, seventh Earl of Galloway. It was Murray of Broughton who obtained Cally through marriage in the seventeenth century. Alexander Murray married Lady Stewart, daughter of the fifth Earl of Galloway, 1750. This family is notable for close inter-marriages. Cousin takes to cousin and Murray takes to Stewart.

Although Stewart bulks considerably as a proprietory name it is by no means a common Kirkcudbrightshire surname. It would be hard to pick out more than half-a-dozen Stewarts in the united towns of Maxwelltown and Dalbeattie. In the tenant list for Castle-Douglas my eye caught only two.

GORDONS.

In the number of families of this name enjoying separate estates in the Stewartry we have here a rival to the Maxwells. In M'Kerlie's "History of the Lands and Owners of Galloway" I pick out 163 estates, all in the Stewartry, as at one time or another belonging to the Gordons. The Maxwells I compute at 160 landowners, scattered, of course, over hundreds of years.

The Gordons are of Norman origin. As far as the Stewartry is concerned, the Gordons appear to have begun life at Kenmure, although Lochinvar, in Dalry, sometimes claims precedence. The Lady Louisa Maitland Gordon of Kenmure Castle still enjoys part of the estates of this great historical name, which has been associated with Kenmure estates for nearly 500 years. Garcrogo, in Balmaclellan, passed away from the Gordons, but its present landlord, who got it early in this century, through marriage, is a Highland Gordon. Threave and adjacent farms were recently purchased by a Gordon, from Montrose.

Sir William Gordon of Earlston and Carletoun, Borgue, is descended from John Gordon of Airds, Kells, who acquired lands in Borgue, 1670. These have thus been in possession for upwards of 300 years.

Gordon as a surname is pretty well represented in the Stewartry. There are five proprietors of that name in Borgue alone, and two tenants. The name occurs in Kirkcudbright parish frequently; also in Buittle. It is common in Kelton. It occurs in Crossmichael and Urr.

HERRIESES.

William de Heriz is mentioned from 1175 to 1199. He swore fealty to Edward I. We have seen that the Maxwells of Terregles are descended from a daughter of Lord Herries. Robert Herries, who died at Blackpark, Colvend, and proprietor of Barnbarroch, 1872-3, the last of this great family in the male line, who so long held state in Terregles, and mixed with stirring events. The name Herries is poorly represented in the Stewartry.

SHAWS.

I find a curious nest of Shaws, chiefly tenant farmers, in

Balmaclellan, where there are no fewer than eight in the Valuation Roll.

Bardennoch, Carsphairn, has belonged to Shaws for more than a hundred years. For a hundred years Shaws were in Castle-Maddie, Carsphairn. They once possessed Nether Grimmett, Carsphairn. Shaw or Schaw is a surname of long-standing in Ayrshire. William Shaw, prior to 1309, had a charter for lands in Carrick. The name occurs in Balmaclellan, Kells, Kirkpatrick-Durham, Kelton, Borgue, Twynholm.

HANNAYS.

This name is far from rare in the Stewartry. The principal landowner of Kirkmabreck is Major Ramsay W. Rainsford Hannay of Kirkdale, a descendant of the Wigtownshire Hannays. They have possessed lands in the Stewartry since 1532. W. H. Rainsford married Jean Hannay, and succeeded to the estates 1850. His style after that event was Rainsford-Hannay.

In the district of the Glenkens the names of M'Millan, M'Turk, and Kennedy frequently occur.

But it is impossible in one paper to do justice to the whole subject. Taking a general survey, Stewart is strong in the west, Maxwell in the east, M'Lellan, Macghie, and M'Kie pretty much in the centre. In short, there remains, after all changes and disasters, a considerable representation in the Stewartry of some of the old names mixed up with the history of Scotland.

There are in Kirkcudbrightshire a number of surnames, rather uncouth and uncommon, bearing traces of Irish or Highland origin—M'Anally, M'Quarrie, M'Keand, M'Vinnie, M'Quhir, M'Guffie, M'Caffie, M'Minn, Malcolmson, M'Craken, M'Cammon, M'Jerrow, M'Gunnion, Milroy, &c.

The following surnames have a queer sound:—Warnock, Papple, Riddick, Quig, Hornel, Blythman, Nish, Clenochan, Hollins, Maltman, Clingan, Handley, Cannon, Twyname (Twynholm). The word Twynholm is well represented in surnames. The surname Galloway also recurs. Watret, Gehan, Houliston, Carnochan, and Noe sound odd.

My chief authority for much of the information supplied is due to that excellent work, "The History of the Lands and their Owners in Galloway," by P. H. M'Kerlie (5 vols.). Edinburgh: W. Paterson. 1877.

3. Scotland in the 18th Century. By Mr Peter Gray, Edinburgh.

In previous papers we have had glimpses of the material condition of the Scottish people, and somewhat of their moral and social state from the 13th to the 18th century, gathered from the narratives of strangers who had visited the country during that long interval, and left records of their visits. The history of Scotland between those dates naturally arranges itself in two wellmarked periods. From the death of the Maid of Norway, in 1290, to the accession of Mary Stewart, the Scottish nation was involved in an almost continuous struggle for existence, sorely trying, but not without dignity, and with a beneficial effect upon the character of the people. The period, however, between the accession of Mary's son, James, to the English throne and that of another Mary Stewart was fully as harassing, but infinitely more demoralizing - aptly described by Principal Shairp as a century of turbulence and disorder, when Superintendency, Tulchan Bishops, Melville Presbytery, Spottiswood Episcopacy, the Covenant, Restored Episcopacy, and Moderate or Non-Covenanting Presbytery were jostling each other; when the whole kingdom was full of quarrelling, fighting, plotting, convulsions, reactions, and counter-revolutions. Amid all this turmoil there was in certain directions considerable moral improvement; but the material condition of the country scarcely advanced beyond that of the Middle Ages, if it did not in some respects retrograde. The flight of James II., and the election of the Prince of Qrange and his consort to the vacant throne, however, brought some degree of peace and confidence to the sorely tried land. But the old international hatred between kindred peoples required time to allay, and two rebellions fully opened the eyes of the English Government to the necessity of conciliation. After the Legislative Union, compensation was made to the sufferers by the collapse of the Darien scheme, ruined by the intrigues of the English Government and the English mercantile classes, the heritable jurisdictions which had often been the instrument of great oppression and extortion were subsequently abolished, also with compensation to the holders; while the money that came into the country from these sources and the opening of the

English colonies to Scottish enterprise had a powerful effect in giving an impulse to agriculture, by enabling some of the more enterprising landholders to plant and otherwise improve their properties, and give liberal terms to their tenants. Even before the Revolution attempts at enclosure had been made in Galloway and Nithsdale, but they had been met by the peasantry with determined resistance. Rights or customs of commonage had perhaps grown up in this Celto-Pictish and always unruly province, and the operations seem to have been carried out with harshness and precipitancy, and to have been preceded by the ejection, Irish fashion, of several crofters.

Few people at the present day have any idea how very recent the general prosperity and improved appearance of the country really is. The population of Scotland in the beginning of last century numbered about 900,000, and was roughly but fairly well fed and clad; but their surroundings, their habitations, and the aspect of the country on every side were most miserable. Even so late as 1750 the buildings in the smaller towns and villages, and the farmhouses, were mere hovels, with a but and a ben, built of clay, and thatched with rushes, coarse grass, and heather; great tracts of now fertile land, even in the river valleys, stood barren and treeless; every man by himself, or with the assistance of his neighbours, building his own hut, as his ancestors had done for hundreds of years before him. By and bye we shall see how meanly, as a rule, not only the lower, but even the middling classes lived, and how poorly they were clad, compared with the present day. So late as 1794, flesh meat, which was a drug in the Middle Ages, had become, over the greater part of the country, a rarity on the tables of all but the richest people, and the bulk of the nation had become practically vegetarian. Green crops and stall-feeding, we learn from a contemporary account, were unknown before 1760; there were no artificial grasses, not a blade of wheat grew beyond the Lowlands, and not much there. Three or four returns was considered a good grain crop, which was mostly carried to market on pack horses, and even by the crofter's family, who also frequently carried out on their backs the spare supply of manure applied to the land. At the same time, there was nowhere such penury and privation as now exist in the slums of the great towns, when Scotland has become the wealthiest country in the world. The

climate was more severe than it is now. Since then bogs have been drained, and the hills in many parts have been clothed with wood; the temperature has in consequence been moderated and equalised, the full sweep of the winds has been broken, and now, on elevated table-lands, where grain refused to ripen, heavy crops are secured.

If the condition of the Lowlands was so wretched, that of the Celtic population of the Highlands was much worse. "The last kings of the Stewart race," says Burton, "for their own ends, tolerated and even caressed the Highlanders, but the previous Stewart kings would have put every human being to death who spoke the Gaelic language had it been possible. James VI. made a bargain with Argyle in the south and Huntly in the north to exterminate the barbarous people, each taking his department and fixing a time within which the thing was to be accomplished; but it was found that it could not be done." The Gael were not regarded by the Teutonic Lowlanders as fellow-countrymen, and the rule was to show no more consideration to them than to wild beasts. And after the Rebellion of 1745 they were turned out of their holdings by the chiefs they had too faithfully served to make room for sheep-farmers and deer-stalkers. Of late, however, Donald has come to the front. Scott's novels misunderstood, or some other inscrutable reason, has led the ordinary Englishman to look on all Scotsmen as Highlanders, and the War Office authorities to indue the Scottish regiments in tartan continuations, even the Border regiments. The scanty uniform of a Central African warrior would hardly be a grosser solecism.

It was the Legislative Union of 1707 that put an end to Scottish poverty. In 1695, says the Duke of Argyle in his "Scotland as it Was and Is," the Scots threw themselves with enthusiasm into the Darien scheme, founded, as the Bank of England had been, by William Paterson (born in the neighbourhood of Dumfries). It was intended to open a new trade route to India, but the enterprise was thwarted and ruined by the jealousy of England, being opposed with passionate resentment by the English Parliament and commercial companies, although half the shares were generously granted to Englishmen and subscribed for by them. It almost seemed as if Scotland would have to return to her old historic union with France. In 1703-4 the two

Parliaments were taking measures for arming against each other. The bond through the Crown was proving on trial to be no bond at all. The King, surrounded by English Ministers, and swaved by the feelings of the English capital, had responded cordially to the most outrageous expressions of hostility against the Scots on the part of the English House of Commons; nay, more, he had used his prerogative in the same sense, dismissing his Scottish Ministers, who had the confidence of the nation, because they promoted the trade and commerce of their own country. The nearer, the wealthier, and the more powerful of the two carried the day. William saw that the only way to put an end to the discord between the two nations was their legislative union, but all attempts to bring it about during his reign were thwarted by English jealousy, and the first Commission appointed when Anne came to the throne did nothing, because the English Commissioners would not grant the essential point of free trade with Scotland. Things went on from bad to worse. At last a message was sent from the Queen to the Scottish Parliament, pointing out the dangers to the Protestant succession and from foreign enemies that must arise from the increasing estrangement between the two kingdoms, and promised to agree to conditions by which such injuries as the attack on the Darien undertaking should cease. An equitable arrangement was ultimately arrived at, and the union of the Legislatures took place. The effect of this settlement, the Duke goes on to say, was immediate and enormous. Scotsmen not only gained a full share in the expanding commerce of the world, but shot ahead of all rivals and competitors in the race of industry and of maritime activity. Agriculture was at this time in the same backward state in which it had been for centuries; but when the necessary capital had been acquired the improvement of the soil went forward at a constantly accelerated pace. "No such transformation," justly observes his Grace, "has taken place within so short a space, unless in the case of savage lands suddenly brought under the dominion of civilization." progress at first indeed was slow and gradual. The Revolution checked misgovernment, but the capital had to be gathered, and it was not till more than half a century had elapsed that the torrent of improvement which had been slowly accumulating burst over the land. It was as-

[&]quot;When spring has been delayed by winds and rains, And, coming with a burst, comes with a show, Blue all above, and basking green below."

Of this we have ample contemporary evidence, but, for brevity's sake, I shall confine myself to two competent authorities.

William Creech, the well-known Edinburgh publisher, contributed, about the end of the century, a series of letters to a metropolitan periodical, chronicling the changes in the condition of Edinburgh, and of a country parish forty miles north-east of that city, under his own observation between 1763 and 1792. Creech notices the foundation, by Sir John Sinclair, in 1790 of a Society for the improvement of wool, which speedily excited much emulation among farmers and landholders, and says that in a short time much labour and expense had been bestowed in collecting the best breeds of sheep, foreign and domestic, and spreading them over the country. As to the capital, in 1763 the number of students at the College of Edinburgh was about 500; it had risen to 1306 in 1791. In 1763 there were only two newspapers printed in Edinburgh. They were in very small folio, with from ten to twenty advertisements a-piece. In 1790 there were four, and in 1792 six newspapers, fairly well as to advertisements, notwithstanding a heavy and increased duty both on advertisements and paper. In 1763 the Carron Company's work was the only Iron Foundry in Scotland, and that had only been established for a few years; in 1792 there were many expensive iron foundries in Scotland, and iron, which had formerly been imported, was now exported in great quantities. In 1792, also, many textile manufactories had been established in different parts of the country, which were in a flourishing condition. The printed cottons, manufactured in 1790, amounted to 4,500,000 yards, an increase of 4,335,000 over 1763. Umbrellas were introduced in Edinburgh by Dr Alexander Wood (the eccentric Sandy Wood) in 1780, and the fashion spread rapidly, for in 1783, Creech tells us, they were much used, and continued to be so; many umbrella warehouses were opened, and a considerable trade done in them. He also refers to the great consumption of strawberries in Edinburgh, which then sold at an average price of 6d the Scottish pint. Notwithstanding this marvellous cheapness, so favourable does the soil and climate of the Edinburgh district appear to be for this fruit that an acre of strawberries had been known to produce at that price above £50. Creech observes that these strawberries were sold without stem or husk, as in other places. It is one of many instances of the conservative habits of the

Edinburgh folk that strawberries are still sold there in the same condition. The increase of wealth, however, produced many changes in the habits of the people. In the twenty years from 1763 to 1783 the dinner hour for people of fashion had changed from two to four or five o'clock in the afternoon, and wine, which had been seldom seen at tradesmen's tables, or only in small quantities in 1763, was often to be found in 1783 in plenty and variety. Among the other changes was laxity in church-going. Sunday came generally to be considered as a day of relaxation, and families began to think it ungenteel to take their domestics to church with them. There was, according to Mr Creech, a remarkable contrast between the manners of the two periodsthe decency, dignity, and delicacy of the one, as compared with the looseness, dissipation, and licentiousness of the other. As to minor morals, in 1763, in the best families in town, the education of daughters was fitted not only to embellish and improve their minds, but to accomplish them in the useful and necessary arts of domestic economy. The sewing school, the pastry school were then essential branches of female education, nor was a young lady of the best family ashamed to go to market with her mother. In 1783, says Creech, the daughters of many tradesmen consumed the mornings at the toilet or in strolling from shop to shop. Many of them would have blushed to be seen in a market, and the young lady employed those heavy hours when disengaged from public or private amusements in "improving her mind from the precious stores of the circulating library"; and all, whether they had a taste for it or not, were taught music at a great expense. There was little alteration, he laments, in 1791. Ditto, one might add, in 1892.

The comparative view of the state of the country parish is perhaps still more interesting and important as a gauge of material progress in Scotland during these two remarkable decades. In 1763, the writer tells us, land in this parish was rented on an average at 6s an acre, and only two small farms were enclosed; in 1783 rent had risen to 18s an acre, and all the land was enclosed with thorn hedges and stone dykes. There was no wheat, except half an acre by the minister, no grass, no turnips, sown in the parish, or potatoes planted in the open fields in 1763; in 1783 there were above 9 acres sown with wheat, and about three-fifths of the ground was under grass, turnips,

cabbages, and potatoes. In 1763 no English cloth was worn but by the minister and a Quaker; in 1783 there were few who did not wear English cloth, and several the best superfine. In 1763 the women wore coarse plaids: there was not a cloak or a bonnet in the whole parish. In 1783 silk cloaks and bonnets were very numerous, and the women who wore plaids had them fine and faced with silk. In 1763 there were only two hats in the parish, the men wearing cloth bonnets; in 1783 few bonnets were worn, and the bonnet-making trade in the parish was given up. In 1763 there was one eight-day clock in the parish, six watches, and two tea-kettles; in 1783 there were twenty-one clocks, above one hundred watches, and above eighty tea-kettles. The moral condition of this parish seems, however, to have degenerated even more than that of Edinburgh during those twenty years of prosperity. Good Mr Creech complains that in 1783 the third commandment seemed to have been almost forgotten, and that swearing abounded. He adds-"I may say the same of all the rest of the ten as to public practice." After a number of other details, he sums up the situation thus-"The decay of religion and growth of vice in this parish is very remarkable within these last twenty years."

My second and the most important, I might almost say, of all the authorities for the period under consideration is Mr John Ramsay of Ochtertyre, a small property in the neighbourhood of Stirling, who was born in Edinburgh in 1736. In 1760 he settled at Ochtertyre, and devoted himself to his duties as a landholder, farming a portion of his own land. Mr Ramsay was intimate with Lord Kames and others who took part in the improvements of that time, and was a man of considerable culture and natural ability. He died in 1814, leaving at his death ten bulky volumes in manuscript, containing very extensive notes of his reading, recollections, and personal experience, with a stringent prohibition against any attempt to alter or modify his views in the event of publication, his design having been to present to posterity a picture of Scotland at the period of which he was contemporary. A year or two ago a compilation from Ramsay's MSS. was published in two octavo volumes, running to about 600 pages each, and crowded with so much of value and importance that a selection from them becomes a matter of extreme difficulty.

To begin at the top, Ramsay tells us that in the beginning of the 18th century the sons of private gentlemen were in a few instances educated at home by tutors, but the greater part at the burgh or parish schools, taking their frugal dinners with them; and he observes that they were nothing the worse for being bred with the sons of their country neighbours. In a note we are told that the boys at Dalkeith school were one day much struck with the appearance of a nobleman's son of ten years of age in laced clothes. They looked upon him as a creature of a superior species; but in two days all reverence was gone-the fine clothes being rolled in the dirt by the schoolboys. For the girls it was considered sufficient to send them to the schools in Edinburgh, where they learned needlework and other things that might qualify them to be good housewives, to which were added a little dancing and music. Their time was chiefly occupied in learning and practising the mysteries of family management; and whatever leisure they had was employed in providing clothes and decorations for their persons; in many cases, however, as far as schooling went, "a touch of a country dominie" was made to serve. The reading of these ladies was very limited, and their spelling proverbially bad. Lady Newbigging, in Fife, writing to an Edinburgh shopkeeper for two necklaces, spelt it in such a way that the man read it "naked lasses," and answered her in a pet that he dealt in no such commodities. Theatrical entertainments found their way into Edinburgh about 1719, though opposed for many years both by magistrates and ministers. In those days the Scottish ladies made their most brilliant appearance at burials-it being as common to get a new gown or petticoat for a great occasion of that kind as it is now-a-days for a ball. The gentlemen drew up on one side of the street, and the ladies on the other. Before the procession started the men used to step over and pay compliments to their female acquaintance. About the same time the first assemblies were held in Edinburgh. In the 17th century a great proportion of younger sons went abroad to push their fortunes, chiefly in foreign armies. After the Union, however, many of these young adventurers found their way to North America, or to the East or West Indies, and the rise and increase of manufactures induced many persons to breed their sons to trade or manufactures. About the beginning of the last century it was the

custom of the gentry for the whole company to sup broth out of one large plate. For some years after 1745 most families breakfasted between eight and nine, dined precisely at two, and supped at eight. The dining at two was then regarded as a mark of fashion and figure.

In the beginning of the century, there being few grass enclosures, the fat cows intended for winter provision were slaughtered at Martinmas, and no fresh beef or mutton could be had for money after the middle of December until well on in There seems to have been no scarcity of salt provisions, however, at least in the Stirling district; for fat cattle were there very cheap, and it is said that it was the custom of the substantial burgesses of that historic town to lay in at Martinmas a cow for every person in the family, the sucking child not excepted. Broth was a standing dish in every family, but there was no barley in the country except what was imported from Holland. Its place was supplied by groats, and knocked bere. Every family had a knocking-stone, on which the bere was beat each morning by the kitchen maid. The garden stuff consisted chiefly of kail and leeks. It was believed that onions would not grow in the country, and they were brought from Holland and France. They cost about half-a-crown a firkin. At the present day large supplies come to Edinburgh from the Continent, and are sold from house to house by the sailors. Sugar was originally considered as a cordial, but, by degrees, was substituted for honey, as being a better sweetener. The breakfasts of the gentry consisted of collops, fish, cold meat, eggs, milk porridge, skink, a species of soup, strong ale, or a glass of wine and water. Tea was at first regarded as an expensive and unpleasant drug. The precise time of its introduction cannot now be ascertained, but it made rapid progress after 1715, and before 1745 it was the common breakfast in most gentlemen's families in the country. At the first introduction of tea it was common for the young ladies of a family to have great tea-drinkings after the old folks were gone to bed.

The expense of funerals used to be enormous, reaching sometimes to a full year's rent of an estate, and the almost universal custom was to drink at them to excess. A person staggering home from the house where a very worthy neighbour was lying a corpse, being asked whence he had come in that condition, answered—"From the house of mourning." At the laird of Abbotshaugh's burial, the company appeared so rosy and merry in the kirkyard that some English dragoons quartered at Falkirk said one to another—"Jolly dogs! a Scots funeral is merrier than an English wedding."

In the beginning of last century ale was the common beverage of all classes. The "scourging of a nine-gallon tree" was then a common feat among lads of mettle. It consisted in drawing the spigot of a barrel of ale, and never quitting it night and day till it was drunk out. But for many centuries French wines were a favourite drink of the Scots. When James Howell was in Scotland about 1639 the chopin of French wine was sold in Edinburgh for fourpence, and it was a heinous offence to adulterate or even mix it. At an earlier period it was ordained by Parliament "that nae person within the realm tak upon hand for the time to cum to mix wine or beer under the pain of death." Up to the Revolution claret was still fourpence sterling the chopin. But, owing to the duties imposed on wine from time to time, port and sherry gradually took its place. This gave occasion to the epigram attributed to the author of "Douglas," commencing—

"Firm and erect the Caledonian stood, Prime was his mutton and his claret good."

But, compelled by the fiat of the English Ministry to substitute port for the wholesome claret—

"He quaffed the poison, and his spirit died."

Claret must, however, have continued to be imported pretty far down in the century. I have heard my father describe how, in his boyhood (about 1785, probably), on the arrival of a French ship, wine-laden, the people would flock down to Leith with all sorts of vessels, and bring them up filled with good claret, at a moderate price; and he added that there was always a barrel, with the head out, on deck, with a pannikin floating in it, out of which anybody might drink.

The dress of the gentry in these times was always plain and frugal, but on great occasions they spared no expense. Even somewhat late in the century it was etiquette, not only when they married, but also upon paying their addresses, to get laced clothes and laced saddle furniture. In the first part of the century it was the custom of persons of figure, whether young or old, to wear tie wigs in dress and jack-boots. These last were

given up at an early period, except for travelling. In my own early days several old men in Dumfries still kept to the pigtail, knee-breeches, and powder. Upon the conclusion of the Rebellion of 1745 there was a rage for wearing tartan, the Jacobite ladies taking that method of expressing their attachment to the Pretender. In the early part of the present century the Waverley novels revived the fashion. The millinery business was hardly known in Scotland in the beginning of last century, but it was introduced by degrees from London. A very mean style of building, says Ramsay, both in public and private buildings, prevailed in Scotland between the Restoration and the Union. But after the latter event, when Scotland revived apace, the country gentlemen began to build better houses. Even well on in the century the Lords of Session and principal lawyers in Edinburgh were very meanly housed. Lord President Dalrymple, with 20,000 merks annual income, lived in an eight-pound house. With the better houses came a better style of finishing inside, Ceilings and walls were lathed and plastered, but there was very little painting or papering, and carpets were little used.

In the end of the 17th and the beginning of the 18th century the farmers sat at easy rents, and the system of husbandry was of the most primitive kind; on the borders of the Highlands the land was sometimes held in run-rig, the several tenants having ridge about of every field. In general no manure was applied, the land being allowed to rest a shorter or a longer period between the crops. The grain was very poor in quality. Black and grey oats was the chief crop, and bere. "Forty years ago," says Ramsay, "there was no wheat raised in this country, except a little of a red-bearded kind in the dry fields of Airthrey. It was hardy, required little manure, and produced very white flour." The farm-horses were small and weakly, and the carri-· ages were sledges and small carts. The buildings were constructed of feal or divots, which in a few years had the appearance of a wall of clay. Stable doors were made of wattles, and there were seldom any locks on barn-doors. The most rigid economy was exercised by the tenants both in dress and domestic expenses. They ate at the same table with their servants. Oatmeal porridge was esteemed a luxury, bere meal being generally used. Water kail was a standing dish, being made, without flesh, of greens and groats. For kitchen they had butter, cheese, eggs,

herrings, and sometimes raw onions after the kail. Yet they were contented and pleased with their lot. An old man, who at the age of 95 was "lively and active," was asked by Ramsay in 1782 whether the old or the present times were the best. He answered—"There were difficulties then, there are difficulties now, and there will be difficulties to the end of the world." Venerable sage! The first important agricultural improvement was the general application of lime to the land. Then came enclosure, and the introduction of the English methods. Wages were low. In 1756 a labourer's wage was 6d a day in summer. Tailors had 2d or 21d a day, with victuals. They afterwards rose slowly to 4d, where they remained for a number of years. The money remitted to pay the troops at the last rebellion, and afterwards to purchase the hereditary jurisdictions, gave new life to industry and enterprise, and to a liberal intercourse between the two kingdoms. Scotsmen returned from the East Indies with moderate wealth, the trade of Glasgow flourished apace, and everything was prospering. Road-making was carried forward on a great scale, partly by Government, and partly by statute labour. A cart with proper wheels was, about 1730, a curiosity. With free intercourse with England, the cattle trade was greatly extended. The enclosing of pasture land was another improvement which encountered special opposition from the country people. Turnip husbandry was introduced from England about the middle of the century. About 1760 barn fanners were introduced. In ancient times every mill had a shieling hill, where the winnowing was performed in the open air. It is said the Antiburgher ministers testified against barn fanners as a creating of wind and distrusting of Providence. But there was too much self-interest on the other side, says Ramsay, and this theory made little impression on the farmers. About 1746 the Irish method of cultivating potatoes in the open field was pursued with great success in the neighbourhood of Kilsyth. Thence it spread by degrees all over the country. The thriving state of manufactures at this time gave farmers a market for their wool, and, indeed, for everything produced on their farms. Nor must the benefits of the banking system be overlooked.

The Legislative Union produced a great change in the literary tastes of Scotsmen. From peer to peasant, then and long afterwards, the Scottish Doric was the only dialect in use. Between that date and 1760 the introduction of English literature, especially of the Spectator and other periodical publications, the study of English authors, and, in the latter part of that period. greater intercourse between the two countries, led to the adoption of classical English in all important works. This also fostered the growth of the great literary and scientific revival of the century. Among the galaxy of men of letters and science of that period may be named Hume, Robertson, Lord Kames, Tytlers (father and son), Sir John and Sir David Dalrymple, Beattie, Fergusson, Smith, Reid, Lord Monboddo, Cullen, the Homes (poet and physician), Monroes (father and son), Blair, Mackenzie, Moore, Mickle (an Annan man), Adam and Sir John Sinclair. The language of England and Lowland Scotland, says the historian Burton, was taken from a source common to both. after the War of Independence they diverged. The English received an infusion of Norman, while Scotland kept closer to the original Saxon. French influence brought a few terms into the Scottish language, but it scarcely warped its structure. So it came to pass that Scottish writers of the age of Chaucer and Gower wrote in a language more intelligible at the present day than that of their English contemporaries; in the 16th century they were scarcely intelligible to each other. Under the circumstances. Latin took the place of Scottish among scholars, becoming almost a mother tongue to them. But Latin, in the beginning of the last century, was dying away as the common language of literature and science, while any attempt to keep up a Scottish literary language had been abandoned in prose before the Revolution. In verse it has lasted longer, but has been greatly modified. the colloquial language (I quote again from Ramsay) spoken in good company about 1746-60, there was the oratorical, which was used by lawyers and clergymen. That was somewhat broad enough, but none were without strong traces of a provincial dialect, and some in the attempt at the English idiom and accent stumbled into a Babylonian dialect that neither Englishmen nor Scotsmen could understand. Three Lords of Session were called up to the bar of the House of Lords in connection with the Porteous affair, and Ramsay, on the authority of Lord Kames, tells us that at supper the night before they were to appear, Lord Dun thus discoursed to his colleagues—" Brethren, I am sorry to say neither of you will be understood by the House to-morrow. I

am, you well know, in a different situation, having made the English language my particular study." "To-morrow came," said Lord Kames, "when Lord Royston was hardly intelligible; Lord Milton, though no elegant speaker, was well heard and his meaning comprehended. As for Lord Dun, deil a word from beginning to end did the English understand of his speech." Ramsay further states that it was alleged of a relation of his own, then a young woman of fashion, that her language kept pace with her dress, and that when going to a ball or to the Countess of Breadalbane's routes in a manteau and petticoat, she knapped English insufferably.

There is little of ecclesiastical matter in Ramsay's remains suitable for reproduction in a paper like this. One tit-bit, however, is too racy to be omitted. In a disputed induction, a friend of the patron offered a leading elder 100 merks to sign the call, and conciliate the people. He rejected the offer, but his wife came next day, and said her husband had a tender conscience, and could not take money, but would they try him with a saughie and a boat of limestone? The hint was taken, and succeeded to admiration.

10th March, 1893.

Rev. WILLIAM ANDSON, Vice-President, in the Chair.

Donations and Exhibits.—Essex Naturalist, December, 1892; Proceedings of the Glasgow Natural History Society; Proceedings of the Academy of Science, Rochester, New York State; and the History of the Old Lodge of Dumfries (Kilwinning, No. 53), presented by the author, Mr James Smith. Mr J. R. Wilson exhibited a copy of the intimation of Mrs Robert Burns' death, signed by Robert Burns, the son of the poet, dated 26th March, 1834. Mr Arnott exhibited a large collection of floral specimens from Broussa, Asiatic Turkey, collected by Mr Millingen, a resident of that place.

COMMUNICATIONS.

 The Origin of the Grierson Museum, Thornhill, By Mr James R. Wilson, Sanquhar.

I find that Dr Grierson began to keep a diary in 1833, when 15 years of age, and continued to do so for several years. The

series of diaries is not complete, but they still afford material for a short paper. Throughout there is abundant trace that his early years were zealously devoted to investigations in natural history. and also in all departments of antiquities. The entries are simple, but are often accompanied by searching questions for after investigation. He appears to have first given his attention to minor matters, such as wasps, bees, birds, and bird nests, and to have afterwards ventured far afield into camps and cairns and other objects of interest in the wide district surrounding his home at Boatford. I will give a few specimens of the entries, not exactly in the doctor's own words, but as near thereto as possible. Some of the sentences are difficult to interpret, for as you well know he wrote as he felt, and without much respect for the elegancies of language. The diary for 1833 is awanting, and the second begins in January, 1834, and has two quotations prefixed, viz. :- "A drop makes a stone hollow," and "Observations supersede theories.' The following are entries taken from these diaries:-

13th January, 1834.—I found a large wasp on the inside of the school window creeping about. I put it into a box in which there had been snuff, and upon taking it out it was quite motionless. The next day it was apparently dead, but when held to the fire it made a slight quivering motion. There was a broken pane in the window, but whether the heat of the house invited it from its lethargy or not it is certainly very early for it to appear.

29th January.—Optical illusion. While going to Penpont about 10 in the morning a little past the turn I saw the English hills very distinctly with some snow upon them. It was hard frost when I saw the phenomenon.

14th February.—I opened an ant hill which contained a great number of light brown ants. They were not torpid, and I never saw an ant torpid in the winter.

21st February.—While breaking a large piece of coal brought from Drumbuie, near Sanquhar, I found it marked like fibres of wood and some pieces of wood as if decayed quite black in the layers. I do not remember to have noticed this before.

23rd February.—In the morning I saw a magpie flying into the heart of the old fir-tree with a stick as long as itself. Whether or not it is easy for them to build I know not. It is the first operation of the kind I have seen.

27th February.—I heard the peaweep. Does it migrate?

1st March.—I found a lady-bird that I never saw before in my garden. Red, with white strips, and abdomen brown. Robin redbreast sings this month.

15th March.—One of my butterflies came out to-day. It is a white one. This shows heat has an effect.

17th March.—One of the Castle gamekeepers shot me a thrush for stuffing. In skinning it I found above the joint of the leg (the ulna) between the sinew and bone a quantity of white worms. They moved when taken out, and were wound up in clusters with a little raised lump as of fat.

18th March.—While among the hills getting heather for bordering I found a quantity of cranberries among the fog. They were red, very plump, and had a very slight acid taste. I was not aware before that they withstood the winter. They must make excellent food for the wild birds in the winter when the hills are bare.

26th March.—I found in the wood a patch of toad spawn. The pin-heads were almost ready to swim. They were quite formed, though still enveloped in the jelly.

29th March.—I got a white mole skin from the molecatcher (Hastings) for 3d. It was pure white save a rusty-red strip on the belly. He said that he got it near Sanquhar in a field where he had got five or six, one of which was spotted black and white. He also had got one in Boatford ground, but they were very rare. He said moles couple in March, and breed in May, their nest consisting of grass in the inside of a large hillock like a barrowful. There were generally five to seven moles in a nest.

8th April.—I got a snake brought to me by a boy from Sanquhar. It was very dark; also a young snake, which was lively.

23rd April.—Yellow hammer nest, outside withered grass, inside fine roots, lined with white dog hair. Eggs whitish, marked as with a pin, with a kind of colour approaching purple. Found upon the roadside to Eccles under some grass and a withered cone.

Following down the Eccles Burn that runs past Stepends, I found the alternate-leaved saxifrage among the common variety.

24th April.—Shown a yellow wagtail's nest under a brow up Shinnel water. Nest, fine roots and some straw; inside some feathers, lined with horse hair. Five eggs, dirty white, with very light brown spots.

5th May.—I got from J. Douglas a starling's nest containing two eggs, which he found near the Castle upon an elm tree near a burn, and not very far from the ground. The nest is formed something similar to a blackbird's. It is built of green moss and clay, with a very little white moss. The inner structure is plastered, and the inside is lined with a thick coating of pretty fine grass. The eggs are white, slightly tinged with green, and pretty thickly spotted with a brown approaching to red.

He makes some general remarks at intervals, of which the following for May is a fair specimen:—This month may be said to renew the labours of the naturalist. Bird nests are found in abundance, many insects may be collected, snakes and adders have appeared, the meadows and woods are clothed with flowers and foliage, the seeds have sprung, and winter is borne down by the vigorous spring.

3rd May.—I saw the white hare at Drumlanrig Castle, and also in the hothouse where pines were growing a particular ant, which Hannan said was foreign. It was much smaller than our one.

21st May.—I went to see at the Gate, Closeburn, a pig said to have three ears. The pig on examination had its natural ears, and upon the left side of the head the form of an ear much smaller than the natural one. It had no entrance into the head that I could observe, but in time it may.

July.—I found my snake dead after having kept it more than eleven months. I observed last season before winter set in that the black clocks that fell into his den were all broken and lying in balls or lumps. Now, does a snake vomit the indigestible parts of its food as birds of prey do? I could account for it no other way. True, there was a toad in beside it, but the size of the lumps, and, altogether, it never struck me to be it. The toad still enjoys seemingly good health. The serpent and he were very good friends and never seemed to mind each other, the serpent crawling over its body without disturbing it. The serpent never would eat in my presence.

11th July.—Left the school before 12, and went up the hill craig before Tynron Doon. Kept upon the ridges till intercepted

with corn fields; came on to the Tynron road for a mile, followed up a burn, kept upon the ridges till about a mile below Tynron Kirk. Crossed the hills, found the tormentilla in great abundance, and came on to near Auchenhessnane. In marshy ground above found the trembling grass in abundance, entered a fir plantation about half-a-mile or less left of Auchenhessnane. Rested about half-an-hour, it being very warm. Found a hawk nest. Went out at the end of the plantation, and their found violets that were quite new to me. I then inquired at a man, who was ploughing, the road to Glenwhargen Craig. It was then five o'clock, and I now made steadily for Glenwhargen, which was five miles distant; came to the Four Towns, and then to the Craig. At a distance it is rather insignificant in respect to what I expected, but the nearer it is the more interesting. At the bottom it is covered with hazel bushes, but the more you ascend they become more scrunted and straggling. For a considerable way up the stones fallen from the craig give way with your feet, so that little progress is made. You then come to the first breast of rocks, which I mounted and came on to the green ground. Then ascended another breast of rocks more steep than the former, but with some difficulty. Here out of a clift I saw a blue hawk rise, but was unable to get at the nest without danger of falling headlong from an immense height. Reached the top, and here was the finest scene. The sun was fast setting, and the shades of the hills grew long. On the left was a plain containing four pretty large farm-houses, with the water of Scar winding through the middle, the whole surrounded by high hills, some of them very steep. I now began to set my face for home, and made for it by the straightest way, keeping the public road, if road it can be called. The day began when I was about Auchenhessnane to make way for night, and at last I got home after being away 10 hours and travelling upwards of 24 miles.

14th July.—Got a pair of rabbits—white, with a light brown strip down the back. I put them into the house I made for Keely (the hawk), and after a little put the hawk in beside them. They were not afraid of each other. The rabbits approached cautiously to the hawk as if to examine their new companion. They all ate when I gave them food.

22nd July.—I got a Merlin hawk from a boy for $2\frac{1}{2}d$. When I offered to touch it, it turned upon its back and struck with its

feet in a very threatening manner. I put it into the cage with my other hawk and rabbit. My old hawk stared at it, but did not offer to come near it. The rabbit smelled it all over, and to this reception he seemed quite indifferent. He was not long till he mounted the stick where my hawk was sitting, but seemed to avoid it. When I gave it meat it struck and bit furiously, but now and then when he bit my fingers I gave him a mouthful of meat. After he had swallowed a few pieces he began to be more quiet and docile.

The diaries between this date and July, 1838, are awanting. Commencing again at the latter date, there are some interesting entries.

20th July.—Went to fish up Cample with J. Hunter. Did not get any fish, the day being fiery with heavy thunder showers. He read some of his poetry. It appeared to be rather meagre in ideas, and had rather little sense. The verse seemed correct. At Cample saw the Ramex Alpinus, but near a house.

25th July.—Fished for pike, but did not see any; fished for par, and caught nine and one burn trout.

27th July.—Started in the morning at six with J. Hewetson to fish in Scar. Went by Eccles. Found, for the first time in Dumfriesshire, above the Eccles woods, the Habenaria viridis. Went up Scar as far as Dalzean; that is at the Four Towns. Fished down to near the Upper Schoolhouse, and caught ten burn trout, one with the minnow. Found the Campanula latifolia.

29th July.—Took a cast in lead from the mould of the monkey's hand. It is one I took from a specimen that died in Wombwell's Menagerie while in Edinburgh in 1837.

1st September.—Worked in the Garden. Some potatoes which had been planted whole, with all the eyes destroyed by means of a hot iron, except one, were partly raised to day. The produce from a single shaw averaged about 12 or 14. Some had as many as 18, while others had nine. The potatoes were very large and fine. They came decidedly faster forward when thus treated than in the ordinary way.

17th September.—Worked. Put up a specimen of two round worms found in the duodenum of the cat. Went to Thornhill, and agreed with J. Hunter to go to Leadhills on Wednesday. Saw his Minerals, and got a specimen of coarse granite. It had come from some part of the Highlands as ballast in a ship.

19th September.—Left home about half-past six in the morning for Thornhill, and met J. Hunter, when we set out for Wanlockhead. In a sandstone quarry, before coming to Enterkin, we found the marks of several fossils, among which we found one specimen of stigmaria, and a particular impression upon some of the hard stone which I supposed to resemble the drawings of the footmarks of the tortoise found by the Rev. Mr Duncan. The rock which composes the Enterkin hills seems to be greywacke slate, or a rock approaching to it, with a considerable number of veins and incrustations of silica.

After a minute description of the Lead Mines at Wanlockhead and of the means adopted for crushing and separating the lead from the quartz, he makes the following remarks: -Owing to the poisonous nature of the water, which has been employed in the washing of the lead, no dogs can be kept. There is no poultry of any kind, and no pigs are kept. Cows are kept, but they frequently die. Five died last season. Horses are little required. There are only three kept at Leadhills for a mill connected with the Lead Mines. The climate is of the severest description. Corn rarely ripens, and is only cultivated for cutting green for cattle. The potatoes are small and watery. Fruit such as apples, currants, &c., rarely ripen. The greens and other vegetables I saw were by no means good, and were very late. At Leadhills there is a plantation of trees, chiefly beech, around the director's house, which have attained a considerable heightwhat we of the low country would suppose to require twenty years, but upon inquiry no one remembers of their planting. The oldest men since their childhood remember of them being always the same, and it is thus supposed they must be considerably above one hundred years old. Gold is frequently found after heavy rains in the sandbeds of the streams. One boy found lately a piece which he sold for £3, but the quantity found is too small to repay the time and trouble required in procuring it Mr Hastings, Wanlockhead, told me of a curious custom there of naming the different clusters of houses after the oldest inhabi. tant of them.

21st September.—Breakfasted with Mr Shaw, of Drumlanrig, and saw the fish pond and the specimens of his fish. He lent me his paper upon the natural habits of the salmon, but I will refer to what I saw and to his paper in a day or two. When at the

Creel I saw a young otter. Mr Shaw says they are common. He says the Botrychium Lunaria is growing in the field near the Creel. I got a specimen of petrified rush from Sanquhar from him, as also three specimens of phosphate of lead. He told me it was customary for the people of the low countries, who lived near fuel, to bring down lead ore from the lead mines and smelt it. One of these smelting stations he directed me to as lying near Eccles.

25th September. - Went with J. Hunter and Joseph Kilpatrick, Thornhill, to see a vitrified fort in Tynron. It is situated on the farm of Pinzarie, about two miles from Tynron Kirk, up the water of Shinnel, a little from the side of the road. The situation is upon a gently rising hill at the bottom of a moderately high range composed of greywacke, passing into greywacke slate, and distant from the Shinnel water about 500 yards. It presents a slight elevation above the adjacent land in the form of a circle, and as nearly as may be guessed the circumference of the circle is about 80 yards. Running through the centre from east to west is a rather prominent elevated ridge, the prominence being chiefly in the middle, composed of loose stones, in no way cemented, but chiefly vitrified. These stones, the largest of which may weigh 14 lbs., bear evident marks of having been in a state of fusion. Some are coated with a coarse-like glass of a brown colour. The internal structure of these stones is porous, somewhat resembling pumice stone, but much denser and of a lead colour, but sometimes of a lead colour approaching to purple. Others again have a somewhat fibrous texture, and these are not so porous, while others are devoid of the porous texture, and a good deal resemble some varieties of green stone, particularly when the grains of quartz are large. I shall return to the notice of these stones after I have submitted them to analysis. Could not find the fort mentioned in the statistical account of the parish, but only of the existence of a Roman road and of a Roman encampment. The latter is composed of a quantity of rather small stones, but the larger may have been removed for the building of dykes. It is about 12 miles from the vitrified fort, and upon the top of a range of hills separating Shinnel water from Scar water. Found an account of vitrified forts in the English Cyclopædia Art Fort. Found no plants on the way. Brought home some specimens of vitrified stone.

29th September.—Bound two books. J. Hunter called. Went to Thornhill and made an exchange of a box for a small set of drawers with Hunter. Got a specimen of Aberdeenshire quartz and of mica from him.

 $\it 8th~October.$ —Washed the minerals. Made 14 boxes for minerals.

9th October.—After dinner, fished with bait, and caught 14 par. Upon examining them I found two with very large melts, of which I took a drawing. These two par were by no means the largest. I could not detect any difference in them externally from the others. Stuffed one of the par—a female one according to Mr Shaw.

10th October.—Put up a specimen of the melts of a par. Went to the Rev. Mr Menzies' (Keir); dined and drank tea. He gave me a specimen of the Rhamnus frangula (alder buckthorn), which grows in the parish near to the farm of Penfillan, in a marsh at the foot of the hills. I also got from him eight specimens of orchideous plants which he collected in Switzerland. He has a very fair collection of orchideous plants. He had not heard of the vitrified fort in Tynron. I was told that the glowworm was common in certain situations about Bellevue.

11th October.—Put upon paper the eight specimens of plants I got from Menzies. Read over again Shaw's paper upon the par. He states that (1) the eggs take 90 days to hatch; (2) remain after being hatched 50 days under the gravel; (3) and during the next season form the May or summer par; (4) that the second season it assumes the silvery scales, and constitutes the salmon fry when it migrates to the sea.

15th October.—Read Cyclopædia—article, "Paper Making.' Collected a quantity of sludge left by the drying-up of some stagnant water. It had become bleached, having entirely lost its green colour. Its fibres resemble those of cotton. It imbibes water freely, and becomes rather pulpy. It appears to me that this substance might be applied to the making of paper, or some similar use. I have picked some of it, and by floating it in water and collecting it upon a wire sieve, and removing it therefrom to folds of flannel and subjecting them to the pressure of a strong screw press, I procured a tolerable paper, which was improved by the addition of isinglass. The sludge may be procured in great

plenty. I shall again advert to this substance. Commenced the skeleton of a flounder.

20th October.—Worked at the skeleton of the flounder, finishing the removal of the soft parts. Put it to steep over night in a solution of chlorate of lime.

22nd October.—Put up the skeleton of the flounder. It is the best skeleton I have ever made.

23rd October.—I brought in the wasp nest. It was completely empty of wasps, and what is curious is that the wasps have built new combs with their mouths downwards, removing most of the old one which was placed upwards.

30th October .- Went to Thornhill; saw the sword that was found several years ago beneath the surface of the small rising ground where the Penpont road divides into branches leading to Tynron and Moniaive. The sad Goths, into whose hands it fell, removed the rust by grinding it, and decorated it with a wooden handle wound round with black and red thrumbs. They had broken off a small piece of iron which they said was a spring, in order to fit the handle. As it at present exists it has a double edge. . . It is about 25 feet long, and it tapers towards the point which is awanting. As to the letters and crown mentioned before there is no trace of either, and its present possessor knows nothing of them. The spring mentioned was probably a handle, the remainder having corroded away. From the state it is in it is devoid of interest. I was told by P. Mounsie that some time since an urn filled with bones was found in Closeburn, but was broken in the removal. A man of the name of Sandy Wallace, a weaver, in Thornhill, has some fragments of it.

5th November.—Went to Drumlanrig, and called upon Shaw and Hannan, but neither was in. I saw, when on my way to Drumlanrig, a cock pheasant with a pure white tail and back spotted with white.

11th November.—In examining the prices of my books marked in my catalogue, I find their value to be £36 17s 4d, and their number 223.

The following is a statement of the probable expense of my museum:—About 50 vials and bottles, 5s 6d; 5 preparation jars, 3s; 4 insect boxes, 18s; shells, 10s 6d; an enjected arm, 3s 6d; minerals, 2s 6d; corals, 6s 6d; stuffed birds and skins, £1;

monster adder, 2s 6d; bones, 5s; 4 horned rams heads, 4s 2d; for &c., &c., 5s 4d; paper for herbarium, £2; total, £6 6s 6d.

This statement is what I suppose my museum to have actually cost me in money, viz.-£6 6s 6d-but the most of it has been collected free of expense. I have found great advantage from my museum. It is an additional stimulus to study, and makes the knowledge more perfect of the several objects it contains. The objections to a museum are chiefly the time occupied in collecting' and preparing the specimens, but much of the time occupied thus would be lost if not so employed. My chemical apparatus has cost me, including the substances, about £3 17s. My other apparatus is not worth mentioning, consisting of-An injecting syringe, 5s; pocket compass, 2s; dissecting case, 7s 6d; total, 14s 6d.—Thus making in all for my library, £36 17s 4d; museum, £6 6s 6d; chemicals and apparatus, £4 11s 6d; total, £47 15s 4d. This, of course, includes any articles I have at any time bought. The summer and autumn are now past, and as circumstances depending in the Court of Session prevent money being easily had, besides the load of labour I must undertake in Edinburgh were I to make this winter my last, I have resolved, partly by the advice of friends, to go to Dumfries and attend the Dispensatory Infirmary, and receive instruction in the compounding of medicines there. I may be right, as I think myself, or I may be wrong, but it is scarcely a mere matter of choice-money is necessary. The course of study I have to pursue this winter will be of a practical nature, and may nature be my guide. I am convinced it is the sure guide, provided we know how to follow its guidance.

These extracts I have copied with care from the two diaries. They give us a good idea of the doctor's habits in his early years, and show conclusively that he was a diligent student in natural history and antiquities. His perseverance is well brought out in them, and although they are not so graphic as we might have expected, still we see in them ample proof of the bent of his mind. From small beginnings we see that his collection was gradually increasing, and his chief desire is shown to have been his own instruction. In after years his desire was to benefit his fellow-men, and many of us can remember the pride he took in instructing all, whether old or young, with whom he came in contact. To confer such benefits during his life was most praise-

worthy, and it is a further proof of his deep interest in his fellowmen that he left his valuable collection for the benefit of future ages.

2. Plant Superstitions.

By Mr Samuel Arnott, Carsethorn.

Before passing to the consideration of the wider field of British plant superstitions, I shall deal briefly with those of my own neighbourhood in hope that other members may be able to add to this part of my subject. Still lingering with us is the belief that the finding of an even ash, that is, one in which the terminal leaflet is absent and the leaf consequently even, is "lucky." This superstition has, however, been shorn of the fuller idea which was attached to it, and which still lingers in some parts of the country, that the finder will meet his or her sweetheart before night.

Of a somewhat similar character is that relating to the "luck" which will follow the finding of a "four leaved clover"—a superstition which still exists to a certain extent in this locality, although it seems singular that what is, after all, not so very uncommon should have been looked upon as necessarily bringing "good luck."

The custom of burning nuts at Hallowe'en is another remnant of plant superstition too well known to require further mention The practice at the same season of going into the garden and pulling a "kail stock" seems almost, if not quite, obsolete here, although I have heard it frequently spoken of. As the full ceremony has been gradually reduced it may be of interest to detail it now. After being duly blindfolded the young people made their way to the "kail yard," and pulled the first "stock" they met with. On their return to the house their trophics were examined, and by the appearance of the plant the personal beauty of the future wife or husband was divined. If the stalk was tall and straight, the future partner would be well favoured and of good proportions. On the other hand, if the stalk was short and crooked the partner would be ill favoured, and unattractive in personal appearance. The sweetness or bitterness of the pith indicated the temper of the prospective spouse, and the quantity of earth which adhered to the root was emblematic of the amount

of fortune. The final portion of the ceremony consisted in placing in order over the door the whole collection of stalks, and, as the party re-entered the house, their Christian names signified in the same order those of the husbands or wives. Where no "Hallowe'en" party was held a similar ceremony was performed by the maidens of the house.

Another custom, also indulged in at "Hallowe'en," was that of a maiden paring a potato and preserving the skin in a piece, and afterwards placing it above the door. The first man entering the house was of the same Christian name as her future husband. Another custom was to pare an apple in a similar way, but to throw the skin over the left shoulder, when the form it assumed was that of the first letter of the future husband's name.

No doubt many have heard the vague statement that the mountain ash or rowan tree has the power of keeping witches at a proper distance. This has long been familiar to me, but it is only lately that I have been able to discover that it was held in high repute in Kirkcudbrightshire, and that even within comparatively recent years it was much used in that county. It was a common custom to place a twig or small branch of this tree above the door of the byre—sometimes inside and sometimes outside. This is in accordance with the statement in Jamieson's "Scottish Dictionary" that the rowan tree thus used was "the most approved charm against cantrips and spells."

There seems also in my neighbourhood a faint recollection of the general belief among the Scottish peasantry that a twig of this tree carried in the pocket was effectual against witchcraft and the "evil eye." It was necessary, however, that one of the following couplets should be written upon a piece of paper which was to be wrapped round the twig and tied with red thread. The couplets are as follow:—

"Rowan, ash, and red thread Keep the devils frae their speed."

Another was :-

"Roan tree and red thread Haud the witches a' in dread."

Another, to which my attention was lately called, is given in James Grant's "Scottish Cavalier," and runs as follows:—

"Red thread and rowan tree Mak' warlock, witch, and fairy flee."

Another curious instance of the use of the rowan tree as a spell against the machinations of witches in cowhouses was recently told me. In a cowhouse in Kirkcudbrightshire three pins made from pieces of the mountain ash were fixed on the inside of the door. On the centre of one of these was hung a horse shoe, and on the others the dairywoman hung various articles of attire worn while milking, such as her apron, shawl, &c., while below the wooden pins was written-"Good Luck." The virtue of the whole arrangement rested in the presence of the rowan tree, which was supposed to prevent the entrance of evil spirits, which caused the various misfortunes attached to the keeping of cows and the maladies which in this matter-of-fact age are generally ascribed to the want of proper sanitary arrangements. Another instance of the belief in the good fortune brought by the presence of the mountain ash was related to me only last week. A farmer, now dead, in the parish of Newabbey, who was deeply impressed with the virtues of the tree, used to declare that he would never allow any of those growing on his farm to be cut down. day, however, some mountain ashes were cut down without his knowledge. On being made aware of this he was much concerned, and, in order that the good fortune might not leave the farm, he had the remains of the rowan trees inserted in a fence. Not so many years ago, at one house in Carsethorn, rowan trees are said to have been planted to bring "luck" to the man of the house who was engaged in fishing. Where a fisherman had, what is a common occurrence, a run of ill fortune, it was suggested that he should put rowan tree pins in what is known as the "halveback "-the principal part of the frame of the halve-net. It may have escaped the notice of many that the elder or "bour tree" is very frequently found in the vicinity of old or ruined cottages. In some cases it is planted near the house, and in others used largely as hedges to the old gardens, even in situations where stones are plentiful, and where dry stone walls are the rule and not the exception. This I take to be a remnant or trace of the rather numerous superstitions, practices, and beliefs in which this tree occupied a part. Like the mountain ash, the common ash, the aspen, and several others, the elder was at one time believed to have supplied the wood of which the Cross was formed, and consequently it was at first held in great abhorrence.

It was banished from the neighbourhood of dwelling-houses, and its evil odour was said to taint any fruit with which it came in contact.

By a change in the popular ideas, the current of which seems easily traced, the estimation in which those trees of the cross were held became a high one, and the elder thus acquired a better reputation. It was planted near houses to keep off witches and evil spirits. Its branches were placed among gooseberry bushes to keep off the attacks of the caterpillar, and a piece in the form of a cross taken from a tree which grew in consecrated ground was carried in the pocket as a cure for rheumatism. In a book, published in 1884, it is said that applications for pieces of elder trees grown in some churchyards in Gloucestershire were still being made as a cure for this malady.

Another trace of plant superstitions remains in the occasional appearance of sempervivums or houseleeks, and sedmus or stonecrops on the roofs of houses. From a picturesque point of view, I much regret that these are now comparatively rarely seen, but there seems no doubt that they are an unconscious survival of the superstition, still widely current, both in England and in various parts of the Continent, that these plants will ward off lightning. This seems to have arisen from their evergreen character, and their withstanding great heat and drought betokening their resistance to fierceness of the electric fluid. This is only an instance of what is known as the "doctrine of signatures" so universally accepted by the old herbalists, and which will be found at the root of many superstitions. Since beginning this paper I have discovered that, a number of years ago, houseleeks were grown on the roofs of a cottage and a cowhouse near Kirkbean Village, the reason given for their presence being that they were "lucky" plants.

Another instance of plant superstitions was familiar to me in my boyhood, but seems to be gradually falling into oblivion. This was the belief that after the Rood Fair the evil one put his club foot on the blackberries, and made them uneatable. Probably a different date may be given in localities beyond the sphere of influence of the fair—the general belief in Britain giving October 28th (St. Simon and St. Jude's day), a Sussex version, however, making it appear that on October 10th (Old Michaelmas day) the

devil went round and spat on the fruit. In some parts of Scotland it is his cloak which is thrown over the blackberries, while in Ireland the unwholesomeness of the fruit was attributed to phooka—a mischievous goblin. So far as I can recollect, these are the only remains or traces of local plant superstitions of which I have heard, with the exception of one which is said to exist regarding planting gooseberries on graves. Unfortunately my informant could only tell me that there was some superstition regarding this, and that there is, or at least was some years ago, in Buittle Churchyard a grave on which gooseberries were planted. I have not had the opportunity of making inquiry about this.

I must now pass on to the plant superstitions of other localities, but so wide is the field that these notices must be confined to those beliefs which were British or Irish, and even with this limitation the subject must be treated in a very inadequate manner.

Another sacred plant was the aspen tree, which, in passing, I may say was ungallantly said to have its leaves formed of women's tongues, as "they never ceased wagging." The aspen was also one of the trees of the Cross, whence, doubtless the origin of its supposed wonderful powers. One curious and amusing instance of a belief in its efficacy in the cure of ague may be given. In the North of England, in the early part of this century, it was a common remedy, or supposed remedy, to take a lock of the sufferers' hair, wrap it round a pin, and, sticking the pin into this tree, to repeat while doing so—

"Aspen tree, aspen tree, Shake and shiver instead o' me."

The ash tree (another tree of the Cross) has many superstitions attached to it, of which two, as related by Gilbert White, are now given. In order to cure hernia in young children an ash sapling was split and held open by wedges, and the children stripped naked were passed through. The tree was afterwards carefully plastered up with loam and as carefully swathed. If the parts again grew together a cure was supposed to have been effected. The other custom, as recorded by the same writer, was that of imprisoning a shrew mouse in a hole in an ash tree. This transforms the tree into a shrew ash, whose branches, when applied to the limbs of cattle, will relieve them of the lameness caused by a shrew mouse running over them while asleep. A

similar belief, as far at least as it extended to curing the lameness of men or horses it produced in this way, prevailed in Northumberland a number of years ago.

I must, however, hasten on and leaving other trees pass to lowlier plants, and one of the most singular of old superstitions was that in former times applied to the moonwort, to which was attributed the power of unshoeing horses which trod upon it. It was also said to open the locks of dwelling-houses if put into the key holes. Culpepper, to convince the sceptical, who seem to have existed even in his day, tells of thirty horse shoes, pulled from off the Earl of Essex's horses, which were found on White Down in Devonshire, and Du Bartas thus speaks of the superstition—

"Horses that, feeding on the grassie hills, Tread upon moonwort with their hollow heels, Though lately shod, at night goe barefoot home, Their maister musing where their shoes become.

O moonwort! tell us where thou hid'st the smith, Hammer and pincers, thou unshodds't them with; Alas! what lock or iron engine is't That can thy subtill secret strength resist, Sith the best farrier cannot set a shoe So sure, but thou (so shortly) cans't undo?"

It may be as well to mention that this and other moonwort beliefs are attached to the fern and not to the honesty of our gardens, which, by the way, is said to thrive only in gardens of which the owners possess the virtue of honesty.

A plant to which many virtues were ascribed was the rosemary, and one of the qualities it possessed was that of being a remedy for cramp. As a cure for this a sprig was taken off the plant and placed between the mattress and the tick of the bed.

What seems rather a singular class of superstitions is that which has reference to the number of flowers taken into a house for the first time for the season. I understand some of these beliefs are still current in the South of England. A curious one attached to the violet was that the number of flowers of this plant first brought home in spring betokened the number of chickens or ducklings which would be hatched that year. Less than a handful was unlucky.

To bring a single snowdrop into a house was considered unlucky, as it denoted a death in the house within the year. This is said to have arisen from the fancied resemblance of the flower to a corpse in its shroud. The primrose, which was used to strew on graves and to place on corpses, was likewise considered unlucky—the curious thing in both of these instances being that no evil effects were apprehended if more than one were brought in at once. The following, quoted from a Devonshire paper of the year 1877, by a writer on Flower Lore, may be given as another instance of the supposed mischief which would result from bringing only one flower into a house:—"A friend was staying at a farmhouse near Christon, and one day plucked a daffodil and placed it in his buttonhole. On his return he laid the flower on the table; but the servant coming in soon after, demanded who had brought in that daffodil, adding, "we shall have no ducks this year."

A number of violets and roses in flower in autumn is said to foretell an epidemic the following year. A piece of Yorkshire Plant Lore is as follows:—"If an apple tree has flowers and fruit at the same time 'tis a sign of misfortune to the owner." Another from the same county runs as follows:—"On finding a plant of shepherd's purse open a seed vessel; if the seed is yellow, you will be rich; if green, you will be poor." The following, also from Yorkshire, may be recommended as an easy way of settling a disputed point in some households:—"If rosemary flourishes in a garden, the wife will be the master; if it dies, the master will."

The hypericum or St. John's wort is another wonderful plant possessing many mysterious powers. Few of these appear to have been chronicled as existing in Great Britain, but it is said to have been carried in some parts of Scotland as a charm against witchcraft and enchantment, and it was also believed to cure ropy milk which was supposed to have been caused by some evil influence. In olden times, too, the St. John's wort was gathered on the eve of St. John's day and hung up in windows to ward off evil spirits, spectres, storms, and thunder.

A singular belief regarding the bean is still current in some parts of England. This is, that in leap year the beans grow the wrong way, i.e. are set in the pods in the contrary way.

Some curious superstitions regarding the bracken are current in some parts. In Ireland it is said to be called the fern of God, from a belief that if the stem is cut into three pieces, on the first slice will be seen the letter G, on the second O, and the third D.

Another of a similar nature current in some parts of England is that the letters are the sacred ones I.H.S. In Kent again these are said to represent J.C., while in other parts the marks are said to represent the oak in which King Charles obtained refuge during his flight. In Northumberland among the many curious ideas which at one time abounded was that of the curative powers of an Irish stick. It had the power of curing cattle which had been bitten by adders or similar reptiles, and it was also held in high esteem for its virtues when applied to human beings. One instance of its remedial powers is here quoted from a Newcastle newspaper in which I discovered it some four years ago:-"Seventy years ago Weardale possessed an Irish Stick, owned by a person named Morley. A scholar at the village school had a ring-worm on her arm, and the mistress of the school rubbed the part affected with her gold wedding ring, a supposed remedy; but the wedding ring charm failed, and the girl was sent to Morley's, and a cure effected."

Another superstitious cure, in which a bush or tree was the medium, was that for whooping cough, which was believed to be cured by the following means:—The crown of the child's head was shaved, and the hair hung upon a bush or tree, when the birds would come and carry it away to their nests, and carry away the cough with it. My authority says nothing whatever as to the possibility of the young birds recred in the nest becoming afflicted with the distressing malady.

3. The Roman Koad in Annandale.

By Mr John Thorburn Johnstone, Moffat.

The line of the Roman road is very clearly laid down on shect 16 of the one-inch Ordnance Survey, and can be quite easily followed northwards, on the ground, from a point on the Moffat Branch Railway, a little north-east from the Lochhouse Tower, along the hillside all the way to Little Clyde, in Lanarkshire, a distance of fully ten miles. Southwards from Lochhouse, the line is not so easily followed. Cultivation has in a great measure destroyed the traces of it in the fields. The direction of the road is such that the gradient is regular and gradual, following the

hillside in a line which, without making any appreciable deviation from the straight, steers clear of all the small hillocky ridges and valleys on the hillside, and testifies to the marvellous engineering skill and energy possessed by the ancient Romans.

Dr James M'Donald, Glasgow, who was residing here (Moffat) as a visitor for a short time last August (1892), caused portions of the road to be excavated and exposed on the Coate's Hill, Chapel Hill, and Meikleholmside Hill, and before they were filled up again I had an opportunity to examine and measure them. The results, with Dr M'Donald's permission, I am enabled to bring before the Society. The principal excavation was made on the Chapel Hill, about 400 yards north from the cross road to Evan Water. The turf was cleared from the surface of the road for a distance of eleven feet, over rather more than the width of the road. The road was found to be twentyone feet wide, with a whinstone kerb along each side, the surface of the road consisting of a layer of small stones, similar in size to ordinary paving stones, mixed with till to fill up the vacancies. The road could not be said to have been paved. The flaying of the turf tended to disturb and destroy the appearance of the original surface, but even making allowance for that, the stones did not seem to have been laid so as to form a regular causeway. On the west side, and covering about a third of the roadway, there was an irregular layer of large stones, but, on careful inspection, these could be seen to have formed no part of the original road, but to have been laid on at some later period, probably to repair it. A transverse section was excavated at the north end of the cleared space, which shows that the road from foundation to crown is 23 inches deep, exclusive of the turf covering it, and is made up in three distinct layers-First, a foundation layer of clay, with stones bedded on its surface, six inches deep in centre of roadway and tapering to each side. The stones embedded in the clay were undressed, of various sizes, but inclined to be flat-sided, and would be pressed into the clay-bed from one to one-and-a-half inch. The clay is of a sandy nature, and is such as may be found below the shallow layers of peat moss on the Chapel Hill or neighbourhood to-day. Second, a layer of stones 11 inches deep, with the vacancies filled up with till. The stones in this layer would be, on the average, as large as a boy's head. Third, a layer of smaller stones than the above,

four inches deep, forming the surface of roadway as above. On the east side there were three of the kerbstones in position; the others on the west side have been displaced the width of themselves from the line of kerb. On the west side I did not observe any of the kerbstones in position, or, if there, they are hidden by the irregular layer of large stones already alluded to, although a few yards south from the excavation some of the kerb stones are projecting through the turf. The contour of the road, as exposed in the section, did not show a regular curve, the layer of large stones making it appear lob-sided, and spoiling its otherwise symmetrical appearance. However, a careful examination of the section reveals the fact that the line of the original surface went under the large stones and not over them, and that the original surface had been formed with a regular and symmetrical curve, and but for a slight worn-out hollow under the large stones, was still nearly perfect. I have prepared a drawing of the above section to a one-inch scale, which gives a pretty accurate view of the appearance of the section, and, as all the measurements are given on it, is self-explanatory. The photographs of the road exhibited were taken by Mr Weir, at the instance of Dr M'Donald, and give a general view of the excavation from three different points. Unfortunately the trench forming the cross section was not cut wide enough, and the shadows cast are too dark to display the section clearly.

Section at Coate's Hill .- The section exposed here was made a few yards north from the footpath over the Coate's Hill to Evan Water, and would be about a mile south from the Chapel Hill section. In construction this section is different from that on Chapel Hill. The depth is much about the same, but instead of three distinct layers there are evidently only two; but at the bottom there is a thin black line, about one inch in thickness, which has the appearance of peat moss. There was no appearance of clay anywhere in this section, and all the stones are smaller than at Chapel Hill; and the irregular layer of large stones lying on the west side of road there are here lying on the east. Dr M'Donald left the position of this cutting entirely to the discretion of the man he had engaged to excavate it, without seeing the place for himself, which was rather unfortunate, as the place selected was far too near the footpath, and had been otherwise much disturbed, so that anything like an accurate section could not be obtained. The full width of the road only measured 15 feet as against 21 feet at Chapel Hill, and no kerbstones were visible at the sides of the excavation, but the evidence of their original presence was plainly visible in the row of stepping stones carrying the footpath over a marshy place in the immediate vicinity of the road, and which I have no doubt had been originally taken from it, and the reduced width of the road is also evidence that a lot of material had been taken from this part of the road at one time or another.

Section at Meikleholmside Hill.—The position of the section exposed here was about two miles north from Chapel Hill section, and about 300 yards north from the Greenhillstairs road at end of Holehouse Linn Wood. Here again the general formation of the road was different from that at the other two sections, the road here being 21 feet wide, as at Chapel Hill, but there was no appearance of kerbstones, and no evident appearance of the road having been much disturbed, and it did not show such a prominent mound in its external appearance as the other two places. The ground has a good decline to the south, and is pretty flat on each side of roadway. The road had evidently been kept in place by the sides of the cutting formed by the removal of the original soil, &c. The bottom layer at this section was eleven inches deep, and instead of resting on a bed of clay, as at Chapel Hill, the clay and stones had the appearance of having been mixed together and laid in like concrete. The stones used were also smaller, being similar to those forming the surface layer at Chapel Hill. The next and surface layer was six inches thick, formed of stones with the vacancies filled up with till, and, like the Coate's Hill, the road had been formed in two layers. At the Coate's Hill and Meikleholmside Hill the sections were not made right across the roadway full width and depth, but the turf was flayed off across the full width, and sections excavated at centre and sides of road down to the hard undisturbed till. In following the line of the road, it occasionally runs through wet and marshy places which have been drained within recent years, and at these places fair sections of the road can be seen. And it is interesting to observe that when cutting these drains the workmen, when crossing the road, have only removed the turf from the surface, while on the lower side of the road the drain is the full depth, making a small waterfall fully twelve inches high

at the side of the road at every drain. From the dissimilarity in the construction of the road, as shown by these sections, in a distance of about three miles, we may infer that in its construction the Romans used the material to do so that was lying at hand all along its course, and that nothing had to be carried or brought from a distance, the stones and clay being found in abundance all along the hill. Indeed, there are small pits all along the line of road, some of them nearly touching it, which are probably the quarries from which the stones are taken. (See page 33 "Per Lineam Valli"-by Geo. Neilson, F.S.A., and the "Antiquary," vol. 24, page 139.) The construction of this road through Upper Annandale differs considerably from other Roman roads which have been opened and examined, notably in Wiltshire in the west of England, and of those in the neighbourhood of Newcastle-on-Tyne in the North of England, and their continuation in Roxburghshire in Scotland, where the surface is always paved, and a section shows five well defined layers, "and which are in accordance with the description of road-making given by Vitruvius." But the explanation of the difference may lie in the fact that the principal and main road between the South of England and as far north as the Romans penetrated into Scotland was the east coast, and which, from its great importance, would therefore be designed and constructed to sustain a heavy and constant stream of traffic, while the road through Annandale and Clydesdale might be presumed to be one of only secondary importance as a thoroughfare, in which rapidity and ease of constructing were more essential and important than elaborateness and finish, as its principal object would be to provide facilities for keeping the hostile inhabitants of the district in check and subjection. And Mr Neilson informs me that the "road running behind the Antonine Wall is in its construction very similar to the one here; in fact, he says, they are as six to half-n-dozen."

In regard to the purpose of the large stones on the east and west side of the road at two of the sections, the examination showed that they were not part of the original roadway, and as we may justly infer that the road would be the only one in the district and would be used as such by the inhabitants for centuries after the withdrawal of the Roman hosts, and it is probable

that their knowledge of road-making and repairing was practically nil and that these stones represent their cumbrous attempts at road metalling and repairing.

17th April, 1893.

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

Donations and Exhibits.—A copy of M'Dowall's Memorials of St. Michael's Churchyard, presented by Miss Andson; the Report of the British Association for 1892; a Guide to the Cairo Egyptological Exhibit at the World's Fair, Chicago, presented by Dr Grant Bey. A whorl belonging to Mr J. F. Cormack, of Lockerbie, was exhibited.

COMMUNICATIONS.

1. February Weather.

By Mr Patrick Dudgeon, F.S.A., Cargen.

A' the months o' the year, Curse a fair Februeer.

They will have little reason to do so this year. There has been rain and snow in abundance, as well as thunder and lightning and hail.

Of all the months in the year "weather prophets" seem to have devoted more attention to February than to any other month, if we may judge by the number of old "weather prognostics" and sayings connected with it. The principal feature they have turned their attention to is a wet or a dry month, and the forecasts of a future good or bad season they deduce therefrom. These prognostics are current, and much of the same nature in every country in Europe. Of these sayings a few examples may be given in addition to the one at the head of these notes:—

If in February there be no rain, 'Tis neither good for hay nor grain.

In February o' a favoured year, Nae puddock suld croot nor croon; But rampin' showers o' hail and sleet Come rakin' o'er the moon.

As good manure is February rain, As juice does from the dunghills drain. The French version of which is-

Eau de Février Vaut jus de fumier.

(Rain in February is as good as juice from a dunghill.)

The Spaniards say—

Quando llueve en Hebrero Todo el ano ha tempero.

(If it rains in February it will be temperate throughout the year.)

The Welshman had rather see his dam on her bier Than see a fair Februeer.

Both the French and Germans have versions of this, but not so unfilial. The French is—

Vaut autant voir un loup dans un troupeau Que le mois de Février beau.

(It is better to see a troup of wolves than a fine February.)

The Germans have-

Im Hornung sieht man lieber den Wolf, als einen Bauern in Hemdsärmeln. (One would rather see a wolf in February than a peasant in his shirt sleeves.)

Of thunder it is said-

In February if thou hearest thunder, Thou wilt see a summer's wonder.

The French say-

S'il tonne de Février Il faut jeter les fûtes sur le fumier.

(If there is thunder in February it fills the barrels near the dunghill.)

Fut de fumier is a barrel used in France and Belgium for collecting the liquid manure.

Of snow it is said-

If February gives much snow, A fine summer it doth foreshow.

The French and Italians take a different view of snow in this month—

Neige qui donne Février Met peu de blé au grenier.

(Snow in February puts little wheat in the granary.)

The Italians say-

Néou qué toumbo al més de Fébrio Met 'en bello humou l'usurio.

(Snow which falls in the month of February puts the usurer in good humour.)

Candlemas day (2nd February, o.s. 13th) appears to have attracted the particular attention of the old weather prophets,

and numerous predictions are given regarding the weather for the remainder of the year if the day happens to be fine or wet. This particular day seems often to be taken as representative of the weather throughout the month, as many of the sayings are exactly the same applied to this day or to the month as a whole. There are several of these prognostics in Latin:—

Si Sol splendescat Mariâ purificante Major erit glacies post festum quam fuit ante.

The English version of which is-

When on the purification sun hath shined, The greater part of winter comes behind.

In Scotland we have—

Gin Candlemas day be dry and fair, The half o' winter's to come and mair; If Candlemas day be wet and foul, The half o' winter's gane at Yule.

In Somersetshire they have-

The hind has as lief see his wife on her bier, As that Candlemas day should be pleasant and clear.

This is the same as the Welshman's deduction from the general weather during the month. In Germany they say—

Zu Lichtmess sieht der Bauer lieber den Wolf in schafstalle, denn die Sonne.

(The peasant would rather see the wolf in the sheep-fold at Candlemas than the sun.)

The principal saints' days in this month—St. Valentine, St. Matthias, St. Agatha, St. Felix, &c.—have all some particular prognostics attached to them.

The general currency of these prognostics, all pointing to much the same conclusion, made me curious to try and ascertain if there might not be some truth in them—i.e., that a dry February was followed by unfavourable weather, and vice versa. I have only access to detailed observations extending back to thirty-three years, and they may be taken "for what they are worth." It would be interesting to ascertain if observations extending back to a much longer period in any way correspond to these late observations. The details given below, though not bearing out that these old folk-lore weather sayings are absolutely correct—this could not be expected—arc, nevertheless, sufficiently near to incline one to think there may be some grain of truth in them.

The average rainfall at this station for February is 3.48 inches, and the average temperature 39.4 degs. The rainfall of less than two inches in a month has been taken as representing a dry month, and over four inches as a wet month. Curiously enough, wet, dry, and what may be termed irregular, seem to form a concurrent series of years. The years 1860 to 1865 inclusive have been disregarded, as they appear to form part of an irregular series—if there is any truth in this assumption, and only a long series of observations could settle this point. Commencing with 1866 to 1872 (seven years) we have a wet series. There is an exception here—viz., 1867—the rainfall in this year being below the average.

			Rainfall— Inches.	Mean temp Deg.
1866		 	 4.43	39.5
1867		 	 -	43.2
1868		 	 7.38	43.3
1869		 '	 8.01	44.3
1870		 	 5.20	37.5
1871		 	 5.90	42.3
1872	***	 	 6.76	43.3
	Mean	 	 6.28	41.9

An irregular series of six years follows—1873 to 1879—in which the rainfall and temperature are very nearly the average.

Then follow six wet Februaries—1880 to 1885—

				Rainfall— Inches.	Mean temp. Deg.
1880		 		5.19	43.1
1881		 		4.32	36.6
1882	***.	 	***	3.54	43.8
1883	***	 	***	4.78	42.3
1884		 		6.96	40.1
1885		 		5.42	40.5
	Mean	 		5.03	41.1

(The rainfall of 1882 is below the standard I have taken to represent a wet February, viz., over 4 inches.)

Then follows seven dry Februaries—1886 to 1892—

				Rainfall— Inches.	Mean temp. Deg.
1886		 		1.88	34.7
1887		 • • •		1.98	39.4
1888		 		•70	35.7
1889		 		1.63	37.4
1890		 		1.	37.9
1891		 		•28	39.4
1892		 		1.30	37.7
	Mean			1:25	97.4
	nical	 ***	***	1.20	37.4

In comparing the rainfall and temperature of the months following February, only May, June, July, and August have been considered, as they are really the important and critical months of the year as regards vegetation. The mean temperature of these four months is 56·1 deg. In the first series of consecutive years we find:—

Mean rain	fall. Mean temp.	Mean temp. of May, June, July, August.
Inches.	Deg.	Deg.
1866-72 (7 yrs), wet, Feby. 6.28	41.9	57.1
1873-79 (6 yrs), irregular, ,, 2.90	39.4	56.8
1880-85 (6 yrs), wet, ,, 5.03	41.1	55.6
1886-92 (7 yrs), dry, ,, 1.25	37.2	55.1

The exception here as regards the mean temperature of the summer months is in the series 1880-85, when the temperature was below the average.

The temperature of February seems to have been generally disregarded in these old "weather prognostics," although there are one or two referring to it:—

When the gnats dance in February, the husbandman becomes a beggar.

The Germans have a similar one :-

Wen in Februar tanzen die Mucken auf dem Mist, So verschliess dein Futter in de Kist.

(If in February the midges dance on the dunghill, then lock up your food in the chest.)

Generally speaking, a wet February is a mild one, unless a large precipitation is in the form of snow, which seldom occurs, the temperature is then below the average. February of this year (1893) may be taken as an instance of this, when we had a precipitation of 2.03 inches above the average, and a mean temperature of 1.2 deg. below it. There is only one instance I have in the last 34 years, viz., February, 1862, when, with a rainfall below 2 inches (1.49 inches), the mean temperature (41.6 deg.) was 2.2 deg. above it.

February fills the ditch, Black or white (i.e., rain or snow), don't care which; If it be white, It's better to like.

2. Nithsdale Willows, by Mr James Fingland, Thornhill.

By the publication in November, 1890, of a "Revision of British Willows," by Dr F. Buchanan White, in the Journal of the Linnean Society, a fresh impetus has been given to the study of this difficult family of plants. As Dr White's "Revision" introduces a new system of classification and overturns, to a considerable extent, previous methods of classifying our willows, it is perhaps not out of place here to ascertain at least the outlines of the arrangement he adopts, and what grounds he has for making the revision.

Dr White, in his introductory part, shows how botanical opinion has undergone many changes in estimating the number of different willow species. The great variety of forms which occur in this family, and the extreme variability which characterise even the more stable forms, or those forms which are undoubtedly specific, have been a source of great difficulty to those botanists who have sought to define and classify them. When that eminent botanist, Sir J. E. Smith, in his "English Flora," published in 1828, tells his readers that he had laboured for 30 years at the task of specific definition, some idea may be formed of the extent of the undertaking. Sir J. E. Smith, in his work referred to, defined 64 species of willows. Since then the number of estimated species has fluctuated with the opinions of succeeding botanical authors until we reach the last (8th) edition of the "London Catalogue of Plants," which is understood to represent current botanical science. There are 96 forms of British willows given in this catalogue, 31 of which have specific rank, the remaining number being placed as varieties or subspecies. None of these arrangements have hitherto met the necessities of the case, nor have the definitions been comprehensive enough to embrace all the gradations of form which are found to exist.

Dr White bases his classification on a recognition of the circumstance of hybridization being an active element in causing the great variability in willows. The early salicologists, it seems, were unwilling to admit this. It has, however, been found that binary and ternary hybrids occur spontaneously. This, too, has been proved by experiment on the part of a continental botanist, Max Wichura, who has also found that by cross-fertilising these

hybrids, plants could be obtained which represented a pedigree of six species. Theoretically, it is said, every willow species may hybridize with each other; but practically the number of natural hybrids is limited owing to different periods of flowering and non-proximity of many species. In the "Revision" the number of true species is reckoned as 17, and the number of hybrids as 41 (the latter number has been added to, however, since the author published his work). Dr White defines "a hybrid in its best condition as exactly intermediate in character between its two parents; but more frequently it shows a greater relationship with one rather than with another; and in these cases where it occurs in any abundance a series of specimens can usually be obtained exhibiting a more or less perfect gradation from one The question of hybridity is one at parent to the other." present coming to the front, and there is a growing belief amongst botanists that more hybrids occur than have been hitherto supposed. A writer in a number of last year's "Journal of Botany" says he is as certain that willows hybridize with each other as that two and two make four. It is certainly very convincing when the matter has thus been tested and proved; whilst the theory most satisfactorily accounts for the multiple forms which are met with. It must have been a great labour of research on the part of the author to identify the plants described by former botanists, and to assimilate them as far as possible with his own classification when such confusion of names has existed and so many synonyms have arisen.

After a perusal of the work, I prepared to examine and collect our willows with a fresh enthusiasm, feeling certain of obtaining some information of any willow I might collect. At the close of the year 1891 Dr White very kindly undertook to critically examine my collection, which was principally gathered on the Nith between Thornhill and New Cumnock. He was delighted to discover amongst my specimens two new hybrids, one, viz., a cross between Purpurea and phylicifolia, which he had expected should occur, but had not yet met with. The plant has the leaves of phylicifolia and the stamens and scales of Purpurea. It has been named "Secerneta." The other hybrid is of an unique character, being bisexual, the lower portions of the catkins being uniformly carpellary, and the upper portion staminate. Its supposed parentage is Purpurea, Phylicifolia, and Aurita. As in

the first hybrid Purpurea is shown by the monandrous flowers; Phylicifolia by the style of the carpels and nature of the leaves; and Aurita by the shape of the leaves and pubescence, &c. It is, therefore, a ternary hybrid, and I believe possibly the first Dr White has made out for a certainty in Britain. He has named it "Sesquitertia." I was much interested to find that within thirty yards of this willow, others grew having an identical character, which suggests the possibility of its being self sown. This I should like to ascertain. I went a few days ago for the purpose of photographing this willow in flower, but was disappointed to find it had been cut down-a not unfrequent experience I have had with willows. Fortunately I had taken cuttings from it, which is always advisable to do in case of rarities. Another extremely interesting willow from the Nith was found to be a hybrid between Pentandra and alba, viz., Hexandra. I was struck with its appearance at the time of gathering as being probably a hybrid of Pentandra. It was a tree about thirty feet high, growing on the bank of the river about a mile below New Cumnock, and growing amongst abundance of Pentandra bushes. The leaves in the young state resembled the peculiar green hue of the Pentandra, a resemblance, however, which decreased as the leaves matured. Hexandra is a rare hybrid, being only known in one or at most two places in Scotland. A number of other hybrids were gathered, of which more particularly worthy of mention are Laurina, Decipiens, Undulata, and Coriacea. The most common willow to occur in Mid-Nithsdale in marshy places and river sides appears to be Lutescens. A series of forms of this willow, which is also a hybrid, were collected and examined. Already this spring I have found some very interesting and curious willows. I have had the privilege of some notes from Dr White, who has examined them in a fresh state. He is of opinion our district is extremely rich in Purpurea hybrids. I feel that I have only as yet touched the margin of our local willows, and a district is not considered done botanically until each bush is examined.

Preliminary List of Willows in Nithsdale Classified according to Dr White's "Revision."

SALIX

x Decipiens (S. triandra x fragilis)—One bush on the Nith, near Waterside, Morton Parish (apparently wild).

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- x Undulata (lanceolata), S. triandra x viminalis—Old bush, right side of Laught Road from Thornhill; probably planted.
- Pentandra—On the Nith between Sanquhar and New Cumnock; abundant below New Cumnock, Ayrshire.
- x Hexandra (Pentandra x alba), on the alba side—Solitary tree, 30 feet high, about a mile below New Cumnock, Ayrshire; very rare.
- Fragilis—A few trees in the vicinity of Thornhill. One large specimen at N.-W. end of Village.
- Alba—Frequent about Thornhill and Sanquhar—often probably planted; mostly male.
- \mathbf{x} Viridis (Fragilis \mathbf{x} alba)—A few large trees about Thornhill; probably planted.
- Cinerea—Found in the district, but not good—i.e., not typical.
- Aurita-More frequent in the upper districts than lower.
- x Lutescens (Cinirea x aurita)—Common in marshes and river sides in Mid-Nithsdale.
- Caprea-Woods as at Nithbank, &c.
- \mathbf{x} Capreola (Caprea \mathbf{x} aurita)—Above Cample Wooden Bridge, form near Caprea.
- Repens—Cample Cleugh, Thornhill, and Railway Embankment above Kirkconnel
- x Ambigua (Repens x aurita)—Two or three forms at Curling Pond, Thornhill.
- Phylicifolia—Frequent on the Nith in Mid-Nithsdale; abundant in Upper Nithsdale.
- Nigricans—Cample Cleugh.
- x Laurina (S. Phylicifolia x caprea)—At Redbrows on the Nith, between Kirkbog and Holmhill—bush.
- x Ludificans (S. Phylicifolia x aurita)—Near Glen Airlie Bridge, and on the Nith below New Cumnock, Ayrshire.
- x Coriacea (Nigricans x aurita)—On the Nith immediately below New Cumnock, Ayrshire.
- Viminalis-Common.
- x Smithiana Viminalis x Caprea—Bushes above and below Cample Wooden Bridge at Templand, Thornhill.

Purpurea-Common.

- x Secerneta (hyb. nov.)—Dr White—(Purpurea x phylicifolia)— On the Nith above Glenairlie Bridge.
- X Sesquitertia (hyb. nov.)—Dr White—(purpurea x phylicifolia x aurita)—Bushes, roadside, near Nith below Sanquhar, between mile-stones 23 and 22 (since cut down).
- x Rubra (Purpurea x Viminalis)—Above Cample Stone Bridge, Thornhill, on river side.

3. Some Old Documents Relating to Dumfries.

By the Rev. John Cairns, M.A., Dumfries.

Some time ago I had occasion to consult the Register of Kelso Abbey for information of which I was then in search. I found what I wanted in the preface by the learned editor, the late Professor Cosmo Innes, and I had no intention of reading anything in the body of the book, which consists of charters and other documents in contracted mediæval Latin. On looking over the Index, however, I came on the familiar name of Dumfries with numerous references after it. Some of these, I found when I turned them up, indicated documents of such antiquity and interest as well repaid the trouble of deciphering them. As they are probably the oldest existing papers relating to our town, and as they are not quoted or even referred to in M Dowall's History, or any other book on the district that I have seen, I thought that a short account of them might not be without interest to the members of this Society.

A question which very naturally suggests itself at the outset is —How does Dumfries come to be mentioned in a book containing the transactions of the distant Abbey of Kelso? The answer to this question is to be found in a practice which was very widely spread in the Middle Ages, viz., the holding of the benefice of a parish by a monastery, or other ecclesiastical corporation, instead of by a single incumbent. Scotland was divided into parishes about the beginning of the twelfth century, and each parish was endowed by the lord of the manor whose boundaries it followed with a teind or tenth of the various products of the soil. But in many cases he or his successors bestowed these teinds on some

great abbey which kept for its own use a large part of them, and gave the rest to a deputy or vicar, as he was called, a priest whom it appointed to take charge of the parish in its name. In England at the present day we have a reminder of this practice in the names vicar and rector, which are applied to clergymen of the Established Church. A vicar is the clergyman of a parish whose endowments before the Reformation were in the hands of a religious house; a rector is the clergyman of a parish whose endowments have never been thus interfered with. Consequently, other things being equal, the income of a rector is greater than that of a vicar. In accordance with this practice the Church of Dumfries was, up till the Reformation, in the hands of the Abbey of Kelso, by which a vicar was appointed who attended to the spiritual wants of the parish. It would appear that-whatever may have been the practice in earlier times—this parish was latterly, so to speak, farmed by its priest. In a rental of Kelso Abbey, bearing date 1567, there is a list of "Kirkis and Teindis set for Syluer," and amongst these I find those of Dumfries, which brought in an annual rent of £60. Amongst the Kelso charters is the original deed of gift of the Church of St. Michael, Dumfries, to the Abbey by King William the Lion, and I think that this may lay claim to be the oldest existing document relating to our town. The grant of the Church of Dumfries, however, does not fill the whole of the charter. It occurs in the middle of a deed in which King William confirms to the Abbey all the privileges which his brother, King Malcolm the Maiden, had conferred upon it. After this confirmation, he proceeds to say that he

"adds the Church of Dumfries with the Chapel of St. Thomas in the said burgh with all that belongs to them within the burgh and without."*

In a later charter the King is more explicit. After stating that he has made this grant for the soul of his grandfather, King David, and of his father, Earl Henry, and for the weal of his own soul, and of the souls of all his ancestors and successors, he goes on to say—

"I have given and conceded to the aforesaid monks for the use and occupation of the Church of Kelso, the Church of Dumfries with lands, teinds, and all kinds of offerings, and with the Chapel of St. Thomas in the said burgh, and with the toft pertaining to that Chapel, and with five acres of land which I have bestowed as a free gift on the said Church and Chapel, and have caused to be delivered by Philip de Valon, and with all other

things that rightfully belong to the said Church. Therefore, let no one be allowed in any way to alienate this Church or Chapel, or their revenues, or their privileges, from the occupation of the Church of Kelso and from the proper uses of the monks." *

The date of these documents cannot be fixed accurately to a year. King William reigned from 1165 till 1214, but the year of his reign in which these deeds were executed is not specified. There is, however, one reference which enables us to limit their date to some extent. Mention is made of a Chapel of St. Thomas in Dumfries. This Chapel stood on the Plainstones on the site, as indicated on the Ordnance Survey Map, now occupied by the premises of Mr Adams, bookbinder, and it was dedicated not to St. Thomas the Apostle, but to St. Thomas of Canterbury, better known, perhaps, as Thomas A' Becket. As is well-known, the murder of Becket in Canterbury Cathedral, by the order, or at least with the approval, of the English King, Henry II., caused a tremendous sensation in England. The murdered man was at once hailed as a martyr and a saint, and the foundation was laid for the unparalleled devotion that was paid to his relics and his memory throughout the Middle Ages. One trace of this still remains in the popularity of the name Thomas with the English speaking people, who are, I believe, the only people in the world amongst whom it can be said to be in common use. Becket was a favourite saint with William the Lion. He appears to have been personally acquainted with him, and there would be a bond of union between them in their common hostility to Henry II., who had subjected William to the indignity of signing the Treaty of Falaise, in which, as King of Scots, he acknowledged the overlordship of the English King. To the other great enemy of Henry he dedicated the magnificent Abbey of Arbroath, in which he was afterwards buried, and it is probable that it was also he who dedicated to the same saint the humbler building in Dumfries. The murder of Becket took place in 1170; Arbroath Abbey was dedicated seven years later, and probably about the same time, or a little after, the Chapel of St. Thomas at Dumfries was handed over to the monks of Kelso.

It must be noted that these deeds of gift of the Church of Dumfries which I have quoted are evidently to be distinguished from the original charter of its endowment. It will be noticed that the king speaks of lands and teinds as already appropriated

^{*} Reg. Cart. de Kelso, 13.

to the church when he hands the latter over to the Kelso monks. The earlier transaction to which this seems to point may have taken place in the reign of his grandfather, David I., under whom the erection of our older Scottish parishes was effected; but if there was any record or deed of endowment, it has probably long since disappeared. We come, however, on what may be a trace of such an older record in a very interesting document also to be found among the Kelso charters, from which it appears that the Abbey's right to the patronage and occupation of the Church of Dumfries was not undisputed. About the beginning of the 13th century Ralph, the Dean of Dumfries, presented his nephew Martin to the living, and in support of his claim to do so produced certain charters which he had in his possession. The case went for trial before a court or board of arbitrators, consisting of the Bishop of St. Andrews and two assessors; and although the decision arrived at was in favour of the Abbey, it was to some extent of the nature of a compromise, indicating that the uncle and nephew were not without some show of a case. It is not impossible that they may have been the representatives of an earlier claim to the church and its lands which had been ignored or insufficiently dealt with when King William bestowed them on Kelso Abbey. The following is the exceedingly interesting award of the arbitrators in the case :-

"To all the sons of Holy Mother Church and faithful men who shall see this letter or hear it read, Roger, by the grace of God, Bishop of St. Andrews, William, Abbot of Holyrood, and Master Robert of St. Andrews, greeting in the Lord. When the cause that was pending between the Abbot and monks of Kelso and Ralph, Dean of Dumfries, and Martin the clerk, nephew of the said Ralph, concerning the church of Dumfries had been committed to us with full power, at length in our friendly presence the dispute was settled by agreement in these terms: If the aforesaid Ralph and Martin at any time appeared to have any right to the church of Dumfries, this right they have in our hearing entirely renounced, and the charters concerning the said church which they had in their possession they have resigned into the hands of the Abbot. Moreover, if any instrument relating to the said church should at any time be discovered they will not make use of it and it shall be regarded as totally invalid. The aforesaid Abbot and monks, however, from considerations of pity, have conceded to the aforesaid Martin the clerk, and their faithful (servant) the church of Dumfries, with the chapels of the burgh and castle, and with all that belongs to them (to be held) during his lifetime of the said monks, provided that he shall pay to the said monks each year at Kelso 20 silver marks of fixed rent, viz., 10 marks at the Feast of St. Michael and 10 marks at Easter, and shall pay all bishop's dues. But if the territory of Dumfries should be destroyed by war, the aforesaid Abbot and monks shall allow to the aforesaid Martin some abatement of his rent, according to the award of good men. This amicable agreement between the said Abbot and convent and the said Martin the clerk, which, by the authority of the Lord, we have

properly concluded, we desire to be considered (?) and to be inviolably observed. In order that this agreement may remain unimpaired we have confirmed the same by affixing our seals."*

Besides the two statements by the king of his gifts to Kelso Abbey, we have in the Register an account by the monks themselves of the same benefactions. This is specially interesting, because it contains a description of a piece of land bestowed by another benefactor, which even now, after the lapse of more than seven centuries, can without difficulty be recognised:—

Donation of King William of the Church of Dumfries.

"King William gives to us the Church of Dumfries with the Chapel of St. Thomas in the said burgh, the toft belonging to the said Chapel, and five acres of land belonging to the said Church; Therefore, let it not be allowed to us to alienate this Church or Chapel and their revenues in any way whatever from the occupation of our Church and the proper uses of the brethren. Bishop Jocelin confirms the gift of the said King under the same form. Further, Laurence the Clerk, in return for the teinds of Kars belonging to the said Church of Dumfries, is to pay two shillings each year of his life at Kelso, at the Roxburgh fair. Further, Ralph the son of Dunegal, gives to the said Church a certain piece of land in Dumfries which can be thus known:—Two roads separate from one another below the town, one of which is the way to the Church of St. Blane; the other proceeds in an easterly direction, and goes round a certain rock which is called Greneham, and then by a footpath rejoins the road from which it diverged. All the land that lies within these roads belongs to God and the aforesaid Church. Further, Adam, the son of Henry, of Dumfries, with the assent of M. his wife, gives to us those lands expressly, which he acquired by his lawful emancipation (?) in the burgh of Dumfries, viz., the lands which Robert the locksmith, Roger the shoemaker, Walter the butcher, Ralph the merchant, Alan the son of Emma, Adam Summerswain, and Alan of Bodha held of him. And he has resigned into our hands the entire right and lordship which he had in the lands."

The most interesting passage in this document is that which describes the boundaries of the land given by Ralph the son of Dunegal, to the Abbey. There is no Church of St. Blane now, but there is a Kilblane in the parish of Caerlaverock, which occupies the site of one that once existed. Hence, the road to the Church of St. Blane is probably the Bankend road, and the road that leaves it in an easterly direction the Craigs road. Even the footpath joining the two roads is represented to-day by the footpath which runs from the Craigs road past the end of the Maidenbower Craigs and by Ellengowan to the Bankend road. I should like much to know if the name Greneham is still to be met with in the neighbourhood of the Craigs. Possibly the name of some field may still retain traces of it, field-names being often

^{*} Reg. Cart. de Kelso, 324.

[†] Reg. Cart. de Kelso, 11.

exceedingly ancient, and containing far more history in them than one might expect.

One more extract, also of a topographical nature, may here be added. The deed from which it is taken is a lease or feu-charter, and is entitled "Agreement between us and Henry Wytwele regarding certain lands in the town of Dumfries," and it runs as follows:—

"On the first Tuesday after the Feast of the Beheading of St. John the Baptist, this agreement was made between the religious men, the Lord Abbot of Kelso and the Convent at the same place, on the one side, and Henry Wytwele, burgess of Dumfries, on the other, viz., that the said Lord Abbot and the Convent at the same place conceded and demised to the said Henry and his assignees the whole of those lands which Malcolm, the son of Utred of Travereglis, held from the decease of the formerly named inheritance of William, the son of Bele, with tofts and crofts in the territory and town of Dumfries . . . as they lie, viz., Between the land of St. John, which lies beside the cemetery of the mother church of Dumfries on the north side, and so by the road which leads from the town of Dumfries towards the Castle as far as the road which leads towards the chapel of St. Laurence of Keldwood† on the south side, and so towards the east beside the Crown land as far as the Dumfries Burn which falls into the mill pond of Dumfries—these lands to be had and held by the said Henry and his assignees till the close of the life of the said Henry, of the aforesaid Abbot and Convent and their successors."

Then follow the terms on which Wytwele was to occupy this land, the most important of which were his payment of twelve shillings yearly at Pentecost and at the Feast of St. Martin (Whitsunday and Martinmas), and the promise on the part of the Abbey to defend his land against man and beast, and in the event of its being devastated by war, to allow him a reduction of rent.

I do not know the ancient topography of Dumfries sufficiently well to be able to explain all the references in this document. The northern boundary of the ground described is fixed by the position of St. Michael's Churchyard; the road to the Chapel of St. Laurence of Kellwood may probably find its representative in the present road to Glencaple. In that case, the Castle referred to would not be the ancient Castle of Dumfries, which occupied the site now covered by Greyfriars' Church, but the so-called "Comyn's Castle," from which Castledykes takes its name. The "Mill pond of Dumfries" might well have been connected with the old Town Mill which stood on the site of the Mill Street of our own day, and in that case, the "Dumfries Burn" (rivulus de Dunfres) would be the "Loreburn," which, after running parallel

^{*} Terregles.

with the street which now bears its name and traversing the nursery grounds to the south of English Street, crosses the line of Queen's Place, and falls into the Nith at the Dock Park. This view, perhaps, finds confirmation in the fact that a good part of the land whose boundaries are thus indicated is still Church land, being occupied by the present glebe of St. Michael's.

Such are the most interesting of the references to the town of Dumfries in the Register of Kelso Abbey. Others might have been added relating to places in the district, such as Morton, Closeburn (always written here Killosbern, the Cell or Church of Osborne), and Trailflat, all of whose churches belonged to Kelso Abbey, but this would have unduly lengthened this paper as well as interfered with its unity. I hope, however, that enough has been said to show what an interesting field for study those old collections of charters present, as well as to dispel a little of the darkness which hangs over medieval Dumfries.

The following is the text of the documents or the relative parts of them to which reference has been made in the foregoing paper:—

I.—Confirmatio Regis Wilielmi fratris Malcolmi eidem succedens supra concessionibus antedictis.

Wilielmus et rex, frater ejus, ei succedens confirmat omnia praedicta et addit ecclesiam de Dunfres cum Capella Sancti Thomae in ipso burgo cum omnibus earum pertinentiis infra burgum et extra. (Reg. Cart de Kelso 4.)

II.—Carta super ecclesiam de Dunfres et Capellam Sancti Thomae.

Wilielmus rex . . . dedi et concessi prenominatis monachis ad usus et occupationenem ipsius ecclesiae de Kalchou, ecclesiam de Dunfres cum terris et decimis et omnimodis oblationibus et cum capella Sancti Thomae in ipso burgo, et cum tofta ad ipsam capellam pertinente, et cum quinque acris terrae quas eidem ecclesiae et capellae in liberam elemosinam dedi, et per Philippum de Valoniis tradi feci, et cum omnibus aliis ejusdem ecclesiae justis pertinentiis. Ita ne liceat alicui ecclesiam illam vel capellam, aut earum redditus sive beneficia ab occupatione ecclesiae de Kalchou et propriis usibus monachorum quoquomodo alienare. (Ibid, 13 cf 411.)

III.—Resignatio super quasdam cartas de ecclesiæ de Dunfres.

Universis sanctæ matris ecclesiæ filiis et fidelibus literas istas visuris vel audituris, Rogerus, Dei gratia, Episcopus Sanct Andreensis et Gulielmus, Abbas de Sancta Cruce et Magister Robertus de Sancto Andrea salutationem in Domino. Cum causa quae vertebatur inter Abbatem et monachos de Kalchou et Radulphum, decanum de Dunfres et Martinum clericum, ipsius Radulphi nepotem, super ecclesiam de Dunfres auctoritate amplifica nobis esset commissa, tandem in presentia nostra amicabili lis ipsa compositione quievit sub hac forma:-Prenominati Radulphus et Martinus, si quod jus in ecclesia de Dunfres aliquo tempore habuisse videbantur, ipsi juri in audientia nostra penitus renuntiaverunt, et cartas quas de ipsa ecclesia penes se habuerunt, in manum Abbatis resignaverunt. Itaque si aliquod instrumentum de hac eadem ecclesia aliquo tempore inventum fuerit, non eo utentur, sed penitus in irritum devocabitur. Predicti, vero, Abbas et monachi, intuitu misericordiae, concesserunt ipsi Martino, clerico et fideli corum, ecclesiam de Dunfres cum capellis de burgo et castello, et cum omnibus pertinentiis suis, tenendas in vita sua de ipsis monachis. Reddendo singulis annis ipsis monachis pensionis xx marcos argenteos apud Kalchou, x, viz., marcos ad festum Sancti Michaelis, et x marcos ad Pascham-et episcopalia per omnia persolvendo. Si terra de Dunfres per gwerram destructa fuerit, predicti Abbas et monachi facient prenominato Martino aliquam relaxationem de pensione sua, secundum estimationem bonorum virorum. Hanc amabilem compositionem inter prefatum Abbatem et conventum et inter predictum Martinum clericum, anctoritate Domini proprie qua fungimur, ratam eae (?) volumus et inviolabiliter observari. haec compositio illaesa permaneat, appositione sigillorum nostrorum eam roboravimus. (Ibid, 324.)

IV.—Donatio Wilielmi Regis ecclesiae de Dunfres.

Wilielmus Rex dat nobis ecclesiam de Dunfres cum capella Sancti Thomae in ipso burgo, et tofta ad ipsam capellam pertinente, et quinque acras terrae eidem ecclesiae pertinentes; ita ne liceat nobis ecclesiam illam, sive capellam et earum redditus ab occupatione ecclesiae nostrae et propriis usibus fratrum quoquomodo alienare. Et confirmat ejusdem regis donum Jocelinus

episcopus sub eadem forma. Item Laurentius, clericus, pro decimis de Kars, eidem ecclesiae de Dunfres pertinentibus reddet apud Kalchou, apud nundinas de Rokesburgo, singulis annis vitae suae, duos solidos. Item Radulphus, filius Dunegal, dat eidem ecclesiae quandam terram in Dunfres quae sic potest cognosci :-Duae viae separant ab invicem infra villam quarum per alteram itur ad ecclesiam Sancti Blaani; altera, vero, procedit apud orientem et circuit rupem quandam quae vocatur Greneham, et sic per quandam semitam revertit ad eandam viam de qua processit. Tota, vero, terra quae jacet inter has vias Dei est et prenominatae ecclesiae. Item, Adam, filius Henrici de Dunfres, ex assensu M. sponsae suae, dat nobis has terras nominatim quas ex legitima emancipatione sua adquisivit in burgo de Dunfres, viz., terras quas Robertus Lokkesmyth, et Walterus fillius Wille, et Robertus Scot, et Rogerus Sutor, et Walterus Carnifex, et Radulphus Mercator, et Alanus filius Emmae, et Adam Sumerswain, et Alanus de Bodha de se tenuerunt; et resignavit totum jus et dominium quod in terris habebat. (Ibid. 4.)

V.—Compositio inter nos et Henricum Wytwele super quasdam terras in villa de Dunfres.

Die Martis proxima post festum Decollationis Sancti Johannis Baptistae, facta fuit haec conventio inter religiosos viros, dominum Abbatem de Kalchou et ejusdem loci conventum, ex parte una, et Henricum Wytwele burgensem de Dunfres ex altera, viz., quod dictus dominus Abbas et ejusdem loci conventus concesserunt et ad firmam demiserunt dicto Henrico et assignatis suis totas terras illas quas habuit Malcolmus filius Utredi de Travereglis, ex decessu hereditatis nominatae quondam Wilielmi filii Belae, cum toftis et croftis in territorio et villa de Dunfres, per omnes suas rectas subscriptas sicut jacent, viz., Inter terram Sancti Johannis quae jacet juxta cimeterium matricis ecclesiae de Dunfres, ex parte boreali, et sic per viam quae ducit de villa de Dunfres versus castellum usque viam quae ducit versus capellam Sancti Laurentii de Keldwood, ex parte australi, et sic versus orientem, juxta terram regiam, usque ad Rivulum de Dunfres quae solebat descendere in stagnum molendini de Dunfres, tenendas et habendas dicto Henrico et assignatis suis, usque ad finem vitae dicti Henrici de Abbate predicto et conventu et eorum successoribus. (Ibid, 332.)

4. Notice of the Principal Scottish Antiquities in the Grierson Museum, Thornhill.

By Dr George F. Black, Edinburgh.

Among the numerous local museums in Scotland the Grierson Museum in Thornhill occupies a foremost place, in consequence of the extent and variety of its collections. In addition to its large natural history and geological collections, it is also rich in local archæological specimens of stone and bronze, and in miscellaneous antiquities of later date. In the following paper it is purposed to put on record an account of the principal antiquities in the collection in the hope that such may be of use to local archæologists. For convenience of description, we may roughly group the specimens in the collection under the heads of Stone, Bronze, Roman, and Mediæval. It is to be borne in mind, however, that all the stone implements do not necessarily belong to what is known as the "Stone Age."*

STONE IMPLEMENTS.

The objects of stone consist mostly of axes or celts, perforated hammers, whorls, balls, socket-stones, &c. Of these articles the axes are the only specimens which can with safety be assigned to the "Stone Age."

Axes.—The stone axes in the collection are fourteen in number, and possess no special points of interest either in shape or finish. Of the fourteen specimens ten were found in Dumfriesshire alone, three in Ayrshire, while the remaining specimen (6) is from Aberdeenshire. One of felstone (1) found at Dalbeattie, $8\frac{1}{4}$ inches in length by 3 inches in breadth across the cutting end, is sharp-edged at the butt, and has the sides ground flat. A second axe (2) of mottled stone, found at Barndennoch, Keir, $7\frac{1}{2}$ inches in length by $2\frac{3}{4}$ inches across the cutting end, also has the butt brought to a sharp edge and the sides inclined to flatness. Another axe of this type (8), found at Terregles, has in addition an oblique cutting edge. This oblique cutting edge is generally supposed to be due to the re-sharpening of an axe which has been subject to much rough usage near one side. A fourth axe (5) of weathered felstone, found at Boreland Smithy, Old Cumnock, Ayrshire, also

^{*} The numbers within parentheses are the numbers attached to the specimens in the antiquarian section of the Museum.

has the cutting edge oblique. The axe from Strathdon, Aberdeenshire, has also an oblique cutting edge. An axe found at Inglestone Rigg, Durisdeer, about the year 1823, approaches a chisel in form, being $5\frac{3}{4}$ inches in length by 2 inches in greatest breadth, and 5-inch in thickness. It has the sides sharp, and is slightly imperfect. Another axe (13) of felstone, found at Barhill, Keir, 7 inches in length by 21 inches in breadth, has flat sides and a very sharp cutting edge. It appears to have been little, if at all, used. The cutting end of another axe found in excavating in Dumfries has been utilised as a hammer-stone—the fractured end being considerably worn by use. The butt end (14) of what has been a large axe of a characteristic South of Scotland form, was found at Durisdeer, and is also in the collection. When perfect, it must have been about 11 inches in length. A very common type of axe found in the South of Scotland, and principally in Wigtownshire, has narrow, straight, flat sides, and a butt terminating in an edge equalling in sharpness that of the cutting end. They are mostly of felstone. A fine specimen in the National Museum in Edinburgh is 123 inches in length.

Perforated Hammers, &c.—The implements of this class are fairly numerous in the collection, and admit of being divided into three varieties, viz.—(1) Those which show special care in the finish, and are sometimes ornamented; (2) those of large size and mostly of rude finish, their whole condition indicating rather a utilitarian purpose than a warlike character; and (3) those formed mostly of waterworn pebbles pierced with a half hole through the broad face. Of the first variety there are three specimens in the Museum. The first (17) an axe-hammer of gneissic stone, 4 inches in length, with a haft hole $\frac{7}{8}$ -inch in diameter, has the upper end ground flat and the cutting edge purposely blunted or rounded. Round the haft hole on either face is an incised line by way of ornament. This weapon was found at Amisfield. The second (16) an axe-hammer of granite stone, is stated in the New Statistical Account of Dumfriesshire to have been found in a cairn in the parish of Tynron, somewhere about the year 1800. New Statistical Account of Dumfriesshire (p. 475) states that there were two cairns examined at Tynron, each of which contained a cist and a stone-hammer. The weapon is $6\frac{1}{4}$ inches in length by 23 inches in breadth across the widest part, and 2 inches thick. The third specimen (18), which is a beautifully

formed hammer of white quartz, mottled with red, $2\frac{7}{8}$ inches in length by 17 inches in greatest breadth, presents the rare peculiarity of an oval haft hole 3 by 5-inch in diameter. An axe-hammer found in the Moat of Duns Castle, and now in the Duns Museum, also shows an oval haft-hole (Proceedings Society of Antiquaries of Scotland, vol. xxii. p. 384). Another found in the Thames, is in the British Museum. found on the farm of Slacks, Tinwald, and is very similar in form to a beautiful specimen in the National Museum, and which was found in Elginshire. The specimens comprised in the second variety are characteristic of the southern counties of Scotland, and more especially the south-west. They are mostly formed of diorite or other hard stone, and are thirteen in number. The largest (23) is $12\frac{1}{2}$ inches in length by $4\frac{3}{4}$ inches in greatest breadth, and has the haft-hole perforated from each side. It was found at High Kilroy. The next largest (24), found at Whitehall, Kirkmahoe, is $10\frac{3}{4}$ inches in length by $4\frac{3}{8}$ inches in breadth, and has the haft-hole partially perforated from each face. Another specimen (33) is 7 inches in length by 3½ inches in greatest breadth, and is said to have been found in removing a cairn of stones at Auldgirth in 1862. A fourth specimen (25), 101 inches in length by 41 inches in greatest breadth, has the hafthole only slightly begun on one face. This hammer was found at Greenhead, Closeburn. These large and heavy hammers do not appear to be of such great age as those of the first variety already described, never being found in association with any remains of early date. The third variety, comprising those formed mostly of waterworn pebbles, as already described, are most probably also of late date. Although classed as perforated hammers, vet they may have served a variety of purposes-such as netsinkers, loom-weights, and last but not least, as old clock-weights.

Stone Ball.—The Museum also possesses a very fine, though unfortunately imperfect, stone ball (38) carved in relief, with six projecting discs or knobs. The ball is $2\frac{7}{3}$ inches in diameter, and is formed of white quartz. It was found in Cree Moss, Wigtownshire. These stone balls are peculiar to Scotland, and are more frequently met with in Aberdeenshire than in any other part of the country. Their use is unknown. From the style of ornamentation on some of the specimens in the National Museum they have been assigned to the Iron Age. A unique specimen of

bronze found in Lanarkshire is in the National Museum. Three rough stone balls (40-42) in the Museum, from 2 inches to $3\frac{1}{2}$ inches in diameter, may have been used as boiling-stones or hammer-stones.

Miscellaneous Stone Implements. - Of miscellaneous stone implements one (54) is a portion of a whetstone found in a Moss near Sanguhar on the site of a supposed lake-dwelling. Another (39) is an elliptical-shaped pebble of quartz, 35 inches in length, with the sides brought to an edge all round, and having an oblique groove on one face and two on the other. The implement is an Iron Age whetstone, and was found in Rashbrig Moss. These implements are not common in Scotland, and I only know of fifteen specimens, of which this is one. No. 47 is a polisher of quartz, 4 inches in length by 2 inches in breadth, with the two longest edges ground smooth. It is said to have been found in removing a cairn near Cairnmill, in the parish of Penpont, about the year 1834. Another (53) is a portion of a mould of sandstone for casting metal objects resembling a wide-toothed coinb, and was found at Enterkinfoot, Durisdeer. One (112) is a hammer-stone found on the site of a crannog in Craigenveoch Loch, Wigtownshire. Four others (113-116) are socket-stones of gates, and of barley and meal mills. The larger sized socket-stones have usually a single socket, and the smaller size often have several small socket holes made by the revolution of the iron spindle of the upper mill-stone of the old fashioned mill. Such mills were in common use throughout Scotland until within the present century, and, indeed, have been in use up to the present day in Shetland. There are also in the Museum sixteen (162-177) rudely worked implements of sandstone from Shetland. These implements, which are all roughly formed, are found only in Orkney and Shetland.

SPINDLE-WHORLS.

Whorls of stone, made to be fitted on to the wooden spindle, so as to increase and maintain the rotary motion given to it by the twirling by the fingers in spinning from the distaff, are of all periods from the first invention of the art of spinning in the later Stone Age down to the present day. In Scotland no whorls have been found with interments, but they are most commonly turned up by the plough, and they have also been found in great

abundance in the numerous brochs in the north of Scotland and in the various crannogs. The Grierson Museum possesses forty-two specimens of whorls, more or less artistic in form and finish. They are mostly formed of claystone and sandstone, and vary in diameter from 1 to $2\frac{1}{2}$ inches. They have all been found on the surface of the ground, and apparently unassociated with any relics by which their age could be determined. The specimens in the Grierson Museum have mostly been found in Dumfriesshire and Ayrshire.

FLINT IMPLEMENTS.

Of implements formed of flint there are a number of good specimens in the Museum, particularly the fine dagger-knife found on Crawford Moor.

Arrowheads.—Of flint arrowheads there are also several specimens in the collection, mostly of the type with barbs and stem. One (93) with barbs and stem, finely finished, was found at Standing Brae, Farding. Another of pitchstone (97) said to have been found in a cairn on the farm of Barndennoch, Keir, is remarkable for its very broad stem. A third (96) with barbs and stem is very regular in form, serrated on the edges, was found at Penpont.*

Knives.—A knife of flint (55) plano-convex in section, $2\frac{3}{8}$ inches in length by 1 inch broad, finely worked along both sides on the convex face, shows traces of having been burnt in a fire. In all probability it has accompanied a Bronze Age burial. It was found in a cist in a cairn, accompanied by a quantity of burnt bones, at Barndennoch, Keir.† A leaf-shaped knife of cherty flint (136) measures $3\frac{5}{8}$ inches in length, and is worked on both faces. It is said to have been found at Parkgate, Kirkmichael.

^{*} Since my communication to the Society on "The Stone and Bronze Implements from Dumfriesshire in the National Collection" (Transactions 1887-90, p. 207), seven additional arrowheads of flint have been added to the Museum. They are all of the type with barbs and centre stem; and were found at Riggmuir, Gretna. Three of them are remarkably fine, and with one exception they are all perfect.

⁺ Flint knives of this type have been frequently found with interments of the Bronze Age in England (Greenwell, British Barrows, pp. 35, 39, 174, 285, 363, 380, 407). They have not been so frequently found or, at least, recorded in Scotland, but the following specimens have been described:—(1) Found in a cist under a cairn at Rudle, near Crinan, Argyllshire, along with fragments of a rude urn (Proceed. Soc. Ant. Scot., vol. vi., p. 350, and pl. xx., fig. 4); (2, 3) two, each found with an urn at Tomontend, Cumbrae (Scotlish National Memorials, 1890, pp. 11, 12, and fig. 15); (4, 5) two found at Largie Farm, near Crinan (Pro. Soc. Ant. Scot., vol. vi., p. 343, and note); (6) one found in a cist at Ardyne, near Castle Toward, Argyllshire (Ibid, vol. ii., p. 252).

Dagger-knife.—The dagger-knife (51) is of greyish flint, $6\frac{3}{4}$ inches in length by $2\frac{1}{8}$ inches in greatest breadth, and $\frac{3}{8}$ inch in greatest thickness. On either side near the middle of its length are two small notches, probably to allow of its being securely fastened to a handle. It was found in a cairn near Glenlochar, Portrail Burn, Crawford Moor, about 1817. Dagger-knives of this form are of great rarity in Scotland, owing to the scarcity of flints of sufficient size to produce them. The National Museum only possesses one found in Mid-Lothian, and there is another in the Museum at Forres, Elginshire. A fourth, found in Banffshire, is in the possession of Cannon Greenwell.

From the sandhills at Glenluce and Stoneykirk the Museum possesses a small collection of flint implements partly collected by the late Dr Grierson himself. The collection includes an arrowhead with barbs and stem, and two of lozenge form (91), two single-edged saws (90) $1\frac{5}{8}$ inch and 2 inches in length, a knife of flint (84) $1\frac{3}{4}$ inch in length, an oval-pointed implement (85), and a number of scrapers and chips (89-92).

Beads. Rings. &c.

Of beads of glass, amber, and vitreous paste the Museum also possesses a few specimens. One (106) is a ribbed melon-shaped bead of greenish vitreous paste, found at Baitford, Penpont, by Dr Grierson. 105 is another bead of the same form, but of bluish colour, and was found at Castle Newe, Aberdeenshire. These beads are generally considered to be of Roman manufacture, and they are at all events found co-extensive with Roman antiquities. One (103) is a bead of amber found in Sanquhar Castle. Another (108) is a good specimen of a very rare and early form of a bead which is more common in the north of Scotland than elsewhere. This specimen was found at Strathdon, Aberdeenshire. Another bead (107) is of brownish yellow coloured glass, and was found at Blackwood, Keir.

Of rings there are two specimens, one of jet $1\frac{3}{8}$ inch in diameter, found in Lochar Moss in 1840, the other (100) of fine mottled jasper $1\frac{3}{8}$ inches in diameter, finely polished, found at Holestane, Durisdeer.*

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^{*} An almost identical ring of mottled jasper found in the river Lyon, near Fortingall, and a larger ring of the same material found near Inverness, are in the National Museum.

URNS.

There are no complete urns in the Museum, but there are a number of pieces of cinerary urns of the Bronze Age from various localities. Several fragments (160) of a cinerary urn found at Borland, near Old Cumnock, Ayrshire, show impressed cord markings round the rim. 179 is a fragment of an urn of foodvessel type, stated to have been found in a cairn at Newbie, near Annan, in 1864. 180 is a portion of a large cinerary urn found at Coylton, Ayrshire.

BRONZE IMPLEMENTS.

The Scottish bronze implements in the collection are fourteen in number, and consist of six axes, four spearheads, three rapierblades, and a ring.

Axes. - The axes of bronze found in Britain are divided into three classes—flat, flanged, and socketed. The flat axes are considered by archeologists to be the earliest, the flanged type coming next, and the socketed last in the series. Of these three forms only the second and third are represented in the Grierson Museum, there being four of the former and two of the latter. Of the flanged axes, one (1) is chisel-shaped, being 41 inches in length by 14 inches across the cutting end. The flanges are very slight, and the implement may be considered as an intermediate link between the flat and the full-flanged form. It was found in Raeburn Bog, Eskdalemuir. The second specimen (2) found at Kirkless, Durisdeer, is $4\frac{3}{8}$ inches in length by 2 inches across the cutting face, which is semi-circular in outline. The flanges in this specimen are well developed, and are fusilform in outline. The third specimen (3) found at Townfoot Loch, Closeburn, in 1869, is $5\frac{1}{4}$ inches in length by $2\frac{1}{8}$ inches across the cutting edge. This specimen has a well-defined stop-ridge across the middle of each face, and is ornamented below each ridge by a semi-elliptical moulding. The fourth flanged axe (4) found at Park of Closeburn is the finest of the series. It measures 64 inches in length by 31 inches across the cutting end. Below the stop-ridge on each face is a series of vertical ribs extending downwards about 3 of an inch, probably produced by hammering. Each flange is also ornamented by facets, eight on each. Of the socketed axes (6) found at Auchencairn Hill, Closeburn, in 1859, is the finest. It measures 45 inches in length by 25 inches across the cutting

edge, and is ornamented down each face by four slightly raised vertical ribs. It has the usual loop found on the axes of this type, and is very finely patinated. The second socketed axe found in Ayrshire (5), is of reddish bronze, and measures $3\frac{1}{4}$ inches in length by 2 inches across the cutting edge.

Spearheads.—Of these there are four specimens. The largest (7) is of plain leaf-shape, $12\frac{7}{8}$ inches in length, and is slightly imperfect at the socket. It was found on the farm of Springfield Hill, Dunscore. The second (8), which is more of the form known as "Lancehead," measures 5 inches in length, and has a loop for attachment to the shaft on opposite sides of the socket. It was found at Spearford Bridge, Crossmichael, Kirkcudbrightshire. The third specimen (9) is also of lancehead form, and was found at Bowhouse of Caerlaverock. It measures $5\frac{5}{8}$ inches in length, with a loop on each side of the socket, and is imperfect at the point. The fourth and last spearhead (10) has been originally about 6 inches in length, but it is now much broken and incomplete. It was found with a flattish circular bronze ring (11), $2\frac{1}{4}$ inches in diameter, in the parish of Tinwald.

Rapier-blades.—The three rapier-blades (12-14) in the collection are part of a hoard of twelve or thirteen specimens found together in the parish of Kirkgunzeon, Kirkcudbrightshire, about the year These and other three specimens are unfortunately all that are now known to be in existence. In Dr Grierson's MS. catalogue of his collection he states that he made drawings of all the principal specimens at the time they were found. A search among the doctor's papers by Mr J. R. Wilson for these drawings has, however, met with no result. This is much to be regretted, as this find of weapons is one of the most important pertaining to the Bronze Age in Scotland. Of the three specimens in the Museum the largest is 1514 inches in length, the second 1412 inches, while the third, which is imperfect at the point, is now only 85 inches in length. All three are slightly imperfect at the butt ends. These rapier-blades are not common in Scotland, the National Museum in Edinburgh only possessing five, the largest of which is only 12½ inches in length. One of the five in the National Museum was found at Fairholm, Lockerbie. magnificent specimen of 301 inches in length, and perfect, was found in County Derry, Ireland.

ROMAN.

The only object of Roman origin in the Museum found in Scotland is the very fine bronze patella or short-handled saucepan. The vessel is 61 inches in diameter, and 4 inches in depth. Springing from the rim on one side is a short straight broad handle, the extremity of which is pierced by a circular opening. The vessel has been tinned inside. It was turned up by the plough on the farm of Auchenskeoch, Durisdeer, and is stated to have been accompanied by two "goblets" and two bronze "plates." The two "goblets" and the two "plates" were destroyed shortly after their discovery-having stupidly been given to children as playthings. Two similar specimens of Roman patellæ were found in 1790 in forming the turnpike road from Dumfries to Sanguhar, and about a mile from Friars' Carse. They were figured and described in a paper by Robert Riddell of Glenriddell, read before the Society of Antiquaries of London in 1793.* One was perfect and held about a quart, and bore on the handle the maker's name, which appears to have been Ansiepharr. The second was broken and imperfect. Nothing is now known of their existence.

Coins, Medals, Etc.

The Scottish coins are not numerous, nor with one exception of any great importance. The exception is a gold demi-lion of Robert III., weighing 19½ grains. The legend on the obverse reads—"ROBERTUS D.G.R. SCOTOR;" and that on the reverse—'XPC REGNAT XPC VIN." "Christ reigns, Christ conquers," &c., was a favourite inscription on French coins, and was also used on some Scottish coins, with the difference that regnat was improperly put before vincit. Of the other coins, the principal are—Groats of David II., Robert II. and III., and a Crookston Dollar of Mary and Darnley.

Of copper coins and tokens there is a large and miscellaneous collection, mostly belonging to Britain and the Colonies. The British tokens are mostly English, and were current in London, Manchester, Birmingham, Liverpool, Sheffield, Coventry, &c. The Colonies represented among the tokens are Canada, Nova Scotia, Australia, West Indies, New Zealand, Tasmania, India,

^{*} Archæologia, vol. xi., p. 105, and pl. viii.

Ceylon, Channel Islands, &c. There are also a number of coins of silver and copper of France, United States, &c., and a few paper notes of various countries.

The medals are ten in number. The first (59) is a common brass medal commemorative of the Battle of Culloden, 1745, with the Duke of Cumberland on horseback on the obverse, and a view of the battle on the reverse. The second (60) was struck on the jubilee of the accession of George III. and Queen Charlotte in 1809. Another (61) was struck on the occasion of the visit of the Emperor of Russia, Alexander I., to London, after the Treaty of Paris in 1814. The last which may be mentioned is one (63) commemorative of the founding of the Dumfries and Maxwelltown Observatory. On the obverse is a view of the Observatory, and the inscription—"Dumfries and Maxwelltown Observatory, within a wreath, the inscription—"GENL. SHARPE M.P. 2 SHARES, NO. 91 & 197."

The Communion tokens are sixteen in number, three of which are duplicates. The oldest is of Morton Parish Kirk, and is dated 1718. The next oldest is of Closeburn Parish Kirk, and is dated 1721. It had been struck during the incumbency of the Rev. John Lawson, who was minister of the parish for a period of forty years. The next is of Kirkbride Parish, and bears the initials of Peter Rae, minister here, from 1703 till his translation to Kirkconnel in 1732. It is dated 1725. The fourth and fifth are of the Parish of Kirkmahoe. One is dated 1725, and was probably struck on the admission of Edward Buncle, formerly of Lochmaben, presented to the parish in April, 1725, and admitted the following September. The other is dated 1777, and had been struck during the ministry of the Rev. Archibald Lawson, son of the Rev. John Lawson, of Closeburn. The sixth is of Dumfries, and is dated 1773. The last which may be mentioned is one of the United Parishes of Tinwald and Trailflats. It bears the initials T. & T., and the date 1787. The parishes were united in 1650.

ARMS AND ARMOUR.

The arms and armour in the collection consist of a miscellaneous lot of swords, daggers, flintlock pistols, muskets, etc., of no particular value. Among the swords is one (23) from Spain, bearing on one side of the blade the following inscription: "NO. ME. SAIVES. SIN.RASON"—"Draw me not without reason.

On the other side is "NO.ME.ENBAINES.SIN.HONOR"-"Resheath me not without honour." There are also in the Museum four of the old war scythes with which a number of the inhabitants of Dumfries were armed at the time of the Rebellion in 1715. These scythes are mentioned in the History of the late Rebellion, written by the Rev. Peter Rae, minister of Kirkbride, and published in 1718, as follows:-"And likewise considering that they had not Arms for all the Inhabitants who were fit for Service, the Magistrates and Council bought up 100 Syths, caus'd streight their Docks, and fix'd them sufficiently on Shafts, delivering them to such of the Inhabitants as had least skill of Fire-arms, and added a certain Number of these Sythmen to every Company, to be employ'd at the Barricades, and especially in the Trenches, which were now carrying on with all Expedition, as we shall afterwards hear."*

POTTERY AND PORCELAIN.

The Museum possesses a very fair collection of pottery and porcelain from various countries, the greater part, however, being English ware. The latter consists of portions of tea-sets or single specimens of Crown-Derby, Derby-Chelsea, Worcester, Salopian, Davenport, Lowestoft, and other manufactures, including a considerable number of specimens of the elder Spode. A cup and saucer (16) resembling Lowestoft ware are said to have once belonged to Old Mortality. A jug of white stoneware, $6\frac{3}{4}$ inches high, bears on the one side the Farmer's Arms and the mottoes, "God Speed the Plough" and "In God is Our Trust." On the opposite side are the following lines:—

"Let the Wealthy and Great
Roll in Splendor and State,
I envy them not, I declare it;
I eat my own Lamb,
My own Chickens and Ham,
I shear my own Fleece and I wear it.
I have Lawns, I have Bowers,
I have Fruits, I have Flowers;
The Lark is my morning alarmer—
So Jolly Boys, now—
Here's God Speed the Plough,
Long Life and Success to the Farmer."

^{* &}quot;The History of the late Rebellion, rais'd against His Majesty King George I., by the Friends of the Popish Pretender, &c. By a Lover of the Prosperity and Peace of Great Britain," 4to Dumfries, MDCCXVIII., p. 272. The second edition, printed in London in 1746, bears the author's name on the Title Page.

Another jug, $8\frac{1}{2}$ inches in height, bears on one side a portrait of Admiral Duncan, and "ADMIRAL LORD VISCOUNT DUNCAN." Below the portrait are the following lines:—

"Long as the Sea shall fence our envi'd Land, Long as our Navy shall that Sea command; So long shall Admiral Lord Duncan's name, Be grav'd by Memory on the Rock of Fame; The Page of History shall his Deeds repeat, With Britain's Triumph and the Dutch defeat,"

On the opposite side of the jug are a number of Masonic emblems, and the words—

"The World is in Pain
Our Secrets to Gain;
But still let them wonder and gaze on,
For they ne'er can divine,
The Word, nor the Sign,
Of a free and an accepted Mason,"

MANUSCRIPTS.

The manuscripts in the collection are not numerous, nor of any great importance. The following are the most interesting:—
(1) A grant of a piece of land by the Duke of Queensberry for a meeting house in Thornhill, dated 10th February, 1784; (2) a letter from the Earl of Glasgow to the Laird of Dornock, dated August 29th, 1708; (3) a letter of invitation to attend the funeral of one drowned in the Nith on Candlemas night, 1773; (4) a letter from David Haggart to his wife, dated at Dumfries, October 6th, 1820; (5) a copy of a Gretna Green marriage certificate, which reads as follows, the names of the contracting parties being illegible*:—

KINGDOM OF SCOTLAND. COUNTY OF DUMFRIES,

PARISH OF GRETNA.

These are to certify to all whom these presents shall come that—from the Parish of—in the County of—and—from the Parish of—in the County of—being now here present, and having declared themselves single persons, were this day married after the manner of the laws of the Church of England, and agreeable to the laws of Scotland.

As witness our hands.

^{*} The writer of the Old Statistical Account of the Parish of Gretna gives a slightly different and barbarously spelled copy of the marriage certificate, as follows:—"This is to sartfay all persons that may be consernid, that A. B., from the Parish of C., and in County of D., and E. F., from the Parish of G., in the County of H., and both comes before me, and declayred themsells both to be single persons, and now mayried by the forme of the Kirk of Scotland, and agreible to the Church of England, and givine ondre my hand, this 18th day of March, 1793,"—Old Statistical Account, vol. ix., p. 532.

(6) Ground plans of Morton Castle, Tibbers Castle, and of the existing remains of Sanquhar Castle. A few instruments of Sasine, old newspapers, early almanacs, &c., make up the remainder. Among the manuscripts is the following curious account of the funeral expenses of a woman who died in 1810. The account is interesting as giving an insight into the private life of the poorer classes in the days of our grandfathers; and is further interesting as giving the prices of some articles in daily use eighty years ago. It is as follows:—

Angt. 23, 1810.

				mugu.	20,	TOL	0.	
1 Gall. 13 Gills Whi	sky, 9)s				£0	12	8
1 Gall. Rum		***		***		0	15	0
3 lb. fine Sugar, 1s		**				0	3	0
½ lb. fine Tea, 7s				***		0	3	6
28 Funeral Letters, 1		***				0	2	4
$9\frac{1}{2}$ lb. Com. Cheese, 4	$\frac{1}{2}d$					0	3	7
2 Dozen Pipes, 3d		***		***		0	0	6
3 oz. Shagg, 4½d		***		***		0	1	$1\frac{1}{2}$
2 lb. Soft Soap, 8d						0	1	4
4 lb. Soda, 8d						0	0	2
1 lb. Brown Soap, 10		***				0	. 0	10
Paid Jas. M'Call, G	rave l	Diggin, I	Morto	loth, &c		0	8	0
4 Wine Glasses			***	• • • •	• • •	0	2	0
		/D . 4 . 1				-00	14	0.1
4 XXX: (1)		Total		•••	••	£2		0 ⁵
4 Wine Glasses retd.	***	***	• • •	***	• • •	0	2	0
						£2	12	03

In the case beside the manuscripts is the Prayer Book of Sir John Ross, the Arctic Explorer, carried by him on his voyages. It contains numerous markings in the handwriting of Sir John Ross, and also the following note:—"This Prayer Book has accompanied me in the Breseis, Astoria, Driver, Isabella, Victory, and Felix.—John Ross."

RELICS OF ROBERT BURNS.

The Museum contains a number of relics of Robert Burns, many of which are of considerable interest. Chief of these is the poem of "The Whistle," in the handwriting of the Poet, along with a letter of Gilbert Burns, in which the poem was enclosed to Dr Grierson's father in 1815. There is also an Excise Permit filled up by the Poet, and dated Dumfries, 13th November, 1792. Of relics said to have been used by the Poet, and believed to be authentic, are the following:—Two drinking glasses, three wooden punch ladles, a fishing reel, said to have been given by Burns to John Ferguson, shoemaker in Closeburn,

whose son, James, gave it to John Kellock in 1844, by whom it was presented to the Museum; a Psalm Book given by the Poet to his second cousin, Sara Burness; and two small silver teaspoons. There is also the fiddle of James Humphrey, the noisy polemic commemorated by Burns. Framed and hung on the walls of the Museum are the original working plans of the Mausoleum in Dumfries, drawn by T. F. Hunt, architect, in 1815. Among the manuscripts preserved in the case are letters of Gilbert Burns, Sir Walter Scott, Allan Cunningham, and others connected with the erection of the Mausoleum; and also the minute book of the Dumfries Burns Mausoleum Committee, with a copy of the first minute book of the Dumfries Burns Club attached. The letters have already been printed in the Transactions by Mr J. R. Wilson, of Sanquhar.

SPINNING.

The art of spinning with the distaff and spindle is of great antiquity, and appears to have been practised throughout almost the whole world from the earliest times down almost to the present day. Till the introduction of spinning-wheels the implements used were the distaff, spindle, and whorl, specimens of which are in the Museum. The distaff or "rock" was a staff of wood from eighteen inches to two feet and a half in length, one end of which was squared to hold the prepared lint or tow from which the spindle was fed as required. The latter was a stick about 8 to 10 inches in length, circular in section, and about half an inch thick at the middle, from which it tapered off towards either end. The spindle was weighted with a whorl of wood or stone, generally the latter, to act as a fly-wheel to the spindle when twirled, and by its weight to assist in drawing out and twisting the lint on the distaff into thread. When spinning, the distaff with the lint was stuck into the spinner's girdle and projected upwards under the left arm, thus leaving the two hands The Piper of Peebles, published in 1794, we have an interesting account of this manner of spinning, which may here be noted :--

[&]quot;Twa hunder year, or mair sin syne —
Fan fashions werna near sae fine.

* * * * *
Fan wives wi' rocks an' spindles span.

* * * *
Fan lasses, wi' their rocks set out

To ane anither night about-Wad gane a mile o' grund an' mair, Sometimes no' very free o' fear, To hear auld stories ilka night In winter, fan there was moonlight. Upo' their spindles near the tap, They biggit ay a bulgy knap O' thread, cross-brath'd, firm to defend The rest frae reav'ling o'er the end. Sometimes they strove, an them that wan, Ay thought they first deserv'd a man. To save their plaiden coats, some had Upo' the hench a bonnet braid Of an' auld wecht, or kairding skin, To rub an' gar the spindle rin, Down to the ground wi' twirling speed, An' twine upo' the floor the thread; An' some their right-side cleas row'd up, An' snoov'd upo' the nakit hip. Lang ainna nights they counted half Done, fan the coost their whorles aff. They row'd their yarn upon hand reels, Afore the use o' spinning-wheels-Tell'd ilka cut that they ty'd up, By double down comes, jig, an' whup, An' scores, an' so forth, as exact As reels can count, that's made to chack." *

Burns in his first epistle to John Lapraik describes a gathering of young people such as that mentioned above as a "Rockin'"—

"On fasten e'en we had a rockin',

To ca' the crack and weave our stockin'."

The Museum also possesses two hand-reels for winding the thread into hanks as mentioned above. The late Dr Grierson informed Sir Arthur Mitchell that the old women about Thornhill, as they wound the yarn on the reel, were in the habit of repeating the following words:—

"Thu's yin,
Thu's no yin,
An' thu's yin a' oot.
Thu's twa,
Thu's no twa,
An' thu's twa a' oot."

And so on, as each strand of the cut was completed on the reel. Others, according to Dr Grierson, repeated words which sounded something like:—

"Corny MacCrib, Caffy MacCrib, Gilmic—thu's yin. Corny MacCrib, Caffy MacCrib, Gilmic—thu's twa."+

^{* &}quot;The Piper of Peebles: A Tale," by the Lambleader [William Anderson, Schoolmaster, Kirriemuir]. 12 mo. pp. 20; Dundee, 1791, pp. 6, 7. Another edition, also in 12 mo., was published in Forfar in 1823.

⁺ Proceedings Society of Antiquaries of Scotland, vol. xii., pp. 275, 276.

MEDIÆVAL AND MISCELLANEOUS.

Of mediæval and miscellaneous objects in the Museum worthy of mention are the following:—A tripod ewer of brass, 8 inches in height, found in Buchan Peat Moss, Keir. Similar specimens have already been described in the *Transactions* of the Society.*

Two tripod pots of brass, one 7½ inches high, found in a peat moss at Appin, Tynron; the other found in a peat moss at Drumbuie, Kells, Galloway. A third pot, also of brass, had a long projecting handle on one side, and was found in Lanarkshire. Two old wooden spades, one with triangular head, found at Merkland, Dunscore, and the other at Closeburn. A flail (32) said to have been used by the Covenanters in the skirmishes at Dalry and Bothwell Brig; a crusie or lamp of wrought iron (39) from the island of Gigha, Argyllshire; an iron support (38) for a baptismal basin, formerly used in the old church of Morton; two old wooden mills (27, 28) for grinding spice, as used in country districts till within recent years; three old iron keys, one from the old church at Dumgree, Annandale, the second from Penpont Church, and the third from Kirkcudbright Castle; another old folding key of iron with curious wards; a finger ring of zinc, enclosing a thin strip of copper, formerly worn as a cure for rheumatism; the seal of the Royal Dumfries Yeomanry; portion of lead piping from Drumlanrig Castle, showing the amount of corrosion after being embedded about thirty years in a clay soil; two halves (41) of a stone mould for casting communion tokens of Quarrelwood Reformed Presbyterian Church; a quilting-pin (91) for working borders for women's caps; half of a mould or cam (89) for shaping horn spoons, from the Lewis, Hebrides; a horn spoon (71) and a walking-stick (139) said to have belonged to James Renwick, the last of the martyrs of the Covenant, executed in 1688; a pair of old handcuffs (78) said to have been used on David Haggart; walking-stick (138) said to have belonged to Patrick Hamilton of Dalswinton; a large Highland Sporran (33) with brass clasp; an old clock with engraved brass dial, made by Alexander Rae, "Drumfries"; a Tally-stick or reckoning of hill drains on the farm of Glenmaddie, Sanquhar, as kept by the workmen; portion of an old floor-tile, found in Closeburn; teapot, cup and saucer, a small bowl, and a "craggan"

^{*} Transactions, 1887-90, p. 52; 1891-92, p. 99.

(141) of rude ware made within recent years in the Lewis; oval brass badge of the Nithsdale local militia. There is also a small collection of specimens of hand-made lace from England, France, and Italy. A few pieces are old, but not of any great value. The most interesting is a small piece of French Nun's or Valenciennes lace, the mesh of which is plaited throughout.

5. Latin Notes.

By Edward J. Chinnock, M.A., LL.B.

In the course of my reading I have recently come across the following peculiar expressions and words, of which I find no notice in the dictionaries:—

- 1. Adremigare, assist in a sea battle. Florus ii., 8, 12:—Classis regia Polyaenidae Annabalique commissa, duce Aemilio Regillo, adremigantibus Rhodiis tota laceratur.
- 2. Cautus, safe. Ammianus xxii., 1, 3:—Nee enim cautum ducebat conjecturis credere, forsitan in contrarium erupturis.
- 3. Ergastuli detrimenta, off-scourings of a workhouse. Curtius v., 18:—Liberi in flore et aetatis et rerum agnoscent patres ergastuli detrimenta?
- 4. Interrogatiuncula, a short examination. Ammianus xxix., 1, 25:—Primo introvocatu post interrogatiunculas leves Pergamus a Palladio, ut dietum est, proditus.
- 5. Maris otia, seaside holiday resorts. Florus i., 16, 4:—Nihil hospitalius mari: hic illi nobiles portus Caieta, Misenus, tepentes fontibus Baiae, Lucrinus et Avernus, quaedam maris otia.
- 6. Morator, a marauding straggler. Curtius iv., 40:—Sed Persarum moratores erant, mille ferme, qui speciem magni agminis fecerant.
- 7. Peculiariter, as private property. Ampelius, 20:—Fabii bellum Veiens peculiariter sibi depoposcerunt. This meaning is assigned to the word by the great jurist, Paulus (Dig. 41, 2, 3).
- 8. Repagulum (in the singular). Ammianus xvi., 12, 38:—Igitur cum equites nihil praeter fugae circumspectantes praesidia vidisset longins Caesar, concito equo, eos velut repagulum quoddam cohibuit. This word is frequently used by Cicero, but only in the plural, bolts, bars, restraints.
 - 9. Rumorum aucupes, pickers up of rumours, eaves-droppers.

Ammianus xv., 3, 3:—Unde rumorum aucupes subito exstitere complures, honorum vertices ipsos ferinis morsibus adpetentes, posteaque pauperes et divites indiscrete. Compare Plautus (Miles gloriosus, 4, 1, 9).

- 10. If either serpentiferam or sarmentiferam are the right reading in Virgil's Cirls, 477, serpentifer snake-producing, or sarmentifer brushwood bearing must be inserted in the Latin dictionaries as new words :- Prospicit incinctam spumanti litore Cythnum, marmoreamque Paron, vidiremque adlapsa Donysam Aeginamque simul serpentiferamque Seriphum. I have been favoured by receiving the following note from Dr Robinson Ellis, the famous Oxford Latinist, on this point: - "In Ciris, 477, the MSS. give salutiferamque or sementiferamque. Serpentiferamque is a conjecture of Scaliger's. R. C. Jebb, in a letter he wrote to me on the passage, conjectured sarmentiferamque. This might agree with the modern description of Seriphus in Bent's "Cyclades," p. 6. "The island, except near the town, is bare; for at this time of year the vineyards were brown, and the long straggling vines, which in this island are trained along the ground to get what protection they can from the summer winds, do not in winter present a very lovely appearance." (See "American Journal of Philology," viii., p. 13.) But I am quite uncertain as to the right reading, and the MSS, are wretched." Trinity College, Oxford, May 29, 1892. Bachrens prints the Ciris in his edition of Catullus, and reads serpentiferam with Scaliger. The poem is supposed to be one of Virgil's early works. Some ascribe it to Cornelius Gallus, a famous poet of the Augustan era, whose works have perished.
- 11. The word status, evidently the origin of the French stat and our state has never, so far as I am aware, in Classical Latin the meaning of state in the sense of commonwealth. It seems, however, to bear this meaning in Ammianus Marcellinus iii., 8, 11, in the letter of Julian to Constantius, explaining his reasons for having assumed the title of Augustus, and defending his course of action:—Et conditionum æquitatem, quam propono, bona-fide suscipito, cum animo disputans, haec statui Romano prodesse, nobisque qui caritate sanguinis, et fortunæ superioris culmine sociamur. This seems to be the earliest use of the word in the sense of republic, now one of its common meanings.
 - 12. A socco ad cothurnum ascendere (to mount from comedy to

tragedy). Appuleius (Golden Ass. x., p. 238):—Jam ergo lector optime, scito te tragoediam non fabulam (comedy) legere, et a socco ad cothurnum ascendere.

13. Articuli palmarum (the wrists). Appuleins (Florida p. 351):—Chlamyde velat utrumque brachium adusque articulos palmarum.

12th May, 1893.

Mr Thomas M'Kie, Vice-President, in the chair.

Donations.—Records of Scotch plants for 1892, by Mr Arthur Bennett; Immigrant Plants in Los Angeles County, California, by Dr A. Davidson; Climate and Floral Regions in Africa, by Mr G. F. Scott-Elliot; Report of the Berwickshire Naturalists Club, 1890-1; Essex Naturalist, January March, 1893; Report of Marlborough College Natural History Society, 1892; Report of the Smithsonian Museum for 1890; Report of the Bureau of Ethnology, Washington, 1885-6; the Dakota-English Dictionary, from the United States Geographical and Geological Survey Department; the Bibliography of the Athapascan Indians, from the Smithsonian Museum.

COMMUNICATIONS.

1. A Note on the genus Apion.

By Mr W. D. ROBINSON-DOUGLAS, M.A., F.L.S., Orchardton.

Among the genera of our native Coleoptera two stand out preeminent for the large number of the species they contain, and it might be added for the smallness of the individuals themselves in each case. These genera are *Homalota* among the *Staphylinida*, and *Apion* among the *Khynchophora*. The latter one, and how far I have found it represented here, is the subject of the following slight note.

Not only is the genus numerous, but it is also widely distributed, chiefly in the temperate regions, and also, so it is said, more especially in districts bordering the sea than far inland. The European fauna possesses some 250 species. Of these about 75 are British, and among these again my not very careful researches here have yielded 23, a number which, I am sure, with more

attention and knowledge, might be easily increased, as the nature of the ground and the needed food-plants are favourable. As already said, the species are small, some very small. They are as a rule pyriform, that is pear-shaped, which rather obvious similarity has indeed given them their generic name, from a Greek word, meaning a pear. In colouring they are mostly black or metallic, dark blue or green, but a small section is red, and a few others are variegated. Some also have red, or partially red legs, the majority have black. They feed principally on leguminous plants, and amongst these Vicia and Trifolium (otherwise vetches and clovers) are extremely frequented by them; this brings a good many of the species under the observation of agriculturists, and into the black list of noxious insects, as their depredations are sometimes very severe. As a rule I think the most destructive species are fairly at home in a variety of such plants, so that when any strong measures are taken against them in the open field they can retire to similar plants in the hedgerow or at the dyke-side, and reside there ready for a fresh descent on the crops. Other of the species (and these naturally the rarer ones) seem to be very fastidious as to their favourite food, and to be limited to special plants. Those who may wish to learn a little more about the often vast destruction these tiny weevils can produce on clover and vetch crops, by force of numbers and voracity, as well as the means suggested for their being kept in check, will find full details in the works of Curtis, Miss Ormerod, &c. It should be added to any notes on Apion that one of the Fathers of British Entomology, the late Rev. W. Kirby, made the genus a special study, and published an excellent monograph many years ago, which, though later researches have altered many of his conclusions, still witnesses to his interest in these little weevils. I append a few notes on those taken by me here :-

- Apion cerdo Th.—Exclusively on Vicia cracca; rather common; its European and British distribution point it out as a rather northern insect; nowhere very abundant.
- A. carduorum (Kirby)—Abundant on thistles, alike in this country and Europe; very variable in size,
- A. ulicis (Forst)—Very abundant on whins, especially in spring; often swarming on the early days of warm sunshine; extends throughout Europe and North Africa.

- A. striatum (Marsh)—Not uncommon on broom, and sometimes on whins, found throughout Europe; it has a specially pearshaped form.
- A. immune (Kirby)—A very similar but smaller insect, much less common; on broom also, and generally distributed.
- A. simile (Kirby)—The rarest of the Apions I have taken here; it seems by no means common anywhere in Europe, and its food plant is not certain, though it seems to occur generally on birch.
- A. viciæ (Payk)—Another species confined to Vicia cracca, and common here; though it is a local species its distribution is wide in Europe.
- A. apricans (Herbst)—fagi (Kirby)—Here we come on one of those in the black list of destructive insects. This little partially red-legged species is the clover foe among beetles, and is only too abundant throughout this country and Europe, with North Africa and North Asia.
- assimile (Kirby)—Closely allied to the last, and equally hurtful, and widely spread.
- A. nigritarse (Kirby)—Another red-legged and clover feeding species, but much less common here, though its general record is common; it is a more southern insect.
- A. flavipes (F.)—Dichroum (Bedel)—This, like the last, is wholly red-legged; it seems most partial to white clover, whereas A. apricans is generally on red clover; all the four are alike in appearance and voracity.
- A. punctigerum (Payk)—This is found on Vicia cracca and sepium; it seems rare here, and not common anywhere, though found throughout Europe and North Africa.
- A. virens (Herbst)—A common clover-feeding species, widely distributed, and rather injurious.
- A. Gyllenhalii (Kirby)—Rare here, and generally local, though sometimes abundant where it occurs; it is found in most parts of Europe, has been taken in profusion in the south of Ireland, and is an inhabitant of Vicia cracca.
- A. ervi (Kirby)—Common throughout the summer on Lathyrus pratensis and species of Vetch, sometimes too much so; generally spread in Europe.

- A. œthiops (Herbst)—Rarer, but not very scarce, found in Europe and North Africa; said to be taken on fruit trees as well as on Vicia. A closely allied species A. pisi (F.) is one of the very commonest of the genus, and yet rather curiously I have not met with it here as yet.
- A. Spencei (Kirby)—Rather common here, and not rare in Europe generally. It is one of the species almost, if not quite, limited to Vicia cracca.
- A. frumentarium (L.), hæmatodes (Kirby)—The only one of the entirely red species I have taken here. It is common enough, especially on dry banks or sand-pits, and I believe its general distribution is very wide, extending beyond the limits of the European fauna. It feeds on the sorrel.
- A violaceum (Kirby)—This common, rather brightly metallic species, is found on many kinds of Rumex; in its distribution in Europe it is more alpine than most of the genus, and so more local.
- A. hydrolapathi (Kirby)—Not nearly so common either here or in Great Britain, and considered rather rare in western Europe. Its special food plant is Rumex hydrolapathum (the water dock).
- 1. marchicum (Herbst)—A small species feeding on several plants, but which, as far as I have observed, seems to be taken generally on the ground in very sandy spots. Its distribution is wide, and it is usually common, but by no means abundant here. It varies a good deal in the shade of colour on its metallic elytra.
- A. humile (Germ)—General sweeping of the net in herbage often yields this little species in vast abundance; it feeds chiefly on sorrel, but is not very particular. It is quite widely distributed.
- A. loti (Kirby)—Should have been mentioned before. It seems a common European species, but in Great Britain it is of southern distribution, and is rare here; its food plant is Lotus corniculatus,
- P.S.—Since I drew up the list in the foregoing note, I have been able to add two more species to the lists. There are:—
- A. varipes (Germ) which much resembles the common and destructive A. apricans (fagi), and has a similar habitat,

viz., red clover. It is, however, a very rare species in Scotland, and indeed only had one—and that a very old—record from this country, having once been taken in Dalmeny Park, Edinburgh. Its European distribution is wide.

A. scutellare (Kirby)—A comparatively large species, entirely black, and found on whins (Ulex Europeus and nanus). In spite of the prevalence of its food plant it is new to the Scottish list, and so is of interest. In England it is local in the south and midlands, in Europe it is a generally rare species.

2. The Campanology of Dumfriesshire and Galloway—The Bells of Dumfries.

By Mr James Barbour, Architect, Dumfries.

In Edgar's MS. History of Dumfries mention is made that previous to 1708, when those in the Midsteeple were hung, there were only two bells in the town, one being in St. Michael's Church and the other in the Tolbooth. Now there are a large number but I propose to notice the six which belong to the town—viz., the Carliel bell, in the Observatory Museum, those in St. Michael's and Greyfriars' Churches, and the three bells in the Midsteeple. The dimensions, weight, and note of the several bells are as follows:—

At month,	At shoulder. The Height to top of shoulder.	Where perfect.		Note.
$ \begin{array}{cccc} \text{The Carliel Bell} & & \text{ins.} \\ 16 \\ \text{St. Michael's Church} & & 35\frac{1}{2} \\ \text{Greyfriars' Church} & & 37\frac{1}{2} \\ \text{Midsteeple (largest)} & & 35 \\ \text{Midsteeple (second)} & & 28 \\ \text{Midsteeple (smallest)} & & 25 \\ \end{array} $	$\begin{array}{cccc} \text{ins.} & \text{ins.} \\ 8\frac{1}{4} & 12\frac{3}{4} \\ 19 & 26 \\ 20 & 28\frac{1}{2} \\ 18 & 26\frac{1}{2} \\ 14\frac{1}{2} & 22 \\ 13 & 19\frac{1}{2} \end{array}$	13	$\begin{array}{c} \text{ins.} \\ 1\frac{1}{4} & 75 \text{ lbs.} \\ 2\frac{1}{4} & 8 \text{ cwt.} \\ 2\frac{1}{2} & 9 \text{ cwt.} \\ 1\frac{3}{6} & 8 \text{ cwt.} \\ 1\frac{3}{4} & 3 \text{ cwt.} \\ \end{array}$	G. B Flat. G Sharp. E Flat. E flat. Oct. higher. E natural.

The Carliel bell, which is decorated with belts composed of groups of delicate lines, is of very graceful form and beautiful workmanship and finish, and the surface remains sharp, almost as if it were newly cast. The inscription of two lines, extending quite round the body of the bell, composed of ornamented raised Gothic letters, each on a small square, is—

+: WILHELMUS: DE: CARLIEL: DOMINUS: DE TORTHORVALDE: ME: FECIT: FIERI: + IN: HONORE: SANCTI: MICHAELIS; ANNO: DOMINI: MILLESIMO: CCCC: XXXX: III.(+: William de Carliel, Lord of Torthorwald, caused me to be made. + In honour of St. Michael, the year of our Lord, 1443.)

Below the inscription appears what I take to be the founder's mark, circular in form, about an inch diameter, slightly raised, showing inscribed border, and in the centre a heater-shaped shield bearing a bell and cheveron lines over it, probably representing the frame on which the bell would hang. From marks of abrasion on the interior and exterior of the sound-bow, it is evident that the bell has been in use not only to be wrung in the ordinary way, but also for sounding the hours by the mechanism of a clock. This is the bell which hung in the Tolbooth, mentioned by Edgar. who describes it as a "little, sharp, clear-sounding bell." As no clock existed at the Tolbooth, it is to be presumed that the original position of the bell would be elsewhere, and, doubtless, the Lord of Torthorwald's gift in honour of St. Michael would be to the Church dedicated to the archangel, which, as we will see, was afterwards gifted with another bell. I hope to be able to show at another time that several churches in the district were similarly furnished with two bells. When the Town Council, in 1830, removed from the Tolbooth, afterwards "The Rainbow Tavern," and now a bookbinder's workshop, to the Council Chamber in the Midsteeple, formerly "the Court-House," the bell, which hung in a cleft of the chimney over the rainbow stair, was moved and placed in the parapet of the Midsteeple building, again beside a chimney, where it remained, and was known as the fire bell until about twenty years ago. The chimney being out of order, a tradesman was employed to put it into repair, who, finding the bell, which had been out of use for a long time, to be in the way removed it. After a space the absence of the familiar object from its accustomed place was observed, and search being made it was found in the tradesman's yard on a heap of scrap, and recovered. So this artistic bell, whose clear, sharp notes have sounded over the town for four hundred years, narrowly escaped the melting pot.

St. Michael's Church bell, while not approaching the one just

described, is yet a clean, sharp casting, the second in order of artistic merit of those under notice; and, thanks to those who had the care of the recasting, it bears an interesting inscription recording its history, which would otherwise have been lost. We learn that the bell was recast in 1818, and again in 1839, and that the time of its original founding reaches back to within eight years of the date on the Carliel bell, viz., the year 1451. The letters are Roman, and the inscription, the first part of which relates to the original founding, and the second to the recasting, is—

HÆCCE CAMPANA QUAM WILLIELMUS A.D. MCCCCLI EXCUDENDUM CURAVERAT IN USUM ECCLESIÆ ST. MICHAELIS DUMFRISIENSIS.

ROBERTO WALLACE D. D. PRESEYTERO SACRA PROCURANTE. DAVIDE ARMSTRONG ARMIGERO PRÆPOSITO. GEORGIO DUNBAR, THOMA MILLIGAN, ET JOSEPHO BECK BALIVIS. JACOBO GIDSON DECANUS SOCIETATIS. LIE DEAN OF GUILD, ET JOANNE M'KIE THEASAURO, BURGI DUMFRIS. FRANCISCO SHORTT ET JACOBO BROOM CLERICIS EJUSDEM.

NOVATA A.D. MDCCCXVIII ET RENOVATA A.D. MDCCCXXXIX.

THOMA MEARS LONDINI.

(This bell, William, A.D., 1451, caused to be cast for the use of the Church of St. Michael's, Dumfries.

Robert Wallace, D.D., minister of the parish; David Armstrong, Esquire, Provost; George Dunbar, Thomas Milligan, and Joseph Beck, Bailies; James Gibson, Dean of Guild; and John M'Kie, treasurer of the burgh of Dumfries; Francis Shortt and James Broom, clerks of the same.

Re-cast A.D. 1818, and cast again A.D. 1839. Thomas Mears, London.)

The re-casting and hanging of the bell in 1818 cost the sum of £126 12s 5d, of which the Town Council paid one half, the other being paid by the landward heritors. Thomas Mears, London, was the founder, and the details of the account show that whereas the new bell weighed 8 cwt. 1 qr. 6 lbs., the weight of the old bell was only 4 cwt. 2 qrs. 16 lbs.

In 1839 the bell being cracked, a committee was appointed by the Town Council to make inquiry, and on 6th September, "Bailie Milligan reported answers to the application for the expense of re-casting the Old Church bell from Mears, of London, showing that, taking the metal of the old bell weighing 8 cwt. 1 stone 10 lbs., the expense of re-casting may be about twenty-four pounds, and that over and above the expense of taking down, carriage, and re-fitting." The work was instructed to be done without delay.

Edgar mentions that the bell was supposed to belong to the Abbey of Sweetheart. Similar traditions regarding bells in the district are not uncommon, and in following out this inquiry it is intended as far as possible to test their probability. In the present instance the matter is easily disposed of, as the inscription shows that the bell was cast for the use of St. Michael's Church, Dumfries.

The person at whose instance the original bell was cast is styled "William" in the inscription, a mode of address signifying that he was a dignitary. The dignitary most closely associated with, and bearing direct rule over, the church of Dumfries, and to whom the style of address found on the bell would rightly belong, was the Lord Abbot of Kelso, the church having been granted to the monks of Kelso by William the Lion, and being at this period still in their possession. The name of William VI. has been traced in documents from 1435 on till 1444, and the first mention of Allan, his successor, is in the year 1464. The dates, therefore, with the form of the inscription, point to William VI., Lord Abbot of Kelso, as the donor of the ancient bell weighing 4 cwts. 2 qrs. 6 lbs., and bearing the inscription:—

HÆCCE CAMPANA QUAM WILLELMUS A.D. MCCCCLI EXCUDENDUM CURAVERAT IN USUM ECCLESLÆS ST MICHAELIS DUMFRISIENSIS,

Greyfriars' Church bell is the largest of the bells under notice. It bears the sentiment:—Floreat dumfries; wm. evans fecit; and the date 1744. The New Church was built in 1727. The bell after being twice re-cast in Dumfries, was again fractured, and on 9th May, 1743, the Town Council appointed a Committee "to consider what is proper to be done with the bell of the New Church steeple, which is lately cracked or broke, and whether it will be proper to dispose of it and to purchase another bell or two for the said steeple." 20th February, 1744, it was agreed "to cause take down the bell and send the same to Bristol, and there to cause cast the same of new into a bell of about a thousand weight." The Midsteeple bells are inscribed as follows:—

The largest—This of 800 lies weight: with other two bells: tone of 500 lies, and another of 300 lie: were founded for the town of Drumfries: Edr 1708, upon the town's charge; William Copland of Collieston, Provost.

The second—For the town of Dumfreis T \(\cap \) R Edr 1764. The third—For the town of Drumfries, 300 lib Edr 1708.

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The figures represent Scots troise weight. The second bell has evidently been re-cast in the year it bears. George Barclay, founder, Edinburgh, contracted to furnish the bells for 17s 6d Scots per pound; they were to be brought, hanged, and tongued by the contractor at his risk, the town paying the carriage, and if the town choose not the bells after ringing, the bargain was to be nil; Barclay's account amounted to £1698 14s 6d Scots for stocking, tagging, tonguing, transporting, and hanging the said three bells. In regard to the uses of the bells, the Town Council minute of date 13th December, 1708, bears-" The Council thinks fit for letting the town know the time of day and night the better, that the second bell of the Steeple be rung every day at six o'clock afternoon, and every morning at six o'clock; and that the large bell of the Steeple be rung every night at ten o'clock; and that the said largest bell be rung every Sabbath before the latter bell instead of the Tolbooth bell, and the second or third bell rung therewith at the same time; and that the said largest Steeple bell in case of fire be knolled; and, lastly, that the second Steeple bell be rung on week days when there are to be sermons in the church instead of the Tolbooth bell." On the 10th January following the Council "appointed William Pickersgill to be ringer of all the bells of the Steeple and kirk during their pleasure, and that for payment of forty-two pounds Scots of yearly salary, to be paid quarterly, and the Council ordains the said bell-ringer to ring the second bell of the Steeple on the Sabbath mornings with the first kirk bell; and to ring the bells for fifteen minutes space at the time mentioned in the Council's former act, and appoints the Treasurer to furnish the bell-ringer with half-a-stone of candle yearly, at the 1st of January, to let him see to ring the bells in the night time." The regulations are utilitarian, except in the case of the six o'clock bell on Sunday morning, which does not fit in with any purpose of the kind. The Kirk-Session records of early date show that three bells were rung before service, the first being at six o'clock in the morning, which is therefore an old custom, and considering the hour, it is probably a continuation of the ancient "Ave Maria" bell, at the hearing whereof all betook themselves to prayer. There are other occasions on which, according to custom, the bells are in use to be rung—the birthday of the Sovereign, the sitting of the Circuit Court, the meeting of the Synod, Presbytery, and

Town Council, and on the election of the magistrates for the burgh. It has not for a long time been the custom to ring the bells at funerals, except in the case of public men, but at one time the practice was to ring once or oftener on payment of a small fee, as the following extract shows:-April 25, 1695-"This day the Session appoints that all persons that have burials to pay for shall come to the Precentor of the Church of Dumfries (who, being also clerk to the Session, keeps the register of these) before the bell go for the dead, and enrol their names and pay their money according to the several times they will have the bell to go; and ordains the Clerk to give them a certificate to deliver to the bellman." In connection with funerals, mention is made in the Town Council minutes of the hand-bell-"The officer and ringer of ye bells in the steeple and old Church, and ringer of ye hand-bell for burials." Greater significance attaches to the bells when used to sound alarm or celebrate joyful events just transpired, or give expression to such as are of mournful import. Instances of their use in summoning the lieges to arms for the defence of the town are on record. Rae, describing the events of the Jacobite rising in 1715, says that on the last day of October a detachment of the enemy arrived at Ecclefechan with orders to go and block up Dumfries. "His Majesty's friends at Drumfries having received intelligence hereof that morning early, by an express from Ecclefechan, an alarm was given by beating of drums and ringing of bells (the signal concerted to be given on the enemy's approach), and intimation was made to all, both townsmen and strangers, to appear instantly in arms at the Moat." Further, he says, "An express came from Roucand affirming that the rebels were advanced to Torthorwald, when she came off, and by that time would be within three miles of the town. This being intimated the town was again alarmed as formerly, and every man stood to his post."

During the French war the town was patriotic and loyal, and the bells were in request to give expression thereto. William Grierson's diary furnishes examples:—

²⁵th April, 1794.—This morning was ushered in with ringing of the bells. They were rung at six in the morning, at twelve, and at six in the evening. on account of the taking of Martinico. The prospect of peace was more welcome even than victory, for on the arrival of the news of preliminaries of peace being ratified in 1801, the usual order of the magistrates was not waited for, but the door of the bell-house was broken open, and ringing

proceeded with, which was continued until nearly one o'clock in the morning. And on the signing of the treaty the year following the door was again broken, and the bells pealed forth heartfelt thanks; nor did the joyous sounds cease until daybreak. Next day also was devoted to rejoicing, and the ringing was continued at intervals until night. The treaty proved abortive, and the celebration of victories continued.

9th November, 1805.—News of the glorious victory obtained over the combined fleet of France and Spain on 21st October by Lord Nelson. The bells set ringing, and continued until about four o'clock in the morning. The joy much damped by the death of Lord Nelson.

The same diary contains instances of a different kind:-

3rd January, 1794.—At twelve o'clock the late Provost Robert Maxwell was buried in the Old Churchyard, on which occasion the great bell tolled.

Monday, 25th July, 1796.—This day at twelve o'clock went to the burial of Robert Burns, who died on 21st, aged 38 years. The great bells of the Churches tolled at intervals during the time of the procession.

Sth January, 1795.—About eleven o'clock at night was alarmed by the ringing of the fire bell, on account of a house that was on fire in the Kirkgate.

1st January, 1801.—This day has been appointed for the Union with Ireland to take place, in celebration of which the Volunteers, Nottingham Militia, and 4th Regiment of Dragoons turned out at twelve o'clock and fired a feu de joie. The bells were likewise rung on the occasion.

Prominent mention is made of the bells in Mayne's Siller Gun-

And while the muster roll was calling, And joy bells jowing, Het pints, weel spic'd to keep the saul in, Around were flowing.

The merry bells, in jocund chime, Rang through the air, And minstrels play'd, in strains sublime, To charm the Fair!

Nor fife nor drum Was heard, save when the fire-bell rang For some foul lum!

The bell-ringers were carefully chosen men, and several of them are mentioned as having received commendation and reward for faithful services, but the most remarkable was Thomas Wilson, known as "Blind Tom." He was blind from infancy. Being appointed to the office of bellman at the early age of 12, he performed the duties during the long period of 63 years, and died in 1825 at the age of 75. It might almost be said that he died at his post, for he fell down insensible of his last illness in the bellhouse, and probably the peal then rung by his own hand was to him the last experience of sweet sound. He rang the bells of Dumfries, it is said, more than one hundred thousand times, and with the regularity of the clock itself, only once making a mistake

by ringing at 11 instead of 10—a circumstance he could not account for, or even understand the possibility of. The usual 15 minutes ringing at intervals on the King's birthday fell short of satisfying his feelings of loyalty, and it was his custom to mount the highest leads of the Steeple with a blunderbuss which he possessed, and there, in sight of the town, fire several rounds supplementary to the bells in honour of His Majesty's natal day. Widely known and much respected, he was accorded a public funeral, the bells being tolled at intervals as a mark of respect, and the occasion excited more interest than any similar event since the death of Burns.

What is before written of Wilson is mostly borrowed from his tombstone. A word may be added of evidence furnished by the bells confirmatory of his zealous performance of duty. The side of the 10 o'clock bell is deeply indented, the sound-bow being worn quite half through. It is Blind Tom's mark. The bell should be turned half round in order to preserve it from fracture.

3. Ornithological Notes by Mr Hugh M'KAY, Dumfries.

So far as I can learn the past winter has not been very productive of rare occurrences amongst birds in this locality, if I except the few following instances: -The first to come under my observation was a fine example of the green sandpiper (Tolanus ochropus). Two of this species were shot on Conheath Merse last December. I am informed that these are the first specimens recorded in this locality after an interval of four years. A specimen of the bartailed godwit (Limosa rufa) was given to me by Mr Charles Turner. It was caught in the nets on Caerlaverock shore in the beginning of February. Although the species is common enough on our shores in the autumn and spring months, it seldom makes its appearance so early. A fine two-year-old specimen of the black-throated diver (Colymous arcteus) was brought to me from Lochmaben on the 4th of March. This species is the rarest of our British divers, and I have been informed that considerable numbers frequented Lochmaben and vicinity during the past winter. A specimen of the common crow was shot at 138

Kelton last November, the beak of which was peculiarly malformed, the upper mandible being so much curved over the lower as to make it appear almost impossible for the bird to feed. I was, however, assured by Mr West, who shot the specimen, that it was in fairly good condition, although it is difficult to perceive how it managed to pick up the food necessary for its existence. During the months of December and January last five specimens of the common heron (Ardea cinera) were sent to me from various parts of the country for preservation. On examining the contents of each bird's stomach I found four out of the five contained the semi-digested portions of the common rat. These were not the water vole, but the common long-tailed rat. In one of the herons I found an unfortunate rat which had been swallowed immediately prior to the bird being shot. It measured ten and a quarter inches from the tip of the nose to the tip of the tail. There is nothing new in the discovery of rats forming part of the heron's food, vet I presume that these birds will add another little delicacy to their bill of fare in the shape of those small though too numerous mammals the voles. The angling community generally look upon the heron as their enemy; and while I am bound to admit its partiality for fish, it is well to remember that the deficiency created by its depredations in trout streams is amply counteracted by its undoubted usefulness in other respects as one of the most active of nature's policemen. Even in a trout stream the heron does some good by devouring the eels, which play such havoc with salmon and trout ova during the spawning season. I am indebted to Mr Henry Martin, of Dardarroch, for the following note, and although it is three years since the specimens were obtained, they were not recorded, and are therefore worthy of mention here. He informed me that on the 1st of March, 1890, three specimens of the American white-winged crossbill were observed in Dardarroch woods, a male and female of which he shot, and are now in his collection. I doubted his statement at first, and remarked that it might be the two barred crossbill, which in appearance is much similar to the American species, but he assured me that they were undoubtedly the American species, and could be seen at any time. He also informed me that the common crossbill was seen throughout the whole of the year. A fine specimen of a blackbird with a white head was sent to me the other day from Holywood. Several blackbirds with white

markings frequented the vicinity of Gatehouse last summer. I myself saw three specimens all differently marked, and also a pure white starling without the slightest trace of a single dark feather. A pair of squirrels were brought to me during the winter, one of them having a fine cream-coloured tail. The lady who brought them quaintly remarked, "Here's qua wee ferrets tae be stuffed." I looked at the "qua wee ferrets," and asked her when she would like them. "Oh, weel," she said, "Im in nae great hurry; the night'll dae fine."

4. Caryophylls.

By Mr George F. Scott-Elliot, M.A., F.L.S.

If one studies the structure of any particular order, and follows the different modifications found in its various species, it is important to know where to begin. Some would commence with the most highly modified forms, such, for instance, as Lychnis and Silene in this particular order, and would then proceed downwards to the most degraded types, such as Sagina. Others might follow exactly the reverse order, beginning with the degraded types and ending with the highest, or what we call the highest. Both these methods are, however, apt to lead one off the track in explaining the origin of any peculiar specific adaptation. Lychnis floscuculli is a very highly developed bee-flower, while Sagina is a degraded type of flower apparently adapted to ants and the lowest kinds of diptera; neither is, in any sense of the term, an ancestor of the other. Such an ancestor should rather be sought for in the middle of the order, and probably some form like Stellaria or Cerastium can be regarded with the most probability as nearest in structure to the original Caryophyll ancestor, from which Lychnis has risen and Sagina fallen. Beginning, therefore, in the middle one may take Stellaria uliqinosa as a fairly good instance of a generalised Caryophyll, and I will first point out the main features of its adaptation to insect visitors, and then try and show the different departures in other

One finds in Stellaria uliginosa ten stamens, of which the five outer, which are opposite the sepals, become ripe, and shed their

pollen before the others (opposite the petals). Honey is secreted by a little cup-like ring at the base of these outer sepaline stamens, but a rudimentary ring exists also at the base of the others. The styles vary in number, from three to five, and project outwards between these outer erect sepaline stamens. Hence insects visiting the flower alight on the petals and crawl round under the outer stamens so that their sides are touched by the anthers or stigmata. The visitors are in this form (as in almost all) flies of medium size, and probably belonging to a large variety of genera.

S. Holostea is very similar, but the stamens are more curved outwards, so that self-fertilisation by contact of the stigmata and anthers in the same flower is very rare; the chickweed S. media is on a lower scale, as here the stamens are often reduced in number from ten to sometimes only three, and self-fertilisation by contact happens very frequently. S. graminea has advanced, however, a little, as in this form the styles are lengthened, and the filaments of the stamens are shortened so that contact of the anther and stigma is impossible; and the effect of this is shown by the fact that a higher class of flies, such as Syritta pipiens, with more rapid flight and a higher type of mouth, are found on it. S. nemorum is very near S. graminea.

Cerastium vulgatum and alpinum are a little higher in the scale than S. uliginosa, as in these forms self-fertilisation is prevented almost entirely by a different artifice; here the stigmata are not fully ripe till the stamens have dehisced. C. urvense is distinctly more advanced, for each sepaline stamen is broadened at the base or insertion, and forms with its sepal a sort of miniature canal; honey is held in this canal, and to a certain extent protected both from evaporation and small short-lipped and thievish flies; probably it is visited by a higher order of flies or possibly small bees, but I was too late in the season last year to prove this.

In the genus Arenaria, one finds in A. trinervis the petals much reduced in size, and this enables the flower to secrete a larger amount of honey; hence, mainly intelligent kinds of Diptera frequent it in spite of its inconspicuous character. A. serpyllifolia, which is a dwarf plant adapted to poor soil, is not quite so rich in honey, and contact of anthers and stigma occasionally happens. A. peploides is utterly different; here the

general fleshiness of the plant has led to a much more open kind of flower, and the nectaries are large and orange-red in colour lying between the stamens, and not encircling them at the base as in almost all the other Caryophylleae. Here, however, the stamens dehisce early, and curve so far outwards that self-fertilisation is improbable.

In Spergularia rubra one finds a distinct advance, as the petals are often pink, and honey is secreted by a ring of tissue, due to the confluent basis of the stamens; the honey is only protected by the flowers not opening till about 2 P.M., when that of all flowers which have been open since the morning must be nearly exhausted. This is visited by bees.

Silene inflata is a great step in advance, as it has large flowers which form a regular cup with a narrow entrance so that the honey is well protected from thieves and evaporation. Self-fertilisation is prevented by the very late ripening of the styles, and the biting propensities of some of the larger bees is guarded against by the calyx of united sepals which is much swollen, so that even the comparatively long trunk of a Bombus would have difficulty in reaching the honey from the outside as they frequently try to do.

For Lychnis one finds the calyx hairy and viscid instead of being inflated for a similar reason, and these are the highest type of flower found in the order. L. vespertina is much like Silene in other respects; but L. duirna and floscuculli, with their red flowers, are entirely adapted to bees, and have also been described in a former paper.

If we wish to go downwards one has to travel back to Stellaria media to find anything like Sagina procumbens, which is usually sans petals, sans honey, sans everything in the way of special adaptation to insects. Probably it depends almost wholly on self-fertilisation, and its habit of closing in dull cloudy weather renders this easy instead of protecting the honey as in Spergularia. It is also in a strangely variable condition, sometimes with petals, sometimes without, and with a very changeable number of stamens. It is only visited so far as I know by ants.

A list of the insect visitors, probably very incomplete, may be found in the 2d Part of the Dumfries Flora, and though this is a very fragmentary account even of our British Caryophylls, it may perhaps induce some of our members to take up this interesting study.

5. The Burial Place of Alexander the Great.

By E. J. CHINNOCK, M.A., LL.D.

I have recently seen in English and American magazines the statement that a sarcophagus has been discovered at Sidon supposed to have contained the body of Alexander the Great. As arguments have been adduced to support the theory that Alexander may have been buried at Sidon, I have collected the following passages to show that he was buried at Alexandria. I can find no mention of any other place where he is said to have been buried.

- 1. Arrian (apud Photium, lib. 92) says that Arridæns conveyed Alexander's body from Babylon through Damascus to Ptolemy in Egypt, in spite of the efforts of Perdiccas to get possession of it.
- 2. Diodorus (XVIII., 2 and 26-28) says that the generals elected Arridæns, the son of Philip, and the half brother of Alexander, king of the Macedonians, and assigned to him the duty of conveying Alexander's body to Ammon for burial. Arridæns spent two years in preparing a magnificent car and other ornaments for the tomb, and then conveyed the body towards Egypt. He was met in Syria by Ptolemy, who escorted it with military honours to Alexandria, where he deposited it in a sanctuary specially prepared for it, deciding not to convey it for the present to Ammon.
- 3. Curtius Rufus (De Gestis Alexandri X., 31) says that the body was embalmed by Egyptians and Chaldaeans, and placed by Ptolemy at Memphis, and a few years after transported by him to Alexandria, where, says Curtins, "every honour is paid to his memory and name." Curtins is supposed by Zumpt to have lived in the reign of Augustus. Others assign him to the time of Claudius or Vespasian, and he cannot have lived later than the reign of Trajan.
- 4. Aelian (Varia Historia XII., 64) also says that Ptolemy conveyed the body of Alexander to the city of Alexandria, using stratagem to delude the regent Perdiccas, who wished to get possession of it.
- 5. Justin (XIII., 4) says that Arridens was ordered by the Generals to conduct Alexander's body to the temple of Ammon.
 - 6. Suetonius (Life of Augustus 18) says that Augustus

Cæsar saw Alexander's body at Alexandria, and placed it upon a golden crown, and scattered flowers upon it.

- 7. Dio Cassius (51, 16) says that Augustus saw Alexander's body at Alexandria and touched it, and was said to have accidentally broken off a part of the nose.
- 8. Strabo (XVII., 1) says that the Sema was an enclosure near the Museum at Alexandria, in which were the tombs of Alexander the Great and of the royal Ptolemies. He adds that Ptolemy buried Alexander's body in this Mausoleum, where "it now still lies; not, indeed, in the same coffin, for the present one is of transparent alabaster (hyalos). Ptolemy deposited it in a golden coffin, which was carried off by Cocces and Ptolemy Pareisactos." This took place about 57 n.c., this Ptolemy being originally named Saleucus, and called in derision Cybisactes, dealer in salt fish.

Here we have precise statements by three out of the five historians of Alexander that he was buried at Alexandria. Justin agrees that the original order was that he should be buried at Ammon in the desert. Plutarch says nothing about the burial. From Strabo, Dio Cassius, and Suetonius we learn that the embalmed body was in existence at Alexandria 300 years after the death, and from Curtius that in the fourth century after the burial every honour was paid to him at Alexandria.

REPORT ON THE HERBARIUM.

By Mr G. F. Scott-Elliot, F.L.S., F.R.Bot.Soc., Edin.

The Herbarium is advancing both in completeness and in accuracy. The present number of species represented is over 900, out of the 1858 recorded in the London Catalogue. This is an extremely valuable collection for a County Society like ours, and as we have not yet really begun to exchange plants with other societies or individuals, it is encouraging to see how much can be effected within a comparatively short time.

The thanks of the Society are very specially due to Miss Hannay for the condition of the plants and the mounting, which could not be better done. I hope, before very long, to go through and name the entire Herbarium with a good standard one in London or Croydon, so that every name may be considered authoritative, and so leave no doubt in the minds of students. There are, in fact, not more than three or four places in Great Britain where a thorough knowledge of British plants could be more easily picked up than Dumfries, and it is to be hoped that this material will induce students to come forward.

Amongst those who have sent us specimens this year are Mr Arnott, Mr Wilson, Mr J. T. Johnstone, Mrs Thompson, Miss Finlay, &c. I have to announce that Miss Alice Wedderburn has presented to the Society the whole collection made by her brother, the late Mr F. E. R. Wedderburn, in the neighbourhood of Glenlair, Dalbeattie. The specimens are about 120 in number, and are all in the most perfect preservation, and beautifully mounted. This collection includes many rare plants, such as Apium inundatum, Geum intermedium, Hieracium aurantiacum, and is altogether a most valuable addition to our Herbarium.

The thanks of the Society are due to Miss Wedderburn, both for the careful way in which the collection has been mounted and preserved, and for her kindness in presenting it to us. The late Mr F. E. R. Wedderburn was a most careful and enthusiastic botanist, and Miss Wedderburn has taken care that the result of his labours should be preserved for the advantage of future students.

The collection of grasses and sedges which Mr Tom Brown has most kindly presented to the Society contains numerous rare forms, and one, Carex elongata L., which is of the very greatest interest. It has hitherto been only known in Scotland from one locality in Kirkcudbright; and if, as I understand, this plant was found near Auchenhessnane, it is a most interesting discovery.

Miss Hannay has received a most valuable collection of 32 plants from Mr Bennett, of Croydon. Most of these are rare and critical species, e.g., 17 species of Potamogeton, and these are of the greatest value to our Herbarium, especially as they are authoritatively named by Mr Bennett himself.

FIELD MEETINGS.

Saturday, 4th of June.

A visit was paid to the Grierson Museum, Thornhill, Penpont Church, the Valley of the Scaur, and Glenwhargan. Many beautiful and some rare plants were collected by Mr James Shaw, especially note-worthy being some heather in bloom, a thing which had never before been seen so early in this district.

Saturday, 1st of July.

ECCLEFECHAN AND BURNSWARK.

Leaving Dumfries about half-past ten, a party of seventeen spent the day in driving to Ecclefechan by way of Carrutherstown; thence to Burnswark, with its series of Roman encampments, and home by Lockerbie and Lochmaben. The route was one touching several points of outstanding interest.

The first halt to be made was opposite to Repentance Tower, in order to permit of the party climbing the little hill which is crowned by this puzzling and curiously named structure. In appearance it is like a diminutive square tower of the familiar Border keep pattern. Its walls are pierced by a number of loopholes and by a square window on the south (now built up) and a door on the north. On the door lintel there are carved the word "Repentance," in old English letters, and rude figures of a dove and a serpent, scriptural types of innocence and wisdom. original stronghold, which forms the centre part of the present building, was erected in the fifteenth century by Lord Herries, then owner of the domain; and it is one of this family, understood to be the same who built Hoddam Castle, that is associated with the story of Repentance. The most impressive because most tragic legend is that a chief of the house of Herries, returning from an English foray, was crossing the Solway with a

band of prisoners, and being overtaken by a storm lightened the boats by drowning his captives. Repentance Tower is said to have been the outward and visible sign of his remorse for this act of barbarity, as it would be a constant mentor. The tradition further represents that the erection of the tower was an act of penance prescribed by the Bishop of Glasgow. A more prosaic account of the genesis of the tower associates it also with ecclesiastical dictation. According to this story Lord Herries had laid sacrilegious hands upon church lands, and the erection of Repentance was a sign of penitence required of him by the clergy. Colour is given to this theory by the generally accepted report that Hoddam Castle was built of the stones of a chapel. There were anciently two churches in the immediate vicinity. One was the chapel of Trailtrow, on the site of which Repentance Tower stands, in the midst of its old burial-ground; the other was the church of the original parish of Hoddam, on the left bank of the Annan, a short way below the castle. If Trailtrow Chapel had been demolished in order to help with the building of the fortress, there would be something like poetical justice in compelling the spoliator to undertake the task of rearing another building on the same elevated spot, and giving it a name which should be at once a confession and a constant reminder of his guilt. And from what we know of the spirit of the time, interference with the patrimony of the Church would be quite as likely to excite the retributive indignation of her priests as a sanguinary act of war.

It is a curious spot to find a little God's acre on the summit of a hill, and where the graves must almost literally be hewn out of the rock. What is apparently the oldest of the tombstones still retaining its lettering is a flat one thus quaintly inscribed: "Here lies ane honest man, Andrew Davison, once in Knockhill, husband to Jonnet Wallet, who with her had seven children, who living with peace and accord with all dyed the 2 of June, 170—, and of his age 63." Rae, which sometimes takes the form of Ree, is a name of frequent occurrence. Irving is another repeatedly met with, and three holly leaves are carved on the memorial of one of this family. The Murrays of Murraythwaite have here their family burial place, enclosed by a high wall. A Latin inscription tells that it was first erected by George Murray and Christina Forrester, his spouse, some time in last century.

The three stars of Murray and three hunting horns figure as the heraldic devices of the pair. The little parish of Trailtrow was formally annexed to Cummertrees in 1609, its chapel having, we fancy, disappeared long before; but the burial ground, in which hemlock is found growing, is still in occasional use.

Driving on to Hoddam Bridge, the company here made a short halt to allow the botanists to scan the banks of the stream, while others walked along to the old Hoddam churchyard. A singular feature on the gravestones here is the indiscriminate and apparently irrelevant use of heraldic devices. There is one obvious play on a name several times repeated. This is the carving of three bells on stones which mark the resting places of persons bearing that patronymic; and the name here seems to have been about as common as it was in a neighbouring parish, where "the Bells of Middlebie" was a phrase in the common currency of speech. Here also the three holly leaves recur associated with the name of Irving. The oldest date observed was 1677, which was that of the interment of the spouse of Archibald Corrie. The parochial schoolmaster who in this quiet vale would be teaching rustic youth their letters during the profligate days of the Restoration, and while peaceful Presbyterians were hunted on the hills, is commemorated by a simple upright slab in good preservation, which sets forth that-

Here lyes Iohn Short, schoolmr. in Hoddam, who departed this life Febr. 7, 1707, aged 60 years, and Helen Wilson, his spouse, who deptd. this life Decr. 12, 1717, aged 63 years.

Death did come in by loathsome sin, but Christ for all did die, And unto those yt. wt. him close he gives the victory.

The parish church of Hoddam stands about a mile from Ecclefechan at a place known as the Cross of Hoddam, a site which was chosen about the time of the union of the three parishes of Hoddam, Luce, and Ecclefechan; but the present building, although of antiquated appearance, dates only from 1817. In this churchyard is the burial place of the Sharpes of Hoddam. Here is interred Charles Kirkpatrick Sharpe, the accomplished, but dilettante man of letters and antiquary and friend of Scott; and beside him rests his elder brother, General Matthew Sharpe, who sat as M.P. for Dumfies Burghs from the passing of the first Reform Bill until 1841. This laird of

Hoddam had for some time Carlyle's father as a tenant; and the latter asserted his independence in rugged style in an interview which the son gleefully chronicles.

On reaching Ecclefechan a visit was paid to the churchyard in order to visit Carlyle's tomb. Along with his brother, Dr Carlyle, he is commemorated by the central and most recent stone of the three in the family plot. The names of the father (who died in 1832), his two wives, and two daughters appear on the stone to the right. The concluding part of the inscription embodies a filial tribute which bears the clear imprint of the author: "And here also now rests the above Margaret Aitken, his second wife; born at Whitestanes, Kirkmahoe, in Septr., 1771, died at Scotsbrig on Christmas day, 1853. She brought him nine children, whereof four sons and three daughters survive, gratefully reverent of such a father and such a mother." The grave of Dr Archibald Arnott of Kirkconnell Hall, Napoleon's physician, also claimed attention. The inscription sets forth the scenes of his active service with the British army as a surgeon of the 20th Foot, and adds: "At St. Helena he was the medical attendant of Napoleon, whose esteem he won and whose last moments he soothed."

From the churchyard the party proceeded to the "Arched House," in which Carlyle first saw the light. The old stone stair, worn with the footprints of many years, has now been covered with wood. At the top of it are two apartments. The one to the left is a very narrow room built over the arch. It was at one time shewn as the actual birthplace; but that the important event occurred in the larger room, to the right, we have certified by the hand of Carlyle himself, who, we may presume, obtained the most authentic information on a subject regarding which his personal recollections would be more than hazy. A small photograph of the two houses is hung on the wall of this larger room, and on the window of it Carlyle has placed an asterisk, and below the photograph he has written-"* Room where I was born; to the middle of that Arch was my Father's House, village of Ecclefechan; 4 decr., 1795. T. Carlyle. (Chelsea, 5 july, 1871.)" All the furniture in the room and its modest embellishments (including this little picture) came from the Cheyne Row house, and most of them from the study; so that the whole surroundings are strongly reminiscent of

Carlyle. Here are one of his arm chairs, a little couch, his reading lamp-with ponderous white glass globe-a very small hanging bookcase with copies of Chapman & Hall's shilling edition of his work, a letter rack, some pieces of china set into a wall recess, a curious coffee-pot for use over a spirit lamp, and his tobacco-cutter-a substantial implement, with long blade, and worked like the old-fashioned single-knife turnip-cutter-a small "wag-at-the-wa" clock, presumably a family heirloom, and the kitchen tea-caddy. Here also are two of the philosopher's hatsthe veritable straw, of ample rim, with which we were accustomed to see him perambulate the outskirts of Dumfries on a warm summer day, and an equally wide-spreading soft felt. On the wall are groups of photographs shewing Carlyle and his wife at different periods; a tiny portrait of the pet dog which was the innocent cause of Mrs Carlyle's death, through the shock which she received by seeing it in immediate danger from the wheels of a carriage in Hyde Park; a photographic group taken on the steps of the residence of the late Provost Swan at Kirkcaldy, the parties being Carlyle, his brother, the doctor; his niece, Mrs Mary Carlyle; and their host. There is a wonderfully regular stream of visitors to the house. The number of signatures entered in the book since the beginning of the year is 145. This visitors' book is a gift of Joseph Cook, of Boston, who visited Ecclefechan in March, 1881, the month following Carlyle's death. The room itself is just as it was in Carlyle's childhood, with the exception that the door has been renewed, and that, of course, painting and papering has been done.

Burnswark hill was the next and last object of interest which had a place in the itinerary, and it is one of itself well worth a special journey. At its base is the largest of all the camps which testify to the three centuries or more of occupation of lowland Scotland by the Roman armies; and it is understood to be the best preserved of any in the whole country except the one on Moor of Ardoch, in Perthshire, near where Agricola inflicted the sanguinary defeat on Galgacus and the Caledonian army. Burnswark itself is one of the most conspicuous and best-known features in the landscape, its well-marked individuality commanding attention over a tract of country which extends far into Cumberland, over into Liddesdale, and to the head of the Annan valley. This prominence it owes less to its height, which is only

some 740 feet, than to its isolated position and unique shape. The peculiar configuration of Burnswark strikes the eye of every passing traveller. It is an escarpment, or steep terraced hill, of igneous origin, and is in contrast to the smoothly outlined hills of the silurian region to the north and west. These escarpments, with their bands of volcanic rock, run eastward through Eskdale to the head of Slitrig Water, and rise in Ewesdale to such prominences as Pike Fell and Arkleton Fell. Specimens of volcanic tuft were found on Saturday in a quarry to the south of Burnswark. The ridge is intersected by a deep saddle-like depression. The main camp lies along the base of the southern slope, near to the east end, in the most sheltered situation. The rectangular earthen ramparts and the deep fosse outside still clearly shew its extent, which is three hundred yards in the one direction and two hundred to the other. A slight eminence at the north-east corner, within the camp, but partially isolated by a second fosse, indicates no doubt the pretorium, where the general's tent would be pitched. Breaks in the earth-works on the side next the hill, and in proximity to the low portion already referred to, shew where the gates would stand, and mounds have been thrown up outside for their protection. The dimensions usually assigned for the fosse in Roman camps are nine feet deep and twelve broad, and here these conditions seem very nearly fulfilled. The spring, which was an indispensable requisite of the situation, is near the centre of the camp. Its waters still flow cool and abundant. The second camp occupies a corresponding but more westerly position on the northern side of the hill. While the lesser of the two, it is still of very extensive proportions. It afforded security from attack on the north, effectually covering the central depression in the hill, along which an enemy might otherwise have approached the main camp. This was really the only vulnerable point in the position. At the north-west and north-east angles nature has provided the most perfect defence in rocky walls so steep that no force would venture to scale them. There was, indeed, a possibility of approach on the south side from the western end, where there is a gentler slope; and to meet this contingency a subsidiary encampment, more nearly approaching the semi-circular shape, had been constructed beside the piece of plantation that neighbours Burnswark Cottage. This outpost commanded also the Roman road carried from this point up

Annandale, of which the grass-grown track is to this day very distinctly visible along several fields, and there are some indications that another outpost had existed a short way along the road in the opposite direction, where it afforded a line of communication with the English border. The indubitable existence of this piece of ancient roadway, proceeding in a northwesterly direction from this important military station, affords material support to the theory, recently assailed, of the existence of other vestiges of it in the vicinity of Moffat. On the western summit of Burnswark there is a wonderfully perfect circular earth-work, the remains apparently of a still older Celtic stronghold, which the Romans would, no doubt, utilise as a post of observation. A camp so elaborately constructed was not, of course, a mere casual resting place; but must have formed the permanent quarters of a large body of troops, from which they would be able to keep the surrounding country in subjection, to prosecute campaigns against the Novantes in western Galloway, and to carry on their road-making and other civilising works. Here they would dwell in huts constructed probably of timber cut from the forest that overspread the land in all directions, and covered over with leather or the skins of animals taken in the chase. The numbers resident in the camp would, of course, fluctuate with the exigencies of the service. Gibbon states that three legions were regularly assigned for the occupation of Britain; and while the number of Romans in a legion only slightly exceeded six thousand, he calculates that the auxiliaries attached to it would bring its strength up to about 12,500. On this basis the army of occupation for both England and Scotland would number some 37,000.

New Member.-Mr John F. Cormack, Lockerbie.

The following botanical specimens were found by Mr Scott-Elliot:—Conium maculatum—Gasstown, Repentance Tower, and Ecclefechan; Scabiasa Columbaria—Hoddam Brig; Œltrusa Cynapium — Ecclefechan roadside; Rosa arvensis—Roadside, near Birnswark; Viola lutea, var. amæna—Summit of Birnswark.

Saturday, 5th of August.

SOLWAY FISHERY AND NEWABBEY.

The party drove by way of Kirkconnell and along the Kinharvie road to the now famous fish hatchery belonging to Mr J. J. Armistead. The hatchery is situated in a picturesque and sheltered spot on the Kinharvie estate surrounded on all sides by pine trees, and with a north-easterly aspect on to a stretch of undulating moorland. On arriving at the hatcheries, whither they had been kindly invited, they were met by Mr Armistead, whose warm-hearted genial manner at once produced a feeling of confidence among the party that their visit was acceptable. Mr Armistead took them to the hatching shed, where the rows of tanks in which the ova will be planted on glass grills in October and the ensuing months were in course of being overhauled prior to the busy season which then begins. The tanks were being revarnished with paraffin varnish, which is a much better preservative than ordinary paint, and the water is allowed to run through the tanks for at least a month before the spawn is placed in the boxes. Mr Armistead explained to the visitors the process of fish hatching, and described the different kinds of fish which he cultivates, including the different varieties of trout, char, grayling, salmon, and others. The enterprise is one that necessitates for successful issues much delicate skill and scientific knowledge. When fairly stocked he calculates he has accommodation with his present appliances and tanks for two million fish, and it must be apparent even to the uninitiated that the feeding and attention of such a large family requires a great expenditure of time and trouble and expense. Even in what is termed the slack season, which lasts till about October, six men are daily engaged in carrying food and tending the fishes. At the present time, when the marketable stock does not exceed fifty thousand, about two hundredweight of prepared food is distributed among the inhabitants of the tanks daily. The smaller fry are fed four times daily, and the larger stock fish about twice. The food consists of beef and mussels, and other shell fish and crustaceans. One of the assistants showed the visitors the interesting sight of the trout feeding. So soon as a handful of the food was thrown on to the surface of what was a moment before a placid, sluggish looking moss hole, it instantly became a

boiling lake in miniature with great big fat trout careering madly along the surface, and keenly competing with one another in their eagerness to satisfy their natural voracity. To witness such a sight was enough to break the heart of an angler, especially when he was vetoed from trying his skill on such beauties. about sixty tanks in all, containing trout of different varieties, including the Californian species, some of which spawned last season, and American trout, the latter of which Mr Armistead was the first to introduce into this country. There are also char and grayling and other fish, from all of which Mr Armistead procures his own ova when the season for spawning comes round. The young fish, which are sent out when about a year old, are transported in glass bottles, packed in wooden boxes, and the season for sending them out begins now and continues during the winter. When foreign orders are received eggs are always sent carefully packed in moss. Apart from the danger of tumbling into the deep tanks which intersect the ground in every direction, there is a perfect network of wires over the little farm, all of which are connected with spring and alarm guns, and the moment a wire is touched, a nest of hornets would be buzzing around the marauder's ears that he would fain have left asleep.

Proceeding next to Newabbey, the visitors surveyed the architectural features of the fine old ruin and puzzled over the fragmentary inscription which has been interpreted to mean that the Lady Devorgilla founded the abbey in the year 1284. Its Latin is not free from obscurity, the word which is assumed to stand for "fundatrix" appearing to be literally "fuoatrix." The visitors had been very kindly invited by Miss Copland of Collieston to take tea at Abbey House; and here they had an opportunity of inspecting a family heirloom with a romantic story. This is a silver quaich or loving-cup which was "hanselled" at the marriage of John Copland of Collieston and Agnes Hairstens of Craigs on the 30th of January, 1654. It is a little basin standing two inches and a quarter high, and measuring six inches and seveneighths in diameter at the brim. It is enriched with a dainty floral pattern. There are two little flat handles, on the upper side of which are carved the initials of the pair whose espousals it commemorates-"I. C." (the i being used for j in the old lettering) and "A. H.;" and on the under side of one of the handles the date of the marriage is engraved. This unique family relic has just been restored to the possession of Miss Copland as the result of an action in the Sheriff Court, it having formed part of the contents of a plate chest which went amissing in the hands of the bankers to whom it was committed for safe custody and got mixed with the Carnsalloch possessions.

Newabbey, it may be observed in passing, has a close link of association with Dumfries more recent than that supplied by Devorgilla, the pious founder of its abbey, and the builder also of the Old Bridge of Dumfries. This is the mutual interest which the two places possess in the memory of Bailie John Paterson. A native of Newabbey and a magistrate of Dumfries, where he died in 1722, he was the most generous benefactor of our Academy, for the benefit of which he bequeathed a sum of £835, secured on Preston and other lands in Kirkbean. His interest in his native place was shown by erecting the bridge that carries the Dumfries road over the burn just north of the village, and still more substantially by a handsome bequest for the poor of Newabbey.

Saturday, 2nd of September.

DUNDRENNAN ABBEY.

On reaching the Old Abbey village the party dismounted and walked down to the ruins, which formed the principal object of the day's visitation. They were here received by the Rev. George Maconachie, who gave a learned exposition of the architecture of the Abbey. The church, Mr Maconachie says, the most conspicuous part of the Abbey, was built in the form of a Latin cross. Viewed from the north, it presented an immense ridge of roof, 60 feet high, extending from east to west about 210 feet, and crossed near the east end by another roof, the height and span of which can be determined from the existing gable of the north transept. At the point of intersection there rose a dumpy square tower, ten feet above the roof. Looking at the side walls of the longest part, that runs east and west, these would be seen to be about twenty feet high, and above them there rose a "lean-to" roof, from the upper edge of which the walls rose for ten feet, and contained the windows of the clerestory. The same arrangement obtained, of course, on the other side of

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the church. Passing in by the great west door, the nave was entered, to the right and left of which were rows of clustered pillars thirty feet high. The aisles or wings were outside of these, and were covered by the "lean-to" roofs. The high-pitched roof of the nave began from the top of the clerestory, forty-five feet from the ground. The nave was 130 feet long and, including the aisles, 60 feet wide. Passing eastward from the nave, the spectator came beneath the central tower, with the chancel in front and the transepts to right and left, with wings extended eastward. The style of architecture was late Norman or Transition. The pointed arches, usually supposed to be Gothic or early English, are found in pure Norman work, as in Fountain Abbey and Kirkstale Abbey in Yorkshire. The presence of both round and pointed arches in the ruins have led some to conclude that the architecture belonged to the transitional period, which would imply that the church, although founded in 1142, was not built till after 1175; but the church, judging from the style of workmanship, must have existed prior to the latter date. He thought that the pointed arch with its clustered mouldings was introduced as a symbol of the upward struggle of the Christian life, furrowed with trials and sorrows, just as the form of the church was the symbol of Christ. On the south side of the church there was the cloister court, an open space 104 ft. square, the burying ground of the monks. The west side of the cloister court was bounded by a series of cellars, still to be seen, probably used as cellars or storehouses, and over these was probably the dormitory of the monks. On the east side of the cloister court was the chapter house, separated from the south transept by a mortuary chamber, an open space called the slype. Over the chapter house, the state room of the Abbey, stood the scriptorium, and to the south of the chapter house there was placed the dining-room. In the south-west angle of the cloister court there is a doorway with a pointed arch on the side next the cloisters, and a rounded arch on the other. This door probably led into the locutorium or monks' parlour, and from the mouldings it seems to be of a later date than the chapter house. The other buildings are said to have covered a space 300 feet square. Traces of the kitchen and of another house, probably the abbot's lodging, are to be seen; but where the infirmary, the granaries, brew-house, bakehouse, &c., &c., were must be matter of conjecture. Captain

Grose had stated that he saw with the minister of Rerrick a plan of the original buildings, but that had unfortunately been lost. The most interesting of the monumental stones within the ruins of the Abbey are the abbots, the cellarers, the nuns, and the effigy of Alan, Lord of Galloway. So far Mr Maconachie, who on Saturday, while describing the abbot and cellarer effigies, dwelt upon the symbolical nature of the accessories.

The burying-place of the Maitlands of Dundrennan was next visited, after which the journey was continued to Port Mary. Passing through Port Mary House gardens the party wandered down to the little bay bearing that name, and examined the granite boulder whence the luckless Queen Mary is generally believed to have stepped into the boat that carried her to England after her misfortune on the field of Langside.

Dr Chinnock proposed that Mr William Thomson be elected an honorary member of the Society. He, in a humble, unassuming way, has done much good work in inculcating a spirit for antiquarian and natural history research in the district. It was he who discovered the famous cup and ring markings at the Banks, and while his practical knowledge is often overridden by reason of his modesty, he possesses a better acquaintance with the homes and haunts of flowers and plants than any other man in the parish in which he lives; and his antiquarian knowledge is always qualified by a vein of original thought and theory which may perhaps contain much more than a passing consideration can discover. It was a first intention to visit the old British fort of Caerbantorigum, mentioned by Ptolemy, and situated on the farm of Drummore, but time would not permit, and a direct route was taken to Kirkcudbright. On arrival there, the Museum was visited, and its principal items examined under Mr John M'Kie's guidance.

New Members.—Messrs John Carlyle Aitken, Kirkcudbright; Frank J. C. Carruthers, Lockerbie; and Robert Grierson, Castle-Douglas.

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E. G. Baker, F.L.S., British Museum, London. J. G. Baker, F.R.S., Royal Herbarium, Kew. Robert Barbour (late Secretary), Cape Town. Arthur Bennett, F.L.S., Croydon. George F. Black. Ph.D., Museum of Antiquities, Edinburgh. J. Harvie Brown, F.L.S., Larbert. William Carruthers, F.R.S., F.L.S., British Museum, London. Dr Anstruther Davidson, Los Angeles, California. Dr James Grant (Bey), LL.D., Cairo. Peter Gray, Edinburgh. Sergeant Ålexander M'Millan, Kilmarnock. Sir Herbert E. Maxwell, Bart., M.P. Alexander D. Murray (former Secretary), Newcastle. Dr David Sharp, F.R.S., Cambridge University. J. Starforth, Architect, Edinburgh. Dr Robert Taylor, Liverpool. Joseph Thomson, F.R.G.S., Thornhill. William Thomson, Kirkcudbright. Joseph Wilson (former Secretary), Liverpool.

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No. 10.

THE TRANSACTIONS

AND

JOURNAL OF PROCEEDINGS

OF THE

Natural History & Antiquarian Society.

FOUNDED NOVEMBER, 1862.

SESSION 1893-94.



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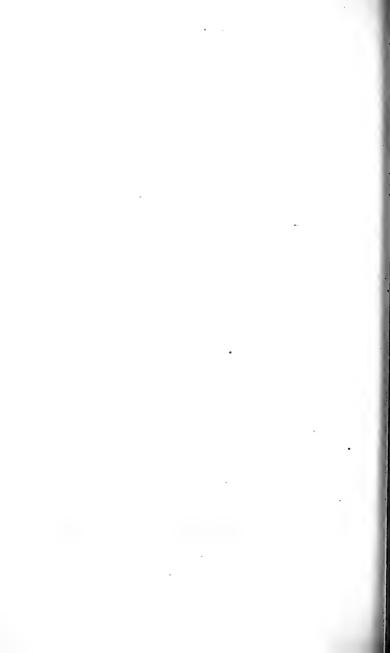
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TRANSACTIONS AND PROCEEDINGS

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 Holmesdale 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 Secretary (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. place among the honorary members was filled at our September meeting by the election of Mr William Thomson of Kirkcudbright, 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.

Rolance in Treesurer's hands at alose of last account

Balance in Treasurer's nands a	и с	lose o	i last	acco	ount			±υ	18	85
Subscriptions from 117 member	ers a	at 5s e	each		£29	5	0			
Do. from 13 member	s a	t 2s 6	d eac	h.	1	12	6			
					_		_	30	17	6
Entrance fees from 7 new men	ıbe:	rs			•••			0	17	6
Two subscriptions paid in adv	anc	e for	next	year				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	11/2
DI	SC	HAR	GE.							
Paid salary of keeper of rooms				•••				£1	10	0
Paid for stationery, printing, &	кс.							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	rry	forwa	ard					£8	17	11/2

Brought forward Paid expenses of calling meetings as follows—		£8 17	11/2
Post cards	£3 19 3	12	
Paid for addressing same	1 4 0		
Paid R. Johnstone, printer, printing same	1 2 0		
		- 6 5	$3\frac{1}{2}$
Paid expenses of publishing Transactions for las follows—	st year as		
Paid for loan of blocks for illustrations	£0 4 1		
Paid Dumfries Standard for printing Trans-			
actions	19 9 6		
		19 13	7
Miscellaneous		1 8 1	11
			-
	44.10.0	£36 4 1	11
Balance in Savings Bank	£4 10 0		
,, in Treasurer's hands	$0\ 15\ 2\frac{1}{2}$		01
		5 5	$2\frac{1}{2}$
		£41 10	11
		T41 10	12

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 He might have misinterpreted these inscriptions, 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. In 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 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.

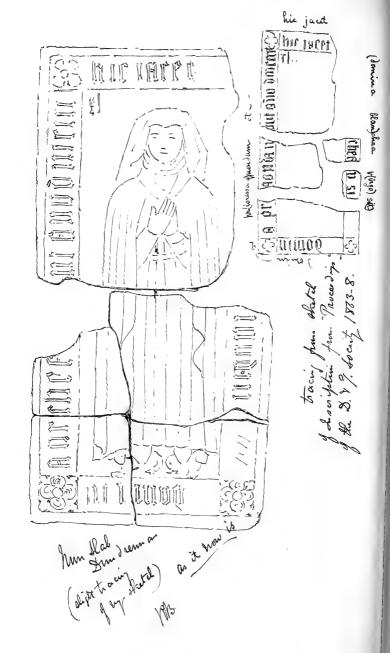
10th November, 1893.

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 uncommon, 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 uondam . . domina orcher iit and 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 archæologists 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 There was at that time no doubt about the in the transactions. 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 authorityas 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 jragilifolia, recorded for Kilitringan Bay. The rarest mosses I gathered there were Orthotrichum rupestre in Craigoch Burn, and Hypnum vallisclausæ and Hypnum polygamum 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 Craigoch Burn I gathered Galium uliginosum, Sedum rhodiola, Viburnum opulus, Rubus saxatilis, Hieracium umbellutum; on Cairnpiot I gathered Habenaria viridis, Lastræa 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, 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 paludosa was also found here. Near the Castle we gathered—5, Polygonum bistorta, a new record, and Symplytum 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 phæum. 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 vulgaris, Scrophularia aquatica, Euphorbia portlandica, Avena pubescens, Spergularia rupestris, &c. Near Kirkinner I gathered Medicago sativa, Medicago. lupulina, Linaria vulgaris, Silene inflata, Lysimachia vulgaris, Veronica hederæfolia, Sparganium simplex,

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

In addition to the above five new records for Wigtownshire, Mr Gorrie has found:—6, Salix purpurea, on the road to Whithorn, near Castlewig. 7, Carex teretiuscula, var. Ehrhartiana; and 8, Carex acuta, var. gracilescens, both in Prestrie Loch, Whithorn. 9, Carex paniculata, var. simplicior, Ravenstone Wood; and 10, Habenaria albida, 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, Balmaclellan. Trifolium hybridum, a new record, is very common. Lophozia Orcadensis, in Knocksheen Burn, New-Galloway, is an additional Hepatic for Kirkcudbrightshire. 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 $\mathit{Byrum\ murale},$ a new moss record for Moffat.

3.—Martyr Graves of Kirkcudbrightshire. 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'Cubine."

- "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
BRUCE 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
REV XII. II. 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 "lyes 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."

"A 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

Psa cxi 6

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 JUSTLY SHOT TO 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

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

Rev ii. 10.

GENERAL JAMES
DOUGLAS, BROTHER
TO THE DUKE 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 Carrick,

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		£34	4 8	8
The Priorie of Whitherne		103	3 6	8
The Abbey of Tungland		20	6 13	4
The Abbey of Dundranan	***	51	6 13	4
The Abbey of Glenluse	***	34	4 8	8
The Abbey of Saulsett		13	8 6	8
Note that the Archdeanery is the sam	e with	the		
Parsonage of Pennynghame.				
The Archdeanery of Galloway		8	2 13	0
The Parsonage of Kirkenner		. 13	8 6	0
The Parsonage of Wigtoun		6	8 17	0
The Parsonage of Dalry		5	5 0	0
The Parsonage of Partoune	***	2	7 10	0
The Parsonage of Kirkchryst		2	5 16	0
The Vicarage of Rerrick		2	0 13	0
The Parsonage of Kells		3	2 0	0
The Parsonage of Balnaclanathan		2	7 10	0
ANCIENT TAXT ROLL OF THE STEWARTRI	E OF K	RKCUDBI	RYT.	
(1654 A.D.? Rose's Collection	ction.)			
Lord Garlies lands		£5	2 0	0

Lord Garlies lands						£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 Polc	rie				22	13	4
Ewinstoun, Blackcraig and	d Knoc	knon				2	13	4
Hardlands and Moneboy				• • •		4	0	0
Nether Peterie 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-Gordoune	***			***		5	0	0
•								

Crogo-Mulligane			£5	0	0
Gordoune of Hardlands			1	0	0
Lard Mackittrick for Killachie			3	0	0
Lard Gaitgirth for Fintalloch			17	6	8
Laird Gelstoune			42	0	0
Laird Broughtoune			10		4
Lard Carineis			62	13	4
	••		70	0	0
Lard Apilgirth			16	0	0
	••		2	0	0
8	••		12	13	4
		•••••	10 20	0	0
701 17 1		•••	9	6	8
T 10 111	• • • •		12	13	4
T 10 1 1/			15	0	0
F 1 771 1 1 133			8	0	0
Lard Kirkdaill Latie, Kirkennan, Balochan, Blakbully .		·· ·	41	6	8
T 1 77 1 1 17			14	13	4
- 15			3	6	8
Y 1 D 1 1 M 1			50	0	0
T I CT C T			37	6	8
20 1 11			6	13	4
TD 1			3	6	8
77 11 11			5	0	0
Dl			4	0	0
Y 1 77' ! 1)			13	6	8
T 1 7711 1 11			6		4
T 1 . 1'			3	6	8
n . (C 1 '41			12	_	4
Y . 3 T 24214			2	0	0
Lard Drumcoltrane for Cochlin and Why			2	-	4
T 10: 1 1	•		6		4
T 3 345.31.43.53			6		4
TT C.M. : 1			6		0
T 1.D 1	• • •		40	_	0
x 101 ' ' D1 ' 1'			20		0
A.1. (C) 17. 1/				13	4
3.5			12		0
T 10 1/11			5	0	0
TO 11 OL 11 11 1 17711			6	_	4
T 100 1 '			5		S
r 1 77'11			2	0	0
C I Tr			3	6	8
0.1 1 10.1.1.11		•••	5		0
61 1 6 4 1 1		•••	3	6	8
* 1.Th 11			3	6	8

Gordonstoune		***	• • •		 		£26	13	4
Erlestoune	• • •	• • • •			 		26	13	4
Grenane					 		14	0	. 0
Borgis					 		20	0	0
Kirkpatrick-I	rong	ray			 		20	0	0
Barnbachill				***	 		5	0	0
Chapmanleys					 		0	13	4
Prestoune					 		40	0	0
Kirkgunzeone					 		40	0	0
Half barony o	f Uri	-Her	ries		 		53	6	8
Summa	tota	lis			 	£	21134	13	4

We here add the characters of alienation associated with the sons of the said John, Lord Hereis, from authentic 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 situated 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 Marquhirne, the four merk land of Meikle Marquhirne, 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{3}{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 Drumfries 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 £3 15s of Forrest, 40s land of Stockane, the two forty shilling lands of Auchencairn, £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 charters 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 Kirkcudbryt the 4th of June, 1565.—Maister Alexander Gordon, the Lord Bishop of Galloway, grants the renewal of an expired nineteen 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 He hath also a Bailery here heritably excercd by that Abbev. 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 Dumfries. As we also know, to unite the turbulent Borders of 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 progenie 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 favour, 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 muvit them to sic crueltie: 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 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 McKerlie, 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. 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 churchyard 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 hears.

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. 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

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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 As to the 13th article, its answered that " 13. 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.

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 # 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., Dumfries 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 road-side 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, Correferron, 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.

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

(Saturation=100).		8 52 22 23 4 23 58 84 85 22 23 4 23 58 88 88 88 88 88 88 88 88 88 88 88 88			
Temperature of Dew-Point, Relative Humidity		200-78 200-78 231-78 231-78 255-78 25		√ar.	$10\frac{1}{2}$
RAINFALL. METER.	Mean Wet.	DD 3325 3325 3367 557 557 557 557 557 557 557 557 557 5	Directions of the Wind during the year.	$\nabla_{\hat{s}}$	ĩ
	Mean Dry.	Deg. 38-11 38-11 38-11 38-11 55-42 60-11 40-2 40-2 40-7 48		W.	13
	Days on which it Fell.	17 23 12 8 12 13 11 17 17 17 17 17 17 17 17 17 17 17 17		N.N	4.
	Total Amount.	Ins. 1154 454 454 1152 116 116 116 1183 1183 1152 1152 1152 1152 1152		W.	$77\frac{1}{2}$
	Heaviest in 24 Hours.	Ins. 0.60 0.44 0.44 0.94 0.97 0.76 0.76 0.76 0.76 0.78			
Self-Registering Thermometer in shade.	Mean Temp. of Month.	DDeg. 886.9 886.9 896.0 806.4 114.4 111.5 114.4 11.5 114.4 11.5 114.4 11.5 114.4 11.5 114.4 11.5 114.4 115.4		S.W.	62
	Monthly Range,	Deg 386 386 386 38 38 38 38 38 38 38 38 38 38 38 38 38			
	Mean Minimum.	Deg. 32.4.5 33.4.5 33.5.5 33.5.5 33.5.5 52.7 444.7 446.7 441.7 441.7		ņ	41
	Mean Meximum.	Deg. 41.4 444.7 622.9 622.6 71.3 70.3 70.3 70.4 62.6 76.7			
	Lowest in Month.	Deg. 115-23.8 223.8 330 330 330 330 330 330 332.6 228.5 119 119		S.E.	56
	Highest in Alonth.	Deg. 131.3 511.3 511.3 778.3 778.3 82.5 83.5 63.5 63.5 85.5 85.5 85.5 85.5 85.5 85.5 85.5 8			
BAROMETER.	Mean for Month.	Inches. 30'026 29'573 30'125 30'125 30'055 30'055 29'888 29'888 29'866 29'783 30'002 29'804	Direct	运	$31\frac{1}{2}$
	Monthly Range,	Inches. 1769 1709 1709 1709 1709 1709 1709 1705 1706 1706 1706 1706 1706 1706 1706 1706			
	Lowest in Month.	Inches. 29.265 29.873 29.873 29.810 29.510 29.394 29.280 28.993 28.993 28.993 28.960 28.560		N.E.	36
	Highest in Month.	Inches. 30'433. 30'433. 30'428. 30'568. 30'568. 30'584. 30'384. 30'384. 30'384. 30'384. 30'384. 30'700.		ĸ.	21
Months.		1893. Jan. Feb. Mar. April May June June June July Aug. Sept. Oct. Nov.			

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 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 years' 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. 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 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 four and five inches in circumference, and some as much as three inches in diameter.

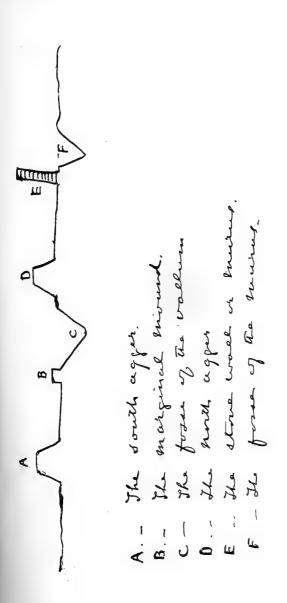
Wind.—The summary of wind directions shows that on 21 days it blew from the north, on 36 from the north-east, on $31\frac{1}{2}$ from the east, on 26 from the south-east, on 41 from the south, on 79 from the south-west, on $77\frac{1}{2}$ from the west, on 43 from the north-west, and that on $10\frac{1}{2}$ 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 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 Cilurnum Station the fosses have been quarried out of solid rock, which has been built up on their-edge to form the aggers. They





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 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. 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 vallum 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 vallum 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 vallum 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. 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 said and 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 I

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 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 erected 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. 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 Doctor.

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 $12\frac{1}{2}$ 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 outer 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 vulyaris) 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.

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. 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 Kirkcudbrightshire. 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, than the vast conical mounds of stones called cairns. 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. 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. 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 kistvaen 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 The rim-stones of a huge cairn on the High greater height. 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 Cree 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 axehead 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

[†] See Pro. Soc. Antiq. Scot. Vol. xxv., p. 23.

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. 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:—"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 author 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 ludicrous 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. 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. 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 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.

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3 Thalictrum minus L. Rare. Glencree (b); Glenluce (5).

Jacquianum K. (flexuosum Bernh.). Not common. On R. Cree above Newton-Stewart (1); S. of Innerwell.

,, flavum L. Rare. Garlieston Bay; Old Tower of Sorbie.

Anemone nemorosa L. Frequent. Shin Valley Moss (1); Sorbie (3); Glenluce (5); Cairnryan, &c.

12 Ranunculus circinatus Sibth. Soulseat Loch.

17 , heterophyllus Web. Stranraer Bay (1).

peltatus Schrank. Bishopburn (1).

,, var. truncatus, Hiern. Near Innermessan (1).

" var. floribundus, Bab. Frequent. Penkillpond, Garliestown; Ardwell Milldam; 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); Cairnryan; 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).

" bulbosus L. The Bushes, Sorbie (3); S. of Cairnryan; Glenluce (5).

" sardous Cr. (hirsutus, Curt.). On shore N. of Port William (1).

" ficaria L. Common. Monreith, &c. (1); Sorbie (3); Portpatrick, &c.

Caltha palustris L. Common. Creeside, &c. (1); Sorbie (3); Glenluce (5); Drummore; Cairnryan; Portpatrick, &c.

- 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); Pen-kill, &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); Cairnryan;

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); Glen-luce (5); Cairnryan, Portpatrick, &c.

123 Brassica oleracea L. Glenluce (5).

,, rapa var. sativa (II. 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).

Saponuria 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.

- Lepigonum salinum Fr. Stranraer (1); Dunskey (Arnott, 1848); Cairnryan, &c.
 - ,, var. neglectum (Kindb.) Port Logan (G. Horn, 1878); Monreith Bay (1).
- 250 ,, marginata Koch. Orchardton Bay (1).
 - ", 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 Hypericum of Wigtownshire (1); Whithorn (Balfour spec.); Cairnryan; Portpatrick, &c.
 - ,, quadratum Stokes (tetrapterum, Fries). Penningham (1); Glenluce (5); Sorbie (3).
 - " humifusum L. Not common. Castle-Kennedy grounds (1); Portpatrick (a); Sorbie (3); Glenluce (5); Kirkmaiden; Cairnryan.
 - " pulchrum L. Common. Moss of Shin (1); 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.

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).

Ilex 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); Kirk-colm (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.

Trifolium pratense L. Abundant.

- " medium L. Common. Longcastle (1); Glenluce (5); Sorbie (3); Whithorn; Cairnryan, &c.
- ,, arvense L. Not common. Kirkmaiden (a); Eggerness; 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 (A. White) (5); Kirkinner; Drummore; Cairnryan, &c.

- Vicia hirsuta Koch. Rather common (1); Ardwell; Sandhead, Kirkmaiden; Cairnryan, &c.
 - " Cracca L. Do.
 - , 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,
 - " palustris L. (e) but likely a mistake.
 - Prunus communis Huds. (spinosa, L). Common. Penninghame (1); Glenluce (5), &c.; a dwarf var. on the shingle at Portwilliam.
 - ,, instititia 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).

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.

,, reptans L. Carsegoun (1); S. of Drummore Quay; Port Logan Harbour

" anserina L. Common (1); Sorbie (3); Glenluce (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 grossularia 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.
 - ,, alternifiorum DC. Black Loch; Cree River at Newton (1); Penkill pond.
- Callitriche stagnalis Scop. Penninghame (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 europea 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.

Charophyllum 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.

Œnanthe pimpinelloides L. Mull (Balfour); (Graham, 1836); (Macnab).

, Lachenalii Gmel. 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.

Meum 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); Loch-side, 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).

700

" 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).

Valerianella olitoria Pollich. Port Yerrick; S. of Cairnryan;
Drummore; Wigtown; Townhead, Sorbie (3).
,, dentata, Pollich. Wigtownshire (Top. Bot. Ed.

II.); (Graham, 1836); Orchardton Bay (1).

,, 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.

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 Gœrtn. 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.

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.

" yar. 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 Hippochæris 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. Do. Do. 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.
 - " auricolæfolia Vahl. (spathulata). Mull of Galloway (d); (Balfour, 1843); Mull of Syninness.
 - ,, ,, var. occidentalis (Lloyd). N. of Mull of Galloway on west side.
 - ,, ,, var. intermedia (Syme). N. of Mull of Gálloway 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); Cairn-ryan; Portpatrick, &c.

,, cærulea 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.

Erythrea 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 caruleum 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).

- 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); Cairn-

ryan; 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 Dam, 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); Cairn-ryan; 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 (Balfour 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 (Balfour); Kirkmaiden; Cairnryan, &c.

" ambigua Sm. Cardrain (Arnott, 1848).

" 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; Ardwell; 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;
Gairnryan, &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).
 - ,, 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.

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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.

aviculare L. Very common (1); Sorbie (3); Glenluce (5), &c.

,, ,, var. littorale, Link. Stranraer (1);
Portpatrick.

Roberti, Loisel (Raii). Morroch Bay; Stranraer (1); Garliestown, &c.; Mull of Galloway (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,

Rumex conglomeratus Murr. Wigtown (1).

, sanguineus L. (Balfour, 1843).

" yar. viridis, Sibth. Frequent. Eggerness 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.

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).

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

1266 Urtica dioica L. Very common.

" 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.
 - Common in the S. of the obtusiflorus. Ehrh. 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); Bishop-9.9 burn (1); Dunskey Lakes; Kirkmaiden, &c.
 - affine, Schnizl (natans) (b).
 - Castle Kennedy (1); Capeminimum Fr. ,, noch 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 Stran-raer (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.
 - 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-Bænninghauseniana. 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.
- 1577 ,, 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.

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.

Ammophila arundinacea Host (arenaria). Killiness (Arnott, 1848); W. side of Luce Bay; N. of Portwilliam; S. of Drummore.

Aira caryophyllea L. Frequent (1); Cairnryan; Portpatrick, &c.

,, præcox L. Frequent (1); Castle-Kennedy (1); Cairnryan; 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.

, fatua L. Wigtown (1).

1684 Arrhenatherum avenaceum Beauv. Very common everywhere.

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 coerulea, 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); Cairnryan 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); Cairn-ryan; Portpatrick.

" junceum Beauv. Frequent on the shore. (Arnott, 1848); Port o' Spital, &c.

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

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.)

- 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. 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 Auchenvalley (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, A. 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, and 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, an 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 brethern 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 (pré), 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 Ist 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 parochial 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 bourhouse of the Arab Bedouin, and hence called in Paris in jest Freres barrés—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 Maltese-shaped cross on the mantle over the heart, as so admirably depicted before you, with the others, to illustrate this paper, by Mr M'Lellan 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 Buccleuch 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 water-drawers 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 turnout, 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 trifling 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 McCulloch 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 earnestly 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 Stranraer, 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 interview 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 Lochrutton scheme. Taking the population at 15,000, he proposed to provide 30 gallons per day for each individual for domestic purposes, 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

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 Kirkeudbright, 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 amygdaloides.—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.

 $\label{lem:verbena} \textit{Verbena officinalis.} \textbf{--} \textbf{Reported from Fife.}$

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.

 ${\it Hippohae}$ ${\it rhamnoides.}{\it --} {\it In}$ 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 (M'Andrew). 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.—Dumfries, 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.

 $Ono brychis \ sativa.$ —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-ranæ.—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 Haddington 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 crop 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 yowels 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."

A.

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 dragon-fly 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."

B.

Bairge or Baird, to scold.

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

Bat, 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.

 $\ensuremath{\textit{Benner-gowan}}.$ I 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.

 $\it Butterblobs$, 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.

C.

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.

Creuzie, 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.

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.

 $\it Cipher$, 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, 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.

Ε.

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.

Fawns, 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.

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

 ${\it Flauchter-spade}, \ {\it a} \ {\it long} \ {\it two-handed} \ {\it spade} \ {\it for working} \ {\it with} \ {\it in the peat moss}. \ {\it Ramsay}.$

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.

Frem or Fremmit, strange, foreign. This is one of the Dumfriesshire 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.

 $\mathit{Gowf},$ 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.

 $\it Ged$, 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 swine-cry, 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.

 $\it Hoshens$, 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.

T.

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.

Κ.

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.

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

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

Keestless, 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.

Kyloes, Highland cattle. "Waverley Novels."

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

 $\begin{tabular}{ll} \it Kenches, favours. & In Jamieson entered Kinsches, "unexpected advantages." & "Waverley Novels." \end{tabular}$

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 church-yard or cemetery.

Lovenanty, O 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. Λ 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.

N.

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.

P.

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, in easy circumstances.

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

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

Puttock, a worthless species of hawk.—Shakespeare. Kirk-cudbright, 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.

 $\it Rittocks$, 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."

 $\it Rizzered$ 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.

 $\it Rile$, 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 sad 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. A "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 Sault or Sout, a leap, applied when the plough leaps up by striking a hidden stone. Also used when on a hay-stack. "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.

T.

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-fa, 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.

Trounse, 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.

Tove, to talk familiarly in a prolix manner. To flaunt about with girls.

A Tove, a coquettish person of either sex.

Tunmock, a tuft, or small plat of rising ground. "The road is kittle o'er that 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.

ľ.

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 sheep-shearing, 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.

Y.

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.

Yaud, 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."

Ech, 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, 1893; 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 axe 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 Bram'sles 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.
- R. affinis W. and N. Carron Glen; Roadside to Newmains, Keir; Closeburn Kilns, Thornhill.
- 3. R. polyanthemus, Lindeb. Closeburn.
- 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.
- 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 Wyllie, 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, Archaelogy, 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 £2 2s they become Members for Life.
- 5. The Office-bearers of the Society shall consist of a President, four Vice-Presidents, Secretary, Treasurer, Librarian, Cura-

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 Λ nnual 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.

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E. G. Baker, F.L.S., British Museum, London.

J. G. Baker, F.R.S., Royal Herbarium, Kew.

Arthur Bennett, F.L.S., Croydon.

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J. Harvie Brown, F.L.S., Larbert.

William Carruthers, F.R.S., British Museum, London.

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William Galloway, Whithorn.

Peter Gray, Galloway Street.

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.

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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, Sanguhar.

Mrs Maxwell Witham, Kirkconnell.

Miss Maud Maxwell Witham, Kirkconnell. Dr John M. Wood, Irish Street.

William M. Wright, Charnwood.

No. 11.

THE TRANSACTIONS

AND

JOURNAL OF PROCEEDINGS

OF THE

DUMFRIESSHIRE AND GALLOWAY

Natural History & Antiquarian Society.



SESSION 1894-95.

INTED AT THE COURIER AND HERALD OFFICES, DUMFRIES.
1896.



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Natural History & Antiquarian Society.

FOUNDED NOVEMBER, 1862.



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PROCEEDINGS AND TRANSACTIONS

OF THE

DUMFRIESSHIRE AND GALLOWAY

NATURAL HISTORY & ANTIQUARIAN SOCIETY.

SESSION 1894-95.

18th October, 1894.

ANNUAL MEETING.

Mr WILLIAM J. MAXWELL, M.P., in the Chair.

New Members.—Colonel Edward Blackett of Arbigland and Mr William Barber of Terreran. Mr Frederick R. Coles, of Edinburgh, was elected an honorary member.

Donations. — Cooke & Berkeley's Fungi, presented by Mr William Thomson, Kirkcudbright; Annals of the New York Academy of Sciences, 1894; Report of the British Association, 1893; Catalogue of Grierson's Museum, presented by Mr J. R. Wilson; Belfast Naturalists' Field Club, 1894; Report of Marlborough College Natural History Society, 1893; Proceedings of Natural Science Association of Staten Island, 1893; Transactions of Canadian Institute, 1894; Report of Kirkcaldy Naturalists' Society; Cystopteris Montana in Stirlingshire and Records from the Scilly Isles, by A. Somerville.

SECRETARY'S REPORT.

The Secretary (Dr E. J. Chinnock) read the Annual Report:— There are 182 members of the Society, of whom 19 are honorary and 8 life members. Ten new members were elected during the year. The Society sustained a loss by the removal from the town of two active members, Mr Robert M'Glashan and the Rev. Robert Macintosh. This was somewhat counterbalanced by the accession to our working membership of Mr Peter Gray, who for many years has been an honorary member and a frequent contributor to our Transactions. Eight evening meetings and two field meetings have been held. At the former 25 papers were read, some of which were of permanent value, and all of which were interesting. The communications of Messrs M'Andrew, Johnstone, Coles, Murray, Shaw, Dudgeon, and Fingland were especially valuable. In the absence of Mr Scott-Elliot in Africa, the herbarium has been carefully protected and enlarged by Miss Hannay. Mr Andson has continued his meteorological observations with unremitting diligence. Unfortunately the bad weather prevented us from having more than two summer excursions, one to Leadhills and the other to Threave Castle.

TREASURER'S REPORT.

The Treasurer (Mr J. A. Moodie) read his Annual Report, from the 1st October, 1893, to the 30th September, 1894:—

CHARGE.

Balance in Savings Bank at close of last Account	£4	10	0
,, Treasurer's hands ,, ,,	0	15	$2\frac{1}{2}$
O. J	€5	5	$2\frac{1}{2}$
Subscriptions from 123 Members at 5s each £30 15 0			
Subscriptions from 12 Members at 2s 6d 1 10 0			
	32	5	0
Entrance Fees from 8 New Members	1	0	0
Two Subscriptions paid in advance for next year	0	10.	0
Arrears paid—two Subscriptions	0	10	0
Copies of Transactions sold	0	11	3
Interest on Bank Account	0	5	6
	£40	6	1112
DISCHARGE.			
Paid Salary of Keeper of Rooms	. £	1 10	0
" for Stationery, Printing, and Advertising	. :	1 12	6
", ", Periodicals and Books	. :	2 6	4
", ", Repairs to Building	. :	2 0	7

Carry forward

1

... £10 10 11

", ", Coals and Gas
", ", Premium of Fire Insurance
", Secretary's Outlays and Postages

Treasurer's

Brought forward	£10	10	11
Paid Expenses of calling Meetings, as follows: Post Cards £3 16 6½ Paid for addressing same 1 2 0 ,, R. Johnstone for print-			
ing same 0 19 4	ner.	1 17	101
Paid Expenses of publishing Transactions for last year, as follows:— Paid Account to Wood & Son, Photo, Lithographers, Edin-	υ	17	10½
burgh ${\mathfrak t} 0$ 11 ${\mathfrak l}_3$ Paid Postage of Transactions to Country Members 0 9 0			
Paid Dumfries Herald for printing Transactions 21 14 6	99	14	7 }
Miscellaneous		11	4
Balance in Savings Bank £0 15 6	£39	14	9
Deduct Balance due to Treasurer 0 3 3½		12	$2\frac{1}{2}$
	£40	6	11½
(Sgd.) J. A. MOODIE, Hon	Tre	asu	rer.

DUMFRIES, 4th December, 1894.—I have examined the foregoing Account and the Cash Book of the Society, compared them with the Vouchers, and find the Balances stated to be correct.

(Sgd.) 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 Thomas M'Kie, William J. Maxwell, and James G. H. Starke; Secretary—Edward J. Chinnock, LL.D.; Treasurer—Mr John A. Moodie; Librarian—Mr James Lennox; Curator of Museum—Mr Peter Gray; Curators of Herbarium—Mr George F. Scott Elliot and Miss Hannay. Members of the Council—Messrs James Barbour, James Davidson, Thomas Laing, James C. R. Macdonald, Robert Murray, John Neilson, George H. Robb, James M. Ross, James S. Thomson, and James Watt.

The Rev. Sir Emilius Laurie, Bart., M.A., then read a paper entitled—"The Home of Annie Laurie":—

The home of Annie Laurie enjoys any notoriety which it may possess, not from its antiquity, for there are many older houses

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even in this part of Scotland, not from any peculiarity of structure, not from any part that it has played in history; but from its association with the name of Annie Laurie; and that lady owes her fame, such as it is, not to any accident of birth or to anything remarkable in her character or career, but simply to the song composed by the man she threw over. The air was, as you know, composed by a lady who is still living, Lady John Scott of Spottiswoode, widow of a brother of the late Duke of Buccleuch. The song, however, is old. Annie, or more correctly, Anna Laurie was born at Barjarg in December, 1682. She was the youngest of four daughters of Sir Robert Laurie and Jean Riddell, daughter of Riddell of Minto. In due course she became engaged to Douglas of Fingland, who composed the song in her honour. For what reason history does not tell; whether the engagement went off on the settlements, or was off by mutual consent, or was a simple case of jilting, I know not; but in spite of the lyric, in spite of "her promise true," in spite of the personality of her lover, Miss Anna threw him over, and married Alexander Fergusson of Craigdarroch. Douglas, however, seems to have survived the disappointment; he did not "lay him doun and dee," but married one Betty Clark of Glenboig. His poetic phrenzy, however, must have died out, for there is no second lyric handed down descriptive of the swan-like neck and dark blue e'e of Betty Clark; possibly she could not compete in beauty with her rival, possibly the braes of Glenboig were not as bonnie as those of Maxwelton. The song, I have said, was old. I had a curious confirmation of this a few years ago. A lady and gentleman, Mr and Mrs Bennoch, of London (he was a native of Durisdeer), spent a day at Maxwelton. In the course of conversation Mrs Bennoch, then a lady of perhaps 70, told me the following anecdote: - "When I was a girl I was staying in Yorkshire, and being asked to sing I sang the song of Annie Laurie. An old lady, a Miss Douglas, aged 90, was in the room; she complimented me upon my singing, and then said-'But those are nae the words my grandfather wrote.' She then gave a slightly different version of the first verse, saying that her father had often repeated them to her, as taught him by his father, the Douglas who wrote the song." This is strong confirmatory evidence of the genuineness and authenticity of the song in question. So far as we know, then, there was nothing remarkable about Miss Anna Laurie; her first lover immortalised

her by a song, and a lady of great musical gifts in our own day has immortalised the song by the air to which she set it.

But what is there to say about Annie's Home? It existed in her time, it exists now; what has the old house to say about itself? The Maxwelton estate was bought in 1611 by Stephen Laurie, a merchant in this town, having previously for some 200 years belonged to the Earls of Glencairn. In Van Gent's map of Scotland, bearing date 1654, the house is depicted as a castle, and called "Glenkairn Castel," with a farm near it called "Maxweltown." When the old name was changed I do not know; possibly Stephen Laurie or his son, having no connection with the family of Lord Glencairn, took the name of Laurie of Maxwelton, that being the name of the farm on which the castle stood, and that name gradually dispossessed the old one. The site of Glencairn Castle was well chosen, whether for beauty or for defence. It stands on the northern side of the Cairn valley, upon a small promontory of rock, running out from one of the spurs of the Keir range of hills; the ground behind it dips to the north before it reaches the steep slopes of the hillside; it falls somewhat on the eastern and western sides, whilst to the south it falls at first abruptly, but more leisurely afterwards, down to the river below. The house stands near the opening into Glencairn of the Clan pass, the only depression in the range of hills by which to cross from Nithsdale into the valley of the Cairn. Thus the ground fell on all four sides of the old castle, which must have stood out as a watch-tower, commanding the whole valley; whilst it was admirably placed for disputing the passage of the Clan should any unfriendly attack be attempted from that quarter. There can be no doubt, I think, that the present house stands on the site, and incorporates a large portion of the old castle; the two in fact are practically one. It occupies three sides of a quadrangle, of which a portion of the larger or western wing was burnt down about the middle of the last century. But there remains the rude foundations of the whole house-the tower at the south-west corner and a small turret at the inner north-west angle of the courtyard, two old arches in the eastern wing, and many portions of a wall of great thickness, that of the tower being five feet, and one within the western wing being twelve feet thick. In "The Castellated and Domestic Architecture of Scotland," by Macgibbon & Ross, the building which bears the nearest resemblance to Maxwelton is

Edzell Castle in Forfarshire, belonging to the third period of Scottish architecture, from 1400 to 1542, during which period the keep-tower began to be enlarged into a building surrounding a courtyard or quadrangle. In the later examples of that period a turret is introduced, as at Edzell and Maxwelton, into the re-entering angle of the wing, so as to give convenient access to the room on either side of the angle. Edzell Castle consists of a 15th century tower, enlarged in the 16th century into a building round a quadrangle, and, as is the case at Maxwelton, the garden adjoins the Castle on the south. In the 15th and 16th centuries the Maxwelton estate belonged to the Earls of Glencairn. The title was granted in 1488, and I am disposed to think that about that time the original building was erected, or possibly a still older building re-constructed, and the designation of Glenkairn Castle given to it by the Earl of that name. This makes the home of Annie Laurie to have been about 200 years old when she was born, or 400 years old at the present date. A vaulted chamber, which occupied the first floor of the tower, goes by the name of "Annie Laurie's boudoir"; though I much doubt whether the fourth daughter of a country gentlemen possessed such a luxury 200 years ago. It may possibly have been a small oratory. More authentic are the portraits of Annie and her husband, Alexander Fergusson, son of the Fergusson who was killed at Killiecrankie in 1689, which have never been out of the family, and which I was fortunate enough to acquire by purchase some years ago. For nearly 300 years, then, the present family has been in possession of Maxwelton. The property was originally a large one, Craigdarroch and Maxwelton dividing the greater part of the parish of Glencairn between them; but on the failure of the Ayr Bank of Douglas, Heron & Co., in 1772, after two years of as neat an exhibition of knavery and folly as any modern company promoter might find it difficult to surpass, four-fifths or more of the property was sold to cover calls, which, it is said, amounted to £1400 per share.

The first owner of Maxwelton, Stephen Laurie, was a flourishing Dumfries merchant, and married Marion, daughter of Provost Corsane, receiving with her, it is said, a large fortune. Anyhow, they bought Maxwelton of the Earl of Glencairn. His son John married Agnes Grierson, of the Lag family, and their marriage stone is still preserved over an old doorway at Maxwelton—J.L. A.G., 1641, with crest and arms, and underneath in Latin, "Ni

ccepta Dominus juverit frustra struis moles superbas cedium." Their son Robert married Jean Riddell, and their marriage stone still exists. Anna Laurie was their daughter. He was created a Baronet in 1685, Anna being then three years old. Their son Walter married Jane Nisbet; and their son Robert married Christian Erskine, daughter of Charles Erskine of Alva, a Lord of Session by the title of Lord Barjarg, and afterwards Lord Justice Clerk. This marriage linked the family on to all kinds of ancient fellows-Erskines, Mars, Murrays, &c., some of them possibly worthy of no great praise, but playing a prominent part in the history of the country. The son of Robert Laurie and Christian Erskine was General Sir Robert Laurie, for 30 years Member for this County. His wife was Elizabeth Ruthven, a daughter of Lord Ruthven, and through her mother a granddaughter of the second Earl of Bute. They had two children, a son, Admiral Sir Robert Laurie, who died in 1848, and a daughter, my mother's mother, who married Mr Fector, of Dover. The last survivor of that family died in 1892 at the age of 88, and with her the name of Fector, or Vechter, as it was originally, became extinct. I have said that in all its early generations the family inhabiting the home of Annie Laurie remained purely Scotch, but that has not been the case more recently. The earliest members of the Laurie family appear to have been strong adherents of the Reformation. I do not know about Stephen; he was possibly too much taken up with making money, and investing it in the purchase of a large estate; but his son, John, was one of the Dumfriesshire Committee for advancing the Covenanting cause, and in 1662 was fined £3600 Scots for not conforming to the prelatical commands of Charles II. He had married, however, Agnes Grierson, of the Lag family, possibly not bad diplomacy in those dangerous times. He does not seem, however, to have changed his opinions himself, but his son. Robert, adopted the political principles of his mother's family, and became one of the most active supporters of the King and Claverhouse. In 1685 James II. created him a Baronet "for his merits," and we know what that meant with the Popish King. and shortly afterwards he justified the King's opinion of him by sentencing William Smith to death, the son of one of his own workmen, for refusing to betray the hiding places of the Covenanters. The inscription now to be read on his tombstone in Tynron Churchyard contains the words-"Douglas of Stenhouse,

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Laurie of Maxwelton caused Cornet Bailie give me martyrdom." This is one side of the picture, we will now travel somewhat afield for the other, and, as I hold, the happier and the better side. In the 16th century the ancient family of de Bailleul had long owned estates in Spanish Flanders; but, having embraced the principles of the Reformation, they emigrated in the next century from Spanish Flanders, then under Philip II. and the Inquisition, to French Flanders, and thence, when persecution began under Louis XIV., to England, where they purchased property near Peterborough, and intermarrying with the families around them, were ere long known by the English name of Bayley. From one of those Protestant refugees my father's family is descended. Thus shortly before the time at which Sir Robert Laurie was sentencing William Smith to death for adherence to Reformation principles, an ancestor on my father's side was, for the sake of the same principles, forsaking his own country, and seeking refuge in England. But we have another link with the principles of the Reformation. In the year in which William Smith was put to death, a member of the French family of Minet, Isaac by name, was carrying on business in Calais. In that year the edict of Nantes was revoked by Louis XIV. The persecution of the Protestants became exceedingly severe, and Isaac Minet, who had embraced the new faith, was cast into prison, and told by the president that if he did not sign to be a Roman Catholic he would be burnt. He, however, made his escape, and with other members of his family, 23 persons in all, crossed by night in an open boat to Dover, and there founded a banking house. He was joined in due course by his nephew, Peter Fector or Vechter, a native of Mulhausen, who, with his father, had married into the Minet family, and together they carried on for many years the bank of Minet and Fector, now absorbed into the National Provincial Bank of England. The son of Peter Fector and Mary Minet was my mother's father, as also of the late Mr Laurie (formerly Fector) of Maxwelton. Thus whilst on my father's side we claim direct descent from the victims of Roman Catholic persecution, we claim a like connection on my mother's side also, and can show that at the very time that the one ancestor was doing the Covenanter to death, other ancestors were bearing witness to Reformation principles, and forsaking their own country for ever rather than renounce them. And this

much I may perhaps be allowed to add, that to the industry and high character of these Protestant refugees and their descendants we owe the modest fortune that has come down to us, and which enables us to prolong the occupation by our family of the home of Annie Laurie. But more than this; we all, I suppose, value that principle of association which clothes the world with memories of the past, and finds in the beauties that surround us the background of human history. It is the want of this that is felt so deeply by our American cousins, and makes them feel that the old world is so much richer than the new. I was travelling to Windsor some years ago in company with some American gentlemen, and as we crossed the Thames one of them said-"Oh! that's your river Thames is it? In our country we should call it a ditch." I answered-"Yes, I daresay you would; but in your country you have no ditches, or rivers either, with Oxford, and Windsor Castle, and Runnymede, and Westminster Abbey, and the Tower of London on their banks." "No," he said, "you have me there." And to illustrate great principles by small facts, it is this love of association with old memories which prompted an American to write to me last year to ask for some roots of ivy from our house, saying that many would value cuttings taken from the home of Annie Laurie; and which induced another American, bearing our name, to invite me, in virtue of some possible connection with us in the past, to visit Chicago at the exhibition, with a free offer of the rights of hospitality. I confess that I find in the house in which we live. verified in connection with the family history of those who inhabit it, a not altogether barren application of the law of association. There may well have been sound religious principle in that grandfather of Annie Laurie, who placed the motto already quoted under his marriage stone. So with the author of another motto over an old farmhouse door on the property-"The fear of God be in this house." The humble title which I bear is not that granted to my persecuting ancestor by the second James (that has died out), but that granted much more recently, on his retirement from the bench after 27 years of judicial life, to my father's father, described as "a learned and upright judge, noted as well for his benevolence as for his erudition." I have nothing to unlearn from him.

8th November, 1894.

Mr James G. H. Starke, M.A., in the Chair.

New Member.—Captain William Stewart of Shambellie.

Donations.—Journal of the Elisha Mitchell Scientific Society, North Carolina, 1893; Report of the Smithsonian Institution for 1892; Annual Report of the Bureau of Ethnology, Smithsonian Institution; and the Pamunkey Indians of Virginia; the Maya Year; and the Bibliography of Wakashan Languages (published by the same Bureau).

Exhibit.—Mr Starke exhibited a Cell found at Goldielea a few years ago.

Communications.

1. Botanical Notes for 1894.

By James M'Andrew, New-Galloway.

Wigtownshire.—During the past summer (1894) Mr Dugald MacFarlane, B.A., Greenock, and I were fortunate in adding a few more new plants to the Flora of Wigtownshire. The following six plants are new records for that county:—1, Ranunculus Lenormandi, growing in hill ditches cleaned out last year, on the south side of Kilitringan Fell, Portpatrick, &c.; 2, Ranunculus circinatus, growing in abundance at the south end of Soulseat Loch; 3, Calamintha acinos, with every appearance of being wild, on an earth dyke between Castle-Kennedy Station and Soulseat Loch; 4, Sisymbrium thaliana, at Port Kale, Portpatrick (this is a spring plant, and has almost disappeared before July or August); 5, Bromus sterilis, close to the gamekeeper's cottage, Dunskey; 6, Carex filiformis, found by the Rev. James Gorrie, F.C., Sorbie, in Prestrie Loch, Whithorn.

Among other interesting plants not formerly seen by me around Portpatrick may be mentioned—Radiola millegranna, in several places among the moors; Scrophularia aquatica, in a ditch near the gamekeeper's cottage, Dunskey; Pulicaria dysenterica, on the grassy slopes between Portpatrick and Dunskey Glen; Juncus glaucus, Carex intermedia, Calystegia soldanella, in Knock Bay; Euphorbia portlandica, North of Port o' Spital; Lycopodium clavatum, on the old Stranraer road, about four miles east of Portpatrick (this confirms this plant for

Wigtownshire); Nasturtium palustre, in Poltanton Burn; Carex remota, in Genoch Woods; Sazina subulata, in Torrs Warren; Trifolium striatum, on the road into the piggery at Dunragit Creamery; Callitriche autumnalis, in Soulseat Loch; and Ornithopus perpusillus in abundance in the adjoining fields.

Among mosses the following are worthy of record:-Didymodon luridus and Dicranella varia, var. callistomum, on mud banks on the west side of Loch Ryan; Didymodon flexifolius, on the moors; and Splachnum ampullaceum, on dung. The three following Hepaticæ may be noted, as they are by no means common :- Aneura latifrons, growing with the two mosses already mentioned on the shore of Loch Ryan; Riccia glaucescens, on Lagganmore Moor, on the Port o' Spital road; and in a field adjoining, abundance of Anthocerus punctatus. Riccia glaucescens I formerly found by the side of Dunskey Lakes, and also on Burnfoot Hill, New-Galloway, and misnamed it Riccia bifurca (readers will kindly make this correction in my "List of Mosses and Hepatice"). Near Portpatrick I found the lichens Parmelia revoluta in fruit; Coccocarpia plumbea, at the mouth of Dunskey Glen; and the rare lichen, Cladonia leptophylla, on the moors around Portpatrick. Several years ago I discovered this Cladonia around New-Galloway, and its discovery around Portpatrick extends the distribution to the west of Wigtownshire.

Kirkcudbrightshirk.—Around New-Galloway since last year I have found the following cryptogams:—The moss, Hypnum crista-castrensis (the ostrich feather moss), in two places in the Garroch Glen, and also Hypnum callichroum, Brid., near it; and the following Hepaticæ new to this district—Radulu aquilegia, Tayl.; Eucalyx hyalina, Lyell; Aplozia spharocarpa, Hook.; Lophozia porphyroleuca, Nees; Lejeunea serpyllifolia, var. planiuscula, Lindb.; var. cavifolia, Ehrh.; and Nardia compressa, Gray.

2. Some Kirkbean Folklore.

By Mr Samuel Arnott, Carsethorn.

It must be said that the record of ghosts seems a long one for so small a parish. Six in a district about six miles in length, and averaging only three miles broad, seem a liberal allowance, and make it appear that such unwelcome parishioners were plentiful enough. Even this is exclusive of one of which nothing is known, but whose memory is only kept green by the name of the old Castle of Wreaths, which is said to be derived from the word "wraith" or apparition. The ghost itself seems to have vanished, and it probably disappeared with the destruction of the dense forest which is said to have surrounded the old castle.

Taking the haunts of the ghosts in the order of a journey from Dumfries, the first is that which is said to have been frequented by a lady in white. This is on the main road shortly after entering the parish and close to a plantation of trees. Here in the shade of the trees, and with no sound near save the rushing of a neighbouring stream, this lady is said to have alarmed the passers-by. No one can tell me anything more about this ghost. and it is probable that even its reputed existence would have been forgotten had it not been that the belief in this supernatural being was turned to account in an ingenious way. A young woman living at a neighbouring farm was in the habit of meeting her sweetheart at a part of the road near the haunted spot, and in order to secure herself from annoyance was wont to wear a white sheet when going to the trysting place. Tradition says that this love affair was none the less prosperous from the apparent want of reverence for the supernatural, but that the lovers were eventually joined in the bonds of matrimony.

The next ghost we hear of with more detail, and the story is a tragic one with an ending in sharp contrast to that of the one just told. It is said to have haunted what is known as the "Three Cross Roads," near Arbigland, a lonely spot, where, on a wild night, the dread feeling which was in these days felt in the deep darkness caused by the surrounding trees must have been intensified by the sound of the wind through their branches, and the roar of the waves of the boisterous Solway. The ghost was generally supposed to be that of a young man, and the tale is a romantic one, which, in the hands of an accomplished novelist, would form a thrilling narrative. As is pretty well known, Arbigland at one time belonged to a family of the name of Craik. Its then representative had a daughter who, it is said, had become attached to a young man named Dunn, who was in her father's employment as a groom or horse-breaker. One day a shot was heard, and soon after the lifeless body of Dunn was found near where the ghost was said afterwards to appear. In

the eyes of the law, the sad occurrence was considered a case of suicide; but popular belief took an opposite view, and attributed it to the murderous act of one of Miss Craik's brothers, who had discovered the attachment between his sister and Dunn, and in his anger at the discovery, had taken the young man's life. It is said that Miss Craik was of the latter opinion, and that she left Arbigland and went to reside in England, never returning to the place so full to her of tragedy. The remains of Dunn were interred on the Borron Hill, and years afterwards disinterred by a man in the neighbourhood, the skeleton being, it is said, sent to Miss Craik. With the prevailing opinion regarding this ghastly tale, it is little wonder that the apparition of the unfortunate man was said to frequent the lonely spot where he met his death. It was hardly to be expected, however, that a haunted place like this should be deserted by the white ladies so familiar in ghost stories, and whose affection for Kirkbean seems somewhat remarkable, and one of my informants speaks of a white lady who was said to appear here also. The weight of the authority (if I am justified in using such a phrase in this connec tion) is, however, almost exclusively in favour of the tradition that the apparition was that of Dunn.

Between Kirkbean and Prestonmill there is a considerable stretch of road without a dwelling-house, the greater part being skirted by a wood on one side. About half-way between the two villages a small plantation exists on the opposite side to the larger wood. Here, too, the road forms a hollow, and surely no situation could have been more congenial to the tastes of such unearthly beings as those we are now considering. This was, in truth, the haunt of a ghost whose existence few at one time ever doubted; and he was, indeed, a brave man who ventured to walk alone on a dark night into the domains of the white lady, who was said not only to walk on the tops of the trees in the adjoining wood, but also sometimes to accompany passengers on the highway. There is in connection with the belief in this ghost an amusing tale, which has the additional merit of being true. One night a parishioner, accompanied by some of his relatives, was driving homewards, and his route led him through the "Howlet's Close," as the domains of the white lady were called. In passing through this they were much alarmed by seeing something running beside the head of the horse. Naturally enough this was supposed to be the ghost, and their

state of fear may be imagined. On emerging from the darkness it was seen, however, that the cause of alarm was their own collie dog. I have only been able to hear of one person who declared positively that he had seen this ghost. This man was driving home with his horse and cart when, as he declared to the last, he saw the white lady at the head of the horse as it passed through the darkest part of the wood. His terror was very great; but it may be as well to say that, while his belief in this tale was genuine, it is none the less true that he was addicted to the free use of "John Barleycorn." It is not for me to say that on this occasion this habit made the appearance of the ghost a little apocryphal. No one seems to know the origin of this lady in white.

The next ghost of which we hear is one which did not haunt the place in a visible form, but was only audible. The tenant of a farm some little distance from the place where the white lady appeared had fallen into difficulties, and, rather than face his creditors, committed suicide. The deed was viewed with even greater horror than would have been the case at the present time, and it was difficult to persuade anyone to stay in the house while the remains were in it. Three men living in the neighbourhood at last consented, and were sitting in the kitchen, while they kept their vigil, and talking at times of the dead man and his doings, or reviewing the ordinary news of the district. While they were thus occupied a footstep was heard in the passage, and to their horror it sounded like that of the suicide. So struck with fear were they that for a time no one would venture from the kitchen, and meanwhile the footstep seemed to go to the foot of the stair leading to the rooms above, and to return along the passage. At last one of the men, more courageous than the rest, said, "In the strength o' God, I'll gaun up the hoose," and mustering up his courage went along the passage to the room where the corpse lay. He saw and heard nothing on the way, and found the body as it had been left, and without any sign of having been disturbed. For years this " uncanny" sound was heard occasionally, to the great alarm of those in the house who thought they heard it. One woman, whose son told me the tale, was in the house alone, her employers and fellow-servants being out when she heard the footstep coming along the passage to the foot of the stair and returning. She appears to have had less timidity than many, for she not only

went into the passage, but searched the rooms and a place where wood was stored, and could see no one. It is not within the scope of this paper to endeavour to explain these things. They are given as they were related to me.

Nearly half-way between Prestonmill and Mainsriddell is a lonely and gloomy part of the road known as the "How o' the Derry's Hills," more briefly the "Derry's How," or, in English, the "Dairymaid's Hollow." This place was haunted by an unearthly thing in the form of a black dog-a common enough form in demonology. There seems also to have been a belief that this "bogle," as it was called, assumed various forms, and one dark night when three women were passing along the road at this place they were alarmed by a strange rushing sound which seemed to come over the hedge to cross the road, and then go over the hedge on the side opposite to that by which it entered. Two of the women, unhesitatingly affirmed that it was "the bogle," but the third, who had little faith in the supernatural, thought it might perhaps have been one of the peacocks from the adjacent farm of Torrorie. A medical man who lived in one of the neighbouring villages, and whose profession caused him to traverse the district at all hours, used to say that one night in going through the "Derry's How" he saw the form of a lady dressed in white. The only other ghost I have been able to hear of frequented a field called the "Murder Fall," above Torrorie. This ghost is said to have been that of a man who had been hanged in this field, and whose appearance, to say the least of it, must have been a little singular. When seen he had a pair of "cleps" round his neck. "Cleps" are moveable handles which were placed on large pots, such as those formerly used for washing purposes, or for boiling pig's-meat. Nothing seems to have been known of who this man was, or what was his offence.

As showing that ghosts were generally believed to follow upon deeds of violence, the following incident may perhaps be appositely given now:—A tradesman in the parish had, in a moment of passion, struck his apprentice a blow with his hammer, which is said to have caused the death of the lad. From that time the man dared not enter his workshop after dark lest he should be confronted by the ghost of the dead apprentice. More than this, for at least some years after the sad occurrence he would not fall asleep at night if he knew there was even the smallest quantity of water in the house. He was afraid that he might be

drowned while asleep, as a punishment for the fatal blow he had given.

Up to the time of writing this I have only been able to hear one instance of the appearance of the apparition of a living person—an omen which was believed to foretell death or disaster to the person whose vision was seen. A man, who was going towards a farm house to call at the house of one of the cotmen, saw, as he imagined, the cotman's wife come from the house towards a stream which flowed close by, and return with water. He followed at once, and on entering the house saw the woman at work baking. He was astonished to see her at work in such an incredibly short time, and remarked to the woman that she had surely been very quick. The woman asked what he meant, and on being informed said she had not been out of the house. Unfortunately the misfortune which was believed to follow such an apparition has not been recorded in this case.

Tradition tells not only of a reputed witch just over the border of an adjoining parish, but who, so far as I can learn, was innocent, but also of one who seems to have traded upon her reputation as such. Some of the parishioners would have gone a long way out of their paths to avoid meeting her for fear of her evil eye.

One of the tales told about this woman was that one day a party of sportsmen from Cavens were shooting on Criffel, and one of the party observed a hare sitting on a large granite boulder. Levelling his gun at the hare he fired, and it fell over behind the boulder. On going to pick up his game no hare was to be found, but in its stead was the witch, who was standing rubbing her thigh. The belief was that she had taken the form of a hare and had thus deceived the sportsmen. Another tale, which is, I believe, quite true, shows how deep was the belief in her supernatural powers. Curling was in progress in the parish, and the devotees of the "roaring game" were anxious that their pleasure should not be interfered with by a thaw. One enthusiast, who occupied no unimportant position in the parish, and who was a devout believer in the supernatural, went to the old woman and promised her a pair of new shoes on condition that she secured them three days' hard frost. The three days' frost succeeded, the shoes were given, and belief in the old woman's powers was greatly strengthened. One of my informants gravely assured me that he had seen the shoes himself. The same curler when taking part in a match for the silver snuff-box, which is the coveted prize in the parish club, was in the habit of asking this woman to throw snowballs or a broom after him for luck as he went over the hill just beyond Kirkbean on his way to the pond. The fairy lore is exceedingly meagre, and only relates to the appearance of the "little folk" at one particular time and in one locality. On Hallowe'en night the fairies were said to pass, with drums beating, in procession through the village of Prestonmill, and to repair to a neighbouring mound called Hangman Hill, on which, as I said in my paper on the antiquities of the parish, a kist vaen had been found. Here they passed the night dancing, only dis persing at dawn of day.

A curious piece of folklore is the legend relating to the existence of a large diamond on Criffel. It is many years since I heard this for the first time when staying at Southerness. The story is that seamen on board vessels coming up the Solway can. on clear nights, see the gleaming of a large diamond, which is lying on Criffel, but although it can be seen a long distance off, when searched for it cannot be found, although the search may be most carefully made. As a matter of course, no consideration is given to the matter-of-fact reasoning which would point out that a diamond which could be visible so far off must be of dimensions which would make the Koh-i-noor and even larger gems pale into insignificance. If anything of the nature of a brilliant light is seen it is probably due to that of the moon glittering on some granite block or some small streamlet flowing over a boulder, a sight less likely to excite the cupidity of the observer, but immeasurably more full of delight to the lover of the beautiful than any diamond, however brilliant it may be. With this legend I close meanwhile, leaving to a future time, if you will allow me that pleasure, the story of the remaining folklore, including the lucky and unlucky omens and miscellaneous superstitions, which it takes some time to collect. Singularly enough, as it seems to me, this little parish, laved by the waters of the restless Solway, which has claimed its many victims in storm and in calm, seems to have no traditions of ghosts which haunt the Firth, nor of the visions which in other waters have lured to destruction those who risk the dangers of the deep.

3. Recollections of Dumfries 60 years ago.

By Dr ROBERT HIBBERT TAYLOR, Liverpool.

One of my earliest recollections of Dumfries is in 1820, being taken into the town to see the illuminations for Queen Caroline's acquittal. The town must have been very loyal to the Queen, as the illuminations and rejoicing were very general. Another early recollection is having witnessed the procession of "King Crispin," when all the assembled trades, in gala attire, and bearing the various emblems of their crafts, walked in procession through the principal streets of the town. The royal crown was borne upon a velvet cushion, and a champion in full armour rode before his majesty, and defied the world to question his legal rights. Bands of music, and gorgeous flags and banners of various forms and devices, accompanied the triumphal march, and all went "merrie as a marriage bell." The festival was a great event for youthful spectators, and, indeed, it excited the curiosity and awoke the sympathy of the entire civic population. I am afraid that the conclusion of the spectacle was not always so orderly and edifying as the commencement, and that the enthusiasm with which the "king's" health was drank not infrequently run to excess under the inspiring influence of "John Barleycorn." The pageant of "King Crispin" was, I believe, enacted at stated intervals of years, but has long since passed away and been forgotten, except by those whose memories are as far-reaching as my own. Mr Starke of Troqueer Holm says that he saw the "Crispin" procession in 1863.

On one occasion after the celebration of some civic festivity and procession, a local poet is said to have given vent to his feelings in the following lines, containing an arithmetical computation which would puzzle even Cocker himself to unravel—

> Before the foremost walked with great respect Convener Deacon Alexander Affleck; Next unto him walked the hammer-men, In twos and twos, twice four equal to ten.

Another festival in which the Dumfriesians always took a lively interest is what was known as shooting for the "Siller Gun." This object was a small model in silver of a gun or pistol, presented to the town by King James VI., to encourage the use of firearms, and was awarded to the best shot at a target when

the prize was competed for. The contest took place at stated intervals, every seven years I believe, and the scene of action was the Kingholm, as affording suitable space for the erection of targets, and the accommodation of the numerous combatants and spectators who usually assembled. How far this practice tended to enhance the skill of the marksmen in handling the musket I cannot say, but I have been told that a spectator of the fray cynically remarked that he thought the target was the safest place in the field. The last occasion on which the "Siller Gun" was competed for on the Kingholm was, according to Mr M'Dowall, in 1828. But a more recent competition took place elsewhere in 1831, when it was finally won by Deacon Alexander Johnston, and was carried by him in the great procession which took place in the burgh at the celebration of Burns' Centenary.

In the olden times of which I now write, the streets of Dumfries were lighted with oil lamps, a very imperfect mode of illumination compared with the brilliant gas and electricity of the present day. The little "winkies" were made to display their feeble glimmer by a town functionary, who, armed with a flaming torch and a short ladder, ascended each lamp post in succession, and applied the needful fire. This useful citizen was an object of much interest and jocularity to the "small boys" of the town, who used to follow him shouting-"Leary, leary, licht the lamps; lang legs and short shanks." The trimming of the lamps, which took place next morning, was rather a comical performance, at least so I used to think. "Leary" ascended his ladder as before at each post, provided with a can of oil and a pair of scissors. The tin cover of the lamp was then removed. and, to leave his hands at liberty, was usually placed on the top of his hat, while he trimmed the wick and filled the shallow oil vessel.

My early recollections of Dumfries watchmen are derived from the experience of a night occasionally spent at the house of a relative who resided in the burgh. The guardian of the night was armed with a lantern, and as he passed along on his tour of inspection announced in loud tones the hour of night, accompanied with certain meteorological observations regarding the state of the atmosphere, and the general appearance of the heavens. Thus, I have heard the following announcement—"Past ten o'clock; a fine starry night."

Another object of interest on these occasions was the passing of the Portpatrick mail coach, which used to leave the town at ten o'clock in the evening. It halted at the Post Office, at the top of Buccleuch Street, to take up the letter bags; and then, with sound of horn and flash of lamps, if the season was late, and trampling of hurrying steeds, it swept down the street, and disappeared in the darkness of the night, a passing vision of wonder and delight to the youthful imagination.

A notable character in the burgh at this time was the "town crier," John Crosbie, who, I have been told, undertook the office more for the love of it than from any necessity. He was always neatly and comfortably dressed, and had a dignified and important air, which consorted well with his vocation. Being on friendly terms with an old lady, a relative of mine who resided in Buccleuch Street, he was in the habit of drawing up in front of her house, and after pealing his bell to invite attention, he would deliver the tidings he had to communicate in a loud and sententious manner, and concluding abruptly, would wheel about and proceed on his round. I have heard him announce the sale of salmon at the "fish cross" at sixpence the pound, a price unknown at the present day.

Another frequenter of the streets, but of a very different type, was a poor half-witted man named "Jamie Pagan." He would be seen at times wandering aimlessly along, clad in garments which might have been borrowed from a "potato bogle," with a battered misshapen hat stuck on one side of his head. The children would sometime shout after him, but he was a harmless creature, and did not seem to mind them.

Among the various shopkeepers whom I remember, and who as being public characters and worthy citizens I may name without offence, were Thomas Milligan, a tinsmith, usually known by the significant cognomen of "Tin Tam;" his shop was near the "New Kirk;" John Anderson, the bookseller, in High Street, whose shop was the well-known resort of the literati of the town; Robert Watt, an ironmonger, who was located opposite the Midsteeple, and Andrew Montgomery, a popular baker, who was on the other side of the same Steeple. On the Plainstones were William Howat, a draper; John Sinclair, a bookseller; and Peter Mundell, a tobacconist, who afterwards became laird of Bogrie, and attained to civic honours. Messrs Gregan & Creighton conducted an

excellent cabinet making business. Their handiwork was made to last, not merely to sell, for I have sundry specimens of it in my possession at the present time, as good as when put together, more than sixty years ago. The shopkeepers in those days must have made money, for in after years I recognised several of them comfortably located in suburban villas. The principal inn was the King's Arms, then kept by Mr Fraser, who was afterwards Provost of the burgh.

The chief medical men at this date were Doctors Maxwell, Melville, and Symons, and Mr Blacklock, a former navy surgeon. Dr Maxwell I have heard spoken of as "Dagger Maxwell," from some popular notion that he was favourable to the French Revolution. Those who remember Dr Melville will doubtless recollect a peculiar habit he had of hitching up his "pants" when he stopped to speak to any one in the street. They were all able men in their vocation, but differed somewhat in their mode of practice, a licence which is generally accorded to doctors, as well as to poets, without implying any disparagement to either.

The clergy of the Established Church at this period were Dr Scott of St. Michael's, a portly looking gentleman, who in hot weather walked the street carrying his hat in his hand. Dr Duncan was the minister of the New Kirk, and the Rev. Charles Babington, an M.A. of Oxford, was the incumbent of the Episcopal Chapel. The Nonconformist body was represented by the Rev. Walter Dunlop, who was somewhat of a "character," and was gifted with a large amount of ready humour. I have a lively remembrance of his personal appearance—a tall stout man, with a large genial countenance, wearing a broad brimmed hat and a wide skirted coat; walking with a swinging step, and carrying a dark coloured "gamp" umbrella tucked under his arm, with the horn handle projecting from beneath his shoulder. Numerous jokes and witticisms have been laid to his charge, and some of them have appeared in print. The following anecdote concerning him was related to me by the person who was an actor in the scene, and has not, I think, been made public. The Rev. Walter, as not unfrequently happened, going one afternoon to take tea with a member of his congregation, who lived in the country, accidentally met a son of the rev. doctor of the New Kirk. and invited him to accompany him. On arriving at the farm house, he proposed to the inmates to give them "a prayer" before tea, as, I believe, was his custom. The gude wife excused herself

from being present "ben the hoose," as she had to attend to the frying of the ham in the kitchen; but Mr Dunlop obviated the difficulty by saying that she could leave the door open between the apartments, and so would benefit by his ministrations, while at the same time she attended to her duties in the kitchen. This plan was adopted, and Mr Dunlop so managed as to conclude his devotions just as the ham was heard to give the concluding frizzle. On their way home in the evening, Mr Dunlop remarked to his companion—"Mr Tammas, did ye notice hoo I nicket the time?" Another instance of Mr Dunlop's eccentricity I may mention, as I was present on the occasion, and heard the rev. gentleman's remarks. When quite a youth I went one Sunday evening with my mother to hear Mr Dunlop preach, and at the conclusion of the service, which was conducted in his usual broad lowland "Doric," as he descended the pulpit stair he espied my mother, and addressing her in a loud tone, audible to all about him, said-"Glad to see ye here, Mrs Tyler; ye'll hear nothing in this place but soon' doctrine, according to the Shorter Catechism and the Confession o' Faith." Poor Wattie! I do not know what was his end, but I have heard that he lost his popularity, and was in very straitened circumstances at the close of his life.

My first acquaintance with the Academy must have been previous to 1822, when I was pupil with a worthy old gentleman named Haigh, who wore a brown curled wig, and in a sort of paternal fashion instructed a number of juveniles of both sexes in the rudiments of reading and writing. One recollection I have of him was his looking over my shoulder when making some of my first essays in writing, and saying that "I need not add so many fringes to my letters." In 1822 I joined the Latin class then taught by Rector Harkness, a very enthusiastic person, and, I should think, an able scholar. He certainly possessed the faculty of inspiring many of his pupils with his own love of learning. I recollect that he had a large chair constructed after the pattern of the "sella curulis," the public seat of the Roman consuls. This machine, which was ascended by steps, was placed at the top of the class, and was the coveted seat of the "dux," and the cause of many an intellectual contest in order to gain the envied elevation. I have learned from one who was a pupil of the Rector's at a later date, that he was rather severe in the exercise of his authority, and liberal in the use of the

"tawse." It was not so in my time; but there was a large, rawboned usher who was much given to flagellation, and of whom I retain a very unpleasant remembrance even to this day.

Among the civic notabilities whose names and appearance I can recal were the Town Clerk, Mr Francis Short, commonly known as "Frank Short," and Mr John Staig, whose father was Provost for many years in succession. It was the custom in those days for the chief magistrate, and some others of the civic dignitaries, to walk in procession to church on Sunday, preceded by two halbert men, arrayed in cocked hats and long-skirted coats, and bearing a sort of battleaxe mounted on a pole. On entering the church, these formidable-looking weapons were deposited behind the pews which the magistrates occupied in the front of the gallery. It is to be regretted, I think, that this ancient custom has been discontinued; the appearance in public of the "powers that be," with a certain amount of ceremonial dignity, has a wholesome influence upon the spectators, and may contribute in some measure to render the magistrates what they ought to be, "a terror to evil-doers, and a praise and protection to those that do well."

Another practice which prevailed at this time was the punishment of "rogues and vagabonds" by whipping them publicly in the streets. The culprit was tied to the end of a one-horse cart, which was paraded through the town, a halt being made at intervals, and the scourge applied. At the conclusion of the performance, the "vagabond" was conducted to the confines of the burgh, and "drummed out of the town," I presume to the tune of the "rogue's march!" I think it must have been in recollection of this salutary discipline of former days that a "worthy magistrate" is reported to have addressed a culprit who was brought before him with the remark-" It's a pity whuppen is oot of fashion, or I wad gie ye a gude whuppin !" Another oldfashioned mode of punishment, applied chiefly to those who were drunken and riotous, was to immure them temporarily in a place of confinement facetiously termed the "saut box," which was located in the neighbourhood of the Midsteeple. It is reported of some unfortunate, who had been summarily placed in "durance vile," that he shouted through an aperture in his cell to a passing acquaintance-"Tell oor fowk that I'm here," a rather naive mode of accounting for his non-appearance.

While on the subject of law, and the maintenance of order, I

may mention the name of John Richardson, a very active and intelligent sheriff's officer of this date. On one occasion he was sent in pursuit of David Haggart, who murdered the jailer of the prison where he was confined and made his escape. John is said to have been in close proximity to Haggart in Comlongon woods without discovering him. The latter made for the shore of the Solway, near Seafield, and when Richardson, who was hard behind him, arrived on the beach, Haggart was far out in the Firth in a boat on his way to Cumberland. He was afterwards captured, and hanged at Dumfries, an event which I well remember though I did not witness it.

In the period of which I write the supply of water to the burgh by pipes in the houses must have been very limited, if, indeed, it was conveyed in that manner at all. Pumps and open wells were the principal sources of supply, and one named the Dock Well was a favourite resort for that purpose. Carts with large water barrels also daily perambulated the streets, disposing of their contents to those who required it. When empty, they were filled again from the Nith in a most primitive manner, our worthy foreears not having apparently any fear of bacteria or other vermin, which modern science has discovered to abound in what we eat and drink and in the very air we breathe. I do not know that the citizens suffered in consequence of their ignorance, and although I do not say that in this instance, "where ignorance is bliss 'tis folly to be wise," at all events the tranquility of life was not disturbed by apprehensions of having swallowed what might be injurious to health.

Another old fashion occurs to my remembrance in the form of "sedan chairs," one of which at least existed in the burgh, owned probably by Robert McClumpha, or McClumphy, as he was always applied to when it was required, and acted as the principal bearer. I once had the honour of riding in a "sedan" with my grandmother. Externally it was a rather dismal sentry box looking machine, being covered with black leather, but inside it was comfortable enough, and the motion was not unpleasant as it jogged along at a semi-trot pace, supported on long poles, with a bearer in front and another behind. The "sedan" was convenient in this respect, that it could be carried inside the house for the reception of the intended occupant, who afterwards stepped out in full costume for an evening party at the place of destination. I am rather surprised that it should have fallen

into disuse as, on certain occasions, it possessed sundry advantages, especially for ladies, over the modern vehicles on wheels.

The elderly ladies in those days frequently went out to tea with their neighbours at an early hour in the afternoon, preceded in winter by a "lass with a lantern," and in rainy weather both mistress and maid wore "pattens," a kind of shoe with a rim of iron beneath, which raised the foot a couple of inches from the ground. The six o'clock evening bell was always rung from the steeple of the New Kirk, and often indicated the hour for tea, as well as called the labourers from their daily work—an ancient custom associated with many pleasant memories, and probably continued still.

In former years floods in the Nith were not infrequent, especially at the fall of the year, and sometimes they were both sudden and unexpected. In the course of twelve hours, or less, the river would rise and overflow its banks to a great extent, and flood the streets and houses in the lower part of the town. I remember to have seen a boat navigating what was the Brewery Street, and rescuing the inhabitants from their dwellings; and a worthy son of "Crispin," who bore the appropriate name of Shanks, informed me that on getting out of bed one dark autumn morning he found himself nearly up to his knees in water, from a sudden spate in the Nith which had flooded his dwelling. Quantities of debris, of a very miscellaneous character, were often seen on these occasions floating down the stream-remnants of hay and peat stacks, sheaves of grain, yards of wooden paling, with an occasional sheep, were swept along by the current, and finally shattered as they plunged over the cascade of the Caul.

I cannot bring these brief sketches of the former manners and customs of Dumfries to a close without some reference to the aquatic performances of the boys who used in summer to throng the banks of the mill-dam on the Galloway side of the river. Hundreds of youths must have acquired the useful art of swimming in that rapid current, and some of the young adepts always stood ready to dive, on the shortest notice, for any small coin which might be thrown for their benefit into the water.

Another memory of later date occurs to me in the existence of a notable character in the town, usually known as Jock Brodie. He was a tall, dark, handsome-looking man, and had an evil reputation as a poacher. However that may be, he was at least a dealer in game, and much patronised by those who were in

need of it. In his later days he became, I believe, an altered man, and a highly respectable character, a living example of the truth of the adage—"It is never too late to mend."

I may allude, in conclusion, to a custom which prevailed in my early days in the mode of washing clothes. The young women of the middle class used to come down to the Greensands provided with wooden tubs. These were placed near the river, and half filled with water. The garments to be washed were then put into them, and the owners taking off their shoes and stockings, and tucking up their petticoats, stepped into the tubs, and trampled the clothes, turning round and round during the process. When the water became dirty, I suppose it was emptied out and a fresh supply added, and when the operation was completed, the clothes were spread out upon the grass to dry. This primitive fashion probably would not comport with the more refined notions of the present day, and besides the same end can be attained by other and more effective means.

There are three worthy persons connected with Dumfries, of whom I remember to have heard a good deal in my youth. Though not public characters, yet as they are long since "gathered to their fathers," and all that can be said of them is good, I may be permitted without offence to mention their names. They are—Robert Gillies, Miss Gordon of Earlston, usually known as "Miss Willy Gordon," and Miss Jane Goldie of Summerhill. They were all eminent for their Christian character and their practical good works. Gillies was, I believe, a tradesman in the burgh, and was remarkable for his zeal in originating and conducting Sunday Schools for the benefit of the young. Miss Goldie was, I believe, the founder of the Greensands School, to which so many children have been indebted for their religious and secular education.

14th December, 1894.

Mr ROBERT MURRAY in the Chair.

New Members.—Mr John Millar Crabbie, Duncow; Captain Robert Cutlar Fergusson, Craigdarroch; and Miss M'Kie, Moat House.

Donatrons.—Report of Smithsonian Institution, Washington, 1892 (2 vols.); Report of U.S. Geological Survey, 1892 (4 vols.);

Proceedings of Nova Scotian Institute of Science, 1893; Transactions of Edinburgh Geological Society; Transactions of Botani cal Society of Edinburgh.

COMMUNICATIONS.

Notes on the Antiquities of Dunscore.
 By the Rev. Richard Simpson, B.D.

The position of Dunscore among the hills places it far out of the stream of the busy world's activities as it flows to-day, but in former times those secluded glens and bleak uplands were the scene of many an incident worthy of remembrance, and had an influence all their own on the course of events. Few country parishes are richer in associations with the history and the literature of our native land. Dunscore counts as its own names that are celebrated all the world over, and reverenced and loved wherever men read and think, and wherever there glows the flame of poetry or of patriotism. The strongest and sternest blood of the Covenant, as well as the most active and hated of the persecutors, came from within its bounds. It was in Dunscore that Burns made "a poet's, not a farmer's choice," when he preferred Ellisland to Foregirth, and settled down to write the very best of his poetry and spend the happiest and most prosperous days of his troubled life. In Dunscore Scott found one of his feudal castles, and laid there the scene of the grim episode in "Redgauntlet." And it was on the western border of the parish, with the far outlook from Craigenputtock over the wilds of Galloway always before him, that Carlyle hammered out the pure gold of "Sartor Resartus" on the anvil of his own soul.

There is a singular vitality about words; and a good deal may be learned about the history of any locality from its place names. Through this medium Dunscore is connected with the earliest period of our national life of which we have any knowledge. Leaving out of consideration a group of modern invention and barbarous taste, the majority of our names are of Celtic origin. One or two are English, and there are traces of Norse or Danish. The Celtic names seem to be survivals of the time when our uplands were included within the ancient kingdom of Galloway, and the others are marks left by the successive waves of invasion that beat against its frontiers. As is the case with most ancient

names—whatever their language—they are descriptive of natural features. Dunscore itself is dùn sgòr-the hill with the steep rock. Lag means a hollow, and Laggan, a little hollow. Kilroy is the red corner, the name being the only relic of some forgotten tragedy. Stroguhan is a stony place—a name which would quite correctly describe the whole parish. Craigenputtock, as we have all learned from Carlyle, is the rock of the wild hawk. Cat's Craig, a name which occurs twice in the parish, does not require to be explained. Drum means a ridge, and here the name is the very picture of the place. Swyrie is the neck of the hill, where the summit dips and rises again, forming a pass. These are all of very early date. Belonging to a later time we have those well-known marks of ecclesiastical possession-Merkland, Shillingland, and Poundland, telling of the days when the monastery of Holywood owned all the land in the valley of the Cairn, and even as far as Glaisters, beyond the boundaries of the parish to the west. Friars' Carse recalls to mind the Monks of Melrose, who possessed the rich holms of the Nith for centuries; and Monkland, a name recently revived, belongs originally to their day. Ellisland, it is ingeniously suggested by a well-known archæologist, who is a member of this Society, is from Isle. It is the Laird of Isle his land, Isle's Land, Ailisland, Ellisland.

But a great number of our Dunscore names are quite unlike these comely and dignified survivors of the past. They are as hideous as the modern appellatives of the Far West. In the Sibbald Manuscript in the Advocates' Library (W. 5. 17.) we are told that "the Cunninghames, Earles of Glencarne, being superiour to the whole parish, excepting a Barony or two, did divide his property amongst his jackmen for the greater part of it, into several tenements, bearing the name of the first occupants, which denominations; though the lands be now possessed by those of other names, yet they do still retain as at first, as Blackstown, Inglistown, Crawfordtown, Stewartown, Gilmorestown, Gordonstown, Garriokstown, and some others more." The evil example of Glencairn was followed in Dunscore and other places. We know not what graphic names of an earlier age these hideous compounds supplanted, but we could have forgiven the Earl of Glencairn in question if he had only had the grace to leave well alone. It is little comfort to know

that his offence is written down in history, and that he himself is classed among the Goths and the Vandals.

Passing from names to things, our interest does not grow less. Belonging to a remote antiquity, the Lake Dwelling at Friars' Carse carries us away back to a period before any history of our country began to be written. The island in the middle of the loch that lies close to the highway was long used as a place of refuge in times of danger. In the days of the Border raids the peaceful fraternity of monks, from whom Friars' Carse derives its name, were often hard put to it to bestow their goods and gear where the wild reivers of Cumberland could not lay hands upon them. That little island was their safe hiding-place. At the first signal of danger, they conveyed their effects thither by a path through the water known only to themselves. No enemy suspected that the little wooded island concealed what they so greatly desired to carry away, and if any attempted to ford the narrow strip of water, the black yielding mud soon warned them of their danger, and caused them to desist.

It was not generally known that this island refuge had been constructed by human hands; but in 1878, when the late Mr Thomas Nelson partially drained the loch, the structure was laid bare. It was then seen to be one of the artificial lakedwellings built two thousand years ago or more as a place of safety by the original inhabitants of the land. A mass of stout oak beams rests upon the bottom of the loch, which cannot be less than 15 or 16 feet in depth, and forms an island of oval shape measuring 80 by 70 feet. On this island huts were erected, traces of the partitions of which remain. Near the middle there was a circle of small stones forming a rude pavement, evidently designed to protect the foundation of oaken logs from fire. A canoe, hollowed out of a single tree-trunk, and the paddle by which it was rowed, were found imbedded in the mud, showing how the people who lived on the island went to and fro. A stone axe and some fragments of pottery remained to show what sort of people they were, and give some indication of their habits and ways of life. Further relics might have been found, but for a singular and untoward accident which befell the rubbish removed from the surface of the oak pavement. As this was dug away, it was wheeled to what seemed a place of safety, where it was to remain until it could be carefully turned over and examined. One morning, however, the precious heap was found to have disappeared. The apparently solid ground was only a matted crust of mud and roots resting on the surface of the water. The great and constantly increasing weight caused the crust to give way, and the whole mass sank out of sight and out of reach in the soft black mud at the bottom of the loch. The loss is distinctly to be regretted, but in spite of it, the Friars' Carse lake dwelling remains one of the most interesting spots in the parish.

Many traces still exist of the occupation of the Lowlands of Scotland by the Roman legions seventeen or eighteen hundred years ago. Besides some indication of the roads they constructed, the remains of two of their forts are to be found in Dunscore. One of them occupies a picturesque site on the farm of Sundaywell.

Distinctly visible from Sundaywell, yet six miles distant as the crow flies, is the Camp of Springfield Hill. It is smaller, but even more difficult to approach than the former, and its three lines of fortification are much more clearly marked. view from Springfield Hill is of wide extent, commanding the whole of Nithsdale from the Lowthers to the Solway, and taking in a long stretch of the Cumberland shore. Over the shoulder of the Tinwald Hills is seen the square top of Burnswark, an important military centre in the days of the Roman occupation. Signals could be made between these two places, or passed on by Springfield Hill from Sundaywell to Burnswark. By means of stations such as these, widely apart, yet within signalling distance, the conquered country was effectually kept in order, until troubles in other quarters compelled the generals of the Empire first to withdraw their forces within the line of Hadrian's wall between the Solway and the Tyne, and then, in the reign of Honorius, finally to abandon Britain.

The people of former days knew how to build so that time and decay should have little power to mar their work. More than two hundred years have passed since the old tower of Lag ceased to be a place of human habitation, yet its walls still stand grimly defiant of wind and weather as once they were of English bow and spear. It was built at a very early date. The mound which was chosen as its site was then in the middle of a lake, and thus the solid square keep was a safe retreat in the unsettled days of the Border raids. It was several storeys high, each with a vaulted roof, and there were round turrets at the

four corners. The cottages of the chief's retainers clustered about it, and these were enclosed within a strong outer wall, whose great gate, with lofty circular arch only recently destroyed, faced the north. In 1532 the tower suffered from fire, but it was restored, and continued to be inhabited for another century and a half.

Lag was the ancestral home of the Griersons, a family that occupied a distinguished position in Nithsdale for many generations. They come into authentic history in the fifteenth century. At Sauchieburn, where in 1488 the unfortunate King James III. was defeated, and later in the day treacherously murdered, Roger Grierson, who fought on the rebel side, was wounded. Another Roger after him fell at Flodden, 1513. About the same time John Grierson was principal of King's College, Aberdeen, and head of the Dominican Order of Friars in this country. In 1593 fifty-four horsemen under Grierson of Lag took the side of Lord Maxwell, as Warden of the Western Marches, in the encounter with the Johnstones of Annandale at Dryfe Sands.

But the most noted of the race was Sir Robert Grierson, who was born at Dalskairth, Troqueer, in 1655, succeeded to the estates of Lag and Rockhall in 1669, was made a Baronet in 1685, and died in Dumfries in 1733. In the persecutions he was more feared than even Claverhouse himself. He was responsible for the drowning of Margaret M'Lachlan and Margaret Wilson in the rising tide where the Bladenoch falls into Wigtown Bay, and for the execution of Edward Gordon and Alexander M'Cubbin at Haugh Hill, near the church of Irongray. The memory of Lag, the persecutor, continued to be held in such odium that when his great-grand-daughter wished to place a monument over his grave in the old churchyard of Dunscore, she was compelled to abandon her intention by the strong expression of popular feeling against it.

This Laird of Lag was the prototype of Sir Robert Redgauntlet in the weird episode, "Wandering Willie's Tale," in Sir Walter Scott's novel. Redgauntlet Castle stands for the old Tower of Lag itself. The Wood of Pitmurkie, "that is a' fou o' black firs," where Steenie the Piper met the mysterious horseman, was in the Glen of Laggan. It is now called Crolo Wood, and its reputation as an uncanny place still survives in the fear that the rustics have to pass that way after dark. And "the

auld kirkyard of Redgauntlet," where Steenie found himself after his strange adventures, "lying just at the door of the family aisle, and the scutcheon of the auld knight, Sir Robert, hanging over his head," is the old churchyard of Dunscore, which holds Lag's unhonoured grave.

The tower of Sundaywell, now part of a modern farm house, is the only one remaining of several conspicuous strongholds in Glenesslin. It is a survival of the days when every landowner dwelt in his own fortress. Then the great forest which gave its name to the parish of Holywood extended up the valley of the Cairn and into Glenesslin. Like the Forest of Sherwood, it gave shelter to many an outlaw. In the days of some early Stewart king, a notorious robber named Culton infested the neighbourhood. A reward was offered for his head, and three brothers named Kirkhoe or Kirk, on their way to the haymaking early one summer morning, surprised him asleep under a tree and despatched him with their pitchforks. The spot where Culton was slain is still called Culton's Neuk. It is near Garrieston, in the parish of Glencairn, and close to the road leading from Glenesslin along the western bank of the Cairn to Moniaive. As a reward, the reigning monarch granted to the three brothers the lands of Chapel, Bogrie, and Sundaywell. If the brother who received the estate of Chapel ever built a residence, it may be that it is marked by the heap of ruins on the farm of Kenmorehead, evidently at one time a place of importance; but its history and even its name are forgotten. A discovery of lead piping, made in 1860 when the adjoining field was being drained, shows that pains were taken to supply it with water, and confirms the traditional belief that some place of strength once existed there.

For centuries the Kirkhoes or Kirks of Bogrie and Sunday-well bore an honourable name in the district. They were connected by marriage with the Griers or Griersons of Dalgoner—a younger branch of the Griersons of Lag—with the Gordons of Glaisters, the Welshes of Colliston, of Scarre, and of Cornilie, the Fergussons of Isle, and the Riddles of Glenriddel. In the times of persecution they were favourable to the side of the Covenant, and the fugitives from the dragoons of Claverhouse and Lag often found shelter in their strongholds.

The existing tower of Sundaywell was built by James Kirko, who in 1647 succeeded his father, John Kirko, "in the seven merk land of Sundaywall," as the old retour has it. He is the

most famous of the family, and would seem to have been an elder in the parish kirk of Dunscore. Referring to the Restoration of Monarchy in 1660 in the person of King Charles II., Wodrow says of him-"This public-spirited gentleman, and Andrew Hay of Craignethan, had the honour to be the two ruling elders who were present with Maister James Guthrie and other ministers when they met in the house of Robert Simpson in Edinburgh at the Restoration of Charles the Second to agree in an Address to the King, and was thereby imprisoned for some months." (Wod. I. 7. 21.) Soon after, Mr Archibald, minister of Dunscore; was by his Presbytery deputed to go to Edinburgh to present a petition to the Earl of Glencairn, Lord High Chancellor of Scotland, for the release of the Rev. John Welsh of Irongray, James Kirko of Sundaywall, and others then in prison—a rather riskish commission in the nature of things as they then stood. A copy of the petition stands in the Presbytery records of Dumfries under the date 9th September, 1660. and on the 20th of November in the same year the Clerk of the Presbytery of Dumfries reports that a letter had been received. wherein Mr Archibald of Dunscore declares that he had duly delivered the said petition, and also that up to the date of this, his letter, there had been no reply received. This boldness was not forgotten, for Mr Archibald was one of the 400 ministers declared to have no right to their benefices because they had been elected by the Kirk Sessions—a practice followed between 1649 and 1660—and not by the lawful patrons, and ejected in 1662 because they would not seek to receive a presentation from the patron, and institution from the bishop of the diocese. continued to hold field meetings although ejected from his charge, and it is recorded of his widow, Elizabeth Key, that when she died in 1689 she left one hundred marks for the benefit of the poor of Dunscore.

Imprisonment did not make any change in James Kirko's sympathy for the Covenanters. Sundaywell became a favourite resort of the ejected ministers. The famous John Blackadder, of Troqueer, was in the habit of visiting and preaching there. He was Kirko's guest at the time of the c-lebrated communion held on Skeoch Hill in Irongray in 1678, and preached the preparation sermon on the Saturday preceding at the "Preaching Walls," of which the ruins still remain on the farm of Newhouse in Holywood. The officiating ministers were—John

Welsh of Irongray, John Blackadder of Troqueer, John Dickson of Rutherglen, and Samuel Arnot of Tongland, and it cannot be doubted that the laird of Sundaywell acted as an elder.

The house of Sundaywell, as he built it, is still standing—a square tower with very thick walls. The arched doorway has been built up. Over the present doorway is a square stone with the initials I. K. and S. W. carved at the top, and at the foot the date 1651. Between is a shield, bearing three lozenges over a St. Andrew's Cross. The initials are those of James Kirko, who built the tower, and of his wife, a relative of John Welsh, minister of Irongray.

The tower of Bogrie was taken down in 1860, and its stones used to make repairs on the farm steading. It was larger and stronger than that at Sundaywell. Three stones in the walls of the existing dwelling-house bear interesting testimony to its history. Over an arched doorway, similar to that at Sundaywell, is a stone with elaborate armorial bearings carved on it. It shows a shield with three boars' heads quartered with a thistle and a dagger, and over it the motto, "Fear God." Above this is another stone, partially defaced, but showing the date 1770. At the other side of the house is a third stone with the initials I. K. and I. M.—those of John Kirko and his wife—and the date 1660. The ancient yew-trees near the house of Bogrie are a striking feature on the landscape. Within a few hundred yards are two ring-shaped circular mounds, described as ancient British forts, as well as the site of the important Roman camp to which I have alluded.

In the "Scots Worthies" it is erroneously stated that Colliston, the original home of the Welsh family, is in Irongray. It is in Glenesslin of Dunscore, not far from Bogrie and Sundaywell. The Welshes held a more prominent position than even the Kirkhoes in the history of the Reformed Church. Dumfries and Tynron, as well as Dunscore, were ministered to by clergymen of that name. It was a Welsh of Colliston who became son-inlaw to John Knox—the same who is known as minister of Ayr—and it was his grandson who became minister of Irongray, and, when ejected from his charge, organised and presided at the great Conventicle held in his own parish in 1678. Of the old house of Colliston no trace now remains. The Welshes of Craigenputtock, of whom the last representative was Jane

Welsh Carlyle, belong to the more recent times of the family history.

A very considerable portion of the parish consisted originally of church lands, possessed by the monastery of Sacrinemoris or Holywood, and the monastery of Melrose, as represented by the establishment at Friars' Carse. As far back as the year 1257 a dispute arose between the rival Abbots concerning their respective rights to the church of Dunscore. The controversy was referred to the Bishop of Glasgow, who decided in favour of Holywood, while the Abbots of Melrose were confirmed in the right to the tithes of their own Monkiands in Stranith.

In those days the church of Dunscore was situated at the eastern end of the parish, where the old churchyard is, and there was a chapel in Glenesslin to meet the wants of the people of the outlying hill country to the west. This arrangement seems to have been continued after the Reformation—perhaps until 1649, when the newer church of Dunscore was built at the village of Cottack, near the middle of the parish, now better known as Dunscore Village. No trace of the old church remains, and the old manse, whose site was near the present gate-lodge of Isle, has also entirely disappeared.

The existing manse was erected in 1814. In its eastern gable is preserved a stone from its predecessor on the same site, bearing the inscription—"In usum Pastorum Dunscoriensium ædificari Curavit Jo: Dickie Past: 1740."

The church of 1649 was replaced in 1823 by the present more commodious structure. The massive square tower is a conspicuous feature of the landscape, and may be seen from a great distance, so that, like the Kirk of Shotts, it is often alluded to as "the visible church." It attracted from afar the eye of Carlyle on the memorable day of Emerson's visit, when the two philosophers climbed together the heathery steeps of Craigenputtock Hill, talking of the immortality of the soul, and Carlyle made the remark, "Christ died on the Tree: that built Dunscore Kirk yonder: that brought you and me together. Time has only a relative existence." The church itself looks down on two picturesque valleys-Glenesslin due west, and Glencairn to the north, the latter showing the circle of dark yews that mark the site of Glenriddel Castle, and the lovely green braes of Maxwelton, the home of Annie Laurie. Built into a corner of the tower is a stone hollowed out to form a cup or bowl, which is said to have been used as a baptismal font. In another corner is an interesting relic of the old church, a stone bearing the words, "How amiable are Thy Tabernacles, O Lord of Hosts!" and the date 1649.

Of the chapel and churchyard at Glenesslin no authentic traces remain except in the name of the farm called "Chapel."

It was at Ellisland—himself being umpire—that Burns wrote the best of his poetry, and there he spent the happiest period of his short life. Those three years and a half were full of promise. The wild oats seemed to have been sown, and unsettled youth developed into full, strong manhood. There was fierce physical energy displayed in the building of the new house and the reclaiming of the untilled fields; and the teeming brain was no less active. Memories of the past in Ayrshire were often with him, causing his heart to sing of the "Banks of Doon" and "Auld Langsyne." Affectionate sadness over friendships interrupted by death inspired the "Lament for the Earl of Glencairn" and the ode "To Mary in Heaven." Then the keen, irrepressible Scottish humour broke out again in "Tam o' Shanter," "The Jolly Beggars," "The Whistle," and many a song in praise of that good fellowship, which brought about his ruin in the end.

Visitors to Ellisland are told that the house is that which the poet built, but this is doubtful. Mr Taylor, into whose hands the property passed in 1805, dismantled and remodelled the whole steading. The site is a beautiful one on the western bank of the Nith. From the river the ground slopes gently back to a lofty ridge more than a mile away, on one of the highest points of which Springfield Hill Camp is perched. mile to the south of Ellisland stands the ivied tower of Isle, side by side with the modern mansion house. It was to one of the cottages at the Isle that Burns brought Jean Armour from her home in Mauchline, and there they lived till the house at Ellisland was ready, and they went forth with much ceremony to take possession. Scarcely as far up the stream is Friars' Carse, so named from its former possessors, the Monks of In Burns's time it was the residence of Riddel of Glenriddel, who took a great interest in the farmer poet. Here Burns met Captain Grose, at whose suggestion he wrote "Tam o' Shanter," to be printed in the famous antiquary's book opposite an engraving of Alloway Kirk. Here, too, was the Hermitage, in a secluded corner of the woods, with memorials of its mediaval origin all around—an ideal place for studious meditation.

When the late Mr Thomas Nelson came into possession of Friars' Carse, he found the Hermitage in ruins. The window was gone, the roof had fallen in, and the walls were crumbling to pieces. With great good taste he restored the little building, and placed in it a new window similar to the old, on which the same verses are inscribed in facsimile of the poet's singularly clear and beautiful handwriting.

The mansion-house of Friars' Carse occupies a lovely situation on the banks of the Nith. The house as Burns knew it was built in 1772, and still stands; but the additions made by the late Mr Nelson have improved and beautified it almost beyond recognition. Its dining-room was the scene of the ignoble contest celebrated in "The Whistle." Its hall contains a singularly beautiful piece of sculpture—the original cast for the monument by Watson erected in the Savoy Chapel, in memory of Dr Archibald Cameron, who acted as a surgeon at Culloden on the side of "Bonnie Prince Charlie." After seven years of exile Cameron returned to Scotland. He was arrested, taken to London, tried, and, although a non-combatant, executed for the part he had taken on the fatal day of Drummossie. The work, which is quite worthy of the subject, was carved on Caen stone, and placed in the Savoy Chapel in 1847, but unfortunately fell amongst the ruins of the fire that destroyed the Chapel in 1864. Around the mansion and within it are many memorials of its history, and not far away is the circle of stones set up by Riddel, Burns's patron, in imitation of a Druidical Temple.

To mark the new departure in his life, the farmer of Ellisland began to go regularly to church. This exemplary conduct continued until differences of opinion with the Rev. Joseph Kirkpatrick led—first to hard words between them, both in speech and writing, and finally to their utter estrangement. Mr Kirkpatrick was minister of Dunscore from 1777 till 1806, when he was translated to Wamphray. From December 11th, 1780, down to 1806, there is a complete blank in the Session Records, which fact is apt to prejudice one against the minister and in favour of the poet. We regret that at such an interesting period in the history of the parish no account of it should have been kept by those whose duty it was to do so.

One more memorial of Burns exists in the tombstone of James

Whyte, set on its side close beside the church tower. This was the retired Jamaica planter, whose advice brought about a change in the poet's plans regarding his passage to the West Indies, else he would have sailed before the success of his book decided him against seeking his fortune beyond the sea. Mr Whyte was residing at Glaisnock House, near Cumnock, when he met the prospective overseer of slaves. But not long after, he purchased the estate of Over Stroquhan, in Dunscore, where he died in 1822 at the age of 90.

Twelve miles distant from Ellisland, but still within the parish of Dunscore, is Craigenputtock, the home of Carlyle from 1828 till 1833. Froude calls it "the dreariest spot in all the British dominions," but his description is by no means accurate. Dreary enough it may be in winter, when the snow-drifts lie piled across the mountain roads, and communication with the outer world is barred. In these mild latitudes, however, that is at the worst only for a day or two, while in summer it is a delightful inland home, with wide billowy stretches of pasture all around, extending to the dark Rhinns of Kells and the Solway Hills, the "inestimable silence" broken only by the bleating of sheep. The house is much as the philosopher left it. There is the little room he used as a study, containing a bookcase with many of his own writings, and many volumes that belonged to him. Very noticeable is a set of Shakespeare with the inscription-"To my kind nephew, James Carlyle, for the winter nights at Craigenputtock, with best wishes. T. C. Chelsea, 12th October, 1890," and Carlyle's "Life of Schiller," on the title-page of which the frail old man had inscribed his nephew's name in pencil, and then attempted to trace it over in ink. The walls are rich in portraits of the Sage and his heroes, of Frederick, and Cromwell, and Knox; and far out on the hill a cairn marks the spot to which Carlyle led Emerson on the day of his memorable visit.

Colvend as it was fifty years ago and as it is now. By the Rev. James Fraser, D.D.

In Colvend I include Southwick, which is still an integral part of the parish civilly. Ecclesiastically it was disjoined from Colvend in the course of the present year (1894), and erected into a church and parish, quoad sacra.

From Southwick, beginning at the estuary of Southwick Burn, and tracing the coast round by Douglas Hall, Port o' Warren, Barcloy Head, and onward to the Scaur and estuary of the Urr, the parish for a third of its circumference is bounded by the sea. On this side of the parish, therefore, the sea-side, the people had no neighbours with whom they could associate with and form connections, and with England they had little or no communication.

At a time indeed anterior to that to which my paper relates, they had very close communication with the Isle of Man, but it was of an illicit and contraband character. At that time there was a regular smuggling traffic carried on between the two places, and there were men living in the parish when I came to it fifty years ago who remembered it and possibly profited by it. Captain John Crosbie, Laird of Kipp, himself a seafaring man, had a cellar under the floor of his dining-room, approached by a secret trap-door, which the carpet covered, and which was doubtless designed for the safe custody of such commodities. I myself have seen him go down through the trap-door in question, and bring up a bottle, whether of wine or spirits I cannot remember. There is a similar cellar under the dining-room floor of the manse, approached also by a trap-door, and concealed in the same manner. On the rocky coast leading from Port o' Warren to Douglas-Hall there are several caves and deep fissures in the rocks, admirably fitted for the concealment of contraband goods. until such time as removal could be safely effected. And on the other side of Port o' Warren, in the rocks leading to what is called the Cormorants' Dookers' Bing, there are other caves and fissures, larger and deeper, which can only be approached at low water, and then only by wading. One on the Torr or Douglas-Hall shore is known as the Brandy Cave, a name significant of the use to which it was put. On the Island of Heston, which lies at the mouth of the Urr, less than a mile from the Colvend shore, there are also caves and fissures, larger, I am told, than those on the Torr or Boreland Heughs. This is the island which the author of the spirit-stirring fiction of "The Raiders" calls "Rathan."

Colvend, as everyone knows who has lived in the parish, and as the least observant sees at a glance, is intersected by rocky ridges and strewed with boulders, so much so that Mr M'Diarmid of the *Courier* characterised the parish as the "Riddlings of

Creation." The rocky ridges, with morasses intervening, separate the different straths or valleys, of which the parish is made up, the one from the other, and render intercourse between them impracticable except for pedestrians. Anyone wishing to ride or drive from one strath to the next, must needs go down to the sea level and turn the flank of the intervening barrier. But as bearing upon the insulated or semi-insulated condition of the parish as it existed fifty years ago, what I would especially draw attention to is that Colvend on its landward side is surrounded by hills, particularly the Criffel range, which for miles form a barrier separating the parish from other parishes adjacent, and rendering intercourse between them impracticable. This, concurring with the previous cause referred to—their sea surroundings-made the people live a sort of isolated life, having little communication with the outside world. At that time the saving was common-"Out of the world and into Colvend." The effect was to beget selfishness and exclusiveness-to make the native population intolerant and jealous of strangers. I heard a farmer, an incomer, whose descendants are now recognised as natives, say that when he came into the parish a stranger, some sixty years ago, he was the object of general suspicion and dislike, but that, when in the course of time another farmer, a stranger also, came to occupy a farm near him, "he was glad, for Mr So-and-So would take the people off his back."

Another and a less objectionable peculiarity common to communities circumstanced like the people of Colvend, who live isolated and removed to a distance from the bustle and turmoil of the outside world, is that they retain long a simplicity of character and a naivety of expression, which others, mingling much in the civilised world, have lost, or do not care to retain. To be so regarded by outsiders is naturally resented as matter of offence. An old lady whom I knew well, and who was very properly proud of her native parish of Colvend and its people, was in no little degree displeased with a neighbouring clergyman because, in speaking to her of the people of Colvend, he called them a primitive people. This, of course, he did to teaze her, for he knew her susceptibility.

Colvend differs from the majority of parishes, which, as a rule, are divided, and belong to a few individuals. In many cases a single individual owns the whole. In Colvend it is different. At the beginning of the time with which my paper is

concerned, the parish was divided into eighteen or nineteen properties, owned by as many proprietors or heritors. One of these properties, the Barony of Barcloy, was held in trust by the Kirk Session of Caerlaverock, for the poor of Caerlaverock, and for the higher education of the children of Caerlaverock. This gave rise to the witticism, "The poor of Caerlaverock are the lairds of Couen." Of the eighteen or nineteen properties into which the parish is divided, two of the larger-Fairgirth and Auchenskeoch have changed hands, and to the former Meiklecloak has been added, to the latter Glensone and Ryes. Glenstocken, the property of Mr Carrick Moore, near relative of Sir John Moore, the hero of Corunna, was purchased by the late Mark Sprot Stewart of Southwick, and is now owned by his son, Sir Mark J. Stewart, Bart. Kipp was acquired by purchase from the Crosbie family, by Mr Chalmers, the present proprietor. Auchenhill and Orchardknowes are owned by Lord Young, and Clonyard by Mr M'Call. In other respects properties in the parish, considered relatively to the number of owners, and to the size of the properties, continue unchanged. The number of landed proprietors is still nearly the same.

The estates and properties vary much in size and value. In one or two instances the rental touches or did touch, a few years ago, £2000. In others it ranges between £200 and £800, and in some instances it comes down to £50, £30, and even less. To me this gradation in ownership has always seemed pleasing, and in many respects desirable, and in this respect I have often considered Colvend unique. I know no other parish similarly circumstanced as to ownership. Inseparably, indeed, connected with the ownership of the land are the tenantry or tenant farmers of a parish The tenant farmers of Colvend, like the proprietors, rent and occupy farms of varying size, and of rents varying according to the size and value of their holdings. Some of the farms in the parish are wholly agricultural, but many have attached to them portions of moorland or hill pasture, and in one or two instances the hill and moorland pasture constitutes the more valuable portion of the farm. The rents vary from £100 to £200 and £300, and in one instance runs up to £600, but this includes two farms, one of which is known as what is called a led farm. The others graduate down to £50 or £40. These latter are tenanted in many cases by those who in their early life were farm servants, or day labourers, who have been

industrious and saving, and were able to begin farming in a small way, and on their own account. From these latter not unfrequently spring the men who rent the largest and best cultivated farms in the district. This also is a feature characteristic of Colvend, and which I should gladly see extended to other parishes and districts.

There is a marked difference between the gradation in farms which obtains in Colvend and other parts of the Stewartry of Kirkcudbright and that which exists in the Lothians, in the lowland parts of Perthshire and Forfarshire, where the proprietors are few in number and the farms large.

Fifty years ago the farms were tenanted by men whose fathers, and whose fathers' fathers had, with infinite labour and no little expense, reclaimed the land, stubbing out the briars and thorns with which the country was at that time covered, trenching the ground which had never known touch of either spade or plough, raising the stones and blasting the boulders with which the country was strewed, building the dykes or stone fences by which the fields were enclosed, by men who continued and improved upon the work which their fathers had begun. Fifty years ago, and for ten or twenty years later, the work of reclamation in the parish was still in progress, but with lessened and ever lessening enterprise. I myself was one of the last, and, considering the size of my small holding, the Glebe and the Manse Farm, not one of the least improvers of the land. The Manse Farm I rented. I took out of the ground which I reclaimed I daresay 10,000 cart loads of stones, and of boulders I blasted several hundreds. There was a common saying in the parish at that time-"The land should build the dykes," the meaning of which was that the improvements should repay the outlay; and, so long as they did so, reclamation of the land continued; but when, by a rise in rents and the increased cost of labour, the conditions were reversed, the reclamation of land ceased. Such is the state of matters at the present time. If any further reclamation of land takes place it must be by the owners, or, if by tenants, it must be by tenants under exceptionally favourable conditions.

Fifty years ago farms were tenanted by men whose forefathers had been tenants of the same farm for several generations. One family I knew who could trace back their connection with the farm on which they were born for 200 years. They are now

all dead, but the descendants of one of the sons are farmers in Ireland. A farmer still living in the parish (1894), 85 years of age, but some eighteen years retired from farming, tells me that he, his father, and grandfather, and, he believes, his greatgrandfather, were tenants of the same farm, the farm of Burnside, from time immemorial, or for a period of 300 years. The farm, if it can be so called, was doubtless at first but a bit of barren and unprofitable moorland; and my informant, who did more than all his forefathers put together to reclaim the land, and to bring it into its present well cultivated, well fenced. and well housed condition, tells me that about 100 years ago the rent was £20, but, to keep himself correct, he added that to the original little croft, for it was nothing better, there were added two small portions of swampy and but partially reclaimed land. Eighteen years ago, when he retired from the farm, he was offered a renewal of his lease by his landlord-a different landlord from that of his middle age, at a rise of £60, or £10 more than he was paying.

Fifty years ago no landlord wished to remove from his estate a family that wished to remain, or, at the expiry of a lease, so raised the rent on an old tenant that he could not retake it. It was a thing unknown at that time to have a farm advertised to be let. Now it is a thing almost as unknown to find a farm let without being advertised. Between the years 1850 and 1860 the change began. A steady and ever increasing rise of rents set in. Then, whenever a lease was out, and the farm advertised to be let, if the outgoing tenant was not to be an offerer, applicants were numerous-more numerous of course where the farms were small; and rents were offered, rents were given, which to the older tenants seemed ruinous. For a timefor a period of fifteen or twenty years, rents at a high figure were maintained, and farmers seemed to thrive and prosper. At that time properties were sold and properties were bought at prices which cannot now be realised, and farms everywhere, in all parts of the country, changed hands. Colvend did not escape the revolution. Colvend, indeed, which seemed to lie outside the influence of change and civilization, felt it more. Of the old tenants, whose fathers made the farms, and whose forefathers for generations occupied the farms, hardly a descendant now remains in the parish, and only two occupy farms, but not the farms which their fathers tilled.

Fifty years ago dykes in Colvend (the fences are all dry-stone dykes)-could be built, the very best, 41 feet high for 1s 6d a rood. A rood is 18 feet. I have built some hundreds of them. Now the same height of dyke could not be built under 4s 6d. The dykes in Colvend are not built of such trifling stones as are to be seen in some neighbouring parishes, but of great granite stones or blasted boulders, some of them half a ton weight Such a dyke may be seen on the farm of Nether Clifton on the road up to the Southwick Churchyard. I remember passing the field which the dyke in question now encloses, but which was then but partially reclaimed, covered with great boulders everywhere sticking up their heads. An old farmer, Mr Gibson of Auchenlosh, himself a great improver in his day, directing my attention to the state of the field, said, with an expression of contempt either for the farmer or his landlord, or for both-"Did you ever see such a debauched field?" The boulders have long since been unearthed and blasted, and now form one of the strongest dykes in the parish.

The next point which, in speaking of the changes which have taken place in Colvend, calls for special remark, is the number of cottages which, at the beginning of the period were in the parish standing occupied, compared with what there are now. At the time when I came to the parish, the parish was dotted over with cottages. Every little oasis among the hills, every sheltered neuk by rock, or stream, or shore, had its cottage, with garden adjoining. Many of the cottages were solitary, removed to a distance from any neighbour. Some were pitched around or near the dwelling-house of the farm on which they were built, and some few were grouped together in twos and threes. Many of the occupants held their cottages from the farmer on whose land they stood, and to him they paid rent or rendered service. A few cottages were of the nature of crofters' dwellings, and had attached to them an acre or two of arable or pasture land. These they held direct from the landlord. But the cottages, whether of the nature of crofts or simple dwellings with gardens attached, and in some cases a cow's grass added, have all, with scarce an exception, disappeared. I can myself recall fifty at least which have so disappeared, in most of which I have baptized, married, and conducted such religious services as the occasion required, and of these hardly a vestige remains to mark the spot where they stood. In some few places where the

stones of the building have not been cleared away, or the enclosures of the garden have been left standing, the sites may be recognised; otherwise the place is a blank.

The most remarkable of these dilapidated enclosures still left standing, though greatly broken down and all but levelled with the ground, is a group of broken-down dykes or garden enclosures seen not far from Southwick old church. It is easily noticeable from the parish road which passes the churchyard on the opposite side of the valley, and anyone noticing it at once says, there doubtless at one time stood a village under the protecting shadow of the church. The village existed at a period anterior to the time at which my paper begins, but not so long anterior as a person looking at the relics may think. Mr Craik, tenant of Nether Clifton, and whose father tenanted it before him—Mr Craik who lived to 90 years of age, and died only a few years ago—told me that he remembered one of the houses still standing and occupied.

The cottages of that period were of a rude and simple construction-built of drystone wall, without lime; they were thatched with turf and straw if it could be got; if not, with brackens, heather, or reeds from the numerous lochs. The turf consisted of thin flakes, or scraws as they were called, cut or -flaved from the moorland surface by a flauchter spade, the spade used in stripping off the top of the moss in peat casting. Sir Walter Scott, who has rescued from oblivion so many of our Scotch words, mentions the flauchter spade in "The Antiquary." Many of the cottages were of a peculiar and highly primitive construction. A pair of young fir or ash trees of suitable lengths and thickness were placed, their butt ends resting on the ground and their tops inclined the one to the other, but not so as to meet and form a triangle, inclined so as to be say four or six feet apart. At this distance they were bound together by a thick band or strap of wood. This erected formed the gable of the building, and was kept in its upright position by either stone or turf building around it, or by a combination of stone and turf. A second pair of young or sapling trees, treated in the same way, were placed at a distance six feet from the first, and built round in the same manner. A third and a fourth pair were similarly treated, the fourth pair forming the opposite gable. The spaces between these upright pairs were covered with thin branches of trees, popularly called rice, which formed the roof. These thin

branches properly laid were covered with scraws, overlapping each other like slates, and all covered with straw, heather, brackens, or reeds, effectually excluding the rain. There were half-a dozen such cottages in the parish when I came to it, and one still remains, the old farmhouse of Lower Port Ling. This the proprietor, Mr Oswald of Auchencruive and Cavens, guards from being improved off the farm. The name of this most peculiar kind of structure was in Colvend known as "The cod's head."

Closely connected with the disappearance of so many cottages is the great decrease in the population of the parish, which, according to the census returns, was in 1841, 1495; 1851, 1398; 1861, 1366; 1871, 1315; 1881, 1281; 1891, 1126. How is this decrease to be accounted for? The decrease is due to various causes, but chiefly, I think, to the altered conditions of farming. The farmer can no longer allow the cottar facilities for grazing a cow or rearing a pig. From Colvend many have gone to the neighbouring town of Dalbeattie, drawn thither by the advanced wages to be earned in the granite quarries and polishing mills, and some have gone to more distant towns, some to foreign lands.

I have said that in the last fifty years a great number of cottages, and what were practically crofter dwellings, have disappeared, and that only a few, a dozen at most, have been built to replace them. But, within the last twenty years, a great many houses of a superior class have sprung up in all parts of the parish, Rockcliffe, the Scaur, Barnhourie, Douglas Hall, Laggan, and Portling, and building is still proceeding. Since Mr Oswald, a few years ago, decided to grant feus on his estate in Colvend. building has taken a fresh start. Already villas have been built on the most beautiful spots and salient points of his property, from Douglas Hall bay to Portling and Port o' Warren, and others are in contemplation. Some of the houses built cost thousands, many of them cost hundreds. The larger and more expensive houses were built with the intention of being permanently occupied by the proprietors, but the greater number were built with the view of being let to the visitors who, in increasing numbers, come annually to spend part of the summer and autumn months among the hills and by the shores of the parish. For long Colvend was unknown, or known only to the few who took advantage of such scanty accommodation as could be found in the cottages and smaller farm houses. Then the saying, "Out of the world and into Colvend," had a meaning. Now it would be an anachronism. There is no more popular resort in the South of Scotland; no place where one would feel himself less out of the world, or more outside civilization. Visitors come annually from all parts of the kingdom to spend their holiday in Colvend—from Edinburgh and Glasgow, from Oxford and Cambridge, from London and places beyond. And, returning, carry with them such pleasant memories as induce others, friends, and acquaintances to follow in their steps.

Fifty years ago there were no public conveyances in the parish. No railway had yet come near, not even to Dumfries. There were two daily coaches which run between Edinburgh and Dumfries, and two between Glasgow and Dumfries, and there were two which ran between Dumfries and Kirkcudbright, passing through Dalbeattie and Castle-Douglas. No one then could perform the journey from either Edinburgh or Glasgow to Colvend in one day. Then, all journeys from Colvend to any of the neighbouring towns, Castle-Douglas or Dumfries, had to be done on foot. In those days men, and even women, thought it a small matter to walk to Dumfries, transact their business, and return home. doing their thirty, and in some cases their forty, miles with little or no rest. Now the railway has reached to Dalbeattie, and between Dalbeattie and Colvend 'buses run close. All the summer months, from the end of May until the beginning of October there run three 'buses daily, and two run between Dalbeattie and Douglas Hall.

Many curious stories are told of the effect which the first sight of a railway train in motion produced on the spectator. A story was told me not long ago of the effect which the sight produced on one of my parishioners, a simple woman who had hardly ever been beyond the place of her birth. A kind lady friend in Dumfries had invited her to come and spend a few days at her house in town, and had given her instructions how to come by train from Dalbeattie. The time for her arrival came, but no traveller turned up. Three or four hours, however, after the expected time she did arrive, and on being asked how she had missed the train she said, "The train just geed by like." In her inexperience she doubtless expected that the train, like an ordinary conveyance, would stop and pick her up on the road.

Fifty years ago our postal facilities and privileges were in

their infancy; so far as Colvend was concerned they were nonexistent. There was, indeed, a sub-office on the Southwick side at Caulkerbush. On the Colvend side, the more populous side of the parish, there was none. On neither side was there a runner to distribute letters. On the Southwick side, if any letters arrived, they were kept until called for, or they were sent by some casual hand who happened to be going to where the letter was addressed. In Colvend the case was still worse; our letters came no nearer than to Dalbeattie, five or six miles off, and, not only so, the Post Office in Dalbeattie was a small closet in or off the bar of the public-house, where the letters lay huddled together with other articles. No arrangement whatever existed for dispersing them to their destination. I have known letters detained for upwards of a week. One case in particular occurs to me. A young man, who was undergoing a sentence of penal servitude in Pentonville Penitentiary, for whom I was instrumental in obtaining remission of part of the sentence, had a passage purchased for him to Canada. The letter containing his ticket to Canada, paid for by his friends, was detained in the Dalbeattie Post Office for more than a week; and as a result the passage was forfeited. After representation to the Shipping Company of the circumstances they generously allowed the young man to avail himself of a vessel for the succeeding voyage.

Now (1894) there is not only the original sub-office at Caulkerbush on the Southwick side, there is one at Lochend, one at Rockcliffe, which is a money-order office, and one at Kippford, which is also a money order office, all on the Colvend side of the parish; and to expedite the delivery of letters, newspapers, and parcels, there are two runners in Southwick and three in Colvend.

For ten or fifteen years the Post Office authorities turned a deaf ear to all our applications for a sub-office at Lochend, with a runner between Colvend and Dalbeattie. In those days it was no uncommon occurrence to have letters tampered with and opened either from curiosity or with some worse motive. At that time letters were fastened with wafers, or when of greater importance they were sealed with wax. The day of envelopes was not yet. A letter fastened by a wafer could be opened without detection; it was otherwise with a letter sealed with wax.

The main industry of the parish, that on which its prosperity depends and has always depended, is farming, agricultural and pastoral. But there is another industry, ship-building and shiprepairing, to omit or overlook which would be to do my subject scant justice.

Some sixty or seventy years ago ship-building on a limited scale was carried on at the Scaur, which, as many of you know, is situated on the estuary of the water of Urr, within a mile and a half of its mouth. And about the period with which my paper begins it attained considerable dimensions under Mr Henry Cumming. To him the Scaur owed more than to any single individual. At an early age Mr Cumming betook himself to Whitehaven, and in the firm of Mr Brocklebank he learned and mastered the principles and practical work of ship-building. From Whitehaven he went to America, where he designed and built many vessels, one of them a ship of 700 or 800 tons, equal in dimensions to any ship then afloat. From America he returned to his native parish, and in company with his brother John commenced ship-building at the Scaur, and turned out brigs and schooners of dimensions varying from 30 to 90 and 100 tons. On his death his nephew James continued the business for a short time. The last vessel turned out was the Balcary Lass in 1884. She was 240 tons burden. She made two prosperous voyages, but was lost in the third in a terrible gale off the coast of Newfoundland. From that time ship-building at the Scaur ceased, iron taking the place of wood in the construction of vessels of all classes and sizes. Now all that is done at the Scaur is the repairing of such wooden vessels as lay up to be refitted.

Among the minor industries which were still carried on in the parish fifty years ago was handloom weaving. At the time when I came to the parish there were no fewer than six looms kept in constant employment. The thrifty farmers' wives of that period never thought of buying blankets, either Scotch or English for themselves, or for their daughters when they were about to be married, and were expected to bring something with them for the plenishing of their husbands' houses. Neither did the farmers, their wives, or their daughters, in going about their ordinary avocations, wear anything but cloth and drugget, the produce of their own wool, and the outcome of their own industry. Fashion had not yet looked in upon Colvend and turned the heads of the young, and in a less degree of the old. Weaving then was in full swing, and webs could hardly be turned out quick enough to meet the demand. To prevent disappointment the loom had to be bespoken weeks before the web was required.

occupation of the handloom weaver is gone, the click of the shuttle and the thud of the beam are no longer heard in Colvend, and with the cessation of handloom weaving there has ceased contemporaneously the occupation and art of spinning, the one art and occupation being dependent on the other. Fifty years ago there were several spinning wheels in the parish, the big wheel for spinning wool, the small for flax or hemp. The big wheel was kept in motion by the spinner advancing and receding, but always on foot; the small wheel by the spinner sitting and keeping the wheel in motion by one foot on a pedal, the hands being employed meanwhile in pulling down the tow from the distaff and guiding the thread. The big wheel I have frequently seen in operation in the parish, but not the less. Yet, doubtless, the little wheel must have been in operation in the parish within the specified period, for both yarn of wool, and thread of flax were required in weaving some of the kinds of cloth made by the handloom, such as drugget, a coarse kind of cloth consisting of wool or worsted and hemp woven together, and linsey-woolsey, a finer cloth, made up, as the name implies, of flax and wool combined. But, whether the distaff and spindle were in use in the parish within the last fifty years or not, they doubtless were in other parts of Scotland. I myself have seen the little wheel in common use in a parish farther removed than Colvend from the advancing civilization, and also the distaff and spindle, a method of spinning more primitive than either big or little wheel. But neither big nor little wheel is now known in Colvend.

At one time a shoemaker and tailor were to be found in every hamlet or little group of houses. At this moment there is not a shoemaker in the parish, and only one tailor, and he is only partially employed. Formerly there were four tailors in the parish who took in work to be done in their own houses at stated rates, or perambulated the country making and mending in the cottages and farm houses, getting their food and a small payment, 1s 6d or 2s for the day's work. Now there is but one tailor, and he only partially employed.

There are two trades in the parish, however, which, mid all the changes which have taken place and are still taking place, hold their ground unchanged and undiminished—the trades of joiner and blacksmith. There were four or five joiners' shops in the parish, and four smithies, fifty years ago; each with its head and one or two apprentices, and there is the same number still, and

nearly in the same localities; the smithies are in the identical localities, these being the localities best adapted for the farmers in the different straths. For joiners and blacksmiths in rural and agricultural parishes there will always be found occupation, and there will at all times be need.

Fifty years ago and later there were many small shops scattered up and down the parish. Every little group of cottages had its shop. Villages of twenty or thirty families had two, rival shops, where, besides the ordinary articles of grocery, tea and sugar, butter and eggs, soap and candles, bread, meal, and flour, were to be had, cotton and woollen goods, ropes and twine, brushes, hammers, nails, and almost every article of household economy. They were, in the strictest sense of the term, stores, and stores very cosmopolitan in their contents. They contained every article which, on an emergency, a person might require, not even omitting medicines in common use. To a rural population, distant from a town, and with no direct means of communication, these shops were a great convenience, and, to the shopkeepers themselves, no small source of gain. But their day is done; their number is on the decline, and the few that remain have little or no variety to attract customers. What is the reason?

Travelling grocers, travelling drapers, travelling butchers and bakers, travelling vans, containing every conceivable article of household or outdoor requirements traverse the parish from week's end to week's end.

Fifty years ago two carriers plied semi-weekly between Dalbeattie and Dumfries, and semi-weekly on intermediate days between Dalbeattie and Colvend. They brought the supplies of bread and groceries to the different shops scattered up and down the parish, and parcels to the different houses situated along their route. There were no bread carts, no butchers' carts, no grocers' carts in these days; and, without the carriers, I know not how the people could have procured for themselves the necessaries of life. They were an excellent and most useful class of men, but their day is past, at least so far as Colvend is concerned. Carriers still travel between Dalbeattie and Dumfries, but no one comes to Colvend.

Though not properly speaking a trade, peat-casting was an industry of no little importance in former times, and even in times so recent as fifty or forty years ago. Peats at that time were a chief article of fuel in Colvend. Almost every family in the

parish cut, or got cut and dried for themselves, ten or twenty carts of peats annually, a darg or half a darg, as the case might be. Farmers in many instances had a bit of peat moss in their own farms, and by their lease they had the privilege of cutting as much as they themselves or their cotmen needed, but they were restrained from selling off the ground. Those families in the parish who had not farms, or who did not live on farms which had peat mosses, paid for the privilege of cutting peats on Cloak Moss—10s for a darg of 20 carts; 5s for half a darg. The time chosen for the cutting was about Whitsunday. The day was a long one, beginning at 6 a.m. and ending at or about 6 p.m. Within these hours the party cutting were allowed to turn out as many cartfuls as they were able. Six hands working at the top of their speed could turn out twenty cartfuls; three hands could turn out the half.

At the time referred to coals were only obtainable from England. Small sloops brought them over from Cumberland, and discharged them either at the Scaur or from vessel's side in Sandyhills' Bay. But the supply was limited, and the times were uncertain. Now, by train, coals from Ayrshire are brought in any quantity to the neighbouring stations of Dalbeattie and Southwick; and peats, except in small quantities for kindling, are unused even by the poorest. They are or would be dearer even than coals.

Fifty years ago there were only two churches in the parish, and two religious denominations—the Parish Church on the Colvend side, attended by members and adherents of the E.C., and the Meeting House at Mainsriddel, owned by the seceders from the National Church some 80 or 90 years before, but attended largely by adherents of the E.C. living in Southwick, their own Church being too distant for them to attend regularly. This Church is now, or was until very lately, owned by the descendants of the original seceders, or their representatives who mostly belong to the U.P. body.

Colvend and Southwick were for long separate parishes, with separate ministers, each having its own church. But towards the beginning of last century they were united under one minister, the stipend being inadequate for the support of two. This union of the parishes and suppression of one was to the inhabitants of Southwick a real evil, for they all belonged to the one church, the National Church. It removed them to an

insuperable distance from the ordinances in which they delighted to join, and was one main cause of the erection of the Meeting House at Mainsriddel. But it was not the only cause. There was at that time current in the parish a fama affecting the character of the minister of Colvend, and there were rumours prejudicial to the minister of the adjoining parish of Kirkbean, which led the thoughtful and goodly people of both congregations to withdraw from the ministrations of their respective ministers, and to erect what has for well-nigh a hundred years been known as the Meeting House. The knowledge of these things was fresh in the memory of some when I came to the parish. A story told me by one who knew the woman well would have been worthy of a place in Dean Ramsay's Reminiscences. Margaret Thomson was one of those resolute godly women who left her minister and walked every Sabbath from Kirkland in Colvend to Mainsriddel in Southwick, a distance of nearly seven miles. Meeting her one Sunday returning from service at the Meeting House the minister accosted her, "Well, Margaret, where have you been?" "I have been at the Meeting House." "What makes you go so far if you can get the Gospel preached nearer home?" "If you get a tune played what does it signify what instrument it is played on?" "Ah," says Margaret, "but I aye liket it blawn through a clean whustle." The minister didn't tackle Margaret again. She only died a year or two before I came to the parish.

There was no minister in the Meeting House when I came to the parish in 1844, but there was one appointed the year after, who soon left. After a vacancy of a year or two the Rev. Mr Fullarton was chosen, who remained minister of the congregation up to the time of his death some five years ago. His adherents were not numerous; but there were many members and adherents of the E.C. who lived on the Southwick side of the parish. They, with their families, as a rule, attended Mr Fullarton, and formed no inconsiderable part of his congregation. They did not, indeed, leave the Established Church, but regularly as the times came round communicated in the Parish Church. Mr Fullarton lived to a great age, to nearly ninety, and died respected and beloved by all who knew him.

When it became apparent that the ministry of the Rev. Thos. Fullarton, owing to his great age and failing strength, was drawing to a close, Mr Stewart (now Sir Mark J. Stewart) resolved to put into execution a purpose which he had long entertained,

but which, out of regard to the feelings of his friend Mr Fullarton, he had put off for years, viz., the erection of a church for the accommodation of the members and adherents of the Church of Scotland residing in Southwick.

Fifty years ago there were two Parochial Schools in the parish— The Colvend School and the Southwick School—and there was a side school at Barnbarroch supported by subscription.

The Parish Schools were maintained by the heritors, assessed proportionally to their rental, and the school masters remunerated in terms of an Act of Parliament passed in the reign of George III. But the remuneration was miserably small. There were, as we have said, two schools in the parish, I mean parish or parochial schools, the salaries of which, together, could not by law exceed £52 or £26 each, and this was the payment which each schoolmaster received. This, added to the school fees, which, as a matter of right, belonged to the teachers, raised the emoluments of the one to £48, of the other to £55. They had each, of course, their house and garden free.

Fifty years ago, and for about 15 or 20 years after that date, there was no legal assessment levied for the support of the poor, and there were as many poor in the parish then as now. There were, indeed, more and poorer. I have in my possession the minute book of the Kirk-Session, beginning at the time antecedent to the period with which my paper is concerned, but coming down to it, and continuing for several, indeed for many, years within the period. From this book, and from the book of church collections it appears that the chief source of support at the time was the church collections, supplemented by such voluntary contributions as the heritors chose to give. The church collections were made up mainly of the weekly contributions gathered in by that old-fashioned, importunate, and silent beggar, the church ladle. The sum obtained in this way fifty years ago amounted to £18 or £20. Prior to this time, but never since, fines were imposed on parties coming before the Session for discipline; these were added to the collections. The fees for proclamation of banns before marriage were also added. The sum raised by church collections and the voluntary subscriptions of the heritors rarely exceeded £40, which was distributed by the Kirk-Session annually in sums varying from 5s to 10s, but rarely reaching £1; and this was all the poor had to depend on. But, so long as the

assessment continued voluntary, much kindness was shown by the farmers and wealthier classes to the poor. By degrees the assessment increased, until in 1845 it amounted to £83, which, added to the church collections, brought it up to £104. Some years after this, owing to the refusal of one or two individuals to pay their voluntary proportions, recourse was had to the adoption of the Act sanctioning the imposition of a legal assessment divided equally between proprietors and tenants. What that means we all know; but how great the difference between cost and management of the old system and the modern few understand. The number of poor in the parish is diminished by a half, but the expense is increased three or fourfold. It stands now in 1894 at £300. Doubtless, the poor are better cared for, and the management is more efficient. But the Kirk-Session, or the heritors and Kirk-Session jointly, did the work kindly, impartially, and with no expense to the parish.

10th January, 1895.

Mr James Barbour in the Chair.

New Members.—The Duke of Buccleuch and Queensberry and Lord Herries.

Donation.—Mr Bridges, slater, presented through Mr J. Barbour, a testoon of Queen Mary.

Exhibits.—Mr Barbour exhibited documents signed by James VI., by James, Lord Torthorwald, and others, and a charter granted by Peter Howatt, Abbot of Crossraguel, to George Grahame, of the lands called the Hollow Close and Brigholme in Annan, 1621.

COMMUNICATIONS.

1. Birrens and Birrenswark.

By James Macdonald, LL.D., F.S.A. Scot.

For more than a century and a half certain earthworks at Birrens, together with others at Birrenswark of a somewhat different character, have been regarded as the most remarkable examples of Roman camp engineering to be now seen in North Britain—Ardoch, in Perthshire, alone excepted. These Dumfriesshire camps are generally looked upon as having had a close

connection with one another—Birrens being a Station or Fort that had been occupied by a Roman garrison for a longer or shorter period, and the Birrenswark enclosures, summer quarters to which detachments of the legionaries might be moved in turn from their more confined winter entrenchments. In the remarks that follow, I propose to state and review as impartially as I can the evidence that has been deemed sufficient to establish the truth of these propositions.

The discoverer of the earthworks referred to, so far as the archæological world is concerned, was Gordon-the "Sandy" Gordon of the "Antiquary." It is somewhat strange that they were entirely overlooked by all previous observers. Camden, who had collected what information he could for his notices of the various counties or districts of Scotland to be found in the successive editions of the "Britannia" published in his lifetime, knew nothing of them. It was the same with Gordon of Straloch. In the account of Annandale, which he wrote for Bleau's "Scottish Atlas," neither Birrens nor Birrenswark is mentioned. More unaccountable still is the silence of that most industrious writer, Sir Robert Sibbald. When gathering materials for his "Historical Inquiries," he secured, as we learn from Bishop Nicholson, the services of residents in the different districts of the country, who furnished him with detailed reports on all matters of antiquarian interest in each of them. In this way he received a description of the "Stewardy of Anandale, with a map of the country, by Mr Johnston, a minister there," and also of "The Shire of Dumfrese, by Dr Archibald, with his account of the natural products of Galloway and Dumfreseshire." Some of these papers are preserved among the Sibbald MSS. in the Advocates' Library, Edinburgh, though the two that relate to Dumfriesshire appear to be awanting. From what we read in the "Inquiries," we may infer that Sir Robert's correspondents had spoken of there having been a Roman Fort at Caerlaverock, and another at the "Village" of Solway, as well as a Roman Port on the Nith, somewhere below the town of Dumfries. But these are his only references to Roman antiquities in the county. "Historical Inquiries" was published in 1707.

Alexander Gordon next comes on the scene. Born in Aberdeen towards the close of the seventeenth century, he studied at one or other of the two northern Universities, now united, taking there the degree of M.A. Little is known of his earlier

years. He is said to have travelled for some time on the Continent, probably with some wealthy family in the capacity of a private tutor, when his taste for the study of antiquities may have been fostered, if not developed. To his other accomplishments he added a knowledge of painting and music. Returning to his native country, he spent three years, as he himself informs us, in visiting different parts of the kingdom, "exploring, drawing, and measuring ancient remains." But the straitened pecuniary circumstances under which he prosecuted his researches were not favourable to their completeness.

It was while thus engaged that Gordon became known to "Baron" Clerk, who then owned Drumcrieff, near Moffat, in addition to his ancestral estate of Pennicuik. By Clerk he was introduced to the English antiquary, Roger Gale. Frequent references to Gordon, not always complimentary, are made in the correspondence between Gale and Clerk, published in the "Reliquiae Galeanae." The first and by far the most important result of Gordon's studies in the antiquities of Scotland was the "Itinerarium Septentrionale," published in 1726, followed six years later by "Additions and Corrections by way of Supplement." This, it may be remembered, was the folio volume, the inspection of which by Jonathan Oldbuck, as he journeyed with Lovel in the Queensberry diligence, helped to soothe his irritation at the delay that had taken place ere the vehicle left Mrs Macleuchar's "laigh shop." After a somewhat chequered career at home, Gordon emigrated to South Carolina. Here fortune at last smiled upon him; for at his death about the year 1754 he seems to have been possessed of considerale means.

From the manner in which the Fort of Birrens or Middlebie and the camps on Birrenswark Hill are introduced in the "Itinerarium" to the notice of its readers, one would hardly infer that they were new discoveries. Not the slightest hint is given as to how the author's attention was drawn to them. They make their appearance in his pages as if it was to be expected as a matter of course that they should. Without the slightest hesitation, all of them are at once put down as Roman. It is fair, however, to say as regards Birrens that in doing so Gordon had likely the mounds of Ardoch in view. These had been classed as Roman by Sibbald; and he must have been struck with the resemblance they present to those at Birrens. His impression that Birrens was Roman

was naturally, and perhaps justly, strengthened by seeing among the ruins of the Fort long hollow square stones, a stone-arched vault, marks of stone buildings, and one stone with Roman letters upon it, "but," he adds, "so defaced that it was unintelligible." He also notes that several Roman coins and a gold medal of Constantius Chlorus had been found there.

In the case of Birrenswark Gordon gives two reasons in support of his belief that the earthworks are Roman. In situation they agree "exactly with Agricola's march in the second summer's expedition," and they correspond "with camps in use among the Romans in the reign of Titus Vespasian, as they are beautifully and accurately described by Josephus." Neither of these reasons is of itself convincing proof of the origin ascribed to the "camp" or "camps," for there are really two. It is by no means an ascertained fact that Agricola marched past Birrenswark on his way north, and unless the defences that guard the entrances can be shown to be characteristically Roman, there is little in the form of these entrenchments to connect them with the Romans, for neither of the two can be properly said to have been "measured out in a square," as Gordon describes them. All their irregularity of outline, as may be seen by a reference to Roy's plan, is carefully concealed in the plan Gordon gives, in which they are represented as oblong, with straight sides and rounded angles. They are, he assures us, "vestiges of the first Roman Camp of any to be met with in the South of Scotland, and the most entire and best preserved one I ever saw." Birrens he regards as an outlying "exploratory castellum," subordinate to Birrenswark.

Connecting both localities with Agricola, Gordon supposes that general, after defeating the Ordovices in North Wales and reducing to subjection the island of Anglesey (Mona) to have advanced northwards by as direct a course as possible. Having crossed the Solway Firth at ebb tide, somewhere due south of Birrenswark, he made for that hill, then as now a prominent feature in the landscape, and encamped on its slopes. Here are still to be seen the remains of the two earthworks already alluded to, one on its northern the other on its southern side, which Gordon believed to have been raised on that occasion by Agricola's troops. He seems also to have thought that the Roman commander had then, or on his return southwards, left a detachment there or at Birrens, the latter of which "the

succeeding Romans afterwards possessed themselves of in their other attempts to subdue Scotland."

Of the two entrenchments on Birrenswark, the southern is the larger, measuring internally, according to the 25-inch Ordnance map, 850 feet by 600 feet. The smaller or northern is 950 feet by 350 feet. Both of them are roughly rectilinear, and, in the words of Gordon, "surrounded by two ramparts and a ditch in the middle." In the ramparts are several openings or gates, defended by small quasi-circular mounds a short distance in front of each. On the flat top of the hill there were in Roy's time, some thirty years later, traces of several curvilinear works, and, at its foot, remains of two small redoubts. Gordon represents the two principal camps as joined by "a huge rampart of stone and earth running round the east end of the hill." This connection led him to look upon them as forming one great camp. In the same quarter Roy saw "imperfect vestiges of two lines, including between them two weaker forts, whereof one is square and the other circular."

Two miles and a half south-east from Birrenswark is Birrens—an earthwork of a different type. The plan in the "Military Antiquities" shows it to have had the form of a parallelogram. Its sides, at least three of them, were once defended by from four to seven ramparts of earth, with intervening ditches. Those on the south, if they ever existed, had ere Roy's day been swept away by the waters of the Mein; and those on the east and west have also all but disappeared. The exterior dimensions were 1050 feet by 700 feet. Of the other earthworks in North Britain it most nearly resembles Ardoch, and Lyne, near Peebles. Roy figures two more that show in his plates traces of having been surrounded in a similar way—Castledykes near Carstairs, and Strageth in Perthshire. All these he sets down as Roman Stations.

In 1731 a notable discovery was made at Birrens. This was the sculptured figure of the goddess Brigantia, an altar dedicated to Mercury, and the inscribed pedestal of a statue of Mercury, all of which, after being for many years part of the collection of antiquities in Pennicuik House, are now in the National Museum, Edinburgh—the gift of the late Sir George Clerk, Bart. The circumstances under which they were secured by "Baron" Clerk had best be related in his own words. In a marginal note to "Memoirs of My Life" he writes:—"About this time (1731) the

five pieces of antiquity now at Pennicuick were found near the Roman Camp at Middlebie. They consist of a statue of the goddess Brigantia, and two altars inscribed to Mercury. These stood in a little temple which, by age, had fallen down, and become a ruinous kind of heap. These ruins were in the grounds of a poor lady. She caused some stones to be made use of for building a little stable. When I chanced to pass the way I discovered the stones, and gave the poor lady two guineas for them. I consider these antiquities the chief of the kind now in Britain, and therefore I wrote a Latin dissertation upon them, that at least posterity may not despise and destroy them." In a subsequent note he describes the spot where they were found as being "on the west side of the ancient Roman Camp at Middlebie." Besides these antiquities, there are a number of other altars and inscribed stones in the National Museum and elsewhere that are said to have been found at Birrens. Pennant ("Tour in Scotland," vol. iii., Appendix No. viii.) gives a list of fourteen, most of which were then, he states, preserved "in the walls about Hoddam." It includes, however, the Pennicuik sculptures, which were certainly not there. Wilson in his "Prehistoric Annals of Scotland" describes others.

Either by intuition or by accident Gordon was thus right when he fixed on Birrens as the site of a Roman settlement, although it was probably something more than a castra aestiva subsidiary to Birrenswark. Only an important station or fort could have yielded so many lapidary relics of Roman times. We are not, however, to jump to the conclusion that the present ramparts of Birrens, all of them at least, belong to the original Roman fort. There is nothing in the classical writers, or, so far as I know, in the Roman antiquities of other countries that goes to show that the Romans in the case of permanent stations practised such a mode of fortification. Their camps proper, the resting places for the night of the legionaries when on the march, were protected by a single rampart of earth, hurriedly raised, and a ditch; but their large stations were walled, and had usually gateways of a particular size and form, as may be seen at Chesters and Birdoswald. It is conceivable, no doubt, that a temporary camp might in some instances have been converted into a permanent station, and the original defences allowed to remain. It seems, however, not unreasonable to ask for more direct proof than has yet been offered, that such a series of

ramparts and ditches as surrounds Birrens and certain other "camps" in North Britain are certainly Roman, before accepting as unquestionably correct the popular and, it may be added, the very natural theory of their origin. Since Birrens ought, I believe, to be regarded as an advanced post intended to check the advance of the natives of the north in their repeated assaults on the southern wall, and subsequently as an integral part of its lines of defence, there is the more reason why all doubts on a point so interesting should, if possible, be cleared away.

The precise locality where, the time when, and the circumstances under which, the Birrens' sculptures were found, those once at Pennicuik excepted, have, unfortunately, not been noted. Sir John Clerk's, however, were certainly met with to the west of the present mounds and ditches, and there is every reason to suppose that some of the antiquities in Pennant's list were also discovered there. They may have been within or adjoining to a "civil settlement" attached to the station proper. In 1831 the writer of the account of Middlebie in the "New Statistical Account of Scotland" has the following statement: - "There was originally another camp adjoining to it (Birrens), which, being on the ground of a small proprietor, was dug up some years ago, and is now completely destroyed. In this last there were found many splendid specimens of Roman antiquity, particularly large stones, neatly cut and ornamented with inscriptions perfectly legible; but most of them have been sold or given away, and none, I believe, exist in their native parish except one erected in the neighbouring garden of Mr Irving of Burnfoot." There were also buildings within this space, one of them erected, though perhaps at a somewhat recent date, to proteet Brigantia, if we may adopt Sir John Clerk's suggestion. "I doubt not," he says, "but some great men in England, who are lovers of antiquity, have so far reverenced the heathen religion as to have built a temple for the sake of this statue." This opinion he qualifies somewhat in his Latin Dissertation, in which he speaks of the building that sheltered it as a templum seu delubrum Romanum, "It was built," he tells us, "of squared stone, and was thirty-six feet in length and about twelve in breadth. The situation was somewhat marshy, and lay outside the fortifications of the camp, as if it stood in need of no protection from man, being committed to the care of the gods of the Romans." It would be interesting to find out if possible the

exact position of this "little temple," and some particulars about the stable, the dwelling, and the grounds of the "poor lady" as well as about the lady herself. Meantime we cannot determine with the necessary degree of certainty what connection, in point of time, these and other Birrens antiquities had originally with its ramparts and ditches. The Romans chose the sites for their stations and camps with such admirable skill and foresight that we need not be surprised at finding that after they left a country the native tribes or subsequent invaders took possession of the same positions, refortifying or strengthening them in accordance with their own ideas of defensive warfare.

Sir John Clerk's discovery at Birrens lent such probability to Gordon's statements, regarding both it and Birrenswark, that they soon gained currency. With some modifications they were adopted by Horsley in his "Britannia Romana," who, however, reversed Gordon's decision as to the comparative importance of the two places by identifying Birrens as the "Blatum Bulgium" of the Antonine Itinerary. According to Sir John Clerk, the suggestion of their being one and the same was originally his; and in his correspondence he indicates that he had a grievance against Horsley for omitting to acknowledge indebtedness for it. But it was Major-General William Roy who secured for belief in the Roman origin of the mounds at Birrens and those on Birrenswark that all but universal acceptance it still enjoys. Himself a soldier, he had many qualifications for the task of investigating the character of these and similar remains. He took an active part as an Officer of Engineers in the first Government Survey of Scotland (1747 to 1755), and had thus unusual facilities for collecting much of the necessary materials. In the course of the Survey operations, Roy's attention was drawn almost accidentally to certain supposed traces of the Romans in the north. A military friend, Captain (afterwards General) Melville, on reading the Agricola of Tacitus, became penetrated with the idea that "for reasons of war" the battle of Mons Graupins or Grampius must have been fought in the north of Forfarshire if not in Kincardine. With this view he made a tour through Strathmore, where, after some search, he discovered four earthworks or enclosures, which, from their situation, he thought must have been occupied by Agricola during the last year of the war. Soon after he met with Roy, whom he made a proselyte to his opinions, and induced to follow up the matter.

About the same time the notorious forgery, "De Situ Britanniæ," falsely ascribed to Richard of Cirencester, and introduced to the notice of antiquaries by Dr Wm. Stukeley, was causing no small stir. Believing in its genuineness Roy resolved to make a study of the recently discovered "camps" by the aid of the new light supposed to be thrown on them. The fruit of this was "The Military Antiquities of the Romans in North Britain." When finished, Roy deposited one copy of the MS. with drawings in the Library of the Society of Antiquaries of London, and another in the King's Library. In 1793, shortly after the author's decease, the work was published at the expense of the London Society.

In fulfilment of his design Roy gives first of all a general view of the transactions of the Romans in North Britain, drawn from the classical writers. He next explains the constitution of a Roman legion and a consular army in the days of the republic and the system of castrametation then in use as described by Polybius. This enables him to compare the form and apparent arrangements of the Strathmore and similar camps with those of the Roman encampments of republican times. That they had the same essential characteristics appeared to him beyond dispute. From the size of our northern camps he inferred the number of men they were intended to contain, and, since the large majority of them were, in his opinion, Polybian, the probable strength of Agricola's army, and the route followed by him in his northern campaigns. A lengthened commentary on the De Situ of "Richard" succeeds, and the work concludes with an account of the Antonine wall. The whole is illustrated by a series of drawings of camps, &c In an appendix there is discussed among other subjects another system of Roman castrametation known as the Hyginian. was, he believes, introduced soon after Agricola's time in consequence of the changes in the constitution of the Roman army that gradually took place under the empire. By these studies Roy was led to conclude that Birrens had been a Roman station, possibly as Horsley conjectured "Blatum Bulgium." Its date he does not attempt to fix; in fact, the notice of it in his text is provokingly meagre, and gives one the impression that he knew it and Birrenswark only by the plans sent him through Sir David Baird, under whom the survey of the southern lowlands was conducted. The Birrenswark camps Roy held to be Hyginian. They were not, therefore, made by Agricola. He is of opinion that they were probably occupied by the Sixth Legion,

which did not come into Britain till the reign of Hadrian, and whose headquarters were at York. He further supposes that soon after Agricola's recall, the Romans lost the greater part of the country between the two isthmuses, and that Hadrian in consequence fixed the boundary of the empire in Britain on the southern isthmus. While, however, the wall was being built, he posted a detachment of his army at Birrenswark to watch the enemy's motions, especially if they advanced in any great body from the north to interrupt the work. The first halting place of Agricola, in the west of which any trace remained in his day, was, Roy thought, a camp on Torwood Moor, near Lockerby. Adopted in the main by succeeding antiquaries, Roy's views on the Roman occupation of Southern Scotland may be said still to hold the field.

Roy, it must be acknowledged, made an earnest attempt to grapple with his subject. His method has all the appearance of being strictly scientific. He seeks to plant his foot firmly before taking another step in advance, and to remove any obstacles that seem to stand in his way. The most fatal blot on his work is his acceptance of the De Situ Britannice as genuine. This not only vitiates his "rectification of the ancient geography of North Britain," but leads him far astray in other matters, although it only indirectly affects what he says of Birrens and Birrenswark. Moreover, he, too, readily fell in with Captain Melville's opinion as to the Strathmore "camps." Under its influence he saw resemblances between them and those of the normal Roman type that it may be safely said would never have otherwise occurred to him. The wish became father to the thought. But after his work was finished his own confidence in his conclusions must have been shaken. In 1787 a "camp" was discovered near the sources of the Ythan, in Aberdeenshire, with characteristics as Polybian as those of Strathmore and Torwood Moor; yet, it is situated where, on any interpretation of Tacitus' words, Agricola could hardly have been. Its existence is said to have been made known to him; and a plan of it with particulars is the last plate in the "Military Antiquities." The insertion of this plate, however, is probably due to his editor or editors. Roy could hardly, without some explanation, have sanctioned the statement made on it that this Aberdeenshire "camp" resembles "the camps which are supposed to be Roman on the south side of the Grampian hills." It is not too much to say that the discovery of this camp

invalidates, if it does not destroy, much of the reasoning by which Roy nad sought to identify so many of our northern rectilinear earthworks with Agricola, and seems to leave their Roman origin more doubtful than ever.

From the statement and review now given, the following inferences regarding Birrens and Birrenswark appear to be legitimately deducible:-(1) Birrens as shown by the inscribed stones found there was almost to a certainty an important Roman settlement. Its earthworks may also be Roman. But the belief that they are, mainly rests at present on the sculptures found in their neighbourhood and on their quadrangular form. As we know that Roman Camp defences were sometimes imitated by tribes with whom they came into hostile contact, and who might even modify them to suit their own ideas of a stronghold, it appears to be necessary to have additional proof of a connection in time between the Roman antiquities found at Birrens and the mounds to be seen there, before we can affirm that the latter are also certainly Roman. The proximity of two objects of antiquity is not sufficient evidence that they belong to the same people and age. (2) Since it is conceivable that a Roman garrison at Birrens would establish a post of observation at Birrenswark, the camps on the latter may be Roman. Their form, irregular as it is, so far favours the supposition. They have a certain resemblance to some of the camps figured in the Plates of Napoleon's Histoire de Jules César, and said to be Roman. It is not to be supposed that Roman Camps were always laid out with the geometrical regularity assigned to them by certain writers. The nature of the ground must have often determined their outline. At the same time, we know far too little about the social and military arrangements of the different peoples that successively occupied Annandale in post-Roman times to enable us on the evidence at present available to say with confidence when or by whom the Birrenswark encampments were raised. Further investigation is required before it can be held as beyond dispute that they are the work of the Romans. General Roy's arguments, while ingenious, are by no means satisfactory when critically examined,

It may now be asked, Have we then any means of obtaining the desired evidence? Ancient history is all but silent about both Birrens and Birrenswark. But there still remains one source of information to which we can go with some chance of success—the mounds themselves. Within them the secret of their origin and

subsequent history possibly lies hidden. The search for it, however, ought to be conducted with great care and circumspection. Unskilful hands might destroy those venerable remains of the past, leaving unsolved the problem they present.

General Pitt-Rivers has recently communicated to the "Wiltshire Antiquarian and Natural History Magazine" a most instructive account of the exploration of a camp at South Lodge, Rushmore Park. The earthwork is of squarish form; the lines of its sides are somewhat irregular, and the ditch was filled up by silting. He began by causing six sections, 10 feet wide each, to be cut across the ditch and rampart in different parts of the camp. In the first three of these nothing worthy of notice was found, showing, as he remarks, "what very false conceptions are liable to be formed by merely digging one or two sections in a camp." He therefore determined to dig the camp all over. The ditch was an average depth of 6.6 feet, and could, from the nature of the soil with which it was filled, be divided into two halves, one above and the other below a three feet horizontal line. In the course of turning this soil over the workmen came upon a number of objects of the Bronze Age, most of them in the lower of the two halves, affording sufficient evidence that the camp was of that period. This opinion was further confirmed by the pottery found throughout it. Every fragment got below the three feet line of the ditch was British and pre Roman, while of those dug out above that line nearly a half were of Roman age. Again, of a large number of fragments found in the ramparts, all, with one doubtful exception, were British. In the surface of the interior space the pottery was of both kinds. The conclusion to be drawn from these facts is obvious. The pottery in the rampart must have been deposited there when the camp was formed, and that in the lower half of the ditch during or soon after its first occupation. This pottery taken in connection with the Bronze Age implements clearly proves that the camp had been originally constructed in the Bronze Age. The Romano-British fragments in the upper half of the ditch and in the interior shows that it was afterwards either occupied for a time by the Romans or frequented by Romanized Britons. Care was taken so to carry out the excavations as to leave the camp in a condition that " very much resembles what it was at the time it was in use."

I have referred at some length to the Rushmore Park excavations to show how much can be accomplished by a careful

examination of a camp. What thorough and systematic excavations at Birrens and Birrenswark might bring to light, no one can meantime tell. The expense would be considerable, and the results might not be proportionate. But the question that has occupied our attention this evening is not likely to be satisfactorily answered, unless the camps themselves can be got to give the needed evidence.

2. All that is known of Epictetus.

By EDWARD J. CHINNOCK, LL.D.

Arrian wrote a life of Epictetus, which is mentioned by Simplicius, the last of the great philosophers. This valuable book has not come down to us, and the consequence is that we know scarcely anything of one of the most admirable men of antiquity. The date of his birth and death are alike unknown, and only a few facts in his life have been discovered from the incidental remarks of about half-a-dozen authors. These notices are as follow:—

Suidas writes:—" Epictetus, a philosopher, of Hierapolis, a city of Phrygia, a slave of Epaphroditus, one of the emperor Nero's bodyguards. He was lame of one leg from a flux, dwelt at Nicopolis, a town of New Epirus, and lived until the reign of Marcus Antoninus. He wrote many books." This last statement we know on the authority of Arrian and Simplicius to be incorrect.

Simplicius, in chapter 13 of his "Commentary on the Encheiridion," says:—"Epictetus himself, who says this, was both a slave and weak in body, and lame from an early age. He practised the severest poverty, so that his house in Rome never needed any bolts; since there was nothing within except a strawmattress and a rush-mat, upon which he used to sleep." The same writer, in chapter 46 of the same work, says:—"This admirable Epictetus, after he had passed the greater part of his life alone, at length late in life took a woman into his house, as nurse for a child, which one of his friends, on account of poverty, was going to expose, but which Epictetus took and reared."

Lucian, in his life of the philosopher Demonax (ch. 55), has the following ancedote:—"When on one occasion Epictetus found fault with him, and advised him to take a wife and beget

children, 'For,' said he, 'this also is a philosopher's duty, to leave another in the world in place of himself,' Demonax most conclusively refuted his argument by answering—'Give me, then, Epictetus, one of your own daughters.'" Again, in his book "Adversus Indoctum" (ch. 13), Lucian says:—"There was a certain man in our own time, and I think he is still alive, who bought the earthenware lamp of Epictetus the Stoic for three thousand drachmæ. For I suppose he hoped, if he read by that lamp at night, that the wisdom also of Epictetus would present itself to him in sleep, and that he would be like that admirable old man."

Epictetus himself says in "The Discourses" (I., 18, 15):—"I also lately had an iron lamp beside my household gods; hearing a noise at the door I ran down, and found that the lamp had been carried off. I reflected that he who had taken it had done what might have been expected. What then? 'To-morrow,' said I, 'you will find an earthenware lamp; for a man loses only those things which he has.'" Again, in I., 29, 21, he says:—"For this reason also I lost my lamp, because the thief was superior to me in wakefulness. But he bought a lamp at such a price; for a lamp he became a thief, for a lamp faithless, for a lamp like a wild beast."

Aulus Gellius (Noctes Atticae, II., 18) says that Epictetus composed an epigram upon himself to this effect:—"I was Epictetus, a slave, and maimed in body, and in poverty an Irus, and dear to the immortals." The same is found in Macrobius (Saturnalia I., 11), probably copied from Gellius. This epigram is also found in the Greek anthology. It was ascribed by Planudes to Leonidas of Alexandria, but without adequate reason. Brunck put it among the anonymous epigrams. There is no probability that Epictetus himself was the author of it, as Gellius says he was. Again, Gellius says (XV., 11):—"In the reign of Domitian, the philosophers were banished by a decree of the Senate from the city and Italy; at which time Epictetus, the philosopher, also, on account of this decree of the Senate, departed from Rome to Nicopolis."

Celsus, the physician, relates the following anecdote, which is found in the seventh book of Origen's work "Adversus Celsum":— "Epictetus, when his master was twisting his leg with an instrument of torture, with a smile said, without the least terror, 'You will break it.' And when he had broken it, he said, 'Did

I not tell you, you would break it?" This anecdote was accepted as fact by the early Christian writers as well as the pagans, though we know from Simplicius and Suidas, who no doubt had the life of the philosopher by Arrian as their authority, that Epictetus was lame from his infancy. Origen thus comments on this tale:—"Celsus sends us back to Epictetus, admiring his noble saying; but his speech about the breaking of his leg is not worthy to be compared with the marvellous deeds of Jesus." In his first invective against Julian, he says:—"You who praise the hemlock of Socrates, the leg of Epictetus, and the bag of Anaxagoras, whose philosophy was rather compulsory than voluntary."

Gregory Nazianzen (Epist. 58 to Philogrius) says :- "Epictetus, when his leg was being stretched and tortured, philosophised as if in another man's body; and it seemed that his leg was broken before he perceived the violence."* Again in his Iambic poems (Carmen XVIII.), he says :- "You say that the leg of Epictetus was broken before he uttered any slavish word from the violence of pain; for he said, as we hear, that the body of man is a slave, but that his mind is free; and you mention the pounding of the hands of Anaxarchus in a mortar. Do you praise these things? So do I; but they were brave in evils they could not avoid," &c. Epictetus himself says in his "Discourses" (I., 12, 24) :- "Must, then, my leg be lamed? Slave, do you then on account of one poor leg find fault with the world? Also in I., 8, 14:-" If I were a philosopher, ought you also to become lame?" In I., 16, 20:-" What else can I, a lame old man, do than sing hymns to God?"

Spartianus, in his life of Hadrian (ch. XVI), says:—"He was a very intimate friend of the philosophers, Epictetus and Heliodorus."

Themistius (Oratio ad Jovianum) says:—"Thus also the fathers of your kingdom honoured the ancestors of this art—Augustus, the famous Arius; Tiberius Thrasylus; the great Trajan Dio, the golden-tongued; the two Antonines Epictetus." This statement of Themistius as well as that of Suidas, that Epictetus lived to the reign of Marcus Aurelius Antoninus, is

^{*}In the margin of one of his manuscripts, at I., 8, 14, Schweighaeuser found this note:—"That Epictetus had been wounded on the leg and was lame, the Theologus has also mentioned." This term was applied both to St. John and Gregory by the early Christians.

absurd. M. Antoninus, in his "Meditations" (I., 7), says:-"I owe to Rusticus that I read the commentaries of Epictetus which he communicated to me out of his own library." He also quotes from his "Discourses" several times. The only acquaintance the Antonines could have had with the philosopher was with his books, and there is no evidence that the elder Antonine had any knowledge even of them. The popularity of this philosopher is attested by Origen (lib. VI. adversus Celsum):-"Therefore we can see that Plato is in the hands of those who are esteemed learned; but Epictetus is admired by the ordinary folk, and by those who have a desire of improving, since they feel that they become better from his discourses." These are all the materials which we have for a life of Epictetus. He was born about the middle of the first century at Hierapolis, in Phrygia, about five miles north of Laodicea, between the Mæander and its branch the Lycus. It is mentioned by St. Paul in Colossians IV., 13, as the seat of a Christian Church. It has been conjectured that the parents of Epictetus were poor, and that they sold their boy into slavery. But whether this were so or not, one of the few facts we know of him is that he was a slave in Rome, and that his master was the notorious Epaphroditus. This man was a favourite freedman of Nero mentioned by Tacitus (Annals XV., 55). He is called by Suetonius a libellis, the officer whose duty it was to receive petitions. He was one of the four men who accompanied Nero in his flight, and he it was who assisted him to commit suicide (Suetonius' "Life of Nero," 49 ch.). For this service to his lord, he was many years after put to death by Domitian (Suetonius' "Life of Domitian," 14-Dio Cassius 67, 14). It has been erroneously supposed by some that he was identical with the Epaphroditus whom St. Paul in Philippians II., 25, calls "my brother and fellow-worker and fellow-soldier, and your messenger and minister to my need." He has also been identified with the Epaphroditus to whom Josephus dedicated his works; but this is impossible, as the latter Epaphroditus was alive and in office under Trajan. Grotius says he was a freedman and procurator of that emperor. We do not know much about Epaphroditus, the secretary of Nero, and the master of Epictetus. He seems to have placed his slave under the tuition of one or more philosophers at Rome, as we find that Epictetus attended the lectures of Musonius Rufus, a famous Stoic philosopher. Some interesting remarks were communicated

to Schweighaeuser by Garnier, the author of a "Memoire sur les Ouvrages d'Epictète":--"Epictète dut apparemment les avantages d'une éducation distinguée à la fantaisie qu'avaient sur la fin de la République, et sous les premiers Empereurs, les grands de Rome de compter parmi leurs nombreux esclaves des Grammairiens, des Poètes, des Rheteurs et des Philosophes, dans le même esprit et les mêmes vues qui ont porté de riches financiers dans ces derniers siècles à former à grands fraix de riches et de nombreuses Bibliothèques. Cette supposition est la seule qui puisse nous expliquer, comment un malheureux enfant, né pauvre comme Irus, avoit regu une éducation distinguée, et comme un Stoicien rigide se trouvoit être esclave d'Epaphrodite, l'un des officiers de la garde Impériale. Car on ne soupgonnera pas, que ce fut par prédilection pour la doctrine Stoique, et pour son propre usage, que le confident et le ministre des débauches de Néron, eût été curieux de se procurer un pareil esclave."

It is assumed that Epictetus was manumitted by his master Epaphroditus; but there is no statement to this effect to be found. At anyrate, by some means or other, he obtained his freedom, and began to teach in Rome. But in A.D. 89 Domitian expelled the philosophers from Italy (see Tacitus, Agricola 2; Suetonius, Domitian 10; Dio Cassius 67-13; Gellius 15-11), and he retired to Nicopolis, in Epirus, where he opened a school of philosophy, and lectured till he was an old man. Nicopolis was a city which had been built by Augustus to commemorate the victory at Actium (see Suetonius' "Octavian," 18). The fact that Epictetus taught at Nicopolis is stated by Suidas and Gellius; and Spartian says against all probability that he was a familiar friend of the Emperor Hadrian; but nothing is said about his ever returning to Rome. There are frequent allusions in the "Discourses" to Nicopolis as his place of residence. Here it was that Arrian became his disciple, and took down in writing his lectures, which form the "Discourses." Like Socrates, Epictetus wrote nothing, and just as for our knowledge of the doctrines of the former we are indebted to his disciples, Plato and Xenophon, so we owe our knowledge of those of the latter to Arrian, afterwards the historian of Alexander the Great. He himself says in the epistle to Lucius Gellius which forms the preface to the "Discourses":-" Neither did I compose the Discourses' of Epictetus in the way a man might compose such things; nor did I publish them myself, for I assert that I did not

even compose them. But whatever I heard him say, the same I tried to write down in the very words as nearly as possible, in order to preserve them as memorials for myself in the future of his reasoning and freedom of speech. Accordingly they are naturally such remarks as a man would address to another, speaking without previous preparation, not such discourses as a man would compose that afterwards they might be read by others."

CONVERSAZIONE, JANUARY 24, 1895.

Invitations were issued to the members and their friends to a conversazione to be held in Free St. George's Hall, and they responded in large numbers. The hall was carpeted and tastefully draped for the occasion, and tea tables were dotted about it. As the members of the company entered they were individually introduced to Sir James Crichton-Browne, president of the Association; and then, grouping themselves around the little tables or moving about among acquaintances, had tea and cakes handed round to them. This was followed by a short programme of instrumental music. Miss Andson, Miss Hamilton, Victoria Road, and Miss Stark, Woodlea, played selections on the pianoforte; and Mr Hume and Mr Dearlove on the violin and pianoforte. The greater part of the evening was given up to an address by the President and a lecture by him on "Emotional Expression," which was profusely illustrated with photographs displayed by means of the lime-light lantern, under the direction of Dr Maxwell Ross.

Dr Chinnock, secretary of the Society, apologised for the absence of Mr Thomas M'Kie and Mr W. J. Maxwell, M.P., two of the vice-presidents; and stated that he had the very pleasing duty of introducing their distinguished president, Sir James Crichton-Browne. (Cheers.)

Sir James Crichton-Browne, who was cordially cheered, said: Ladies and gentlemen, I am afraid before the evening is ended you will have heard more than enough of the sound of my voice. I shall, therefore, as briefly as possible, discharge the first duty assigned to me by the Council of the Dumfriesshire and Galloway Natural History and Antiquarian Society, and in their name bid you welcome to this conversazione. (Cheers.) And in discharging that duty, I would embrace the opportunity it affords

me of thanking the members of that Society who may be here present for the honour they have done me in placing me in the presidential chair—an honour which I am sure I owe to their kindness and generosity, and not to any services which I have myself rendered to the Society. The fact that I am the only Fellow of the Royal Society of London at the present time connected with the south of Scotland perhaps suggested my selection for the office. But, however that may be, I do assure you that I regard it as a great honour to occupy a position for a time of which the first occupant was that distinguished ornithologist, the late Sir William Jardine of Applegirth-(cheers)-a position which has been filled since his time by a succession of able and worthy men, each having some special claim to local recognition. I regard it as a great honour to preside even for a short season over a Society that during the last thirty years has held aloft the lamp of scientific culture and antiquarian research in this town and district. I am told that it was on the 20th of November, 1862—just thirty-two years ago—that the Dumfries. shire and Galloway Natural History and Antiquarian Society was called into existence, chiefly owing to the initiative of the late Dr James Gilchrist, one of the most genial and accomplished and loveable men whom I have ever met, and who, had he been able to devote himself to pure science, would certainly have attained to the highest eminence. (Cheers.) Dr Gilchrist drew around him a coterie of kindred spirits, believers like himself in the advantages of scientific culture-men like Mr Aird, Mr M'Dowall, Mr Gibson, the Rev. Mr Goold, Dr Dickson, Dr Grierson, of Thornhill-and it was by these men, banded together into a preliminary committee, that this Society was launched and started on that voyage which it has since very prosperously pursued, which I hope it will long continue to pursue, and upon which I am sure we shall all wish it God-speed. (Cheers.) I should weary you were I to attempt to rehearse the excellent work that has been done by this Society since the first paper was read-a paper on the Scutellaria Minor by that veteran botanist, the Rev. Mr Fraser, of Colvend. (Cheers.) Indeed, it is not needful that I. should attempt any such rehearsal, for the work of the Society is chronicled in a form that is accessible to all of you in the admirable Transactions published from time to time. I will only say of these Transactions that while, of course, they vary in merit from paper to paper and

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from number to number, they seem to me to have generally embodied a vast amount of valuable observations. They seem to me to have been animated by the true scientific spirit, a genuine earnest love of truth; and they seem to me to have maintained a high standard of scientific excellence. These Transactions. at anyrate, have rescued from sheer oblivion and neglectfulness many interesting memorials of our ancestors in these parts; they have supplied us with trustworthy charts of the distribution of animal and vegetable life in the south-west of Scotland; and they have preserved accurate records of many interesting and important natural phenomena. I am quite sure the Transactions of this Society will bear favourable comparison with the Transactions of any similar Society in any part of the country. I trust that the publication of these Transactions will be long continued, and that they will continue to mirror for us such traces of life in the past as may be still discernible or discoverable; that they will continue to reflect light on some of the dark corners of the mineral and vegetable world around us. The past is an ever-increasing quantity, and its landmarks and characteristics are perpetually crumbling away. So there is room for any number of students to employ themselves in accurately noting facts relating to the past—the immediate or the remote past those facts which are the raw materials of history. On the other hand, the field of science is an ever-widening area, and there is a growing demand for labourers and for investigators to explore the confines of science. The work of a society like this is not exhausted when complete collections have been made, when all the species in a district have been discovered and classified. On the contrary, that work is only introductory to the more important investigation into their life habits-into the action of living organisms, and the effect produced on them by their environment, investigation which cannot fail to have important practical results. The splendid development which has taken place quite recently in bactereology-in that branch of science which is concerned with the very lowest forms of animal life, which has almost certainly given us a cure for diphtheria, which has certainly given us a remedy for tetanus (lock-jaw)-that splendid development is an illustration of the lines on which scientific investigation is now advancing; lines which it is not beyond the members of a Society such as this to some extent to pursue. feel confident that this Dumfries Society has an important part

to play in the future; that it has a mission to perform. Science is coming more and more to the front every day. Not long ago it was a sort of Cinderella in the household of learning, a despised drudge, looked down upon by its haughty sisters, Literature and Philosophy. But recently science has possessed herself of her little glass slipper, and she has risen to honour. (Cheers.) And I take it that science will daily increase its dominion over us; that it will minister more and more, in ways that can scarcely yet be surmised, to the comfort, well-being, and convenience of our daily lives. (Cheers.) Only on Friday last I saw handed round, at a meeting in London, bickers full of a pale blue fluid bubbling furiously; and that fluid was composed of the atmosphere we breathe, which had been condensed and liquified. I saw plunged into that fluid bunches of flowers, feathers, and other substances; and when withdrawn they were emitting light. They brilliantly illuminated the room by their phosphorescence. I was privileged there to see the demonstration of the latest discovery of science. The discovery was made by a typical Scotsman, Professor Dewar, and carried through in the laboratory of the Royal Institution. But, it may be asked, what is the good of this liquid air? And it must be admitted that we don't at present recognise its utility. But had the same question been asked about electricity when it was first discovered, or about liquid carbonic acid a few years ago, an answer exactly the same must have been returned. We must have a deep and earnest faith that all knowledge is power; that every scientific discovery, no matter how minute or trivial-whether made in the laboratory of the Royal Institution in London or by a member of this Society-will be woven into the warp and woof of scientific knowledge and have its important place. As science is advancing very much, it seems to me more and more important that all educated men and women should possess a knowledge of it-should acquaint themselves with the scientific method and have a knowledge of some branch of science. Therefore it seems to me important that thoughtful and educated people, who do not live in university towns or in great cities, where opportunities for study abound, should have opportunities for scientific study and intercourse for increasing their knowledge of advancing science; facilities which are to some extent provided by the society, under whose auspices we are met this evening. I do believe that in the future this Dumfries Society will greatly

extend its uses. I look forward to the time when it will have a well stored library, a well filled museum, and above all a well qualified curator. (Cheers.) The Society is really an educational institution, carrying on to some extent the work of university extension in this town. It supplies an intellectual stimulus. I think it must supply a bond of union among its members, and tend to break down those narrow, artificial, but still rigid barriers which are apt to spring up in provincial towns. I am told it supplies glimpses of rural pleasure in its summer excursions; and it is seeking to supply social enjoyment in such a meeting as this. (Cheers.)

Sir James proceeded to deliver a very able lecture on "Emotional Expression." Noticing Darwin's theory on the subject, he remarked that although the facts observed by Darwin himself or selected by him with great discrimination were always of the greatest value, he thought the laws propounded by him were now open to review. With regard to the principle of antithesis, according to which certain movements were expressive of certain emotions because they were the opposite of movements expressive of opposite emotions, he had had doubt even when working with Darwin. Among other reasons for scepticism he observed that such sharply opposite emotions as grief and joy were expressed by weeping and laughter; but that these modes of expression were not opposed might be seen by a simple experi-In Darwin's book you had an illustration of a baby crying, but by placing another picture over it and retaining the face the squalling baby was converted into a fat and bald old gentleman laughing consumedly. (Laughter.) This was explained by the association in the mind of squalling with babies and laughter with fat old gentlemen. The lecturer went on to refer to the great discovery of the localisation of functional activity in the brain, and the perfection of knowledge on the subject obtained by experiment chiefly on the brains of monkeys, by the electrical excitement of certain areas. He mentioned in this connection that in one of those beneficent operations, which a few years ago would have been considered impossible, he had seen Mr Victor Horsley touch particular parts of a human brain, causing movement in certain parts of the body, and remove a tumour from the brain, and thus cure the patient of epileptic fits. The central portion of the brain, where were localised the movements of the face, controlled the nervous system, to which Darwin gave a subsidiary, but to which he would give the first place, in the study of emotional expression. A most interesting, and at the same time entertaining, series of photographs were here introduced to illustrate first facial changes expressive of different emotions, and secondly hand movements in association with those of the face. They were portraits of three young lady friends of the lecturer, who had, at his request, endeavoured to place themselves under the desired emotions, and had then been instantaneously photographed. A typically perfect face was also thrown on the screen, leading the lecturer to observe that George Herbert was wrong when he said that man was all symmetry; it was woman to whom the remark applied. (Laughter and cheers.) In concluding, Sir James observed that evolution was still going on, and the faces of men and women were altering, and he hoped altering for the better, every day. The emotions were less violently expressed. The beauty of form of Greek statues might be unsurpassable; but the faces of the men and women to-day were far more interesting than those of classic times. The Roman lady required a lachrymarium or saucer to catch her tears; but our wives and daughters were content with a very small pocket handkerchief. (Laughter.) The faces painted by the old masters were, he ventured to suggest, on the whole somewhat insipid when contrasted with those that we saw on the walls of the Academy to-day. Our ancestors gave vent to their feelings in a way that we would be ashamed of, and their range of feeling seemed to have been in some degree more limited. (Cheers.) The language of the countenance, like that of the tongue, had been enriched in the process of the suns. (Cheers.)

A vote of thanks was awarded to Sir James, on the motion of Mr J. G. H. Starke, vice-president.

8th February, 1895.

Rev. WILLIAM ANDSON, V.P., in the Chair.

New Members.—The Earl of Stair, and Mr Thomas E. Walker of Dalswinton.

Donations.—Insecta (Zoological Record, vol. xxx.) by Dr D. Sharp of Cambridge; the Transactions of the Glasgow Archæological Society, 1894; a Scotch half boddle found at

Lauriston, Liddesdale, presented by Mr J. Barbour, who also presented from Mr Dinwiddie of Kirkmahoe an old coin found there.

Exhibits.—Mr Andson exhibited some old coins belonging to Miss M'Cracken.

COMMUNICATIONS.

1. The Standing Stones of the Stewartry.

By Mr Frederick R. Coles, Corr. Mem. Soc. Ant. Scot.

To make an intelligent record of the Standing Stones of any district we must naturally begin by dividing all the known stones into typical groups. It will be found that four strongly-marked groups comprise the specimens to be treated of in the present paper—1st Group, Boulders; 2nd Group, Unsculptured Slabs; 3rd Group, Sculptured Stones; 4th Group, Holed Stones. On investigation we shall notice points of interest attaching in varying degree to all these different types.

1st Group-Boulders.

- 1. Close to Glenlochar road turn on Barnerosh, Tongland, stands a great stone at the height of 150 feet above sea level. It is a rude rounded mass of whinstone, measuring 5 feet 3 inches by 4 feet. It may possibly commemorate the *Battle of Druim Beate* (circa 1340).
- 2. Teepuck Stone.—Such is the name on the O.M. given to a huge pyramidal block of granite, 12 feet high by 8 broad, on a ridge of granite-strewn hillside above the keeper's house at Marbroy, Colvend. Even in the midst of the myriads of blocks all around this great stone is conspicuous, and the fact of its bearing so peculiar a name (cf. Irish Gaelic, Cheepock, once in common use in Galloway) is certainly remarkable.
- 3. Bruce's Stone, Moss Raploch, in Kells parish, at 600 feet above sea level. It is said that against this stone the Bruce rested after the battle at Craigencallie in 1307-8. I am aware that near Blackerne, and on the march between Buittle and Crossmichael, there is a so-called standing stone—an insignificant block of whin—but in spite of its having been preserved in situ by the late Rev. Mr Grant, of Buittle, it is doubtful if this stone be anything more than a march stone.

2ND GROUP-UNSCULPTURED SLABS.

- 1. At Dalarran Holm—A conspicuous object on the left as the visitor drives from the Royal Burgh of New-Galloway to Dalry. Its position is 150 feet above sea level. It is a natural slab, rudely four-square, and was probably brought from the Mulloch hill, where the rock splits up into this form of long, narrow slabs. It is 8 feet above ground, and its sides are about 2 feet to 2 feet 6 inches wide. It is supposed to commemorate a battle between Danes and Scots.
- 2, 3, and 4 are all on the farm of Red Castle, in Urr parish. Chalmers, in "Caledonia," says the tallest was "rising 14 feet from the ground;" but unless some very extraordinary changes in the surface have occurred, that must be a misstatement, since, although this stone is the tallest I have measured in the Stewartry, it is only 9 feet high. Two of its sides are 2 feet 6 inches wide, and the others 2 feet 3 inches. It is granite, and on the east side there is a deep natural fissure so remarkably like an incised cross as to be deceptive at the distance of a few yards. This stone is not in view of the other two, one of which is in view of the celebrated Mote of Urr. They are comparatively small, being but some five feet high.
- 5. This is a set of four long, narrow, squarish slabs, known in Anwoth as the Standing Stones of Newton, and really the graveposts of a huge prehistoric interment, which, I think, has never been opened.
- 6. Standing Stone of Bagbie—In the parish of Kirkmabreck, adjoining the last. It is 500 feet above sea level, and stands in a bare, lonely field a little way south of the old Kirkyard of Kirkmabreck. It is five feet high, and in thickness 3 feet 4 inches by 10 inches. There are traces of other stones, some prostrate, within a few dozen yards, which lead one to surmise this may have been once a stone circle.
- 7 and 8. On *Dranandow Moor*, Minnigaff. I have not seen these stones, but in Mackenzie's "History of Galloway" they are stated to be about 8 feet high, and were supposed to mark the place of execution of assassins who killed Randolph (Regent of David Bruce) in 1330. The stones are popularly called *The Thieves*.
- 9. On the farm of Standing Stone, Borgue. When I saw it, it was not in its original site, having fallen when the late Mrs Gordon of Conchieton (who was proprietrix also of Standing

Stone) left Galloway. It is a thin friable slab of whinstone 7 feet 2 inches long, and is now prostrate.

3RD GROUP-SCULPTURED STONES.

This group obviously presents more interesting features to the antiquary, and in this half of Galloway did in the past contain more numerous examples than any other. Some of these, however, have been lost, or, at anyrate, lost sight of.

1. The first example is in this category—The Penny Stane, on Cambret Muir, Kirkmabreck. 'The "New Statistical Account" says:—"This stone hath upon it the resemblance of that draught which is commonly called 'the walls of Troy.'" M'Kenzie in his "History" quotes this without comment. But the stone is not now extant.

2 and 3 were once close to the great cairn of *Stroanfreggan*, in Carsphairn. The "New Statistical Account" says they were shaped "like human figures." These, too, have vanished.

4 and 5 (at *High Auchenlarie*) are two very interesting stones. Formerly they stood at a height of 475 feet above sea level, on the farm of High Auchenlarie, in Anwoth. One seems to have been in connection with a stone circle there; the other stood some 200 yards or so to the west. About thirty years ago they were both removed to the garden at Cardoness, where they may still be seen. They are figured in pl. 122 of Stuart's great work on "The Sculptured Stones of Scotland." The nature of their incised sculpturing may be seen from the accompanying drawing. (See pl. I., figs. 1 and 2.) They stood about five feet above ground.

- 6. We now come to an important and striking example. Its present site is on the east rampart of Caerclach Mote, Anwoth. It is a thin broad slab off the rocks on the near hills, and bears a double sculpturing. On its upper face—exposed, we are sorry to add, to all the wind of a stormy cliff, and to the rain droppings from the firs so thickly planted here—is the elaborately carved cross shown in pl. I., fig. 3; and on its under side a very archaic cross, picked out with some sharp-pointed tool in the same manner that the cup and ring marks are made. This stone is shown also in Stuart's work, pl. 123, vol. I.
- 7. At Holm of Daltallochan, the stone with the incised cross here shown (pl. II., fig 1) was found apparently, if report be true, amongst the stones of a cairn. Along with another, also

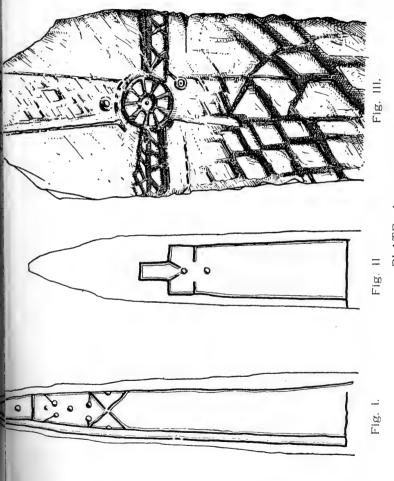


PLATE 1.



Fig. I.

PLATE II.





PLATE III.



sculptured, it was laid up against a dyke—this was some fifty years ago—and though this happened to be preserved, the other was used as the cover stone of a pen. This stone is now set up close to the farm house of Garryhorn, where it was placed many years ago by the present tenant (Mr Somerville's) father. The cross measures 2 feet 6 inches by 12 inches, and is 5 inches wide at the base.

- 8. At Auchenshinnoch, Dalry, is the stone with rudely-incised cross shown in pl. II., fig. 2. Mr Bruce, late of Slogarie, tells me it was recently removed to near the dwelling-house from a former station 200 or 300 yards away on the top of a knowe to the east, and near an old road. The inscription, which reads—DAVID MACMILLAN & FLORANCE HOWATSON BOGHT & PAYED this ground, year 1734—is much more modern of course than the cross, which is very like the Garryhorn one.
- 9. At the lodge of Dalshangan, Carsphairn, may now be seen a stone bearing the cross in relief shown in pl. II., fig. 3. The history of this fine specimen is not without an interest of its own. It is believed, on fairly good authority, to have once stood on a heather-clad spot near Carsphairn village, called The Cunnock Knowes. At a point there, at any rate, the Ordnance Map shows a Standing Stone; and in searching for its probable site, with the utmost care and bearing by compass, Mr Bruce and I found a somewhat suspicious looking mound. However this may be, the stone was really removed from some wild spot, and deposited where it now is by Dr Alexander Trotter, the proprietor of Dalshangan. The stone is a thick squarish block of porphyry, 2 feet high. The arms of the cross, which project in pretty high relief, measure 5 inches each, and at their junction is a small circular hole.
- 10. In the precincts of the ruined old Church of Minnigaff there now stands a richly-carved stone, which by reason of its history no less than its carvings, is probably unique among our stones. Some fifteen years ago, when the house known as The Old Market-house* of Minnigaff was demolished, the workmen brought to light, while loosening one of the windows, a stone which was serving as a lintel, and that stone bears on its three sculptured sides certain remarkable designs and effigies. (See pl. III.) It was after some time removed to its present resting-

^{*} The site is now marked by a large whinstone slab, on the top of which there is scratched an archaic sun-dial.

place in the old Churchyard, where, in the course of time, its fine incised work will become gradually but assuredly undecipherable. The stone is a rudely trimmed rectangular block of perphyry (?), standing 2 feet 10% inches above ground, and measuring 8% inches at the base, and 8, 6, and 31 inches at the top. The design is remarkably fine, having a bird, Celtic cross, pattée, and two panels of Celtic ornament below-this side now faces the west; a very vague and much spoilt design is on the east side; while that facing south bears a design having resemblance to a female figure, and the north face is unsculptured. The edge of the northeast side seems to bear some ornament also, but much disfigured through exposure. Taken altogether, this small but beautifullycarved monolith is certainly one of our most precious relics of the Celtic sculptured stones, if, indeed, it be not absolutely unique; and it is worthy of a much safer abode than the open and damp precincts of the little kirkyard where it happens at present to be deposited.

4TH GROUP-HOLED STONES.

1. Of this type, I have as yet been able to note but one. site is interesting, far away among the hills beyond Loch Urr, and close to a remarkable structure called Lochrinnie Mote. The stone occupies the crown of a somewhat pyramidal hill about 300 yards west of the Mote, and much higher. It is a thin, broad slab of hard blue whinstone, and stands 3 feet 2 inches above ground, 2 feet 6 inches wide and 6 inches thick. It is placed not precisely east and west (breadthways), but so as to allow the hole to be exactly north and south, the hole having been drilled rather obliquely. The hole is about four inches in diameter, and has been, to judge only from its present mutilated condition, nearly circular. Around The Holed Stone, and at radii differing from 45 to 120 feet, are several stones, some fairly prominent. others prostrate. These are 10 in number, and between the two on the north-west arc is a small heap of stones. The circumference is 585 feet.

In Lands and their Owners, Mr M'Kerlie mentions two standing stones south-east of Lochrutton Kirk; but, after a personal examination of the probable locality and due inquiries from persons likely to know, I have not been able to obtain any information about these. The Ordnance Map 6-inch scale also shows a Machermore Stone in Kirkmabreck on the bank of the

Carrouch Burn, at an altitude of 950 feet above sea level, near Craigherron, but I have not seen it. We may conclude, therefore, that the three-and-twenty standing stones of which there are more or less authentic accounts, and sixteen of which I have myself seen and measured, form the total for this county, now available as a remnant of its standing stones.

Lat. 55° 4' N. Long. 3° 36' W. Elevation above sea level, 60 feet.

Barometer Barometer Balf-Registering There Month. Highest in Alonth. Mean for Alonth. Month. Mo		By the	Rev. William Andson.
BAROMETER. Belf-Registering Thermometer in Shade. Highest in Month. Highest in Month. Howest in Month. Highest in Month. 1951 29:935 1012 29:875 19:83 29:925 1012 29:875 10	Нускометек.	Humidity.	90 83 83 83 84 88 88 90 91 84
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Highest in Month. Market in Month. Mo		Range.	Inches. 1.651 1.888 1.612 1.012 1.003 0.839 0.636 0.636 0.636 1.937 1.680 2.033
			Inches. 29.046 28.587 28.587 29.493 29.420 20.420 2
Monthus.			Inches. 30.697 30.475 30.517 30.517 30.489 30.489 30.374 30.570 30.573 30.533 30.533 30.633
HAZAZHAZOZA P	Months.		Jan. Feb. Mar. April May June June June Sept. Oot. Dec.

Directions of the Wind during the year.

Var. or Calm. 171 S.W. 70½ S. 74 S.E. H #

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Barometer.-The highest reading occurred on the 3rd day of January, when it rose to 30.697 in., and the lowest on 11th of February, when it fell to 28 587 in., giving an annual range of 2.110 in. There is reason to believe, however, that a considerably lower fall than that of the 11th February took place on the night of the 21st or morning of the 22nd December, the period of the recent severe storm, when so much damage was done both by sea and land. The reading of the barometer at 9 A.M. of the 22nd was 28:590 in., a fraction higher than that of the 11th February. But before that hour it had began to rise, and the deepest part of the depression in all probability passed over this district in the early morning, perhaps between 2 and 4 or 3 and 5 A.M. This may certainly be inferred from the fact that in other places where barometer readings were taken every hour during the progress of the storm decidedly lower readings were registered. At Leith, for example, where this was done, the barometer fell to 28.119 in. between 6 and 6.30 A.M., and by 9 A.M. it had risen to 28.384 in. As the movement of the cyclone was from S.S.W. to N.N.E., the centre of the depression must have passed over Dumfries at an earlier hour than 6 A.M., most probably between 2 and 4 A.M., and there is no reasonable doubt would have shown, if registered, an equally low reading with that at Leith. The fluctuations of that period were extraordinary, and are believed to have been almost unprecedented for the rapidity both of fall and rise. At 9 A.M. of the 21st the reading of the barometer was 29.905 in., by 9 P.M. it had fallen to 29.383 in.; and if our inference is correct, that by 4 A.M. of the 22nd it had gone down to about 28:20 in., this would have shown a fall of 1:7 in. in 19 hours; but it rose again with almost equal rapidity. During the twelve hours from 9 A.M. to 9 P.M. of the 22nd the rise was from 28.590 in. to 29.810 in., and by the morning of the 23rd it had risen to 30 in. On the 28th and 29th December there was a somewhat similar storm, with a rapid fall and rise of the barometer, but of considerably less intensity, although severe enough to do a good deal of damage. The fall on that occasion was from 30.189 in. on the morning of the 28th to 29.033 on that of the 29th-a fall of 1.156 in, in 24 hours. It may be observed also that the February cyclone was accompanied by very strong squalls and extremely heavy rainfall. The depth of the river Nith at the New Bridge, as shown by the gauge, was 10 feet, and a good many trees and chimney cans were blown down. On

the 25th October and the 14th November, as well as in February and December, the barometer fell considerably below 29 in., and on these occasions the weather, as is usual in such circumstances, was stormy and wet. The mean pressure for the year (reduced to 32 deg. and sea level) was 29·895 in., which is a little below the average of the last eight years—viz., 29·923 in. There was only one month in which the mean pressure exceeded 30 in., viz., September, with a record of 30·234 in; and it will be remembered how remarkable that month was for dryness and almost unbroken fine weather.

Temperature (in shade, four feet above the grass).-On the 30th of June the self-registering thermometer reached its highest point for the year, viz., 85 deg., illustrating what has been often observed before, that the highest single day temperatures frequently occur near the time of the summer solstice. The lowest was recorded on the 7th January, when it fell to 7 deg. in the screen and to 1 deg. on the grass, giving an annual range of 78 deg. There were three nights of very severe frost at the period mentioned, from the 6th to the 8th January, when the minimum readings ranged from 7 to 13 deg., with the result of numerous ruptures of water-pipes and the freezing over of the river Nith. The mean annual temperature was 48 deg., which is about half a degree above the average of the last eight years. The annual means during these years have ranged from 46 deg. in 1892 to 49.4 deg. in 1893, and on only two of these years, 1889 and 1893, has the annual temperature exceeded that of 1894, and in 1889 only by one-tenth of a degree. The warmest month of the year was July, with a mean of 60.4 deg.; and the coldest January, with a mean of 37.2 deg. There were six months in which the mean temperature exceeded the average of the last eight years, viz., February, March, April, October, November, and December: the excesses ranging from 0.4 deg. in October to 3.6 deg. in March and April. In November and December the excesses were about 2 deg. In the other months there was a deficiency, which was greatest in May, June, and August; but while the aggregate excesses amounted to 15 deg., the aggregate deficiences amounted only to 9 deg. There was a fair proportion of warm days, with a maximum temperature ranging from 70 deg. to 85 deg. There were twenty-one in all, six of which occurred in the latter part of June, ten in July, only one in August, and four in September. This strikingly contrasts with the previous year,

1893, in which the number was sixty-one. The number of days in which the thermometer fell to and below the freezing point was 48, with aggregate degrees of frost amounting to 206 deg., 100 deg. of which occurred in January and 40 deg. in December, as compared with an average of 80 days, and 400 deg. of frost. On the whole the year was favourable to vegetation, for although the month of May and the greater part of June were cold and wet, those of March and April were considerably above average in point of temperature, and were characterised at the same time by an ample supply of moisture, while July was warm, and the autumn months were more than usually mild.

Rainfall.—The heaviest rainfall of the year occurred on the 2nd of August, when 1.34 in. was registered. But there were other three days in which the amount exceeded 1 in., viz., on the 16th February, when it was 1.30 in.; the 14th May, when it was 1.08 in.; and the 21st December, when it was 1.09 in. The rainiest month of the year was February, with a record of 8.15 in., with 24 days on which it fell. The mean amount for that month, calculated on an average of eight years, is 2.44 in., so that the record for 1894 is quite abnormal, being from three to four times above the average. In January, May, June, and November the rainfall was also considerably above the average. In January there were 24 days on which it fell, with an excess of an inch-anda-half; on May 21, with an excess of 1 in.; and on June 17, with an excess of 1.20 in. On the other hand, the rainfall of July, August, September, and October was under average. The driest month was September, when 0.18 in., less than two-tenths of an inch, was registered, in contrast with an average of nearly 3 in. (2.85 in.). There was a marked period of drought indeed, extending from the 22nd August to the 22nd October, fully eight weeks, during which the rainfall amounted to no more than 0.58 in, as compared with an average of over 7 in. Notwithstanding this, however, the total rainfall of the year was considerably above the average of the last eight years, 42.01 in., as compared with an average of about 37 in.—that is, about 5 in. above average. The difference is nearly accounted for by the extraordinary excess in February. The number of days on which it fell (rain or snow) was 206, rather above the average; but on 33 of these the fall did not exceed one hundreth of an inch. There was very little snow during the year, not half as

much as we have already had this year—during January and the first week of February.

Hygrometer.—The annual mean of the dry bulb thermometer was 47·3 deg., and of the wet bulb 45 deg.; giving 42·2 deg. as the temperature of the dew point, and a relative humidity of 84—saturation being equal to 100. This differs little from previous years; the average difference between the annual means of dry and wet bulb being 2·3 deg., the same as during the past year, and the average relative humidity 83—although in 1893, the year of highest mean annual temperature, it fell to 82.

Thunderstorms, &c.—These have not been of frequent occurrence during the year. There was one in February, one in April, three in May, two in July, and two in August- in all nine. some of these occasions, however, they were distant, and there was either thunder without lightning or lightning without thunder. The most severe storm of the year was that of the 6th July, which began about 5 P.M. and continued till 7.30, with loud thunder peals and incessant flashes of lightning. maximum temperature of that day was 78.8 deg., and the wind was south in the morning, and backed in the course of the day to E.S.E. The storm was accompanied by a rainfall of 0.71 in. There was a repetition on the 8th of electrical disturbance, but on a much diminished scale. I have noted the occurrence of hail showers eleven times, four of which occurred in May and three in November; lunar halos, twice in February and twice in August; and solar halos, twice, once in March and once in May. There were probably more of these latter phenomena in the course of the year, but I did not observe them.

Wind.—The summary of wind directions shews that on 19 days it blew from due north, on $39\frac{1}{2}$ days from N.-E., on 47 days from the E., on $24\frac{1}{2}$ from S.-E., on $70\frac{1}{2}$ from S.-W., on 61 from W., on $37\frac{1}{2}$ from N.-W., and that on $17\frac{1}{2}$ it was variable or calm. As usual, the S.-W. wind was the most frequent, and taking the S., S.E., and W. along with it, it appears that 203 days out of the 365 were characterised by winds from these directions, and that the northerly and easterly, including the north-west, had 143 days. Comparing this with the wind record of 1893, it appears that there was a preponderance of southerly and westerly winds in 1893, as contrasted with 1894. There were 20 days more wind from the S. and W., and 12 days less from the N. and E. The effect of this upon temperature is evident from the fact that

the mean annual temperature of 1893 exceeds that of 1894 by nearly a degree and a half—49.4° as compared with 48°.

THE COUNTY MEDICAL OFFICER ON THE WEATHER AND HEALTH.

Dr Maxwell Ross moved a vote of thanks to Mr Andson They were all indebted to Mr Andson for these papers, which he gave from year to year, and speaking for himself there was no paper he enjoyed more. The reason for that was partly a professional one, for as was known to the fathers of medicine certain diseases were remarkably subject to weather influence. For example, he thought it was very well established that, in the case of respiratory diseases, when they had a winter with a high temperature the mortality was small, and when they had a winter with a low temperature the mortality was greater. Then, taking diarrhœa, when they had a high temperature in summer the deaths from this cause would be increased. Again, in relation to diphtheria, there were some curious points to be made out. The influence of subsoil water, which to a large extent depended on the rainfall, seemed to be great upon diphtheria. In 1893, when the rainfall was high, they found diphtheria very prevalent on the Solway shore. Last year, when it was low and the people rejoicing in a dry season, their condition was expressed by one who remarked "We all feel very fit." They were very much indebted to Mr Andson for his valuable paper. (Applause.)

2. A Famous Old Battlefield.

By Mr Alexander D. Murray, Newcastle.

Twenty-five years ago, when I had the honour to be secretary of the Dumfriesshire and Galloway Natural History Society, the late Sir William Jardine being our president, a joint-meeting was held of the Society with the Berwickshire Naturalists' Club in Liddesdale, which might be considered neutral ground between the two Societies. Part of the programme was to visit Dawston Rigg, the reputed site of the battle of Daegsastan, recorded by the venerable Bede in his "Ecclesiastical History" and in the "Saxon Chronicle." We were unable on that occasion to fulfil this part of the programme, and not until recently did I have the opportunity, along with the veteran secretary of the Berwickshire Naturalists, Dr James Hardy, and other friends, to spend

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a day on this distinctly interesting spot. It occurred to me that it might be a matter of some interest if I should communicate to this Society a few notes regarding this site, which, possibly, if not too distant from your sphere of action, you may yet some day visit in your summer excursions. Dawston Rigg is a low rounded hill, situated at the very head of Liddesdale, or rather in the water-shed that divides the source of the Liddle from that of the North Tyne. It is overlooked by the great mass of Peel Fell, the uttermost hump of the Cheviot range, and itself overlooks the depression through which the railway passes from Deadwater to Saughtrees. The highroad that crosses from Liddesdale into the valleys of the Rule, the Jed, and the Teviot passes the base of the hill on the north; and, as I have said, the railway skirts it on the other or southern side. It is a wild pastoral district, but very pleasant on a summer day, such as that on which I visited the spot. As a locality, related to the early topography of this island, it obviously possesses interest, from the fact that here the Catrail or Pict's Work, which crosses the Scottish Lowlands, originating about the base of the Pentland Hills, and following the great water-shed between west and east, to all appearance terminates. It can be very distinctly traced as far as this spot, and can visibly be seen dipping towards the Cauldron Burn, which runs along the eastern base of Dawston Rigg, as if it were making towards Peel Fell. But it can be traced no further. Now, just over this ravine of the Cauldron Burn, on a rising ground known as Wheel Fell, the well-known Roman road, the Maiden Way, coming over the head of the North Tyne valley, crosses the hill barrier. From its local name of the Wheel Causeway the hill gets its name of Wheel Fell, and on its summit are still visible some slight ruins of a small ecclesiastical structure, known as Wheel Chapel, which was originally dependent on Jedburgh Abbey. These are not the only medieval remains, for a stone cross, which, in a dilapidated condition, once stood on Dawston Rigg, has recently been removed, and, I believe, is in the Hawick Antiquarian Museum. When we remember that these Roman roads were in early times the only safely traversible roads in the country, we are not surprised to find these traces of ecclesiastical buildings and erections along their course. And it is certain that this has always been regarded as an interesting locality, the halo of tradition surrounding it, mainly, no doubt, in consequence of its connection with events recorded by Bede. The

name, Abbey Sike, attaches to a spot on the high road, just where it skirts Dawston Rigg; and there is a tradition that a religious house once stood there, and that crosses and other stones have been dug up on the spot and taken away, but I could not gain any definite information on the subject. However, what it is very important to note is the fact that this mysterious Catrail work is seen crossing the flank of the hill, dipping towards the ravine, and making its way towards the Roman road; and that here, to all appearance, it ends its course—a course extending all along the backbone of the Lowlands, from the Pentlands to the westernmost outposts of the Cheviots.

Without entering upon the vexed and difficult question as to the date, origin, and purpose of this Picts' Work, I may say that it appears to me to have been almost convincingly demonstrated that it never was or could have been intended as a wall or barrier, and that it must have been a protected way-a road traversing a rough and dangerous country, and defended by a ditch and a turf and earth wall, formed by the material dug from the ditch, which might possibly have been originally strengthened by stakes. Its purpose, then, almost certainly, must have been that of enabling armed forces to traverse an unfriendly country on their way to fields of battle or plunder beyond. That is to say, it may have been, and probably was, a road by which the Picts of the north, whose southern outposts were the Pentland or Pechtland Hills, crossed what once had been the border Roman province of Valentia, to reach the more desirable territory of the Romanised Britons in the south, which all early history tells us they ravaged so unmercifully after the withdrawal of the Romans. One can quite understand why the work should terminate here, after striking the Maiden Way, for that road would afterwards serve the purposes of the invaders. There is a difficulty, of course, in understanding or realising the condition of the country traversed by the Catrail, rendering so extensive and elaborate a work necessary. When we consider, however, that it would be largely filled with forest and morass, and that numerous swift-flowing rivers had to be crossed, there would be an absolute necessity for the construction of a road of some kind; and by following the water-shed, keeping, however, always well down on the eastern slope, the best route for steering clear both of bog and jungle would be taken. A manifest imitation of the Roman method of crossing the country would suggest that these

redoubtable Picts and Scots of the fifth and sixth centuries were not disorganised hordes of savages, but that they had learned a great deal from the great Empire that had so long established itself in the southern half of the island, with which they had been at constant war, and against which they had finally maintained their independence.

I have in my own mind another explanation of this famous half road, half dyke, that crosses southern Scotland, though I do not think it has been much noticed by writers on the subject. The work, I fancy, dates from the latter end of the fifth century, or even a little later-that is, after the departure of the Romans; and at that time, I believe, there are excellent grounds for stating that Saxon colonies had been established in the valleys of the Tweed and Teviot in anticipation of the more extensive invasion of the Angles both to the north and south of the wall, which took place nearly a century later. These Saxon colonies, I infer, from the allusions of the Roman writers themselves, had made a beginning of their occupation previous to the departure of the Romans from Britain, and that they sometimes were in conflict with the Picts of the north, and sometimes joined them in their attacks on the Roman defences and on the protected Britons. After the departure of the Romans, doubtless they extended their colonies as far as the dividing water-shed. I have never been able to understand the rapidity with which such districts as Dumfriesshire and West Lothian were apparently Saxonised, on the assumption that the Teutonic wave flowed out exclusively from the Anglian settlements in Northumbria. If, however, we take into account that there was an earlier Saxon occupation of the country to the north of the Cheviots, our difficulty on that point vanishes. And it seems to me also that a sufficient explanation is given of the defensive character of the military way which the northern Picts made through the Lowlands to reach the Romanised country. The Saxons were down in the valleys hewing down the forests and forming their wicks and The Picts had no wish to meddle with them, especially as they possessed little which was worth coveting. But they wanted a road across the country to get at their natural enemies, the Romans and Romanised Britons, and so they constructed their Catrail.

This is not altogether a digression, for it will render more intelligible what follows. Dawston Rigg is one of two places

which are claimed as the site of the battle of Daegsastan, fought in 603 between Edelfrid, king of the Northumbrians and the Scots, or the Scots, as allies of the Cumbrian Britons, in which the latter were signally defeated. The other claimant to be the site of the battle is Dalston, near Carlisle. I am not in a position to discuss the question which of the two sites has the better case in its favour, though I think modern antiquarians are more partial to Dawston Rigg than to the other; and, in any case, most certainly a great early battle has been fought on Dawston Rigg; whilst, as already said, a halo of tradition has always surrounded the locality. Of this battle of Daegsastan we know nothing whatever beyond what is contained in Bede's "Ecclesiastical History," and in the "Saxon Chronicle," which may very well have been borrowed on Bede's authority. The passage is as follows: -- "A.D. 603 - Edelfrid, king of the Northumbrians, having vanquished the nation of the Scots, expels them from the country of the Angles. At this time Edelfrid, a most valiant king, and ambitious of glory, governed the kingdom of the Northumbrians, and ravaged the Britons more than all the great men of the Angles, inasmuch as he might be compared to Saul, once king of the Israelites, excepting only that he was ignorant of the true religion. For he conquered more victories from the Britons, either making them tributary, or expelling the inhabitants and planting Angles in their places, than any other king or tribune. To him might justly be attributed the saying of the Patriarch—' Benjamin shall ravin as a wolf; in the morning he shall devour the prey, and in the evening he shall divide the spoil.' Hereupon Aidan, king of the Scots that inhabit Britain being concerned at this success, came against him with a numerous and brave army, but was beaten by an inferior force and put to flight, escaping with only a few of his followers, for most all his army was slain at a famous place called Daegsastan, that is Degestone. In that battle also Theobald, brother to Edelfrid, was killed, with all the forces he commanded. To this war Edelfrid put an end in the year 603 after the incarnation of our Lord, and in the eleventh of his reign, which lasted twentyfour years, and the first year of the reign of Phocas, who then governed the Roman Empire. From that time no King of the Scots durst come into Britain to make war on the Angles to this day (730)."

Bede, it will be seen from these dates, was writing a century

and a quarter after the event he was recording, and may or may not have clearly known the facts. At all events, his account is open to more interpretations than one. It is not clear whether Edelfrid's brother, Theobald, who is stated to have been killed in this war with his force, was in league with the Scots, and in rebellion against his brother; or whether he had been slain by the Scots in a previous encounter-Edelfrid himself "putting an end to the war," as Bede expresses it, by a final victory at Daegsastan. Nor does Bede say whether Aidan, the king of the Scots, had come to the assistance of the Britons, whom Edelfrid was ravaging, or whether he himself was a rival invader of the territory. We frequently find in subsequent history that the Scots of Dalriada and Galloway came to the assistance of the Strathclyde Britons, and that at last they exercised a suzerainty and protectorship over the Britons, but we never hear of their making any attempt on their own account to extend their dominions into the southern part of the island. Edelfrid, one of the immediate successors of Ida the Angle, was a famous planter of the Anglian race and colony in the country that was after wards known as Northumbria. But the native Britons could not have been entirely driven from the Roman defences along the line of the Wall, to which we know they long clung, and which afterwards, when led by Caedwallada, they re-occupied, and for a time resumed their sway over Northumbria, terribly ravaging the Anglian community there. It is, therefore, exceedingly probable that the Britons, unable to make a stand against Edelfrid, had called in Aidan, king of the Irish Scots (who were a race of military adventurers rather than a nation in those times), and were endeavouring to hold or regain their ground in the western and northern part of the isthmus, when they were encountered and defeated at this battle. The locality is all in favour of its being the scene of such a struggle. We conceive of the northern forces making their way along the Catrail and being joined by the Romanised Britons, at its junction with the Maiden Way, ready, if they were successful, to make a descent upon the Anglian settlements down the valley of the North Tyne, where Caedwallada advanced in after times to the scene of the battle of Heavensfield. But there might, and probably would, be another reason for their concentrating at this spot. Bede calls it "a famous place," and probably, because of its being so famous, felt it unnecessary to

give any more particular description of its whereabouts. One reason for its being famous might be the number of native remains to be found in the locality, as well as the fact that it was the meeting place of the Picts' Work and the Maiden Way. On the face of the slope, looking to the south, and down upon the railway, there exist three large British camps close together. One, which lies on the shoulder of the hill, has been converted into a sheepfold, and the other two, situated close to the railway, are side by side. They are both remarkably perfect, and one in particular has been stated to be one of the most perfectly preserved examples of a British hut circle to be found in the country. They have all been inhabited camps—that is, in fact, British villages; and in the case of one it is evident that the outer rampart has been materially strengthened at a period anterior to its original construction. It is more than probable that as late as the period of this battle these hut circles would be habitable, and would form the main encampment of Aidan's army.

Right above these camps was the field of battle. The hill side bears traces of escarpments raised for defence, and is full of small stone mounds, which may have covered the burial-places of the slain warriors. Numerous arrow-heads and other implements have from time to time been picked up on the spot, most of which unfortunately have been scattered, or preserved without any particular record of where they were found. But it requires no elaborate demonstration to convince the visitor that he is certainly standing on the scene of an ancient battlefield—a battlefield of the Saxon epoch, which was in all probability one of the spots on which the great controversy between the Teutonic and the Celtic race for the possession of this island was fought out.

How it was fought out still remains, and is likely to remain, one of the obscurest passages in history. Bede has little information to give us, partly because his field of vision is limited by the beginnings of the Anglian settlement in Northumbria, which was his nation and people, and partly because even in his time the record had grown dim and undecipherable. It may amuse or inspire the antiquarian imagination to build upon the slender and not very trustworthy foundation of the Chronicle of Gildas, ornamented by the poems and legends of Cymric bards, a more or less heroic conception of the struggles of the Britons with the Saxon race. But we have to acknowledge all the while that it is not history, and

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that even its historic basis is doubtful. This only we really know, that more than a century intervened between the withdrawal of the Romans from their stations on the Wall and the successful invasion of Northumbria by the Angles. Much may have happened within that century, but for us it is blank and voiceless. If the twelve Arthurian battles of Gildas were ever fought, and if Mr Skene be right in saying that they must have been fought in the north, then they took place within that century; and they were not fought with the Angles, who came into England after Ida and his successors. But they may have been fought with the Picts, and with that earlier Saxon colony which, as I have already said, almost certainly existed in the Merse and on the Lothian seaboard even before the withdrawal of the Romans. That colony appears to have been closely connected with the tribes that under Hengist entered Kent; and the colonists were, therefore, Saxons and not Angles. Let us suppose, if we please, that after the withdrawal of the Romans these early northmen swarmed southward and westward in alliance or in rivalry with the northern Picts, and overpowered the Britons who had been left by the Roman commanders to man, as they best could, the stations on the Wall; that they oppressed and harried, but were not strong or numerous enough to dispossess or exterminate. the Britons as far south as York and the Humber. Let us then suppose that the Britons, driven by necessity to close their ranks and sink their sectional disputes that made them an easy prey to the hardy Saxons, found an able and warlike Gulledig-or "Wall-keeper," the Arthur of Gildas, and that in a series of triumphant battles he defeated the Saxons, and drove them back over the Cheviots, and over the Tweed, and then we should have the basis of fact for the entire Arthurian legend. The era of union and conquest would not last long, and when the Angles arrived in the middle of the sixth century they met with no effective or protracted resistance; for in the course of half a century, as we find, they had rendered themselves masters of all the eastern half of the country, back to the water-shed, and in 603 were able to fight and win this decisive battle of Daegsastan.

8th March, 1895.

The Rev. WILLIAM ANDSON, V.-P., presiding.

On the proposal of Dr Chinnock, a resolution was passed expressing the regret of the Society on account of the death of Mr Patrick Dudgeon of Cargen, the eminent mineralogist.

New Member. - Mr William Murray of Murraythwaite.

Donations and Exhibits .- The report of the British Association, 1894; Transactions of the New York Academy of Science, 1894; Journal of the Elisha Mitchell Scientific Society, North Carolina. Mr Shaw exhibited an adder-bead possessed by an old woman in Tynron as a charm. Mr J. A. Moodie exhibited, on behalf of Mr J. F. Cormack, of Lockerbie, the following documents:-Precept of Sasine by Oliver Cromwell in favour of Patrick Lyndsay, as heir of William Lyndsay, dated 13th Sept., 1655. Sasine in favour of William and James Raff, of one merk land in Chirnside, dated 31st May, 1597. The notary to this Sasine was George Sprot, of Eyemouth, who was executed 12th August, 1608, for being concerned with Robert Logan of Restalrig in the Gowrie Conspiracy in 1600. Crown Charter by King Charles II. in favour of John Sybbald, servant to Sir John Howe, Lord Justice-Clerk, dated 1668. Seal awanting. Sundry ancient legal documents-one being a Charter by John, Commendator of the Monastery of Coldinghame. Mr Moodie also exhibited a Crown Charter belonging to him, dated 1578, having attached a fine example of the Great Seal of James VI.

COMMUNICATIONS.

1. New-Galloway Fresh Water Algæ.

By Mr James M'Andrew.

The following list of Scotch Fresh Water Algæ found round New-Galloway is taken from a paper contributed to "The Journal of Botany," April, 1893, by Mr William West, F.L.S., Bradford:—

Conferva pachyderma, Wille.

Do. ' Raciborskii, Gutw.

Pediastrum angulosum (Ehrnb.), Menagh.

Ophiocytium cochleare (Eichw.), A. Br.

Eremosphæra viridis, De Bary.

Urococcus insignis (Hass), Kütz.

Epithemia gibberula (Ehrnb.) Kütz, var. rupestris, (W. Sm.)
Rabh.

Eunotia incisa, Greg.

Do. majus, var. bidens, W. Sm.

Do. gracilis, Ehrnb.

Do. pectinalis, var. undulatum, Ralfs.

Synedra lunaris, var. undulata, Rabh.

Do. biceps, Kütz.

Nitzschia tenuis, W. Sm.

Navicula serians (Breb.), Kütz.

Pinnularia nobilis, Ehrnb.

Do. gibba, Ehrnb.

2. A Superstitious Custom in Galloway.

By Mr John M'Kie, Kirkcudbright.

Superstition dies hard, as newspapers still occasionally record, and it is often found that customs linger in the land for generations after the cause which first led to their adoption has disappeared. The habit of putting "cowsherne" into the mouth of a young calf before it was allowed to suck its mother is one commonly practised within my recollection. Having once asked an old woman, whom I had just seen perform the operation why she did so she then gave me the following legend:-"In the olden time, when Galloway was stocked with the black breed of cattle, there was a carle who had a score of cows, not one of which had a white hair on it; they were the pride of the owner. and the admiration of all who saw them. One day while they were being driven out, the carle's dog worried the cat of an old woman who lived in a hut hard by, and though he had always treated her with great kindness, and expressed sorrow for what his dog had done, she cursed him and all his belongings. Afterwards, when the cows began to calve, instead of giving fine rich milk, as formerly, they only gave a thin watery ooze on which the calves dwined away to skin and bone. During this unfortunate state of affairs a pilgrim on his journey, probably to the shrine of St. Ninian, sought lodgings for the night. The wife of the carle, though rather unwilling to take in a stranger during the absence of her husband, who was on a journey, eventually granted his request. On her making excuse for the poverty of the milk she

offered, when he tasted it he said the cows were bewitched, and for her kindness he would tell her what would break the spell, which was to put some 'cowsherne' into the mouths of the calves before they were allowed to suck. As the carle approached his house, when returning from his journey, he noticed a bright light in the hut of the old hag which had cursed him. Curiosity induced him to look in, when he saw a pot on the fire, into which she was stirring something and muttering incantations all the while till it boiled, when, instead of milk as she doubtless expected, nothing came up but 'cowsherne.' He told his wife what he had seen, and she told him what the pilgrim had told her to do, and which she had done, which left no doubt that it was the ungrateful old witch who had bewitched their cows. Next day, when she came expecting her usual dole, the carle's wife caught hold of her before she had time to cast any cantrip, and scored her above the breath until she drew blood with a crooked nail from a worn horse shoe, which left her powerless to cast any farther spells. The cows now gave as rich a yield of milk as formerly, and the custom then began was continued long after witchcraft had ceased to be a power in the land." Whether there are any who still continue the practice I am unable to tell, not having thought of making any inquiry.

3. Notes of 30 Years' Residence in Tynron.

By Mr James Shaw.

The parish of Tynron is hardly so pleasant to the eye of an artist as it was more than thirty years ago. At that period we had several fords crossing the highway. Sir Walter Scott, mounted on his pony, has been known to take a round-about to cross a ford, rather than a bridge; it seemed to him so much more romantic. We had some of the finest larch trees in the county. The wind, more than the woodman's axe, levelled them to the ground. The terrible storms of 1883-4 have left us only their unsightly roots, and the late storm—22nd December, 1894—uprooted or broke several thousand trees, some of them the finest in the parish. With the loss of the trees there has been a diminution of owls, so that the long nights are quieter with less of their screeching. On a few farms when I came the cattle were black Galloways. These have disappeared, and Ayrshires

alone are seen. Cheviot sheep are giving way, and blackfaced prevailing. Instead of vehicles going to market at neighbouring villages, cadgers' carts come to the farm houses. Since the new Ground Game Act rabbits are scarce, and hares are nearly extirpated. The squirrels are fitful visitors. A great wave of them appears; then, as at present, there is an ebb. The curious flat stones which roofed the houses have disappeared in favour of slates. The number of inhabited houses has decreased, and their ruins are not always picturesque. Tinkers with their donkeys do not now visit us. Umbrella-menders, knife-grinders, and sellers with baskets are scarce, but tramps asking alms have noways decreased. The river Shinnel runs as of yore, arched over for many miles with a beautiful canopy of natural wood. Although illegitimate methods of securing trouts, with which it was well stocked, have been put down, yet the system of deep-draining, suddenly flushing the water and carrying away the spawning beds, is an angler's complaint. The heritors having mansions in the parish are not now resident. They spend only a few summer months with us, or let their houses, so the work of smith, coachman, and domestic servants is far less in demand. On the other hand, houses that have been built or repaired since I came to the parish are much more comfortable to the inmates.

When I arrived in Tynron, and for years afterwards, water was obtained almost universally from open wells; chimneys were swept by setting fire to them; messages were conveyed across straths by shrilly whistling on fingers; towns were reached by bridle paths. These mountain tracts were used for sheep conducted to the great stock markets, as Sanguhar, and not being much employed for this purpose now are falling into decay. The people around me to a greater extent than at present knitted their own stockings, plaited their own creels, carved their own crooks, made their own curling brooms or cows, bored their own tod-and-lamb boards, squared their own draught-boards. A very few women smoked tobacco like men, and a very many men had chins like women. Broom was boiled, the juice mixed with hellebore and tobacco, and used as a sheep-dip. The sheep, in fact, were not dipped at all, but their wool was combed into ridges, and the composition carefully poured in the skin from an old teapot. There were no wooden frames for bees; only the cosy-looking straw skeps. The Shinnel drove several mill wheels; now it drives only one. There was a method of announcing the arrival of letters, by depositing them in a water-tight chamber of a cairn or mass of boulders on an eminence a mile perhaps from the shepherd's house, and then erecting a huge pole or semaphore, which soon attracted a messenger. The limbs and backs of boys were stronger, and carried for you heavy carpet bags at 1d per Watches were worn in trouser pockets. The school children were fitted out with stronger leather bags, like soldiers' haversacks, containing their dinner as well as their books. Their books were much more carefully covered with cloth, and in some instances with white leather. Their food was more thriftily cared for, and there was no débris of leaves of books and crumbs of scone left on the roadside near the schoolhouse as is at present. The plaid was a much more common article of dress. It is now giving way to the great-coat or waterproof, which is more convenient to a shepherd, affording him pockets to hold tea for the weak lambs, and covering his body better.

When I found myself in the interior of shepherds' and dairymen's houses, the old eight-day clock, with wooden door and painted dial, was common. It kept company with the meal-ark, a huge chest divided into two compartments-one for oatmeal, one for wheaten flour. Bacon, hams, and flitches, then as now, wrapped in newspapers, hung from kitchen rafters. Puddings were wreathed round suspended poles. Fireplaces are gradually contracting—the older ones are the widest. The fire in winter, eked out by peats and cleft-wood, is often very violent in its hospitality. Seated in the cushioned arm-chair, I have for a while maintained conversation by holding up my extended palm for a fire-screen, but was generally obliged to push back my chair at the risk of overturning a cradle or turning the charmed circle into an ellipse. An inner ladder was stationed in the porch or between the but-and-ben, up which the children or serving men mounted to their obscure attic hammocks. On great nails, here and there in the walls, hung, and still hang, crooks, shears for clipping sheep, lanterns for moonless nights, mice traps with holes, rat traps with strong iron teeth and There were no carpets on the rooms, but the floor was mottled with sheep skins in their wool, and the mat before the room fire was home-made, with all sorts of dark rags stitched together, having a fluffy, cosy look. On the chest of high drawers might be observed a Family Bible, a field glass, a stuffed blackcock and pair of large ram's horns, or a basket with curious

abnormal eggs and with shells from the seashore. A black cat, a brindled cat, and a muscovy were generally crossing each other or demanding a seat on your knee. You would feel something cold touching your hand, and presently observe it was the nose of a collie dog, generally named after a Scotch river, such as Yarrow, Tweed, or Clyde. At the door of the poultry house was a little hole or lunky which admitted the cats when shut out from the family domicile. On Sundays waggon loads of children, carefully packed in straw, presided over by the maternal or paternal owner, or both, would pass my house on the road to church; wives and maidens who could not command such a conveyance walked past, their shoes and stockings in a napkin, ready to be put on at the rivulet's side nearest the church. At that time the greater portion of the families in my district were Cameronian or Reformed Presbyterian. At the present time the Parish Church has the greater number of adherents, and it being a much nearer place of worship, these modes of travelling are wearing out.

Ever since I came to Tynron, the child enters the Christian Church on a secular day. Neighbours are invited, and the table groans with every kind of food. Butter (salt, fresh, or powdered), bacon and eggs, sweet milk and skimmed milk cheese, potato scones, soda scones, drop scones, treacle scones, tea, and a dram are part of the fare. The shepherds have a very restricted number of baptismal names. At one time the fourth of my school-boys were "Williams."

Weddings are celebrated in the same hospitable and jovial style. I have sat in a barn or cheese-room, the walls of which were lined with sheeting to protect our clothes; the floor saw dusted for dancing. The built-in boiler was transposed into a platform for the fiddlers. The tea was taken in relays; the minister, schoolmaster, and small gentry occupied seats at the first table, which, along with the forms for sitting on, was improvised from slabs for the occasion. The commoner folk and young herds were next regaled at a second spread, while the elders smoked tobacco outside. The dances did not consist of walking, simpering, and circling round each other with planetary regularity, but were like those that took place in Alloway Church, as far as noise, life, and motion were concerned. Towards morning came that awful ordeal, the pillow dance, or "Bob at the bolster," an ingenious method of picking out the bonny and weel-liked, and

placing the less distinguished at the bottom of the class. The best man having picked out the bride, it next became her turn to throw the handkerchief to whomsoever she chose. The happy swain knelt as she stooped. The fiddlers shrieked a minuendo, and the last kiss that ever alien lips should secure was wrested from the bride.

Funerals were well attended, and the custom of having a service prevailed, and only began to thin out after I entered the parish. I was told by a well-wisher to get acquainted with the people, and to attend all the sheep shearings and funerals to which I was invited. The attendance at funerals is diminishing, and generally a few gigs now pick up all the mourners. The exodus of young men and daughters into the large towns reacts on provincial simplicity. I witnessed wreaths of flowers heaped on the coffin of an old Cameronian, whose opinion, I am certain, had never been taken on the matter. The humblest family must have a memorial stone.

I shall pass over gatherings in connection with sheep, killing pigs, &c., and remark that the kirn, or harvest home, is no longer celebrated. St. Valentine's Day is forgotten, and the Candlemas bleeze has given way to a Christmas present. Even the Hallowe'en described by Burns—the turnip lantern and the pulling of kail stocks—is away, the only survival being that on Hallowe'en mummers with false faces enter your kitchen expecting an obolus, and highly gratified when you are puzzled and unable to guess their names or even their sex.

The gradual decrease in our rural population, consequent on the increase of factories in towns, and the turning of Britain into a manufacturing centre for the whole world, is evident in Tynron.

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In 1801 the pop. was ... 563 | In 1871 the pop. was ... 381 ., 1831 ., ., ... 493 ., 1881 ., ., ... 416 ., 1841 ., ., ... 474 ., 1891 ., ., ., ... 359 ... 359
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That is, at last census, the reduction in population compared to 1801 was 204 persons. The former considerable population has left on our hills and dales some traces of itself in a few stones of former bourocks overgrown with nettles, and here and there a few wild gooseberries and some plants, such as monks' rhubarb and masterwort, of no use now, but formerly used in poor people's broth. On the hills also, 200 ft. above any arable ground, there are at present to be noticed the furrows once caused by the ploughshare. Dividing the results of the last four decennial

estimates by four we find the average population for 30 years is 400. Our deaths from 1861 to 1891, both included, are 183. Divide by the number of years 31, and you have 6 deaths per annum to 400 population, which gives us—death rate, 15 per 1000. By the same mode—marriage rate, 6 per 1000; birth rate, 27 per 1000. This birth rate is less than that for the whole of Scotland taken for the same period—namely, 27 against 33. The marriage rate is slightly less, and the death rate is considerably less. In the 31 years over which I have gone the death rate for Scotland is nearly 21 per 1000, while that of Tynron is 15 per 1000. When we consider that many of our young men and women emigrate to the towns, leaving the older people remaining, our health record stands out well.

As I have already read a paper on folk-lore, I shall mention only one curious custom. A woman about 30 or 40 years ago caused her children to wash their feet every Saturday evening. As soon as the ablutions were performed, a live peat or coal was thrown into the tub, the person doing so walking three times This was meant to prevent around it. death. Thursday, after the terrible snowstorm of 6th February, a shepherd told me he could have predicted a change, because on Tuesday evening Hurlbausie was far too near the moon. strange word was old people's name for the planet Jupiter.

Art has decidedly improved. We have two large memorial windows in the Parish Church, one of them as fine as any window of the kind in the county. In sewed samplers you have Pharoah's daughter rescuing the baby Moses, and others of that sort. On the mantelpieces are crockery hens sitting on delf baskets, brooding over crockery eggs. But cabinet photos are superseding the high-coloured prints of the happy pair courting or going to church to be kirked. Red carts, red petticoats, red cravats, red calico napkins still prevail, but the young women coming back for holiday from domestic service in towns are toning down the enthusiasm for primary colours. The rack above the dresser with the dishes, knives, forks, and spoons is sometimes a picture of itself. The stone floor of the kitchen and the threshold are made gay with curious scroll patterns, white or red, by rubbing with caumstone. The taste for garden and potted flowers has increased, and at Yule Christmas trees are in bloom with us. Concertinas and melodeons have multiplied. Queer old songs in which the heroine mourns over her highwayman executed, or in which disappointed love vows vengeance, or in which Bacchus is blest, are hiding their heads. There was a low suppressed murmur of disapprobation at the introduction of instrumental music in church.

Proverbs, some of them having an aroma of the sheep-walks, abound. I beg to give a few not inserted in "Hislop's Collection of Scotch Proverbs," although that collection professes to be complete.

The richt wrangs naebody.

He's a man among sheep, but a sheep among men.

There's nocht sae crouse as a new scoured louse.

She would mak' a gude poor man's wife; get him poor and keep him poor.

Ye're aff your eggs and on the grass (applied to one who reasons incorrectly).

Auld soles mak' bad uppers (that is, old servants make hard masters).

Hae as much o' the deil in you as keep the deil aff you.

Gif ye winna hae walkers, riders may pass by (applied to girls who are too saucy).

He that lies down wi' the dogs rises up wi' the fleas.

He would mak' a gude poor man's pig: he eats weel at every meal.

Tak' tent o' the hizzie that's saucy and proud,

Tho' her e'e's like the gowan and the gowan like the gowd.

Whittlegair was the heroine of a favourite story. She is beautiful, but set at nought. She finds a gold ring in a pie, and afterwards is lucky and happy. A variant of the ballad of Gill Morice used to be sung. The child grew to manhood, and was in great poverty. His mother was wont to meet him secretly and relieve his wants. A tell-tale aroused the earl's jealousy. He was beset by the earl, overpowered, beheaded, and his head brought home to his unhappy mother on a pike as the reward of her supposed infidelity. The Countess, on seeing her son's head, swooned and shortly after expired. The old woman who chanted this is long since dead. The following child's rhyme was more

common in Renfrewshire. I only heard it once in Dumfriesshire. It was sung to a young child previous to its learning to walk:—

Wag a fit, wag a fit, whan wilt thou gang?
Lantern days, when they grow lang,
Harrows will hap and ploughs will bang,
And ilka auld wife tak' the ither by the tap,
And worry, worry, worry till her head fa' in her lap.

"Lantern days" mean the days of Lent. In this winter of unwonted severity ploughs have not begun with Lent, though they stopped about Christmas.

About six years after my residence in Tynron, my father and I listened to the sound of an aurora. It was a very bright aurora, sending streamers and luminous mist across the zenith. It was like the sound of rustling silk, falling and rising. It is a very rare thing to hear this; but I wrote of it to Nature, and discovered I was not entirely alone in my experience. Tom Brown, while a member of this Society, when early up at lambing time, saw the spectre of the Brocken-that is, opposite himself, reflected on a bank of clouds about sunrise, he saw a magnified image of himself, whose motions corresponded to his own. My neighbour schoolmaster observed "Will-o'-the-Wisp" one summer night in a marshy spot between Shinnel and Skarr. In the store at Tynron Kirk is to be seen a shop account book made by a former grocer, bound in calf skin, the hairs still adhering to it. In that book entries are made of sales of tow, showing that the spinning wheel went round. There are also entries of sales of barleymeal. Now only a few rigs of barley are grown by one farmer only. Sermons are shorter, but there is more psalmody. Thanksgiving Monday has become secular. Grace before meat has nearly reached vanishing point. Grace after meat is most frequently taken for granted. I fear Burns' "Cottar's Saturday Night" is following Burns' "Hallowe'en" into the halls of memory.

Before closing, let me say a good word in favour of the scrupulous honesty of the great mass of the parishioners. I have had, during a whole night, linen spread to bleach or my blankets hung out to dry. I have forgot to lock my door. I have left the school door wide open for a night without loss. A cow might swallow half a shirt, but no fingers ever pilfered one. I lost a legging on the hills, but the lost legging hopped back to me. Carrying my coat on my arm on a bridle path one sultry day I dropped my spectacles, but my spectacles gravitated towards my

eyes again. A friend of mine had a spill, but a schoolboy carefully gathered up the larger spelks of the tram of the broken vehicle and made me a present of them, as he said, for my museum. My bad debts in the long period of my residence might all be paid with that current coin of the realm upon which is engraved the figure of the war-like saint vanquishing the dragon.

5th April, 1895.

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

New Members.—Messrs John M. Aitken, Norwood, Lockerbie; J. H. Edmondson, Riddingwood; and William M. Maxwell, Bank House.

Donations.—The Bulletin of the Geological Institution of the University of Upsala, 1893-4; the Annual Report of the Smithsonian Institution, 1893.

Exhibits.—Mr James Barbour, on behalf of Captain R. C. Fergusson of Craigdarroch, exhibited 13 burgess tickets held by the Captain's predecessors, and also a diploma of admission to the Revolution Club, Edinburgh, 1755, to James Fergusson of Craigdarroch.

COMMUNICATIONS.

1. Troqueer in the Olden Time.

By J. G. Hamilton-Starke, M.A., F.S.A.

The annals of the parish of Troqueer are to be gathered chiefly from the memoirs of the Rev. Mr Blackader, who was ordained its minister in 1653; from the Kirk-session records, which begin in 1698; and from the "Old and New Statistical Accounts" written in 1791 by the Rev. Mr Ewart, and in 1844 by the Rev. Mr Thorburn, two of its parish ministers.

But these accounts are more or less fragmentary, and the fullest history of the parish appeared in the columns of the Dumfries and Galloway Courier during the months of July, August, and September, 1878, in which the old authorities were revised, the minutes of the Kirk-session carefully deciphered, and for the first time most of them published, together with full information up to that year upon almost every subject of public interest within the parish.

As these articles bore no name of the writer of them, I may now mention that they were written by me, so that no charge of plagiarism can be made if I weave a few of their details into this paper.

But I shall avoid details as much as possible, and give a general account more suited to the time and taste of our monthly meetings. In one important respect this paper is an original communication, inasmuch as I can now prove what was for long a mere theory of mine—viz., that in the olden time there was a village or kirktown called Troquire along the road leading to the Parish Church, and quite distinct from the Bridgend of Dumfries, now the populous burgh of Maxwelltown.

The first thing which srikes one is the peculiarity of the name of the parish, the spelling of which as at present dates only from a little before the beginning of this century. In a charter of the fourteenth century it is spelt Trogwayre, and in the seventeenth and eighteenth centuries it is variously spelled, according to the ear of the writer Trequair, Trequier, and Troquire.

It has been suggested that the word may be derived from old French words trois choeurs, and mean the third of three choirs, of which Lincluden and Newabbey were the others. But the French language had scarcely any influence in this district, and if it had any, the words supposed would be unintelligible French applied to a church building. On this point Mr Cosmo Innes says—"From the names of places and persons in charters of the twelfth century in Galloway it appears the people were of Celtic or Gaelic race and language, which remained until the fifteenth or sixteenth century. It had its own laws of the Bretts and Scots, which King Edward in vain tried to abolish. The Normans had no secure footing, nor the court French of Queen Mary's time."

The learned Mr Chalmers in his "Caledonia" derives it from two old British words—tre, a small town or village, and gwyr (similar to the way I find it spelt in fourteenth century), the bend or turn of a river.

There is but one other town in Scotland of a similar sound and spelling, Traquair in Peeblesshire—a village situated beside a winding river called the Quair.

Here the river has been always called the Nith or Nid, but it certainly winds round this eastern boundary of the parish from near the church to Mavisgrove, a characteristic which caught the eye of Burns when one day thinking of Miss Phillis M'Murdo he composed the beautiful verses which begin, "Adown winding Nith I did wander."

I long thought over the matter, seeking for some other physical feature in the landscape which might better explain the latter syllable, until it occurred to me that it might be that other no less ancient British word caer, meaning a fort, and, if so, mean the fortified village or town. I had not far to look for some corroboration of this opinion, for here, close to the Parish Church, is that high circular mound called the Moat, which, whatever may have been the later uses to which it was put, has been recognised by antiquarians—including the learned author of "Caledonia"—as originally a British fort. It stands opposite the lofty, grim rock of Castledykes—once a castle of the Comyn family—both guarding against a hostile invasion from England the town of Dumfries and this side of the river. We have Caerlaverock, Cargen, Carruchan, Corbelly, all derived from caer a fort; and so also, I believe, was this village Tre-Caer, now called Troqueer.

But you may accept either interpretation, as both follow the clue given by Chalmers that it is derived from old British words. The more important question is—Was there a village or town here in the olden time? To which I am able to give an unquestionable reply in the affirmative, and thus corroborate Mr Chalmers's opinion as to the derivation of the first syllable.

Many years ago I was told of, and in some instances saw, the foundations of old houses revealed when new buildings were being erected along the Troqueer road; and in 1878 I was agreeably surprised to discover in the Kirk-session records the name of a "village or toun of Troquire" in the direction towards the Parish Church. Subsequently I found it mentioned in title deeds of the 17th and 18th centuries, and quite recently in a charter of the 14th century. This explains why the Bridgend was always called "of Dumfries"—to mark it out as an adjunct of that town, though not subject to its legal jurisdiction. Into the Bridgend fled all outlaws from justice and those banished from the town of Dumfries.

. These Kirk-session records tell how, 200 years ago, the church officer, or "bedle," as he is sometimes called, had to ring a handbell through the whole parish to announce burials, but if he only required to ring it in Bridgend and Troquire he received only a part of the fee for ringing it landwards.

13th Nov., 1698.—That the officer have 14 pence for the grave-making and ringing the bell at burials throughout the whole parish, except at the Bridgend and Troquire, which shall pay but 10 pence.

This hand-bell was rung through Troquire and Bridgend "each Sabbath morning when there is sermon as usual."

Then in 1716 it is called Troquier toun.

26th August, 1716.—The Session, understanding that William Edgar in Troquier toun did last Lord's day after sermon, at the church door and toun of Troquier, warn shearers in Brigend and toun of Troquier to repair to the Mains of Terregles to begin shearing on Monday and following days; and considering that this was no work of necessity, but a breach of the Lord's day, they appoint the officer to summon the said William Edgar to compear before them the next day of Session.

Then in 1754 here is an extract from a title deed for a small bit of land on the Troqueer road, which reveals a busy village or kirk town of which no vestige now remains, and the very description of it is in the names of places that are completely changed:—"Three roods of land called Clerk's Croft in parish of Troquire, near to the church of the said parish at the south end of the toun or village called Troquire, bounded betwixt the King's High Street going from the Brigend of Dumfries to the said kirk of Troquier, and on the south by lands called the Short Butts."

Here, then, along what is now called the Troqueer road was the old village of Troqueer, with its Short Butts near to the Moat hill for the practice of archery under old Scotch statutes, which required them to be set up in every parish near to the Parish Kirk. In the 18th century it would be as a mere pastime—to recall old times, "short butts" for the young, and "long butts" for grown-up persons—and at a later period probably to practice musketry for more serious purposes than mere pastime.

Then there was the village green, still called the Pleasance-There was a place called the Bilbow, with a park, houses, barns and barnyards, where the villa of Ashbank now stands. It was a rural village or kirk town, with its population ploughing, sowing, reaping, and also gathering the produce of their orchards and gardens. One may still have a faint glimpse of what it was by standing in summer within the Troqueer road entrance to Rotchell Park, and seeing the remains of old orchards and

gardens in blossom fringing the rich agricultural lands which in gentle hill and valley trend towards Newabbey.

Lastly, it was not a village of mushroom growth, but a very ancient one, dating at least from the 14th century. Here is the translation of an extract from a charter granted by King David 2nd, dated A.D. 1365:—

To Roger Wodyfeld all those tenements in the burgh of Dumfries, and 20 pounds worth of land (viginti libratum terræ), with one house in the town of Trogwayre, which Janet, daughter of Walter Moffat, and Richard Duchti, her husband, had mortgaged to the said Roger. Rob., Index, p. 77.

Cosmo Innes says:—"The very ancient denominations of land from its value, librata, nummata denariata terrae, point at a valuation for some public purpose."

Having thus proved the existence of a very ancient village or small town of Troqueer, we corroborate the learned Chalmers in his derivation of the first syllable of its name. We also see the significance in ancient deeds of the Brigend being always called "of Dumfries;" and in the populous nature of both places we find an explanation for the parish church having from time immemorial been situated at this north-east part of the parish.

Although this ancient village has disappeared, the locality has in modern times acquired fresh interest in its association with our national poet, Burns, who often traversed the Troqueer road to visit Mr Syme at Ryedale; Dr Maxwell at Troqueer Holm; or Mr Lewars, his superior officer in the Excise, who lived and, in 1826, died in that quaint small house called Ryedale Cottage.

It was on Mr Lewars's sister Jessy that Burns composed the beautiful song, "Oh, wert thou in the cauld blast?" concerning which Dr Chambers, in his biography of the poet, thus writes:— "Many years after, when Burns had become a star in memory's galaxy, and Jessy Lewars was spending her quiet years of widowhood in a little parlour in Maxwelltown, the verses attracted the regard of Felix Mendelssohn, who married them to an air of exquisite pathos."

Two other houses Burns visited in the parish were Mavisgrove and Goldielea.

The minutes of the Kirk-session are extant with a few blank years—from 1698, and give a view of ecclesiastical affairs long fallen into desuetude. It used to exercise a very strict supervision over the congregation. The jurisdiction of these tribunals

and of the local magistrate, and, indeed, in some matters of the Court of Session, were by Statute, 1593, co-ordinate, but the former had full powers in questions of the faith and of morals in the first instance.

We may in a general way classify the accusations, or "delations" as they were called, before the Kirk-session and Presbyteries by virtue of some Scotch Act of Parliament, as including all offences against religion or decency or the well-being of the community in general. These were enormous powers, some of them necessary in those days to preserve law and order, especially in landward parts where there was no local magistrate; but others of them were a meddlesome interference with the liberty of the subject, such as charges of cutting wood or kail, driving cattle, carrying water, or walking on the Dock Park of Dumfries during the hours of divine service!

In cases where members of the congregation were suspected of being Papists they were summoned, interrogated, and if a *prima facie* case were made out, it was reported to the Presbytery for further inquiry.

Here are a few of these charges, but for others I refer you to the Courier of 1878:—

Irregular Church Attendance.—June 11, 1699.—The Session considering that many persons in this parish attend only one diet of divine service, and go away home immediately after forenoon sermon, to the great disregard of the Gospel and offence of good persons, the Session orders that Church persons thus guilty shall be immediately cited to the Session and their pretences and excuses heard, which if found trivial and invalid shall be prosecuted as Sabbath-breakers and punished accordingly, and appoints intimation of this to be made on Sabbath first.

Cutting Wood on Sunday.—This day William Hannah makes report that on Monday last the Laird of Lag delivered to him 3 pounds 14 shillings for the use of the poor, being a part of a fine imposed on a man, Thomas Howat, for Sabbath breaking, being cutting wood the last Lord's day in this parish.

Walking on Fast Day.—March 31, 1701.—The quilk day John M'Kie being cited, called, and compearing, was interrogate if it was he that was walking in time of Dumfries sermon on the Dock in sight of this congregation with Nethertown and Dirleton; answered in the affirmative. Being interrogate if he went to Dumfries church that day, answered in the negative. And being

questioned where he went, answered to Robert MacBrair's, and drank but one choppin of ale. Being interrogate if he sent his son that Fast Day with two horses to plough in Terregles, acknowledged he did, adding because there was no Fast kept there, it being a vacant congregation. Upon which he was removed; and the Session, considering his affair, finds him guilty of great contempt in not observing a day set apart for solemn fasting and humiliation. Wherefore the Session appoints the said M'Kie to be rebuked before the congregation on Sabbath next, and he being called in this was intimate to him; and, further, it is left upon the minister to acquaint the minister of Dumfries of Nethertown and Dirleton's offensive deportment.

7th June, 1716.—The thanksgiving day for extinguishing the rebellion.

Apostasy.-The Session taking into consideration the libel against Janet Hood, in Cargen, do find that by her own confession she hath absented herself from the worship of God upon the Lord's Day in her parish church or any other church for the space of one year and a half, and that her heart did not give her (as she speaks) to come to the worship of God for that space of time. And also that she was inclined and her heart did give her to the Popish or Roman Catholick religion, yea that she owned the Roman Catholick religion for her religion. Whereby it is apparent unto them that the said Janet is guilty of apostasy from the true Christian Reformed religion into the erroneous, idolatrous, and superstitious religion of the Romish Church. And this being a scandal of an atrocious nature, implying idolatry, heresie, errour, and schism, the Session understands that it is not proper for them to proceed any further in this process according to the form Assemb., 1707, number 11, chap. 6. Therefore they do refer the process unto the Reverend Presbytery of Dumfries that they may determine thereon as they shall find cause.

There was in every parish church of Scotland a conspicuous seat or post, called the stool or pillar of repentance, where delinquents had to appear generally for three successive Sabbaths before the congregation to have their sin proclaimed, and to be rebuked by the minister. The tollowing extracts show that there was one for long in Troqueer Church:—

August 13, 1699.—Jean Waugh was this day rebuked before the congregation for profanation of the Sabbath by spinning.

Dec. 31, 1699.—This day appeared on the pillar Agnes Robeson

for the third time, and offered to pay her penalty of four pound Scots, but in regard the money being not correct, being all found not weight, the Session orders her to pay it against next Lord's day.

Slander.—26th August, 1716.—The Session find John M'Minn guilty of slandering and reproaching Margaret Sloan; and therefore, they do appoint the said John to stand in the publik place in the Church of Troqueir upon the 9th day of September next, being the Lord's day, and in the forenoon, to be rebuked by the minister.

Unchastity.—2nd June, 1717.—Mary Conkie appeared this day before the congregation in the publick place, and was rebuked after the forenoon sermon, the evil of her sin was laid before her, and she was exhorted to repentance.

The Parish Church seems to have stood on its present site from time immemorial, and the tombstones over seven of its ministers since the Reformation, extending from 1690 to 1846, or a period of 156 years, are to be seen in the churchyard. I have been often asked if I can explain why the church is situated so far from the centre of the parish, but it was necessary to have it here to serve the populous villages of Brigend, Troquire, and Nethertown. Before the Reformation there would be chapels more inland for the landward population on large estates, and the large churches of Newabbey and of Lincluden at either end of the parish would attract those nearer to these edifices.

The learned Mr Chalmers says in regard to the Rev. Mr Ewart's account of his parish and church in "The Old Statistical Account"—"This minister, who knew nothing of the history of the parish, supposes that the church was a chapel of ease. But it appears to have been an independent church from its foundation, and a separate parish so far back as it can be traced."

In olden times the parish church belonged to the Abbot and Monks of Tongland, who enjoyed the rectorial tithes and revenue, while the cure was served by a vicar, who reported it at the period of the Reformation as worth £20 Scots yearly, exclusive of gifts and fines.

In 1588 it was granted for life to the commendator of Tongland, and on his death in 1613 it was transferred by Royal grant to the Bishop of Galloway. When Episcopacy was finally abolished it reverted back to the Crown.

You are aware that after the riots in Edinburgh caused by the

reading of Laud's liturgy the General Assembly declared Episcopacy to be abolished, and in 1638 a National Covenant was signed with great enthusiasm throughout every parish in Scotland. So unanimous was this feeling in the parish of Troqueer in favour of the covenant that in 1640 the captain of its War Committee sent in the following report:—"Lancelot Grier of Dalskarthe, captain of the parochin of Troqueer, declares no cold or un-Covenanters within his bounds, except the Maxwells of Kirkconnell and the Herrieses of Mabie." This was an ancestor of the family called Grierson of Lag.

In 1653, when the Rev. Mr Blackader was ordained minister of the parish, he found that the teinds were claimed by the Earl of Nithsdale, as appears from the following letter of the Countess to Sir George Maxwell of Pollock, published in "Memoirs of the Pollock family":—

SIR,—Since I cannot have the happiness to see you in this countrie, I must importune you by letters as one in whose wisdom and affection to myself and my son I remain most confident. My husband had a tack of the tenths of the Church of Troquere in Galloway from the College of Glasgow, whereof they be as yet some years' standing; and now, as I am informed, Mr John Blackader, present minister of the said church, is putting in to have the said tenth in his own hand. Therefore, I earnestly entreat, as you wish the good of my son, you will stop his proceedings herein, since my son is now for many years by-past in possession and willing to continue in pay for the said tenths as his predecessors hath been, and if anything else shall be requisite he shall submit to you therein. Thus, not doubting of your goodwill, I rest as ever,

Your faithful friend to serve you,

E. NITISDAL.

This 16 of February, 1654.

This letter, dated the year after Mr Blackader's unanimous induction, was the beginning of many troubles, as detailed in his published memoirs.

Soon after the Restoration, in 1660, a Royal edict ordered all parish ministers who had been ordained since 1649 to remove out of the bounds of their Presbytery; so, putting his children into "cadgers' creels" on either side of a horse, he went to Glencairn, where he held open-air conventicles among the hills.

The following is a vivid account of his last visit to Troqueer,

probably the most memorable event that has occurred in the history of the parish:—

On several occasions he preached in Galloway, and in January, 1681, he visited Troqueer at the request of his old parishioners. He preached at Dalscairth to a vast assemblage, and the Laird of Dalscairth accompanied him to Lochmaben, and back again by Rockhall to Dalscairth, where he again preached on a green near the house. On his way back to Edinburgh he preached at Sundywell, in Dunscore. It was a time of deep snow, but the people set a chair for him, and pulling bunches of heather, sat on the moorside. Dalscairth accompanied him, and they were obliged to take the road at God's venture, the hills being loaded with snow. They shunned the pass of Enterkin, and went by Leadhills as safest. But the people seemed to waylay him, and flocked about him to baptise their children. After this he returned no more to the South.

In this same year he was apprehended in Edinburgh, and sentenced by the Privy Council to be imprisoned on the Bass Rock, where, after four years' cruel confinement, he died in 1685. His body was brought ashore and buried in the churchyard of North Berwick, where a handsome tombstone and long inscription mark his grave.

In the olden time the Griersons of Lag possessed large estates "betwixt the waters," i.e., the rivers Nith and Urr. In this parish they owned all the land south of the present Troqueer road, including Ryedale and the Moat; to Nethertown and Dalscairth; and had a residence called Lag Hall, on or near to the site of the mansion-house of Mavisgrove, a little below which at the riverside is still in use for vessels a small quay called the Port of Laghall. In these days the house upon Troqueer Holm was called the Hall House.

Sir Robert Grierson, the "Redgauntlet" of Scott, who obtained unenviable notoriety for his persecution of the Covenanters, was made a baronet by King Charles II. in 1685, and died in 1733.

In these times land in the parish was described as within the regality of Lincluden, but regalities were abolished in 1746.

I heard the late Mr Pagan of Curriestanes, who was born in 1803, say that he had seen flogging at the cart's-tail through the streets of Dumfries, and a pillory in use in the Brigend.

But an older man was the late Mr Welsh, born in 1794, who told me he had seen the funeral of my wife's grandfather, General

Goldie of Goldielea, in 1804, at Troqueer Churchyard. It had been impressed on his memory, he added, owing to the great attendance at it of all classes, and a grand gilt coffin.

In the early part of this century there were rumours of a French invasion, and a company of Volunteers was raised in the parish, colours to which were presented by Mrs Maxwell of Kirkconnell, and are still preserved there.

In 1859, on the occasion of similar fears, there were formed Rifle corps throughout the Stewartry, among them the 5th or Maxwelltown corps, which I joined as ensign, and accompanied to Edinburgh in 1860 to a great review of over 20,000 Volunteers from all parts of Scotland by the Queen and Prince Consort. The arrangements were made by Colonel (afterwards General) Sir Montagu M'Murdo, of the family of Mavisgrove, and, with splendid weather and countless spectators in the Queen's Park, were a great success.

Some Incidents in Nithsdale during the Jacobite Rising of 1745.

By JAMES W. WHITELAW, Solicitor.

A century and a half have elapsed since the last attempt was made to re-instate the Stuart dynasty upon the throne of Britain, and by the day of the month we are within eleven days of the anniversary of the battle of Culloden, where that attempt finally ended in failure. It may not be amiss, therefore, if at this meeting of the Society I say something regarding the Jacobite Rising of 1745, more especially as I am able to bring before you some correspondence which passed between the then Duke of Queensberry and his Commissioner in this county at the time, which has not been previously published. It is not within the limits of this paper, and indeed it would be presumptuous on my part to attempt any general survey of that Rising, but I trust you will permit me to recall to your memories one or two main facts, in respect that they have a bearing on the "Incidents in Nithsdale" to which I am to allude. The Jacobite standard was unfurled on 19th August, 1745, at Glenfinnan (a narrow valley at the western extremity of Loch Eil), and by 4th September the Prince was in full possession of Perth. The occupation of so important a centre necessarily drew attention to the Rising throughout the Lowlands of Scotland, and one

naturally asks what was taking place in Nithsdale at such a time. For an answer I turn to a letter written to the Duke of Queensberry by his Commissioner, Mr James Fergusson, younger of Craigdarroch; and as I shall again have to refer to this gentleman's letters, it may interest you to know that he was the eldest son of "Bonnie Annie Laurie," and the father of Alexander Fergusson, who carried off the Whistle at the famous meeting at Friars' Carse, celebrated by Burns. The draft of these letters are in possession of his great-great-grandson, Captain Cutlar-Fergusson of Craigdarroch, to whom I am indebted for a perusal of them. The first letter to which I refer is dated 2nd September, and is as follows:—

"The Invasion in the north of Scotland, which has been for some weeks talked of as a matter of little consequence, seems now more serious. We have many uncertain reports every day, but by the best accounts it's now past doubt that the young Adventurer landed near Fort-William several weeks ago, that a good many of the Highlanders have joined him. Their numbers are yet uncertain. Some say 2, others 3000, that General Cope with twixt 2 and 3000 regular troops is gone in quest of them, and was on Tuesday, the 27th August, within two days' march of them, and that they are much alarmed at Edinburgh and Glasgow, and are putting themselves as fast as possible in a posture of defence. These accounts we had here on Saturday last, and may be depended on as true. This day we were informed by letters from Edinburgh that General Cope had gone towards Inverness, and that the Highlanders had taken a nearer way over the mountains and come further south, that the Marquis of Tullibardine had come with a part of them as far as his brother, the Duke of Athole's house, and had sent orders before him to the Duke's factor to prepare dinner for him and his attendants, upon which the Duke came off for Edinburgh, and that the inhabitants of Perth were greatly alarmed, and were removing all their valuable effects. These accounts came by express to Edinburgh on Saturday. That night Hamilton's regiment of Dragoons lay upon their arms in the King's Park, and were to march early on Sunday morning for Stirling, where regiment now is."

"There was this day a meeting of the Justices of the Peace and Commissioners of Supply here, occasioned by a pressing letter from the General Receiver of the Land Tax at Edinburgh

demanding payment of the arrears of this shire without delay. After having settled that matter, the gentlemen turned their conversation upon the present situation of the kingdom, and the defenceless state of this shire in particular, and agreed to write to the Justice-Clerk the good inclinations of the people, and their desire to have arms put in their hands out of the public magazines, as there were few in the county, and to ask his advice how to behave in the present emergency, whether to rise or wait orders for raising the Militia. A letter to that purpose was sent by express this evening to Edinburgh, and in the meantime it was agreed to make an inquiry without delay what arms are in the shire. I thought it my duty to give your Grace the above information. I go to Drumlanrig to-morrow, and as the post does not go from this till Wednesday, I have left this with Commissary Goldie that if anything further occur twixt and then, he may add it."

The minute of the meeting of the Commissioners of Supply referred to by Mr Fergusson is contained in the county minute books, from which we learn that both Mr Fergusson and his father were present at it, and the above letter seems to have been written in Dumfries after the meeting. The letter from the Receiver-General is engrossed in this minute. He states the arrears of Land Tax due by the County at £1353 4s 9d, and presses for immediate payment; and he adds, "This is the more necessary, as it is the fund appointed for paying the Forces in Scotland, and, as we are soon to have more with us, unless the Commissioners in the different counties exert themselves, I shall not have it in my power to furnish them with their subsistence, which would be attended with the greatest inconveniences at this juncture."

Upon the same day (2nd September) we find that a meeting of the Town Council also took place, at which a committee was appointed "to examine the arms of the town's magazine, and cause mend such of them as are decayed and insufficient; and to make search through the burgh, and take an account of what arms are in the hands of any of the inhabitants, see what condition the same are in, and to have such as are decayed or out of order repaired, and made fit for service." It is curious in this connection to notice that the burgess oath at this time contained a promise "to keep a sufficient gun and sword for the defence of the burgh when called for by the magistrates."

Apparently from Mr Fergusson's letter there was an informal conversation at the county meeting on 2nd September, and we otherwise learn that a committee was appointed to confer with the Presbytery on the crisis. This does not appear in the county minute; but in a minute of meeting of the Presbytery of Dumfries held on 4th September, it is stated that a committee of county gentlemen were present to confer with them, after which "the Presbytery agreed, and recommended to each minister of the bounds to take the most prudent method in their several parishes to get an account of the number of arms and fencible men in their respective parishes, and to bring in a report thereanent." These reports were made to a meeting of Presbytery held on 16th September, and a committee was appointed to wait upon the committee of the gentlemen of the county to declare that it was the desire of the ministers that the gentlemen should encourage the present spirit prevailing in the county, and take all proper measures for putting the county speedily in a state of defence with what arms belong to it at present, and to use their endeavours to get the country better supplied, and to take proper steps for bringing fit persons into the country for training the people in the use of arms, and forming them into proper bodies; and the ministers hereby authorise their committee to let the gentlemen know that they for their part are willing to give all assistance in their power in prosecution of the ends aforesaid, and shall be ready when desired to enter into joint measures with the gentlemen of the county for that purpose, and as occasion shall require in the present juncture. Well done the ministers, say I; and they deserved a better response than they got from the County Committee, who stated that "they did not find it expedient to put the county in arms at present in regard they did not see how it could be done with any good effect." This apathy practically prevented anything satisfactory being done, with the result, as you shall see later on, that the rebels met with no opposition when they marched through this county on their retreat from England.

By the 22nd of September the Prince was in possession of Edinburgh, and for fully a month he held Court in the Palace of Holyrood. While there he received many accessions to his supporters, but the only one of importance from the south of Scotland was Mr James Maxwell of Kirkconnell. He left a manuscript account of the Rising, which is still preserved at Kirkconnell,

and which was published by the Maitland Club in 1841. Curiously enough in this account, the Prince's journey through Dumfries is dismissed in a few lines. Mr Maxwell is often described as proprietor of Kirkconnell, and he was so afterwards, but at the time of the Rising he was merely the eldest son of the then proprietor, and his father must have lived until the storm blew over, because the estate escaped confiscation.

On 31st October the Prince left Edinburgh with an army 6000 strong. It split into two divisions—one with the Prince at its head going by Lauder and Kelso, and the other under Lord George Murray going by Lauder and Moffat, and these two divisions joined again at Reddings, and Carlisle soon fell into their hands. It was at one time feared that the division under Lord George Murray would pay Dumfries a visit, and the burgh was totally unprepared for any resistance -a very different state of affairs from that which existed in the Rising of 1715, when the town, with assistance from neighbouring burghs and the surrounding district, was so well garrisoned that the rebels under Viscount Kenmure dare not attack it. On 21st November the Prince left Carlisle, but so great was the disinclination of the Highlanders to leave Scotland that his army had dwindled to 4500. However, he resolved to press on, in the expectation that his friends in England would rise and join him, and that assistance would come from France. He was doomed to be disappointed in both of these hopes, and at Derby the leaders became convinced that their numbers were too few to accomplish the object they had in view-the capture of London. A retreat was accordingly resolved upon, and the Jacobite army began their return march to Scotland on 5th December, pursued by a force of 10,000 men under the Duke of Cumberland, King George's second son. This force was sufficient to annihilate the little army had it come up with it, but Lord George Murray, who had charge of the rearguard attacked his pursuers' outposts at Clifton on 18th December, and caused a check which enabled the Prince's army to reach Carlisle in safety on the 19th. The Duke of Cumberland did not arrive there till the 21st. On the 20th the Prince crossed the Esk at Longtown, and the army was then split into two divisions-one under Lord George Murray going north by Ecclefechan and Moffat, while the main body with the Prince came to Annan. Lord Elcho with 500 men rode on to Dumfries that night, where he was joined by the Prince next day. With a slight attempt at

a check at Annan water, no effort was made to oppose the rebels or to defend the burgh. Most of you are conversant with the incidents which took place in Dumfries at this time, but I think it will be of interest to hear Mr Fergusson's account of them.

On 18th December he wrote to the Duke as follows:—

"Upon Monday last there was a meeting at Dumfries of the gentlemen and clergy, when we received intelligence that the Duke of Cumberland had come up with ye rebels near Lancaster, yt his vanguard had beat a party of ym and driven ym into yt toun, where he had ye main body inclosed, yt the Duke of Perth with 110 horse, among ym ye Pretender's son and a good many of ye chiefs were said to be, had got away, and were come upon Saturday night last to Shap, yt an express was come to Penrith on Sunday morning from the Duke desiring the country might rise and take care of ye stragglers, and that he would take care of ve main body. This account yt was confirmed by several letters determined ye meeting to agree to raise a considerable body of the best men in this shire and the neighbouring parishes of the Stewartry of Kirkcudbright to secure all the passes in the county. The Presbytery of Penpont are to meet at Thornhill to-morrow, when I intend to make up a company of at least 100 men out of your Grace's tenants in ye parishes of Kirkconnel, Sanguhar, Durisdeer, and Morton. These, I believe, will be sufficient at present, and are as many as I can get any way armed.

"A subscription was set on foot last week by some people at Dumfries for raising a sum of money to levy men for six months for recruiting ye regiments now in Scotland at ye expense of £4 bounty money to each man. It was proposed to me to write to your Grace concerning it. I declined yt till ye scheme should be approven by a public meeting of ye gentlemen, and, indeed, I thought altogether unnecessary to give you the trouble of a letter concerning it, as the time fixed by ye proclamation-viz., to the 25th inst -for enlisting men to be discharged at the end of six months must be elapsed before any return from your Grace could be expected. I own I also disapproved the scheme. First, because I saw no probability of getting even ye small number which were proposed, being 120 men, to enlist in a place so thinly inhabited, and where there are so few manufactures as in this country; secondly, because I thought it would take to enlist even yt number a sum yt in ye present scarcity of money could not well be spared here in case ye Militia should be ordered to rise:

and thirdly, because I thought ye service yr by done to His Majesty would be very inconsiderable in comparison of the expense, and it would weaken our hands much in case of any such emergency as ye present. I found, however, on Monday last, when I was at Drfs., yt some gentlemen who were extremely kean upon this project had procured a good many subscriptions, and listed about half a score of men, and wrote to yr Grace concerning it without waiting for ye meeting of ye gentlemen and clergy yt was appointed to be on Monday last.

"To explain this conduct to your Grace, I must inform you yt when ye rebels passed ye Forth ye gentlemen of ye shire had appointed a committee of a few of yr number about Dumfries to procure intelligence, and call yem together by circular letter upon any emergency. Ye clergy also appointed a committee of yr number to take such measures as was thought proper, and call ym together if necessary. A very few of yese two committees took it in their heads, without calling any meeting, to contrive yt a letter should be wrote to the Lord Justice-Clerk, which was accordingly done, and subscribed by a few of ye gentlemen, setting forth ye zeal of ye country, and yt if orders were given for yt purpose a great many men would enlist in terms of ye proclamation allowing £4 bounty money to each man who would enlist, to be discharged at ye end of six months, or when ye rebellion should end. Unluckily they blundered in this by confounding two proclamations together, viz. - one offering £4 bounty money to men of a certain age who would enlist in the Guards, and another offering freedom at ye end of six months, or when ye rebellion should end, to any who would enlist, but ych mentions The Justice-Clerk, in his return to them, commended no bounty. yr zeal, but pointed out the blunder, upon ych yt ye scheme might not be altogether abortive, yeh they had thus taken upon ym to contrive, they set ye above project on foot.

"As I found they had wrote yr Grace, but did not know in what terms, I thought it my duty to take ye first opportunity to give you ye real and true history of ye matter.

"At the meeting on Monday when the above news came, and ye project of raising ye country was agreed upon, it was likewise yt part of the money subscribed should be applied to buy ammunition and pay such men as could not afford to come out on yr own charge, as I believe we are all truly zealous to serve His Majesty K. George. I thought it would be very imprudent to say or do

anything which might tend to disunite us at this time, so I joined in the subscription with others, though ye first project of enlisting was not quiet conclusive in case more money could be got than to answer ye present exigency. My present view, and which I flatter myself your Grace will approve of, is to have nothing to do with that money in paying ye above number of men, ych I propose to raise upon yt emergency. I expect a good many will come out on their own charge, and to ye rest I propose to give 8d per day, ych will amount to no great sum, as I don't suppose we can be long together, nor would it indeed be proper we should, as we have no person of authority to conduct us."

The skirmish which Mr Fergusson refers to in the beginning of his letter was probably that at Clifton which I have already mentioned, but his information represented a rather more favourable result for the Government forces than was actually the case. We also learn from this letter that some of the members of the committees of the Presbytery and county gentlemen appointed in September previous were not satisfied with the resolution not to arm the county, and that they took some independent and informal steps to this end, only to meet with discouragement at head-quarters.

Of the meeting of the Presbytery of Penpont referred to by Mr Fergusson, there is no mention in the records of that body; but we get some evidence of the "meeting at Dumfries of the gentlemen and clergy," which, when writing on 18th December, he states as taking place on Monday last, which was the 16th. That meeting was organised by a Standing Committee of the Synod of Dumfries appointed with special reference to the then existing condition of affairs on 8th October, 1745, but the actings of that Committee do not appear in the minutes of the Synod. In the minutes of the Presbytery of Dumfries, however, there occurs under date 11th December, 1745, the following entry:-"It being represented that a meeting of the Standing Committee of Synod that it had been agreed that the ministers of the bounds should join with the gentlemen of the town and country in an association for the defence of the King and the present happy Constitution against the Popish Pretender, in whose favour the Rebellion was now carried on by Papists and other disaffected persons in the kingdom, headed by the said Pretender's son, and it being represented that the said association was now opened in town, and a subscription of money begun in support of the said association, the members of the Presbytery resolved unanimously to go immediately and subscribe the said association, and join in the subscription of money with the well-affected gentlemen in town and country, and in regard there was a meeting of Synod called *pro re nata* against Mönday next, the 16th instant, the Presbytery recommend to their members to attend the same."

At a meeting of Presbytery held on 21st January, 1746, a report was given in as to the members of Presbytery who had entered into and subscribed to the foresaid association; and at a further meeting held on 4th February there was a report by the members of Presbytery, who were "members of the committee appointed by the gentlemen and clergy associating," upon the accounts of the cashier of said association, in which there were debit entries of "the sums already expended by their direction for enlisting able-bodied men into the marching regiments for six months at four pound sterling each as a premium, and for pay to the Volunteers of town and country at eight pence per diem." This latter sum was the same amount as Mr Fergusson paid to the men whom he raised; and with regard to the bounty of £4, I would observe that it would not appear to be in exact accordance with the terms of the Proclamations, which the Lord Justice-Clerk of the time delighted in quibbling over, rather than in encouraging the county to put itself in a state of defence.

On 28th December, Mr Fergusson again wrote as follows :-"Since I wrote your Grace, the 18th of this, the face of affairs is much changed here. Upon Friday, the 20th, the Highland army crossed Esk, and part of them came that night within eight miles of Dumfries. The 21st, the greatest part of them came to Dumfries, the rest having gone to Moffat, and a few came that night within eight miles of this. The 22nd, a few came to Thornhill, but most of them remained in Dumfries. The 23rd, they came all here and to the adjacent villages. The 24th, they left and went to Douglas, only some part of them lodged that night in Leadhills and Wanlockhead, and some near Sanguhar. The 25th, forty of them entered Glasgow and demanded quarter for their whole army in the kirks, meeting houses, and other publick buildings, and said they would not go into private houses. I have yet heard nothing further of their route. At Dumfries they behaved very rudely, stripd everybody almost of their shoes, obliged the town to give them £1000 and a considerable quantity of shoes, and carried away Provost

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Crosbie and Mr Walter Riddell, merchants, as hostages for £1000 more, which was yesterday sent them to relieve these gentlemen. I was at Thornhill, the 21st, in the morning (when I heard of their approach) with a company of 100 men which I mentioned in my last, and about 50 seceders. I retired here and keepd them together till the evening, when I had certain advice the greater part of the Highland army was in Dumfries, and that everybody had laid down their arms, upon which I dismissed the people and desired them to secure their arms and horses, The 22nd, in the morning, I left this (i.e., Drumlanrig), with all my family except nine servants by daybreak, and went to my father's house at Craigdarroch. The 23rd, about seven in the morning, two letters from Murray, their secretary, and another from one Riddell, a Fife gentleman and an acquaintance of mine, who is with them, were brought here and sent from this by express to Craigdarroch, where they found me about ten. The contents were telling me their Prince was to lodge here that night, and requiring me to provide quarters for their whole army in this house and the adjacent village. They neither mentioned their numbers nor directed me what quantity was to be got, but only desired I would cause kill a great number of black cattle and sheep, and provide a great quantity of meal. I retired immediately into the Galloway hills, about eight miles further, without giving them any answer, and carried the person who brought me the letters with me. When they came here they laid straw the whole rooms for the private men to lye on, except your Grace's bed-chamber (where their Prince lay) and a few rooms more. They killed about 40 sheep, part of your Grace's and part of mine, most of them in the vestibule next the low dining-room and the foot of the principal stair, which they left in a sad pickle, as they did, indeed, the whole house. Under the gallery they keepd several of their horses, which they made a shift to get up the front stair. They have destroyed all the spirits and most of the wine in your Grace's cellars-of both which there was a considerable stock and very good, which has been laid in gradually since I came here—a good deal of hay, and what corn they could get, all my ale and spirits, and other provisions. They have broken several chairs and tables, melted down a good deal of pewter by setting it upon the fire with their victuals, carried away a good deal of linen and several other things, which I have not yet time to know particularly. I

returned the 25th about eleven at night, and found most of the house worse than I could possibly imagine before I saw it. I got as much time on the 21st as to secure all papers in my custody, and the best of the bed and table linen, and some other things of value which escaped undiscovered. I directed the servants to conceal as much wine as possible upon the 22nd. after I went off, which they managed so well as to save, I think. about two hogsheads. The charter-room was not broken open, the servants having assured them the key was not in my custody. and that nothing was in it except papers, but not having patience till the servants brought the keys of every other place they broke up many of the doors. They would have done much more mischief, as the servants tell me-at least plundered the whole house-had not the Duke of Perth stayed till most of them were gone. He took sheets and blankets from several who were carrying them off, and returned them to the servants; and Mr Riddell above-mentioned directed the servants to go through the house all night to prevent fire. May God grant there may never again be any such guests here. By the nearest computation I can make, at least 2000 were lodged in this house and stables." At this point some words are interlined in the draft which are very difficult to decipher, but they seem to me to be "Drink money, 10 guineas;" probably this refers to the "tips" given to the servants, and is mentioned as affording a criterion for estimating the number of the unwelcome guests. The letter then proceeds :- "Upon the 25th, in the evening before I came here, upon hearing His Royal Highness the D. of Cnd. was come to Carlisle. I wrote him in case he intended to march any part of his army this way, I waited his commands to do all the service in my power for forwarding it. This, I told H.R.H., I looked upon to be my duty as a faithful subject to His Majesty King George, and as knowing it would be perfectly agreeable to your Grace, the care of whose affairs I had in this place. Upon the 26th eight men and five women who had straggled from the rear of the Highland army were brought here prisoners. The afternoon before they were plundering near Durisdeer, and were attacked by fourteen country people, seven of whom only were armed. They fired upon the people, but did no execution, upon which those who had guns returned their fire, and wounded most of the Highlanders, and before they had time to draw their swords ran upon them and knocked them down. I have sent a

party of the people who seized them to H.R.H. along with them. They lie this night at Thornhill, and go on to-morrow. I have not yet heard of the army's being come further than Carlisle. By the best accounts I can have about 500 men are left in that garrison. I have sent this by Dumfries, as I see no danger now of letters being intercepted while H.R.H.'s army is about Carlisle. The Highlanders paid for scarce anything in this country; they eat up poor Howit and Bow House, and paid nothing."

We get an interesting confirmation of Mr Fergusson's statement as to the conduct of the Highlanders in Dumfries in the "Lochrutton Journal"—a manuscript account of the Rising left by Rev. George Duncan, then minister of Lochrutton. Under date Sabbath, 22nd December, Mr Duncan writes:—"A melancholy day, the rebels in Dumfries. . . . They were most rude in the town, pillaged some shops, pulled shoes off gentlemen's feet in the streets. In most of the churches for some miles about Dumfries no sermon. God be blessed! we had public worship. I lectured I. Sam., iv.; Mr John Scott, minister of Dumfries, there being no sermon there, preached." The fourth chapter of I. Samuel was a most appropriate subject of lecture, for it refers to the defeat of the Israelites by the Philistines at Ebenezer, when the ark was taken, and no doubt Mr Duncan drew some startling parallels.

The £2000 levied by Prince Charlie upon the town was raised in the first instance by loans from various persons, and among the subscribers for the £1000 raised after the Prince left we find Mr Richard Lowthian and Miss Peggie Maxwell, sister of James Maxwell of Carnsalloch (which then also belonged to the Kirkconnell family), both of whom, no doubt, subscribed from reasons of policy. The funds so borrowed were repaid by an assessment at the rate of three per cent. upon the capital value of "houses and buildings and goods, wares, merchandise, household furniture, and oyr perishable stuff in the burgh at the time of the aforesaid demand;" and to show how strictly that assessment was levied, I may mention that the library books of the Presbytery of Dumfries, which, "as being perishable goods, are liable to be stented in this view," were valued at £300, and an assessment of £9 paid thereon.

In Dumfries the Prince stayed in the building which now forms the Commercial Hotel, but two storeys have been added to it since the time I am speaking of. It belonged to Mr Richard

Lowthian of Stafford Hall, in Cumberland, who was then in occupation of it. George Lowthian (Richard's father), who also owned Stafford Hall, removed from it to Leadhills very early in the eighteenth century, and after a residence there of 30 years, he died in Dumfries in 1735. He probably was engaged in the mining industry at Leadhills, and was successful in it, because we find his son Richard a wealthy man, owning considerable property in Dumfries, including the lands of Nunholm. Richard Lowthian went back to his native county for a wife, for he married Sarah Aglionby, a daughter of Henry Aglionby of Nunnery, who was Member of Parliament for Carlisle. Nunnery is within a very short distance of Stafford Hall, and curiously enough the latter property was acquired from Mr Lowthian's representatives by his wife's grand nephew, Major Aglionby, who added it to Nunnery. A new mansion house was sometime ago erected on this conjoined property; it is called "Staffield Hall," and is at present in possession of Colonel Arthur Aglionby. Richard Lowthian and his father are buried in St. Michael's Churchyard, and the next tomb is that of William Bell, who was provost of the burgh in 1745, Provost Crosbie mentioned in Mr Fergusson's letter being really ex-provost. Mr Robert Chambers, in his "History of the Rising," gives the following account of the attitude taken up by Mr Richard Lowthian during the Prince's stay in his house. He says that "Though well affected to the Prince's cause, he judged it prudent not to come into his presence, and yet neither did he wish to offend him by the appearance of deliberately going out of his way. The expedient he adopted in this dilemma was one highly characteristic of the time -he got himself filled so extremely drunk that his being kept back from the company of his guest was only a matter of decency. His wife, who could not well be taxed with treason, did the honours of the house without scruple." Before leaving, the Prince gave Mrs Lowthian a pair of gloves and his portrait, and these, along with hangings of the bed upon which he slept, are understood to be still in the possession of some of her descendants. With the bed itself I shall deal later.

I think it desirable to give you some details of Mr Lowthian's house. He acquired it in 1741 from Mr Matthew Sharp of Hoddom for the sum of £130, and in the disposition granted by Mr Sharp it is described as "All and hail my tenement of houses, high and laigh, back and fore, with yeard and barn at the foot thereof, adjacent thereto, lying on the west side of the High

Street of the burgh of Dumfries, bounded by the tenement of houses, yeard, and barn formerly belonging to John Crosbie, late Deacon of the Wrights in Dumfries, now to Joseph Johnston, Chyrurgeon there, on the south; the Irishgate on the west; the tenement of houses, yeard, and barn pertaining to me on the north; and the King's High Street on the east parts." This tenement was described as "partly timber and slated" in a policy of fire insurance effected by Mr Sharp with the Sun Fire Office in London on 30th March, 1736, in which it is insured for £100, and looking to the price paid for it, I have no doubt it was in this position when purchased by Mr Lowthian, and that he immediately afterwards rebuilt it, because we know that in 1745 it was a stone house pretty much in the same condition as it is at present, with the exception of the two top storeys. As showing the improvement effected by Mr Lowthian upon this property, I may mention that it was sold in 1800 by his heirs for £1420. If you will allow me to digress for a minute, I would like to add that Mr Sharp's tenement to the north of it was known, and is mentioned in several records, as "Hoddom's stone house"-not I think because stone houses were very peculiar in Dumfries at the time but to distinguish it from his house, "partly timber and slated," with which we are dealing. This "stone house" was afterwards known as "The Turnpike house," on account of the various flats being reached by a circular stair in front of the house entering off the street, but which I think did not form part of the original structure. Part of this house was let to Sir Robert Grierson of Lag in 1720, and it was from it that his funeral took place, regarding which there are so many weird but not very authentic stories. Mr Lowthian was, I have said, a man of means, and his new house was in the best style, so that Mr Chambers, in his history, describes it as "the best house in Dumfries" at the time. No doubt there was a pend through the old house giving access from the High Street to the yard behind, and the house itself would enter off the pend according to ancient custom. Lowthian did away with this pend, and very probably his new house was among the first houses in Dumfries which had a direct entrance of the main street. The entrance was into a fairly wide lobby, off which entered four rooms on the first or ground storey. Of these rooms the two larger were to the front, and though they have now only one large window, they probably had originally each two smaller windows exactly under the corresponding windows above. The two rooms on the left of the entrance have now been thrown into one. The servants' accommodation and cellars were in the basement storey, which was reached by a stair which descended from the end of the entrance lobby, and from a landing half way down this stair there was an access to the backyard, and also to the kitchen premises, which were in an out building on a level with the yard. At the end of this lobby there was also a stair to the second storey, which stair had a mahogany railing with twisted balusters disposed in pairs. Facing one on reaching the landing is the main entrance to what is still known as Prince Charlie's room.

This entrance is of handsome form, having imposts, semicircular top with archivolt and key, flanked with fluted Corinthian pilasters on pedestals supporting an entablature of architrave freize and cornice enriched with dentals and carved blocks, the capitals of the pilasters being also carved. This room is of two parts, one 20 feet by 191 feet, and the other 15 feet by 14½ feet, and both 10 feet high, and divided by a moveable panelled partition. The walls are lined with moulded and fielded wooded panelling, tastefully arranged, resting on a moulded base, and finished with entablature of architrave freize and cornice relieved with dental and carved block enrichments Indeed the whole house, including the entrance lobby, staircase, and landing, seems originally to have been panelled, and although the panelling has been removed in some of the rooms, much of it still remains. The larger part of Prince Charlie's room shows two round-headed doors flanked with Corinthian pilasters similar to those already described, and the doors are each in two halves, opening inwards. There are two fireplaces, one at the end of each apartment similarly flanked, and over each fireplace is a panel filled with a landscape painting. This room occupies the whole front of the building, and has five windows looking out on to the street-three being in the larger apartment and two in the smaller. These have seats in the recesses. The windows were originally divided into smaller squares by thick moulded astragals, but recently plate glass was substituted. With this exception and the substitution of marble slabs at the fireplaces for the original chimney pieces-probably of wood, elegant and thoughtfully designed—this room appears to be now in all respects as it was in 1745. The smaller apartment has a small doorway entering into a narrow passage leading from the main landing to

a small pantry. There are two other rooms on this floor at the back of the house entering from this landing, and probably one of the doors in the larger apartment of Prince Charlie's room entered into the room on the left of the landing. This cannot now, however, be exactly determined, as a passage has been taken off this back room to afford an entrance to the tenement on the north, which is now occupied as part of the hotel.

A party of the Highlanders also went out to Terregles, and seem to have been put up there. This is a fact not generally known, but we learn it from the minutes of the Kirk-session of Terregles, because in one of those semi-judicial inquiries (which Kirk-sessions were so fond of holding in those days) a date late in December is fixed as being about the time "when the Highland men came first to Dumfries, and when Rodger M'Donald came to the place of Terregles." He was probably lodged in the house of Thomas Coverlie, at Bowhouse, who seems to have been a dependent of the Terregles family, as he was then in Edinburgh with Lady Nithsdale. However, his wife was at home, and no doubt did the honours of the house; and we are told by Susan Edgar, daughter of Samuel Edgar in Bowhouse (one of the witnesses before Terregles Kirk-session in the inquiry), that, it having been reported that this Rodger M'Donald had threatened to take away her father's horse, she and a friend went to Thomas Coverlie's house between 12 and 1 o'clock on a Friday night (probably the 20th of December) to look in at the window and see if Roger M'Donald was there. As they did not see him, it was evidently thought that some mischief was afoot, because "after that she and others in her father's house fled away to Cornlie with their horses." Cornlie is in Irongray parish, and is about five miles from Bowhouse. The above, I think, shows that the then laird of Terregles was favourable to the Jacobite cause, although he did not join the forces, and it is not wonderful that his sympathies ran that way, for he was the son of that Earl of Nithsdale who was "out" in the Rising of 1715, and who was only saved from a violent death on the scaffold for his part in that affair by being smuggled out of the tower in the guise of a serving woman by his wife Winefred, Countess of Nithsdale. The estate of Terregles escaped confiscation at that time, because it had been conveyed to his son before the Earl took part in the first Rising; but the title was abolished, although among his friends the son, William Maxwell of Nithsdale, who was the

proprietor in 1745, was still known as the Earl of Nithsdale. The fact that the rebels were at Terregles also throws a new light upon a letter written at the time by Mr Maxwell's wife to her mother, the Countess of Traquair, which is published in the second volume of the Book of Caerlaverock. Writing from Terregles on 26th December, 1745, she says—"I dout not but your ladyship would be much surprised to hear of the good company we have lately had in this part of the world, and I'm sorry to say that neither our toun nor country deserved so great an honour;" and later on in the same letter she says—"All our friends are in top spirits, and, thank God, in perfect health, and still seems sure of the grand affair coming to a happie conclusion."

Upon 7th January, 1746, Mr Fergusson again writes to the Duke as follows:-"I wrote your Grace the 28th December an account of the behaviour of the Highlanders here. I observe since they have quite defaced several of the pictures in the gallery by throwing a liquid of some kind or other upon them. I mentioned in my last that I had wrote the 25th December to His Royal Highness the Duke of Cumberland offering to do everything in my power for forwarding his army should it come this way, and that I waited his orders. I sent him enclosed the two letters I got from the Highlanders requiring me to provide quarters for them here. Mr William Kirkpatrick, Sir Thomas' brother, and my father, who were then with me at Craigdarroch, wrote another letter to the same purpose to His Royal Highness. We sent them by Mr William Moody, minister of Glencairn. He was very civilly received by Lord Cathcart, aide-de-camp to His Royal Highness, who told him our letters were very acceptable, and that he would be glad to have seen ourselves. Upon hearing this we thought it our duty to wait upon the Duke, and accordingly Mr Kirkpatrick and I went to Carlisle the 1st of this. It was late before we got there, and as His Royal Highness was to set out for London next morning by three we could not see him. He sent his thanks to us by Lord Catheart, who used us with great civility, and told us it was resolved none of the troops were to come this way, but yet our letters were sent to General Hawley in case he should have use for them while in Scotland. Having heard that several of the gentlemen who had gone to Carlisle from this shire and the Stewartry of Kirkcudbright had waited on General Inglethorpe and assured him of the good affections of the country to His Majesty's Government, and

that everybody would be ready to take arms in whatever shape they should be desired, and hearing among other things the raising of a regiment for six months, or till ye rebellion should be over, of the gentlemen and people in this country had been talked of, we took occasion upon the 2nd to wait on the General with Mr Heron, late Member for the Stewartry, who joined with us in confirming what had been said by others with regard to the affections of the county, but took the liberty to assure him that any scheme of putting this country in arms would be abortive, unless some person of authority to whose directions people of all ranks would cheerfully submit, and in whom they would confide, was proposed to put it in execution, and that none would be so agreeable as your Grace to both these countys; that under your authority we doubted not but they would make as good a figure, but that it was only deceiving the Government to raise their expectations concerning these countys in any other view, as most other persons concerned in them, upon whose affections to the Government the people should depend, were so much upon a level that it could not be expected any one would have authority enough to direct them, so that any scheme which they might attempt must necessarily run into confusion by various and contradictory opinions. The General treated us very civilly, and seemed to take what was said extremely well. For my own part, by the few months experience I have had of the present confusion, I am so sensible of the truth of the above observation that except under your Grace's direction I am resolved to have no further concern in raising the people in arms, unless the Militia are called out in a legal manner; and I can assure your Grace several of the gentlemen here, in whose power it is to do most service in that way, have the same intention. Many people who make a bustle and noise about their good affections to the Government have evidently their own private interests so much in view, and are so intent upon having the merit of anything that is done for its service in the country where they live, that there's no end of proposals, many of which are idle, and no chance of any being right executed otherwise than in the way I have mentioned. Such I can venture to affirm is the present situation of this county, and I think it my duty to write plainly to your Grace in this and everything in which you are so much concerned. May God long preserve you and give you the return of many happy years, and put in your power to be the instrument of delivering

your country from the present dismal situation in which it is. People of all ranks here have shewn so much their zeal to serve His Majesty King George that if the rebels return this way I fear what we have already suffered will appear a trifle in comparison of what we must yet expect.

"About 400 private men and 40 officers were made prisoners at Carlisle. Seven were hanged on the 2nd, and five some days before of those who had been with General Cope, and had listed with the rebels. None of the officers taken were people of any note."

Drafts of the letters written by Mr Fergusson and by his father and Mr William Kirkpatrick to the Duke of Cumberland at Carlisle are also extant, but as the purport of them has already been given, and they contain no important facts, I have not thought it necessary to trouble you with them.

On 21st January the Duke of Queensberry writes a reply, and it seems to have been the only letter sent by him to Mr Fergusson at that time, because this letter and the drafts from which I have been reading are backed up together as follows:—"Letter the D. of Q., January 21st, 1746, anent the rebellion, with copy of some letters of mine to him during the rebellion." The Duke's letter, which was written from London, is in the following terms:—

"I am in hopes that before this time the rebels have mett with their deserts. We receiv'd here yesterday the news of General Hawley's march from Edinburgh towards Sterling, and we are now in daily expectation of hearing of a battle. If the King's troops gain a compleat victory (which God grant they may) the peace and tranquility of our country, I doubt not, will soon be restored, but I am afraid it will take a considerable time to recover the calumitous circumstances brought upon it by this rebellion, which posterity will have difficulty to believe had so small a beginning when the progress and duration of it is considered; lett those answer for that who have trifled with it. The rebels, I never doubted, would do mischief at Drumlanrig when I heard of their behaviour in other places; but I imagined they would behave with rather more discretion when their leader was there. I suppose some of the pictures in the gallery might give them some offence. I suppose King William's picture would not fail of bearing particular marks of their displeasure, but I am glad they have not defaced the pictures with their broadswords,

for those who understand cleaning pictures may probably be able to gett off any liquid that is not of a corrosive nature. However, it is dangerous to lett experiments be try'd on them except by a skilful hand. I want much to know in what circumstances my tennants are now in, and how far they have particularly suffer'd, when any money may be expected, and how much.

"As for the projects of arming the country, I find it impracticable to bring it about in any effectual method. I very early represented the good disposition of the people, and offer'd to employ my endeavours for the publick service, but nothing was thought adviseable but regular forces. I then offer'd to go down and raise a regiment, to be under military discipline, officer'd by the gentlemen of the country; but that likewise was rejected, so I believe it will be hard to devise any method that will meet with approbation."

You will remember that when Mr Fergusson went to Carlisle on 1st January he could not see the Duke of Cumberland, because he was to set out for London early next morning. The reason of his departure was a threatened invasion from France, and Lieutenant-General Henry Hawley led the Government troops into Scotland. The hopes which the Duke of Queensberry expresses in his letter regarding General Hawley were not realised, for he had been defeated at the battle of Falkirk on 17th January, four days previous to the date of the Duke's letter, but the news does not seem to have reaced London when he wrote. The Duke of Cumberland rejoined the Government forces in the end of January, but it was not until 16th April that he joined issue with the Jacobite Army, and defeated it on Culloden Muir. With these latter events, and with the Prince's subsequent wanderings for fully five months among the mountains and seas of the West Highlands, we to-night have no special connection, and I do not propose to enter upon them.

Before closing, however, I would like to say a little regarding Drumlanrig Castle, although it is so well known to most of you that I need not trouble you with any exhaustive description of it. That imposing pile is built in rectangular form round an uncovered square, which is filled up in the centre until it reaches the level of the main floor, on which level it forms a large open flagged court. The main entrance is upon this floor, and is reached from a broad terrace formed in front of the house, and supported upon piers spanned by arches. Access to this terrace is obtained

by two semi-circular stone stairs, which evidently form "the front stair" mentioned in the letter of 28th December, because in the draft the word "front" is interlined, and immediately after the word "stair" the words "upon the front of the house" are deleted, and this was therefore the stair up which, according to Mr Fergusson's statement, the Highlanders "made a shift" to get their horses. The main door opens off the above-mentioned terrace into a corridor, which originally communicated with the inner court by several arches which have now been filled in with glass. Over this corridor was a large apartment originally used as a picture gallery, and I therefore fix upon the corridor as the place "under the gallery" where the Highlanders stabled their horses after getting them up the front stair. The court is now partly occupied by a chapel, but originally it was quite open, and there was a large doorway on the opposite side from the front door entering into an apartment, from the other side of which access was obtained to the garden by a stone staircase. apartment, I think, is the "vestibule" where the sheep were killed, because there was originally adjoining it a large staircase which led to a fine apartment on the next floor, now used as a drawing-room, but which was then probably the main banqueting hall. It is rather difficult to determine what was the "low dining-room" mentioned by Mr Fergusson, but it was probably the room to the west of this staircase, which had originally direct communication with the kitchens. The space occupied by this staircase has now been formed into a service-room, and the vestibule and a room to the east have now been thrown together and form the dining-room, and a room still further to the east is now occupied by the present main staircase. The basement storey is occupied by the kitchen premises and servants' apartments, and there is access from it to all parts of the house by four circular stairs, which ascend at each of the four corners of the inner court. The stair at the south-west angle formed the access from the kitchens to the room which I have indicated as the low dining-room, but the doorway between that room and the stair has now been built up. With regard to the pictures at Drumlanrig, there is a tradition that the Highlanders cut the portraits of King William, Queen Mary, and Queen Anne with their swords and dirks, and certainly these pictures do bear evidence of some slight ill-treatment of this kind, but it is curious that in his letters Mr Fergusson does not mention this fact (if,

indeed, it be true), although he enters into the minor details of tables and chairs, and bed and table linen. All that he refers to is the defacing of the pictures by some liquid or other, and it is evident from their present state that this damage was able to be repaired, doubtless by some "skilful hand," in terms of the Duke's instructions. At Drumlanrig there is a bed which is said to be the one upon which Prince Charlie slept in Dumfries. It is a four-posted bed, made of rosewood; the foot is ornamented with brass fillagree work, and the posts are formed of alternate rings of brass, and tastefully turned rosewood, joined together very probably by an internal iron rod.

16th April, 1895.

A meeting, organised by the Society to welcome one of its members, Mr G. F. Scott-Elliot, F.L.S., F.R.G.S., on returning from Uganda and Central Africa, and to hear from him an account of his travels, was held in Greyfriars' Hall, under the chairmanship of Sir James Crichton-Browne, LL.D., F.R.S., the president of the Society. The hall was crowded by members and their friends. Dr Chinnock, hon. secretary of the Society, read letters of apology from Mr Thomas M'Kie, who is one of the vice-presidents, and Mr Maxwell of Munches.

Sir James Crichton-Browne then proceeded to offer Mr Scott-Elliot a cordial welcome on his safe return to his native country and district from perilous wanderings, and in eloquent terms to eulogise his work. We Dumfriesians were proud of Mr Scott Elliot, and he thought we had good reason to be so. We were proud of him because, although born to affluence, he early determined to "scorn delights and live laborious days." We were proud of him because he resisted the temptation to devote himself to a great commercial career, which was spread out before him, and chose to devote himself to the less remunerative and more arduous pursuit of science. We were proud of him because he had followed out his scientific studies in no dilettante spirit, but with such zeal and assiduity that he had already made his mark upon the biology of the day. And, above all, we were proud of him because, taking his life in his hand, he had gone out into the wilderness amongst savage nature and far more savage men to trace out for us some still undiscovered ups and downs on the crust of this world of ours, some still hidden mysteries in that

film of organic life with which that crust is coated-a film so faint and frail and fragile in comparison to the mass of the globe that it seemed as if, like the bloom on a ripe peach, the merest touch might brush it away and abolish it for ever; but a film that was yet the enduring record of the ages, the supreme revelation of the Cosmos, the line of contact between the seen and the unseen universe. (Cheers.) Mr Scott-Elliot had paid to him in London what no doubt he regarded, and deservedly regarded, as a very distinguished compliment ten days ago, when at the close of his paper read before the Royal Geographical Society that doyen and prince of African explorers, Mr H. M. Stanley, complimented him on the excellence of his work and the modesty of his account of it. (Cheers.) Mr Stanley, of course, did not agree with all Mr Scott-Elliot's conclusions—and he had noticed that no two African explorers ever did agree with all each other's conclusions-(laughter)-but he was unstinted in his praise of the thoroughness of his research. He wished it had been possible that another great African traveller, second only to Mr Stanley -if, indeed, in some respects second to Mr Stanley-himself a Dumfriesshire man like Mr Scott-Elliot, could have been there to listen to his lecture, to criticise it, to extol its powers; he meant, of course, Mr Joseph Thomson. He was sure they all greatly deplored the fact that Mr Joseph Thomson, after apparently recovering from a long and serious illness, had been again prostrated by an attack of influenza and pneumonia, and was now lying at Mentone. They all sincerely hoped that the improvement which was announced would be maintained, and that we should soon see him back in health among us. (Cheers.) Mr Thomson's illness two years ago came at a time when he was about to reap the reward of his great labours, and but for that illness he would now have been occupying a very important place in Africa. It would certainly have been an interesting feature if they could have had Mr Joseph Thomson and Mr Scott-Elliot on the platform together-both African explorers of proved merit, both Dumfriesshire men-and, by-the-bye, Mungo Park was a Dumfriesshire man-and both African explorers of the same type. Both had scientific objects in view; and it was to their honour that their expeditions had been carried out without bloodshed. (Cheers.) We must not conclude that their efforts would have no other than scientific results; for it was men like Mr Scott-Elliot who were doing a great national service by

opening up new outlets for commerce and for our increasing population. Without entering on the thorny and forbidden ground of controversial politics, he might say that one of the most ominous features of the day was the intensely parochial character of our politics as a whole, the way in which the democracy was intensely interested in local matters-in little petty, secondary questions like disestablishment here and local veto or local option there-while it was perfectly indifferent to questions of vital consequence and vast imperial importance. On these small islands we must buy bread if our teeming millions were to live, and in order that we may buy bread we must sell the products of our industry, and in order that we may sell the products of our industry we must have markets to send them to; and as the old markets were being gradually closed against us by hostile tariffs we must find new markets-We must either find new markets, or we must fight to open up the old ones, or we must starve. He did not think the people of this country would starve. He did not think we should have a war of tariffs. Then the real question of the day was the opening up of new markets. Let us find these, and the depression of trade which had been so long upon us would vanish like the morning dew. He thought if the people of Dumfries would insist on the connection with the ocean of the great interior waterway which Mr Scott-Elliot would no doubt tell them something about by the construction of the Mombasa railway, they would do something to bring back the prosperity of the country; and so intimately connected in these days were remote countries that the whistle of the steam engine on the Mombasa railway might be a blythe and cheerful sound in the homes of some working men in Dumfries. (Cheers.) Referring to the personal adventures of the explorer, Sir James said Mr Joseph Thomson, being once asked what was the most dangerous expedition he had ever undertaken, replied, "I believe it was crossing Piccadilly one afternoon at four o'clock in the height of the season." (Laughter.) So perhaps Mr Scott-Elliot might tell them that he was never in such jeopardy in Madagascar or Uganda as he was when he visited some closes in Dumfries and described their smells-(laughter)-for then the tongues of municipal authorities were turned on him like assegais, and the objurgations of owners of property were hurled at him like showers of arrows. (Laughter.) But he had often been in great danger, and had to trust to his ingenuity and resources. (Cheers.)

Mr Scott-Elliot was cordially cheered on rising to address the meeting. Having in a few words expressed the pleasure with which he found himself again in Dumfries, he addressed himself at once to the subject of his lecture. The funds for the expedition, he explained, were granted by the Royal Society of London; and he briefly sketched his route. This was from Mombasa, which he left on 9th November, 1893, to Lake Victoria Nyanza; thence across Uganda to Mount Ruwenzori, his objective point. This was reached on the 1st of April-a most inauspicious day, remarked the lecturer. On the return journey he passed down the interior, by Lakes Tanganyika and Nyassa, until he reached the coast at the mouth of the Zambesi. He gave a suggestive glance at the duties of the leader of such an expedition, who, in addition to his scientific observations, had to take his company of Swahili porters under his wing as if they were a large family and he the father, mother, and schoolmaster combined. One of the incidents of the outward march was the encountering of a body of Masai warriors, who proved very friendly, and subsequently falling in with one of their great encampments, it being the practice of the tribe to stay with their flocks and herds for about ten days in one place, and then move on to fresh pastures. Some of the young women, he mentioned, were almost unable to walk on account of the number of rings which they wore on their arms and legs. The Uganda plateau, with its small rolling hills and frequent marsles, and Ruwenzori (which he ascended to a height of 13,500 feet), with its three distinct zones of vegetation, were described in some detail; and an account given of the persecution to which the timid tribes inhabiting the land to the west of the mountain have been subjected. He observed that two Europeans with a force of perhaps 150 native soldiers, at an expenditure of perhaps £1500 a year, would bring peace and prosperity to the whole of the tribes around that mountain. That would not be a large sum for a nation like our own to spend; and the country which would thus be secured contained a great expanse of rich virgin soil, covered with dense forest, and having a permanent and abundant water supply. Mr Scott-Elliot bestowed a good deal of attention on the river Kagera with the view of determining how far it is navigatable and therefore available as a connecting link between Tanganyika and the Victoria Nyanza, into which it flows. He found it navigable to a point about forty miles from the head of Tanganyika; and he pointed out that, making use of the chain

of lakes, the Kagera and the Nile, you would have a water way from the mouth of the Zambesi right to Cairo, interrupted only by land carriage for a very short distance. It had been his ideal for many years to see the country inside that chain entirely in the hands of England, Italy, and Egypt. The German territory might safely be left out of consideration, because if the Germans did succeed in colonising it, they were on the whole friendly to ourselves. He saw no reason why this enormous stretch of Africa, practically one third of the continent, should not be given up to British enterprise. (Cheers.) He was not against a railway to Mombasa by any means, if he could see any prospect of one being constructed; but the cost was estimated at three and a half millions sterling. As far as he had been able to calculate it the series of steamers and railways which were necessary along the route which he had indicated would cost very much less; and whereas the railway from Mombasa would only open up our own possessions, this route would open up the whole continent, and practically it would destroy the slave trade. (Cheers.) In the district of Bugufu, which had not before been visited by a European, Mr Scott-Elliot was regarded as a person who had descended from the gods, and treated with becoming honour; but in Burundi he had a different experience, frequently feeling himself in great danger from the large troops of armed men who persistently accompanied the little party of forty under his care, and experiencing also great difficulty in obtaining food supplies. Of the Ullambzene, Kikuyu, and Masai country, stretching from 250 miles of the coast to a few miles of the Victoria Nyanza, the lecturer spoke highly as a field for colonisation, being healthy, extremely fertile, and of enormous extent. It was destined in the future, he thought, to be a British colony, of perhaps the same importance as Cape Colony and Natal Regarding the countries bordering the Victoria Nyanza, he observed that we had here a tremendous market and a very excellent prospect of a good supply of the products which we wanted. Surely, then, it was our duty simply to take what was offered to us; but by some curious kind of timidity the Government were said to have publicly declared that they would confine themselves to Uganda, leaving out altogether Usoga, Kavirondo, Toru, and Unyoro, well peopled, fertile, rich countries, all of which are subject to Uganda, and could be kept up at very little more expense than would be incurred in keeping up

Uganda; and the people themselves were very anxious to be under European protection. Another thing which made one very unhappy was that there seemed to be some arrangement by which the Belgians were to get territory to the north. They had done nothing to deserve it, and there was no reason why we should give to the Congo Free State or the Belgians a portion of our future line of communication. The lecturer also deprecated the continuance of Arab influence in the government of that region by managing it through the Sultan of Zanzibar. Coming down to the south of Lake Nyassa, Mr Scott-Elliot said he would recommend the country along the Stevenson Road, along with the one mentioned on the Victoria Nyanza, as well adapted for European settlement. It was healthy, and one could buy at present as many acres as you pleased for a pocket handkerchief.

A series of photographs of natives and views of scenery were then thrown upon the screen; and a number of weapons and articles of native manufacture were on view.

Mr Maxwell, M.P., proposed a hearty vote of thanks to Mr Scott-Elliot for his lecture.

10th May, 1895.

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

New Members.—Messrs J. J. Cowan, Eliock, Sanquhar; John Davidson, Crichton Institution; Robert Gordon, London; Matthew Jamieson, Craigelvin; Walter H. Scott, Nunfield.

Donations.—Report of the Berwickshire Field Club, 1893; Stirling Natural History and Archæological Society's Report, 1894.

Exhibits.—Mr George Neilson exhibited a document belonging to the borough of Annan, dated 1612, being a renewal by James VI. of the Charter granted by his grandfather, James V. This document, Mr Neilson assumes, may have been used in a process and been misplaced, so that it got into other hands than those of the rightful owners.

COMMUNICATIONS.

1. Notes written in the Forest of Ruwenzori, Uganda.

By George F. Scott-Elliot, M.A., F.R.G.S.

What are the chief characteristics of a humid forest such as one

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finds in tropical climates? Let us take, for instance, the cloudforest of Ruwenzori, where these thoughts first came to my mind. Almost every day the moisture derived from the lower-lying lands and swamps hangs as a thick mist or cloud over the mountain side from 7400 to 8600 feet. When one enters this forest one is struck by the abundance of ferns. The most lovely sprays of maiden-hair hang from the banks, and ferns of all kinds, from the tall branched frond five feet high to the tiny filmy fern on the under side of a moss-covered rock, or the tongue-like forms cover ing old mossy and half decaying trees, abound everywhere. One is next impressed by the English character of some of the plants. A graceful meadow rue grows everywhere, and sanicle is common all over the forest. There is also a very English cerastium and others which are near our own familiar forms. After this, one is, I think, most impressed by the enormous number of climbers. They are of all sorts. Some are scarcely true climbers, but seem to have been carried up by mistake, so to speak, with the growth of the trees on which they depend. Where the natives have cut away some of the trees it is usual to find a solitary trunk with a screen of inextricably mixed climbing plants, forming a sort of bell round its stem. The next thing that strikes me is the darkness, and the rarity of insect life. In an ordinary forest the paths are alive with gorgeous butterflies. Slender-waisted hornets and dragon flies are always hovering about, but here it is all dim light and silence. A peculiarity of the leaves cannot fail to impress one. They are large, sometimes enormous, and almost invariably take on a cordate shape. They are also thin and membraneous, not thick and hard. There are very few thorny plants in the forest. There is the inevitable smilax, and one or two plants which have long branches and thorns, by which these latter are supported, but this is unusual. One also cannot fail to be struck by one or two composites, senecios and veronias, which have become trees with trunks six inches or more in diameter Thus in this forest we have to explain the following curious features-first, the abundance of ferns, the English character of the plants, the quantity of climbers, large thin cordate leaves, and some forms becoming trees which are usually herbs. Some of these are very easy to understand-thus, the dim light and humid atmosphere are exactly what ferns delight in. Some say that this sort of atmosphere and light was the climate of the primordial age in which plants took their orders, and certainly

all over the world ferns (cryptogams, &c., lower in the scale than flowering plants) are chiefly found in it. The English character is very interesting. To find a thalictrum under the line means that at some time a chain of European climates, perhaps as mountain tops, extended from Europe to Central Africa, or that by some extraordinary shifting of seas, or of the earth's axis, a temperate climate extended all over Africa north of the Equator. Of course one may say that a bird in its migration brought these seeds, and that, the climate being favourable, they grew and flourished. The other characteristics are more interesting to explain. If one grows a plant in the shade the effect of moisture and the absence of light is to produce a long drawn out stem and distant leaves; thus a daisy grown in wet shade will produce a long stem with leaves scattered along it instead of a tuft of leaves. Now, such a long drawn out stem, the top of which will (in accordance with known laws of growth) rotate, is simply nothing but an embryo climber, and hence we can understand how so many plants have taken in the climbing habit, and many others by growing long branches are caught and upheld by other plants, are, of course, directly induced to do this by the same reason. This climbing habit is one eminently suitable to a forest, and thus Nature has directly produced the most favourable form. The cordate form of leaves is one most often associated with climbing plants, and seems to depend on the length of the petiole and the hang of the leaf, but the explanation of this form has not been given as yet. The large, thin, membraneous character is, however, directly produced by the absence of strong sunlight, which, by forming a strong cuticle outside the leaves, prevents its extension. This thin, membraneous character and large size, as well as the length of the internodes, are again all directly favourable to the conditions, for the light is very diffused, and the larger the leaf the more it will catch. The object of the leaf is not to avoid being scorched, as in a sunny climate, moreover, the more spaced the leaves the less they will interfere with one another. The trees senecios and veronias have simply taken to forming tree stems instead of cliu:bing stems like their relations (millanias, &c.). There are few thorns, probably because a cold, wet climate is unfavourable to their production, just as a hot, dry climate tends to produce them in the most unusual orders of plants. There are also very few antelopes or leaf-feeding beasts of any kind, so far as I know.

Another characteristic is the tendency of the flowers to become a white or pale colour, and often of very large size, while they are usually few in number. The pale colour is, of course, due to the absence of strong sunlight, and is again an instance of the peculiar way in which Nature works, for this colour is most conspicuous in the dimness, and is the best the plant could possibly choose. The same may be said of the large size. It is certainly true that many trees have small inconspicuous flowers, but these are fertilised by the small sorts of insects that thrive everywhere, and are unaffected by climate. I mean that some members at least are found everywhere. There is, however, an absence of the brilliant colours and dense spikes which are found in dry, sunny places, where bees, hymenoptera of all kinds, and hoverflies are found. These latter insects are remarkably absent in this forest, probably because the chill, moist atmosphere is bad for their wings. The most extraordinary feature of all is that in so many respects Nature by climate produces exactly that form best suited to thrive in that particular climate, and in almost all cases we cannot trace any connection between the two. I mean the fact that a dim, humid climate produces a drawn out stem, has no connection (visible) with the fact that a climbing plant is well fitted to thrive in such a place.

2. Food Plants-The Cereals.

By Mr PETER GRAY.

The principal grasses cultivated as bread plants by the more civilized races of mankind are four in number—wheat, barley, rye, and oats. Of these the wheat plant, Triticum sativum, is the most important. There are three species, or more properly perhaps sub-species, of Triticum grown in Europe—Triticum sativum, turgidum, and durum. The first includes nearly all the cultivated varieties grown in this country, over a hundred red and about half that number of white wheats, so named from the colour of the grain. The turgid wheats have a bearded spike, but being best adapted for earlier climates, they have not been much cultivated in Britain. The ears of the third division are also bearded, and usually very short in proportion to their breadth, with a remarkably hard grain. They are grown chiefly

in the Levant, and cooked in the same manner as rice. Four other sub-species not grown in England are *Triticum Polonicum*, called Polish wheat, although probably of African origin; *Triticum amylleum*, starch wheat; and *Triticum monococcum*, one grained wheat.

The sub-species of oats (Avena) cultivated for grain are four in number, of which the most variable is the common oat (Avena sativa), some fifty varieties of which are grown in Britain, most productively in the northern or more elevated parts. The others are the Tartarian oat (Avena orientalis); the short oat (Avena brevis), grown almost exclusively in the most mountainous districts of France and Spain; and the naked oat (Avena nuda).

Barley, besides being probably the oldest, is the most widely cultivated of the cereals, its tillage extending from the tropics to northern Norway and Siberia, accompanied in boreal extension by the oat, which, however, does not reach quite so far north. In the extreme northern county of Scotland the eastern coast is richly manured with the abundant offal of the herring fishery, and there where wheat will not ripen, luxuriant crops of barley are grown, nearly altogether utilized in the production of the cup that cheers, but also inebriates, the Caledonian Celt, and the Circean charms of which his southern compatriots are not always able to resist. Barley may be divided into four sub-species—Hordeum vulgare, four-rowed; Hordeum hexastichon, six-rowed; Hordeum zeocitron, fan or battledore; and Hordeum distichon, two-rowed or long-eared barley.

Rye (Secale cercale) was once extensively cultivated in Britain as a bread corn. It is, however, now almost discarded here, but on the continent, especially in those parts of Russia and the adjacent countries which are unsuited for growing wheat, it still furnishes almost the only bread eaten by the inhabitants, and which, though less nutritious than that made from wheat, is found to keep longer. It is also employed as a substitute for coffee.

The tracts in the northern hemisphere in which the four cereals under consideration can be grown have irregular boundaries, modified by local conditions, like the thermal zones. North of the breadline, as Schouw terms it, lie the polar countries, where dried fish takes the place of bread.

The highest of the cereal zones in Europe is, as has been already indicated, that of barley and oats, which extend from

70 deg. (north latitude) to 65 deg. in Scotland, in Ireland to 52 deg.; the north and south limits of this zone being determined according to the varying distances of the sea.

The zone of rye occupies the greater part of Europe north of the Alps; but on the west side wheat is the predominant breadstuff.

The zone of wheat extends from the boundary of the zone of rye (50° to 58° north latitude) southwards to the African desert, including, besides Great Britain and France, the whole of southern Europe and the north of Africa.

Rice (Oryza Sativa) supplies food to a much greater number of the human race than any other cereal. Throughout China, India, and many other regions of Asia and of Africa, it forms the principal and almost the only food of the people. It is less nutritive than any of the cereal grains. About 40 or 50 varieties of rice are known and cultivated. Rice is a marsh plant, and can only be successfully grown where the ground may be inundated during the early period of its growth; it requires also a higher temperature than the others, excepting maize. Its highest northern limit in Europe is Lombardy, where maize is also grown.

Maize or Indian corn (Zea mays) ranks next to rice in the number of human beings it feeds. Systematists make of the genus to which it belongs five species, all of which are natives of South America. Indian corn is now cultivated in every quarter of the globe. It is largely consumed in England, nearly four millions of quarters having been introduced into this country annually in the beginning of the current decade, and there has certainly been no diminution since. Polenta or maize meal porridge has become almost the national dish of the Italian peasantry. Maize is considered the most fattening of all the cereals.

Besides these staple grain-producing grasses, there are a number of others, scarcely, if at all known in England, which furnish food to populous communities abroad. Among these are several species of Holcus. The seeds of Holcus succharatum, somewhat extensively used for sugar-making, are eaten in Africa under the name of dochna. Holcus Sorghum produces a grain largely employed as food in Africa and other countries under the names of Guinea corn, duna, and Turkish millet. It has been employed in this country for feeding poultry. In the Soudan the German naturalist, Werner, found this grain with stalks fifteen and twenty

feet in height, and standing so close that it was difficult to force a way between the stalks. The yield was fifteen and eighteen fold.

A species of Eleusine is cultivated in Japan and some parts of India as a corn crop. Panicum miliaceum (Indian millet), Panicum pilosum (Chadlee), and Panicum frumentaceum are also cultivated in India, yielding a nutritious grain. Paspalum exile produces fundi, or fundungi, the smallest known grain. The grains of Pennisatum dichotomum, another grass, are used in the same region as food under the name of Kasheia. The Abyssinian corn plant, teff, is known to science as Poa Abyssinica. German millet is produced by Setaria Germanica, and Italian millet by Setaria Italica, both largely used as food. The seeds of Zizania aquatica are popularly known in Canada as swamp rice, a serviceable grain. Glyceria or Poa aquatica (Manna grass) is a singular example of the seeds of a wild grass used as food. Sir William Hooker, in his "British Flora," tells us that they are gathered abundantly in Holland, where as well as in Poland and Germany, they are used as food, and he quotes de Theis as having "seen the Polanders in the suite of King Stanislaus gather them with great care on the banks of the Meurthe."

With all this the list of cereal grasses is not nearly exhausted; indeed, with one or two exceptions, the seeds of all the species of the numerous natural order of Gramineæ are edible, the only apparent obstacle to the profitable cultivation of the plants that produce them being their diminutive size, which might probably be increased by cultivation.

But a notice, however brief, of the food products from the cereals would be incomplete without a reference to some of the beverages they furnish, several of which are of great antiquity. For some reason, religious or climatic, the vine was not cultivated in ancient Egypt, although in modern times at least it is extensively grown in Nubia. The Egyptians, according to Herodotus, used a substitute made from barley, a sort of beer. In other parts of Africa malt liquor of one kind or another is brewed by the natives from some one or other of the cereal grasses. The seeds of Holcus Sorghum are used in Africa in the manufacture of a kind of beer, bearing the appropriate name of bouza. Barley, we all know, is extensively employed in this country in the manufacture of beer as well as whisky. From rice a spirit is also distilled in the east, generally known as arrack,

although that name is more correctly applied to a spirit distilled from the palm, known also as toddy. Quass, or rye beer, made from common rye (Secale cercale) is a favourite drink in Russia. In Sikkim a kind of beer, which is in common use among the natives, is made from Eleusine coracana, a species of millet. The Tartars also prepare a kind of beer from another plant of the same genus, styling the beverage bouza, and the Abyssinians make a similar drink under the same name from Poa Abyssinica.

Beer is of ancient origin among the northern nations. Mum, a word which still occurs even in modern excise acts, is the name of a species of that liquor still made in Germany. It was a favourite Anglo-Saxon drink, and probably only partially fermented, like that used in Orkney, which is prepared in open vessels. A beer, also most likely of this class, was, according to Tacitus, the chief beverage of the ancient Germans. When the Ten Thousand in their famous retreat were quartered in the mountain villages of Armenia, they found, Xenophon tells us, "beer in jars, in which the malt floated level with the brims of the vessels, and with it reeds, some large and others small, without joints. These, when anyone was dry, he was to take into his mouth and suck. The liquor was very strong, when unmixed with water, and exceedingly pleasant to those who were used to it."

The practice of distillation is probably less ancient than that of fermentation; but the Arabians, from a very early period, and, later, Greeks and Romans, prepared aromatic water by this process. The ancient Egyptians, near neighbours of the Arabians, and skilled in all arts, prepared a liquor upon which a Roman Emperor, the philosophic Julian, wrote an epigram,* and which, from the description, must have been some kind of corn spirit.

^{*}This epigram of Julian, probably written when he was Casar in Gaul, is found the Anthologia Palatina, vol. ix., 368. It was given by Erasmus in his "Adagia," with a very poor Latin translation. As it has not been hitherto rendered into English, I here append a translation:—"To wine made from barley. O Dionysus, who art thou and whence? for I swear by the real Bacchus I do not recognise thee. The son of Zeus alone I know. He is redolent of nectar thou of porridge. Verily, the Celts have made thee from ears of corn, through lack of grapes. Therefore we ought to call thee Demetrius, not Dionysus, Pūrogenes (wheat-born), and Bromus (a kind of oats), not Bromius." Evidently Julian was not a bad punster. To understand the puns it is necessity to remember that Bacchus or Dionysus, the god of wine, was called Pūrogenes (fire-born), and that he is often called Bromius (noisy). Demetrius means belonging to Demeter, the Greek name for Ceres.—Edding.

If, in one direction more than another, the ingenuity of mankind has been exercised in seeking out many inventions, it is in that of beverages, even more than in foods. Their name is legion. Chemists tell us that we may make whisky out of an old shirt, and, short of that, almost every vegetable substance has been utilised in the manufacture of drink. The fermented juice of the grape is the most ancient as well as, when containing no more alcohol than the natural product of fermentation, the most wholesome and the safest of all. Other fruits—the apple, pear, cherry, orange, &c .- furnish savoury and more or less stimulating beverages. Leaving out of view tea, coffee, cocoa, maté, and other simple vegetable infusions, with ginger ale and the other depressing beverages of its class, we find the South American Indians making a highly intoxicating drink from the juice of a species of aloe, the East Indians an alcoholic liquor from the sap of the palm, and the nations of Northern Europe another from that of the white birch. Brandy is distilled from the grape, rum from molasses, and mead, "the pure beverage of the bee," the nectar of the heroes of the Valhalla, is brewed from honey. The South Sea Islanders prepare ava or cava from the large rhizomes of Macropiper methysticum, a species of pepper, in apeculiarly repulsive way. The old women sit round a tub-the cava bowl-there is one at Kew as big as a canoe, chewing the root and spitting it into the tub. When enough has been masticated water is added, and the mixture well stirred. It is then handed round to the guests. The Kamschatdales intoxicate themselves with a very poisonous fungus, a variety of Amanita muscaria, an infusion of which in milk is used in this country for killing flies. The usual way of taking it is to roll it up like a bolus and swallow it without chewing. One large or two small fungi will, we are told, produce a pleasant intoxication for a whole day, particularly if water be taken after it, the desired effect coming from one to two hours after swallowing the fungus. Steeped in the juice of vaccinium uliginosum, also a British plant, its effects are like those of strong wine. Wood betany, a rare plant in Scotland, but found sparingly in this district, is, when chewed, slightly intoxicating. It was formerly much used in medicine, but it is discarded from modern practice. Notwithstanding this neglect, it is, Withering says, not destitute of virtues, among which he instances that of being intoxicating when fresh.

Old Annan. By George Neilson, F.S.A., Scot. Origin.

The ancient and royal burgh of Annan has few prehistoric memories; its past becomes impenetrable in the 12th century. Its earliest inhabitants have left no reminiscences in flint arrows, bronze spears, or funeral urns. No storied altar, no memorial of the dead attests a Roman settlement. Some places have their chronicle in stone, their history in their buildings, but Annan has no antique architecture. The Moat is its sole ancient monument. Archæology, apart from records, can do little to raise the old place and people from the grave. But a fragmentary memory has been conserved in charters and musty histories, wofully incomplete, except for imaginations which can build up Hercules from his footprint. The records pieced together, with many a void between, make but a meagre outline far too faint to bid the past return in "bannered pomp" again.

The town arose, we know not when, on a gentle slope swelling slowly to south and east and north, whilst the unbridged river, fordable above and below, kept ceaseless watch upon the west. Fertile fields lay round, rich pasture holms were spread below. The river was more than a river—twice a day it was an arm of the sea, and both the Annan water and the tide of the Solway yielded a harvest not less surely than the fields.

As a place-name we may be sure that the river had the priority, that Annan town was so called from Annan water. This appears to have been the case in a few other instances in Scotland. The absolute identity of town-name and river-name is, however, a relatively rare thing. What Annan as a word means no one can tell. There are no collateral examples sufficiently similar, and Celtic etymology, unsupported by parallel cases capable of something like proof, is a mere Will-of-the-wisp. We can guess with some measure of probability that Lochmaben either means the loch cluster, or the loch of Mabon—that Arthurian shade. We know that Lockerbie—spelt in 1198 Locardebi*—derives its name from the family of Locard, which, for a time represented in the court of the early Bruces, ultimately took root in Clydesdale. Ecclefechan is called after an Irish saint. But Moffat and Annan are both unsolved, and to all intents insoluble puzzles.

^{*}Bain's Calendar of Documents relating to Scotland, i. 2666.

It is true that Celtic etymologists long ago explained the words to their own satisfaction, but they could have explained Nebuchadnezzar on similar principles with as little difficulty.

II. Earliest Charter References (After 1124).

Soon after 1124 when David I. gave Annandale to Robert de Brus, he granted* to him "that land and its castle" illam terram et suum castellum.† There is doubt whether this refers to Lochmaben or to Annan, but the latter town has a reasonable claim. There is evidence from an English source that the castle of "Anant" (castellum de Anant) was held ‡ by William the Lion in 1173 in his war with Henry II.

Numismatists § tell us that under Alexander II. coins were minted at Annan. Their proof, which is by no means so strong as to exclude robust scepticism, exists in silver. Stamped on one side with the words "Johannes on An" and "Tomas on An" to indicate first the coiner and second the place of issue, || these Annan pennies, as they are called, bear on the other side the effigy of Alexander II. In the 13th century charters we see public courts held at Annan; the land is measured and conveyed by carucates and oxgangs; granges and areas and tofts are specified; the town is referred to almost always as a vill; the gallows, that stern symbol of justice, is mentioned; a constable and a clerk are alluded to; and we hear of townsmen bearing names still known—such as Johnstone, Skelton, and French.

It is a little odd that no great cathedral or monastery was ever raised within the bounds of Annandale. Robert de Brus founded

^{*} National MSS. Scotland, Vol. i. No. xix.

[†]Castellum at that date was most likely to mean not a castle but a fort. For instances see Round's Geoffrey de Mandeville, 328-346, and—applied to Carlisle Keep—my article in Notes and Queries, 8th series, viii., 321.

[‡]Benedictus Abbas (Rolls Series), i. 48. See also Palgrave's Documents and Records, i. 77, and Bain's Calendar, ii., p. 117. The fragment in Palgrave is evidently to much the same effect as Benedictus Abbas, and does not, I think, convey the meaning Mr Bain has taken from it that King Henry had possession of the fortress.

[§]Cardonnel's Numismata Scotiae, p. 44, plate 1. Cochran Patrick's Records of Coinage of Scotland, introd. p. xliv.

[&]quot;'An," thought to be a contraction for Anand.

TDetails shewn by these documents are beyond the scope of this paper. Charters referred to will be found in *Bain's Calendar*, i. 606 (of late 12th or early 13th century), 704 (about 1218), 1763 (about 1249), 705, 1680, 1681, 1685 (of about 1260-1280). As regards these last dates, see *Scots Lore*, 129-130.

the Priory of Guisborough in 1119, and the Brus family* in Annandale, as elsewhere, reserved their generosity for that house. Otherwise Annan might have become the seat of a bishopric or great monastic institution.

III. St. Malachi's Curse (1148).

One ancient legend breaks the monotony of the earliest annals of Annan. Its narrator† was the writer of the Chronicle of Lanercost,‡ believed to have been a Minorite Friar of Carlisle.

Malachi O'Morgair, a renowned Irish bishop of great sanctity, afterwards canonized, was passing through Annandale on a journey towards Rome. Probabilities point to 1148 as the date. On his way he paused for rest and refection at Annan, which the chronicler tells us was a small town, the capital of the district, Anandia capitanea illius patriae villula. Inquiring where he could best seek hospitality he was directed to the hall (aula) of the lord of the place, Robert de Brus, son of the original grantee of Annandale. A robber was on the point of being hanged. On this coming to St. Malachi's ears as he sat under the Brus's roof, he said to the Brus that the judgment of blood had never yet desecrated his presence, and he claimed as a pilgrim that Brus should grant him the malefactor's life. To this Brus, by a nod, seemingly consented, but quietly went outside and ordered the thief to be hanged there and then. When St. Malachi resumed his journey he saw the dead body dangling on the neighbouring gallows. The saint had, before setting out, invoked a blessing on the Bruce and all his house. This spectacle caused a revulsion of feeling; the blessing was revoked and a curse denounced instead. This strange narrative, whilst incidentally styling Annan a city, adds the remarkable observation that in consequence of the saint's malediction not only did the descendants of Brus long suffer a blight but the town itself, Annan, "lost the honour of a burgh."

The miraculous element in the story concerns us little here, but it is too interesting to be passed without notice. The curse of the saint the chronicler assures us, lay on the line of Brus for several

^{*}See this remarked upon in Guisborough Chartulary (Surtees Society),

 $^{^{\}circ}$ TThe story has been dealt with in detail in my article, entitled " Saint Malachi's Curse," $Scots\ Lore,\ p.\ 124.$

[†]Chronicon de Lanercost (Maitland Club), 160-161.

generations until, indeed, the accession to the lordship of Robert the Competitor, grandfather of King Robert the Bruce. The Competitor appeased the indignation of the injured bishop, atoned for the offences of his ancestor, "for ever made his peace with the saint, and provided a perpetual rent, from which three silver lamps with their lights are maintained on the saint's tomb." So said the chronicler, and his veracity has been singularly confirmed by the discovery of the actual charter* granted in 1273 by Robert de Brus to the monks of Clairvaux—ad sustinendum luminare coram beato Malachia—for the lights of St. Malachi's shrine.

This curious tale merits respectful consideration. logist cannot fail to see in it a narrative containing no improbability either in the nature of the claim to a kind of sanctuary privilege put forward by the saint,† or in the events which followed the deception alleged to have been practised by the Brus. And he will rightly insist on the Clairvaux charter as a triumphant corroboration. For the student of Annan's municipal history, however, a special interest must attach to the chronicler's allusion to that town first as a city (civitas), and subsequently as having forfeited the honour of a burgh—villula quae burgi amisit honorem. Written about 1346, what did that sentence mean? Did it convey the fact that Annan was then not a burgh? Did it in the same breath register another fact that Annan had once possessed the full burghal standing. The status of Annan of old. and the date and circumstance of its constitution or erection as a royal burgh, are problems of historic interest. Strangely enough the curse of St. Malachi ranks as a not inconsiderable factor in the issue

IV. The Church—St. Mary of Anand.

That Robert de Brus, who incurred the curse of St. Malachi, had in 1141 succeeded his father, Robert de Brus, in the lands of

^{*}It is printed in "O'Hanlon's Life of St. Malachi" (1859), p. 194, also in Scots Lore, p. 127.

[†]A similar right was granted to and exercised by more than one religious body in England. See Bingham's Antiquities of the Christian Church, book ii., chap. 8; Chronicon Monasterii de Bello, 1846, p. 24; Adam de Murimuth (continuation), p. 199, ed. English Historical Society; Gale's Scriptores XX., p. 320, Magna Vita Hugonis (R.S.), 277-279, preface lxxii.

Annandale, if, indeed, he had not been given possession* by 1138. Between that time and the middle of the century he received; from the Bishop of Glasgow a concession of the bishopric's lands of "Stratanant" or Annandale. A little later the church of "Anant" with others in Annandale was granted to the monastery of Guisborough—the church of St. Mary of Guisborough founded as we have seen by the Brus family in 1119. The confirmation of this gift by William de Brust is still extant, & ratifying the donation which his father, Robert de Brus, had made. The date of the original grant to Guisborough is uncertain; possibly it was near 1171,1 not far from the time when across the Solway Hugh de Morville was similarly founding the church of Burghon-Sands, which perhaps, as will be seen, it architecturally resembled. To about that date, at least, the erection of the church of St. Mary² of Anand is to be assigned. The grant to Guisborough was frequently confirmed.3 The relations, however, between the canons there and the bishops of Glasgow led to controversies, one stage of which was ended in 1189 by an agreement ratified by King William the Lion. 4 Another and larger question was adjusted in 1223 by arbitration. In terms of the arbiters' ruling, the Canons on the one hand granted 5 to the Bishop of Glasgow and his successors the ordination and collation—the rights of patronage-of Annan Church. On the other hand, the decree determined that the teind sheaves of corn of Annan Church were to go to the canons for their own uses, whilst all the other profits (with the exception of 3 marks a year to sustain the church lights) were to go to the rector for the time for his uses. This was modified in 1265 when, "on account of the intolerable deficiency of the rector's portion" the canons granted an augmentation to it

^{*}Dugdale's Monasticon (1846), vi., 267.

⁺Bain's Cal., i., 30.

[‡]Lord of Annandale, 1191-1215.

[§]Guisborough Chart., ii., 1176.

Nicolson and Burn's Cumberland and Westmorland, ii., 219.

²For this name see Bain's Cal., i., 1681.
²William de Brus's confirmation (Guisb. Chart., ii., 1176) was confirmed by William the Lion (*Ibid.* ii., 1177); other confirmations were by Robert de Brus tertius (*Ibid.* ii., 1178), by Robert de Brus quartus the competitor (Ibid. ii., 1179), and by Robert de Brus his son, father of King Robert (Ibid. ii., 1180).

⁴Guisb. Chart., ii., 1183, 1182; Bain's Cal., i., 197; Registrum Glasg., i., pp. 64-65.

⁵Reg. Glasg., i., p. 107.

⁶ Guisb. Chart., ii., 1185, 1184; Reg. Glasg., i., p. 105.

⁷ Guisb. Chart., ii., 1188.

of forty shillings a year. Arrangements were made at the same time, specifying the conditions of payment, and it was expressly acknowledged that the rectors were ecclesiastically subject to the bishop. The adjustment so effected was long the actual basis of things, and was the subject of repeated ratifications.* In 1273, the Bishop of Glasgow transferred his rights to the dean and chapter of his diocese. In 1275 the rectory was returned; in Bagimond's roll as worth £4 a year. Robert de Brus, the Competitor, manifested the family's hereditary generosity by a gift to the canons of a meadow near the grange or barn in the fields of the vill of Annan-in campis villa de Anandia; a phrase plainly suggestive of a community with considerable common fields-towards the south, of which meadow for a time the canons by their procurator had been his tenants, at a rent of two shillings a year. With the confirmation of this grant by his son Robert, father of King Robert, the charters of the Annandale family of Brus to Guisborough appear to terminate, although it is impossible to avoid thinking that after the accession of King Robert the ancestral connexion of the dynasty with the monastery may have preserved¶ to the latter its Annandale possessions, longer than usual in similar cases, from the wrench caused by the war of independence.

V. Progress and Status (1296).

As the 13th century drew to a close, Annan's days of peace were rapidly running out. It will be well to consider the status of the town in the height of the long prosperity which international warfare was so soon to blast. The mention of Annan as a city was dismissed with a smile. The chronicler cannot have used the word in any technical sense. That he employed it to denote a considerable community is, however, an essentially reasonable, and indeed necessary, proposition. The facts already given, the castle or hall, the supposed mint, the varied indica-

^{*}In 1265, 1273, 1300, and 1330. Guisb. Chart., ii. 1188.

[†]Reg. Glasg., i., p. 186.

[#]Reg. Glas., i., pref. lxv.

[§]Guisb. Chart., ii., 1181.

^{||}Guisb. Chart., ii., 1180.

This is strongly suggested by the confirmation of 1330 above referred to.

tions of the charters—these are decisive to show that Annan, usually denominated a "vill" or minor town, was before the last decade of the 13th century of very respectable size and importance. But, will be asked, was it a "burgh"—that word so complex in meanings, and so hard* to define? Both Annan and Lochmaben were called "burghs" in 1296, although under circumstances† apparently implying that royal burghs they were not. The rents of them then belonged to Brus, not to the Crown. Their tenure seemingly was from Brus, not from the king. Still, Annan must have been a goodly town when the first brunt of warfare fell upon it. Then the clouds darkened over its fair prospect of progress—clouds which, save for a brief interval, were not to lift for long. With this outlook, ends the first period of Annan's history, its epoch of peace.

VI. The beginning of the War (1295).

Symptoms of coming tribulation manifested themselves before hostilities began. Robert de Brus, Lord of Annandale, and father of the future king, occupied an ambiguous position. He had hopes from the English King, and self-interest did not in those days help a man to be a patriot. In the national crisis when the stern Plantagenet was on his way north, the Scots Parliament declared that not only the partisans of England, but also all time-servers and neutrals, were public enemies and traitors. Their lands accordingly were confiscated. Brus maintained his attitude of neutrality, and therefore suffered the threatened penalty. When the conqueror of Wales was on the march for Scotland, it was no time for patriotic Scotsmen to stand upon ceremony regarding the formality of a confiscation. Annandale was granted to John Comyn, Earl of Buchan, who took possession of Lochmaben Castle. Walter of Hemingburgh, an early English historian, was a canon of Guisbrough. As we have seen, the teinds of several Annandale parishes, including Annan, belonged to his monastery. He tells that Buchan entered into possession of the Brus's lands; ‡ and he adds, with a special personal interest in the matter, that "he caused to be carried off and forcibly retained without payment all our teinds of said lands for the munition of Lochmaben."

^{*}Pollock and Maitland's History of English Law, i. 653.

⁺Bain's Calendar, ii., 826.

[#]Walter of Hemingburgh (Eng. Hist. Soc.) p. 90.

The Scottish warlike preparations came to nothing. The spoliation of Guisbrough teinds was probably the first visible sign in Annan of the gathering trouble. The war of independence broke out in 1296. Carlisle was assailed, but with ill-success, by the Scottish earls. In revenge, Berwick was stormed, and with pitiless severity its inhabitants slain. At Dunbar the Scottish army, and with it all apparent hope of freedom, was crushed.

VII. The Battle of Annan Moor (1297).

In 1297 the fury of the war storm first broke on Annan town. Wallace, by his victory at Stirling Bridge, had roused the flagging spirit of his country; he had swept the English before his impetuous energy; castle after castle fell, and their garrisons fled. In a few short weeks he had redeemed the honour and liberty of the nation. He even carried the war into the invaders' territory. Though repulsed at Carlisle, he left a trail of ruin behind him from Cockermouth to Newcastle-on-Tyne. But at Christmas time* Sir Robert Clifford, a gallant soldier in command of the garrison at Carlisle, crossed the Solway-the great ford near the Lochmabenstane, adjacent to the convergent mouths of the Kirtle and the Sark. He had with him 100 horse and 20,000 foot, and his purpose was revenge. The cavalry rode on ahead of the foot soldiers. They met with no opposition till they reached Annan Moor. There they found the inhabitants, doubtless the whole available fighting force of the town and vicinity, gathered to resist them. The Annandians appear not to have been aware of the strong force of infantry in the English rear; they thought the 100 horse constituted the entire strength of the inroad, and confiding too much in their numbers despised the enemy.

It had become popular amongst both French and Scots at this time to jibe the English by sneering allusions to the tails which they, probably owing to a monkish miraculous legend, were supposed to possess.† The tailed Englishman was a bye-word and a reproach, and Englishmen may be pardoned if they displayed some sensitiveness on the subject. The men of Annan hailed the horsemen of Clifford with the contemptuous salutation, "Ye dogs

^{*}Hemingburgh, p. 146.

[†]See my monograph on this queer subject, Candatus Anglicus, in transactions of Glasgow Archeological Society, 1895.

with tails!"* The jest was dearly paid for when Clifford's dogs of war were let loose! Apparently the ribaldry at their expense stirred them into action sooner than had been intended. The foot were still far in the rear; there was great disparity in numbers, but the irate Englishmen did not pause. The compact body of cavalry, horse and man heavily armed from head to heel. made short work of the brave but undisciplined rabble of Annandalers, not yet inured to arms by centuries of unceasing war. A well directed charge, in which many of the Scotsmen fell, drove into flight the defenders of Annan. A wing of the fugitives was cut off and surrounded, says the chronicle, "in a certain marsh." There the horse could not follow, but soon the foot came up, and the ill-fated occupants of the marsh were attacked a second time-now by overwhelming odds. Of their number 308 were slain, and a few survivors became the prisoners of Clifford.

On Annan Moor close to the march line of Annan and Dornock parishes there is a house called Battlefield. The place bore the name long before the house was built. Beside it there stood, until about the year 1830, a rude monument of three stones formed into a cross. The hillside slopes down to a low-lying wet piece of ground, known as Grichan's Mire, now traversed by the railway. Near by is a farm called Swordwell. Of Grichan's Mire and Battlefield a varying tradition is recorded, and still lingers on the lips of the inhabitants.† Its versions, in minor particulars divergent, unite in testimony of hard fighting on the hillside and in the "mire." The stone cross, they say, was raised in memory of the brave Scots who fell, and there is never omitted the incident of the washing of gory swords in the adjoining well.

In the neighbouring churchy ard of Dornock, a few hundred yards distant from the traditional battlefield, lie three very ancient coped tombstones; uninscribed, but with a simple and rude floral ornament carved along their sides. These tombstones also have always been associated with the fighting in the mire. After allowing for the long lapse of time since the event, and for the inevitable distortions which attend local tradition—in this case turning a defeat into a victory—there seems scarce a doubt that

^{*}Canes caudatos.

[†]See the Statistical Accounts, the Old (vol. ii., p. 24), and the New (Dumfriesshire), pp. 257, 525-6.

[‡]Triangular in general section with top ridge horizontal.

the story of Battlefield and Grichan's Mire gathered from the folk-talk of last century by the writers of the Statistical Accounts corroborates in the essentials the tale of contemporary history, five hundred years before. The battle of 1297 took place at Battlefield; the engagement ended in the massacre of fugitives whose retreat was cut off in Grichan's Mire, and the event was commemorated by the rude stone monument which stood so long upon the moor. And the three stones of Dornock Churchyard? Do not the slain three hundred sleep below?

VIII. The first Burning (1298).

Much damage was done to the district during the expedition, but it does not appear that the town was made to suffer. Perhaps the organised resistance of the inhabitants, although insufficient to repel the invasion and resulting in the disaster of Annan Moor, was yet enough to protect the town. Eight or nine weeks later, however, in the beginning of Lent, 1298, Clifford made a second raid, pillaged the town of Annan, and burnt it.* There was, says the Guisborough historian, "an immense conflagration which burnt our church." Such then was Annan's baptism of fire in the independence wars.

Too soon the delusive aurora from Wallace's victories vanished. Through defections in his own ranks, he was defeated at Falkirk—never to lead the Scottish spears again. But Edward I. gained little by his victory, he was forced to retreat as soon as the battle was fought. In returning he passed down Annandale, leaving a garrison in Lochmaben Castle, and marching through Annan on his way. An old poet historian describes the road he took thus—

To Bothvile, Glascowe, and to the towne of Are, And so to Lanarke, Loughmaben, and Anand there.

IX. The Belfry (1299).

It was with great difficulty that the English managed to hold Lochmaben during 1299. Constant attacks were made by a Scottish force sallying from its headquarters in Carlaverock Castle. It is evident from the facts at this time that Annan castle—if there had been and was still a castle—could have been a place of no strength. At this stage Robert the Bruce—

^{*}Hemingburgh, 146.

⁺John Hardyng's Chronisle (ed. 1812), p. 297.

Robert the Bruce par excellence, grandson of the Competitor, and destined restorer of Scottish liberty-had thrown in his lot with the national party. That composite body was still far from being united. In August at the Council, in which Bruce was made one of the guardians of the threatened realm, there were hot words between John Comyn and him. Comyn took the young Bruce by the throat*—an attention which maybe was not forgotten one day some seven years later when the two met in the Greyfriars' Monastery at Dumfries. But measures of defence were resolved upon in the Council despite the quarrels which disgraced it. Bruce made an attempt, unsuccessfully, to wrench Lochmaben, his own castle, out of English hands. No garrison holding Lochmaben could be safe unless it had command of Annan lying between it and its base of reinforcement and supply. A few trifling passages in an army account demonstrate that Annan was at this time in English hands. Stores of various kinds for the troops in Lochmaben were conveyed by boats from Skimburness to Annan-Skimburness in those days the great shipping port of Cumberland, situated a mile north of Silloth, then not yet a town. The stores for which there was a natural waterway were discharged on the river bank in the town itself, and needed careful guarding until they were forwarded by land. But the attack of Bruce on Lochmaben raised apprehensions of a sally on Annan, and greater precautions were required. A house in the clocherium or belfry of the town's church was specially repaired for storage! of the goods in transit to Lochmaben. It is not carrying inference too far to suggest that the fire which consumed the church in 1298 had left the walls intact-or at least had left the belfry fit for active service.

Analogy points to the conclusion that probably the belfry was one of those square castellated towers common in the early English period. These were frequently low, but broad-set, massive, and strong. There can be little doubt that a defensive purpose, to afford a secure place in an hour of sudden danger, was a determining element in the design which developed this ecclesiastical structure. Over at Burgh-by-Sands there may still be seen one of these stern types of the Border church tower built half for God, and half for the protection of man. When the tide

^{*}National MSS. Scotland, Vol. ii. No. 8; Bain's Calendar ii., 1978.

⁺Bain's Calendar ii., 1115.

[‡]Bain's Calendar, ii., 1115.

of battle rolled over the hills it was to these belfries that the affrighted inhabitants fled. Probably the clocherium of Annan served a double purpose in the 13th century. We know for a fact that it did so in the 16th when Annan steeple was a stronghold manned by a garrison, strengthened by ramparts, and fortified with artillery. Annan, it must be owned, had more need than most towns for a church in which her sons could watch and fight as well as pray. Nevertheless, the use made of the belfry in 1299 is a damaging argument against the existence of a castle then. Had there been a castle, what need could there have been to repair the belfry to guard the stores? Even a very weak castle could be rendered strong by a few hours' digging of trenches, and the erection of a palisade.* Such were the peels of Edward I.

X. The Carlaverock Campaign (1300).

The events of 1299 shewed King Edward that the conquest of Scotland was not yet accomplished. Mighty preparations were made for another invasion in 1300, but through a variety of causes its whole energy was dissipated in a siege of Carlaverock and an ineffective raid into Galloway. Early in July a great army mustered at Carlisle, and marched north. One historian says that on the journey Edward encamped at Annan.† This must have been about the 3d or 4th of July, for on the 6th he had reached Applegarth; on the 8th he was at Tinwald; on the 10th at Dumfries, and on the 12th at Carlaverock. || The castle, then a powerful fortress, was bravely garrisoned, though a mere handful of Scots stood behind its battlements. To his vexation, Edward was forced to undertake a regular siege, with his great army to beleaguer a three-cornered tower held by but 60 men. Catapult engines of all sorts, war wolves and battering rams, all the cumbrous machinery of war, had to be brought into requisition. There was carting from Carlisle and Lochmaben, there was shipment from Skimburness, there was no small loss of time and temper before the great stone-slings and batteries could be

^{*} See my Peel, its meaning and derivation (G.P. Johnston, Edinburgh, 1894), shewing that this was the character of the peels at Lochmaben, Dumfries, and elsewhere.

⁺Rishanger (R.S.), 439.

[‡]Liber Quotidianus Garderobae, 64.

[§]Ibid., 64.

^{||}Ibid., pref. lxviii.

got into position and play, but at last Carlaverock surrendered. Meanwhile, the Scots hung about the flanks of the enemy never hazarding an engagement, and although Edward chased them into Galloway he could not force a battle. But his energies were paralyzed by a bull of Pope Boniface VIII., and before the year was out a truce was agreed to, leaving matters much as they were before the mighty invasion took place. The whole power of England had succeeded in capturing what a contemporary writer only slightly misrepresented as the poor hamlet of Carlaverock.*

During the campaign, on 30th August Edward passed through Annan. We can well fancy that a crowd of townsfolk flocked to see the long-legged king ride by. Certain it is that one of his palfreys kicked a poor woman, and that there was paid to her for medicines and the like, a dole of four shillings out of the king's purse.† At this time it was not his policy-indeed never was-to have the Scottish people as his enemies. Nor can we be quite sure of the attitude of the people of Annandale at this period. The Scots were still only half united: Bruce was wavering still, watching the fitful signs of the times, not yet sure whether he would be a Scottish patriot or the henchman of England. Not till he stabbed Comyn, not till Kirkpatrick had made "siccar," was it seen clearly what the issue was. In this year 1300 Kirkpatrick himself and many other knights of the district were in English pay. cartage and carriage and labour of other sorts was done by Dumfriesshire horses, and by the hands of Dumfriesshire men and women. ‡

On 17th October, Prince Edward, aftewards King Edward II., was in Annan. The King, his father, was there the following day. Devout in his attendance at divine service, he did not depart from his custom when there. He went to church, and his contribution on that occasion duly marked down in his wardrobe accounts was seven shillings. In the end of the same month the French Ambassadors, come to Scotland to conclude a treaty of peace, were visitors at Annan. All the while this expedition

^{*}Langtoft (ed. Hearne), ii. 310.

⁺Lib. Quot. Gard., 46.

The last statement is vouched by Lib. Quot. Gard., 269.

[§]Bain's Cal. ii., 1175.

Lib. Quot. Gard., 43.

[¶]Lib. Quot. Gard., 89.

lasted a stream of warlike stores flowed through the town* for the army, and for the garrisons in Lochmaben, Dumfries, and Carlaverock.

XI. Rental under the English (1303).

The English occupancy of Annandale had begun. A rent roll† for the half-year ending at Whitsunday, 1303, shows that the officers of Edward I. received from

Dumfries		 				£7	10	0
Lochmaben		 				16	13	4
Annan		 	£	3 6	8			
The Mill at	Annan	 	:	3 6	8			
						6	13	4
Hightae		 				0	1	0
Smallholm		 				0	1	0
Ecclefechan		 				0	7	8
Moffat		 				0	3	6

The high proportion which Lochmaben bears in this rental is to be explained by its being the headquarters of the English force. Its lands could be better guarded, and its rental was a less uncertain quantity than that of other places. Besides, Annan as we have seen had been burnt five years before, and it is easy to understand that there was something more than empty rhetoric in the old Greyfriar's statement a few years later that Annan had "lost the honour of a burgh." Annan in the first half of the 14th century was but a wreck of its former self. The flames of Clifford's raid had robbed it both of honour and opulence, its progress was blasted by the prevailing atmosphere of danger, and its fall from at least the hope of greatness was due, not indeed to the curse of St. Malachi, but to one still greater—the ambition of Edward I.

XII. The Borders after Bannockburn (1317).

No record exists of Annan's share in the stirring events which followed the year 1306 when Robert the Bruce stabbed Comyn, and finally stood out as the champion of independence. But one cannot doubt that from the heart of his own territory of Annandale he had sturdy help, and that Annan had its part in Bannockburn. After that battle, the sufferings of the Border on both sides were terrible. Although, thanks to the activity of the Scottish soldier-

^{*}Ibid., 127.

⁺Bain's Cal., ii., 1608 (p. 426.)

king, the brunt fell heavier on the English marchmen than on the Scots, yet in 1317, an English scout reported* that the vale of "Anand" was so utterly wasted and burned that from Lochmaben to Carlisle neither man nor beast was left. How Annan itself fared meanwhile we do not know. That it was free after a sort we do know, but that is all.

It is possible to believe tradition when it asserts that to Bruce Annan owes its creation as a royal burgh albeit the so-called tradition is not vouched for by any old authority. case rests only upon a probability with much in its favour. That Annan was a baronial burgh of a kind under the ancestors of King Robert, as lords of Annandale, is proved by the application of the term burgus to it.† The essential distinction between a burgh of barony and a royal burgh is that the latter holds not of any mediate lord, but directly of the king-a distinction dimmer in the 13th century than it later became. What unlikelihood therefore is there in the suggestion that the larger vills, Lochmaben and Annan, should both, formally or otherwise, have become or been made royal burghs when their over lord the Bruce became king? The Greyfriar of Carlisle, writing in or near the year 1346, believed that Annan had once been a burgh, t although by his account that was a lost honour in his day. It is to be presumed that James V. did no more than justice to the burgh in 1539 when, in granting it a new charter, he referred to the former existence of charters of foundation which war and fire had destroyed. It is a confirmation to find similar evidence even in the negative statement of the Carlisle friar. And it is pleasant to feel that in this case one may without any sacrifice of critical historical method believe with tradition that Robert the Bruce made Annan a royal burgh.

XIII. Baliol's Battle of Annan (1332).

Bruce died: the good Sir James faced over the sea as a crusader to carry the gallant heart of his master against the enemies of God. The tempest which had lulled after Bannockburn broke out with fresh vehemence when Edward III. came to the English throne. He made a tool of Edward Baliol, son of Edward I.'s poor King John Baliol. Chance favoured Edward

^{*}Bain's Cal. iii. 543.

[†]New Statistical Account, Dumfriesshire, p. 522.

[‡]Above ch. iii.

Baliol's aims. In August, 1332, he was victorious at Duplin, and in September was crowned at Scone, King of Scotland by the grace of Edward III.

As the winter advanced, he journeyed south with his followers— Till Anand held thai southward syne.*

On 15th December he lay with a small army at Annan. He had arrived there on the 13th, and meant to stay till Christmas.† The fortunes of war proverbially uncertain were doomed to fall out otherwise. On the night of the 15th the young Earl of Mar, the Steward of Scotland, Sir Thomas Fraser, and Sir Archibald Douglas secretly assembled 1000 horse at Moffat. ‡ Ere day broke they had ridden to Annan. Could they only fall suddenly upon the puppet King and his Englishmen it would be a stalwart stroke for Scotland! Fate favoured the enterprise. Baliol and his Englishmen were in their beds never dreaming of danger. They were, perhaps, as a contemporary states, over-secure in consequence of the victories they had previously obtained. On the morning of 16th December the band of Scots burst upon them "in the dawyng" of the day.|| There was stout fight shewn, but the surprise was too thorough to be withstood. English chronicle¶ prides itself on the vigour of the resistance of the naked men who gave so good an account of themselves that no fewer than 30 of the Scots were slain. At least 100 of the adherents of Baliol were slain, amongst them several Scottish knights. Baliol himself had a narrow escape. Like the man in the rhyme with one shoe off and the other shoe on, he had to flee with his toilet incomplete. The national contempt for the Baliols—the day of the Dumfries County Council was not yetfound expression in the satisfaction with which Scottish chronicle records the flight of this scion of their house, who soon afterwards

^{*} Wyntoun, viii. ch. 26, line 3677.

[†]Chronicles of Edward I. and Edward II. (R.S.), ii., 109-110; Chron. Lanercost, 271. One authority says he had appointed a Parliament to be held there. Knyghton in Decem Scriptores, 2562.

^{\$\}pmu_Bower, Scotichronicon, ii., 308.

[§]Chron. Lanercost, 271.

^{||}The battle is described in Wyntoun, viii. ch., 26; Chron. Lanercost, 270-1; Scalacronica, 161; Decem Scriptores, 2562; Chron. Ed. I. and Ed. II. (R.S.), ii., 109-110; Bover, ii., 308; Leland changed a defeat into a victory; Scalacronica, 295.

[¶]Chron. Lanercost, 271.

Which with a deplorable lack of feeling for history has, in defiance of the Lyon King of Arms, put the armorial bearing of the Baliols into the county seal.

in implement of an earlier bargain surrendered Dumfriesshire* to England as the price of the support of Edward III. in his efforts for the crown. With one leg booted and the other bare, on a horse without saddle or bridle and harnessed only with a halter, he was chased ignominiously out of the land.†

Our fine old rhyming historian, † Wyntoun, tells the tale thus:

Ande, or all this tyme wes gone, The yhoung Erle off Murrawe Jhon And Schyre Archebald off Dowglas That brodyr till Schyre Jamys was, Purchasyd§ thame a cumpany, A thowsand wycht men and hardy; Till Anand in a tranowntyng Thai come on thame in the dawyng. T Thare war syndry gud men slayne Schyre Henry, the Ballyoll thame agayne, With a staffe fawcht sturdyly, And dyntis delt rycht dowchtyly, That men hym loved efftyr his day. Thare deyde Schyre Jhone than the Mowbray, And Alysawndyre the Brws wes tane. Bot the Ballyoll his gat is gane On a barme1 hors wyth leggys bare, Swa fell that he ethchapyd2 thare. The lave 3 that ware nought tane in hand Fled qwhare thai mycht fynd warrand, Swa that all that cumpany, Dyscumfyt ware all halyly.

Scotland was glad of this battle of Annan which rid her, for the time at least, of a king she did not want. He had a merry Christmas in Carlisle, 4 says the *Lanercost Chronicle*; the community loved him much for the great confusion he had brought upon the Scots after he invaded Scotland, although now that confusion had fallen upon himself.

^{*}Fædera, 12th June, 1334.

[†]One of the three ancient fords of the estuary now called Solway was at Annan, the Annan wath. Knyghton in Decem Scriptores, 2566.

[‡] Wyntoun, viii., ch. 26.

[§]Purchasyd, procured.

Tranowntyng, journeying by night.

[¶]In the dawyng, at dawn. En un aube de jour is the phrase of the Scalacronica.

¹Barme, saddleless.

²Ethchappyd, escaped.

³ Lave, the rest.

⁴ Chron. Lanercost, 271.

XIV. The English Occupation (1384).

In these Baliol wars England got a fast grip of Annandale which Edward Baliol, in consideration of favours received and expected, had ceded to Edward III. For over half a century Annan remained in English hands. There is slender means of gauging the feeling of the town towards its temporary masters. This, however, is certain-the Scottish feeling never flagged. An interesting legal document* dated 24th July, 1347, is a formal inquest made in course of the service of an heir to a property in The jury in precise and regular fashion speak of Annan not as a city, not as a vill, but as a burgh. As early as the middle of the 13th century the town had begun to give surnamet to persons in different parts of the country. William of Anant; was in the Scots garrison of Stirling in 1304. John of Anand, was a Scottish sailors wrecked in 1320. Walter of Anand, in 1335, was nominee for the rectory of Dornock. There are many \(\) other instances, mostly names, and nothing more. But Sir David of Anand, was one of the most distinguished men of the 14th century, a soldier ve such as Annan might well be proud of, could the claim to him as a native be substantiated.

In 1363 Roger Clifford received a license from Edward III. to retain in his service for three years John, son of Robert Corry, of the town of Annan, whose father dwells in Scotland at the Scottish faith; a striking documentary voucher of the patriotism of the place. Still more interesting is a safe conduct granted in 1368 to John Clerc and John Belle, of Annan, merchants to travel with goods and merchandise into England —an industry which happily is still far from extinct! In spite of the English occupation the town continued to enjoy such a precarious measure of prosperity as the dangerous time allowed. The inhabitants were exposed alike to the rapacity of their English masters, and the attacks of the Scots, their fellow countrymen struggling to rid them of the English yoke. The "vills" of Annan and

^{*}Bain's Cal., iii. 1499.

⁺Reg. Glasg., i., p. 183. Reg. Domus de Soltra, p. 34.

[#]Fædera, 24th July, 1304.

[§]Bain's Cal., iii. 713.

^{||}Reg. Glasg. i , p. 249.

[¶]Robertson's Index.

Bower, Scotichronicon, ii. 319. Rotuli Scotice, i. 879ab.

¹Rotuli Scotice, i. 926b.

Lochmaben at this time with their demesne lands, profits of court, and tolls, were farmed out to three of the inhabitants. John Clerc, mentioned before as an Annan merchant, was one of the three farmers* of the town. John Deconson and William Taylor were his colleagues. They drew its rents as best they could, and paid over the sum yearly to the English chamberlain at Loch-In 1374 £12 14s 4d was the half of the return from Annan and Lochmaben combined. But in 1376, whilst the half of Lochmaben yielded 53s 4d, the half of Annan gave only 7s, "and no more," says the account, † "because no tenant would hold it from the devastations of the Scots." It is scarcely possible to regard those payments as a firma burgi or fixed burghal rent. There may be doubts about their economic interpretation; but the difficulty of collecting them shews explicitly enough that the Scots; were rapidly making Annandale too hot for its English garrison.

Numerous efforts to reconcile the animosities between Cumberland and Annandale and induce fraternity had failed; the Annandale men, despite the pressure put upon them, were Scots still. Edward III. was dying, and the firm grasp of his youth and prime had been relaxed even in the few fortresses which were remnants of a long extinguished hope of conquest in Scotland. His grandson, Richard II., let them go altogether. In 1385 Lochmaben Castle was wrested from the garrison which had held it so long. Ill-victualled and ill-manned it fell before the attack of Archibald the Grim. Annandale at last was free. A second great epoch, that of English occupancy, was over, and Annan shared in the completed emancipation.

XV. Albany and Douglas (1482).

During the 15th century the little town left small trace in history. In the war-storms of the previous hundred years, what wonder if the burgh had passed out of sight absolutely, as Roxburgh did? It is not until 1481 that there is again definite news. James III., scholarly and refined with a taste for art and

^{*}Bain's Cal., iv., 223.

[†]Bain's Cal., iv., 231.

[§]Rotuli Scotiae, i., 414b, 661b, 711b, 875ab, 887b, 888a, 924b, 951a, 956b, 965b.

[[] Wyntoun, ix. ch. 5.

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science, was a monarch out of the ordinary Stewart groove. Out of harmony with feudal surroundings, his disposition made it easy for his turbulent brother, the Duke of Albany aided by the rebellious Earl of Douglas, to raise a strong faction in support of his ambitious claims. Albany pretended to the throne. Retiring into England, he found there Edward IV. willing to render him somewhat the same service as Edward III. had done to Edward Baliol. War broke out between the two countries. It was suspended for a short while by a papal bull, but renewed hostilities were daily expected when the Scottish Parliament met in March, 1482. The proceedings for defence were energetic, and the language was the same. "The Revare Edward calland him King of Ingland," they said, was threatening the land, and provision had to be made for "the resisting and aganestanding of the saide Revare Edwarde quhilk schapis to invaid this realme with grete armey and powere, baith be sey and land." The whole body of the realm was therefore summoned to rally round the King "to leyf and dee with his hienes in his defence." Active measures were resolved upon.* Strict watch was to be kept. The King himself was to maintain a force of 500 men; the clergy were to furnish 240 men; other 240 were to be upheld at the cost of the barons; whilst the burghs' share was 120. little standing army was distributed over the borders-500 in Berwick, 300 in various places on the east march, 100 in Hermitage, 100 in Lochmaben, 40 in Castlemilk, 20 in Bell's Tower (at Kirkconnel), and 40 in Annan. "In Annand xl men." Kirkpatrick of Closeburn was to be Captain of Lochmaben, and Charteris of Amisfield Captain of Castlemilk, Annan, and Bell's Tower, "he to remaine in ane of the thre placis and his twa deputis in the tothir twa placis." The invasion expected did not take place. Edward IV. died. But on the Magdalen day at Lochmaben, 22nd July, 1484, Albany and Douglas, with their English supports† resting on the slopes of Birrenswark, made a raid on Annandale. After a hard battle, fought manfully from noon till twilight, closing near Kirkconnel, the old Earl Douglas was a prisoner, and Albany, a pretender like Edward Baliol, was driven away again into England, an exile for the remainder of his days. Douglas was captured by Alexander Kirkpatrick

^{*}Acts of Parliament, Scotland, ii., 140; Lesley's Historie, 1436-1561, p. 47. †The battle is described in Godscroft (ed. 1743), 379, and Patrick Anderson's MS. Historie (Advocate's Library), 1., 40-41.

son of the laird of Closeburn. Alexander had granted a bond of manrent and service to Robert Charteris of Amisfield—the captain, as we have seen, of Annan—and when the rewards of the battle of Kirkconnel were given a curious law suit arose out of Amisfield's claim to one third of his vassal's handsome winnings, a claim which the lords of Council were minded to sustain.*

XVI. The Church (1474-1510).

Meanwhile what of the church? The memory of its connexion with Guisborough had long been effaced. For a full century and a half there is not a word of record on the ecclesiastical affairs of Annan. In 1474 Gilbert Maxwell was rector, t succeeded before 1487 by William Turnbull. How long he was rector we cannot precisely say. In those days the priests were not married, but, as has been satirically said, they were often succeeded by their eldest sons. William Turnbull's successor was Adam Turnbull. In Sir Adam's pastorate a terrible scandal arose The Border clergy of the 16th century were rough pastors of rough flocks, often men of violence and blood. Sir Adam somehow did to death a man named Robert Faresch. A citation was executed& in April 1510 in the churches of Lochmaben, Annan, Cummertrees, and Garwald. Rumour had laid a charge of "cruel slaughter" at Sir Adam's door. The summons was for the purpose of eliciting a regular and formal accusation at the instance of some relative, friend, or person having interest. No such accuser entered appearance. What came of the case in the end does not appear, but a presumption of Sir Adam's guilt arises from the fact that a year later he appealed to the Pope¶ from some decision by the Archbishop of Glasgow. The probability is that this decision, though its subject is not mentioned, was a sentence of deprivation or the like pronounced in consequence of this damaging charge. When we consider, as we shall need to do directly, that the castle of Annan, which was to be garrisoned in 1482, was in all likelihood no other than the church steeple, we need not wonder if the parson was a man of blood.

^{*}Acta Dominorum Concilii, p. *95.

[†]Munimenta Universitatis Glasguensis, ii., 81.

[‡]Registrum Magni Sigilli, ii., 2131.

 $[\]S Diocesan\ Registers\ of\ Glasgow,\ ii.\ 330.$

^{||} Diocesan Registers, ii., 356.

[¶]Ibid., ii. 402.

XVII. Lord Dacre's Raid (1514).

The disaster of Flodden in 1513 was certain to thrill the natives of Border towns not only with the national sorrow, but with a keen sense of impending danger from invasion. The bitterest expectations were realised. A raid of Lord Dacre, in 1514, on the west march, was peculiarly ferocious. In a savage and exulting despatch* he tells how bitterly he revenged the losses inflicted on his own side of the marches by Scottish inroads. "For oone cattel taken by the Scotts we have takyn, won, and brought away out of Scotland cth [100], and for oone shepe ccth of a suretie. And as for townships and houses burnt," he goes on to say, "I assure your lordships for trouthe that I have and has caused to be burnt and distroyit sex tymes mor townys and housys within the West and Middill Marches of Scotland in the same season then is done to us." Lord Dacre believed that in the matter of fire and sword it was more blessed to give than to receive ! "Upon the West Marches," he boasted, "I haif burnt and distroyed the townshipps of Annand, Dronnok, Dronnokwood, Tordoff," and so on through a long list of over 30 places in Annandale and Eskdale he pursues his arithmetic of havoc. "Whereas there was in all times passed," he says, in conclusion, "ccccth pleughes, and above whiche er now clerely waisted, and noo man dwelling in any of them at this day save oonly in the towrys of Annand steepill and Walghopp"-i.e., Wauchop, in Eskdale. Thus from Annan to the Border only Annan steeple remained. The lineal descendant of that old belfry spoken of in the 13th century-if not, indeed, that actual belfry itself, which is the more probable proposition—the church tower of Annan alone rose above that scene of wreck and desolation. But the houses of the town soon rose again, for in spite of all her calamities Annan had kept her stout heart as well as her strong steeple.

XVIII. Annan's Burghal Charter (1539).

Hitherto we have seen few if any clear proofs of municipal life. Annan had no place in the rolls of the Exchequer; sent no member to Parliament; is only once or twice mentioned in any transaction of public business as a burgh; has no credentials to produce for its having exercised distinctively corporate rights or had any civic life. With its very existence in constant danger, anything in the

^{*}Dated 17th May, 1514, transcribed in Pinkerton's History of Scotland, ii., 462.

shape of formality in the transaction of burghal business could hardly be looked for. The legal status and privileges of the community, whatever they were, might well pass into abeyance and be forgotten under such conditions. Before the 17th century no provost or bailie of Annan is ever—so far as I have been able to discover—named. But in the 16th century things were shaping towards order. The year 1539 witnessed a great fact in Annan history—a confirmation or revival of its burghal dignity by a Charter of Novodamus of James V. Those who have any regard for the memories and the honour of the town have some reason for a glow of satisfaction in the language of the King's charter:

"Whereas," says the document, still cherished among the burgh's archives,* "the town of Annan, situated upon the western marches very near adjacent to the realm of England, within the Stewartry of Annandale, has been very often burnt and destroyed, and the burgesses and inhabitants plundered and slain by the English in defence of the realm of Scotland, as well in time of peace as of war, and have ever remained leal Scots, true to our Crown; and whereas the ancient charters of foundation and the infeftments of said burgh made by our predecessors have been destroyed and burnt in sieges and fires by our enemies and otherwise, in consequence whereof the use of markets has ceased among them. Therefore, we have of new granted in fee to said burgesses and community the Burgh and Town of Annan as a free burgh for ever, with all its lands and annual rents, possessions and fishings whatsoever to the same pertaining."

These are then particularised, as well as the various privileges, such as the liberty of having a market cross, a weekly market on Saturday, and an eight days' fair yearly, beginning on All Hallow Thursday.† Into the large subject of those things the limits of space prevent me at present entering.

XIX. Lord Wharton's Design upon Annan (1543-45).

The disaster of Solway Moss in 1542, without its like in Scottish history, overwhelmed James V., who died of shame and grief. The reign of the child-Queen, Mary Stewart, began under circumstances of great national depression. The town was

^{*}It of course passed the Great Seal. Registrum Magni Sigilli, vol. iii., No. 1919.

[†]Ascension Day, 39 days after Easter Day.

destined soon to feel the strain of opposing policies—the English scheme for a marriage between the young Queen and the heir to the English throne, and the Scottish policy-for such it came to be-of resisting that matrimonial project of Henry VIII. Religious controversy, ever an inflammatory factor in politics, added fuel to the burning question. All methods-diplomacy, bribery, and bluster by turns-were used by Henry to bring about the English match. Failing policy, he was prepared to resort to force. It was a strange kind of courtship; even whilst it was going on the generals of Henry were planning how they could best bring Scotland to her knees. In 1543 Lord Wharton, at a military council, recommended a scheme for ravaging the Scottish border. Amongst other places he wished to burn and lay waste, he proposed the destruction of Annan*-"the towne of Annande, which is the chief town in all Anerdaill except Dumfreis." Lord Wharton's notions about the bounds of Annandale were not pedantically precise. He had an antipathy to Annan, not without good cause. Its church, we are told by another Englishman†, was "a strong place and very noysum alwey unto our men as they passed that way." It was thus a serious obstacle to wardens' raids-hence Wharton's zeal for its destruction, his regarding it as a sort of Carthage on the west march.

This council of war in 1543 gives the first inkling of events to follow. In 1545 every nerve was strained to induce Lord Maxwell, who had been taken captive at Solway Moss, to surrender to the English his castles of Carlaverock and Lochmaben. This attempt was furthered by a cruel working upon the prisoner's fears and by his bad health, which confinement did not improve. It was at last so far successful that Carlaverock was yielded. Whilst this consummation of the King's wishes wavered in the balance, Lord Wharton again was pressing for consideration his designs against the burgh upon whose doom he was bent. He contrasted two alternative schemes. † One was to assail Dumfries, which, however, he thought "over harde and dangerous to be attempted with a warden's roode."§ The other,

^{*}State Papers of Henry VIII. (1534-1546), vol. v., p. 344. +Patten's Account in Dalzell's Fragments, pp. 94-5. ‡State Papers, Henry VIII., Vol. v., 545. §"A wardan's roode which is to go and cum in a day and a night." The definition is Wharton's own in letter (MS. State Papers, Scotland, Edward VI., 1547), dated 16 Sept., 1547, transcribed in "Auld Lang Syne" column (No. cix.) of Dumfries Standard.

which he was strong in recommending, was "that he should make a rode yn to overthrow and caste downe a certen churche and steple called the Steple of Annande."

Nevertheless the first of these exploits taken in hand was that which he discountenanced. A raid was, early in 1547, made on Dumfries by Sir Thomas Carleton. Owing to the disunion amongst the lands of Dumfriesshire, mainly due to the corrupt and violent influences brought to bear by Henry VIII., Carleton accomplished his task with no less success than dexterity and carried off a heavy plunder, if we may fully trust his swaggering report of his own performances given by the "miniature Cæsar," as M'Dowall,* the Dumfries historian, dubs him.

XX. Wharton's Inroad (1547).

Although the town† itself was harried, and "with the corne in the same towne burnt" in 1544 by his son, it was not until 1547 that Wharton's plan for the overthrow of Annan Steeple was seriously undertaken. Whilst the Protector Somerset was marching northward, with Pinkie ahead, Wharton was leading an expedition across the border, directed chiefly against the Steeple which had so long been an eyesore to himself, and a thorn in the sides of his countrymen. When Scotland was constrained to concentrate all her force to meet Somerset on the east March, when many of the men of Annandale had yielded to the pressure of the time and become "assured Scots" liegemen of England, now it was that Wharton's darling scheme was entrusted to himself to execute.

With 5000 foot and 500 horse he crossed the frontier on 9th September. On Saturday the 10th, that rueful date in the Scottish calendar, when Somerset was fighting Pinkie battle, Wharton's force reached Castlemilk. The renegade Scot, the Earl of Lennox, was the ally and comrade of the English leader. Castlemilk made only a feint of resistance. Its commandant only waited to have the glove of Lennox sent him, and then surrendered the castle keys.

Next day Wharton proceeded to Annan, where a sterner reception awaited him. He found Annan Steeple with pennon flying, manned to resist.

^{*}M'Dowall's History of Dumfries, pp. 195-199.

[†]Bruce Armstrong's Liddesdale, appx. lv.

XXI. Annan Steeple, The Noisome Neighbour (1547).

It is not easy to determine from the disjointed references to the famous steeple whether it stood in the middle of the church between the choir and the nave, or whether it stood at the western extremity of a church consisting of a choir only. A nave is never mentioned. Probabilities are strong for the belief that the tower formed the western end of the building,* the site of which is now occupied by the Town Hall and part of the old churchyard. The choir—"quere" they called it then—was at the east end of the structure. On the north side the position had good natural advantages in the steep slope down to the kirk burn. The steeple was low, only a "house height," probably not 20 feet high, but "that house height rampered up with earth." Around both Church and Steeple† a strong rampart of earth added all the advantages of art. The house of God was made into a fortress.

Such was the strange appearance made by Annan Steeple. Its Captain was James Lyon of Glamis. He had seven gunners with him. His ecclesiastical fortress was manned by many burgesses of the town and other soldiers of the district, for Annan's own fighting force at this time does not seem to have been much over 30.‡ Lyon had under his command a total force of about 100 men.

The garrison stood manfully to their defence. When Wharton came he saw a "pensall of defyaunce," the Scottish banner, hung out and all the other evidences of stout resistance.

XXII. The Siege of the Steeple (1547).

On arrival at Annan, the attacking force pitched camp as near the steeple as possible. A summons was sent to the captain to surrender—a summons which met with unhesitating refusal.

^{*}The following description is taken mainly from Lennox & Wharton's letter of 16th September, 1547 (British Museum, MS. State Papers, Edward VI., 1547, vol. i.), transcribed by Miss Jessie Wright, of London, and printed in Dumfries Standard "Auld Lang Syne Column" No. cix. See excerpt below. Other authorities are specified when quoted.

⁺Holinshed's Scottish Chronicle (ed. 1805) ii., 241.

The town of Annan was returned for 33 men by Lord Wharton. See Nicholson and Burn's History of Westmorland and Cumberland, p. lv.

[§]Annan was—at a later period at least—permanently garrisoned. The English in their plans for raids had always to reckon upon the risk of encounter with "the particular garrisone in Annane towne for the tyme." Bruce Armstrong's Liddesdale appx., p. exvi.

Surrender was out of the question. The captain would hold the steeple. Such were the Regent's orders, and they would be implicitly obeyed. The odds against him were fifty to one—his 100 men against Wharton's 5000. But there was hope that by the morrow a detachment from the Regent might arrive to raise the siege.

That night the English laid their plans for the morning's work. They had few guns, a falcon, a falconette, and four falcons, a battery of only six small pieces, which they planted so as to assail the battlements of the steeple. The guns appear to have been placed to the west or south-west of the church where the steeple was fully exposed. Such at least would have been a natural inference from the position of the place even had there been no confirmatory fact. It happens, however, that Annan has, in a street name, preserved a memory of that eventful 12th of September, and commemorated the position of the siege train until this day in the "Battery Brae," which, descending from the High Street to the Kirk Burn on the way to the Moat, exactly conforms to the requirements of the contemporary account of the siege given by Wharton in his despatch.

With daybreak, the fight began, archers and hackbutmen assailed the defenders from every side; the artillery played upon the embattled top; and Wharton's ancient animosity at last found its echo amid smoke and flame and the crackle of ordnance.

The garrison bated no jot of heart or hope; the "pensall of defyaunce" fluttered free; Lyon, the captain, and his colleagues, did their duty like men. The Master of Maxwell by some accounts* was there, and so were the Laird of Johnstone and Murray of Cockpool. The English writers were not slow to recognise the strenuous gallantry of Lyon and the Borderers, who kept the tower with him. The Scots "made sharp war," is the laconic phrase of a despatch. They valiantly defended themselves, says Holinshed. The steeple was "well defended," says yet another old historian.† Both church and steeple were stoutly held. They were, says an English chronicler; "places of themselves verie strong and mightlie reinforced with earth." Deftly the Regent's gunners handled the few guns at their command. The

^{*}Lesley's Historie of Scotland, p. 202; Holinshed, ii., 241.

⁺Herries' Memoirs (Abbotsford Club), p. 22.

[#]Holinshed, ii. 241.

consecrated building belched forth fire and death with as little compunction as if its walls had never heard a gospel of peace.

The cannonade went on, but Wharton soon found a change of tactics necessary. To pound away at the top of the steeple was going to prove a mere waste of powder. The ordnance was not heavy enough to make headway against the building, so the mode of attack was altered. Whilst the whole fire was concentrated on the battlements to harass the defenders the English pioneers cautiously advanced to the walls. This plan so far succeeded; a "pavise" of strong timber—a sort of shed or roof—was thrown forward to the Steeple, and men set forth to work under its protection to undermine the walls. But the garrison had not exhausted their resources of offence, a great mass of stoneperhaps part of a castellated battlement—which Wharton called the top of the steeple-fell, or more probably was hurled over upon the "pavise," crashing through it and carrying death in its train The attack on the steeple in that quarter, and by that method, had to be abandoned.

Once again the tactics were changed. The operations of the besiegers were directed against the wall of the church at the east end of the choir. There the attacking force was less exposed to reprisals. The gable end of the choir was assailed by the pioneers, who this time attained their object. The east wall was cut through and undermined, and not only the gable, but part of the choir roof as well, fell inward, killing with the crash seven of the defenders.

The strongest part of the whole structure remained. Although the church was no longer defensible owing to the great breach through its eastern wall, the steeple was intact. But there was a weak point in the armour. If the plan of the building is here apprehended rightly, the sole door into the steeple was from the inside of the church.* Obviously, therefore, the breach in the choir gable and the falling in of the roof exposed the door. The steeple laid open to attack at an entirely undefended point, was reduced to desperate straits.

"After that," says Wharton, "we caused the peices be laid to shoot at the door of the steple." Seemingly the guns were shifted to the east end of the building and their fire directed through the choir. The new attack did great execution among the cooped up garrison taken as it were in the rear. It "caused them further

^{*}As, for example, is the case at Burgh-on-Sands at this moment, where, moreover, the tower has actually still a port-hole for cannon.

to myen," says Wharton exultingly: to hold the fortress after its door had been battered in by artillery was impossible. At 8 in the morning the fierce siege had begun, gunner, hackbutteer archer, and pioneer had done their deadliest work all day long, and it was not till 4 in the afternoon that the thought of surrender was entertained. The last hope of reinforcement from the Regent had faded away in the news of his defeat at Pinkie two days before. Appealing for honourable terms, the captain of Annan hauled down his "pensall of defyaunce" at last.*

Nearly half the garrison had been killed. Only 57 men issued from the building when their captain delivered up its keys in symbol of surrender. Next day the extremity of revenge was wreaked upon the town. It fell first on the church and steeple. These had been undermined at various points, and trains of gunpowder were laid. Thus, as it is rather paradoxically expressed, "both the church and steeple were blown up into the air and razed down to the ground. This done," concludes Holinshed, "they burnt the town after they had sacked it, and left not one stone standing upon another, for that the

^{*}Excerpt from Wharton and Lennox's most interesting despatch :-"We were informede that the Governor hade sent one Jamys Lyone with viith guners to the steple of Anande, and gyvin in charge to hyme with others of the towne for the save keping thereof, and a promyse maide that within foure howres froe the Ynglish armye were there they should that within loure nowies free the ringush armye were there they should be relieved with a more powre, whereupon we marched on the morowe being Sondaye towards Anande, and encamped ourselfs that night so mere the steple as we could, and the same night at our lodging sent somons to the capitayne to rendre the steple who denyed so to do, and saide he wolde kepe it as the Governor, his Mr, had comanded. And we having no ordenence but a facon, a faconette, and foure quarter we naving no ordenence out a facon, a faconette, and foure quarter facons for that there is no batrie peice at Carlisle divised that night howe we shulde maike warre agaynst the house on the morowe. At viith of the clok in the mornyng we laid those sex peices to leit the batailling, and appoyntic certain archers and hagbutters to maik warre also untill a paveis of tymbre might be drawn to the side of the steple under whiche sexe pyoners might work to have undermyned the sam. And in putting these to effecte they in the house made sharpe warre, and slew foure of our men, and hurt divers others. And with grett sonde the steple toppe brooke the paveis after it was sett, and being in that extrymytic lakking ordenence for that purpose we caused certain pyoneers cutt the walle of the east ende of the quere over thwart above the earthe, and caused the hoole ende to falle, wherewith the rooff and tymber falling inwards slewe vii Scotsmen. And after that we caused the peices be laid to shoot at the door of the steple which was a house-hight, and that house-hight vampered with earth, and caused them further to myen. And then the capitayne about foure of the clok afternoon took downe his pensall of defyaunce. And he and the men within the house cried for mercie, who were answered that they all should be hanged. And crying for mercie they said they wold submytt themselfs whatever we would do with them by death or otherwise.'

same town had ever been a verie noisome neighbour to England. The Englishmen had conceived such spite towards this town that if they saw but a piece of wood remaining unburnt they would cut the same in pieces with their bills." Wharton's own despatch is to the same purpose. "Upon Teusday mornynge cutt and raiced down the church wallis and steplee and brent the towne, not leving anything therin unbrent, which was the best towne in Anerdaile. We caused also vii fisher boottis lying on the river to be taken and sent into England." Another authority* declares that they "burnt the spoil for cumber of caryage." "The English," says Lesley† "wer so warlyeantlie resisted be the Lorde Maxwell, Lairdis Johnestoun, Cokpule, and utheris cuntrey men that thay wan litill honour in thair jornay, sauffing that thay brint the Kirk of Annan and blew it up with pulder, quhilk wes ane wicked and ungodlie act." Wharton's fell design had been achieved in its vindictive entirety-Annan, town and tower, was utterly destroyed.

And here meantime in the dust we must leave her. From her position on the border she was born to such misfortunes, and knew how to bear them. She had graced her recently renewed honours as a burgh with one more justification for the compliments of King James.

^{*}Patten's Account in Dalzell's Fragments, p. 95.

[†]Lesley's Historie, p. 202.

FIELD MEETINGS.

25th of May.

A visit was made to Drumlanrig Castle and Durisdeer Church, under the direction of Mr James Fingland.

New Members elected: —Mr John Robson, clerk to the County Council, and Major Young of Lincluden.

29th of June.

A visit was made to Maxwelton House and Craigdarroch, on the invitation of Sir Emilius Laurie and Captain Cutlar. Fergusson. Under the guidance of the Rev. Thomas Kidd, the places consecrated to the memory of Renwick were visited.

New members elected:—Mr David J. Jardine of Applegirth; the Rev. Thomas Kidd, Moniaive; Mr James M'Call of Caitloch; Mrs Thomas Shortridge, jun.; Mr Robert Wallace, Brownhall School.

7th of September.

A visit was paid to Birrens to inspect the excavation of the Roman camp being made by the Society of Antiquaries of Scotland, assisted by Mr James Barbour, the representative of this Society.

At Birrens, Dr Macdonald gave a brief description of the original extent of the fort or station, its defences, and the manner in which the excavations were being carried out. His remarks were supplemented by Mr James Barbour, who explained what may be called the building plan of the interior, where the foundations of numerous structures have been somewhat unexpectedly The first antiquary, it appears, who took notice of Birrens and described it as a Roman fort was Alexander Gordon. Soon after Sir John Clerk confirmed Gordon's view by his discovery, quite close to its defences, of the statue of the goddess Brigantia and other Roman inscribed stones. General Roy followed with a more accurate plan than Gordon's. To these authorities all subsequent writers are indebted for what they tell of it. The station proper, covering four acres, is enclosed within a single rampart of considerable breadth and height, and was further protected by six ditches on the north and apparently four on the east and west. Of these last traces were visible a century and a half ago. On the south all its defences have long since

been swept away by the waters of the Mein. Including its ramparts and ditches the station must have occupied seven or eight acres. Its form is that of a parallelogram, its angles are rounded, it has four entrances, one on each side; it is situated on a bluff near a running stream, and it slopes gently to the south. All these are features that go to establish its Roman origin. The work of exploration was begun by driving a trench through the north rampart and ditches, so as to ascertain the materials composing the former as well as the shape and size of the latter. In the same way the inner edge of this rampart was exposed, as also the entrance through it into the station. Such stone work as occurs here is of a very rude kind. The structure of the main body of the rampart reveals several points of interest. Other incisions were made in it, and in the mounds on the east and west sides. Everywhere there were found to be certain marked resemblances, but at the same time differences which seem at present to ${\bf forbid\,the\,conclusion\,that\,the\,enclosing\,rampart\,had\,been\,constructed}$ at one time and on one uniform plan. But further examination and the study of various questions involved are required. As yet no remains of a stone wall, such as surrounds the Roman stations in the north of England, have been met with. So thoroughly has almost every square yard of the enclosed space been turned over in the search for building materials or perhaps for expected treasures, during the many centuries Birrens was uncared for, that the "finds" have been few and of no value to any one but the archæologist. Among them are a large bowl hewn out of freestone, the use of which is uncertain; a portion of a small bronze figure of Mercury; pieces of sculptured panels and other ornamental work; portions of querns, made of the so-called Andernach stone, one of them hooped with iron; two pieces of an inscribed stone with well cut letters; a small stone with the name of the Sixth Legion marked on it in punctured letters; a small portion of a bronze vessel; an altar with inscription defaced, or a pedestal; large nails and other objects of iron much corroded; fragments of glass; bones of domestic animals; together with numerous pieces of pottery-Samian, "biscuit," grey, and dark, the Samian uniformly occurring in the lowest strata. It would be premature to attempt as yet to say how far the successive periods in the history of Birrens as a stronghold have been made known by these still unfinished excavations. Much, however, has been accomplished that is of permanent value. Birrens must

henceforth rank not as a mere "camp," but as a Roman station of the first class, intended probably as a defence of the great Southern Wall. Successfully assailed by superior numbers, the legionaries had, perhaps oftener than once, to abandon it, finding it on their return a mass of ruins. Such at least is the tale the excavations seems to tell. How often it was rebuilt by them or, as it may be, by other invading or by native tribes, it may be impossible to say. But a careful study of the various appearances it is seen to present will doubtless be made, and the veil that has hitherto shrouded the past may be lifted, at least in part. Greater interest than ever now attaches to Birrenswark. The camps there differ in many respects from Birrens, but from any point of view are worthy a careful examination. In other parts of Dumfriesshire are ancient strongholds to which attention is now naturally drawn. Raeburnfoot, in Eskdale, as described by its discoverer in the "New Statistical Account of Scotland," has not a few of the characteristics of a Roman camp or fort. Nothing, however, it would appear, has been done to satisfy the inquirer as to its real origin. At no great distance from it is Castle O'er, which has been a fort of great strength though less Roman like in form; and in the north of Middlebie, on Birrens Hill, is a remarkable quadrangular fort that seems to have hitherto almost escaped notice.

The following is the substance of Mr Barbour's statement: Although the exploratory works are not yet so complete as to admit of all the lines being fully traced, enough has been done to show that the entire area of the interior of the camp was occupied with buildings of various kinds, and the roads about them. The character of the roads and structures and their arrangement are deserving of careful study. The plan displayed is found to be highly symmetrical. It shows a main road extending from the north gateway to the south end of the camp, and one running from the east gateway to the west. These divide the camp into four rectangular spaces, the two at the south end being the smaller, and these spaces again are subdivided by numerous subsidiary roads or lanes running parallel with one or other of the main thoroughfares. It has not been ascertained whether the north-to-south road was continuous or if it was blocked north of the crossing by a central building—the Prætorium or the Forum -confirm to the arrangement found to obtain in some other camps. The roadways generally are formed of a thick bed of

gravel, hard and well bound together, the surface well rounded, the edges supported on two courses of stone; and for carrying off the surface water there have been hewn stone gutters on either side, of which several pieces yet remain in situ. The foundations of the building, unfortunately, have in some places wholly disappeared; for the most part those remaining are two courses of stone in height only, but in some instances they rise to a height of several courses. There are indications showing that the buildings have been of varied importance; those abutting on the eastto-west road, and particularly towards the east end of it, have evidently been intended for the more important purposes. They are distinguished by greater thickness of wall and better workmanship, but chiefly by the numerous prominent buttresses projecting therefrom on all sides. Two also show hypocaust arrange. ments for artificially heating the interior; these consist of a system of hot air ducts with connecting openings, over which the floors were laid. The other buildings seem to have been simple oblongs, without any distinctive features. Some of the masonry, distinguished by the less thickness of the walling and inferior workmanship, evidently belongs to a period subsequent to the erection of the original work; and as it stands on the old footings and alongside the old walling, would seem first to have been destroyed, and probably after a lengthened interval, when the art of building had deteriorated, the secondary work would be under taken. Other circumstances, such as the existence of one floor overlying another at a lower level, point in the same direction. All this, however, remains to be more fully inquired into and considered. Several interesting methods followed in the construction of the works are revealed. Preparation, for instance, is made for the reception of the footings of the more important walls by putting down a thick bed of well-tempered clay, and setting its surface with a causeway of whinstone cobbles; the walls are built in courses, with all the stones placed as headers, and the centre is closed with stones fitted in without shivers. The dressings indicate the use of various tools, the axe, scabbling pick, point, and chisels of several kinds. One is brought well into the presence of the old Roman mason when the breadth of the chisels he used is found marked on the stones on which they were sharpened. The character of the buildings as indicated by what remains of them sufficiently proves that they were not intended to serve a temporary purpose but were meant for

permanent or prolonged occupation. How far they displayed an architectural character little is left by which to judge. It is very probable that the great display of buttresses, while intended chiefly to secure strength, were also utilised for architectural effect. A well-formed splayed base course remains on one of the buildings, and several fragments of mouldings have been obtained, some of them carved, and these and other finds, such as stone floor tiles, neatly marked with the chisel in squares and diamond forms measuring about an inch each way, seem to show that elegance was not wanting.

New members elected:—Mr John Boreland, Closeburn; Mr William Duncan, Rotchell Park; Mr Christopher Smyth, English Street; Mrs Philip Sulley.



LIST OF MEMBERS.

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Honorary 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, Corr. M.S.A., Edinburgh.

Dr Anstruther Davidson, Los Angelos.

William Galloway, Whithorn.

Dr James Grant, LL.D., Bey, Cairo.

Peter Gray, Dumfries.

Alexander M'Millan, Castle-Douglas.

James MacDonald, LL.D., F.S.A., Edinburgh.

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Alexander D. Murray (former Secretary), Newcastle.

Dr David Sharp, F.R.S., Cambridge.

Dr Robert Hibbert Taylor, F.B.S. Ed., Liverpool.

William Thomson, Kirkcudbright.

Joseph Wilson (former Secretary), Liverpool.

Members.

John Adair, Rotchell Park.

Sir Andrew N. Agnew, Bart., M.A., Lochnaw.

John Carlyle Aitken, Kirkcudbright.

Miss Margaret Aitken, St. Albans, Maxwelltown.

John M. Aitken, Norwood, Lockerbie.

William Allan, Irving Street.

Rev. William Andson, Newall Terrace.

Joseph J. Armistead, Newabbey.

Samuel Arnott, Carsethorn.

William Barber, M.A., Terreran.

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.

Colonel Edward Blackett, Arbigland.

John Boreland, Auchencairn, Closeburn.

William Bowron, Marchmont.

Thomas M. Brown, Closeburn Castle.

Sir James Crichton Browne, M.D., LL.D., F.R.S., Crindau.

Alexander Bryson, Kenmure Terrace.

Duke of Buccleuch and Queensberry, K.T., Lord-Lieutenant of Dumfriesshire.

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, Buccleuch Street.

Miss Copland, Abbey House, Newabbey.

John F. Cormack, Solicitor, Lockerbie.

Adam J. Corrie, Senwick, Borgue.

John Corrie, Moniaive.

John J. Cowan, Eliock, Sanquhar.

John M. Crabbie, F.S.A., Duncow.

John Cumming, Albany Lodge.

James Davidson, F.I.C., Summerville.

John Davidson, Crichton Cottages.

Rev. John R. Denham, S. John's.

William Dickie, Laurieknowe.

William A. Dinwiddie, Buccleuch Street.

Miss Dobie, Penfillan House, Penpont.

John W. Dods, St. Mary's Place.

Bernard Drummond, Moffat.

William Duncan, Rotchell Park.

John H. Edmondson, Riddingwood.

Captain Robert Cutlar-Fergusson, Craigdarroch.

Joseph Gillon Fergusson, Isle.

James Fingland, Thornhill.

Rev. James Fraser, D.D., Colvend.

Thomas Fraser, High Street, Dalbeattie.

Mrs Gilchrist, Linwood.

John Grierson, Town-Clerk.

Robert Gordon, 22 Old Broad Street, London.

William M. Graham, Mossknowe.

Robert Grierson, Castle-Douglas.

John Gunning, Victoria Road.

Mrs Gunning, Victoria Road.

Miss Hamilton, Victoria Road.

Miss Hannay, Calderbank.

Miss Jane Hannay, Calderbank.

John Henderson, Claremont.

Lord Herries, Lord-Lieutenant of the Stewartry.

James Herries, Loreburn Park.

Alexander Young Herries, Spottes.

J. J. Hope-Johnstone, Raehills.

Matthew Jamieson, Craigelvin.

David J. Jardine, Applegarth.

John Thorburn Johnstone, Moffat.

Duncan James Kay, Drumpark.

John Kerr, Blountfield, Ruthwell.

Rev. Thomas Kidd, Moniaive.

Thomas Laing, Noblehill.

Rev. Sir Emilius Laurie, Bart., M.A., Maxwelton House.

James Lennox, F.S.A., Edenbank.

James M'Andrew, New-Galloway.

James M'Call, Caitloch.

Miss M'Cracken, York Place.

James C. R. Macdonald, M.A., W.S., Maryville.

Mrs James H. M'Gowan, Ellangowan.

Thomas M'Gowan, Rotchell.

Colonel Edward Mackenzie, Auchenskeoch.

William D. Mackenzie, Fawley Court, Henley-on-Thames.

Matthew S. M'Kerrow, Boreland of Southwick.

Thomas C. M'Kettrick, Viewfield.

Miss M'Kie, Moat House.

John M'Kie, Anchorlea, Kirkcudbright.

Thomas M'Kie, F.S.A., Advocate, Edinburgh.

Rev. John D. M'Kinnon, Newall Terrace.

Dr James MacLachlan, Lockerbie.

Samuel Macmillan, Moffat.

Alexander Malcolm, Priestlands.

Colonel William E. Malcolm, Burnfoot.

Mrs M'Tier, Ladyfield.

Wellwood H. Maxwell, F.S.A., Munches.

Wellwood Maxwell, F.S.A., Kirkennan.

William J. Maxwell, M.A., Terraughtie.

William J. Maxwell, Terregles Banks.

William M. Maxwell, Rotchell Park.

Frank Miller, Annan.

Miss Milligan, Irish Street.

John A. Moodie, Irish Street.

Thomas A. Moryson, Montague Street.

Miss Mounsey, Ludlow.

Robert Murray, George Street.

Mrs Murray, George Street.

William Murray, Murraythwaite.

George Neilson, F.S.A., Glasgow.

John Neilson, M.A., Catherine Street.

John Nicholson, Stapleton Grange.

Charles S. Phyn, Procurator-Fiscal.

Rev. Patrick M. Playfair, M.A., Glencairn.

John Primrose, Arundel House.

John Proudfoot, Ivy Lodge, 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, B.D., Balmaghie.

Sir Robert T. Reid, M.A., Q.C., M.P., Mouswald.

Richard Rimmer, M.A., F.L.S., Dalawoodie.

George H. Robb, M.A., Nithmount.

Miss Robb, Castle Street.

Dr J. M. Robertson, Penpont.

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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, Annan.

Mrs Scott-Elliot, Newton.

George F. Scott-Elliot, M.A., F.R.G.S., F.L.S., Newton.

Rev. James Hay Scott, M.A., Sanquhar.

Robert A. Scott, Kirkbank.

Walter Henry Scott, Nunfield.

James Shaw, Tynron.

Mrs Thomas Shortridge, Stakeford.

Rev. Richard Simpson, B.D., Dunscore.

James Smith, Commercial Bank.

Christopher Smyth, English Street.

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Earl of Stair, K.T., Lord-Lieutenant of Wigtownshire.

John Stevens, M.A., Wallace Hall.

Sir Mark J. M'Taggart-Stewart, Bart., M.P., Southwick.

Peter Stobie, Queen's Place.

John Symons, Irish Street.

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Miss Ethel Taylor, Kirkandrews Rectory, Longtown.

Miss Tennant, Aberdour House.

Alexander Thompson, Chapelmount.

Miss Mary Thompson, Chapelmount.

James S. Thompson, High Street.

Rev. John H. Thomson, Hightae.

Alexander Turner, Terregles Street. Thomas E. Walker, Dalswinton.

Miss Wallace, Lochmaben.

Miss Amy Wallace, Lochmaben.

Robert Wallace, Brownhall School.

Thomas Watson, Castlebank.

James Watt, Milnwood.

Rev. Robert W. Weir, M.A., Castle Street.

David Welsh, Waterloo Place.

James W. Whitelaw, Broomlands.

John H. Wilkinson, Annan.

James R. Wilson, Sanquhar.

Mrs Maxwell-Witham, Kirkconnel.

Miss Maud Maxwell-Witham, Kirkconnel.

Dr John M. Wood, Irish Street.

William M. Wright, Charnwood.

Major Young, Lincluden.



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PROBLEMENTS.

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THE TRANSACTIONS

AND

JOURNAL OF PROCEEDINGS

OF THE

Dumfriesshire and Galloway

Natural History and Antiquarian Society.

Founded November, 1862.

SESSION 1895-96.

PRINTED AT THE STANDARD OFFICE, DUMFRIES. 1897.



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AND

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Dumfriesshire and Galloway

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Founded November, 1862.

SESSION 1895-96

Published as a Supplement to this volume:

BIRRENS AND ITS ANTIQUITIES

BY

JAMES MACDONALD, LL.D.,

AND

JAMES BARBOUR, F.S.A.(Scot.).

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Erratum.—On page 37, line 34, highest reading of Barometer on 9th January, 1896, is given as 31·106 in. It ought to have been 31·016 in.

PROCEEDINGS AND TRANSACTIONS

OF THE

DUMFRIESSHIRE AND GALLOWAY

NATURAL HISTORY & ANTIQUARIAN SOCIETY.

SESSION, 1895-96.

25th October, 1895.

ANNUAL MEETING.

Mr James G. II. Starke, M.A., in the chair.

New Members.—Mr William Mair Graham, Mossknowe; Colonel Edward Mackenzie, Auchenskeoch; Dr James Maclachlan, Lockerbie. Mr William Galloway, Whithorn; and Dr James Macdonald, Edinburgh, were also elected honorary members.

Donations and Exhibits.—The following publications presented by the curators of the Smithsonian Institution:—Archæological Investigations in the James and Potomac Rivers; Siouan Tribes of the East; Chinook Texts; An Ancient Quarry in Indian Territory; List of Publications of the Bureau of Ethnology; U.S. Geological Survey, 1892-93; Report of the Bureau of Ethnology, 2 vols., 1889-91; Survey of the Rocky Mountains, vol. ix.; North American Fauna, No. 8. The Proceedings of the Academy of Sciences, Philadelphia, 1895; Proceedings of the Society of Antiquaries of Scotland, 1894; Report of Marlborough College Natural History Society, 1894; Journal of the Elisha Mitchell Scientific

Society, 1894; Transactions of the Natural History Society of Glasgow; Annals of the New York Academy of Sciences, Feby., 1895; Bulletin of the Geological Institution of the University of Upsala; Transactions of the Stirling Natural History and Archaeological Society, 1894-95; Proceedings of the Natural Science Association of Staten Island; Birds and Mammals of the Philippine Isles (Minnesota Academy of Natural Sciences); a volume on Insecta, from the Zoological Record, 1894, by Dr D. Sharp of Cambridge. Mr Moodie presented, on behalf of Mr Thomas Fraser, Dalbeattie, "The Sederunt Book of the Societies of Coall Adventurers in and about Dumfries, 1736." The Rev. William Andson, exhibited and presented a print of the old house at Friars' Carse, and also a copy of the first issue of the Edinburgh Courant.

SECRETARY'S REPORT.

The Secretary (Dr E. J. CHINNOCK) then read his annual report:—There are now 185 members of the Society, of whom 17 are honorary members. Of these 29 have been admitted during the session just closed. Mr Frederick R. Coles, of Edinburgh, was elected an honorary member last October. He has enriched our Proceedings by many valuable contributions; and since his departure from the district has kept up his interest in its antiquities. We may, therefore, expect help from him in the future. We have lost two of our most distinguished members during the year-Mr Patrick Dudgeon of Cargen and Mr Joseph Thomson, the famous traveller. The latter distinguished man had not taken personal interest in the Society since his very early years, when he was introduced by the former esteemed secretary, Mr Robert Service. It was always felt, however, an honour to have his name on our roll. Mr Dudgeon, the famous mineralogist, was in constant communication with us till the last. If he had lived he would have sent us in a few weeks another of his interesting little papers.

Eight evening meetings and three field meetings have been held. At the former 20 interesting papers were read, some of which were of permanent value. A very successful "At Home" was held in January, at which the President, Sir James Crichton Browne, delivered an illustrated address on the "Emotions as exhibited by the Face." Another meeting was held in April to welcome Mr Scott-Elliot home from Uganda. A lecture was

given by Mr Elliot on his travels, and laudatory speech delivered by Sir James C. Browne.

A Roman camp has been laid open at Birrens by the Scottish Society of Antiquaries, on the suggestion of Dr James Macdonald of Edinburgh. At the request of the Edinburgh society we elected Mr James Barbour as our representative on the excavation committee. His choice has been amply rewarded, for he has been of inestimable value to the committee in their explorations. We hope to have a paper descriptive of the results of the excavations from Mr Barbour in the course of the session.

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, very little money is left for the defrayment of the incidental expenses of the Society. It is therefore incumbent on members to introduce friends who will either take a personal interest in the work of the Society, or by their subscriptions contribute to its success and usefulness.

TREASURER'S REPORT.

The Treasurer (Mr J. A. MOODIE) read the annual report from the 1st October, 1894, to the 30th September, 1895;—

CHARGE.

Balance in Savings Bank at close of last account		£0	15	6						
Less—Balance due to Treasurer at do			0	3	$3\frac{1}{2}$					
			£0	12	21					
Subscriptions from 125 members at 5s each .	£31	5 0								
Do. 9 do. 2s 6d .	1	2 6								
			32	7	6					
Entrance fees from 17 new members			2	2	6					
Subscriptions paid in advance			1	0	0					
Arrears paid, two subscriptions			0	7	6					
Life subscriptions from 5 members at £2 2s each	10	10	0							
Copies of Transactions sold			0	16	6					
Interest on bank account			0	4	10					
Amount collected to cover the expense of Mr Scott-Elliot's										
meeting		• • •	5	9	6					
			£53	10	61					

DISCHARGE.

				-					
S	alary of keeper of rooms						£1	10	0
S	tationery, printing, &c						0	11	0
1	eriodicals and books						2	19	2
C	oals and gas						0	7	8
F	ire insurance premiums						0	4	6
S	ecretary's outlays and posts						1	14	11
T	reasurer's do.						0	19	1
E	expenses of calling meetings,	as follo	ws :-	-					
	Post cards				£3 15	74			
	Addressing same				1 2	0			
	Printing same				0.16	6			
							5	14	15
E	expenses of publishing Trans				, viz. :-	-			
	Account to Wood & Sc	on, lith	ograp.	hers,					
	Edinburgh				£1 1	9			
	Postage of Transactions t	o count	ry me	$_{ m mbers}$	0.12	$8\frac{1}{2}$			
	Dumfries Standard for pr	inting I	Transa	ctions	22 13	6			
	Do. for pr	rinting	copie	s of					
	Mr M'Andrew's pape	r			0.10	6.			
							24	18	$5\frac{1}{2}$
E	xpenses of conversazione in	Free St	. Geor	ge's H	all		7	7	4
E	xpenses of Mr Scott-Elliot's	meeting	g in G	reyfria	rs' Hall		2]	12	6
N	liscellaneous						1	1	6
					411 41		£50	0	3
	alance in Savings Bank	• •			£1 0	0			
C	ash in Treasurer's hands	• • •	• • •		2 10	$3\frac{3}{2}$			
							3]	10	35
							£53]	10	61

DUMFRIES, 31st December, 1895.—I have examined the foregoing account and the cash book of the Society, compared them with the vouchers, and find the balances stated to be correct.

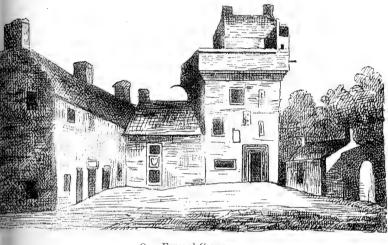
JOHN NEILSON.

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, Messrs Thomas M·Kie, William J. Maxwell, James G. H. Starke, and Philip Sulley; Secretary, Edward J. Chinnock, LL.D; Treasurer, Mr John A. Moodie; Librarian, Mr James Lennox; Curator of the Museum, Mr Peter Gray; Curators of the Herbarium, Mr George F. Scott-Elliot and Miss Hannay. Members of the Council:—Rev. William Andson.

Messrs James Barbour, James Davidson, James C. R. Macdonald, Robert Murray, John Neilson, George H. Robb, James M. Ross, James S. Thomson, and James Watt.

The Secretary then read a very instructive paper by Dr R. H. Taylor of Liverpool, entitled "Travelling in the Air."



OLD FRIARS' CARSE.

The following is the paper read by Mr Andson, describing "Old Friars' Carse":—As far as I can gather, Friars' Carse was originally the property of Melrose Abbey, and seems to have been the site of a monk's cell—whence, in all probability, the name. At a later period it belonged to a branch of the Kirkpatricks of Closeburn, from whom it passed to the Maxwells of Tinwald. Then it came into the hands of the Riddells of Glenriddle, who were the possessors in the time of Grose, the antiquarian, and Robert Burns. The pen-and-ink sketch of the old house, which I now produce, is dated 1773, and is identical with that figured in Grose's "Antiquities of Scotland." It is known that Grose visited Scotland on his antiquarian tour in 1789, and that in the course of it he paid a visit to Friars' Carse, where he was the guest of Captain Riddell, and it must have been at that time that he met with the poet, who had entered on the farm of Ellisland in the previous year.

Grose states in his notice of Friars' Carse that the old house, of which he gives a print, was pulled down in 1773 "to make way for the present one "--that is, the one which existed at the time of his visit. He states, also, that the old house was pulled down because it had become ruinous, and that the wall of the refectory or diningroom was eight feet thick, and the chimney twelve feet wide. facts and the whole style of the building indicate great antiquity; and I think there can be no doubt the sketch now produced is a correct representation of the house as it existed prior to 1773. is true that it was not seen by Capt. Gorse, but we cannot suppose for a moment that he drew upon his imagination for the representation which he gives. He was in circumstances to get reliable information as to its character from the proprietor at the time of his visit, and in all probability a drawing of it had been taken before it was demolished, which he reproduced in his work. therefore think there can be no doubt that the pen-and-ink sketch on the table is a correct representation of the ancient house of Friars' Carse as it existed prior to the year 1773.

Mr Andson further mentioned that the estate passed from the Riddells to Dr Crichton, founder of the Crichton Institution, who purchased it in 1809. We may add that the quaint old battlemented building figured above has had two successors—the house that was built by Capt. Riddell, and the modern mansion that was built by the late Mr Thomas Nelson, who bought the property from Dr Crichton's heir. In the new house is incorporated the dining hall of the intermediate building that was the scene of the "the whistle" contest. The estate, as our readers have of late been frequently reminded, was acquired by the trustees and directors of the Crichton Institution within the last five months. The sketch was found among the papers of a gentleman who was at one time land-steward on the estate, and there is some reason to believe that it is the work of Alexander Reid of Kirkinner, who painted a portrait of Burns.

8th November, 1895.

The Rev. WILLIAM ANDSON in the chair.

New Members.—Mrs Scott-Elliot and Miss M'Cracken.

COMMUNICATIONS.

I.—The Work of the Future British Botanist. By Mr G. F. SCOTT-ELLIOT, B.Sc., F.L.S.

The work of the British botanist of to-day labours under certain distinct disadvantages. There are so many books that he can very easily learn to name the commoner species, but he will very soon find that all those plants which are within an easy walk are discovered, and unless he turns to cryptogams, or attempts very long and distant excursions, there is nothing new for him to collect. Now there is a natural, perfectly legitimate, and most praiseworthy desire in every scientific spirit, to discover something new to add to the store of human knowledge in his own particular department, and leave it the richer for his existence. In the British botany of to-day this can only be done in such genera as Hieracium, Rosa, Rubus, and Salix, none of which can ever be thoroughly mastered by one human being. In such genera it is even possible in this country to discover (or, perhaps, more properly, invent) new species, as, in fact, has been done in Dumfriesshire. Such genera afford an infinite field for work. Bentham made some seven species of Hieracium, for instance, while the ninth edition of the London Catalogue contains 104, and this number may be increased to 400 in future editions. But as specialists in these four critical genera never agree, and only one can be supreme, there are only four future British botanists who can find an outlet for their energies in this direction, and these four must be magnificent pedestrians, with the whole of their time at their own disposal.

Another field for the present British botanist is the recording of plants and a county Flora. It is possible to make new records anywhere (I have made a few myself), but to make a county Flora involves an enormous expenditure of time and great walking power, even with a London Catalogue, which expands yearly, and produces new subjects to record. It is true there is still room for local Floras—I do not think the present number exceeds 15 out of the 100 and more counties for which they are required. Mr

Bagnall, the author of the Warwickshire County Flora, which is the best that I have seen, is a clerk in a Birmingham factory, and his work is a wonderful example of what can be done in very scanty leisure time. Such a feat is not, however, possible for most people. The object of this paper is to show that for the future British botanist there is within easy reach of any person's home an enormous field of work in which investigation is urgently required, and which can be cultivated by any industrious and sharp-sighted observer.

The present British botanist treats all the details of flower, leaf, and fruits as if they were invented by Nature simply in order that he may conveniently label his collections. It is a sufficiently astonishing fact that scarcely any realise, that every small and insignificant character has a definite object and purpose. Yet this is obvious to everyone who grasps the principle of Darwin's "Struggle for Existence"; and the idea goes back to far before Darwin's time; for Geoffrey St. Hilaire, in 1795, had grasped it more or less clearly, and it is very philosophically explained by Herbert Spencer in 1852.

In our own time Sir John Lubbock, Grant Allen, Henslow, Korner, Wiesner, and others have studied this question practically. A few illustrations will make their point of view clearer. Flowers are red not because human beings admire that colour, or find it a useful guide in the study of botany, but because this shade attracts a certain kind of insect. A poppy has thick, hard, and hairy sepals, which enclose the young flower, and fall off when they are no longer required, not because caducous sepals are useful to us in distinguishing the order Papaveracea, but because they are of advantage to the bud.

A laurel has glossy, hard leaves because the rain dries rapidly off foliage of this kind, and hence fungus spores and bacteria do not find a footing. If you look at this sparmannia you will see that the leaves have a curious shape. They are brought back into lobes, so that the growing point is protected from excessive light and heat. So with the curious, unsymmetrical begonia leaf; the odd lobe protects the young bud, though this is not easy to see in hothouse specimens.

These are isolated examples of a new and most important branch of botany which may be called "The Suitability of Plants to their ('limate,' or one may say Habitat, Environment, or Milieu,

for all these terms mean the same thing. Mixed up with this study of suitability is another problem of still greater importance—"The Evolution of Plant Organs." Darwin's work on the "Origin of Species" was incomplete in one respect. He showed that if a more suitable variety were granted, this best variety would be chosen by Nature just as a gardener would select it, namely, by weeding out the others which were less suitable. Darwin did not show how the variety arose.

In some cases the climate, by its own direct influence, produces that variety which is the most fitted to itself. It is true that this has only been proved in a few cases, but the theory may be entirely general. A simple instance will make this clear. The first time that a man rows in a boat he discovers that he blisters the hand at the root of his fingers; this painful result is followed by the formation of hard skin pads at the place, and with these he can row without pain. It is only required to suppose that these pads or hardnesses should be inherited to see how, in this instance, the direct action of the surroundings produces the variety best suited to resist them. To put it more simply, there are two distinct branches of botany, the one "Wh; plants have certain organs and arrangements," and the other, "How they produced such organs." It is obvious, if we wish to study these questions, it is quite essential that we should have a thorough knowledge of the climate, habitat, or environment of every plant, and that is exactly what we do not possess. The late Dr Gilchrist had a very clear idea of this problem. I quote his exact words: "It is very difficult, from its extreme complexity, involving a knowledge of the plant's relation to whatever can modify its growth, to the soil on which it grows, to the air which it breathes, to the sun which gives it light, to the rain, dew, or snow which afford it moisture." I do not know when these words were spoken, but it shows that Dr Gilchrist anticipated the very newest botanical ideas.

Perhaps the best method is to take the various organs of the plant in detail, and to try and show why they have their present shape, and perhaps, in some cases, how these have been evolved. Flowers are the more important organs, and it is on this account that in the Flora of Dumfriesshire I have included insect visitors where possible, these being essential parts of a flower's environment. I found it impossible in one season to investigate more than six species thoroughly, on account of the unfortunate

fact, that it is not possible to be in two places at the same time. I had no hope, therefore, of doing our 900 species in a thorough manner, so I have simply studied about 270, with much help from Miss Hannay, Mr Armstrong, and others, as well as I could manage. The result is that I am firmly convinced that a flower's shape and every detail of colour, scent, mode of ripening, &c., is entirely dependent on the insects which carry its pollen. Thus, in the order Labiatæ of the fourteen species studied, I found bumble-bees in every single case, except Mentha arvensis, where I should not have expected them.

in to empoored mem			Species of Bombus,	Hive Bee.	Other Insects.
Mentha aquatica			1	 	 2
Mentha arvensis		٠.		 	 3
Thymus serpyllum			1	 3	 2
Calamintha clinopodi	um .	٠.	1	 	
Nepeta Glechoma			1	 	
Prunella vulgaris			1	 	
Scutellaria galericula	ta .	,	2	 	
Stachys betonica			3	 	
Stachys silvatica			3	 **	 1
Stachys palustris			*)	 ***	 1
Galeopsis Tetrahit			3	 	 2
Lamium purpureum			1	 	
Teucrium Scorodonia			3	 1	 1
Ajuga reptans			1	 ***	 2

The colour and two-lipped condition are entirely suited to these bumble-bees, and this suitability is found in quite minute details.

But it is not safe to draw tables or to generalise in our present knowledge of the question. For instance, on the common bramble I found, with Miss Hannay's assistance, the following insects—the cabbage white butterfly, hive bee, no less than four bumble-bees (B. muscorum, terrestris, Derhamellus and pratorum), and only two flies or diptera, and these latter were not common sorts, but of a complicated and intelligent type (Eristalis pertinax and sericomyia borealis). I should have expected the sort of simple and stupid type of fly which one finds, e.g., on the strawberry, to which the bramble flower is not so very different. The bramble enjoys this select set of visitors, probably because the flowers appear so late in the season that these bees are not tempted to visit other forms, but no one would have expected such a result. In spite of the vast amount of observation yet required, it is safe

to draw the following conclusion. The flower is seldom the shape of an insect's head and proboscis at rest, but it almost exactly includes the space occupied by its various visitors in their motions when visiting and sucking honey; in other words, if we imagine a bee and the other insect visitors going through the same motions in a yielding substance like jelly, the space excavated by all the visitors would be an exact model of the flower. Granted the growth and the principle of economy, with such modifications as are due to the strains and mechanical support, the flower moulds itself, or may do so, to the average visitor.

This gives a hint of the manner in which the shape has been produced (cf., a foxglove and a bumble-bee, for instance, which fit like an old glove to its usual finger). But this is nearly all we know of how flowers may have been formed. Colour, it is true, seems a result of strong illumination. We do know that Alpine flowers exposed to strong sun are much richer and deeper in colour than the same species when cultivated at lower levels. But far more observation is required to shew even this properly. It is particularly important to know whether such flowers as the rose, bramble, anemone, &c., are more often pink when growing in sunny localities; and this is one question for the future British botanist. Another point for his attention is the size and number of flowers. I can, without hesitation, say that in exposed situations the number of flowers is usually greater than in sheltered places, and their size is, I think, usually diminished, but this point ought to be investigated with proper measurements. effect of strong exposure is to shorten the pedicels, which are more or less directly suppressed by the transpiration in exposed places. The result is to aggregate the flowers into a head or close corymb. In the colour, size, number, and the aggregation of flowers into heads or corymbs, therefore, the effect of exposure may be directly traced, and in the future these points will, no doubt, be proved.

If we turn to the vegetative system, the first point to notice is the shape of leaves. Of course leaves exist in order that the plant may obtain as much light and carbonic acid as is possible without hurting the tissue. It follows that there are two points to observe. The first is the manner in which the shapes of leaves and their positions on the branch are so arranged that they take up as much as possible of the light which falls on them. In the summer I could have shewn you any number of examples, but at

this season I can only shew you Mimulus and this Fuchsia. The effect is to produce a mosaic which nearly fills the space exposed. One must, however, remember that it is the plane at right angles to the sun's rays that must be studied. Thus, to see the mosaic of leaf-work on a vertical wall, you must look downwards, standing about as far from the wall as your own height.

The second point, the protection of leaves from injury by too strong sunlight, is not so easily seen in this country, but it can be traced, for instance, in the position of the black poplar leaves, which are hung with their flat surface vertical so that they are edgewise to the sun. The same arrangment may be seen in the blue gums and other Australian trees, which, in consequence, give but little shade. I think the position of the young leaf surface in all our British plants is worth investigation.

I have already alluded to the necessity of rain-water being rapidly and quickly conducted off the leaves as explaining the smooth, glossy surface of Rhododendron and laurel foliage. you compare these and other evergreens with an ordinary deciduous leaf, such as that of the chestnut, for example, the difference is most remarkable. The latter has roughnesses, hollows, grooves, and scattered hairs, all of which might afford a lodgment for fungus, spores, and bacteria. This is the beginning of the subject, however, for if you watch rain-water falling on any plant, you will find that in some cases it is conducted carefully from leaf to leaf till it reaches the outside circumference of the shadow. In such a case (as in the foxglove or chestnut) the roots spread out horizontally, so as to be directly under the drip. In other forms the rain-water is conducted down the leaf-stalk to the stem, and trickles down until it reaches the root, which in these species is usually long, or rather deep and vertical (Chickweed, Woundwort). Sometimes the stem is grooved, or the leaves have stipules or auricles, which assist in directing this stream in a definite direction. A good example is the so-called ligule of grasses, which prevents rain with germs and spores from entering the sheath in which the tender, growing part of the stem is enclosed. Nothing is known of the arrangements of most of our British wild flowers. John Lubbock has shown that stipules are used to protect the bud either of the leaf or the growing point of the stem. The common rock-rose protects its bud by them, but those species of rock-rose which are without these organs protect the bud by hairs or by an expanded leaf-stalk. Stipules are probably useful in other ways, e.g., in conducting rain down the stem.

Hairs are found very commonly in Nature, and are used for all sorts of purposes. The most important is probably to guard against excessive loss of water by transpiration. In the Sahara Desert the prevailing tint of the landscape is grey, not green as in our own country, because almost all the shrubs are covered with grey and silvery hairs. This also occurs in Europe in exposed situations. The Edelweiss growing on wind-swept rock ledges is densely white and silvery, so is the Alpine Ladies' Mantle. These plants cover themselves with cotton-wool to keep the moisture in just as we use clothes to keep the rain out. An instance of this is found in our Alpine Chickweed, found at Black's Hope, &c. This chiefly differs from the common species by being more woolly and having larger flowers. We can in this case guess how this species may have arisen, for a variety (alpestre) of the common c. triviale, which I found to be common on Whitcoomb and Auchencat in 1892, is both more hairy and larger flowered than is usual, and so approaches the Alpine form. There is even a good deal of evidence on hand to show that hairs disappear when such exposed plants are cultivated in moist and sheltered places. I have found this myself in a desert plant which I grew in a greenhouse, and which lost its hairs in that situation. Something of the same kind is found in Polygonum Amphibium, of which land forms are viscous and hairy, while water forms are quite smooth. In this species the hairs are probably of use in guarding against insects. It is said that hairs occasionally absorb moisture, but this cannot be considered proved. I have already alluded to their use as protection against insects; a good example is the characteristic downward-pointing hairs of the Forget-me-not. The stinging hairs of the nettle prevent human beings from injuring its brittle stems, and the hairs of the white deadnettle, as well as the plant generally, are so similar that the latter enjoys the same protection. In other cases they are utilized for climbing or the distribution of seeds, as, e.g., in the goose grass and other Galiums. The Sundew uses modified hairs to catch insects. In the Chickweed they are used to conduct water down the stem, and so on.

The modifications of the stem are scarcely so well known; plants are annual and perennial as a matter of convenience. The former are most common where there is a distinct check to vege-

tation. In England, for instance, we have many annuals, and in Tripoli and Egypt there are numerous tiny forms whose life is confined to the few days during which the soil is kept moist by a shower of rain. They spring, blossom, and die in perhaps three days. The fact that many of our annuals are perennial at the Cape proves that there is no real distinction between the two forms.

Every tree and shrub, again, has a method of branching peculiar to itself, but varying much according to the particular situation. This depends on which of the possible buds are allowed to develop, and how long each is able to grow before it is checked. Thus, in a very sunny or windy place a twig grows only a very short distance. Its tissue soon becomes so thick that it cannot elongate, though it may become wider; it therefore stops, and another bud sends out a little twig which stops, and yet another, and so or. The result of this is a dense twiggy branching which one finds typically in plants growing by the sea or in exposed places.

Another important effect of the development of the stem is the rosette type of plant, such as, e.g., the daisy. Here the internodes are suppressed as a result apparently of exposure, for many of these rosette forms will develop internodes if grown in moist, half-shaded places. However produced, the rosette shape is characteristic of plants that grow on bare earth, and whose leaves can lie flat down upon the soil. The plant gains by this structure, for its cushion or rosette of leaves retains dew, and keeps the earth below moist, while not having an expansive stem to make, the plant can send a long root into the rock crannies, or use up its surplus material in flowering branches or in vivid colour. In this case you see the climate or exposure, by suppressing the internodes, forms a rosette of leaves flat on the ground, which is a form exactly suited to the circumstances.

This is a good example of how plants have a certain structure, and also of how these have been produced. To give a good idea of the present theory of the origin of variations, as I hold it myself, it is necessary to go a step or two further. We will suppose that a species of an ordinary kind of Hieracium, common in glens and corries, has had a seed blown by wind to an exposed rock ledge at some distance off. The exposed situation will have the effect of suppressing the internodes so that

the leaves are flat on the rock, forming a rosette; the leaves will also become more hairy and possibly a darker red; the flowers will become more closely set together, very likely more numerous. and perhaps smaller. If this plant and its neighbours in the glen freely cross with one another, then a new species will not occur, because any variation (except such as is immediately due to the situation) will be stamped out by crossing with the original species. If, however, this plant and others sown beside it cannot cross with the ancestral form, these modifications may become hereditary, and in course of time a new species will arise. The plant is really in a sort of island, and we know that in islands there are often an enormous number of peculiar or endemic species, and it is this absence of crossing with the parent species, combined with changed conditions, which has produced them. There are three ways, at least, in which this may act in our own country. (1) The spot may be an island by position, so that crossing can scarcely occur. Hence the importance of studying localities. The Hieracium nitidum of Backhouse discovered by J. T. Johnstone in 1892 at Andrewswhinnie, could only, by an inconceivably minute chance, be crossed with its parent. (2) It may be an island through change in the flowering period. If the plant on the exposed spot blooms and finishes flowering before its relatives in the glen begin to flower it cannot be crossed with the parent. Hence the importance of knowing how long a plant remains in flower, and when it begins and ceases blooming. (3) It may be an island through its insect visitors being different. It is obvious that if the same insect does not occur in both places, crossing is impossible, and hence the importance of insect visitors.

I trust that in the preceding I have shown that the future British botanist will have plenty to do, and I give it as my deliberate impression both that this study of the why and how is the most important of all botanical enquiries, and also that any person who chooses can make the most valuable discoveries by careful observation in his own back garden. I could certainly have expanded this paper to many times its present length, but I forbear, trusting that some of these hints may induce others to follow this fascinating enquiry.

II.—Researches in the Life of John Macmillan. By the Rev. II.
M. B. Reid, B.D., of Balmaghie.

I take this opportunity of communicating certain inquiries which I have carried through in regard to some points in the life of the Rev. John Macmillan, minister of the parish of Balmaghie in 1701, and afterwards the pastor of the United Societies.

1. The first matter is the date and place of Macmillan's birth. In the "History of the Reformed Presbyterian Church," published in 1893, by the Rev. Matthew Hutchison of New Cumnock, it is stated that he was "born in the parish of Penningham, Kirkcudbrightshire, in 1669."* There are at least two distinct mistakes here. Penninghame is in Wigtownshire, and Macmillan was not born in Penninghame, but in Minnigaff in Kirkcudbrightshire. The usual spot assigned for his birthplace is a farm-house called Barncauchlaw, about four miles from Newton-Stewart and four and a half miles from the Murray Monument. I visited the place in August this year, in company with Dr John Grieve, a great-great-grandson of Macmillan on the female side. Barncauchlaw lies amid wild and picturesque scenery, quite near the coaching road, which is now a summer resort of tourists. We received a warm welcome from the present tenant, whose name is M'Geoch. It was stated by Mrs M'Geoch that the old small house still stands, but has been much added to in recent times. One little inner bedroom was considered most probably the scene of Macmillan's birth. Though there are no Macmillans now at Barncauchlaw, they abound in the neighbourhood. There are Macmillans at Palgown (since 1800), at Glenhead, at Glenlee; and in Newton-Stewart itself the name is frequent both among families and on public buildings, such as the M'Millan Hall.

A few weeks ago I also visited Glenhead, being attracted to it by the genial reference in the "Advertisement" to Mr Crockett's "Men of the Moss Hags." Glenhead is a sheep farm about 13 or 14 miles from Newton-Stewart, tenanted at present by a Mr John Macmillan, who gave me a most cordial welcome, and showed much hospitality. The road to Glenhead is extremely wild and precipitous, and certainly not one to be traversed after a Galloway market day, unless by a very steady foot. Here I found a very old copy (perhaps, indeed, an editio princeps) of the

^{*} Page 140.

Confession of Faith, in a fly-leaf of which I deciphered an inscription by Alexander M'Millan, dated 27th December, 1732, bearing that certain persons (presumably his own children) were born at certain dates, as under:—

1.	Part torn or burn	 	1664		
2.	John M'Millan		 	1682	
3.	James M'Millan		 	1692	
4.	Mary M'Millan		 	1715	

On another leaf is a note as follows:-

"James M'Millan aught this book, God give him grace thereon to look; and I grant it may be restored to my son, John M'Millan, at my death; as witnesseth my hand this 12 of Febuorrie, 1732. James M'Millan."

I at once thought of the minister of Balmaghie, and it occurred to me to inquire whether the commonly received statement of his birthplace and date was settled by any conclusive authority. Mr Thomson of Hightae gives the statement without citing any authority: so does Mr Hutchison. The monument at Dalserf says: "Died December first, 1753, aged eighty-four." The rare tract, called "Observations on a Wolf in a Sheepskin," published in 1753, says "in the eighty-fourth year of his age." But we know how often ages are misstated. If the John Macmillan of this fly-leaf is our man, he was born at Glenhead in 1682, about ten miles from Barncauchlaw farm-house, as the crow flies; and he was 71 years old, not 84, when he died at Broomhill, Bothwell.

I consulted the registers of Edinburgh University, and found that John M'Millan matriculated there in 1695, and graduated two years after A.M., in June, 1697. In 1695 the Glenhead John would be 13 years old, at which age, and even earlier, Scottish students then went to college. A two-years' course was probably enough to secure the Master's degree, being a certificate chiefly of knowledge of the classics. Three years more for divinity studies bring us to 1700, when he was licensed by the Presbytery of Kirkcudbright. Here the question of age emerges again. If born in 1682 he would at license be only eighteen. Nowadays license to preach is not granted till the age of twenty-one. Principal Tulloch, as Mrs Oliphant* relates, was kept back because he was

^{*}Life, p. 26,

not of age. "Why was not I born two months sooner?" he asks, in a note to his fiancée, after he had passed his "trials" for license, but got no license after all. But in the seventeenth century mere striplings were licensed freely. I have noted the following cases from the "Scots Worthies" as illustrations:—

John Welsh, born 1570, minister at Selkirk, Kirkeudbright, and lastly at Ayr, in 1590; aged 20.

James Mitchell, born 1621; M.A. at eighteen.

Andrew Gray, born 1634; licensed at nineteen.

Hugh Binning, became Professor of Philosophy in Glasgow University at eighteen.

Hugh M'Kail, born 1640; licensed when about twenty.

It is quite possible, therefore, that a lad of eighteen might be licensed, and even a year after become minister of Balmaghie. Macmillan's youthfulness might explain his mixture of firmness and wavering in the conflict with the Presbytery.

All authorities agree that Macmillan was connected with the family of Arndarroch, in the barony of Earlston. Oddly enough, Macmillan, for his second wife, married a daughter of Sir Alex. Gordon of Earlston. Brockloch, in Carsphairn, seems to have been the chief Macmillan centre. The present proprietor of Lamloch in that parish has not, however, any evidence of connection with our Macmillan.

- 2. The question of heraldry is not unimportant, and I now shew *Macmillan's seal*, with the two-handed sword and lion rampant and motto from *Virg. Æn.* i. 630 (miseris succurrere disco). The same crest and motto are used by the Palgown branch, omitting the lion rampant. Another Macmillan family use the lion rampant alone, with a different motto—age et perfice.
- 3. I have obtained a platinotype of fly-leaf of Macmillan's family Bible, which I exhibit. This throws a faint light on the question of his exact branch, favourable to my somewhat daring conjecture as to Glenhead. His youngest child was, strangely enough, christened *Alexander Janeta* or Jonita. The writer in the Glenhead Confession of Faith is Alexander Macmillan, and, according to my guess, would be the grandfather of this little child named after him.

More certain is the information in this fly-leaf on Macmillan's movements after his deposition in 1703. His first child, Jonas, was born in 1726 (12th June), at Balmaghie Manse; but the

second, Kathren, was born in 1727 (December 19), at Eastshields in the parish of Carnwath; hence Macmillan left Balmaghie finally between June, 1726, and December, 1727. This corrects an apparent error in Hutchison's History, p. 158, where the date of his leaving seems to be fixed in 1729.

Macmillan moved about at first from one house to another in Carnwath. In 1727, as we saw, he was at Eastshields; in 1729 at Eastforth; and in 1731 at Henshelwood. Then between 1731 and 1734 he must have removed to Dalserf, since his youngest child, and first deceased, was buried in the churchyard there. His house at Dalserf, from the Societies' minutes, appears to have been called Braehead; but he died not there, as Hutchison (p. 201) states, but at Broomhill, Bothwell (see the Dalserf monument).

This fly-leaf also shews that he publicly baptized all his own children, the mother being sponsor. He could not, indeed, do otherwise, as he had no ordained colleague till 1743, when he was associated with Rev. Thomas Nairn in forming the Reformed Presbytery.

- 4. The dispute between Macmillan and his Presbytery occasioned a paper warfare. I shew first an anonymous "Narrative," generally ascribed to Macmillan himself, and dating, probably, in 1704. At the close of this long paper, of 62 pp., a note is added, referring to a "Letter to the Parishioners," just published, by Rev. Andrew Cameron, of Kirkcudbright. See Narrative, p. 9. A third print appeared in 1705, containing the Presbytery's "Answers" to Macmillan's paper of "Grievances," and a fourth came out in the same year, in reply to Macmillan's own "Narrative," containing also a copy of the Libel. I exhibit copies of these two last prints, and draw attention to two points—(1) the statement in preface to the "Pamphlet intituled," that Macmillan as a boy was a "Separatist;" (2) in the special "Examination," p. 7, that Macmillan himself is the author of the anonymous "Narrative."
- 5. I have two further relics of a literary character, and both highly interesting. (1) The "Elegy" on his second wife, also anonymous, but from internal evidence, the work of Macmillan. See especially a passage at page 15 ("The Sprightly Babe," &c.). The date is 1723. (2) The full report of the "Auchensaugh Renovation" of the Covenants, with notes of Macmillan's addresses

and sermons (1712). Especially curious is the passage on page 38, in reply to the charge that he had excommunicated Queen Anne.

6. Lastly, I have brought here "Macmillan's cup," at whose appearance the Brownie of Blednoch was obliged to flee. The cup dates from 1615, and was constantly in use at Balmaghie Communions up till 1795. Macmillan must have handled it hundreds of times.

In the same volume with the Presbytery's "Answers" and the "Examination" are the following interesting prints relating to Macmillan:—

- Act of Commission of Assembly against Macmillan and Macneil, 1st October, 1708.
- Their Protestation sent to said meeting of Commission, 29th September, 1708.

This volume is the property of Rev. Mr Hutchison of New Cumnock. The volume containing the "Elegy" and the volume of the "Narrative" belong to Mr Wm. Macmath, Edinburgh. The seal is the property of Mr Thomas Rouet, Newton-Stewart.

13th December, 1895.

Mr Philip Sulley, Vice-President, in the chair.

New Members.—Mr Adam J. Corrie, Senwick; Mr William E. Malcolm, Burnfoot; Mr George Neilson, Glasgow.

Donations.—The Proceedings of the East of Scotland Naturalists' Societies, 1891-95; The Common Crow of the United States, from the U.S. Department of Agriculture.

Exhibits.—Mr James Barbour exhibited a piece of Roman glass and a supposed dart, found at Birrens during the recent excavations. Mr John Rutherford exhibited celts found at Tinwald and in New Zealand; an anklet found at Lochrutton, and a tripod found at Glenlee. Dr Chinnock exhibited a bronze chisel belonging to Mr Joseph Gillon Fergusson, of Isle, found in Dumfries. He also read the following description:—



This brass or bronze chisel is exhibited by Mr J. Gillon Fergusson, of Isle, a member of this Society. It measures $6\frac{1}{4}$ inches in length and $\frac{3}{4}$ inch in diameter. Mr W. Ivison Macadam, F.R.S.E., made the following analysis for Dr Joseph Anderson, National Museum of Antiquities.

 	 86.86	per cent.
 	 10.07	22
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	100	
	 	10·07 2·95 0·12

This implement was found by Mr Moffat, plumber. Dumfries, in an excavation, and by him presented to Mr Fergusson. These tools are very rarely found in Scotland. One found in Sutherlandshire was described, with this Dumfries one, by Dr Joseph Anderson, whose paper will be found in the last volume of the Proceedings of the Society of Antiquaries of Scotland. Another from Glenluce is pictured in the same article. Sir John Evans has tabulated about twenty bronze chisels found in England. They are very rare on the continent of Europe, and some have been found at Troy and in Egypt. Dr. Anderson in the paper referred to says: "The use of zinc as an alloy, in conjunction with copper and tin, is not a Bronze Age characteristic, but points to a date less remote than that of true bronze, in which zinc was never present, even as an impurity. If we assume that the cylindrical chisel from Dumfries was probably a mason's chisel, as its shape implies, we have to admit that there is no evidence of hewn or surface-dressed stone-work for which such a tool might be required, until the period of the Roman occupation, when it is also to be remembered that iron was in use. The researches of Göbel have shown that zinc is absent even from the Greek bronzes, which are composed of copper, tin, and lead. Zinc only begins to appear as an ingredient in Roman alloys, and it is only towards the commencement of the Christian era that it begins to be present in them." Dr. Anderson's suggestion that this chisel was a mason's chisel hardly seems to be tenable,

considering its bluntness. See his article from which this quotation is made, April or May, 1895.

COMMUNICATIONS.

I.—Botanical Notes for 1895. By Mr James M'Andrew, of New Galloway.

In July 1895 I spent a fortnight at New Luce in Wigtownshire in hope of gathering there some of the plants of the inland part of the county. I was not altogether disappointed, though the district has not a particularly rich or varied flora. Except in the valleys of the Main and Cross waters of Luce, the surrounding district is moorland. However, here and at Portpatrick I found the following ten plants, as new records for Wigtownshire, to be added to my former list:—

- Hieracium gothicum (Fr.), Backh. In the bed of Luce Water.
- 2. Hieracium auratum (Fr.), Do. do.
- Galium mollugo, var. Bakeri, Syme. At New Luce railway viaduct.
- 4. Hymenophyllum unilaterale, Willd. At Barnshangan Bridge and at Loups of Kilfeather, New Luce.
- 5. Centaurea nigra var. radians. Frequent at New Luce and Portpatrick.
- Melampyrum pratense var. montanum. Near New Luce. The var. hians occurs at Pularyan Glen.
- 7. Utricularia intermedia. Airieolland Loch, New Luce.
- 8. Barbarea stricta. Sent to me by Mr. R. C. Lupton, schoolhouse, New Luce, and found growing along the Cross Water; perhaps an outcast.
- Calamagrostis epigeios, Roth. Knock Bay, Portpatrick.
 This is, as far as I am aware, the first record of this grass for the south-western counties of Scotland.
- 10. Potamogeton perfoliatus. Lochnaw Loch.

It is about sixty years since Dr Macnab recorded Cladium germanicum or mariscus, for Ravenstone Loch, Wigtownshire. Since then it has not been seen in the county, but this year I was fortunate in finding a tuft of this rush in a Loch west of New Luce, thus confirming this plant for the county, though not for the old locality.

Among other plants seen around New Luce were Ranunculus Lenormandi and Radiola linoides, in Torrs Warren; Trollius europaus; Prunus padus (confirmed); Pyrus malus (confirmed); Rubus saxatilis; Viburnum opulus; Valeriana pyrenaica, at the Cruives; Habenaria albida, near Pularyan; Eleocharis lacustris, Kilhern Loch; Rhynchospora alba, Carex filiformis, Airieolland Loch; Bromus qiqanteus, Avena pubescens, Cryptogramme crispa, Botrychium lunaria, Equisetum sylvaticum, Lycopodium selago and clavatum; Selaginella selaginoides, Chara fragilis, and Nitella opaca. Near Portpatrick I gathered Carex lavigata and Pulicaria dysenterica, at Knock Bay: and Corydalis claviculata, Epilobium angustifolium, var. brachycarpum, in great abundance, Potamogeton pusillus, Carex pendula. &c., at Lochnaw. The three forms of Alchemilla vulgaris, as given in the Annals of Scottish Natural History for January, 1895, viz.: (a) pratensis (Schmidt), (b) alpestris (Schmidt), (c) filicaulis (Buser), are found in Wigtownshire. I have also gathered the three forms at New Galloway, and the Messrs Linton record them for Moffat. When attention is directed to them, they will be found in the three counties. The Rev. James Gorrie writes me that Datura stramonium is spreading at Rigg Bay, Garliestown; and Sir Herbert Maxwell gives the information that Carum carui is very plentiful in a meadow at Corvisal. Newton-Stewart.

Kirkcudbrightshire.

I have almost nothing new to record for Kirkcudbrightshire. However, (1) Sagina subulata, Presl., and (2) Avena pubescens, Huds., are new records for the county, occurring frequently in the Glenkens. I found Juncus tennis in a third station in this county, viz.: Creetown Station, where also I gathered Galium mollugo. The rare moss, Oncophorus crenulatus (Mitt.), Braithw., is found on the Kells hills, and also on Black Craig Philonotis fontana, var. capillaris.

I may also add the Hepatic Cephalozia multiflora (Huds.), Spruce, and the Lichens Graphis sophistica and Cladonia cariosa, from New Galloway.

II.—The Development of Arms and Weapons. By Mr Philip Sulley, F.R. Hist. S.

"Without weapons, man is the feeblest of animals, but with the weapons which he alone can create, he is the king of them all."

So wrote Thomas Carlyle; and primitive man, when he made his appearance on this planet, must have found himself in immediate need of loose stones and broken tree branches to use as missiles and weapons, alike to keep off his more dangerous animal neighbours, and to take the lives of the weaker ones, in order that he might sustain his own. Necessity, best of teachers, would speedily drive him to select the hardest and most durable of the stones. and such as could be fashioned into a cutting edge; and the stone axe, the flint knife, arrow, and spear-head, gradually supplanted the first casual or fortuitous implements. Indeed, the weapons of this prehistoric time, as it is called, are divided into the rough, the chipped, and the polished; and the highly-wrought jade axes and hammers, weapons which have survived among savages of the Southern Seas down to the present day, bespeak an amount of art and craftsmanship far removed from those associated with our aboriginal forefathers, yet still belonging to the same class.

As gunpowder in later ages, and the terrible weapons of war of modern times, are held to have been the strongest factors in promoting peace, enlightenment, and progress, so in early times did the improvement of weapons lead to what we know as civilisa-The peoples who first learnt the art of working metals, and of making swords, spears, and shields of bronze and iron, could not only conquer their less advanced neighbours, but by the terror and prestige of these arms, turn their newly-won powers to the industrial arts, and thence to decorative art and to luxury. Probably the earliest civilisation, although the one we as yet know the least of, was the American; and metal weapons and armour are to be found among the ruins, and carved on the walls of cities there, which are credibly believed to date back for 4000 years. Those, however, of which we have more knowledge and better records, are the Indian, the Assyrian, and the Chinese. It was the custom, till comparatively recently, to speak of the Bronze Age as separate from, and anterior to, that of iron, but extended researches in Assyria and Asia Minor have proved that these metals existed, and were used at the same time, although, from its easiness for working, nearly all the tools, and all the weapons, including edged ones, were made of bronze. In the Homeric war bronze was the material in use, but iron is repeatedly mentioned under a name which shews why, although harder and more durable, it was not preferred—it is called, "difficult to work in."

As the knowledge and use of bronze passed slowly from the east to the west, until the remains are found as frequently in the west and north as in classic localities, so did iron, by which the Romans established their superiority and vast empire, travel in the same direction, to be turned eventually against themselves, when the vigorous and fierce Goth, and Hun, and Vandal confronted the cohorts of Italy, armed with the same weapons. These weapons differed but little in the early civilisations. They were the spear or lance, sword, sling, and bow, while the defensive armour consisted of helmet, round buckler or long shield, and later of a cuirass or corselet, with plates of metal sewn on to woven stuffs or skins. The sword varied greatly, from the short, straight blade of the Assyrian, the hatchet or chopper-like implement of the Egyptians, the grand, shapely bronze of the Grecian, the scimitar of the Arabian, and the well-known short, broad-bladed cut-and-thrust weapon of the invincible Roman foot soldier. The throwing knife, khop or tolla, was in common use among the early Egyptians. The battle-axe, the enlarged successor of the bronze celt, and the lance, doubtless, came in later, when coats of mail and protective armour were used. Such implements of war as scythe-chariots, battering-rams, catapults, or balistas, for throwing missiles into besieged towns, &c., require only passing enumeration.

Varying only in form, in material, in fashion, and finish, the weapons used for hand-to-hand combat must have remained the same for centuries scarcely to be numbered; and any improvement in attack was met by improvement in panoply, in defensive armour. Further development could, therefore, only be by way of missiles discharged at a distance. The use of the helmet and coat of mail must have speedily brought to an end the art of the slinger, whose stones and bolts would prove powerless against such protection; while the yew bow and good yard-long arrow were effective only against the lightly armed, or when it chanced to pierce a joint in the armour, or found its way through the holes of a vizor or frontlet. The crossbow, a mechanical improvement on the old bow, giving greater penetrative force, failed against the magnificent suits of mail of the Middle Ages, and it required the irresistible force of the bullet, propelled by explosion, to change the entire system of warfare, and render shield and buckler, corset and suit of steel, of no avail to protect their wearers in the fight,

Like so many other notable inventions, the origin of gunpowder is shrouded in obscurity and doubt. The Chinese, that peculiar race who acquired civilisation so soon, and whose progress as strangely ceased, knew and used it for centuries before it made its way in Europe. The great wall of China (200 B.C.) has embrasures for cannon. It seems very doubtful whether, as an explosive and incendiary agent, it was not used both by the Greeks, Romans, and Arabs, and it is now believed that the secret came westward from India, and it is on record that firearms were used in 690 A.D., at the siege of Mecca. A receipt for making gunpowder is to be found in the writings of Marcus Græcus, 846 A.D., and in the 13th century it was not only used regularly in the war between the Chinese and Tartars, but also at the siege of Seville in Spain by the Moors. This effectually does away with the bogus claims of Roger Bacon and of his predecessors, the monks of Friberg, to whom the credit of the invention was at one time widely given.

As can be readily understood, the mortar, or bomb-shell, was the earliest, as well as the simplest, means of throwing stones into a besieged city, or into the camp of the enemy. Following this, several guns or mortars were made of bars of wrought iron, and joined together by hoops. A notable and early example is to be seen in Vienna, 3 ft. 7 ins. in diameter and 8 ft. 2 ins. in length. The first cannon was, doubtless, a tube of wrought iron, open at both ends, the charge being inserted at one end, which was then plugged with wedges of wood and metal. Engines such as these are first mentioned in 1301, when the town of Amberg, in Germany, had constructed a large cannon; in 1313 Ghent, in Flanders, had stone-throwing guns, and it would probably be from here that Edward III. obtained his cannon, first used against the Scots in 1327. During that century it is undoubted that many wooden cannon were used, as also tubes of copper cased in leather. Muzzle-loading and cast-iron guns gradually supplanted the old breech-loading, wrought-iron tubes; and leaden bullets are said to have first been used in 1346, iron balls coming into use about 1400. Trunnions, to support and balance the gun on its carriage, were first used in Germany in the 15th century, and it must be stated that nearly all the most important improvements in firearms are due to the Germans, who, in the Middle Ages, were also the best makers of arms and coats of mail. These include the rifled barrel,

about 1500; the wheel-lock, 1575; the trigger, 1543; the arquebus, or early musket, 1550; and in later centuries, the iron ramrod in 1730, and the needle-gun in 1827.

Among the early forms of cannon were the mortar, the cannon, the cannon on wheels, the culverin, falcon, and serpentine. This last consisted of a number of barrels grouped on wheels, or on a chariot—even as many as forty barrels—and in others the chariot made more dreadful, though hardly more effective, by the addition of spears and pikes. From the early cannon of hoops and rods, to the modern breech-loading death-dealer, capable of throwing hundredweights for miles, is a long journey, which has been covered slowly and gradually, every generation seeing some small change or development, although the quickest strides have been the latest.

The advantages of placing the smaller cannon tubes on sticks or movable supports, so as to give better and more varied aim, must have been early apparent. Indeed, all the early muskets were supported on crutches, swivels, or rests. The first trace of hand firearms is to be found in the 14th century among the Flemish, and their power in personal contests became apparent in the 15th, when it was found that even the strongest armour was unable to withstand their bullets. These hand cannon were rudely made, and supported on a piece of wood, so that they could not be brought to the shoulder, with the touch-hole on the top. The next development was a rough stock, so as to enable the weapon to be fired from the shoulder; then came the arguebus, which had a match-holder and a trigger. This was a great advance; as was the wheel-lock arquebus, which was not fired by a match, but by sulphurous pyrites, which ignited when caught by the cogs of the wheel, and fired the charge. The uncertainty of the action of the pyrites prevented this form from long continuing, and about 1640 the flint lock gun was invented by the French. To this Vauban, the great general, added a bayonet. The pistol, the diminutive of the hand gun, was first made at Perugia, in 1364, where were constructed "hand cannons the length of a palma," or hand, about 9 inches. The broad barrel blunderbuss, and the short carbine for cavalry use, were later developments, while the percussion cap gun, like the many improved weapons we now know and use, belong to the 19th century. What the future holds in store. whether electricity is to play its part as an agent of war, or terrible explosives are to be brought into use, capable at one fell swoop of destroying a town, a camp, or an army, is a question beyond the scope of this little essay, but it may safely be said that every great development and improvement in death-dealing weapons tend, by their efficiency and terrifying influence, to act directly in the cause of peace.

III.—Notes of a Visit to some Camps or Forts in the Parishes of Dryfe and Lochmaben. By the Rev. John H. Thomson, of Hightae.

On Thursday, 19th September, I set out in search of three camps or forts given in the Ordnance inch-to-a-mile map as about a mile and a half to the east of Hightae, in the parish of Dryfe, in the property of the Duke of Buccleuch. The Annau separates Loch. maben parish from Dryfe, and as there is no bridge across it at Hightae, I had to make a long detour by Shillahill of nearly four miles in length, before I got to Roberthill, a farm opposite to Hightae, on the road between Lockerbie and Dalton. Here I inquired at the gamekeeper's house for the camps, and was at once told by an intelligent man that one of them was near at hand, on the hill to the south, less than half a mile away, and that the others were not far distant. Indeed, he pointed out their sites. The hill is a rising ground that rises to fifty or sixty feet from the level plain through which the Annan meanders. It runs due south for about two miles, and begins not far from the road between Lochmaben and Lockerbie. At its foot, on the west side, it is skirted by the Bengall burn. There was little water in the burn, for it had been a dry September, so it was easily crossed. As I crossed I could see the rampart of the fort in the clump of trees on the brow of the hill about a hundred yards away. The trees seemed as if they had been planted shortly after the visit of the Ordnance Survey, for they are not marked upon the map first published in 1864. They now entirely enclose and cover over the camp, and make its centre dark and gloomy even in the bright sunshine. A carefully-kept hedge fences the clump. I walked round and round the camp, sometimes on its inner, and sometimes on its outer rampart. The ditch varies from four to six, and even eight, feet in depth, and its ramparts look as if taken out of it. Its circle seemed in size to be twice as large as that of the camp at

Lochbank, near Lochmaben station, and it is in the same state of preservation. Its ramparts can be but little altered from the time in which it ceased to be occupied.

I left the camp and clump of trees at the south edge. Here the ground ceases to rise, and becomes a flat table-land, and the view it gives commands the plain beneath. I now walked due south over the field for another clump of fir-trees about two hundred yards away. In its centre I found traces, but not very marked, of the fort given in the Ordnance map. It is very much smaller in size than the camp I had left, but some of the trees on its site had fallen, and may conceal much of what yet remains of it. The trees, too, are dense, and gloom reigned beneath them. As I came out of them, at the south edge of the clump, I found I was close upon the farm-house of Castlehill. The good people of the house were going about the stack-yard, and they readily shewed me the wood in which the camp I had still to visit was to be found. It was about five hundred yards due east from Castlehill. On the way I crossed an old unmacadamised road, that I afterwards discovered connected itself with a road that in two miles' walk led straight into Lockerbie. It is the road I should have taken had I come from Lockerbie.

The camp I was seeking I found, like the one I first visited, to be upon a hill side, and to be in a similar condition of excellent preservation. The ramparts (inner and outer) and the ditch were there, and the size, too, was much the same, only instead of a circle its form was that of a somewhat elongated ellipse. It was also enclosed from the surrounding field by a thorn hedge, and the trees were close together, and shut out the rays of the sun, and gave the whole a wild and weird-like look, as I walked round upon its ramparts and through its centre. The long ends of the ellipse are north and south. On its east side the hill slopes down into the valley. and the rampart looks high and more formidable to scale than on the other sides of the fort, and the stones, of which it seems mainly formed, are easily seen. The ground outside of the enclosing hedge has been all under the plough, which may have obliterated other outworks, did they ever exist; but I came away with a deep impression that time had made little change upon the camp or fort as a whole.

On Monday, 23rd September, I again set out upon my travels. I mention the time because, at the close of my journey, I found I

could not have chosen better. The ground was dry—a great matter for a traveller on foot—and the fields were clear. The harvest was everywhere over. The object of my pilgrimage was to find what the six-inches-to-a-mile Ordnance map styles a supposed Roman camp, and a fort at the north end of the parish of Lochmaben, not far from the village of Templand.

I took the road from Lochmaben that crosses the railway at the station, and runs north north-east for a mile and a quarter, until it reaches the bridge over the Kinnel, a chief tributary of the Annan. Here I turned off eastwards, and took the road to Nethercleugh. In half a mile's walk I came to a gate that opens into an old road that leads north north-west to a stone quarry no longer wrought. This old road I followed, and in ten minutes' walk I came upon the camp in a piece of flat, rough-looking pasture. It was close to the road, and beyond it was the old quarry. It was altogether different from the forts I had visited during the past week. It was square, with a rampart about three to four feet in height, and a ditch in which water lay and reeds were growing. Outside of the ditch was another rampart. The entrance and the road into the camp over the ditch were as marked as the camp itself. The whole had a remarkable likeness to the Roman camps at Birrenswark, but in miniature. I walked along the ridge of the four sides of the outer rampart, and found each of the sides to be about sixty paces in length. The sides of the inner rampart were about fifty. There are no traces of any ditch or rampart beyond the outer rampart. As the workings of the old quarry are close to the camp, it is possible that, if they ever existed, they may have been ploughed down. The ground, however, about the camp looks as if it had never been turned up, and the ramparts are as if unchanged since the palisades that bristled on their ridges were destroved many centuries ago.

From the camp I went north along the old road, and in five minutes' walk I was upon the road that connects Templand with the Nethercleugh station, on the Caledonian railway. A large plantation of trees lines the north side of this road for nearly half a mile. At the end of this plantation, in the corner, not far from the road, and on a knoll that commands the view southwards, was the fort I was in search of. It is, perhaps, thirty feet higher than the road, but the brackens were, in their luxuriance, breast high, as I climbed up to it, and tried to walk about it, and prevented me

from seeing distinctly its outlines. I could see, however, that it was a circular fort, whose rampart was mainly formed of stones, and that its size was not larger than the camp I had just left.

17th January, 1896.

The Rev. WILLIAM ANDSON in the chair.

New Members.—Messrs George Irving, Newcastle; William D. Mackenzie, Henley-on-Thames; and Samuel Smith, M.P.. Liverpool.

Donations.—Report of the British Association for the Advancement of Science.

COMMUNICATIONS.

I.—Report of the Meteorology of Dumfries for 1895.
By the Rev. WILLIAM ANDSON.

BAROMETER.—The highest reading of the year occurred on the 31st January, when it rose to 30.805 in., and the lowest on the 28th March, when it fell to 28:593 in., giving an annual range There were other three occasions on which the of 2.212 in. barometer fell below 29 in.—the first in the middle of January, the second between the 9th and 12th November, and the third in the middle of December. Although the lowest reading registered was 28:593 in. on the 28th March, there is reason to believe that in the early morning of the 11th November the barometer touched a still lower point. This may be inferred from the circumstance that where readings were taken every hour during the night between the 10th and the 11th, considerably lower readings were recorded. At Leith, for example, where this was done, a reading of 28.352 in. was registered at 3 a.m. The reading of 28.607 in. was registered here at 11 p.m. of the 10th, but the mercury at that hour was still falling, and in all probability, if a reading had been taken two hours later, say at 1 a.m., or two hours before the Leith observation of 28:325 in., it would have been equally low. The mean pressure for the year (reduced to 32 deg, and sea level) was 29.893 in., which is a little below the average of the last nine

Report of Meteorological Observations taken at Dumfries during the year 1895.

Height above sea level, 60 feet.

	Relative Humidity. Sat. = 100.			68	83	06	65	99	67	8	88	87	83	88	87	85
	Dew Point.		Deg.	31.0	30.3	36.5	40.5	44.5	6-14	50.5	53.5	52.1	36.3	38.5	6.48	41.3
	HYGRO- METER.	Mean Wet Bulb.	Deg.	33.6	33.3	38.0	43.0	0.6*	52.8	53.6	6.99	54.3	39.0	40.9	36.7	44.5
		Mean Dry Bulb.	Deg.	34.7	35.0	39.5	45.4	53.6	58.5	57.0	58.5	26.3	40.3	45.4	38.0	46.6
	RAINFALL.	Heaviest in 24 hours.	In.	0.38	09.0	0.38	0.68	0.08	0.83	1.48	0.89	0.21	0.72	0.77	0.75	1.48
		Days on Which it fell.		15	9	52	18	5	10	21.	28	10	15	21	22	193
:		.лиош к	In.	2.55	0.81	2.17	2.40	0.51	1.33	6.58	5.73	0.20	3.42	5.41	3.80	35.03
00 1006	S. R. THERMOMETER. In shade, 4 ft. above grass.	Mean Temperature.	Deg.	30.7	28.5	41.0	47.2	54.5	58.5	57.5	8.69	58.8	43 7	43.4	37.3	46.7
		Monthly Range.	Deg.	₹ 08	59.5	33.3	35.5	9.44	48.5	8.12	33.4	44.3	51.0	26	27.8	83.2
con rotor)		Mean Minimur.	Deg.	25.6	23.0	\$2.7	38.0	42.0	47.7	49 6	52.7	48.4	35.0	37.8	32.7	38.7
		Mesn Mumixsl	Deg.	35 7	36.3	9.9	55.5	0.99	9.69	1.99	8 99	1.69	52.5	49 0	6.14	54.5
reigne above		Lowest in Month.	Deg.	14 0	10	25.3	27.8	35 0	34.0	43.0	45.5	37.0	22.0	30.0	23.8	-1
11.6		Highest in Alonth.	Deg.	44.4	49.5	F. 12	63.3	9.62	89.5	8.02	9.92	81.3	73.0	0.99	9.19	85.5
TT	BAROMETER.	Mean for Month.	In.	29.756	30 163	59.640	29.872	30 136	30 065	29.847	29 828	30.03	29.817	29.801	29 704	29-893
		Monthly Range.	I.	1.820	116.0	1.693	1.576	0.923	0.925	0.785	1.022	0.981	1.415	1.936	1.549	2.515
		Lowe-t in Month.	In.	28.355	29 633	28.293	29.124	29.710	29.577	29.490	29.562	29.488	29.156	28.007	58.840	28.593
		Mighest in Month.	In.	30.505	30.610	30.586	30.400	30.633	30 205	30.275	30-320	30.414	30.571	20.243	30.389	31805
	1805.	Months.		Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year

WIND-

Ē. S.E. W. N.W. Var. N. NE. S. S.W. $26\frac{1}{2}$ 44 $65\frac{1}{2}$ $40\frac{1}{2}$ 25 $41\frac{1}{2}$ 55 $43\frac{1}{2}$ $22\frac{1}{2}$ Days

years. The highest monthly mean was in February, viz., 30·163 in., and the next highest in May and September, with values of 30·136 in. and 30·092 in. The weather in these months was for the most part anti-cyclonic, with very light winds and small rainfall; but as regards February with the severest frost and also the heaviest snowstorm of the year. The lowest barometrical means were in March, with 29·640 in., and December, with 29·704 in. But January and November had records almost equally low, and in these months the weather was for the most part changeable and unsettled, with occasional strong gales and heavy rain, and in March with a good deal of snow.

TEMPERATURE (in shade 4 feet above the grass).—The highest single day temperature of the year was on the 7th June, when 82.5 deg. was recorded; but the maximum of the 25th June was little short of this with a reading of 81.4 deg., and in September there were three days in which the temperature reached or exceeded 80 deg., viz., the 9th, the 27th, and the 28th, ranging from 80 deg. to 81.3 deg. While the absolute maximum was 82.5 deg. the absolute minimum or lowest temperature of the year was 1 deg. below zero, which occurred twice on the night of the 8th and again on that of the 10th February, giving an annual range of 83.5 deg. The warmest month was August, with a mean of 59.8 deg., the next warmest, September, with a mean of 58.8 deg., June had 58.5 deg., and July, which is often the warmest month of the year, had only 57.5 deg.; but it was a cloudy and showery month, with a marked deficiency of sunshine. which may account for its being under average in point of temperature. The mean temperature of the year, taken as a whole, was 46.7 deg. The average of the last nine years is 47.7 deg., so that the mean of 1895 is 1 deg. below average. The months in which the temperature was in excess of the normal were April, by one and a half deg.; May, by two deg.; June, by fully threequarters of a deg.; August, by two deg.; September, by nearly four deg.; and November, by three-quarters of a deg. months in which there was the greatest deficiency were -January by six to seven deg.; February, by ten deg; July, by one deg.; and October, by two and three-quarter deg. Thus, while there was an excess of rather more than ten deg. in the monthly means, there was a deficiency of fully twenty, so that it can be no matter for surprise that the annual mean for the past

year fell short of the average. Although August was the warmest month, it was marked by an unusual number of days on which more or less rain fell (no fewer than 28 out of the 31, with occasional thunderstorms); but while there was less sunshine than usual, the nights were generally warm, as is shewn by the high mean minimum of 52.7 deg., which is higher than that of July by 3 degs. The finest months of the year, and the most exceptional in point of warmth and dryness, were May and September, and particularly the latter. The first two months of the year were characterised by a protracted frost of unusual severity, which set in in the concluding days of December, 1894, and continued with little intermission till the 4th or 5th of March. The mean temperature of January was only 30.7 deg., as compared with average of 37.3 deg., and that of February as low as 28.2 deg., which is about 10 deg. under the normal. It will give some idea of the extraordinary character of this long spell of frost when it is mentioned that the protected thermometer fell below the freezing point on 51 out of the 59 days comprised in the first two months of the year, and that the aggregate amount of degrees of frost was 207 for January and 288.9 deg. for February, in all 495.9 deg. The climax was reached on the 8th and 10th February, on which two nights the mercury fell to 1 deg. below zero, a rare circumstance in this district. In some parts of the country considerably lower readings than this were recorded, as at Drumlanrig, for example, where the thermometer fell to 11 deg. below zero, and at Braemar, where it went down to 17 deg. below. During the week from the 8th to the 14th February the themometer only once rose above the freezing point, and one day, the ninth, the maximum was as low as 19 deg., while the highest of the minimum or night readings was only 9.7, and the mean temperature for that week was no more than 16 deg. It need hardly be added that during the greater part of the month the river Nith was frozen over, and that great damage was done by the bursting of water pipes, and no small amount of inconvenience occasioned by the scarcity of water owing to its being frozen in the supply pipes. In some instances this was found to be the case with pipes sunk three or four feet below the surface of the ground. As to the other months in which frost occurred, there were six days in March with an aggregate of 18.2 deg., six in April with an aggregate 10.5 deg., twelve in October with an aggregate of 65.8 deg.;

four in November, aggregate 6.7 deg.; and thirteen in December, aggregate 42.9 deg. This makes the total number of days in which the protected thermometer fell below the freezing point 100 and the aggregate degrees of frost 640, which is considerably in excess of any previous record during the period of observation at this station. In connection with the intense and protracted frost of the first two months of the year, it may be asked if any explanation can be given tending to account for it. I have no doubt that the proximate cause was the distribution of pressure during the period while it lasted. When we look into the details we find that the prevailing winds were almost constantly from the north and east. In ordinary winters the greatest pressure is commonly over Spain and the adjacent parts of the Mediterranean and Atlantic, and decreases towards Iceland and the north of Europe. Hence the prevailing winds are largely from the south-west and bring mild and moist weather. But last year this state of things was reversed. The greatest pressure was over the Arctic regions, and over Scandinavia and West Russia, giving rise to northerly and easterly winds, and making us participants in no small degree of the Arctic severity of the climate from which they came. This is an explanation so far, but we cannot carry it any further back, or tell why there should have been a different distribution of pressure last winter from what is most common, although doubtless it had its causes. Perhaps the extremely sudden change of temperature which took place in the beginning of October should not be passed over without remark. The mean temperature of the last week of September was 64.8 deg., which is higher than that of any other week in the year by more than 2 deg. mean temperature of the first week of October was 46.9 deg., shewing a fall of almost 18 deg. in a single week. But if we compare with the last week of September the last week of October, say from the 24th to the 30th, we find the mean of the latter period to have been only 35.8 deg., so that in four weeks the mean temperature had fallen to the extent of 29 deg.; that is to say, from the warmest summer temperature to the average of the coldest period of winter.

RAINFALL.—The total amount of rain or snow that fell during the year was 35.03 in., and the number of days on which it fell was 193 (rain 179, snow 14); but on 27 of these the fall did not exceed one-hundredth of an inch. The heaviest fall in 24 hours was on the 26th July, when 1.48 in. was registered. But there were other two days in the same month when the fall exceeded one inch. viz., the 2nd, in connection with a thunderstorm, and the 25th, when the records were 1.05 in. and 1.15 in. These were the only occasions on which the fall exceeded one inch. July was the wettest month in the year, with a total of 6.28 in., spread over 21 days; and the next wettest were August, with 5.73 in., and November, with 5.41 in. These records were considerably above average, and those of March and April were slightly so. The rainfall of all the other months was under average, and some of them in a remarkable degree. The driest month was May, in which only 0.21 in., or less than a quarter of an inch, fell. The next was September, with very little more than half an inch, viz., 0:56 in., and February had also less than an inch—0.81 in. In these three months the rainfall amounts to no more than 1.58 in., while the ordinary mean for them is 7:13 in. There were several periods of drought during the year. The first was in February. Between the 8th and the 28th of that month, a period of about three weeks, rain fell only once, and only to the amount of fourhundredths of an inch. Again, in May and June, there was an extended period beginning with the 1st of May and continuing to about the 25th of June, a period of about eight weeks, during which the rainfall did not exceed 0.48 in. The rainfall for the whole year, 35.03 in., shews a deficiency from the average of the last nine years of about 2 in.

HYGROMETER.—The mean dry bulb for the year was 46.6 deg., almost exactly the same as the mean annual temperature, which was 46.7 deg. Mean wet, 44.2 deg., giving for the dew point 41.3 deg., and for the relative humidity 82—saturation being equal to 100. The only remark to be made upon this is that the mean temperature of the dry bulb is about 1 deg. under average, corresponding with the similar deficiency in the mean temperature of the year, and that the relative humidity of 82 exhibits a like correspondence with the diminished rainfall, the average of nine years being 83.

THUNDERSTORMS were not frequent during the year. So far as I have observed, there was one in April on the 24th, one in May, also on the 24th (which was repeated to some extent on the following day), two in July in the beginning of the month, two in August on the 6th and the 27th, and one in September on the 9th.

The most severe of these were those which occurred on the 1st and 2nd of July and on the 6th of August. I have noted that on the 2nd of July there was incessant thunder and lightning from 1 to 2.30 p.m., and again that on August 6th a severe thunderstorm came on about 4 p.m. and continued till 5.20. There was a remarkable phenomenon witnessed at 9 p.m. of the 13th March, which was probably to be traced to electrical causes. This was a broad band of whitish light, somewhat resembling smoke, and stretching across the greater part of the sky, from N.E. towards S.W. I have observed that in some reports the aurora is said to have been very conspicuous that night in different parts of the country, and I suppose that what I saw must have been of this nature, although in some respects it was different from any aurora I ever saw before, more especially in its great extent and apparently fixed character, and in the absence of those streamers or rapid flashes of light which we usually see in connection with that phenomenon.

WIND.—With regard to the directions of the wind, it appears that during the past year those from a northerly and easterly direction—N., N.E., E., and N.W.—blew during 154 days; and those from a southerly and westerly direction—S., S.E., S.W., and W.—during 187 days, while 22 were variable. This differs from what is usual, only in a somewhat greater preponderance, of northerly and easterly winds.

In connection with the report on the movement of the barometer, I may take this opportunity of offering a remark on the extraordinary readings recorded on the 9th of the present month, although it does not properly belong to the subject of this paper. As I have already stated, the highest barometer reading for the past year was 30.805 in. on the 30th January. But it was also the highest recorded for the nine years during which observations have been taken here, the others ranging from 30.632 to 30.805. But on Thursday of last week the mercury rose to the unprecedented height of 31·106 in. As far as information goes, the highest readings recorded in Scotland previously during the present century were 31.01 in. in February, 1808, and 31.05 in January, 1820-both taken at Gordon Castle, Banffshire, and the latter corroborated by a similar reading in Edinburgh. It is by no means improbable, therefore, that the abnormal reading of the 9th January this year is the very highest on record—a circumstance which could not be passed over without special notice.

II.—"Kirkbean Folklore." By Mr SAMUEL ARNOTT, Carsethorn.

We naturally begin with New Year's Day, but in the parish its celebration was conducted in the usual way. The custom of "first footing," which has now almost fallen into desuetude, was, until comparatively recently, almost universal throughout the parish. As in other places, the "first foot" went to the houses of his friends with his bottle of whisky with which to treat all the inmates, who, in return, expected that he should partake of the contents of the house bottle and of the shortbread or currant loaf provided for the occasion. Certain individuals were, from some cause or other, considered to bring misfortune to the house if they were the first to cross its threshold on New Year's Day. Besides these ill-omened individuals, there were others presenting certain physical characteristics who were equally unlucky to the household they were the first to enter that day. These were "fair" or "red-haired" people, and those who were "flat-footed." In the course of my inquiries I heard of one woman who was considered an unlucky "first foot," and on asking why this was so, I was told that it was "because she was flat-footed."

To the youthful members of the population who had the fortune to be under the tuition of a teacher who kept up the "good old style," Candlemas day—the 2nd of February—was one of the most welcome of the year. It was the day of the "Cannelmass Bleeze," when the stern discipline of the dominie was relaxed (one would almost say was suspended) and the day given over to mirth and jollity. The Candlemas "bleeze" was an unknowing survival of the pre-Reformation feast in honour of the purification of the Virgin Mary, at which candles were burned, or perhaps of the ceremony spoken of by Herrick, of which he says:—

Kindle the Christmas brand, and then Till sunset let it burn, Which quenched, then lay it up again Till Christmas next return.

Part must be kept, wherewith to teend
The Christmas log next year,
And where 'tis safely kept, the fiend
Can do no mischief there.

I have been unable to trace anything in the celebration of the Candlemas "bleeze" which would explain why the word "bleeze"

-which, as you all know, is the Scottish for "flame"-was used. except in one instance afterwards related, and can only come to the conclusion that the word has been handed down for generations. The Candlemas "bleeze" celebration appears to have taken a slightly different form in the various schools, and in some does not seem to have been observed at all. In some schools this was the day on which the "coal money," as the fee given to the teacher for firing was called, was taken to the school. In others the "coal money" was taken on some other day, or a peat taken regularly by each scholar, but in this case the money was given to the teacher as a Candlemas gift. In some schools a boy and girl were respectively made "king and queen," the honours being, as it were, put up to the highest bidders by their falling upon those who gave the largest sum of money to the schoolmaster. I have been told of one instance in which the teacher always left two particular scholars to the last, so that they might be able to hand a larger sum than any who had preceded them. It is gratifying to think that this was not general, however. Sometimes the teacher gave the "king and queen" a present, which frequently consisted of a knife for the boy and a pair of scissors for the girl. After the teacher had received his gifts or his "coal money," as the case might be, all the scholars were treated to refreshments, which usually consisted of "toddy" and a hard biscuit, known as a "bake." The toddy shows us what progress has been made in ideas of the fitness of things since these days, but the description I have received of it leads one to believe that its effect upon the pupils would add little to the hilarity which followed. It is said to have been "hot water, sugar, and a little whisky "-" a very wee drap o' whusky" is the most graphic way of putting it I have heard. In some schools cordial was substituted, and although not in Kirkbean I may be pardoned for introducing it. At my first school in Dumfries port-wine negus or coffee were offered from which to choose. The toddy was handed round in a jug, the bearer of which also carried a glass, into which the steaming beverage was poured, to be quaffed by the expectant juvenile. When this was over desks and seats were put out of the way, and games succeeded. Generally speaking, these were of the usual character, such as "blind man's buff," "hunt the slipper," &c.; sometimes the sport seems to have been more demonstrative, and one could perhaps best describe it by the well-known expression

of "pandemonium let loose." What are known as "billet guns," i.e., pop-guns made from the wood of the "boor tree" or alder, were freely used, and dancing of the most boisterous nature indulged in. What the dancing meant may be realised when it is said that most of the children wore clogs, and the noise was so deafening that the "maister" had frequently to hold his hands over his ears and to run out of the school. Various competitions were also engaged in, for which the reward was an orange. These were hardly so educative as a "spelling bee," as may be understood when it is said that there was a "shiling" competition and a "scraighing" combat. In the former the competitors stood in a row facing the "dominie" and one of the elder scholars, who officiated as judges, and the orange was awarded to the one who "shiled" best, i.e., the one who made the ugliest face. One of my informants, who once acted as one of the umpires, still speaks with zest of the performance of one boy, who so excelled the others in the delightful accomplishment of "shilin" that he was always the winner of the luscious fruit, then far more prized than now. The "scraighing" contest (I prefer to use my informant's expressive Scotch for the emasculated English one of screaming), while it appealed less to the ocular organs, must have been something of a trial to the organs of hearing, as it consisted in "scraighing" as loudly as possible. The boy who made the most discordant sound received the orange. The only example of the use of a bonfire, or indeed of the use of fire of any kind, in the observance of the Candlemas "bleeze" that has come within my hearing, was at Southwick school, in an adjoining parish, but as children belonging to Kirkbean took part in the operations I may introduce it as appropriate to this paper. For some days before Candlemas day the children busied themselves during the dinner hour in collecting a pile of whins and other brushwood. On the day itself they made an effigy with a stake dressed in an old coat and hat, and placing it in the centre of the pile set fire to the heap, and consumed the effigy. This is what they knew as the Candlemas "bleeze," but very singularly, the efficy they burned was that of Thomas Paine, the author of the "Age of Reason," but who was only known to them as "Tom Paine, the infidel." This must have been a comparatively modern introduction, as Thomas Paine did not die until 1809, and his effigy was being burned as the Candlemas "bleeze" about 1830.

How long before that it may have been carried on I cannot ascertain. At this school the scholars were afterwards treated to toddy.

The only saying applicable to Candlemas which I have heard in the district was the familiar one:—

If Candlemas Day be fair and clear, There'll be twa winters in the year; If Candlemas Day be wet and foul, The half o' winter's gane at Yule.

The next season which has been remembered by custom or by saying is March, but this had nothing beyond the familiar saying: "A peck o' March dust is worth a king's ransom," "A peck o' March dust's worth a bowe o' aul' meal."

The first of April was, as may be expected, a popular day among the practical jokers, who delighted in the fancied license to tell "fibs." The sport of "Hunt the Gowk" has always been a favourite one, but it is needless to detail the character of the celebration of All-fools'-Day, when people were sent on fruitless errands, or led into embarassing situations to give sport to the practical joker.

The usual superstition regarding St. Swithin's Day appears to have been prevalent, and it is still spoken of, although now treated with but scant respect.

The cutting of the Kirn, as the last patch of corn was called, was performed with some little ceremony. In the days when reaping hooks were used instead of scythes, a small patch of corn was left standing until the last. The reapers then took up a position several yards from the "Kirn," and in turn threw their shearing hooks at the patch of corn. The one who succeeded in cutting it in this way was proclaimed the victor, and the Kirn was taken into the house, and generally decorated with ribbons, and placed in the apartment in which the dancing which followed was held. On the supercession of the reaping hook by the scythe the practice on some farms was altered, and the scythesman was placed a short distance from the corn, blindfolded, and told to walk up to it and cut it with the scythe. This was frequently difficult, and much amusement was caused by the efforts of the scythesman to walk in a direct line, as the feat is by no means so easy as it looks. The sweep of the scythe in the hands of a blindfolded man was at times rather dangerous, and the practice fell into desuetude. The

celebration of the feast of the Kirn, or simply "The Kirn" or "Harvest Home," was very general, and occasioned much enjoyment among the young folks. There seems to have been nothing unusual in the feasting and enjoyment in the parish, and readers of Scottish literature are familiar with the references to the Kirn in song and story, so that it is unnecessary to detail here the feasting and dancing with which the ingathering of the harvest was welcomed. The Kirn is now almost obsolete in the parish.

"Hallowe'en," celebrated on 31st October, was a red-letter day in the calendar. During the day the children amused themselves by singing:

Hallowe'en; the nicht at e'en The fairies will be ridin'.

A variation of this, which was in use in Kirkbean a number of years ago, was, it seems, as follows:

Hallowe'en; the nicht at e'en The fairies will be scraighin'. Din Doup had a wife, Her name was Peggy Aiken.

It was at night, however, that the celebration was in full swing. The young folks gathered together and burned nuts in the fire. As now, the two nuts were put in together. If both burned brightly the young man and woman whom the nuts were supposed to represent are or will be true lovers, and have happiness in their married life. If one jumps away that one was unfriendly or unfaithful. The pulling of the kail stock was a part of the celebration now quite obsolete in the parish. The young folks were blindfolded, and made their way to the garden of a bachelor or old maid, where they pulled the first "kail stock" they touched. On re-entering the house the "stocks" were eagerly examined to see what fortune was in store for those who had pulled them. If the stalk was tall and straight the future husband or wife would be comely and straight. On the other hand, if short and crooked, the partner would be unattractive. If the pith was bitter the husband or wife would be bad tempered; if sweet, of an agreeable disposition. If only a little earth adhered to the root the spouse would be endowed with but little of this world's gear, but if a considerable quantity of the soil was lifted, there would be a fortune. The stocks were then placed over the door, and the first person who entered the house afterwards was supposed to be of the same

Christian name as the future husband or wife. In order to ascertain the Christian name of her future husband or its initials, a young woman would pare a potato, taking care to keep the skin in one piece, and place the skin above or behind the door. The Christian name of the first man who came into the house was held to be the same as that of the future spouse. The other way was by paring an apple, the skin being again kept in one piece, and then throwing the skin over the left shoulder. In falling it was supposed to assume the form of the first letter of the future husband's name. It was also quite a common thing for the young women to eat an apple before the looking-glass at midnight on Hallowe'en, with the expectation that the face of their future husbands would be seen in the mirror as if looking over their shoulders. A story is told of one mischievous man of rather unprepossessing appearance, who concealed himself in the chamber of a young woman who was about to practice this form of divination. It is said that he looked over her shoulder at the time she began to eat the apple, and that the astonished damsel called out in her amazement: "Losh me, im a tae get Ned Tamson?" I suppress the real name, although the practical joker has long since gone over to the majority. The eating of the "champers" was one of the great events of the Hallowe'en gathering. The potatoes were pared, boiled, and well bruised by means of the wooden "beetle" used for the purpose; the young men of the party relieving the fair sex of the duty of "beetling" the potatoes. Butter and milk were added, and a ring, sixpence, and thimble, and often a button, placed in the potful of "champers," round which the company gathered, seated on the floor, and helped themselves from the pot with spoons. As is well known, the one who got the ring was understood to be the first to be married; the one who got the sixpence was understood to obtain riches; and the unfortunate finder of the thimble and button were respectively to be old maid and old bachelor. Diving for apples from a tub was also engaged in, and led to much merriment. The younger portion of the inhabitants found much pleasure in their lanterns, made out of turnips, upon which were carved grotesque and other figures, which showed well when the lantern was lighted up. At Carsethorn the children placed their lanterns in the tide after being lighted, and let them float away. This is quite extinct, and turnip lanterns seem almost things of the past.

The celebration of Christmas was not observed.

On Hogmanay, the last night of the year, the children went to the houses in bands, singing the following:

Hog, nog, nay, tol, lol, lay, Gie's a piece o' bread and cheese And I'll rin away.

0r

Get up aul' wife and shake your feathers, An' dinna think that we are beggars; We're but wee weans cam oot to play, Get up an' gie's oor Hogmanay.

It can hardly be said that this appeal was couched in the most polite terms, but the "aul" wife" was, as a rule, quite willing to overlook the want of courtesy, and cheerfully gave bread and cheese to the carollers.

In connection with deaths there are two or three customs and beliefs which were at one time observed. The first and second do not appear to be now observed, but the third is occasionally practised. At one time, immediately after a person died, the clocks in the house were all stopped. Another practice was to cover up the looking-glasses. I cannot discover why either of these things were done. Since writing the foregoing a friend called my attention to the following note which appeared in the North British Advertiser of 4th January, 1896, above the signature, J. M. Mackinlay, F.S.A., Scot. :- "Covering Mirrors after a Death .- This custom is well known in Scotland, but its origin is seldom understood by those who practise it. To find its explanation we have to look to the beliefs of uncivilised races. The following account of the custom is given by Dr J. G. Frazer in his 'Golden Bough' (vol. i. p. 146):- 'We can now explain the widespread custom of covering up mirrors, or turning them to the wall, after a death has taken place in the house. It is feared that the soul projected out of the person in the shape of his reflection in the mirror, may be carried off by the ghost of the departed, which is commonly supposed to linger about the house till the burial. The custom is thus parallel to the Aru custom of not sleeping in a house after a death for fear that the soul, projected out of the body in a dream, may meet the ghost, and be carried off by it. In Oldenburg it is thought that if a person sees his image in a mirror after a death he will die himself. So all the mirrors in the house are covered up with white cloth.

some parts of Germany, after a death, not only the mirrors but everything that shines or glitters (windows, clocks, &c.), are covered up, doubtless, because they might reflect a person's image. The same custom of covering up mirrors, or turning them to the wall, after a death, prevails in England, Scotland, and Madagascar.' The statement in the last sentence regarding the custom north of the Tweed is confirmed by the late Mr James Napier, in his 'Folk Lore in the West of Scotland.' On page 60 of that work he says:-- 'After death there came a new class of superstitious fears and practices. The clock was stopped, the looking-glass was covered with a cloth, and all domestic animals were removed from the house until after the funeral.' Mr Napier does not attempt to explain the practice, but the reason given in the 'Golden Bough' is quite an adequate one." It will be observed that this is no explanation of the stopping of the clocks. With regard to the other custom or belief. it is actually still observed, and has come under my own notice. One night, when present at an "encoffining," a young woman, who was taking her last look at the little child, remarked that it was the first corpse she had "Then," remarked another person present, "you must touch it." She did so, and was told that she should draw her hand from head to foot. I afterwards ascertained that it was supposed that the one who saw a corpse for the first time, would dream about it the same night unless he or she touched it in this way. Although there was no "wake" held after the fashion so prevalent in Ireland, a number of years ago, it was the custom for one or more of the neighbours to sit in the apartment in which the corpse lay, or in the adjoining one. This was kept up by day and night until the funeral, which frequently did not take place until eight days after the death. This custom gave an opportunity for showing the neighbourly feeling so common in country districts, which is often unseen in ordinary intercourse, but is so apparent in times of sickness and sorrow. The saying, "Happy is the corpse the rain rains on," is sometimes remembered, although in varying words. I have been unable to hear of any superstitions connecting deaths and bees, similar to those spoken of by the late Mr Dudgeon in his paper on "Bee Folklore," which appears in this Society's "Transactions" for the session 1891-92. I have made particular inquiry about these, but no one seems to have heard of them in Kirkbean. The custom of having a few friends and neigh-

bours present at the "encoffining" of the dead is still kept up in the parish, although on a more limited scale than was formerly the case. A number of years ago more people were invited to be present. Then, as now, whisky and biscuits were handed round, and partaken of in a sparing manner. The custom of providing refreshments at funerals has now quite died out, and since I went to reside in the parish more than eleven years ago. I have not seen a funeral at which there has been even a single "service" of refreshments, while formerly there were three: one on the company assembling, another just before the departure for the churchyard, and a third on their return. This was gradually reduced to one "service," just before leaving for the burying-ground, and this, again, was abandoned, but a tea is generally provided for the male relatives and one or two others. In connection with the "service" of whisky and biscuits and shortbread, it must be remembered, as an excuse for the custom, that not so long ago the coffin was carried by bearers all the distance, often some miles. I often think how much more impressive than the short burial service in the house is the way in which this part of the ceremony is still conducted in Kirkbean. The minister comes outside, generally to the door of the house, and those who have come to the funeral gather round, and a prayer is offered,

There is nothing very noteworthy in regard to marriages, but the following may be mentioned. It is said that "Happy is the bride the sun shines on;" and in addition to the modern custom of scattering rice over the bride and bridegroom on their departure, the old one of throwing old shoes at them is still kept The superstitions regarding the bride's dress are limited, and seem confined to the following. It is unlucky to be married in a green dress or to wear the bridal gown until the marriage ceremony. Something old should also be included among the wedding garments, and also something which has been borrowed. custom, so highly appreciated by the children, of scrambling pennies and half-pennies on the occasion of a wedding is not quite obsolete; and, whenever possible, the bridesmaid and "best man," as the groomsman is called, accompany the newly-married couple to church the first Sunday after the marriage. In accordance with the wide-spread superstition, marriages in May were considered unlucky.

Not unfamiliar to many is the not uncommon custom of putting a piece of money into the pocket of a child's new garment to "hansel" it. It was only lately, however, I learned that it was a common thing a good many years ago for a boy who had become the happy wearer of a suit of new clothes to go the round of the village to show them to the neighbours, who generally "hanselled" them by giving him a half-penny or a penny.

It seems that there was a custom years ago, and may still be, to put a coin under the mast of a vessel. This I heard of about two years ago when the masts were taken out of an old vessel which was in course of undergoing repair. It was generally silver coins, but in this case they were of the baser metal. I am in possession of a half-penny which was under the foremast of this vessel, the coin under the mainmast being a penny.

The late Mr Dudgeon, in the paper to which I have already referred, speaks of the belief that it was unlucky to buy or sell bees, or rather to let money pass between the old and the new owner. I have heard this said, and that the bees were taken away, and a sum of money, generally £1, left on the stand on which the hive had been placed. In the same paper it is said, "An old man I have heard of in Kirkbean, who died about thirty years ago, always maintained that the bees sang a hymn on Christmas day. This pretty superstition has, I fear, quite died out." I have made enquiry regarding this, but cannot hear anything about it, and I have been equally unsuccessful in discovering any other remains of bee superstitions.

In my paper on "Plant Superstitions," which appears in this Society's Transactions for the session of 1892-93, I included several superstitions which were believed in in Kirkbean. I fear to repeat these would unduly extend this paper, and I have heard of little to add to this part of the subject. Here is, however, an instance of the way in which the supposed properties of the rowan tree were applied. An old woman residing in one of the villages in the parish gave a boy a twig of a rowan tree and said, "Pit that aboon the byre door; an' the coo'l be nane the waur o't." Few will question the truth of her statement.

I have endeavoured to find out if anything lay behind the custom of young or unmarried women generally carrying a small piece of Southernwood, or "Lad's Love," when going to church.

I think this may originally have been with a deeper motive than that of enjoying the fragrance of the "Sidderwood."

One superstition, almost, if not quite, obsolete, was that it was unlucky to meet a "cross-eyed" person the first thing in the morning. Another, with which I shall conclude, was that if people quarrelled about fish or fishing the fish would be sure to leave the place.

14th February, 1896.

Mr PHILIP SULLEY, Vice-President, in the chair.

New Members.—Mrs Johnstone, Victoria Terrace; Rev. Roger Kirkpatrick, Dalbeattie; Col. J. Maxwell Witham, Kirkconnel; Benjamin Rigby Murray, Parton; Robert A. Yerburgh, M.P., Chester.

Donations.—A Treatise on Education, by Dr George Chapman, rector of Dumfries Grammar School, 1773, presented by the committee of the Mechanics' Institute; Transactions of Edinburgh Geological Society, 1895; Annals of the Andersonian Naturalists' Society; Transactions of New York Academy of Sciences; Proceeding of the Rochester (New York) Academy of Sciences; Proceedings of the Philadelphia Academy of Natural Sciences; Proceeding of the Nova Scotian Institute of Science.

Exhibits.—-Mr Shaw exhibited a pack of Indian cards and some Indian hand pictures, done at Madras. Mr Sulley exhibited a deed engrossed in the reign of Charles I., and two remarkable jewel cases made in the 10th century; also an old seal of one of the Jameses.

The Rev. William Andson was elected joint-librarian with Mr Lennox.

COMMUNICATIONS.

I.—Adder Beads and Children's Rhymes. By the late Mr JAMES SHAW, of Tynron.

About a week ago I visited an old lady who is between 80 and 90 years of age, resident in Tynron, and from whom I procured the adder bead which I now produce. It was an heir-loom

in her family. The story of its finding is that a shepherd, she believes, in the parish of Closeburn, had observed a number of adders very fierce and very agile. He got alarmed, and hastened from the place, throwing off his plaid, which tradition says is a good plan to divert the ferocious attack of either adders or weasels by taking up their attention for a while. Next morning he returned to the spot to discover that his plaid was pretty much eaten, or, as the old lady said, "chattered." The adders were gone, and while gazing on the knoll on which he had seen them he discovered this bead. The Tynron lady's grandmother wore it around her neck as a charm or amulet. The same lady's father once got the offer of £5 for it, which he refused. I may say that I have already been offered more than I paid for it. A Dumfries naturalist told me they were common, and that a friend of his had nearly a score, but on enquiring at aforesaid friend I found his were spindle whorls of stone. I believe they are very uncommon, at least in Dumfriesshire. There is not one in the Grierson museum, as you may judge from the catalogue. Looking at this bead, it might with more propriety be called a glass ring. The best account I find of them is in Brand's "Popular Antiquities," vol. iii., p. 286, edition 1888. Pliny, the Roman writer, refers to them. Pennant, in his "Zoology," says the tradition is strong in Wales. The wondrous egg, or bead, was considered a potent charm with the Druids. It used to assist children in cutting their teeth, or to cure chincough, or to drive away an ague. Camden gives a plate of these beads, made of glass of a very rich blue colour, some of which are plain and others streaked. The ovum anguinum, or Druid's egg, has been frequently found in the Isle of Anglesey. It has been found in Cornwall and most parts of Wales. The Welsh name for them is serpent's gems. Mr Lloyd says they are small glass annulets about half as wide as our finger rings, but much thicker, usually of a green colour, though some are blue and others curiously waved with blue, red, and white. Pliny says they are hatched by adders. These beads are not unfrequently found in burrows. Bishop Gibson engraved three found in Wales. In Brand's "Antiquities" no mention is made of them being found in Scotland. The tradition that they have been produced by serpents is current in all the districts in which they have been found.

50 Riddles.

Mr John Corrie, member of this Society, has collected a number of Folk Riddles, from the parish of Glencairn (vide Transactions, 1891-92). It struck me that I might supplement that paper with examples of a few more current in Tynron, but I fear destined soon to become unknown. I shall also give examples of other rhymes, but take the Folk Riddles first.

What is it that you have, and I have not, and I use it more than you do? Ans., Your name.

What goes through the wood and through the wood and never touches the bushes? Ans., A sound.

What goes through the wood and leaves a but on every bush? Ans., Snow.

As white as snaw, but snaw it's not; As red as blood, but blood it's not; As black as ink, but ink it's not;

Ans., A bramble, whose blossoms are white, and its fruit first red and then black. It equally well suits the gean, or wild cherry.

Through the wood and through the wood, And through the wood it ran, And though it is a wee thing It could kill a big man.

Ans., A bullet, which runs through the wooden tube of the gun.

I have a little sister, they call her Peep Peep, Over the waters deep, deep, deep, Over the mountains high, high, high, And the poor little creature has just one eye.

Ans., A star.

What is it that God never saw, kings seldom see, and you and I see it every day? Ans., Your equal.

What goes up the water and up the water and never comes to the head of it? Ans., A mill-wheel.

There was a man who saw a pear tree, and pears on the tree. He stretched out his hand and plucked, but he neither took pears nor left pears on the tree. This is a verbal quibble. The explanation is that he took *one* pear and left *one*.

Here is a riddle we have upon a beetle, or, as the children call it, a "clock." The description is quaint and graphic.

Wee man o' leather Gaed through the heather, Through a rock, through a reel, Through an old spinning wheel, Through a sheep shank bane, Sic a man was never seen.

The following is a curious piece of natural history: There was a leak in Noah's ark. The cat tried to stop it with its paw, but in vain; then the dog tried to stop it with its nose, but in vain; then the men tried to stop it with their knees, all in vain. Noah's wife prayed, and it was stopped; but the cat's paw, the dog's nose, and men's knees remain cold unto the present day.

The following is a reminiscence of the time before bridges: What goes through the ford head downmost? Ans., The nails on a horse's shoe.

The next riddle gives us a glimpse of drudgery which sanitary engineers are rapidly rendering obsolete. What goes away between two woods and comes back between two waters? Ans., A woman, when she goes with her empty wooden stoups to the well and comes back with them filled.

The following riddle is rather gruesome:—What is it that waits wi' its mouth open the whole night in your room for your bones in the morning? Ans., Your shoes.

The following verbal quibble is confusing enough when first heard:—Whity looked out of whity, and saw whity in whity, and sent whity to turn whity out of whity. The explanation is that a white woman looked out of her white night-dress and saw a white cow among the white corn, and sent a white dog to turn it out.

London brig appears in one of Mr Corrie's riddles; it also appears in the following:—

As I gaed owre London brig, I let a wee thing fa'; The haill folk in London town Couldna gather't a'.

Ans., A pinch of snuff. This reminds us of the Scriptural expression of "water spilt upon the ground which cannot be gathered up again."

Mouthed like a mill-door, Lugged like a cat; Though you guess till noorday, Ye'll no guess that

Ans., Potato pot.

The following riddle has a very wide range:-

Come a riddle, come a riddle,
Come a rot, tot, tot;
A wee wee man wi' a red red coat,
A staff in his hand and a stone in his throat.

Ans., A cherry.

The following I first heard in Annandale:—What is it that is very much used and very little thought of? Ans., A dish-clout.

I used to feel rather melancholy at the following narrative, sung in a low, monotonous tone.

No a beast in a' the glen Laid an egg like Picken's hen; Some witch wife we dinna ken Sent a whitterock frae its den, Sooked the blood o' Picken's hen. Picken's hen's cauld and dead, Lying on the midden head.

As I grew older I was warned away from straying in woods by the description of a hobgoblin. Folk-lorists are endeavouring to shew that Shakespeare's "Caliban" was suggested by no books of travel, but by the legends current about the men of the woods and caves, who existed in Warwickshire in the dim dawn of history. I am sorry that I retain only four lines descriptive of my terror, but they are graphic enough:—

And every hair upon his head
Is like a heather cow;
And every louse that's looking oot
Is like a bruckit yow (ewe).

The following rhyme was given in autograph by Thomas Carlyle to a friend, and has been published in *Notes and Queries* It is dated Chelsea, February, 1870.

Simon Brodie had a cow He lost his cow and couldna find her; When he had done what man could do,

The cow came home and her tail behind her.

 Mr Carlyle also gives his reminiscence of an old Scotch song given at the same date.

Young Jockey was a piper's son, And fell in love when he was young, But a' the tunes he learned to play Was over the hills and far away. And its over the hills and far away, The wind has blown my plaid away.

The Dumfriesshire magpie gets more lines than usual:-

One's sorrow, two's mirth, Three's a wedding, four's a birth, Five's a funeral, six is snaw, Seven draws the dead awa'.

When boys saw one they used to spit hastily three times to spit away sorrow. In *English Folk Lore*, by Thiselton Dyer, other three variants are given, but not the one above.

The children's Hogmanay rhyme in Dumfriesshire is more polite than its Renfrewshire version.

Hogmanay, troll lol lay,
Gie's a piece o' pancake
And let us win away;
We neither came to your door
To beg nor to borrow,
But we came to your door
To sing away sorrow.
Get up gudewife and shake your feathers,
Dinna think that we are beggars,
But boys and girls come out to play,
And to seek our Hogmanay.

There is a children's game beginning with a rhyme. The rhymster touches alternately two boys, beginning:—

As I gaed up the apple tree, A' the apples fell on me.

And ending with the lines :-

Bake a pudding, bake a pie, Stand you there out bye.

The last touched stands aside until only one remains, who is obliged to bend with his head against the gable, blindfolded. The first boy puts his hand on the back of the one blindfolded. The rhymster puts his hand uppermost and asks "where will this poor fellow go?" So the blindfolded boy sends half a dozen or more to different places all within easy distance. Then he and the rhymster clap hands, and the fun is to see all the boys running back to the gable. The one who comes in last has to submit to be blindfolded in turn.

Another rhyme runs thus. The girl or boy points to one and says:—

Hey Willy Wyn, and ho Willy Wynn,
This night I must go home;
Better alight and stop a night,
And I'll choose you some pretty one.
He replies—Who will that be
If I abide with thee?
She answers—The fairest and the rarest
In a' the country side.

The fun consists in suggesting some one likely to be obnoxious to the aforesaid Willy Wynn.

This rhyme was dinned into the ears of poor girls who were too proud :—

Lady, lady, landless, Footless and handless.

Those who were proud and greedy got a wigging from the following rhyme :— $\,$

Prood skyte of Aberdeen, Sell't its mither for a preen, Sell't its father for a plack. Whatna proud skyte's that?

The following is an invocation to rain and sleet:—

Rain, rain, rattlestanes, Don't rain on me; Rain on Johnny Groat's house, Far ayont the sea.

Another one comes nearer midsummer:-

Sunny shower, sunny shower, You'll no last half-an-hour.

This being St. Valentine's Day I give the rhyme I best recollect concerning it.

The rose is red, the violet's blue, The lily's sweet, and so are you, And so is he who sent you this, And when we meet we'll have a kiss.

The following is the full text of a rhyme used for the purpose of diverting children in the nursery. It was obtained by a friend of mine from his grandmother, who resided in Dumbartonshire. She had learned it in her childhood, about 1795 to 1806. The gentleman who gave it to me set it to music, and it was sung at a children's concert in Aberdeen. I have only heard part of it in Dumfriesshire. It is worthy of "Alice in Wonderland."

As I gaed up the Brandy hill, I met my father wi' gude will,' He had jewels, he had rings, He had monie braw things, He had a hammer wanting nails, He had a cat wi' ten tails.

Up Jock, doon Tam,
Blaw the bellows, old man.
Peter cam' to Paul's door
Playing on a fife.
Can ye shape a Hielandman
Out an auld wife?
He rummelt her, he tummelt her,
He gied her sic a blow,
That out cam' the Hielandman,
Crying, trot, show!

Man wi' the skinny coat Help me owre the ferry boat; The ferry boat's owre dear, Ten pounds every year.

I've a cherry, I've a chess, I've a bonnie blue glass; I've a coo among the corn, Haud Willie Blackthorn.

Willie Blackthorn had a coo, Its name was Killiecrankie, It fell owre an auld dyke And broke its neevie nankie. Ink, pink, sma' drink, Het yill and brandy; Scud aboot the hay-stack And you'll get sugar-candy.

The man with the skinny coat in charge of the ferry-boat is worth taking a note of. Will he be very much prehistoric?

In conclusion, we have a few puzzles got from transferring the accent, of which the best and widest known is the one:—

In firtaris, In oaknonis, In mudeels is, In claynone is.

The only new one I have runs thus:-

Leg-â-mouton, Half-â-gous, Pastry-ven-î-son.

Leg of mutton, half a goose, pastry venison.

II.—Remarks on some of the Place Names of the Stewartry. By Mr FRED. R. COLES, Cor. Mem. S.A., Edinburgh.

The proper study of the place names of any one county might well occupy the leisure hours of a lengthy life. Like all other sciences dependent upon the confluence of human interests with the practical as well as the poetic phases of nature, this study opens the doors of an almost unending vista, and one word alone may become the "open sesame" to an investigation well nigh as limitless as it is fascinating. A single name, a phrase, an epithet of colour, a mere syllable of description, may carry the philologist in a twinkling, thousands of miles away—the slight phonetic change, e.g., of the letter M to V in such a place name as Milleur conveys us at once from the Highlands of Scotland to the heart of our Indian Empire, where Vellore has the same meaning, "grey hill," Gael. meall odhar.*

Comparisons of this sort, however tempting to follow up and multiply, are not the purpose or the goal at which my efforts are in this communication directed. The risk of correct interpretation

^{*} Johnstone's Place Names of Scotland.

is too hazardous, the results too meagre, for properly satisfying the spirit of true enquiry. Until the place names of each parish are diligently collated, set apart in groups, tabulated, and compared with each other, it is useless to frame theories upon racial distribution, or even upon the various degrees of rarity revealed by any one or any two or three special groups of words. It is with the intention of attempting to lay a few stones for the foundation of a correct study of our local place names that this necessarily brief paper is laid before the Society.

The first factor of importance, it seems to me, is to gain a general idea of the number of place names. It may appear somewhat startling to hear that, from the six-inch ordnance maps alone, it is possible to tabulate over 3300 names. Not different names, pray observe, but, to put it in another light, there are in the Stewartry, at the very least, three thousand spots, mountain tops, hills, ravines, glens, cleuchs, corries, hollows, heights, haughs, valleys, banks, rocks, streams, burns, lochs, bays, promontories, farm lands and dwellings, &c., &c., each of which has a name. This estimate is well within the mark, for in it are not included many names, specially interesting too, with which the kindness of one or two antiquarian friends has supplied me, nor does it include some names which have only recently been made available through the publication of the ordnance maps on the 25-inch scale. further, it must be actually a less estimate when we recollect that scores of names of fields and small crofts, now only preserved on private estate maps, are not comprised in this sum total. This number is sub-divided thus :-

Class I.—Gaelic Names, inclusive of the two sub-classes, viz. :—

(a) Names of natural feature(b) ,, buildings	S	785 }	1812
(b) ,, buildings		527	1012
Ulass II.—Non-Gaelic Names :-	_		
(a) Names of natural features (b) ,, buildings	· · ·	969 }	1506
(b) ,, buildings		. 537	1000
we further sub-divide into the	followin	g sub-clas	sses:—
(c) Gaelic hill names (d) ,, stream names		. 642)	785
(e) Non-Gaelic hill names	• • •	769 }	969
(f) stream names		200	

This

A third class comprises a very interesting set of names.

Class III.—Hybrids.—This again is composed of two subclasses :—

(g) Hybrids, pure and simple 122 (1) (h) ,, complex and irregular ... 100)

Class IV.—Unclassifiables.—This name is applicable to several place names which are, on the face of them, apparently beyond the pale of any one of the above sub-classes, names which do not seem accountable for upon any method of linguistic cross-breeding, so to speak.

Class V.—*Uniques*.—A somewhat arbitrary nomenclature, perhaps; the term must be understood, of course, as unique in the locality. This class comprises mostly hill names. They number only 25, and are not included in any of the other groups.

By this severely unromantic method of sub-dividing, halving, quartering, and, if necessary, decimating our groups, it is possible to arrive at a stratum of fact, of a whole world of facts, indeed, which, so far from being the prosaic atoms we commonly suppose, are intrinsically brimful of interest. At the outset of this enquiry, for instance, it is not unimportant to notice that the non-Gaelic names outnumber the Gaelic by over 200. I have heard the exact reverse stated, without any figures to prove the assertion. A second very striking result is the small number of stream names that exists compared with the number of hill names, about one to four. Unthinkingly, one might be led to infer from this that, in comparison with mountains and heights of all kinds, the Stewartry was poor in that most beautiful and divine touch of beauty, water. This is not the case, as we all know. The secret is explained by the very simple fact, that names of farms or farm-lands are repeatedly given to the nearest burn or river, while the hill names are their own, i.e., the names of farms are treated of in their proper place. Were they added to the specific names of the burns and other waters, their total might rival that of the hills themselves.

Coming more to details, we are met, next, by an array of Gaelic affixes or suffixes which are all-important. Of these the commonest are Auchen, Bar, Ben, Craig, Dal, Drum, Dun, Knock, Mull, Tor, and the word Hill following a Gaelic name. In the

adjoining table will be found the order in which, according to frequency, these prefixes occur:—

Knock		120 times	š.		Ben	. 24	times
Hill		108 ,,			Dun		
Craig	• • •	107 ,,			Mul		
Drum		104 ,,			Auchen		
Bar		66 ,,			Tor		
. 1		Dal		12	times.		17

In the names descriptive of hills non-Gaelic in origin the affixes or suffixes are Brae, Clint, Craig, Drum, Gairg, Hill, Knowe, Nick, and Rig. Of these, it would demand small shrewdness to guess that the epithet Hill is by far the most frequent; but I think even a student of hills in hilly Scotland will be surprised to hear that there are actually 480 heights called hills in this one district. Summarised, this group stands thus:—

Hill Knowe	116	21	Brae 20 times. Nick 12 ,,
Craig	63	77	Clint 6 ,,
Rig			Drum and Gairy, 5 times each.

For our present purpose it should be enough to close our classification here, and look a little more closely into the seemingly labyrinthine contours and trends of our hills alone.

As one would expect, the prefix Ben is given to only the highest summits; with the one notable exception of The Merrick, which, being the highest hill south of the Firth of Forth, yet is not dignified by the specific title. Some of the other Bens properly so named are Benbrack, Bennan, Beninner, Benyellary, Benguinea, Ben-nie-loan, Ben-neeve, Benfadyeon, Ben-meal, Benghie, Benower, Benjarg—all of them in the really highland parts of Carsphairn, Minnigaff, Dalry, Kells, and Girthon. The middle districts are void of Bens on the whole; but Ben Gray, in Twynholm, and Ben Gairn and Ben Tuther, in Rerwick, are examples much farther southwards. Ben Ian and Meikle and Little Bennan occur in Anwoth.

Minnigaff is the home of the hills whose prefix-epithet is meal, or some variant of it; as e.g., Millmore, Milldown, Meaul, Mulgarvie, Mullachjeny. Kells supplies four:—Milldown, Millfire, Millgea, Millminnoch; Multaggart occurs in Kirkmabreck; Milldown and Mullabeg in Irongray; Mull of Ross in Borgue;

while two Mullochs and two Moyles in the extreme S, and S.E. prove that the distribution of this epithet is wide and extensive.

Craiq is a pure, strong Highland epithet; its occurrence. therefore, very frequently among the wildest of our mountain landscapes is what one would naturally expect. In Carsphairn alone there are fourteen: - Craighorn, Craigfad, Craigdunool, Craigtarson, Craignane, Craig-en-colon, Craig Stewart, Craigcrocket, Craig-en-geary, Craig-en-rine, Craig-en-gillan, Craigwallie, Craigwhan, and Craiglingal. Minnigaff makes a good show with twelve: - Craig-en-keelie, Craigiig, Craig o' Bellew, Craig-en-kald, Craig-en-garroch, Craig-cheskie, Craig-tarson, Craigna-craddoch, Craignine, Craig-naw, Craiglee, Craighit. —not so northerly a district as the bulk of the two parishes abovenamed—possesses seventeen:—Craignelder, Craig-gairy, Craigrine, Craig-maharb, Craigknuckle, Craigmichael, Craiggubble, Craigbroch, Craigloft, Craigcrun, Craigdoon, Craigenlees, Craigenben, Craigen-altie, Craigen-ower, Craigenshinnie, Craigend, the last of these being most probably corruptions of the Gaelic diminutive creagan, "a little crag." Dalry has Craigencorr, Craigbane, Craiglour; Girthon, Craigshinging, Craig Ronald, Craigherron, Craiglowrie, Craigbrack, Craigtype; Balmaclellan, Craignaw, Craigbonny, Craig-a-learie, Craigengower; Kirkmabreck Craigmule (possibly a variant of mul through moyle) and Craigenboy; in Rerwick, Craigraploch, Craigrange, Craigrow, and the curious name Craigmullen: in Balmaghie we find Craigelwhan, Craigcroft, and Craiganeltie; in Urr, Craigley, Craigmath, Craigallan, and Craigenfinnie; Borgue gives us two, the specific Craig and Craighar; Kirkcudbright has Craigens; Kirkpatrick-Durham has Craigengillen and Craigelwhan; Parton, Craigmore; Colvend has Craigbrex, Craigen-ower, Craigduff, Craigroan; in Skyeburn Bay, in Anwoth, is a rock named Craiggibboch, with a companion rock in Fleet Bay called Craign'esket; there is another Craignine in Twynholm, and another Craigmore in Lochrutton. Craig, Craigend, and Craigrocktall occur in the extreme S.E., in Newabbey.

The distribution of the Gaelic Knock is very much more general. It appears to radiate from Balmaclellan as a centre, where it occurs 13 times, in nearly all directions; but while Kells has 12 Knocks, Carsphairn and Minnigaff have only 4 each; Balmaghie has 7; Kirkmabreck, in the far west, has 9; Girthon, Parton, and Kirkpatrick-Durham 6 each; Dalry, Borgue, and

Rerwick 5 each; Crossmichael and Kirkcudbright each 4; Irongray and Tongland each 2; Troqueer, 2; Kelton, 2; Colvend, 2; Urr and Anwoth, each 1, the last being Knock-tinkle.

Our next Gaelic prefix, Drum, is interesting from its very capricious dispersion through the district. If Knock is a rounded hill, distinctly pointed, like a gigantic knuckle in fact, then Drum should be the appellation bestowed upon a long ridgy height. It is not so specifically a Highland feature as many of the other hill forms. Agreeably to this, we find it occurring only eight times throughout the whole of the large and varied parish of Minnigaff, only five times in Kells and Girthon, and only twice in Carsphairn. In Dalry it occurs eleven times, and in Balmaclellan, the adjoining parish, reaches its highest total of twelve. In these two localities you may any day convince yourself of the accuracy of this nomenclature. The central and southern portion of the county have extremely few Drums, seven parishes possessing only 1 each, six others only 2 each, four have 3 each, two have 4 each, one (Balmaghie) has 5; and Parton, which adjoins Dalry and Balmaclellan, has 8. This leaves Kelton and Terregles with none at all.

The important prefix, Dun (pronounced Dooun or nearly so), I have found at 27 different localities, some of which are certainly the sites of forts, others as certainly not; thus proving that the epithet was applied to a somewhat level-topped prominent hill or hillock, as such, perhaps oftener than to heights upon which any fortification may now be traced. In Carsphairn there are Dunber. Dundeugh, two Dunmores, and Dunbannoch. In Minnigaff there is but Dunnance (corruption of the Gaelic diminutive) and the doubtful form Denniemulk; in Kells, Dunveoch; in Girthon, Dunharberry, Doon o' Culreoch, and, possibly, Dendow, said to be an old form of Disdow; Balmaclellan has Dunower; in sea-washed Rerwick we all know Dundrennan and its majestic Abbey ruins. but not all of us have set foot on the, in its way, equally impressive stone fort on Dungarry, Galloway's Thermopylæ, as I have named it elsewhere. Balmaghie yields two, Duneskit and Dunnance, the latter a fortified site; Dunjarg and Dunmuir, in Crossmichael, have both been forts, and superbly situated they were; so also was Dunguile in Kelton; Dunrod occurs in Borgue, the site of one of the oldest twelfth or thirteenth century churches dependent upon the Abbey of Holyrood house; and it is found

also in Kirkeudbright, not in association with a church site, but with one of those nearly rectangular forts commonly supposed to be Roman. In Southwick are Dunmuck, Doonend (probably a corruption again of the Gaelic diminutive), and Dunjimpon; the latter found also in Buittle; in Twynholm, Din Hill and Doon Hill.

Without going specially into the local distribution of the prefixes Auchen and Dal, which are not specifically hill epithets, let us look at some of the names, Gaelic and other than Gaelic, which stud the maps with their odd-looking lettering, and surprise or amuse the ear when one hears them pronounced. Many hybrids offer good examples of this peculiarity. For instance, Shouther o' Mullbane, Tormoidknowe, Wee Meaul, Alwhannie Knowes, Hags o' Poljargen, are hill epithets in Carsphairn, both quaint and sonorous. Fangs o' Merrick, Lamachan Scaur, Nick o' the Bushy, Wheel, Clachaneasy, Borganferrach, Troston, Scars o' Gaharn, Closing, Clashdookie, Nick o' Slanyvenach, Magempsey -this formidable-sounding array represents but a few picked at random out of my lists for the wild highland parish of Minnigaff, names, for the most part, best left alone, so far as interpretation is concerned. To one just mentioned, however, I am tempted to advert for a moment-Clachaneasy. This is usually supposed to be the Gaelic Clachan Josa, in a corrupt form, and to mean "the hamlet. or church, of Jesus." To give colour to this, one would expect to find the ruins of a primitive chapel near; but not even the site of such is, traditionally or otherwise, vouchsafed us. Besides, easy is a most unwarrantable mispronunciation of Iosa. The true interpretation, while destroying the sentiment of association with an early Christian settlement here, is, at anyrate, reasonable. Close by the bridge, near Clachaneasy, is a small stream, like many another stream hereabouts, of turbulent temper and changeable. Its name is, nowadays, Essie or Essy. What can be simpler than to trace the "easy" of the place name to the Gaelic eassie, or cascade, or a stream of cascades? I am glad to find that my rendering of this name is in agreement with that suggested by more than one Gaelic scholar far more competent to pronounce an opinion.

Girthon—to resume our main line of illustration—supplies us with the very strange names, Syllodioch and Garniemire; in Balmaclellan, high up among the hills, 1150 ft. above sea level, is

the puzzling name Schoolknowe; equally puzzling is College Glen and College Hill, nearly 1200 ft. above sea level, in Dalry. Manifestly these words are not our modern words "school" and "college," any more than is the latter found in College Lynn in Carsphairn. This last is a very fine linn indeed; and, when in spate, the river Ken must come roaring and routing through this rocky channel in magnificent style. Now there is the Gaelic adjective, "coillaidheash," which, I suggest with the utmost diffidence, might have been the original of the ephitet pronounced by the Lowland shepherd as something like "college," and which the English surveyor wrote down "college" as being the nearest approach he could make phonetically.

As hinted above, it is impossible in the present paper to do more than skirt the fringes of a vast subject. The tabulation of even the Gaelic hill names alone would occupy more space than might be expected. A few notes upon the names of hills that are not Gaelic may fitly close these remarks. Take the generic term "Hill" to begin with. Out of the total of 480 localities thus named, the district now called Balmaclellan yields 80 of itself. This sub-divided gives 15 Whitehills, 5 Millhills, Gowkthorn Hill (2), Redhill (2), Crof Hill (2), Belt Hill (2), Bar Hill (2), Brown, Grey, Blue, Green, and Roan Hill (1 of each), a Low Hill and a High Hill, an Abbey Hill, a Court, Hill, a Sheil Hill, a House Hill, a Well Hill, and a Step Hill, a Dam Hill, a Moat Hill, an Orchard Hill, and a Byre Hill, Crooks Hill, Spring Hill, Trip Hill, Bere Hill, Clay Hill, and Burntland Hill, a Tod Hill, and a Ewe Hill, a Stey Hill, and a Shaw Hill, Ree Hill, Blacknest Hill, a Halfmark Hill, and a Dear Hill, and others having the specific qualifications of Souter's, David's, Thornie, Seg, Hog, Drum, Gibbs', Mid, Scar, Peat, Fairy, Loch, and Cairney. It is doubtful where Blowplain Hill should be ranked, probably as a much inverted Anglicised form of some lost Gaelic name. I may remark, in passing, that Cairney Hill, Thorny Hill, Shiel Hill, and Hill with some colour-epithet are much the most frequent appellations. Tippet Hill, Gibbon (which is the name of a rock near Castle Muir), Dead Horse (part of the ground at the foot of Netherlaw Glen), Farhills, Flat Hill, and two heights called Old Man are very peculiar names found in Rerwick. Summer Hill occurs in Balmaghie, and also Butter Lump, which, however, has nothing to do with dairy produce, but probably indicates a spot near which

the bittern used to keep its abode. Besides many hills sacred to trees and bushes, Crossmichael, very strikingly hilly as it is, out of a total of 30 names has these-Broad Bonnet, Glede Hill, Gibbet Hill, Kiln Hill, and Smithy Hill. In the parish of Urr are the following unusual names-Common Hill, Cock'trice Hill, Shot Hill, Fell Hill, Sour Hill, Corse Hill, and Holehouse Hill. Borgue, besides Doors Hill, are Fox-cover Hill and Harking Hill. One is tempted to suppose these two latter closely connected, but any information on this head is not sufficient to confirm the assumption. One wonders how there comes to be an Angel Hill (near Kirkcudbright) and an Angel Chapel many miles distant in Irongray, where certain stony remains pass for the site of some such building. Herries' Slaughter is the terrific name of a height near the county town also, and Silver Hill belongs to the same locality. Kirkpatrick-Durham has 29 hills, of which the uncommonest are Cleuch Hill, Tan Hill, Fleckit Hill, Butt Hill, Longberrie Hill, Gowkeairn Hill, Fair Hill, and Brownie Hill.

Out of a total of 36 in Parton, White Hill occurs 6 times; and Cowcloot, Roundrigg, Hurkledown, Box, Crow, and Rumples are specific names enough to show that there may yet be found other and stranger sounding names here. One such is to be found in the New Statistical Account (vol. iv., p. 283). It is Cruckie Height, a hill west of Mochrum Fell. Thornkip, as a special name, is peculiar. It belongs to a hill in Colvend, where also may be noted Ryes Hill, Goat Hill, Hare Hill, Bow Hill, and Castle Hill. Anwoth, with its almost pure Scandinavian name, is not specially rich in names of Hills. Trusty's Hill offers the most captivating bait to the unwary philologist, and you will find the results of painful research about sundry early Pictish kings, Drush or Drostan, or Trostan, recorded here and there. I am ready to yield any little allegiance I ever paid to this theory, because I have it on good authority that in a cottage between Cardoness Castle and the Fort on the Hill not so many years ago, lived a man of the name of Trusty. From the frequency of his solitary pilgrimages to the hill, that locality became in the course of years among the country folk "Trusty's Hill." An explanation equally simple and, if you will, unromantic can be given of the name Castramont, on the Girthon side of the river Fleet. As, however, discussions of this nature necessarily open

up the whole subject of the etymology of our place names in general, we must defer it for the present.

In Twynholm is a name which, like many others, offers the ingenious word hunter a choice of interpretations. A little to the east of Miefield (mis-spelt Mayfield on the maps) there rises a fine rocky hill, with a bold cliffy western frontage; its name is Dow Craig Hill. Were this pure Gaelic one would expect it to be Craigdhu, just as we find it among the sterner hills in Kells, the following epithet of "hill" not being at all uncommon. Craigdhu would, of course, mean Black Craig, but is the name appropriate? May the whole name not be simply broad Scots, Doo Craig Hill—a haunt of the wild pigeon?

I cannot in this connection omit quoting the Queenshill of Tongland, usually said to be so named from the fact of Queen Mary having rested thereon during that galloping ride from Langside. This story, firmly believed in in my boyhood, has yielded to reason and observation, and the route, by which the ill-fated Queen of Scots really reached Dundrennan, has long seemed to me to have been through Irongray and by the Castle of Corra, a line of travelling very much more direct and swift. How account for the name then? That may be more difficult. It is always, except in novels, harder to reconstruct than to destroy. We must bear in mind, however, that this part of Tongland is rather peculiarly rich in old ecclesiastical names, and others of special interest. Kirkconnel Hood, up, on the side of Tarff water, near Barstobric's N.W. base, are the Bishop's Rig and Bishop's Moss, close to them is Thorold's Knowe, and within a stone's throw is a spring called the Queen's Well. If, as seems probable, this church, dedicated to Saint Connel, or Connall, be really one of the few very ancient churches whose record remains in the Scottish Lowlands, may it not be possible that the Well and the Hill were named in memory of Queen Margaret, from her frequent pilgrimages through the district, to that most venerable church of all, at Whithorn? This may appear to be a point upon which proof is unobtainable. I offer the explanation with no assumption of authority, merely as being a more reasonable one than that commonly received.

There is in Troqueer a place called Suffolk Hill. I do not pretend to explain it. Perhaps, like the latter half of the parish name, Kirkpatrick-Durham, it is not in reality the name of an

English county, but a phonetic corruption of some Gaelic word.

Terregles, small district and possessing few names, gives us two extremely interesting hill epithets—Beacon Hill and Belton Hill. The latter, very probably, dates back to the days when May-day festivals and sun-worship were solemn rites and part and parcel of the religion of our forefathers to an extent hardly credible to us nowadays; and, on the broad summit of the height which forms so conspicuous a feature in the landscape of the extreme East Stewartry, no doubt, in "the good old days," when English raids and Highland ravages were frequent, a far-reaching blaze of red flame flashed the signal down the Nith and up into the lonely glens of Cairn from the Beacon Hill.

II.—Food Plants, Flowerless Plants. By Mr Peter Gray.

As everyone knows, the bulk of our vegetable food is derived from the higher or cotyledonous plants; but the more lowly or acotyledonous genera also furnish more or less nutritive substances, which in some countries are in constant use, and in others utilized in times of dearth as substitutes for the more valuable products of the dicotyledonous and monocotyledonous tribes.

To begin with the highest grade of flowerless plants, ferns are used by several races, either commonly or in times of scarcity, as food. In several species ferns have farinaceous rhizomes, or underground stems, which are roasted or boiled, being usually first steeped to get rid of the bitter and astringent principle they contain. Of these the chief are species of pteris, diplazium, nephrodium, and marrattia. When Cook visited New Zealand, the root of a species of fern was in common use, and that and fish and human flesh constituted the main articles of diet in the islands; for the moa and other large ostrich-like birds had been long exterminated, and there were no quadrupeds in the country save a small species of dog kept as a pet, and another about the size of, and allied to, the rat.

Neither the fern allies—mosses, hepatice, nor characee—are utilised as food; but many of the lichens supply wholesome nutriment both to man and beast. The genus gyrophora saved the life of our townsman, Sir John Richardson, when engaged in Arctic exploration, at a time when the travellers were reduced to feed

upon their boots and any scraps of leather they could find; and the Lapps would be unable to keep their reindeer, were it not for the abundance of cladonia rangiferina, or reindeer moss, on which these animals chiefly sustain themselves. Iceland moss (cetraria islandica) is a nutritious food for man, and much valued as a mild mucilaginous tonic in catarrh, consumption, and other diseases. Two species of Lecanora form important articles of food in Persia, Armenia, and the adjacent countries. They appear in some seasons in such enormous quantities that in certain districts they cover the ground to the depth of several inches, and the natives believe they fall from heaven. In 1829, during the war between Russia and Persia, there was a great famine in Oroomiah, on the southwest of the Caspian; and one day, during a violent wind, the whole face of the country was covered with one of these lichens. which fell in showers. In 1846, in the Russian province of Wilna, the ground was covered several inches deep by a fall of one of them. Other similar falls have been recorded. It has been attempted to identify these lichens with the manna on which the Israelites were fed during their wanderings in the Arabian desert. They probably grow with a very slight attachment, or none, to the ground, and, driven by the wind, fall like rain. One of the species is also eaten by the Kirghiz Tartars under the name of earth bread, and another both by men and animals in Algeria. But of all cryptogamous plants the most available as food are the fungi. The flesh of fungi resembles in many respects that of animals, and in some cases it is similarly flavoured. During the civil war in the United States, when food, and especially meat, was scarce and dear, an American mycologist says their value was much appreciated by those able to discriminate them There are at least from 40 to 50 species in this country which are harmless, but many of the others are virulent poisons; so that nobody should meddle with them unless he is able with certainty to distinguish the wholesome from the poisonous. What adds to the danger is that the symptoms do not appear until the venom has been absorbed into the system, when remedies are too late. In all cases it is well to infuse the mushrooms, even those commonly used, in a strong brine of vinegar and salt before cooking; it is possibly owing to this method of preparation as much as to difference of soil and climate that the Russians and other foreigners are able to eat species that are deadly poisons with us. Agaricus campestris is

much used in this country in the manufacture of ketchup. Some large makers are said not to be over-careful in the species they use; and that accidents do not oftener happen in consequence may be owing to the salt used in the manufacture. This mushroom. the only one most people in this country will use, is, very curiously, altogether prohibited in the Roman market. The chanterelli (Cantharellus cibarius), a beautiful fungus, is eaten and much esteemed in all countries where it is found, England alone excepted. It is of this fungus that a German mycologist observes that "not only did it never do anyone any harm, but that it might even restore the dead." There is a broad-sheet published containing excellent coloured representations of all the British edible fungi, but I would again strongly advise everyone, save experts, to give the fungi, reputedly wholesome or not, a wide berth, some peculiarly noxious ones closely resembling others that are wholesome. One remarkable fungus (Cytharia Darwinii), of which there is a long notice in Charles Darwin's Voyage of the Beagle, is very abundant in Terra del Fuego, supplying the Fuegians with their only bread. Another of the same genus is used in Chili; and Mylitta australis, the Australian "native bread," is largely used by the natives of Australia. Other closely-allied species are also used in China both as food and medicine.

Many of the algae are eaten. Alavia esculenta, bladder, or perhaps, more correctly, balder-locks, which Berkley considers the best of all esculent algae when eaten raw, is employed for food in Scotland, Ireland, Iceland, and other northern countries. Carrageen, or Irish moss, is, or ought to be, derived from Chondrus crispus. It may interest the ladies to know that bandoline, used for stiffening the hair, is commonly prepared from carrageen. Durvillea utilis is much used for food by the poorer inhabitants of the western coast of South America. The fuci, especially vesiculosus, the bladder wrack, is employed in feeding horses and cattle in winter in certain Scottish islands. Gelidium correum, a British seaweed, is a favourite article of food in Japan. The gracillarias are similarly utilized in many parts. The young shoots of laminaria are eaten in Scotland under the name of tangle. Rhoderrenia palmata (dulse) and laurantia pinnah fida (pepper dulse) and ulva riphyra are also used with us, but more, perhaps, as a relish than as food. Many other algae are eaten all over the world. The edible birds' nests, so highly valued as food in China

and Japan, probably owe their properties in part to certain species of algæ. Besides, as nourishment, algæ are very beneficial in many complaints owing to the iodine they contain.

IV.—Notes on the Ancient Parish Church of St. John the Baptist, Dairy, Kirkcudbrightshire.

By Mr WILLIAM GALLOWAY, Corr. Mem. S.A. Scot.

It was on the 19th of October last that I made my first acquaintance with the charming district of the Glenkens, of whose picturesque beauties I had previously heard so much. There had been a sharp frost over-night, and the whole country was covered with a thick coat of rime, only too faithfully simulating the first snows of winter. As the sun gained power, this silvery veil disappeared, and the day turned out very good indeed, the mellowing tints of autumn lending a pleasing variety to the ever-changing scene.

The immediate object of my quest was the ancient Parish Church of St. John the Baptist, at Dalry. Knowing it only by name, I was in happy ignorance of what I might expect, yet cherishing the idea that in such an out-of-the-way locality, there was a pleasing hope of at least some mouldering walls, choked possibly with nettles and rank undergrowth, yet presenting sufficient indications to determine style and period.

Arrived at my destination, one glance at the churchyard dispelled all these illusions. Occupying the only spot where the old church could have been, on a knoll surmounting the brawling Ken, sat a spruce modern building, in all its surroundings so trim and well kept as to show at once that with one exception all traces of its old predecessor had been carefully removed or buried out of sight. Close to it, yet detached, on a green brae of its own, wreathed with trailing wisps of ivy, unkempt, yet quaint and curious, with crow-stepped gable, large antiquely-grilled window and panelled coat of arms, stood the one exception noted—the Kenmure burial aisle, and, time being limited, to it I at once directed attention.

If the present Parish Church has well-nigh obliterated every trace of its predecessor, it has, at least, by exigency of a very restricted site, retained its orientation, in its main length standing due east and west, and it thus became at once evident that the

Kenmure burial aisle had originally formed a southern annex or transept to the chancel of the old Church of St. John. present state it is structurally quite distinct from the parish church, and separated from it by a narrow passage, gained chiefly by cutting off its own north-western angle. The aisle measures externally 22 feet by 18 feet 7 inches, and internally 17 feet by 14 feet 2 inches. The south gable is 2 feet 8 inches in thickness, and the remaining walls about 2 feet 3 inches. The connection between the Church of St. John and the aisle has been by a plain rubble archway, without dressings or ornament of any kind. This archway is 8 feet high and 4 feet 8 or 9 inches to the spring, so that, although slightly pointed, it is practically a semi-circle, and is now entirely closed by a 20-inch rubble blocking. Except at one side, where a flag has been removed, the paved ingoing is still intact. Apart from this communication with the old Church, which would no doubt be used on occasion of interments, there is also an external door in the west wall 2 feet 8 inches in width, with freestone rvbats and lintel, all very carefully hewn with a plain quarter round on the rybat head. The only window is that in the centre of the south gable, 6 feet in height by 3 feet 8 inches in width, all hewn in the same careful fashion as the west doorway. This window is closed by a massive antique grille, which must, to all appearance, have been built in with the masonry at the first, and there is a tradition that it is three hundred years old, which would, of course, carry the aisle back to the 16th century. Above the window there is a very simply moulded panel, containing a shield divided in pale, on the dexter side carrying the three boars' heads erased of the Gordons, and on the sinister side the Scottish lion rampant, but without the tressure. The gable is crow stepped with plain, bold skewputs, and a finial of Jacobean design atop. It is also quoined in freestone, and has been in every way very carefully and substantially built. The walls, which are 10 feet high, have no other openings save those mentioned, but in the south-east angle there is an aumbry, 1 foot 7 inches wide, 1 foot 3 inches deep, 1 foot 9 inches high, and 3 feet 6 inches from the sill to the floor. The original wall-head coursing is all gone, but I found a small portion of it lying inside, 4 inches thick, with a simple cyma-recta moulding exactly similar to that on the old burial enclosures in the lower part of the churchyard. The aisle, which had been probably getting out of

repair and unroofed, has been very efficiently protected by broad copestones, which have also been carried up the back of the skews. At the north-east angle, externally, a most interesting feature occurs in the remains of one side of a window, undoubtedly pertaining to the old church, and to which the aisle had originally been built as closely as possible. There are three freestone rybats still remaining, with a bold splay externally, then a glass groove with check, and splayed ingoing internally. This shows clearly that the Church of St. John had extended still further to the east, although from the rapid rise of the ground in that direction the extension could not have been great. The window, of which a small portion thus fortunately remains, must have lighted the chancel, and if the Kenmure burial aisle did not open directly from the chancel it must have been very close to it. As previously mentioned, a considerable slice having been taken of the northwest angle to form the passage, all information as to the connection at this point between the aisle and the old church is necessarily lost. It is, however, very interesting to know that so recently as 1880, in the ground immediately to the west of the aisle, foundations of the old Church were encountered. No interments had ever been made in this spot, but in the above year, a burial having taken place, the ground was trenched, and a monument erected, the old found being broken up, and cart-loads of rubble stones removed. So strong, indeed, was the building that it was almost necessary to employ gunpowder to break it up. Most unfortunate operations certainly for archæology, seeing that these foundations ought rather to have been brought up to the surface, and so permanently commemorated than destroyed, and this should certainly be done in the intermediate spaces between the burial aisle and the projection of the church at the south-west corner. This clearly indicates how the south wall of the old church ran, but beyond this all is uncertainty.

We have already seen that in the three rybats and ingoing of a window at the north-east angle of the Kenmure aisle, there still exists in situ, saving the aisle itself, the only extant portion above ground of the old Church of St. John. In the form of reused stones, however, the Parish Church itself contains considerable traces of its historic predecessor. At all the salient angles of this building shallow projections in the form of pilasters, 2 feet 3 inches on the face, are carried up to the wall head and there terminate

in pinnacles. On the south front, or that part of the church most in view, like the rest of the hewn work, these are all built in polished red freestone (Locharbriggs, I believe). On the north side, however, to a height of 10 feet, these projections are built of massive blocks of strong grained silurian grit, so extensively used in ancient times in all buildings of any pretensions, civil or ecclesiastical, throughout the province of Galloway. They have all, without exception, been carefully hewn for other purposes than they now serve. One shows a glass groove with the leaden plug for a rivet or stanchion end, still in its place. Others are hewn with six-inch margins, and so in various ways indicate use in a previous building, which there can be no reasonable doubt was just the old Church of St. John, which is thus proven to have been a most substantial structure. Above this ten-foot tier of re-used hewn stone the projecting corners are completed with large blocks of ordinary rubble. These observations were all made at a certain disadvantage, for the true colour and texture of the stones themselves are not to be seen, the entire building being elaborately painted from base to topmost pinnacle a uniform dull grev.

Thus to recount what remains of St. John's Church seems like describing the contents of a stable after the steed has been stolen, and it seems most deplorable that a building to all appearance so strongly built, and so substantial, should, at the bidding of modern exigencies, have been entirely lost to the historic treasures of the country.

Before proceeding further, I may be allowed a few remarks on the coat-armorial carved in the panel on the Kenmure aisle. We found that the shield was divided in pale, with three boars' heads erazed on the dexter side, and a lion rampant on the sinister. The first is, of course, the usual Gordon arms, differing only from the earliest arms, as given by Nisbet, in the fact that these are stated to be "A bend between three boars' heads, couped,"* whereas the charge on the aisle shield agrees rather with Nisbet's second blazon, borne by Alexander Gordon of Penninghame, who succeeded to the honours in 1663, which are simply "Three boars' heads erazed," without any reference to a bend, and so exactly describing the Gordon arms on the Aisle shield. A much more

^{*} In his "Peerage" (Edin. 1716) George Crawfurd also gives the Kenmure arms as "Azure, three boars' heads, Coupé, Or."

important question, however, is raised by the cognizance borne on the sinister side of the shield, viz., the lion rampant. At first sight it might appear as if this were indicative of a matrimonial alliance with some family whose arms were represented by this charge, and trust I may be excused the following details.

We find in the earlier part of the sixteenth century that Sir John Gordon of Lochinvar married Juliana, youngest daughter of Sir David Home of Wedderburn, fifth of the line, who was killed in action with the English in 1524. The Homes of Wedderburn were cadets of the great house represented by the Earls of Home, whose original arms were a lion rampant, derived, no doubt, from their immediate ancestors, the Earls of Dunbar. From a very early date, however, in the fourteenth century, the Homes were accustomed to quarter their arms with those of various heiresses, with whom they acquired lands, the first being Sir Thomas Home of Home, who, marrying Nicola Pepdie, heiress of Dunglas, impaled her arms with his own as stated by Nisbet.1 "He built the Collegiate Church of Dunglas, whereon was his arms, which I have seen impaled with his lady's, being three birds called papingoes, relative to the name of Pepdie. . . . arms of Pepdie have since been always marshalled with the arms of Home and the descendants of their family." We accordingly find in the "Armorial de Berry" of date 1450-55, and composed by Gillies de Bouvier, at the request of King Charles VII. of France, "one of the most valuable heraldic manuscripts in existence." The achievement of Home of Dunglas is there shown to be, quarterly, first and fourth, the three papingoes, and, second and third, the lion rampant, precedence thus being given to the arms of the heiress of Dunglas, although it is noted by Mr Stodart that "the seals of Alexander Home (1437), Sir Alexander (1450), and Alexander Lord Home (1486), all have the lion of Home in the first and fourth quarters, and the papingoes of Pepdie in the second and third." 2 In the MS. attributed to Sir David Lindsay, the younger, 1603-5, the Home of Wedderburn arms are given quarterly-first and fourth, the lion rampant; second, the triple shields of Hay; and third, the papingoes of Pepdie. In "Alexander Nisbets Heraldic Plates" (Edinburgh, 1892) we find

System of Heraldry, vol. i., p. 270.

^{2.} Scottish Arms, by R. R. Stodart, vol. 1., plate vi. and vol. ii., p. 47.

the Home of Wedderburn arms given—first and fourth, the lion rampant; second, the three papingoes; third, the engrailed cross of the Sinclairs of Polwarth, another heiress. These quarterings, commemorative of lands acquired through various heiresses, are borne by all the branches of the Home or Hume family without distinction from the Earls of Home and Marchmont down through all its numerous cadets. In singular contrast to this unanimous practice, Nisbet himself notes a curious exception, in the person of Nicola Pepdie's own son David, the first of the Wedderburn race who used a seal with the Home lion unaccompanied by his mother's arms, and also his grandson George, who had the same arms carved on the gateway in front of Wedderburn House.

Under these peculiar and apparently discrepant circumstances, I have taken the opportunity of consulting an eminent authority, Mr Andrew Ross, Marchmont Herald, who considers the case quite open to an alternative solution, which may at least be fairly considered, and the lion rampant, being the well-known heraldic distinction of the province of Galloway, at once leads to the inquiry whether any grounds exist for the provincial arms being so used in pale with family arms, as seems to be possible in the present instance. The Gordons appear to have been a family of high distinction in Kirkcudbrightshire from the 14th century, when they first acquired possessions in the Glenkens. Two centuries afterwards we find the head of the family, James Gordon—who was killed at the battle of Pinkie, September 10th, 1547—appointed for a term of five years the King's Chamberlain of the Lordship of Galloway, both above and below the Cree; while his eldest son, John, mentioned above, was appointed by Queen Mary, February 9th, 1555, Justiciar of the Stewardry, an important office, in which he was reappointed some thirty years later by King James VI., and died in August, 1604, half a century after his first appointment to a distinction no doubt borne by him to the end of his life, but which does not seem to have been in any sense hereditary.

This question is not only interesting from a heraldic point of view, but also as to the date when the Kennure aisle was first erected. If such a structure had been built during the long lifetime and tenure of office of this John Gordon, so to combine the provincial arms with those of his family would appear to be not only justifiable but quite appropriate. In the case, however, of

an office not hereditary, but tenable only during the lifetime of an individual, it would be quite otherwise; and it appears to me that no subsequent descendant would be at all entitled to credit the family with the continued use of a distinction valid only during the lifetime of an ancestor. The real gist of the question then comes to be, that, in this peculiar combination of private and provincial arms, do we find a test of the period when, and the individual by whom, this aisle was erected, and, is that tradition about the grille being three hundred years old a fact, and not a fancy? According to the evidence adduced, the erection of the aisle must have fallen within the lifetime of the Justiciar, and if the view be adopted, that the lion rampant represents the undifferenced arms of Home, then its erection must be further limited to the lifetime of the Justiciar's first wife, Juliana. We may well believe that by way of reconciling both theories, Sir John rose to the humour of the situation, and impaled a cognizance appropriate alike to his wife, as a Home, and to the Province. So far as, in its severe simplicity, the style can be any guide—the aisle might just as well have been erected in the 16th as in the 17th century, and I trust that some of the members of the Society may be able to throw light on so interesting a topic.

I need scarcely remind the members of the Society that one great source of interest, not only in the church-now, alas! no more—but in the entire group of residential and other buildings associated with it, known in medieval times as St. John's Clachan. was the fact that it lay on the great, and, in these early times, the only, highway of communication between the central districts of Scotland and its far south-west extremity, Wigtonshire. It was, indeed, a kind of half-way house to all those gentle or semple, royal or plebeian, who had occasion to traverse the wild and mountainous district, called the southern highlands, a journey by no means without peril of many kinds, from Nature in her wildest moods to the not less real dangers of an ever lawless and unsettled state of society. We may well believe that if the full romance of that road could be told in the varied incidents befalling the countless thousands who traversed it, the narrative would far outvie the most stirring of Chaucer's tales. More especially was this the route undeviatingly followed by the Scottish Kings in the pilgrimages they so frequently made to the shrine of St. Ninian; and not by kings only, but nobles and ecclesiastics of every rank and

degree. Although not the first in point of fact, yet the first of whom we have any distinct notice was Ailred (Scottice for Ethelred), a native of Hexham, and Abbot first of the Cistercian Monastery of Revesby and afterwards of Rievaux, both in Yorkshire. He was by no means a stranger to Scotland, having been brought up at the court of King David I., and educated with his son, Prince Henry. Of his visit to "Witerna," as he calls it, Abbot Ailred, has left a personal, but all too partial, record. In the twelfth century such a journey must have been a serious matter, the mode of travelling slow and tedious, the road a mere horse or foot track carried through a wilderness of moorland and mountains, which, to one accustomed to the sheltered and umbrageous valleys of the south, must have appeared in the highest degree sterile and forbidding. Emerging on the broad valley of the Cree, a glimpse would be caught by Ailred of those gleaming waters, never again to be lost sight of while he sojourned with his friend, Bishop Christian. There at "Witerna" he would see the new Cathedral, founded by Fergus, Lord of Galloway, in all its pristine splendour, an elaborately decorated example of Romanesque architecture, adorned as the Candida Casa itself could not have been, nor yet any subsequent addition. His eyes must thus have seen, and his thoughts been familiar with many things which, put on record by an intelligent observer, would have proved of priceless value to all after ages. Of Ninian's Candida Casa he could have told us the exact site, its dimensions and general character, and especially the state in which it was found after the lapse of nearly eight hundred years from its first erection. He might, with some facts, now forever perished, have bridged the gulf of four hundred years from the days of the Anglo-Saxon episcopate of the eighth century to the revived succession of Fergus. Yet, apart from that Life of St. Ninian-to write which was probably the chief object of his visit—there remains but the topographic vision of a great peninsula, extending "far into the sea on the east, west, and south sides, closed in by the sea itself," surrounded on every side save the north by a vast, desolate, ever-weltering waste of water, while at its furthest extremity, near this ocean's verge, like an Iona of the mainland, stood the object of his quest. Such seems to have been Abbot Ailred's first and last impressions of the locality he had travelled so far and with so much toil to see.

I trust I will be excused for dwelling so long on this memorable visit when I say that over four centuries pass away ere another notice occurs. The magnetic influence of St. Ninian had not ceased, and the pilgrim tide no doubt flowed on increasingly year after year, but no record has survived until, in the meagre, yet truthful, form of royal expenses embodied in State accounts, we find in the autumn of 1473 the youthful sovereigns, King James III. and Margaret of Denmark, traversing the rugged wilderness that led to the chief of Scotland's four great pilgrimages. They came in State, their object being to render thanks for the birth of an heir to the Crown—that James IV. who, just forty years afterwards, was destined, on one of the most fatal and disastrous days in Scottish annals, to fall at Flodden with the flower of the nation. He fell girt with iron belt and shirt of hair, penitentially worn for complicity in the death of that young sovereign—his own father who, in all the joy and pride of early manhood, with his still more youthful queen, paid his devoirs at St. John's Kirk of Dalry on that early day in September, 1473.

Margaret of Denmark was then only in her sixteenth year, and the Lord High Treasurer's accounts contain various entries as to the due apparelling and convenience of herself and her retinue. There were three and a half ells "of blak for a riding goune to the Quene," with the same amount of velvet, and an ell and a half of "brade clatht." Also two and a half ells of "blak for a clok and a capiteberne for the Quene," with the same amount of "Scottis blak to lyne the samyne clok." There were also "panzell crelis to the Quene and hir passage to Sanct Ninianis," and "a pare of bulgz," no doubt bags. Six shillings were also "gevin to a Skynnare of Strineling for a dusane of gluffis to the Quene," also "Satyne for turatis to the Quene," and other items. For her retinue there are "lyveray gounis to sex ladys of the Quenis chalmire at hire passing to Quhytehirne," with "gray to lyne the sex gounis," with velvet "for the colaris and sleffis." A careful comparison of these various entries, with those relating to the King at the same period, brings out the interesting fact that Margaret of Denmark was herself the true heroine of the visit. and that the Scottish people then were just as proud of their connection with Denmark's Royal House as they have reason to be now. There can be no doubt King James accompanied her. In his accounts for this year the chamberlain of Galloway charges

the king's expenses at Wigtown, "tempore itineris sui apud Sanctum Ninianum." Apart from this casual notice in the Exchequer Rolls, although his preliminary outlays for the journey are given up to the same date, and as minutely as the Queen's, in curious contrast to those of his consort just given, the object of the journey is not once indicated. To the Queen herself, and those accompanying her, the interest of the journey must have been largely enhanced by the fact, that in terms of the arrangement made with her father, King Christiern, she was to enjoy a revenue equal to onethird of the Crown lands of Scotland, there was assigned to her the entire Lordship of Galloway, with the customs and burghal fermes, or rents of Kirkcudbright and Wigton, together with Well might the Scottish people rejoice over Threave Castle. the alliance, for the first time in their history were the outlying islands, north and west, embraced within the sway of a united monarchy.

No further record has been preserved till the fatal year 1488. Margaret of Denmark and her murdered husband now lie in their last resting-places at Cambus-Kenneth, and the five-month old infant, now a lad of fifteen, thrust into the throne over the body of his slaughtered parent, on the fourth of August sends eighteen shillings "with Schir John of Touris to offir for the King in Quhitherre," the first of a long series of penitential observances. In November, 1491, King James IV, paid his first visit to "Quhitherne," going and returning by the west coast. Although no references to it occur in the Lord High Treasurer's Accounts, in the autumn of 1493, James IV. must have traversed the route by St. John's Kirk and Clachan. We learn this from the Register of the Great Seal, he having, on the 29th of August, granted a charter at Durisdeer to William Douglas, son to the Earl of Angus, and on the 2nd of September, "apud Quhithirn," he confirms Alexander Makke, and Katharine, his spouse, in the lands of Balgarno. One entry in the accounts for July, 1496, gives us a glimpse of another visit. "Item, that samyn day, the King raid fra Edinburgh to Quhithyrne, and given to himself in his purs, xxli vjd."

In the succeeding year, by far the most minutely detailed account is given, embracing, one would imagine, almost every outlay. The royal visit was paid in the early part of September, 1497, and was one of thanksgiving for the cessation of hostillties,

and conclusion of a treaty of peace with England. The outward journey was from the north-east, and as a most interesting record of such an event we give the various items in full :-

Item, for the Kingis hors met* in Bigar, passand to	
Quhithirne, quhare the King batit	xiiijd.
Item, the King passand at the Cald Chapel, giffin be	
the Kingis command to pur folkis	xxijd.
Item, to the preistis of Durisder, at the Kingis com-	**
mand	iiijs.
Item, to pur folkis in almons, quhen the King departit	
Item, to ane fidelar thare that playit to the King	vs.
Item, to Hannay, at the Kingis command	iiijs viijd.
Item, to tua pur men be the way	xvjd.
Item, at Sanct Johnis Kirk of Dalrye, to the preist	xiiij <i>d</i> .
Item, to pure folkis thare	ijs.
Item, to ane woman with the grantgore thare, be	3
Kingis command	iijs vjd.
Item, to the wif of Durisder, quhar the King lugeit	xiiijs.
Item, to pur folk at Wigtoune	ijs.
Item, in Quhithirne to the Kingis offerand	xiiijs.
Item, to the pur folkis thare	ijs.
Item, to say ten trentalis of massis there for the King,	•,
be his command, and to his offerandis in Quhit-	
hyrne	xlib.
Item, in Qubithirne, to the Priouris man of bridilsiluer	
for ane quhit hors he deliuerit to the King	ixs.
Item, to Quintin, the Lord Hammiltounis man, of bridil-	
siluer, that samyne tyme	iijs vjt.
Item, for schoing of the Kingis hors thare	xxd.
,	

Thus end the entries so far, the return journey being performed by the West Coast, Ayr, Kilmarnock, and Glasgow, and largely through the aid of "gydis," this route being evidently much less frequented than that by the north-east.

With the notice of another rapid visit, by the west, in April, 1498, on this topic, the published accounts of the Lord High Treasurer come to an end, and the extracts given may suffice to show the importance in mediaval times, both of the route in question and St. John's Kirk of Dalry.

Chalmers and others give partial notes of many subsequent visits to St. Ninian's shrine, by King James IV., notably in the year 1506-1507, when in March he made a pilgrimage on foot, and in the following July, in company with the Queen, made a journey in state, which, in going and returning, took a full month to accomplish.

Notes on the Record-History of St. John's Church.

It is extremely probable that the early history of the Church of St. John merges in that of the Earlston Barony, with which, through all the many changes in the proprietorship, it is so invariably associated.

Many such changes must have preceded the earliest ownership with which the registers of the great seal make us acquainted, when in 1511, just two years before both donor and grantee fell on the fatal field of Flodden, King James IV., calling to memory the many arduous and faithful services of the deceased Patrick Hepburne, Earl of Bothwell, concedes to and confirms his son Adam in all the wide ranging possessions of his father, including the lands and barony of Erliston, with the patronage of the church of Dalry.

Nearly seventy years after, we find King James VI. at Stirling Castle confirming, in relation to the Church of St. John, a still more important document. It is a charter granted by Master John Hepburne, rector of the Parish Church of Dalry, whereby, for the sum of £100 paid in those turbulent times, he, with consent of James, Earl of Bothwell, Lord Halis and Liddesdaill, &c., the patron of the said rectory, in feu ferme set to John Hepburne, the son of his brother, Patrick, Bishop of Moray, his heirs and assignees, the glebe and church lands of Dalry, with the garden, houses, buildings (occupied by Fergus Achannane) lying on the west side of the "torrent" of St. John's Clachan (between Erlistonn on the north and Grinean on the south) paying to the said rector 14 merks (ancient duty) and 13 shillings and 4 pence of augmentation; also doubling the feu-duty on the entry of heirs; requiring also that there be built and maintained on the said lands suitable conveniences for lodging the said rector and his successors, with their servants and horses, at their own expense, whenever they should happen to stay there. In this document we have a wonderfully minute description of the

ecclesiastical state of Dalry in the middle of the 16th century, for although confirmed by King James VI. in 1578, the original charter was really granted and drawn up at Edinburgh in 1556, and brings before us several notable persons, alive when the charter was granted, but deceased at its confirmation. The patron was the notorious James, Earl of Bothwell, husband of Queen Mary, who was banished and died abroad just a year before the confirmation of the charter. Both granter and grantee were Hepburnes, the former a brother of the last Pre-Reformation Bishop of Moray. He was first prior of St. Andrews, then in 1535 Bishop of Moray, and perpetual commendator of Scone Abbey, and filled various high positions. Although deprived of his Bishopric at the Reformation, he kept possession of his Episcopal residence at Spynie Castle, and died there June 20, 1573, and was buried in the choir of Elgin Cathedral. The only ecclesiastic connected with St. John's in 1556 who was not a Hepburne was one of the attesting witnesses, Mr David Forman, pensionary vicar of Dalry.

The next entry brings us down to the year 1581, when, owing to the forfeiture of the Earl of Bothwell, who, as we have just seen, died in 1577, all his titles and vast possessions came to be vested, by gift of the crown, in his nephew, Francis Stewart, a grandson of King James V., who was at the same time appointed Lord High Admiral of Scotland. This sudden rise came to as quick a downfall, for in ten years, viz., 1591, the new Earl was himself forfeited, and deprived of all the honours and great estate the favour of his sovereign had conferred upon him. Becoming deeply involved in the religious and political intrigues of that time, as represented by the great contending parties owning allegiance to Queen Mary or her son, and being, as Hill Burton calls him, "perhaps the most daring, powerful, and unprincipled of all the higher nobles," very soon came under a like ban of forfeiture with his uncle, and so also fled the country, and died abroad. The next entry, dated Aug., 1591, follows as a direct result of this forfeiture, the barony of Earlston being detached from the vast estates of the Earls of Bothwell and conferred upon Andrew, Master of Ochiltree, a son of the good Lord Ochiltree, who did so much in forwarding the Reformation. So far the Registers of the Great Seal.

From the Acts of the Scottish Parliament two entries are given, the first being a ratification of the royal grant to Francis

Stewart, Earl of Bothwell, in 1581, already mentioned. The second brings us just a century further on, when the barony of Earlston, having passed into the possession of the Gordons, they in their turn now being proscribed and forfeited for a different cause from that which secured the downfall of their predecessors. The days are those of Charles II., and the barony is divided into equal shares between some of his officers who had distinguished themselves in hunting down the unfortunate Covenanters.

APPENDIX.

I.

Sir John Gordon of Lochinvar and the Family Arms.

A very good account of the Justiciar is given in Mr P. H. M'Kerlie's "Lands and their Owners in Galloway," vol. iv., pp. 56-58, sub. parish of Kells, and from a less known work we give the following notice:—

"XV. Sir John Gordon of Lochinvar, a man of great honour, loyalty, and integrity, who suffered greatly for his firm adherence to the interest of Queen Mary."

In 1555 the Queen appointed him Justiciar of the Stewartry of Galloway; and her son, King James, renewed his commission, anno 1587.

In the year 1561 he entered into a contract with the predecessors of the Duke of Queensberry, Earl of Dumfries, Sir Robert Kirkpatrick, Sir William Grierson, &c., whereby they were bound to stand by one another, against all mortals, to keep together in all assemblies, armies, and wars, and to submit all differences amongst themselves to the majority, &c.

In 1567 he is one of the subscribers of the bond for confirming the King's authority, and securing the Government as established by law.

He obtained a charter from Queen Mary of a great many lands, "Johanni Gordon de Lochinvar, militi," dated anno 1565; also a charter of the lands of Meikle Kilbride, 2nd February, 1596; also six charters from King James VI., Domino Johanni Gordon de Lochinvar, militi," of several other lands, and particularly one, "Johanni Gordon, militi, filio et hæredi Margaretae Crichton, filiæ et hæredis quondam Roberti Crichton de Kirkpatrick, §c., totas et integras terras

de," &c., dated in 1580. He obtained charters of several ecclesiastical lands from Alexander, Bishop of Galloway, 1564, and from the Commendator of Tongland, 20th May, 1566.

In 1562 he made a resignation of the whole estate in favour of his brother, William Gordon of Penninghame, failing heirs male of his own body, he having then no male issue; and this William's grandson's grandson actually succeeded in the honours of Kenmure, as will be shown hereafter.

He married first Juliana, daughter of _____ Home of Wedderburn, by whom he had one daughter, Margaret, married to Hugh, Earl of Loudon, in 1572.

In 1573 he married, secondly, Dame Elizabeth Maxwell, daughter of Sir John Maxwell of Terregles, afterward Lord Herries, in right of his mother, by whom he had five sons and four daughters.

Derwentwater, by Robt. Trotter, Edin., 1825. Appendix p. 165.

II.

Excerpt from Nisbet's Heraldry as to the Gordon of Kenmure Arms.

"Sir Robert [Gordon] married a daughter of William, Earl of Gowrie, and by her he had Sir John, his successor, whose arms are illuminate on the House of Fallahall, 1604. And in our old Books of Blazon, as that of Mr Pont's, Azure; a Bend, between three Boars' heads couped, or. Which Sir John Gordon of Lochinvar . . . was . . . created Viscount of Kenmure . . . He was succeeded . . . by his son John . . . but he dying without issue, the title came to John Gordon, his cousingerman, who dying unmarried, Robert his brother was heir to him; and he dying also without issue, 1663 the . . . honours devolved to Alexander Gordon of Penninghame . . . who carried for his atchievement, Azure; Three Boars' heads erazed, Or; Armed and langued, gules, supported by two savages. wreath'd about the head and middle with Laurels, holding Battons in their hands, all proper; and for Crest, a Demi-Savage in the same Dress, Motto, Dread God,"

III.

Extracts from the Registers of the Great Seal, relative to St. John's Church, Dalry.

Registrum Mag. Sig. Regum Scotorum. Sub. 24. James IV. A.D. 1511.

"3635. Apud Edinburgh, 27 Aug. Rex,—Memoria revolvens fidelia servitia quond. Patricii Hepburne com. de Boithuile, &c. in singulis arduis materiis et negotiis infra regnum et extra ei commissis, in ipsius viti grave periculum, magnasque labores et sumptus et expensas que ejus consilio et prudentia in bonum deducte erant effectum;—concessit et confirmavit Ade Hepburne comiti de Bothuile filio dicti Patricii" inter alia . . . "de Erlistoun nuncupat Glenken, cum villis, &c., terras et baroniam molendinis, tenentibus &c., advocatione ecclesie de Dalry, infra senesc. Kirkendbricht."

Registrum Mag. Sig. Regum Scotorum. Sub. 11. James VI. 1578.

Apud Castrum de Striviling, 16 Jul. REX confirmavit cartam quondam M. Joannis Hepburne, rectoris ecclesie parochialis de Dalry,—[qua pro summa 100 lib. illis turbulentis temporibus persoluta,—cum consensu (quond.) Jacobi com. de Boithuell dom. Halis et Liddesdaill &c., patroni dicte rectorie,ad feudifirmam dimisit JOANNI HEPBURNE filio fratris (quond,). Patricii episc. Moravien. heredibus ejus et assignatis,—glebam et terras ecclesiasticas de Dalry, cum horto domibus, edificiis (per Fergusium Achannane occupat.), jacen. ex occidentali latere torrentis de Sanct-Johnis-Clachame (inter Erlistoun ex boreali, et Grineane ex australi): - REDDEND. dicto rectori 14 marc. firme antique, et 13 sol. 4 den. augmentationis; necnon duplicando feudifirmam in introitu heredum; et edificando politiam solo corresponden.; et probendo dicto rectori ejusque servis et equis hospitium sumptibus dicti rectoris quoties ibi remaneret :--cum precepto sasine directo Joanni Sinclaire et Joanni Portar: - Test. Joanne Portare Rob. Lermonth M. Davide Forman, vicario pensionario de Dalry:-Apud Edinburgh, 23 Nov. 1556].—Proviso quod hec confirmatio non prejudicaret rationabilibus manso et glebe ministro apud dict. ecclesiam servienti et residenti reservandis:-Test. ut in aliis cartis &c .- xxxv. 11.

Reg. Mag. Sig. Regum Scotorum, Sub. 14. James VI., A.D., 1581.

"218. Apud Dalkeith, 16 Jun. Rex. cum avisamento secreti concilii, concessit et quitteclamavit consanguineo suo Francisco Commendatario de Kelso, et heredibus masc. ejus de corpore legitime procreandis quibus deficientibus, regi reversuras." Inter alia "terras et baroniam de Erlistoun nuncupat, Glenken, cum villis, molendinis, tenentibus, &c., advocatione ecclesie de Dalry, in Senesc. Kirkcudbright."

Ibid. Sub. 25. James VI., A.D., 1591.

1904. Apud Edinburgh, 2 Aug. Rex. pro bono servitio, concessit Andree Magistro de Uchiltree, heredibus ejus et assignatis quibuscunque,—terras et baroniam de Erliston extenden. ad 40 librat. antique extentus, cum castris, lie parkis, pratis, molendinis, piscationibus, silvis, cottagiis, tenentibus, &c., advocatione ecclesie S. Joannis de Dunry, in senesc. Kirkcudbrycht;—que regi devenerunt ob forisfacturam quondam Francisci comitis Bothwell dom. Haillis et Creichtoun, &c.

IV.

Acts of the Scottish Parliament, vol. iii. p. 257. Sub. James VI. A.D., 1581.

Ratification of Royal grant to Francis Stewart, Earl of Bothwell, Ford Hailes, &c., inter alia.

"Tota et integra terras et baroniam de erlestoun nuncupat glenken cum villis annexis connexis partibus pendiculis dependenciis molendinis lie outsettis tenentibus tenandriis et libere tenentium seruiciis earundem et suis pertinen macum aduocatione et donatione ecctie de dalry jacen in senescallatu de Kirkcudbricht,

Ibidem, vol. viii. p. 323 h. sub. Charles II., A.D., 1681.

The patronage of St. John's Kirk of Dalry ratified to certain persons on the forfeiture of Gordon of Earlston:—1681.

Ratification in favours of Lieut. Col. Maine, Major Theophilus Ogilthorpe and Capt. Henry Cornwall of the lands and barony of Earlstoun and others. By thir presents ratifies approves and perpetually confirms a signature or warrand subscribed by His Majesty at Windsor 11 May 1680, equally and proportionally and

to their airs and assigneyes whatsomever heretablic All and haill the Lands and Barony of Earlstoun with the Castle Tower fortalice manor places houses biggings yards Orchyairds Parks meadows dow-cats, Cuningars Coalls, Coallheuchs mosses muirs pasturages woods fishings tennents tennandries and services of free tennents milnes milnelands and astricted multurs used and wont with all their pertinents lyand within the parochin of Dalry Stewartrie of Kirkcudbright and Shirefdome of Wigtoun comprehending the particular tounes lands patronage of St. John's Kirk of Dalry teinds parsonage and viccarage of the said parochin and uthers specified in the said Signature x x x and all pertaining heretably of before to Mr William and Alexander Gordounes elder and younger of Earlstoune.

13th March, 1896.

Mr PHILIP SULLEY, Vice-President, in the chair.

New Members.—Messrs James Barbour, Glendarroch, Dalry; James Moffat, Bank of Scotland, Annan; John Neilson, Mollance, Castle-Douglas; Walter Ovens, Torr, Auchencairn; Dr Rossie, Newabbey.

Donations.—The Journal of the Elisha Mitchell Scientific Society of North Carolina; the 29th Report of the Peabody Museum, Harvard University; and the Report of the Natural Science Association of Staten Island, New York.

Exhibits. -Mr Rutherford exhibited a whorl found on the farm of Lochbank, Newabbey; and a flint arrowhead from Manitoba. Mr Sulley exhibited adder beads and charms.

COMMUNICATIONS.

I.—A Scottish Idyl. By the Rev. WM. K. R. BEDFORD, M.A., Hayes, Kent. (Communicated by Mr. J. W. Whitelaw.)

There is a pretty and somewhat fanciful painting by Millais, which was exhibited in the London Guildhall Loan Collection of 1894, which represents a childish drum-boy, in the uniform

familiar to the admirers of Hogarth's famous march to Finchley, playing on his fife, to the vast delectation of two or three barefooted Highland lasses, to whose unsophisticated ears the shrill squeaking of the wrynecked instrument doubtless sounded sweeter. so prompt is the female ear to novelty, especially where the eye is also allured by comely lineaments and smart clothes—than the deepest drone and sprightliest chanter of their native pipes. letters from which I have made a selection exhibit, I fancy, a parallel sentiment in the mind of the writer, and gain additional interest as throwing a sidelight on the social amenities which tempered, it would seem, a dolorous period of Scottish history. They emanate from the pen of Miss Jean Erskine, daughter of Charles Erskine, Lord Alva, Lord Justice Clerk of Scotland, afterwards wife of William Kirkpatrick of Allisland, one of the Clerks of Session, son of Thomas Kirkpatrick of Closeburn, and at one time member for the Dumfries Burghs.

"She was," wrote her grandson, Charles Kirkpatrick Sharpe, "a woman of infinite jest, yet possessed of a most sweet and amiable temper; she died young and heart-broken by the untimely death of a darling son and other domestic misfortunes."

Her portrait by Ramsay, painted at his best period (after his return from Rome), represents a fair woman with somewhat irregular features, yet of a very sweet and arch expression, which, added to her clear skin, and plentiful fair hair, gives her a very engaging look. Her husband, limned by the same pencil, appears a fine dignified looking man, calculated, as we know him from other sources to have been, to attract admiration and command respect.

The first letter is dated from Moffat, then a fashionable spa, and bears date the autumn of 1746, six months after Culloden, and is addressed to Miss Alicia Johnstone of Hilton—who afterwards married Mr Baird, and became mother of Sir David Baird, the captor of Seringapatam.

SWEETEST OF ALSIES,—We had the pleasure of yours after long Expectation, I can only repeat your own words write on my dear Johnston without leasing. We got your letter at four o'clock, and was obliged to deny ourselves the pleasure of reading it till ten o'clock at night, but when we did read it, we was (dr.

Alsy what shall I say we was); just as we used to be when you was with us; in short quite happy-but that like all other earthly pleasur's was fleeting, and of short duration. When we considered how much happier we would have been had we had your company in place of your Letter (Your Letter is so full of Moral reflections my Dr. Miss Alicie that I must give you one or two in my turn) I've used you very ungenerously Alcie for my first letter was writ with a Spirit that surprised myself, but don't Expect as much every letter or youll be cruelly disapointed, for I find in Spite of two or three bumpers of wine more than usual to-day, I'am not able to reach the same Stille-all this by way of Introduction to the many Incidents that has happened since our last, if I'm not mistaken Maguire * ended her letter with telling you that she was just going to a ball but (shortsighted mortals that we are) She did not see what that ball was to produce. I must in the first place let you know how this ball came about, the Baron and Capt. Makad (who as you guess are rivals) Cornet Smith and several others went to Sup together the night before, and Cornet Smith your friend who was mightily taken with Jenny Murray, proposed to stay next day if they would make a Subscription ball, and allow him to dance with her; upon which a motion was made that every man should dance with his flame; Then up spake the bold baron; Gentlemen, I declare before all this company that I am to dance with Miss Maguire tomorrow so let none dare to ask her after this; next day Maguire's friend Old Makad came up after dinner and ask'd her to dance with him, and pray What was to hinder him, he was not in the Company and how should he know anything about it. Well we all went to the ballroom, the baron Addresses himself to his flame, Madam I hope you'll do me the honour to dance with me to-night. Sir I am Ingaged, to Whom, to Mr Makad Sir, 'Tis Impossible, I don't know indeed Sir, he must yield you up Madam, you and him may speak about it Sir. Makad comes in. Sir says the baron you must yield up this Lady. No indeed Sir I won't, bray'ly answers Makad (Spite of his gouty toe). So Sir says the baron you won't yield her up you say, by all that's good your brother has put you upon this, but old Makad (Least a worse

^{*} Miss Maguire was sister to the Countess of Glencairne. She afterwards married the "bold Baron," alias Lord Alva, Junior, my grandmother's brother,—C. K. S.

thing should befalle him) wisely did not hear these last words, but carryd off his prize in triumph to the midst of the dance, the Captain danced with Grissell, I danced with Carlisl (who would have had Miss Murray if he cou'd have got her) the baron look't terrible upon everybody the whole night, the Captain was a good deal pick'd; for my Own Share I was only afraid of a Pinking Bout. We had a Supper after the ball but nothing happen'd, the baron Ingag'd the Lady for next ball at which ball there pass'd several things between them which won't do quite so well for the Subject of a Letter. In short he persecuted Campbell's discourse to the outmost, you know from experience Alicie they are a penetrating set of folks that are at Moffat, and as there was rumour next day of that gentleman's going away, everybody suspected the Reason, upon which pride, which is his predominant passion, made him act in a way that was agreeable enough to us. We met in the ballroom as usual at night, and played at blindharry, after some time I was blinded and going about, when I heard the door open and the fidles enter, and in a moment a man flew upon poor harry, and embraced me so close that I cou'd not Stire and kiss'd me a perdigious time, the Goodness Alicie, I grew blind Indeed. at last I disengag'd myself in a terrible passion you may be sure threw napkin and everything at him, made my complaint to Lady Erskine before the whole room Who pinch'd me so that I obliged to be calm—we spent a good part of the night in dancing after which he propos'd to the gentlemen as it was Saturday night to drink a health to their Wives and Mistresses, a table and glases were set and we supt very merrily upon cold tongue beef cheese ec. without knife or fork but rug'd with our fingers very heartsomly, he broke a glass in his own Mistress's health and poor Maguir was the butt of the whole Company and behav'd vastly well. Before the Supper Captn. Makad danc'd with Maguir, and told her of a Letter he had got from the Sheperd Adonis. It was full of his Love to pale Negligence there was a whole page filld up with scores such as _____ which he said was so many Sighs; sad was my Story Alicie. We parted that night invited by the Major on Monday night to the same intertainment. Apropos the Major, I believe nothing less than Blackney's Whole Regiment will satisfy Grissell (he is married its true so its the Less matter) prejudice goes a great way you know and I suppose he has heard of Grissie Erskine before he saw her: She has played her old headack upon us several times too, but I can't by any means prevail upon her to take her bed. We are very few in number now. Mrs Hume, Betty Stuart and Sweetest of Winnies are all gone. Winnie beg'd to be remember'd to you in the kindest manner. We had a letter from my sister Lawrie last week who beg'd us when we writ to Miss Johnston to make her compliments to her and tell her she hop'd she would not look upon her as a Moffat acquaintance. Farewell my Dr.

MOFFAT, Oct. 6. 1746.

J. ERSKINE.

Grissell—my grandmother's sister, of a peevish ridiculous temper—"sweetest of Winnies," Miss Winifred Hairstanes, whose sister married my greatgrandfather, and was mother of the late Ladies Sutherland and Glenorchy.—C.K.S.

The first reflection which naturally occurs to one's mind on reading this humorous chronicle of high jinks and promiscuous flirtation, is that the gallant officers of Blankeney's regiment must have had reason to congratulate themselves upon their lot, as compared with that of their comrades in active service in the Highlands, hunting down unhappy Jacobite fugitives, and eradicating nests of caterans in gloomy glens and inaccessible straths. as remote and savage as the Carpathians or the Khyber are now. But it seems as if the young ladies themselves, representatives for the most part of the best Scottish families, were at least equally well pleased with their military partners, and the narrative of their proceedings helps us to appreciate the force of the remark recorded by Sir Walter Scott in his Irish journal, that probably few occupations of territory by an invading army have been totally devoid of the alleviations due to the interference of Cupid and Hymen. It is not quite easy to understand why the "bold baron" should have prefaced his impromptu entertainment, "rug'd with the fingers" of his fair guests, by the rude assault upon his own sister, poor "blind Harry;" but the result appears to have been highly satisfactory in obliterating the recollection of the previous passages of high defiance between the rival claimants for the hand of the fair Maguire. One would be glad to ascertain the exact nationality of the gallant brothers who shared the not very euphonious name of Makad, and to speculate upon the after career of Cornet Smith, who, though his rank, in a military point of view, scarcely entitled him to the prominence which he claims. seems to have put himself forward as arbiter elegantiarum quite in the style of the dragoon whom Swift has immortalized in connection with "Hamilton's Bawn." That the ladies reciprocated his good opinion of himself as a squire of dames is rather amusingly evidenced in the next letter.

DR. JOHNSTON. I need hardly give myself the trouble of repeating what I daresay you are very sensible of by what you feel yourself, I mean the pleasure we have in receiving your letters, only I think our pleasure must be so much greater as we hear seldomer from you than you do from us. Why won't you write oftener my dr. Alicie, tho' there can't be so much variety in your letters as there is in ours, I assure you they are full as agreeable to us as they would be had they more variety; to give you an exact Journal of what has pass'd since our last, would take a great deal of time both to write and read but I shall give you some little Sketch of it. (I am sorry however that you have such a melancholy time of it but I hope to hear a more agreeable account of you in your next). We came all here with Lady Erskine the day after your letter was writ and had the pleasure of meeting all our family here, next day we had a ball a pretty good one, there was nothing remarkable happen'd; next day which was Wednesday Lady E. and Miss Murray went about eight miles out of town to visit Lady Anandale, and stay'd all night and on Thursday we all met at Tinwald, about one o'clock, and din'd upon one of the Wrights tables, on a Cold Colation (if you please) which we had brought out of town with us. We were very merry, there was some little Rivalship between Miss Murray and Maguir about the Landlord, he coqueted a little with them both, and then dash'd both ther hopes at once by toasting Miss Johnston and telling some of her pritty little stories so that they both despaired of getting the better of you, at Last good Lady Erskine took her leave but was so good as to promise to write to us, Miss Murray and her went off for Moffat, and we wander'd about for some time, Viewing the beauties of the place (which papa set off with all his eloquence) and then came into the town, on Friday we walk'd thro' the town to let Maguire see it and in the most publick place of the city her ears were most gratefully saluted with the noise of a bourtree gun. She was so transported, she forgot where she was, and ran most precipitantly to the happy

owner of it, and offer'd to give any price he demanded, the little esquire set his price, and she gave it, to the admiration of many spectators, and all the way as she walk'd she canonaded so violently that the whole town was alarm'd and thought it was a French landing, by the time we were near our own house we found the whole dragoons drawn out to defend the place, but upon the sight of there Enemy, they water'd there horses instead of proceeding further to the attack, there was a search for arms, and that unlucky gun was found upon Maguire, by your friend, Cornet Smith, but she manag'd things so prudently, that instead of being taken prisner herself she brought the Cornet a prisoner to our house, we made a search likewise and made him lay down all his heavy luggage which was two pocketsfull of nuts, so we drank tea, and sang all the afternoon. Next day we all went to Maxwelton (Sir Robt.'s house) and spent eight days pritty agreeably in dancing and other country amusements, we had Mr Jervis with us nearly all the time, to my great joy Alicie, the Cleckin had been destroy'd some days before we went there, he insisted that Maguire should see his house before she left the country. We went and dined there, and was very handsomely entertained, and went to his brother all night. Next day we came to Dumfries, and he conyoy'd us about three miles. When we came into town we received your letter but could not answere it with the post it was so late. Yesterday being the king's birthnight we had a ball, but you can't have the satisfaction in hearing of the balls here, that you had of the Moffat ones as you are acquaint with so few of the folks here but the few that does know you, I assure you asks after you very affectionatly. Now I think I have been very particuler in my account. I am now come to this night. About a dozen of us has keep'd our hallowe'en very merrily and now Maguire and I are sitting by the fireside, at one o'clock. She is preparing ane apple to dream upon and telling me now and then what to say to John-She sometimes looks about to the door to see if she can see you sitting upon your carpet. Dr. Alicie we have often wished for you here, but since that won't do, hope we shall soon meet in Edinburgh. Maguire and Sussie and me goes in next week, and Grissie stays with my sister till Christmas and then, I believe, they both come in. Grissie wou'd write but she is sadly distress'd with her headacks, but she says she'll write to you after we are gone, direct for Maguire and me at Lord Tinwald's house Miln's

Square, EdR. Lady Glencairn writes to Maguire that she expects to meet her in EdR, so we shall only want you, my dear Alicie to make our happiness compleat, perhaps you'll be saying, it is not fit, but I hope it shall happen. I must end my letter sooner I us'd to do as there is an opportunity of this going to-morrow morning. Wishing you all health and happiness I am my dear Alicie yours

Affectionately,

J. ERSKINE.

Dumf. Octr. 31, 1746.

These spirited gossiping missives give a vivid picture, not only of the manner of the age, but of the playful warmheartedness of the writer. One or two shorter letters may help to show that her frolics with Miss Maguire and Cornet Smith, and her sarcasms at the expense of "papa's eloquence," and the "bold baron's" pride, or Grissy's headaches, were only the outer shell of a true and tenderhearted woman's character. Take, for example, the next letter to her favourite correspondent, Miss Johnstone. Miss Erskine had been married to Mr Kirkpatrick on Christmas day, 1746, and had suffered the first month of the new year to be advanced towards its close without announcing the event to her friend, whose possible displeasure at the neglect she thus prettily deprecates.

MY DR. ALICIE, I know you are a little angry with me, and I won't say 'tis without reason, but as I never had the misfortune to see you the least out of humour at any one thing, I am very much at a loss how to behave in order to regain my former happiness again, you always flater'd me my dr. Johnston, in saying you thought there was a vast Similitude between our tempers. So 'tis very posible my dr. Alicie might have behav'd the same way, in the like case, you must suppose so, and forgive me, but indeed my dr. Alicie to show you how much you was in my thoughts, I sat down that night before I was (I can hardly write it yet) married, to write to you, and cou'd not make it out, and as we went out of town immediately after I had no opertunity. I am vastly sorry I am not to have the pleasure of seeing you in town this winter I had form'd twenty pritty little schemes to myself of being happy with my dr Alicie and sweetest of Maguires, but I cant help expecting you sometime this winter

vet, and we have an excelent bed here for Alicie to loll upon and tell a story, 'twas just got a purpose for you, so I hope you won't disapoint me. I saw my dr Lady Erskine yesterday, and surpriz'd her a little by taking her about the neck and kissing her before she saw who it was, but she return'd it in as great a hurry when she did see me, and laught at me about ten minets. I have been interupted about twenty times since I began this letter, but I will have it made out if the whole world should combine against me. I can't imagine what folks expect to see about me, in short they run about me, and stare so just as if I had got asses ears like Midas. I very often run to the glass to see if I have got horns, or someting that's monstrous about me, but I am happy enough never to discover anything there that displeases me. I was at the play last night, my first appearance, so you may guess I would sufer a good deal. I cou'd hardly get a man to lead me out, Mortifying: I was married they said, so 'twas no matter how I got out, who do you think led me out. Why, my old friend Doct. Bembridge, who is just now falen into an Estate, and seem'd to be in a vast surprize when he heard I was dispos'd of. My old way of speaking Alicie you know. Well my dr Johnston I expect a long letter from you soon in spite of our little toust, and I hope we shall still be the same that ever we was. Maguire has made that promise to me and I shan't be quite happy till I have the same from you. And O dear Alicie call me Jean if you love me, farwell my dear (firl and believe me to be most sincerely yours. JEAN KIRKPATRICK.

Edr Jan 17 1746-7.

That the last letter produced the desired effect, and that no breach of friendship had occurred between the two maidens of modern Athens, who, like their classic prototypes Helea and Hermia, were two cherries on one stem, we may gather from the last billet of the series addressed to the "sweetest of Alicies," when her change of name had been notified to Mistress Jean Kirkpatrick, some six months after the former communication. Once more the pen indulges in the familiar terms of endearment, which, like the flowers of the spring time, are sure to grow rarer and less spontaneous towards the autumn of life.

If I had known where to have directed for my Dear Alicie, I shou'd not have been so long of wishing her all the Joy and happiness that is possible to be met with in a married Life. I am extremely sorry I shan't have the pleasure of seeing you this Summer, but there is no help for it, it is not fit it seems, tho' there is nothing I wish so much for as to sing once more in company with my sweetest of Alicies, Willys fair and Willys rare &c. So I am glad to hear you are grown so clever at riding since you left Moffat, it was lucky you was not seized with the Panick which poor Mrs Palton's horse was so misfortunate as to throw you once into.

I had almost pun'd a little here upon your venturing to ride a runaway, but thank my stars, I have escaped it, for I hate a pun. I pity you most heartily till your visiting time is over, or as papa us'd to call it your sitting time, by the by have you sent him a Willow Cokade I desire you'll have one ready for him the first time you see him, you must direct for Maguire at a place they call Auchendinen by the Dumbarton post, pray write to her soon, I desire my dr you'll do as you would be done by, I mean not to show my letters to your husband, now remember positively I won't so much as allow him to see my name, till I see him, and am acquaint with him, farewell my dear Alicie Baird.— I am, Yours affectionately,

JEAN KIRKPATRICK.

Though these are the sole specimens of the infinite jest of which her grandson speaks, yet they show tender feeling as well. The elegy on her death by Lord Hailes (the historian) is the only mention of her after this date which I have been able to discover, beyond the ordinary announcement of the birth of her elder and only surviving son. Lord Hailes' verses are composed in the fervid pastoral style then fashionable for such elegies, but, indifferent as they are, indicate an appreciation of the amiable qualities of the deceased on the part of the writer which give them some value.

"She died—eternal wisdom so decreed.

Dread Father, we submit, Thy will be done;
Yet must our hearts with fond remembrance bleed;
Yet Friendship must bewail Amanda gone.

"Witness those tears which for Amanda flow,
Witness her kindred sore with grief opprest,
Witness her hoary Parent's pensive woe,
And sighs quick throbbing from her Consort's breast."

II.—A' Lorburne. By Mr JAMES BARBOUR, F.S.A.

The purpose of the following brief paper is to call attention to and put on record the existence of an ancient stone of some interest. It is affixed to the wall of a summer-house at Knockhill, situated in the Parish of Hoddam, about a mile and a half from Ecclefechan Railway Station, and long the residence of one of the Sharpes of Hoddam. The summer-house is hexagonal, glazed on three sides, and a stone and lime wall enclosing the other three is veneered inside with a variety of inscribed and sculptured stones. Some bear Roman inscriptions, a sculptured representation of a human head, of colossal proportions, is believed to be Roman workmanship; and others consist of fragments of ancient Christian crosses, beautifully sculptured and cut. The interest attaching to the stone under notice arises from the circumstance that it is inscribed with the motto or watchword of the Royal Burgh of Dumfries. The letters, raised and slightly ornamented. are fancifully arranged in three lines in the form of a pyramid at the right side of the stone. They are curiously graduated, the first line being $2\frac{1}{3}$ inches in height, the second 3, and the third $3\frac{1}{3}$. The stone itself, which is evidently incomplete, measures 23 inches in width and 14 in height. It is red sandstone, of tint and grain corresponding with the stone common in the neighbourhood of Dumfries. All the letters, except the last one, a little of which is wanting, are perfect; one, the third of the last line, is of a meaningless form, probably due to ignorance on the part of the stone cutter, but there is no difficulty as to the reading. The first line consists of the letter

The second reads
and the third

LOR
BURNE

The inscription does not stand alone, but is accompanied on its left by a well-cut shield of tasteful form, bearing not St. Michael, the town's arms, which might be expected to accompany the town's motto, but a chevron between three fleur-de-lis.

The history of the stone may, I think, be traced so far. We learn from Dr Burnside's MS. History of Dumfries, written in the year 1791, that a stone carved with a shield bearing the arms, a chevron and three fleur-de-lis, and under it the word "A'lorburn" was then to be seen on the front of the prison of Dumfries, and the opinion is expressed that it had been part of an older prison

If the position assigned to the motto as being under the arms is taken in the sense of being lower down the street, which may well enough be allowed, Dr Burnside's description so completely applies in every respect to the Knockhill stone as to leave no room for doubt that it is identical with that which in the year 1791 was to be seen on the front of the Prison of Dumfries. How it comes to be at Knockhill is easily understood. The array of carved fragments on the wall of the summer-house witness the hand of the collector, who, it may be presumed, secured the stone when the old prison was demolished in the year 1808.

In regard to the period to which the stone is assignable, Dr Anderson, to whom I submitted a photograph, expresses the opinion that the style of the letter generally seems to indicate the period 1580 to 1600. The circumstances point to a period more remote.

The meaning of this connection of the town's motto with the arms described, and of the motto itself, are matters of conjecture. Dr Burnside infers that these were the ancient arms of the town, St. Michael, which he says had been in use for a great many years, being, it was supposed, adopted subsequently. This, however, is unlikely, as St. Michael, the tutelary saint of the place, has always, so far as known, been borne on the municipal seal and other insignia. No. 1154 Laing's Seals, an imperfect impression found among some old papers in the Town Clerk's office, is thus described :- "St. Michael, armed with sword and shield, standing upon the vanquished dragon; at the sides a crescent and a star; inscribed, S' Communitatis Burgi De Dumfries." No date is stated or suggested. For two hundred years at least St. Michael has been represented not with sword and shield, but a crosier, sometimes in the right hand, sometimes in the left, and the designs vary also in respect to the use of the dragon and the serpent.

A part of the stone is wanting, and it seems unlikely that it would originally be lopsided as it is now. The motto probably occupied the centre, with a shield on the right balancing the existing one on the left, and possibly the former bore St. Michael, the town's arms, while the latter, which corresponds with the arms of the Browns of Carsluith; Gilbert Brown, Abbot of Newabbey, and others, might represent an official or some one having a special connection with the burgh. In any case this would seem

to be a very early, probably the earliest, example of the town's motto known to be extant.

A' Loreburn, it is generally agreed, was a watchword or cry, and its origin is supposed to be connected with the Lower burn or Lor burn, which formed the inner line of defence of the town, and was manned, according to Peter Rae's account, as late as the year 1715; but perhaps it might be more in accord with usage to suppose the word to be the territorial or family name of a leader, whose designation came to be the rallying cry, "A Lorburn"—as for instance "A Douglas."

The Border slogan rent the sky; A Home! a Gordon! was the cry.





The stone (fig. 1) is not without interest as a memento of the old prison, the scene of many stirring incidents, which stood at the

corner of High Street and the short and narrow street known as Union Street, the Council Chambers of the time being on the opposite side of the latter street.

Another ancient inscribed stone on the wall of the same summer-house (fig. 2) was probably also taken from the town of Dumfries.

III.—Fearl Fishing in the South-West of Scotland. By Mr James S. Thomson.

The ignorance existing upon this subject was brought home to me by the following letter in the Scotsman:—

"In the 'Lord of the Isles' there is a beautiful description of Edith of Lorn in the hands of her maids preparing for her wedding with Lord Ronald. The pearls with which she was adorned came from Loch Ryan.

'These strings of pearl fair Bertha wound, That bleached Loch Ryan's depths within, Seemed dusky still on Edith's skin.'

All the books at my command speak of British pearls as being found in fresh water mussels, and make no reference to the arms of the sea. Is there a Loch Ryan on the mainland, or did Sir Walter know of something on the subject that is thus far hid from specialists?"

To this letter there was no answer. I set about trying to learn the localities where these pearls were found. Although well acquainted with the fresh water pearl, I knew little of their habitat. Although found in streams, I concluded that the natural locality for their growth was the lochs, of which there are so many in Galloway. In quest of this information, I first visited Carlingwark, near Castle-Douglas, where I was told they were in thousands, and formed the opinion that they were bred there, and although destitute of pearls, or nearly so, when in the loch, the hardships of the river and accidents caused the formation of the pearl. But on reaching the loch I could find no trace of them, not even an empty shell; but, on the other hand, the loch was crowded with the common (Anadanta Cygnea) Swan Mussel, numbers of which were to be seen on the banks of the water. These have sometimes a few small pearls, but are of no value for setting. In Loch Ken, Loch Skerrow, and the chain of lochs around Dalry (the "Raider" country) Mr Millroy assures me that he never heard of any being found, and he himself never saw any; and all with whom

I conversed had the same report—never saw such a thing, although quite conversant with them. Of Loch Doon, in Ayrshire, and its streams the same can be said. So much for the fresh water lochs. Regarding Loch Ryan, I have information that no pearls are found in the streams running into the loch, and the loch itself contains only those small blue-white pearls found in sea mussels, which are of no value as gems, and would shew dark on most skins. My investigations regarding the lochs were fruitless, but I obtained much information regarding the streams of that lovely country to which the mussel is partial. The pearl mussel is widely scattered over the country, and cur land has long been famed for its pearls. The Romans were well acquainted with this gem in British waters, and many of them were sent to Rome, and it is said that one of the temptations to Cæsar's invasion was the abundance of pearls produced in this country, Cæsar having quite a passion for this lovely gem. There is as little likelihood of the Roman passing any water containing them as there is of our race passing over a country whose native inhabitants are wearing gold bangles without endeavouring to find the source from which it is procured. I have little doubt, notwithstanding what has been said to the contrary, that evidences of their residence will be found both by Dee and Doon. Pearls of great size have been found in Scotland, and it is said that more than one of the pearls in our Scotch Regalia are of native origin.

The Tay, the Forth, Don, Dee, and Esk in Aberdeenshire are famous for their pearls. Those on the Tay, from Loch Tay dewnwards, seem to have been a mine of wealth, a fishery existing here that was said to have produced £10,000 worth of pearls in four years, with the usual result that the Fishery was ruined. But no allusion is made, in any work to which I have command, of the streams of Galloway or Ayrshire; but nearly all the streams in the south-west of Scotland contain them—Nith, Cairn, Kirkgunzeon Lane, Cree, Dee, Doon, Fleet, &c. Shells are found in Nith at Blackwood, Ellisland, and Carnsalloch, and on Cairn they are found in several places, such as Snade Estate, Dalgonar, and lower down to Nith. I have also seen pearls got in Nith, but none of them were of any value.

The two streams that I particularly paid attention to are those most noted for their pearls—Dee and Doon. One fact I noted was that the fish has an aversion to still water, and I found

in those parts where the water has a sluggish lake-like current there were no living shells. For instance, while there are many about the Dee near Hensol, from the five miles of still water from Bridge-of-Dee down to Glenlochar Bridge there are no fish to be had, but at Glenlochon they commence again with the current, and are then found right down to Kirkcudbright. While they dislike still water, they have also an aversion to those wild rushes like what is found in lovely Ness Glen, and from Loch Doon right down the Glen none are to be found, their favourite haunt being nice ripples with gravel bottoms, or those little banks of gravel behind boulders. Both Doon and Dee are lake fed, and I have found that streams flowing from basins are usually better stocked than those that have no break to their currents, the still water seeming to have an equalising effect upon the temperature, as well as a clarifying influence upon the water, this being one of the reasons in my opinion why the upper Kirkgunzeon Lane has produced the splendid pearls I now show you (this is the property of Mr Clark of Cullochan, Terregles), and a fine cross was formed of pearls got here by the late proprietor's aunt, Mrs Marmaduke Constable Maxwell, of Terregles.

At first I asked myself, why should the fish be more plentiful in Dee and Doon than in other streams near them? Pollution might be the reason in Nith and Cairn, but I found on examination that such waters as Deuch and Ken, which above Dalry is an unpolluted stream, had few, not but what they are found here, for one lady assured me that she had a brooch set with pearls found in Deuch. There is also a circumstance connected with Dee that I mention that may have some influence, that is its high temperature compared with Nith. The observations were taken some years since by Mr Andson, and a correspondent on the Dee, viz.:

—Nith, spring quarter (breeding season), 47.8; Dee, 50.9. Summer quarter—Nith, 60.2; Dee, 61.1. Autumn—Nith, 47.1; Dee, 49.8. Winter—Nith, 38.9; Dee, 40.2.

In some places on Dee mussels are very abundant. Mr Bridger informs me that on the moors above New-Galloway station, at a place called Barns Water, he took them out by the pailful, but, strange to say, with few pearls, although below this on Slogarie and Banks of Dee pearls are abundant, and four years since on Doon, below Dalmellington, they were taken out in loads. Indeed, I was assured that the slaughter was so great that com-

plaints were raised regarding the smell from the decaying fish. The effect upon the fishing was, however, most disastrous, and after such raids, it is years before the fishing attains to its usual state.

Regarding the formation of pearls, and especially the nucleus or beginning of the pearl, I have taken some interest, and examined a great many. I show you specimens of pearls cut to show the nucleus. Many writers at the present day speak of grains of sand as being the cause, but I must say in the hundreds I have examined I have never found such, or even a hard substance. No doubt pearls may be formed artifically by inserting substances, but in a state of nature I have never found such a thing. Examined through a glass, the beginning is seen to be a small round body of the size of a small pin-head, evidently an egg which has remained after the others have been expelled—perhaps Looked at with a power of 120 this centre apunfertile. peared as a circular spot apart from the rest of the pearl, and with a variety of cells. The structure was different from the rest of the pearl, and certainly there was no grain of sand. I show you a section, and on holding it to the light you will see the circular part, which here is perfectly defined. A writer in one of Chambers' articles upon Scotch and other pearls states that the colour of pearls is determined by the colour of the nucleus, but you will notice that the reverse obtains in those I shew you. The light coloured centre turns out a dark coloured pearl, and the dark coloured centre a light coloured one. A curious experiment was tried some years since upon the artificial production of a pearl with complete success. A lady had a pearl mussel in an aquarium. She one day inserted a small piece of beeswax inside the shell, and the fish coated it over with pink nacre, forming in course of time a beautiful pink pearl. There is a curious account of how pearls are formed by an old writer that I would like to quote. The pity is that his poetical conception should not be true. Speaking of the Scotch pearl mussel he says-"These mussels, early in the morning when the sky is clear and temperate, open their mouths a little above the water, and most greedily swallow the dew of heaven, and after the measure and quantity of dew which they swallow, they conceive and breed the pearl. These mussels are so exceedingly quick of touch and hearing that, however faint the noise or small the stone that may be thrown into

the water, they sink at once to the bottom, knowing well in what estimation the fruit of their body is to all people." In the East, a drop of rain caught by the oyster is supposed to be the origin of the pearl; and on Dee the fishers for pearls speak of the finest as dew drops. Whether the Chinese, a fresh water mussel, could be kept here I have not heard, but it readily lends itself to such production, and the wonder is that it has not been tried. Whether it would be possible to form pearls artifically has only once been tried in this district to my knowledge. The late Frank Buckland, whilst staying at the Hensol, a mansion on the banks of the Dee, near New-Galloway station, employed Mr Bridger, the butler, to get him some pearl mussels. He then proceeded to bore holes in them, and inserted pegs, but unfortunately for the experiment, the fish were swept away by a flood.

The shells that contain pearls are nearly always deformed. Indeed it is a rare thing to find a pearl in a well-formed healthy fish, and fishers can tell at a glance if the shell contains a pearl, and the more deformed the more likely to contain one of some size. These fish are often unhealthy, and the pearl I conclude to be the outcome of violence in some shape or other, or else of disease. An old farmer on the Hensol estate gave it as his belief that pearls were far more abundant when Irish cattle were pastured at the side of the river in great numbers, their trampling causing this condition of the shell. He had known the river for sixty years, and I afterwards discovered that below fords there are always more pearl-bearing shells than above them. Possibly, also, the floods may cause them damage by knocking them about amongst the stones, or the faulty shape may in many cases be a malformation.

The manner of fishing on both Dee and Doon is rather primitive. It is pursued during the warm weather, and the lassies on the Banks of Dee and Doon enjoy the sport as much as the males, and are equally successful. Experts bring to their aid a few articles of no great mechanical intricacy, one of them being a pewter pot with the bottom knocked out and replaced with a piece of glass. This, or an equally simple arrangement, is passed over the rough water, and shews the bottom very clearly on looking through it, great difficulty being found in recognising the fish owing to the shell being the colour of the stones. The putting forth of the light coloured foot is what is most quickly recognised;

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but they are very wary, the least vibration making them close their shells. In shallow water they are raised by the hand, or those possessed of flexibility of toe can grasp and sling them into shallow water. For deeper water a stick about six or seven feet long, having a slit at one end, tied with cord to prevent its splitting. is used. This is forced over the shell, and the spring of the wood clasps it firm enough to land them. One ingenious party, who had been tantalised by a particularly nice-looking mussel in deep water, waited patiently until the fish opened its shell. He then gently inserted the point of his fishing rod, and on feeling the intrusion the shell was closed and the fish landed. Fishers with worm at times land them, the hook, getting into the open shell and the fish closing, cause their own capture. Long handled rakes, with a few long teeth, are also used. These are inserted below the shell, but an instrument of more ingenuity than any of these is two large inverted spoons attached to wooden shafts. These are jointed near where grasped by the hand. A spring keeps them open, but pressure closes them when required, and the fish is raised without trouble. The fishing is, however, of such a precarious nature that no one devotes himself to it. I have heard of people hunting the water carefully and getting nothing, and a tramp going down to the same part of the stream, and in ten minutes securing a fine pearl for which he secured 20s from a lady visitor to the locality.

As to the number of pearls found in Dee it is difficult to arrive at any proper decision, as they are sold in so many places, and such numbers of people fish for them, and either mount them or give them to friends. One young man got £10 for a number he got one year fishing at odd times, and various parties near Bridgeof-Dee secure a few pounds each season. As to size and quality, Mr M'Skimming of Kirkcudbright bought a very nice one, for which he gave £15, and it changed hands again for nearly double this sum. One of a dumb bell shape, of the size of a horse bean, as described to me, was sold for £10, and I shew you some lovely pearls, the property of Miss Bruce of Old Garroch, formerly of Slogarie. One of these is 21 grains in weight, round, and of a lovely colour, about the size of a wren's egg. One of great size and purity was said to have been found on Doon, and was sold for £70, but I am sorry to say I could not trace it. On this lovely stream some fine pearls have been got. The difficulty, however, is in getting them with nice form, nice colour, and large size, for it must not be imagined that when you get a pearl in any stream it has all these qualities. I should say not one in a hundred have them; brown, bad shaped, and worthless are the rule, the others the exception. One jewellery traveller bought in one season in the town of Ayr £70 worth of fine pearls, and if we consider that, at least thirty jewellery firms visit Ayr during the season, and that most are willing, some anxious, to buy these gems; also that some of the largest were sold in Glasgow, Edinburgh, and even London, I think I shall be within the mark in saying that four years since £300 worth were disposed of in one season.

The value of a pearl varies, however, upon the demand. A fine pearl will always command a market, but circumstances increase its market price materially. A diamond can easily be secured to weight and colour, but a pearl for matching is often difficult to obtain. I may illustrate this by what happens in Hatton Gardens amongst dealers. At times a pearl may be in the hands of a dealer, for which he asks £50 to-day. To-morrow it is whispered that a Bond Street firm wish a gem of certain size and colour for matching, and the merchant at once raises his price to £75 or even £100. A merchant dealing in stones told me he had an open commission to buy 5-carat Scotch pearls for a necklet which a jeweller was forming for a lady, and he had the greatest difficulty in matching colour and size, so few were for sale, and the matching can only take place by laying them alongside one another, the gradations of colour are so great. matching is one of the causes of the fabulous prices of pearl necklaces and other articles of jewellery. On the other hand I have known pearls sent to London for sale, and the parties got less for them than was offered at their own door.

Regarding the number of mussels in the water, complaints are made of the rivers being cleaned out when the waters are exceptionally low. No supervision has ever been attempted, and anyone is allowed to take that could find them, the small being taken as well as the riper ones.

Regarding the colour and value of Scotch pearls, some of them are really lovely, as lovely as pearls of the Orient; and in so far as they are well coloured and shaped, are of equal value to those of the ocean. But to be sought after they must be pure in colour and faultless in shape.

It has often been a mystery to me that Burns never mentions the pearls of Doon, seeing that he lived near where they are found (from Dalmellington to the sea); possibly his ignorance of their value might account for this. One old man to whom I spoke to about them assured me that in his younger days they used to "niffer them for bools," and the boys used to carry about a quantity in their pockets, but never dreamed of selling them for money.

As to the time that it takes to form a pearl I am sorry to say, notwithstanding much enquiry, I have no definite information. The Chinese are very skilful in using their fresh water mussel for various purposes, one being to coat little images with the pearly nacre; these are inserted inside the shell. Half pearls are formed in a few years, and passed off as real pearls, the basis being a small round piece of mother-ofpearl. Another plan is to scrape a small piece off the shell, and in its place a small piece of pearl the size of a shot is inserted. Could this mussel not be acclimatised? As an object for the aquarium it would be of much interest, and if we can take trout to New Zealand, why cannot we bring this bivalve to Britain? But why not try the cultivation of the Scotch pearl in Scotch rivers or burns? A couple of miles of river could be cheaply hired and cheaply stocked. Our landed gentry might grow their family pearls just as easily as their family timber Art aiding Nature might produce unheard of results. The matter has yet to be studied, and there is no reason why, in this utilitarian age, these bivalves should not be set to work to minister to human fancy as much as the silkworm, and with no more pain. We know so little about the matter that it is within the bounds of probability that situation, food, and selection might produce at will gems of rare value. What Frank Buckland tried might be tried with more success. A hole might be bored in the shell, and pearls of no value inserted. These might form the nucleus of larger pearls. I do not see why colour in pearls should not be studied, the changes from a dark beginning to a clear outer skin and vice versa. Are they the result of food, or situation, or light? In the fresh water mussel the matter is in its veriest infancy, and with observation Nature might be made to yield her secret.

As to the food value of the oyster, I am afraid that any one trying it will find it insipid and tasteless, and to make it savoury a

good cook would be necessary. The eel, however, seems to have quite a different idea, and the dragging of an open shell through the water soon puts him in motion and on the outlook.

The using of the pearl mussel in the forming of pearls by the Naturalist Linnaus has just come under my notice, but it seems, although taken up by the Swedish Government, to have turned out a failure. But the scientist is seldom well adapted for the practical work, and I am still under the belief that the matter is of a practical kind.

The aquarium, or a fountain like that used by a late member of this Society, is the most likely method of learning the life history of the mussel and its offspring, the pearl, and I trust that some one of our many members will use this means to elucidate some of the problems in its life history.

A paper upon pearls would not be complete unless Cleopatra and her famous pearl were introduced. The famous banquet, the dissolving a pearl worth £80,000 in vinegar, and the drinking of this costly mixture, has always been introduced to point a moral. I have tried a good many experiments upon pearls to test the effect of vinegar upon them; have steeped for hours small oriental pearls in strong vinegar, then in strong acetic acid, then nitric acid, with very little result. I handed a pearl about a grain and half in weight to Mr Neilson, of Dumfries Academy, with the same result as regards vinegar. Spirits of salt were then tried for two hours, and the pearl was reduced a very little. Something must be wrong in the telling of this charming bad story about Cleopatra's pearl. From the value, I should say it was at least 200 grains in weight, and you can compute for yourselves, if it took five hours to reduce a pearl one grain in weight in spirits of salt, how long would it take to reduce one of 200 grains or more in weight. dissolved it certainly was not by vinegar. If it was drunk at the banquet, the probabilities are that it was ground down or crushed and then swallowed, a costly but nauseous draught.

20th March, 1896.

Mr WILLIAM J. MAXWELL, Vice-President, in the chair.

A meeting, largely attended, was held in Greyfriars' Hall, at which the following paper was read:—

The Inscribed Roman Stones of Dumfriesshire. By James Mac-Donald, LL.D., F.S.A.Scot.

The practice of setting up stones to perpetuate the memory of events is widespread and of great antiquity. Among an unlettered people a simple unhewn pillar bore silent witness to the truth of the tale that would be told in after years to those who asked what the stone meant

With the advance of civilisation such commemorative pillars became covered with allegorical sculptures or with inscriptions composed in the language of those by whom they were erected. In Italy a very considerable number of inscriptions of this kind still exist, written in the Latin language, and dated, some of them, long before the commencement of our era. The subsequent extension of the Roman power into other countries was marked everywhere by inscribed stones, many of which remain, and are the most trustworthy evidence we possess of the extent and reality of the imperial conquests. This mode of writing history reached perhaps its highest development in Roman and Romanized lands during the second century after Christ.

The alphabet used by the Romans for inscriptions was that known among us as Roman capitals. The letters vary somewhat in form according to the nature of the stone, the taste of the stonecutter, and the period; but one cannot help being struck with the resemblance they bear to those with which we are so familiar. Whatever else has been changed for the better within the last two thousand years, the Roman capital letters have not been found susceptible of much, if any, improvement.

Some peculiarities there were. To save space, two or even three or more letters might be joined so as to form what is called a ligature or nexus. In some inscriptions ligatures are numerous; others are almost free of them. Words were seldom written in full, being almost always abbreviated. The first letter or the first two or three letters usually stand for the whole word. These

abbreviations and ligatures are somewhat confusing. But without a knowledge of the system generally followed in making them, the text of the inscriptions cannot be properly understood.

Each word should be separated from the next by a point or dot, though this was not seldom omitted. Sometimes the letters are all close together on the stones. Instead of the round dot, a small triangle is often used. After the first century the ivy leaf is not uncommon. Various other forms of the point are found, but all of them are placed in the middle of the line, and not, as with us, at the foot.

Certain letters were also employed as numerals, though some of them had at first nothing to do with the particular characters the form of which they came to assume. To distinguish numerals from letters, a stroke was drawn through the former in republican times; afterwards it was put over them.

The Roman inscribed stones hitherto found in Dumfriesshire may be classified thus:—Altars or votive slabs, dedicated to divinities; stones bearing honorary or commemorative inscriptions, including those that are sometimes called legionary; sepulchral monuments. Briefly stated, the conventional forms employed by the Romans for each of these classes of inscriptions are as follows:—

- 1. ALTARS.—First comes the name of the divinity in the dative, dependent on the word sacrum, or some contraction of it, expressed or understood. This is followed by the name of the dedicator in the nominative, often with particulars added regarding his family, country, or profession, or the circumstances under which the altar was set up. Lastly, we may have a verb or phrase expressing the idea of the altar being a gift, or the fulfilment of a vow, to which, when sacrum is wanting at the commencement, the name of the divinity may, at the option of the reader, be attached grammatically.
- 2. STONES, HONORARY OR COMMEMORATIVE.—These begin with the name and titles of the person in whose honour or in whose time the stone was raised, whether a statue or a historical tablet. If the inscription is honorary, these are in the dative, depending on a verb that comes, or is supposed to come, after; but if time is denoted they must be regarded as in the ablative. Owing to contractions and the frequent identity in form of these two cases,

it is often impossible to decide how the words are to be taken. Next there is the name of the person or persons who erected the statue or tablet, with some information regarding them, the name usually standing in the nominative to *fecit*, *posuit*, or other verb of kindred meaning, frequently not expressed. A simple legionary tablet bears only the name and the title of a legion.

3. SEPULCHRAL STONES.—Inscriptions on these generally commence with the words, *Diis Manibus*, or a contraction of them, in the dative governed by *sacrum*, often omitted. Then follows the name of the deceased person, with his age and other particulars, more or less full, generally in the nominative, as being the subject of a verb (*vixit* or *situs est*) expressed or understood; but it is sometimes put in the genitive, dependent on *Diis Manibus*, or in the dative, as in No. 9, and made the indirect object of a verb, the subject of which is the name of the person who caused the stone to be erected. The relation of this person to the deceased, or other particulars, are often added to the name.

Of the stones to be here noticed the altars are the most numerous and, with one exception, the most important. In form a Roman altar was an adaptation of a pedestal, and consisted of a moulded base, a central portion, and a capital, on the top of which the gift was laid or the offering burnt. This top might be simply a flat space, or it might have ridges along its front and back edges, which became cushion-like rolls or volutes at the two sides, so as to leave an enclosed space. This is the case in No. 10. In most of the Birrens altars, however, there is a different arrangement. Between the volutes there rises a projection with a bason-shaped sinking, which, in some cases, takes the shape of a patera. All these hollows, of whatever character, are generally termed foci, or "hearths," as if intended for the fire of the burntofferings; "but," remarks Professor Baldwin Brown, "it has been urged, with much show of reason, that when the sinking is basonshaped, as on the class of altars so largely represented at Birrens, or is even fashioned into a stone patera, it is meant to receive libations, or, at most, the blood of the victim, and not a fire to consume the offering."* Usually an inscription fills the whole or

^{*} Structure and Ornamentation of the Birrens Altars, Proc. Soc. of Antiq. of Scotland, vol. xxxi., pp. 169-178.

a part of the central portion. Various devices, some of them of an ornamental, some of a significant, character, enrich the different parts of the altars, while on one side may sometimes be seen the sacrificial axe and knife, on the other the *urceus*, or jug, for holding the libation-wine and the saucer-like *patera*, with or without a handle, for receiving it when poured out. Of those in this list the most tasteful in design is No. 24, while the most interesting, both on account of its inscription and its ornamentation is the Disciplina altar, No. 23. Much interesting information regarding all of them will be found in Professor Baldwin Brown's paper already referred to.

More Roman inscribed stones have been found in Dumfriesshire than in any other county of Scotland; but they all probably belong to one locality—Birrens. In the present paper the letters of the inscriptions will be printed in plain capitals, without ligatures, and always with a space after each word or part of a word, no attempt being made to show peculiarities of lettering. The known facts in the history of the stones, and any points of interest regarding their ornamentation or inscriptions, will be briefly noted. Those who may wish for fuller details will find them in a paper printed in vol. xxxi. of the Proceedings of the Society of Antiquaries of Scotland, of which what follows is little more than an abstract. The volume just mentioned contains special reports by members of the Birrens committee on the excavations recently carried on there at the expense of the National Society. in the course of which important additions were made to the inscribed stones of Dumfriesshire.* It is understood that Mr. James Barbour will read a notice of operations that were so fruitful in results at a subsequent meeting of this society. Any further reference to them here in connection with the discoveries then made is thus rendered unnecessary.

^{*} ACCOUNT OF THE EXCAVATION OF BIRRENS, A ROMAN STATION IN ANNANDALE, UNDERTAKEN BY THE SOCIETY OF ANTIQUARIES OF SCOTLAND IN 1895: (1) General History of the Place and of the Excavations, and Description of the Defences. By D. Christison, M.D., Secretary. (2) The Interior Buildings at Birrens. By James Barbour, F.S.A.Scot., Dumfries. (3) The Inscribed Stones. By James Macdonald, LL.D., Vice-President. (4) The General Structure and Ornamentation of the Altars. By Professor Baldwin Brown, F.S.A.Scot. (5) The Pottery, Bronze, &c., found at Birrens. By Joseph Anderson, LL.D., Assistant-Secretary and Keeper of the Museum.

The stones are taken up in the order in which they were from time to time discovered, so far as that can be ascertained.

In the attempt to ascertain the true reading and meaning of the inscriptions, both of which are in some cases obscure, much valuable assistance has been received from Mr F. Haverfield, M.A., F.S.A., Christ Church, Oxford.

1. A fragment of an inscribed stone containing these letters was seen at Birrens in 1729 by Sir John Clerk; probably also by Alexander Gordon a few years earlier. It was at that time built into the wall of a cottage. Horsley (Brit. Rom., p. 207) states that Sir John intended removing it to Penicuik House; but there is no evidence that he did so. Both Bishop Pococke and Maitland saw it at Birrens in the same position a number of years afterwards.

The fragment seems to have been long lost. Both the character of the stone of which it had been a part and the meaning of the letters are uncertain. Horsley conjectures that it may "have been of the centurial kind.

2. (Pl. I., fig. 3, and pl. II., fig. 4.) Found in 1731 at Birrens by Sir John Clerk in an old building that stood in the grounds of Land, and near the west side of the station; preserved at Penicuik House, Mid-Lothian, from 1731 to 1857; presented in 1857 to the Society of Antiquaries of Scotland by Sir George Clerk, Bart.; now in the National Museum, Edinburgh.

A statuette of Brigantia, who was probably the eponymous deity of the Brigantes, a powerful tribe in possession of a great part of the north of England, and perhaps of some portion of the south of Scotland, at the time of the Roman invasion. It stands in a hollow niche, 3 ft. $\frac{1}{2}$ in, high and 1 ft. 6 in, broad at the base.

The goddess is represented with wings, and as dressed, partly at least, in the garb of a Roman warrior. On her head is a castel-

BRIGANTIÆ . S . AMANDVS ARCITECTVS . EX . IMPERIO IMP lated ornament, in her right hand a spear, in her left a ball. At her side is a shield, on her breast

a small Gorgon's head. The art of this piece of sculpture is by no means of a high order of excellence.

The s in the middle of the first line of the inscription stands for *sacrum*. IMP at the end of the last line has not been satisfactorily explained. Sir John Clerk thought he saw an additional I;

and this reading of his has given rise to a number of conjectures as to the proper expression and meaning of the supposed IMP I. But what he took to be an I is almost certainly either part of the line of a narrow moulding or an accidental flaw in the stone. Fig 3, pl. I., is an enlarged view of the inscription. Leaving the IMP out of account, we may translate:—"Sacred to Brigantia. Amandus, the architect (erected this), by command . . ."

Amandus, as a proper name, appears in England and on the Continent.

3. Same recent history as 2.

This altar-shaped stone is 2 ft. $6\frac{1}{2}$ in, high and 1 ft. $6\frac{3}{4}$ in, broad at the base. In its top there is a hollow space 13 inches long by 8 inches wide and 2 inches deep. On the left side are sculptured a patera, or libation pan, with a plain handle, and an urceus, or pitcher; while on the right is a patera-like disc with a rosette in its centre; and slightly above, but not quite in line with them, a bird quietly resting on a ball.

There are several ligatures and contractions in the inscription, which, however, presents no difficulty except COLLIGN, cut on the stone without any stop. Dr Mommsen expands them into

DEO. MERCV
RIO IVL CRES
CENS SIGILL
COLLIGN. CVLT
EIVS.D.S.D
V.S.L.M.

COL (umna) LIG (nea), which gives the most satisfactory explanation that has yet been proposed. According to this view the whole should be read and translated thus:—Deo Mercurio [sacrum]. Jul(ius) Crescens sigill(um), col(umnam) lig(neam), cult(oribus) ejus d(e)

s(uo) d(edit). V(otum) s(olvit) l(ibens) m(erito); i.e., "Sacred to the god Mercury. Julius Crescens, from his own means, presented this small image, a wooden column, to the worshippers of that god. Willingly, deservedly, he fulfilled his vow."

If this expansion and translation be correct, the hollow in the top may have been intended to receive a statuette of Mercury resting on a wooden column, or a pillar of wood surmounted by the head of that god.

In the Museum of the Yorkshire Philosophical Society there is a small but richly-ornamented altar which was found in 1880 in the garden of St Mary's Convent, York. It is dedicated to the goddesses of the house and hearth by C. Julius Crescens, who may be the same as the Julius Crescens here mentioned.

4. (Fig. 1.) Same recent history as 2 and 3.

A plain stone, 2 ft. 7 in. in height and 1 ft. $2\frac{3}{4}$ in. in breadth. The letters of the inscription are well cut. It will be observed that the ivy leaf is used as a point throughout.

NVM . AVG
DEO . MERC
SIGN . POSV
ERVNT . CVL
TORES . COL
LIGNI . EIVS
DEM DEI CVR
ING . RVFO
V S L M



Fig. 1. (Scale, $\frac{1}{12}$.)

The meaning of COL LIGNI must be held as determined by the expansion assigned to the similar letters of the preceding inscription. Numen and Numina Augusti, guardian deity or deities of the emperor, frequently occur on Roman monuments, sometimes alone, sometimes, as here, along with the name of a well-known divinity. The substitution of i for e, which we have in lignius, occurs in other words. Expanded, the inscription will read:—Num(ini) [or Num(inibus)] Aug(usti), deo Merc(urio), sign(um) posuerunt cultores col(umnae) ligni(ae) ejusdem dei, cur(ante) Ing(enuo) Rufo. V(otum) s(olverunt) l(ibenter) m(erito); i.e., "To the guardian deity of the Emperor (and?) the god Mercury, the worshippers of the wooden column of the same god have erected this image under the superintendence of Ingenuus Rufus. Willingly, deservedly, they performed their vow."

This stone has few of the characteristics of an altar, and certainly seems to have been a pedestal for the support of a wooden "column," though without a receptacle for the block. Sir John Clerk informs us that, believing a statue of the god Mercury was lying somewhere near the place where he first saw the stone, he caused a search to be made for it, when the body and limbs of a figure of great size were discovered. It appeared to have been broken in pieces, and afterwards repaired by joining the fragments together. From this he mistakenly inferred that the statue had been shattered in pious indignation by Christians in the reign of Constantine the Great, and set up again in that of Julian, the Apostate. There is not a shadow of ground for such a supposition. The "statue," whatever it was, has not been heard of for a long time.

5. "From Middleby" (Sir J. Clerk); in the Penicuik collection till 1857; presented in that year by Sir George Clerk, Bart., to the Society of Antiquaries of Scotland; now in the National Museum, Edinburgh.

A small legionary tablet, 4½ in. high and 9 in. broad. A piece has been broken off from the stone both at the top and at the bottom. A plain wreath or a torque surrounds the number of the legion. Early in the last century Birrens was spoken of as the "Fort of Middleby,"

Expanding the letters of the inscription, we have:— $Legio\ VI.$, V(ictrix), p(ia), f(idelis), f(ecit), i.e., "The Sixth Legion, (called) the Victorious, loyal and faithful, set this up."

It is uncertain what purpose these small tablets and certain stones of like dimensions, known among British archæologists as "centurial," could have served. When found within a station they are supposed by some to have marked the place assigned as quarters to a particular detachment or century.

6. (Fig. 2.) "Found at the station at Burrens" (Pennant); seen by Pennant at Hoddam Castle in 1772; remains there (1896).

A small altar of neat design, 2 ft. $3\frac{1}{2}$ in. high, 1 ft. broad at the base, and 1 ft. 2 in. at the top. It is ornamented at the base and the capital with mouldings of some width, and on the top of the latter are volutes with a bason-shaped projection between them. Its surface is much decayed by exposure. The letters are only fairly legible.

Pennant, who read SACGAMIDIAHVS as one word, seems to have been greatly puzzled with this inscription. "I did not fail," he tells us, "consulting the learned on this occasion, but they rung such a number of changes on the words that I content myself with giving the plainest reading."

> DEAE HARIMEL LAE . SAC GA MIDIAHVS ARC + VSLLM



Fig. 2. (Scale, $\frac{1}{2}$.)

The altar is dedicated to Harimella, otherwise unknown, the tutelary deity, no doubt of a district with which the dedicator was in some way connected. The fourth character in the last line is +, not x, as Pennant. + is here perhaps a variety of --, which so often represents IT. We may thus expand: - Deae Harimellae sac'rum). Gamidiahus arcit(ectus) v(otum) s(olvit) l(ibens) l(ubens) m(erito); i.e., "Sacred to Harimella. Willingly, gladly, deservedly, Gamidiahus, the architect, has performed his vow."

7. Same recent history as No. 6.

An altar of the same type as the preceding, but somewhat larger, being 2 ft. $5\frac{1}{2}$ in. high, 1 ft. $5\frac{2}{3}$ in. broad at the top, and

DEAE VIRADEC THI PAGVS CON DRVSTIS MILIT IN COH II TVN

1 ft. thick. It is similarly ornamented, but with the addition of a crescent resting on a pyramidal support between the volutes. The inscription is very much weather-worn. Without the aid of GROR SVB SILV O AVSPICE PREF Pennant's text and figure it could hardly be read now.

The altar is dedicated to Viradecthis, probably a German or Gaulish deity. PAGVS must be taken as the name of a district, not of an individual. CONDRVSTIS is an ethnic adjective derived from the *Condrusi*, a tribe spoken of by Cæsar (B. G. iv. 6, &c.) as inhabiting, along with the Eburones, the basin of the Meuse, which was in later times the home of the Tungrians.

If we now expand the inscription we shall have:—Deac Viradecthi [sacrum]. Pagus Condrustis milit(ans) in Coh(orte) II. Tungror(um) sub Silv[i]o Auspice, pracf(ecto) [fecit]; i.e., "(Sacred) to the goddess Viradecthis;" i.e., "The Condrusian district (= the soldiers from that district), serving in the Second Cohort of Tungrians, under the command of Silvius Auspex, the prefect, (erected this)."

The name of the same prefect of the Tungrians appears on several other Birrens stones.

8. "Found at the station at Burrens" (Pennant); now at Knockhill, near Ecclefechan, in a summer-house (1896).

The pedestal of a statue of Fortune (a fragment of which still remains attached to it), $11\frac{1}{2}$ in. high and 1 ft. 2 in. broad. It is without any ornament except a plain moulding at the base.

FORTVNAE I
SALVTE P CAMPA
ITALICI PRAEF COH I
TVN CELER LIBERTVS
L L M

The right corner of the slab has been broken off, so that the first two lines, and probably the third, are incomplete. In the first Pennant read R, now seemingly an I. Fortune was one of the official deities of the Romans.

Completing and expanding, we have:—Fortunae R(educi) (pro) salute P. Campani, Italici praef(ecti) Coh(ortis) I(I). Tun(grorum), Celer Libertus [votum solvit] I(ibens) I(ubens) m(crito); i.e., "To Fortune that brings the absent back, Celer, a freedman, for the safety of [his master] P. Campanus, an Italian Prefect of the Second Cohort of Taugrians, gladly, willingly, deservedly (performed his vow)."

9. (Fig 3.) Same recent history as No. 8.

A sepulchral slab, 7 ft. 4½ in. high and 1 ft. 10½ in. broad. The surface has suffered greatly from exposure, but except part of the fifth line the reading can still be made out.

Instead of the actual text, Pennant gives an expansion of it, which has been copied by all subsequent writers. There is an

inscription (Henzen's, No. 6773), which seems to fix the meaning of *ordinato* here as "Centurion." Pennant inserts *tribuno* after *ordinato*, but without any authority.

D M
AFVTIANO
BASSI . OR
DINATO .
COH II TVN
FLAVIA . BAETI
CA CONIVNX
FAC . CVRAVIT



Fig. 3. Scale $\frac{1}{12}$.

We may expand thus:—D(is) M(anibus) [sarrum]. Afutiano Bassi, ordinato Coh(ortis) II. Tun(grorum), Flavia Baetica, conjunx fac(iendum) curavit; i.e., "(Sacred) to the Divine Manes. To Afutianus, (son of) Bassus, centurion in the Second Cohort of Tungrians, his wife, Flavia Baetica, caused this to be erected."

The slab is interesting as the only relic we have of the Birrens cemetery. The spot where it was found has unfortunately not been recorded. But this monument and a fragment of another, now lost, seen by Pennant along with it, can have been but a small part of a class of lapidary records with which Birrens would have enriched us had the clue afforded by their discovery been followed up. A search, even yet, for the spot might amply repay the cost. There is some evidence in favour of the supposition that the cemetery was situated to the west of the station proper. As its discovery would almost certainly be of importance, it is permissible to hope that, at some future time and under suitable arrangements, an attempt may be made to find it.

10. "Found at the station at Burrens" (Pennant); seen by Pennant at Hoddam Castle in 1772; "in the collection of Charles

Kirkpatrick Sharpe, Esq." (Wilson, *Prelist.*, *Ann. of Scot.*, 1st ed., 1851); "deposited in the Museum of the University of Edinburgh" (Stuart, *Cal. Rom.*, 2nd ed., 1852); deposited by the Senatus of the University in the National Museum, Edinburgh, 1866.

An altar, $4\frac{1}{2}$ ft. high and 1 ft. 6 in. broad. The symbol ∞ at the commencement of the last line is regarded as a graphic alteration of the Greek letter Chi used to represent a thousand by the Chalcidian colonists of Southern Italy. There are heavy mouldings on the base and pedestals of this altar. The top is not hollowed out as in most of the other Birrens altars; but its sides,

FORTVNAE COH. I. NERVANA GERMANOR O. EQ. cylindrical in form, are connected by a notched or undulating broad border, the enclosed space being occupied by a flat rectangular focus. It is dedicated to Fortune. Pennant has not copied the inscription with much care, and an expansion of it in two lines is what he gives.

Expand thus: Fortunae Coh(ors) I. Nervana Germanor(um) milliaria eq(uitata) [dedicavit]; and translate: "To Fortune, the First Cohort of Germany, (called) the Nervana, a thousand strong including its complement of cavalry, (dedicated this)."

The epithet MIL (iaria) was applied to those cohorts that numbered about 1000 men. They were called Eq(uilata) when they contained a certain number of horse, the proportion generally being 760 foot soldiers formed into 10 centuries and 240 horse in 10 turmae. Bodies of troops of this mixed character, the composition of which the Romans are said to have borrowed from the Germans, "were particularly well adapted for the garrisoning of a station situated in an open country, and liable to frequent inroads of the enemy." *

A difference of opinion exists as to the meaning of the epithet *Nervana*. Some are of opinion that it has reference to the emperor Nerva as being the first to organise the cohort. Others think that it was so named because it had been levied among the Nervii, one of the bravest tribes of Belgic Gaul.

11. "Found near the Roman encampment on Burnswark Hill, Dumfriesshire, parish of Hoddam or Middlebie" (Archwologia

^{*}Thomas Hodgson, Archeologia Æliana (1st series), vol. ii. p. 83.

Scotica, vol. iii., Appendix, p. 92); presented to the Society of Antiquaries of Scotland by Dr (afterwards Sir) David Brewster in 1810, and since in the National Museum, Edinburgh.

A head sculptured in bas-relief, beneath which are some letters of an inscription, two of them complete, the rest incomplete. The stone is 11 in. by 9 in.

The statement in the Archaeologia conveys at first sight the idea that this piece of sculpture was found on Birrenswark Hill. It must, however, be borne in mind that Birrens and Birrenswark were, and still are, very frequently confounded. "Burnswark [£e., Birrenswark] Hill" is in Hoddam parish, but Birrens is in Middlebie. In the printed catalogue of the Museum the head is said to be "from Birrens," and there can hardly be a doubt that this is correct.

12. (Fig. 4.) Dug up by Mr Clow of Land in 1810 on the west of the station proper. For many years after 1813 the pedestal of a sun-dial at Burnfoot House; in a recess in the lobby there (1896).

A highly-ornamented altar, 4 ft. 2 in. in height and 1 ft. 10 in. in breadth. Narrow beadings enclose the inscription, which is further separated from panels on the base and capital by heavy mouldings. On the upper panel are two dolphins, a concentric

DEAE
MINERVAE
COH . ÏI . TVN
GRORVM
MIL . EQ . C . L .
CVI PRÆST . C . SIL
AVSPEX . PRÆF

ring, and two birds; on the lower, two dolphins and one bird. On the top are two volutes with rosettes on their ends and a crescent in the space between them. A bason-shaped projection occupies the central portion of

the top. Sculptured on the sides are festoons of ivy leaves. The letters of the inscription, though of different sizes, are all distinctly formed. The significance of the C.L at the end of the fifth line gave rise at first to many conjectures; but the letters are now taken as standing for *Civium Latinorum*, probably because it is difficult to say what else they can mean.

Expanding, we have:—Deae Minervae [sacrum]. Coh(ors) II. Tungrorum mil(iaria) eq(uitata), c(ivium) L(atinorum), cui praeest C. Sil(vius) Auspex, Praef(ectus), [fecit]; i.e., "(Sacred) to the goddess Minerva. The Second Cohort of Tungrians, a thousand strong, of which a due proportion is cavalry, and in possession of

the privilege of Latin citizenship, under the command of their Prefect, Caius Silvius Auspex, (erected this)."



Fig. 4. Scale 1.

This altar was first described in the Dumfries and Galloway Courier for August 26th (with woodcut) and Sept. 7th, 1813. It is also the subject of a communication from A.I.K., "New Kent Road," London, in the Gentleman's Magazine for June, 1832. But it was only on the publication of Wilson's Prehistoric Annals of Scotland in 1851 that it attracted general attention.

13. Probably dug up near the same place as No. 12, date uncertain; in the garden of the farm-house of Land (1896).

A fragment of an inscribed stone, 16 in. high by 101 in. broad. Of the breadth there appears to be nearly one-half left; how much of the length is uncertain. Only four letters MAof the inscription remain. The stone seems to have been a SAsmall votive altar slab, sacred to MA . . . , probably either Marti Victori or Matribus.

14. "Found about the year 1812 at Birrens," and "in the collection of C. K. Sharpe, Esq." (Wilson, Prehist. Ann. of Scotland, 1st ed., 1851); deposited in the Museum of the University of Edinburgh" (Stuart, Cal. Rom., 2nd ed., 1852); deposited by the Senatus of the University in the National Museum, Edinburgh, in 1866.

A much ornamented and solid-looking altar, 4 ft. 7 in. high and 2 ft. 6 in. broad at the top. Well-marked mouldings divide

MARTI ET VICTO RIAE . AVG . C . RAE TI MILIT. IN COH II TVNGR. CVI. PRAEEST SILVIVS AVSPEX - PRAEF. V.S.L.M

the central portion from the base and pedestal. Next to these at the top and bottom are panelled spaces, filled with leafwork of the same character as in No. 12. On the top are two volutes with a basonshaped projection between them.

C. RAETI of the inscription is explained as Cives Raeti, that is, soldiers levied in Raetia, now the south-east of Germany.

Expanding and translating, we have: - Marti et Victoriae Augustae [sacrum]. C(ives) Raeti milit(antes) in coh(orte) II. Tungr (orum) cui praeest Silvius Auspex, Praef(ectus), [fecerunt]. V(otum) s(olverunt) l(ibentes) m(erito); i.e., "(Sacred) to Mars and Victoria the August. Raetian citizens, serving in the second cohort of Tungrians, commanded by Silvius Auspex, the Prefect, (erected this). They performed their vow willingly, deservedly."

15. Same recent history as No. 14.

An altar 3 ft. $7\frac{3}{4}$ in. high and 1 ft. $11\frac{3}{4}$ in. broad. Above the inscription are four mouldings, alternately square and round; and below are two of the same kind. The top is

DEAE RICAGM

similar to that of No. 14. BEDAE PAGVS Like the two at Hoddam Castle, this altar VELLAVS MILIT COH II TVNG is dedicated to a foreign deity, Ricagambeda, of VSLM whom nothing is known. Expanding, we read:-

Deae Ricag(a)mbedae [sacrum]. Pagus Vellaus milit(ans) Coh(orte) II. Tung(rorum) [fecit]. V(otum) s(olvit) l(ibens) m(erito).

"(Sacred) to the goddess Ricagambeda. The Vellavian district (= soldiers from that district) serving in the Second Cohort of Tungrians (erected this). They performed their vow willingly, deservedly."

16. Same recent history as Nos. 14 and 15.

A votive altar, 3 ft. high and 1 ft. $2\frac{5}{8}$ in. broad. The inscribed space is inclosed within a beading of cable pattern. Below

DIB . DE
AB . Q .
OMNIB
FRVMENT
IVS MIL . COH II .
TVNGR .

the beginning and end of the last line are two crescents. On the top are two plain volutes with a "focus" between them. *Dibus* for *deis* is frequently met with on Roman inscribed stones.

The expansion and translation are as follows:—Dib(us) deab(us) q(ue) omnib(us) [sacrum]. Frumentius mil(es) Coh(ortis) II. Tungr(orum) [fecit]. "(Sacred) to all the gods and goddesses. Frumentius, a soldier of the Second Cohort of Tungrians, (erected this)."

17. "Dug up in 1814 in a small vicinal camp on the banks of the Kirtle, near Springkell" (Irvine MS., in library of the Society of Antiquaries of Scotland).

An altar dedicated to Jupiter, now apparently lost. Spring-kell is distant from Birrens about three miles, and the altar might easily have been carried from it to the spot where it was found in various ways. But there is no absolute certainty of this. The inscription is too imperfect to be intelligible.

18. "A stone taken out of the heart of the wall of the church at Hoddam, Dumfriesshire, when thrown down (in 1815) for the purpose of building a new one" (Irvine MS.); since built into the porch wall of the present church, where it still is (1896).

It is a plain stone, 4 ft. 2 in. high and 1 ft. $8\frac{1}{2}$ in. broad, without any ornament or moulding. This is the second stone

I O M
COH.I.NERVANA
GERMANOR. C. EQ
CVI PRAEEST L. FÆNI
VS FELIX TRIB

found in Dumfriesshire that marks the presence of the first cohort "called the Nervana."

The parish of Hoddam consists of three parishes united—Hoddam, Luce,

and Ecclefechan--which were thrown into one about the middle of the seventeenth century. The present church is distant from

Birrens $3\frac{1}{2}$ miles, and occupies the site of the structure pulled down in 1815. It is by no means improbable that part of the materials for the latter may have been brought from Birrens. On the other hand, if this was not originally a Birrens stone, then a post on Birrenswark Hill, or some other position in the neighbourhood, must have been held by the cohort for a longer or shorter period.

Expand: -I(ovi) O(ptimo) M(aximo) [sacrum]. Coh(ors) I. Nervana Germanor(um), miliaria, eq(uitata), cui praeest L. Faenius Felix, trib(unus), $\lceil fecit \rceil$; and translate:—"(Sacred) to Jupiter, the best and greatest. The First Cohort of Germans, (called) the Nervana, under the command of L. Faenius Felix, the tribune, (erected this)."

Found at Birrens, 1886; preserved at Burnfoot House (1896).

FORTV A small altar-shaped stone, $10\frac{1}{2}$ in. by 6 in. In the top is a square depression $2\frac{1}{4}$ in. wide, possibly intended to receive a small statue of Fortune.

The meaning of the inscription is sufficiently plain.

20. Found in the course of recent excavations at Birrens; in the National Museum, Edinburgh.

Expand:—Leg(io) VI. Vi(ctrix); i.c., "The Sixth Legion, (called) the Victorious."

21. Same recent history as 20.

Part of a small votive slab, which, when entire, had been 1ft. 5 in. broad and 1 ft. 10 in. high.

In all probability the inscription began with the letters I.O.M, on a part of the stone now broken off. What remains of the first of the remaining lines and the beginning of the second suggest that the missing letters of the former are ICHE. Dolichenus was an eastern god widely worshipped in the Roman army during the second and third centuries, and frequently identified with Jupiter.

Supplementing and expanding, we have: — [1.0.M] $Dol(iche)no\ sacr(um)$. $Maguna\ v(otum)\ s(olvit)$; i.e., "Sacred to (Jupiter) Dol(iche)nus, (the greatest and best). Magunna performed a vow."

22. (Pl. I., fig. 1.) Same recent history as 20 and 21.

Thirteen fragments of a commemorative tablet, discovered within the area of the practorian buildings. When entire it had measured 4 ft. 6 in. by 2 ft. 3½ in.; and the inscription must have read as follows:—

IMP . CAES . T . AEL HADR
ANTONINO . AVG . P . P . PONT
MAX . TR . POT . XXI* . COS . IIII
COH . II . TVNGR . MIL . EQ . C . L .
SVB . IVL . . . LEG . AVG . PR . PR .

This tablet is particularly valuable, inasmuch as it gives us an exact date, possibly but not necessarily, that at which these buildings were erected. On his accession a Roman emperor was supposed to be invested with the tribunitial power for life; and after each anniversary of this event a year was added in all public documents to the number of those during which he had held the dignity. As Antoninus Pius became emperor A.D. 138, the twentyfirst year of his investment with the tribunitial power, in other words, of his reign, was A.D. 158. Another public function usurped by the emperors for life was the presidentship of the College of Priests. The consulship was theirs too, if they cared to hold it; but few of them were at the trouble to do so often. Pius was consul four times-A.D. 138, 139, 140, and 146. cos IIII, "Four times Consul," was therefore applicable to any year between that date and the last of his reign, A.D. 161. The name of the Roman governor of Britain at the time had been on the slab, but, unfortunately, only a few letters of it remain.

It is impossible to say whether this stone is honorary or purely commemorative, marking only time. Either view may be taken. Read in full:—Imperatore Caesare [or Imperatori Caesari,

^{*}In the Report published in the *Proceedings*, xvi is read instead of xxi. All the fragments of the tablet that were found have now been fixed on a piece of wood of its original size; and a renewed examination, suggested by Mr Haverfield, shows along the line of one of the fractures, distinct traces of the half of a second x. (see Plate).

&c.], Tito Aclio Hadriano Antonino Augusto [Pio], Patre Patriae, Pontifice Maximo, tribuniciae potestatis XXI., Consule IV., Cohors II. Tungrorum miliaria, equitata, civium Latinorum, sub Jul... Legato Augusti Pro-Praetore [posuit]; i.e., "In the reign of (or in honour of) the Emperor Cæsar Titus Ælius Hadrianus Antoninus Augustus (Pius), Father of his Country, Chief Pontiff, invested with the tribunitial power twenty-one times, four times consul, the Second Cohort of Tungrians, a thousand strong, of which a due proportion is cavalry, and in possession of the privilege of Latin citizenship, (erected this) under Jul... Legate of the Emperor as Governor of Britain."

23. (Pl. II., figs. 1 and 2, and pl. I., fig. 2.) Same recent history as Nos. 20, 21, and 22.

An altar, 3 ft. 2 in. high, 1 ft. 11 in. broad at the top, and 1 ft. 8 in. across the middle in front. The capital is ornamented on all four sides by a narrow cornice of fretwork and two mouldings, the higher of which is rounded and projects over the lower. To these succeed three lines of delicately carved work, which are interrupted in front by pillars that support what appears to be the roof of a domed building. On the top are volutes enriched with rosettes, and on a projection between the volutes a patera-like depression. A patera with an ornate handle is sculptured on the right side of the altar, and a sacrificial axe and knife on the left. An enlarged view of the top is given on pl. I., fig. 2.

The altar is dedicated to the disciplinary Severity of the emperor, adored as a divine attribute. This honour appears to have been first paid to Hadrian.

ML \times Eq. C. L.

Expand:—Discip(linae) Aug(usti) Coh(ors)

II. Tungr(orum), mil(iaria), eq(uitata), c(ivium) L(atinorum)

[posuit] i.e.—"To the Discipline of the Emperor, the second Cohort of Tungrians, a thousand strong, with a due proportion of cavalry, and in possession of the privilege of Latin citizens (erected this)."

At some time the altar had been thrown into a well in the prætorian buildings, where it remained till discovered in the course of the recent excavations.

24. (Pl. II., fig. 3.) Same recent history as 20, 21, 22, and 23.

An altar of very chaste design, 3 ft. high, 1 ft. $8\frac{1}{2}$ in. broad at the base, and 1 ft. across the middle. At the top on each side are volutes that have six lance-shaped thunderbolts laid closely on them in two sets of three each. Between them is the usual bason-shaped depression. The altar bears no inscription. It was found lying on the steps leading down to a paved rectangular depression within the prætorian buildings.

In the list of Birrens antiquities recorded by Pennant (*Tour in Scotland*, vol. iii., Appendix, p. 407), as "found at the station at Burrens," are four inscribed stones that have not been included in the present list. All of them belong for certain to the north of England. As Pennant's third volume was not published till some years after his visit to the station, it is not difficult to understand how his note-book may have so far misled him. (See *Proc. Soc. of Antiq. of Scot.*, vol. xxxi., p. 150.)

Such is an outline of the records furnished by archeology for a history of the Birrens garrison. They are necessarily fragmentary, but they present us with some facts of importance. Unfortunately, from no other quarter can the slightest help be got in any attempt we may make to connect them; unless, indeed, they can be grouped round the Blatum Bulgium of the Antoniue Itinerary. But this, though highly probable, is not absolutely certain. work so called is generally regarded as a compilation drawn up in the reign, and by order, of one or other of the emperors that bore the name of Antoninus. Some indeed give it an earlier date, and trace it to a survey of the empire undertaken in the consulship of Julius Cæsar and M. Antonius (B.C. 44), by command of the former. If this is so, it could not have included at first the Britannic Iters, which must in that case be an addition made in the course of some of the revisions it bears internal evidence of having undergone at various times, down at least to the reign of Diocletian (A.D. 285-305), so as to bring it up to date. Whatever its history may be, the Itinerary is a document of great value, inasmuch as it indicates the course of the principal roads and cross roads throughout the whole empire by the names of places and stations situated on them, all the distances between towns being given in Roman miles. Of fifteen Britannic Iters the Second, which is the longest, runs in very zig-zag fashion from Rutupiae (now Richborough, in Kent)

to Luguvallium (Carlisle), by way of Viroconium (Wroxeter, near Shrewsbury) and Eburacum (York). From Luguvallium it is continued for 12 miles to Castra Exploratorum (usually identified with Netherby), and for other 12 to Blatum Bulgium (apparently Birrens), where it stops. Another Iter, the First, also reaches the north on the other side of the island, and strikes the line of the Wall at Corstopitum (Corbridge, on the Tyne), whence it proceeds to Bremenium (High Rochester), a distance of 20 miles. It deserves, however, to be noted that there is no mention of the Southern Wall or the stations on it, or of Habitancium (Risingham), a station nearly midway between Corstopitum and Bremenium.

We are on firmer ground when we pass on to inquire how early Birrens was a Roman station. A date is fixed for us by the tablet found in the prætorian buildings, which was set up there in the year A.D. 158, the twenty-first of the reign of Antoninus Pius. It does not, of course, follow that this was the year in which the station was either founded or completed. It may be so; but all that can be affirmed for certain is that it was then held in force by Roman auxiliary troops. The Disciplina altar certainly points back to the preceding emperor, Hadrian, whose regulations for all ranks in his army were exceedingly strict, and several of whose coins bear in consequence the legend, Disciplina Augusti. It is true that the same legend is found on some of the coins, probably early ones, of Pius. But this may be accounted for by the supposition that the severity which marked the discipline of Hadrian was continued by the heads of the army for years after his presence no longer inspired it. It is not so likely, however, that this severity would be singled out as an attribute of the mild Pius, specially worthy of adoration; although this is possible. We may thus confidently place the erection of the altar between A.D. 117 and A.D. 158.

Whatever was the case in later times, Birrens appears to have been at first an advanced position, intended to guard the approach to the Southern or Lower Isthmus against the Caledonian foe. Its proximity to the line which Hadrian made the northern Limes of the Roman province of Britain, its resemblance in plan to Cilurnum (Chesters) and other stations on that boundary line, and its early date, all lead to this conclusion. Along with Castra Exploratorum it served the same purpose on the west as Habit-

ancium and Bremenium on the east. Whether it was used as a basis for carrying on operations beyond, is another and a different question. The fact that both the northern Iters extended but a short distance north of the wall is significant. The Romans certainly pushed their arms much further, even beyond the Vallum raised by Lollius Urbicus, the Prætor of Pius, across the Upper or Forth and Clyde Isthmus. But so far as there is any evidence bearing on the point it goes to shew that they generally advanced northwards, having York as their headquarters, and taking an easterly rather than a westerly route. Moreover, it would seem as if they looked upon the territory between the Walls as a protectorate rather than an integral part of the empire, subject to its administrative rules. It was the policy of Hadrian and some of his successors to strengthen the more exposed frontiers by cultivating friendly relations with the neighbouring tribes, who thus became first exposed to attack. Such an arrangement would be the more easily effected for the frontier of the province of Britain, if, as is possible, racial differences and antipathies could be utilised for the purpose.* At all events, by accepting this view of the relation of the Romans to the country north of the Southern Wall. several diffculties disappear, and we need feel no surprise that the official Iters seem to end somewhat abruptly.

During the occupation of Birrens by the Romans its garrison, so far as we can judge from the evidence before us, was mainly composed of the Second Cohort of Tungrians, a people of Germanic origin that had settled in Gaul, and whose name survives in the modern Tongres, or Tongern, in the province of Limberg, Belgium. The First Cohort of Germans, called "Nervana," or a portion of it, was there for a short time, as well as a detachment, likely a small one, of the Sixth Legion. The fact that foreign auxiliaries constituted so large a proportion of the defenders of Birrens accounts for so many of the altars being dedicated to unknown divinities, such as Harimella. Brigantia was probably a native deity worshipped by the Brigantes, a powerful tribe in possession of the greater part of the north of England at the time of the Roman invasion.

To the question, how long the Romans occupied Birrens, the inscribed stones, in the absence of dates, give no answer. All

^{*} See Map of Britain, "showing the relative positions of its chief peoples during the Roman occupation," in Prof. Rhys's Celtic Britain.

the more important of them appear to belong to the second century, and are well cut. It is impossible to say whether the seeming degeneracy of others is due to less skilled workmanship or to their being of later date. Some information on this point, as will be afterwards seen, may be gathered from the interior buildings.

24th April, 1896.

Mr James Barbour in the chair.

New Members.—Mrs Matthew Jamieson; Mr James M'Cargo, Kirkpatrick-Durham; Mr Wm. Sanders, Rosebank, Lockerbie; Colonel Patrick Sanderson, Glenlaggan, Parton; and Mr Alex. Scott, Erkinholme, Langholm.

Donations.—Mr Andson presented some communion tokens from the Rev. Mr Scott, of Sanquhar, and also some meteorological observations taken by Mr Elliot, gardener, at Warmanbie and Kinmount. Mr Adam J. Corrie presented the catalogue of the Loan Exhibition held at Hastings. The Proceedings of the Society of Antiquaries of Scotland for 1894-5, and the Jack Rabbits of the United States (from the U.S. Department of Agriculture).

Exhibits.—Miss Hannay exhibited a violet obtained by Mr Scott-Elliot at Ruwenzori at a height of 11,000 feet. Mr Robert Barbour exhibited a beautiful skeleton leaf.

COMMUNICATIONS.

I.—Meteorological Observations taken by Mr Elliot at Warmanbie.

By the Rev. Wm. Andson.

The following table shows the means of temperature, rainfall, and barometer for each year during the period 1866 to 1881 (omitting 1874, for which the observations were not complete). The observations were taken with great regularity by Mr Elliot, gardener, and by means of reliable instruments. The self-registering thermometers were protected by a screen, and placed 3 feet above the grass. (Makers, Negretti & Zambra,

London.) The barometer was a Fitzroy. Elevation above sealevel, 100 feet. Distance from Solway, 3 miles.

Years.	Mean max.	Mean min.	Mean in year.	High- est in year.	Lowest in year.	Rauge.	Rainfall.	Daysin which it fell.	
	deg.	deg.	deg.	deg.	deg.	deg	inches.		inches
1866	56.9	38.4	47.4	88*5	13	75.5	41.416	201	
1867	55.1	41.4	46.7	85.7	00	85.7	34.999	146	29.89
1868	57.4	41.4	48.5	92.5	21	71 5	43.512	200	29 87
1869	57.1	39.5	47.8	87	12	75	38.987	180	29.91
1870	56 6	38	46	89	10	79	30.181	144	29.97
1871	56.6	39.4	47.2	83.5	13	70 5	38.841	185	29.80
1872	56.8	41.4	48.1	84	20	64	53.708	214	29.71
1873	56.9	39 5	47 1	88.2	13 2	75	38.049	170	29.87
1875	56.9	40.2	47.7	85	20	65	36.139	169	. 29*92
1876	55.7	38 2	46.1	94	11	. 83	37.970	153	29.89
1877	55.6	39 8	46.9	88*2	12	76'2	55*235	212	29.78
1878	56.7	39.2	46.9	90.2	1 5	89.2	33.685	145	29.92
1879	53.9	36.3	44	82		77	37.206	142	29.88
1880	56'6	39.2	46.9	85	14	71	33.419	155	29.88
1881 Mean of	54.4	37.1	44.3	85.5	00	85.2	38.893	161	29 85
15 years.	55.5	39.3	46 8	94	zero.	76.2	39.483	172	29.87

Monthly means on average of 15 years :-

Month.	Mean Maximum.	Mean Minimum.	Mean of Month.	Rainfall.	Days if	
	Degrees.	Degrees.	Degrees.	Inches.		
January	42 4	30.2	34.6	3.950	17	
February	45.1	33.2	38.9	3.450	16	
March	49.3	32.1	39.8	2.411	13	
April	56.1	36 8	45.4	2.103	11	
May	62.4	40 5	49.8	2.522	12	
June	70.7	46.9	56.8	3.103	13	
July	70.9	50 8	59.5	3.429	15	
August	70.1	49.7	58*2	3.786	15	
September	64.	45.7	53.8	4.252	16	
October	54*	39.4	47.	3.864	15	
November	46.8	33.5	39.5	3.312	14	
December	42.1	30.1	36*	3.538	15	

From these tables it appears that the mean annual temperature at Warmanbie during the years specified ranged from 44 deg. in 1879, to 48.5 deg. in 1868, giving a mean of 46.8 deg., which is lower than that of Dumfries by nearly 1 deg., a difference which may be partly explained by the greater elevation of the former place, and by the circumstance that the height of the thermometer above the grass was 3 feet, instead of 4 feet, as at Dumfries. The barometrical prepare very nearly corresponds with the Dumfries average. The average rainfall is about two and a half inches in excess of that of Dumfries, 39.483 in., as compared with 36.86 in. It is right to bear in mind, however, that the periods compared are different. There is a considerable variation in the annual

amounts recorded. In 1870 it was as low as 30:181 in., while in 1877 it reached the large total of 55:235 in., and in 1872 53.708 in. It is only what might be expected when we find that these were the years in which the mean barometrical pressure was the lowest, although in point of temperature they were decidedly above the average. In these years the number of rainy days greatly exceeded the average. The mean over the whole period was 172, while in 1872 it was 214, and in 1877 it was 212. In 1872 the excess was chiefly in the month of January, June, July, August, September, and October, indicating a very rainy summer and harvest. In 1877, again, there was a similar excess in January, which was repeated in July and August, and in October and November. The warmest years of the period were those of 1868, with an annual mean of 48.5 deg., and 1872, with a mean of of 48.1 deg.; and the coldest occurred in 1879, with a mean of 44 deg., and in 1881-mean, 44.3. The observations do not record any temperature below zero, and only twice-in 1867 and 1881—did the protected thermometer fall to that point. From the table of monthly means it appears that the warmest month was July. It had the highest mean maximum, the highest mean minimum, and also the highest monthly mean, viz., 59.5 deg. The next highest was August, with a mean of 58:2 deg; and the next June, with 56.8 deg. The coldest month was January, with a mean of 34.6 deg.; and the next December, mean, 36 deg. The extreme range of temperature was from 94 deg. in 1876 to zero in 1867 and again in 1881. The mean annual range was 76.2 deg. The driest month was April, with a mean of 2.103 in., and 11 days on which rain fell; and March and May came next in point of dryness, with 12 and 13 days of rainfall. The wettest month was September, with a mean of 4.252 in.; but January and October did not fall much short, with 16 and 17 days of rainfall.

II.—Report on the Herbarium. By Mr George F. Scott-Elliot, B.Sc., F.L.S.

During 1894 and part of 1893 and 1895, it has not been possible for me to pay the amount of attention to the increase of the Herbarium which I should have wished. During my absence the work has been, however, most thoroughly carried on by Miss Hannay and her sister, Miss Jane. The total of plants now repre-

sented (I mean species, not specimens) is about 1375, which form a large proportion of the British flora. In fact, the condition of the Herbarium raises Dumfries to a position only inferior to Edinburgh and Glasgow, though it is possible we have not quite so good a collection as Perth. This matter ought to afford the Society a great deal of gratification. But it is a matter of great regret both to the Misses Hannay and myself that, with material such as scarcely one county town in England possesses, a very slight attempt has been made to use material which has been collected. The botanists of the district are still at work, and continue to assist us, but they do not consult the Herbarium habitually and regularly as I could have wished. This is, no doubt, largely due to the fact of its existence being unknown to many, but perhaps chiefly to its residing in a private house during winter. It is a matter of regret to me that some means should not be found of placing the Herbarium where it can be admired and advertise itself. On its being thoroughly known will follow two results-first, its use by a greater number, and, second, its receiving additions from strangers visiting the district.

The first addition I shall mention is one which may be the to first raise it from a county town collection to one on a much higher level. Mr Wylie, a native of Moffat, now residing at Durban, Natal, wrote to Miss Hannay, and sent by the same mail a parcel of thirty-six Natal ferns, asking for British species in return. After my own little experience, I believe that such exchange could be carried out on an enormous scale, for there is no county in Great Britain whose natives are so generally prevalent throughout the world as Dumfriesshire. It rests, however, with the Society to decide as to whether this idea should be carried out.

Besides Mr Wylie's plants we have thirty-six rare British specimens from London, but without any clear address, so that they have not been acknowledged. Mr P. Gray has sent us a dozen varieties; Mr J. M'Andrew a very interesting set of eighteen species. Mr A. Somervile has sent us thirty interesting forms, and our local friends, including Miss Hannay, continue to supply us with additions.

There are also in the herbarium specimens of mosses, hepatics, fungi, algæ, &c., mostly from the county, which are a nucleus for those who will undertake the cryptogamy of Dumfriesshire. Immediately after the Flora had gone to press, I received the

following varieties from Mr G. Bell, of Lockerbie, who is an extremely acute botanist:—

Potentilla procumbens—very rare.

Euphorbiadulcis—a new record for the county.

Elative hexandra—a new record, if more specimens will prove the plant as really being this rare species.

Scrophularia vernalis—A confirmation of an old record of great interest, as showing that the plant has spread from Hoddam Castle to Wamphray.

Misses Hannay have given me the following additional localities of rare plants for 1895 and 1896:—

Draba verna—walls near Maxwelltown Station, April; Lincluden, March, 1896.

Arabis Thaliana—abundant on railway banks from Glasgow Road bridge to Maxwelltown Station, May.

Cerastium arvense—on railway banks at Maxwelltown Loch, Castle-Douglas Road, near Bridge, April.

Barbarea vulgaris—along railway bank, Maxwelltown Station, May.

Alliaria officinalis—roadside, Dalskairth to Drumsleet School, May.

Viola palustris-Maxwelltown Loch, abundant, April.

Veronica serpyllifolia—In meadows, Maxwelltown Loch, May.

Menyanthes trifoliata—Maxwelltown Loch, May

Veronica hederifolia—Hedgebank, Dalbeattie Road, April.

Chrysosplenium alternifolium—Cluden, near White Bridge and Glen, April

Prunus padus-wood above Dalskairth, May.

Saxifraga granulata—Lincluden, May.

Stellaria nemorum—Dalskairth, Lincluden, May.

Solanum dulcamara—Garlieston, July.

Veronica anagallis—Garlieston, June.

Lythrum salicaria—wood below Glencaple, July.

Lysimachia vulgaris—Birrenswark, July.

Scutellaria galericulata—Birrenswark, July.

Epilobium roseum—Birrenswark, July.

 ${\it Geranium\ pratense--} {\it abundant\ roadsides,\ Penpont,\ July.}$

The state of the specimens is most satisfactory, and point to the extreme care and patient labour which the Misses Hannay continue to spend upon it. The thanks of the Society are certainly due to these ladies for their careful guardianship of the collection.

10th April, 1896.

III.—The Glenkens in the Olden Times. By Mr James Barbour, of Dalry.

The Glenkens, or valley of the river Ken, lies in the north of Kirkcudbrightshire, and extends from New-Galloway Railway Station on the south to Ayrshire on the north, and from the river Dee on the west to Dumfriesshire on the east. It is 28 miles from north to south, and 18 miles from east to west. The height above sea level is about 120 feet at head of Loch Ken and 2688 feet on Corserine, the highest hill in the Glenkens. It is one of the most beautiful valleys in the south of Scotland. Except a fringe of cultivated land on each side of the Ken it is wholly pastoral—consequently its primitive condition is the more easily ascertained. The parishes of Balmaclellan and Dalry lie on the east side of the Ken, and Kells and Carsphairn on the west side.

When the Romans entered Galloway about A.D. 80 they found the country covered with wood except the exposed soilless summits of the rocks and low marshy spots where wood would not grow. The trees in the Glenkens were principally oak, ash, birch, alder, and rowan-tree or mountain ash. There would also be an undergrowth of hazel and thorns, both white and black, in some places, as may be seen now in patches and clumps of old natural wood at Gairloch, Tannoch, Forest, on the banks of Garroch and Knocknarling and Garpol Burns, and at several other places. There had also been thickets of fir trees, an instance of which is seen at the foot of Loch Dungeon, where the water has washed the soil from the roots. Where peats are cut in deep moss the spade goes through numerous branches of birch and hazel with the nuts still retaining their shape. Trunks of large oak trees are found with the wood yet quite hard. Often on the highest hills, where no improvements have been attempted, the roots of large oak trees are yet to be seen. In no part of the south of Scotland can those old relics of bygone ages be traced so well as among the hills of Kells and Minnigaff. Those forests were stocked with wild cattle, horses, the urus-an animal

resembling a bull but much larger—deer, swine, wolves, and foxes, besides numerous smaller animals. The wild fowls which are still to be found on the hills, being then undisturbed, were more numerous and more daring than now. Eagles and ptarmigan are now extinct.

The rivers and streams abounded with various kinds of fishes; but few were caught and eaten by the natives. Many reptiles, now exterminated, infested the morasses and woods, and prodigious swarms of insects were yearly generated.

The original inhabitants of the Glenkens were a tribe called the Selgovae. Their language was Gaelic, which is said to have been spoken by some of the inhabitants so late as 1688. The great majority of the place-names are Gaelic-Irish Gaelicwhich was probably the language spoken by the Scots who came from the north of Ireland and conquered and settled in Galloway about A.D. 410. The original inhabitants were large, robust, and well formed. They excelled in running, wrestling, and swimming, and were very courageous. They were little or no clothing, but dyed their skins so as to represent figures of beasts. They sometimes smeared their bodies with clay, probably as a defence against the bites of insects. Those were fortunate who had the skin of an animal to tie round their shoulders in winter. They retreated in winter into caves and thickets of wood, and in summer they lived in round houses constructed by a circle of stakes being driven into the ground and interwoven with brushwood. The fire was in the middle of the floor, and fires continued to be made on the floor in very many houses until within the last hundred years. The last one was allowed to fall into decay only two years ago. but a beautiful representation of it was painted by your townsman, Mr M'Lellan Arnott. In common with the ancient inhabitants of Britain, their religion was Druidism. Their sacred places were either in recesses of the woods or at circles of stones, and after the introduction of Christianity churches were in many instances erected at those sacred places. The word cell or kell in Gaelic signifies a retreat or recess, hence the name Kells; and Clauchan (Dalry), a collection or circle of stones.

In connection with the Druids, there is still to be seen on the farm of Lochrenny, in the parish of Dalry, a stone five inches in diameter, with a hole through it, which was used in their marriage

ceremonies. There are similar druidical stones to be found in Orkney.

The only Roman remains to be found in the Glenkens is a portion of the so-called Roman road that led from Ayr to Kirkeud-This line of road can still be easily traced from Dalmellington till opposite Dalry Village, where it merges into the present public road to Kirkcudbright. That portion of it from Ayr to Dalmellington was carefully surveyed and examined by Dr Macdonald, late of Kelvinside College, Glasgow, who found at least some of the characteristics of a Roman road in it. That portion in the Glenkens was in regular use until 1800, when a more level road was made. It is about 15 feet broad, whereas the old native roads are only tracks 6 or 7 feet in width. It has strongly-built culverts, whereas the native roads have only fords over the small streams, and on the whole there seems little doubt it was at least widened and repaired by the Romans. Old roads marked on the Ordnance Maps as Roman can easily be traced on the farm of Altrye, in Dalry, and at Holm of Dalquhairn, in Carsphairn. line of road evidently came from Dumfries, as it goes through the farm of Shinnelhead, in the parish of Tynron, and enters Dalry parish on the top of Altrye hill at the watershed between the two counties, 1700 feet above sea level. That road joined the old road near Dalmellington, and so led on to Ayr. Dr Macdonald and I examined that road in July, 1894, where marked on the map as a Roman road; but we found neither kerb stones nor pavement, or anything to indicate that it was Roman. The shepherds called it a Cadger's road.

There are at least three distinct moraines in the Glenkens; one a little way up the stream that feeds Loch Dungeon, on the Kells Rhynns. The ice has brought the debris down from the highest point of the hills. There is another by the side of a burn that flows past the steading of Holm of Dalquhairn, which has evidently come from Cairnsmore of Carsphairn, 2635 feet. It forms many knolls or hillocks, which are called the "Alwhanny knowes." Another moraine is at the foot of the "Meaul" of Garryhorn, also in Carsphairn, quite close to Woodhead lead mines. It is called by the shepherds "The lumps."

There is a cairn of large stones on the top of the Kells Rhynns called "The Carlin's Cairn," which has an historical tradition attached to it. It is said that when Robert Bruce was

wandering in disguise among the hills of Kells and Minnigaff in 1306, waiting until his friends raised an army to free the country from the troops of Edward I., he came one evening, wet and weary, to the Mill of Polmaddy and asked hospitality for the night, which was readily granted. Next day English soldiers came searching for Bruce. The miller's wife, who was a clever, capable woman and a true patriot, at once suspecting that the stranger would be Bruce, told the soldiers that no man of that name was there, but that he (Bruce) would be gone on to Lochmaben. After the soldiers left, the miller's wife asked the stranger if he was Bruce. He said he was, but asked to be allowed to remain for a few days longer until he got intelligence of his brother. The miller was not told who the stranger was, but was instructed to conceal him among the wheels of the mill if any more soldiers came. After two days more soldiers came, when Bruce was hid among the wheels, and again escaped. When he was crowned King of Scotland the miller's wife gathered together all her friends and neighbours, and had a glorious pic-nic and holiday. They ascended Castlemaddy hill, and on the top built a cairn to commemorate the success of King Robert. The cairn still stands, and is named "The Carlin's Cairn."

There is an excavation on the top of Altrye hill called "the Whig's hole." It is a large hole scooped out of the hill top, capable of holding 100 men, and was much resorted to as a hiding-place during the time of the persecution. The place was so deep that anyone standing in it could not be seen from a distance, but yet had the advantage of seeing an enemy approaching either by the old riding road from Sanquhar or from the valley of the Ken on the other side.

The very oldest public work in Galloway, and consequently in the Glenkens, was the "Deil's Dyke" or "Pict's Wall," which is described as a vast rampart running through Galloway and Nithsdale. It is supposed to have been erected as the boundary between two tribes. Probably it was built by the Scots after they had gained possession of Galloway, to guard against the incursions of the Picts, whom the Scots had driven to the northward. The foundation of the wall was eight feet broad, and it was eight feet high. It is now only seen at intervals among the hills where no alterations have been made. Much of it has been carted away to build dykes, and in several places where I have seen it there was

a resemblance to an old sunk fence. The western end of this wall was on the eastern shore of Loch Ryan, near the site of the ancient Roman station of Rorigonium (now Innermessan). then passed through the northern part of Wigtownshire and entered the Stewartry of Kirkcudbright a few miles to the north of Newton-Stewart. It next passed across the parish of Minnigaff, and entered the Glenkens on the farm of Garvary, in the parish of Kells, and passed through the farms of Drumbuie, Clendry, Largmore, Dukieston, Knockreoch, Larg-geerie, Barlae, Dalshangan, near the old Bridge of Deuch at the "Tinkler's lowp;" Marskaig, Auchenshinnoch, and Kerroch, in Dalry. It passed through the parishes of Glencairn, Tynron, and Penpont, and was very entire at Southmains, near Sanguhar. From Southmains it passed down the east side of the Nith, and can be traced to the Hightae flow, through the parish of Annan, and ended at the Solway Firth nearly opposite Bowness in Cumberland, where Hadrian's wall commenced. Another account says that when the Romans withdrew from Britain the northern hordes issued from the woods and mountains and rushed into Valentia plundering the whole country. It was at this time, we have every reason to believe, that the inhabitants of the South of Scotland, with the aid of some foreign residents, raised a wall of protection against those voracious visitors. This rampart, called the "Roman Dyke," the "Pict's Wall," or "Deil's Dyke," seems to have been built of stone in some parts, and in other parts of stone and turf. It had a fosse on one side, and probably a path on the other. The rampart must have been made by a people inhabiting the south side. The remains of this wall have been traced from the shore of Loch Ryan on the west to the north-east boundary of Kirkcudbrightshire. After that it runs into Dumfriesshire, and joins the Britton wall at the Solway Firth. The remains of this old dyke can still be seen at several places in the Glenkens.

The next notable event in order of time was the battle between the Northmen, or Danes, and the Scots on Dalarran Holm some time about A.D. 800. The feeble governments of Denmark and Sweden allowed numerous bands of pirates and robbers to infest the northern shores of Britain. In 787 they first appeared on the coasts of England, and some years afterwards visited the shores of Scotland. After landing and plundering along the shores of the Solway, they reached the Glenkens. Those Danes and the natives met on

a level holm close to the river Ken, two miles south of Dalry, and fully one mile from New Galloway, and there they fought a bloody The Scots were victorious. The Danish sea-king was killed and was buried where he fell. A tall stone still marks the spot, and stands about 100 yards from the public road. About seventy years ago a little thatched cottage stood beside the stone. I have been in the cottage when a very little boy. One of the lairds of Holme made excavations near the stone, where he found an entire antique sword, which was long preserved in his family. About ninety years ago pieces of rusty armour were frequently turned up by the plough on Dalarran holm.

The events next in order of time are the repeated visits of King James IV, through Dalry on his journeys to the shrine of St. Ninian at Whithorn, where his confessors sent him to do penance for his sins. The church at Dalry was dedicated to St. John, and the place at that time was called St. John's Kirk, and the village St. John's town. Dalry was the name of the parish, and the name Dal-righ signifies the king's valley. But in Scottish history the village was named "St. John's Clauchan."

King James, on his journeys from Edinburgh to Whithorn, rode on horseback along with his attendants, as the roads then were only bridle paths. From details of the king's expenditure found in his treasurer's accounts we find that the first mention of his visit to St. John's Kirk was in 1491, when he gave 2s to the priest, and paid 5s for being ferried "ower the water" with his retinue. He next passed through to Whithorn in 1497, when he gave 3s 6d to the "puir folk" and 5s for being ferried over the Again he passed in 1501, and paid 18s for belchair or breakfast and 5s for the ferry. King James passed several times after these dates, but there are no more payments recorded. The ferry mentioned was over a pool in the Ken, still called the "Boat weil," where a ferry boat plied until 1800, when the bridge was built at Allengibbon. I have seen the boatman's house standing and inhabited. The materials were carted away thirty years since to make an addition to Waterside farm-house. The road by which the king rode down to the river is still a public road, and is called by the villagers "the water road." The old kirk was situated low down in the churchyard, and is now converted into a tomb. The present church stands on a bank overlooking the river. The old holy water font is placed by the side of the

entrance to the church. The burial place of the Gordons of Lochinvar and Viscounts of Kenmure is in an old tomb which appears to have been at one time joined to the church. The village at one time is said to have been a furlong from the church, but is now built down to a level with it.

The old inn of Midtown, where the rebellion broke out that resulted in the battle of Rullion Green, in 1666, was at the upper end of the village. The old house has now been taken down, and a new house built in the old courtyard.

In 1629 Sir John Gordon of Lochinvar applied to the Scottish Parliament for authority to erect part of his lands with the houses thereon into a Royal Burgh. It was thought St. John's Clauchan was meant to be the place, but in 1633 the Scottish Parliament granted a charter for the village of Roddings being created a Royal Burgh, as it was more convenient to Kenmure. It was to be called the Burgh of Galloway, now New Galloway, the corporation to consist of a Provost, four Bailies, a Dean of Guild, and twelve Councillors. Its patron died before his design of building the town was fully carried out. A weekly market was, however, established, and a farmers' club, both of which proved of much benefit to the district for many years. An annual cattle show was also established then, which has continued till now, and is said to have been the parent of all the cattle shows in Scotland.

The Forest of Buchan was a royal hunting forest. About the year 1500 it occupied an immense area, including large tracts of land in the parishes of Kells, Carsphairn, and Minnigaff. From Loch Doon it extended to Loch Dee, Loch Trool, and the river Cree. The farms included in the Forest in the parish of Kells were Garvary, Bush, Forest, Darnaw, Dukieston, Knockreoch, Woodhead, Strangassel, Knocknalling, Stranfasket, Burnhead, Largmore, Drumbuie, and Barskeoch. Much of the land included in this area was bare rocky heath; but there were also in it some rich and well-sheltered pastures, and many beautiful glens, the whole abounding with game. As late as 1684 Symson writes --"There are very large red deer, and about the mountain tops the tarmachan or ptarmigan, a bird about the size of a grouse cock. Eagles, both grey and black, also bred there." The latest eagle seen among the hills was trapped near Loch Dee about 1860. The limits of the forest gradually contracted, and in the 17th century only the part lying in Minnigaff retained the name of the Forest of Buchan. Several farms in Kells, however, bear traces of this forest. An extensive sheep farm still bears the name of Forest, and another The Bush. The remains of old woods are still to be seen at Forest, and on the level mossy pastures numerous trees are found lying about two feet below the surface, many of them Polmaddy Mill, which adjoins these farms, was quite fresh. erected to grind grain to feed the Royal hounds, and Castlemaddy was the place where the hounds were kept. Pol-maddy signifies the burn of the dogs, and Castlemaddy, the strong place of the dogs. This forest was preserved for the exclusive hunting of the Kings of Scotland, and for many years the Earls of Cassilis were rangers, and had charge of it; but in 1628 the then Earl resigned his charge in favour of Sir John Gordon of Lochinvar. Several hunting lodges were kept up in the forest—Hunt-ha', Garvary, Dukieston, and Castlemaddy were favourite places.

James Hepburn, Earl of Bothwell, Queen Mary's third husband, sometimes hunted here. The Queen bestowed an estate on him on the east side of the Ken opposite the forest, and there he built the Castle of Earlston, so called because it was the residence He built it for his hunting lodge, near to a ford of the Earl. where he could cross the Ken. When Queen Mary was deposed Bothwell fled to Orkney and Shetland, and his lands in Galloway were forfeited. In 1586 the estate of Earlston was granted to his nephew, Francis Stewart, Earl of Bothwell. Upon his forfeiture, in 1593, the estate was granted to Andrew, Lord Ochiltree. The Gordons of Lochinvar acquired the estate of Earlston by charter in 1620, and about 1630 it was bestowed on the second son of the then Viscount Kenmure, who was thus sole proprietor. An addition of the east wing was made by William Gordon and his wife, Mary Hope, in 1655, and a stone built into the wall shews the date and initials "W.G., M.H., 1655." The castle itself is still pretty entire, but the offices round the courtyard are in ruins.

The site of the castle of Banck or Lagwine, mentioned in old records, is about a quarter of a mile north of Carsphairn Village. It is said to have been destroyed by fire. It was the residence of the family of M'Adams of Waterhead. John Lowden Macadam, the road improver, was of this family.

The very scanty remains of the Castle of Kars or Dundeuch are still to be seen on a level holm by the side of the river Deuch

near its junction with the Ken. It was an important stronghold in the days of Bruce. Afterwards a branch of the family of Gordons of Lochinvar is said to have possessed it.

The remains of an old square tower on an island in Lochinvar—the original home of the Gordons when they came from Berwickshire in 1297—is still to be seen. On a clear day, when the loch is calm, a causeway may be seen below the water—one branch leading to the shore on the east, and another leading to the west shore.

Barscobe Castle, in the parish of Balmaclellan still stands, and is now inhabited by a ploughman's family. It was built in 1648 by a M'Lellan, a relative of the Kirkcudbright M'Lellans who had an estate in Balmaclellan parish. The wife of the builder of the castle was a Gordon of Shirmers.

The remains of the old tower of Shirmers, also in the parish of Balmaclellan, is close to the present farm steading of Shirmers, and near the shore of Loch Ken. It is much crumbled down and covered with ivy. It belonged to a branch of the Gordons of Kenmure, and is supposed to have been destroyed by orders of the Regent Moray after the battle of Langside because the Gordons refused to submit to him.

And now we come to the most important castle in the district—the castle of Kenmure. It is said to have been built by Alan, Lord of Galloway, and that Dervorgilla, his daughter, occasionally lived there with her father. Some think that John Baliol, her son, was born there. A castle was originally built on a low mound close by the head of Loch Ken and to the south of the present castle, but about 1300 it was rebuilt on its present romantic and beautiful site.

The Gordons of Lochinvar came from Berwickshire in 1297, but at that time lived in the castle at Lochinvar. They acquired Kenmure by charter in 1483, and were created Viscounts of Kenmure and Lords of Lochinvar in 1630. Another branch of the Berwickshire Gordons acquired lands in the north of Scotland, from which sprang the Dukes of Richmond and Gordon. After the battle of Langside the Regent Moray summoned Sir John Gordon to submit to him, and sent a party of soldiers into the Glenkens to compel him to do so. The officer left his troop at St. John's Clauchan until he went to Kenmure to get Sir John's answer; but he refused to submit—whereupon the soldiers marched to Kenmure

Castle, and burned and destroyed as much as they could of the castle. They also destroyed the tower of Shirmers, which was the house of one of his friends. The castle still stands, and is inhabited. The portion which was burned and partially thrown down is now repaired. It is beautifully situated on its high and romantic mound, and is approached by a very fine avenue of grand old limes.

At one time there seemed to have been a church on the farm of Bogue in Dalry parish, but there is no mention of it in history. The site of the church or chapel can still be seen—also the foundation of the fence around the churchyard, which enclosed half an acre, as well as the foundation of the walls of the priest's house. A stone was found in the dyke beside the place with "Pope G." rudely carved on it. The field is still named "chapel leys," and the place where the priest's house stood is named the "priests' knowe." The site is marked on the Ordnance Survey maps.

There are three very old bridges still standing and in use in the Glenkens. One is the "Old Bridge of Ken," as it is called, built over the Ken on the line of road between Dalry and Carsphairn on the east side of the Ken. It is six miles from Dalry and four from Carsphairn. It is very narrow, barely allowing one vehicle to pass along at a time. There is also a narrow old bridge over the Garpol Burn at the head of Holme Glen, on the line of what was at one time the high road to Edinburgh. A third old bridge is over Polharrow burn, on the line of the old semi-Roman road from Ayr to Kirkcudbright. It is now widened, and the modern road from Dalry to Carsphairn on the west side of the Ken passes over it. It is said to have been originally built by Quentin M'Lurg, a tailor, whose earnings never exceeded 4d per day. In 1695 a bridge was built over the river Dee near Clatteringshaws, in the parish of Kells, on the old line of road then in use. The place can yet be distinguished a few hundred yards farther up the stream than the present bridge. Before that time the river was often unfordable in winter, and the inhabitants of the country had applied to the Earl of Galloway, Viscount Kenmure, and other influential gentlemen to use their endeavours with the Privy Council of Scotland to have money raised to build a bridge, but they failed to obtain an Act. The Synod of Galloway then took the matter up, and ordered a house-to-house collection to be made in every parish within their jurisdiction. As soon as a

sufficient sum was raised, a bridge was built under the superintendence of the clergy. The present bridge near the place was built in 1811.

STATE OF THE GLENKENS 200 YEARS AGO.

At the time of the Revolution of 1688 the country was in a deplorable condition, after thirty years of cruel tyranny and oppression. The houses in general were miserable hovels, built of stone and turf, or stone with clay for mortar. The fire was on the floor, and the house had a small window on each side opposite the fire-place to let out the smoke as well as to give a little light. On whatever side the wind blew the window on that side was stuffed with straw or old rags. The inhabitants kept their cows in winter tied to stakes in the end of their dwelling-houses, and all entered at the same door, and very often there was no partition between the inmates. Many families had no bedsteads, but slept on mattresses of plaited straw, or a bunch of heather laid down on the floor around the fire. The best farm houses had a living place similar to the above, and in addition another house built parallel. with a paved court between, and which house was called "The Chaumer," and was kept as a parlour and bedroom for guests. It had a fire-place at each end, with sometimes a small grate and sometimes none. I have frequently been in one of those old houses about 1832. The common living house was dark, dirty, and uncomfortable in the extreme. Very often the wall on one side of the house could not be seen from the other side because of smoke and darkness. The earthen floor was always damp and clammy. and on a wet day was especially miserable.

Wooden dishes were used, and at meals they all ate out of one dish. Each person had his own spoon, which was made from a ram's horn. They had neither knives nor forks, but used their fingers instead. The food of the common people was of the meanest and coarsest kind. Those were reckoned well off who got a sufficient quantity of porridge, brose, and sowens, made of very poor grain, dried on the fire in pots, and ground in querns, with greens or kail boiled in salt and water. They seldom tasted animal food, except the carcases of beasts that died of starvation or disease. It was rare to slaughter any animal for provision in winter. Many sheep died in late autumn and early winter from braxy, or inflammation, and these they salted up, and hung pieces

of them from the rafters to dry and be smoked. For drink they put up whey into barrels in summer until it fermented. This they mixed with water, and drank after being kept nearly a year. A very little of this quenched their thirst. Tea was then known, but it cost thirty shillings a pound.

The dress of the inhabitants was very rough and homely. The men wore waulked plaiden or kelt coats made of a mixture of black and white wool in its natural state. Their hose were made of white plaiden sewed together, and they wore rude single-soled shoes. Their Kilmarnock bonnets were either black or blue. None had hats except the lairds. In general neither men nor women wore shoes except in winter, and their children got none until they could go to church. Shirts they scarcely knew, and those used were of coarse woollen, and seldom changed. The women dressed untidily in coarse gowns, shaped in the most uncouth manner. Farmers' wives wore toys or hoods of coarse linen when they went from home. When young girls went to church, fairs, or markets they wore linen mutches or caps. At home they went bareheaded, and had their hair snooded back on the crowns of their heads with a string used as a garter.

Agricultural operations were very awkward and inefficient. Ploughs were heavy, and badly made. Both oxen and horses were generally yoked to one plough, perhaps four oxen and two horses. Where no oxen were used four horses were yoked. A woman or a boy was employed to walk backward and lead the animals. One man held the stilts of the plough, and another man, called the Gadsman, regulated the depth of the furrow by pressing down or raising up the beam of the plough. Harrows were light and coarsely made. The teeth were of wood hardened by being tied up to the smoky rafters of the dwelling-house, but they required to be often replaced. There were no carts then made. Manure was taken to the fields on cars, or in creels slung over a horse's back. The women also carried out manure on their backs in creels of a smaller size. Corn and hay were conveyed home in trusses on horses' backs, and peats in sacks or creels. Heather was often cut on the hills for firing.

In spring working horses and oxen became so lean and weak from want of sufficient food that they sometimes fell down in the draught. The land was in crop for four successive years, and after that lay four years fallow. The yield was miserably poor, and the quality of the grain was bad. In unfavourable seasons the inhabitants were reduced to actual starvation.

The price of cattle was very low, as they were generally in such poor condition. In spring, when put to grass they were often so weak that when they lay down they could not rise without assistance, and they frequently fell into bogs and mosses, when neighbours had to be called to help to get them set on firm ground again. After the oat crop appeared above ground in spring cattle and sheep had to be tended during the day, and shut into folds or loans at night, for there were no division fences. There was scarcely even a march fence between farms, which was frequently the cause of quarrels and lasting animosities between neighbours.

Both men and women, from the hardy way in which they were brought up, were more robust and vigorous than at present, and were not subject to many diseases, but the average duration of life was much shorter.

Saddles and bridles had not come into common use. People rode to church or market on *brechams* or *pillions*, while they put halters made of hair rope on the horses' heads instead of bridles, and put shoes only on their fore feet.

Education was at a very low ebb. Few of the common people could read even the Bible, but the precentor in each congregation read the Scriptures in the church before the minister appeared. The lower classes were very superstitious, and believed in ghosts, fairies, and witches. To preserve their cattle from the effects of witchcraft they put pieces of rowan tree on the walls above the cows' heads when in the house, and tied smaller pieces among the long hair of their tails when out in the fields. At this time roads were in a wretched condition. They were indeed but bridle tracks, and thee were very few bridges in the district.

8th May, 1896.

Mr Philip Sulley, Vice-President, in the chair.

New Members.—Mr Jonathan E. Blacklock, solicitor; the Count of Serra Largo, Cowhill Towers; and Mr Adam Skirving, Croys, Dalbeattie.

Donations.—The Report of the Marlborough College Natural History Society; Report of the Milwaukie Public Museum; the Proceedings of the Academy of Sciences of Philadelphia; the Annals of the New York Academy of Sciences. Mr James Barbour presented a copy of the ground plan of Birrens.

On the motion of Mr Lennox, a special vote of thanks was awarded to Mr James Barbour for his distinguished services as representative of this society in the recent excavations at Birrens; and the thanks of this society were expressed to the Society of Antiquaries of Scotland for conducting and paying for the excavations.

COMMUNICATIONS.

I.—Annotated List of Rarer Plants met with in North-West Dumfriesshire. By Mr John Corrie, Moniaive.

Early in 1891 I was invited by Mr Scott-Elliot to co-operate with a few other members of the Society in the work of collecting material for a new District Flora. The results of work done prior to, and during, 1891-92 were communicated to Mr Elliot at the time, but a few additional records have since been made, and these, together with my earlier records, may now be submitted in the form of "An annotated list of rarer plants met with in north-west Dumfriesshire."

RANUNCULACEÆ.

Aquilegia vulgaris—probably an escape. Jarbruck Wood, Glencairn, 374 ft.

NYMPHÆACEÆ.

Nuphar intermedium—Stroanshalloch Loch. 1270 ft. First gathered by Mr Fingland.

PAPAVERACEÆ.

Platystemon californicum—recorded 1887. Near Moniaive.

FUMARIACE Æ.

- Fumaria officinalis—occurs sparingly. Affects waste margins of cultivated lands.
- Corydalis claviculata—not plentiful. Jarbruck, 374 ft; Craigdarroch, 467 ft.

CRUCIFERÆ.

- Cochlearia officinalis—Martour, Dibbin, and Conrick Hills, 1600 to 1700 ft.
- Hesperis matronalis—new record for Dumfriesshire 1891. Riverside, near Moniaive, and along Cairn.

CISTACEÆ.

Helianthemum vulgare—confined to one or two stations, where it is plentiful. Craigneston, 600 ft.; Bardannoch, 700 ft.

VIOLACEÆ.

Viola odorata—probable escape. Near Moniaive.

DROSERACEÆ.

Drosera intermedia—two stations. Scarce.

CARYOPHYLLACEÆ.

Silene inflata-not uncommon.

Lychnis Githago—not plentiful.

Lychnis vespertina—occurs very sparingly.

Sagina subulata-new record 1891. Castlehill, 700 ft.

MALVACEÆ.

Malva sylvestris—neighbourhood of Moniaive. Probably outcast.

HYPERICACEÆ.

Hypericum humifusum—not common.

GERANIACEÆ.

- Geranium phœum—new Dumfriesshire station. Apparently oldestablished.
- Geranium sylvaticum—common.

Geranium pratense-less common.

LIGUMINOSÆ.

- Trifolium arvense—dry pasture land west of Moniaive. Not common.
- Trifolium striatum-new record. Rare.

ROSACEÆ.

Prunus insititia—not common. Jarbruck Wood, Glencairn.

Spiræa salicifolia—one station only, altitude 400 ft.

Geum intermedium—not uncommon. Twomerkland, 400 ft.; Caitloch, 430 ft.; Dalmakerran, 450.

Rubus saxatilis—sub-alpine glens. Minnygrile, 600 ft.; Glencrosh, 700 ft.

Rubus chamæmorus—new station (1895). North-west border of county, 1700 ft.

Rosa spinosissima—rare inland. Occurs one station.

Agrimonia Eupatoria—frequent. Roadside near Moniaive, 350 ft.; Woodlea, 400 ft.; Glencrosh, 450 ft.

ANAGRACEÆ.

Circæa lutetiana—not common. Woods near Caitloch, 400 ft., and Poundland, Glencairn.

HALORAGIACE.E.

Hippuris vulgaris—rare. Fingland Lane, 1000 ft.; Trostan Lane (new station 1895).

LYTHRACEÆ.

Lythrum salicaria—not common. Riversides near Moniaive. Loch Urr, &c.

CRASSULACEÆ.

Sedum villosum—not frequent. Bardannoch, 630 ft.; roadside, west of Moniaive, 450 ft.

SAXIFRAGACEÆ.

Saxifraga stellaris—Martour Hill, 1650 ft., a new station.

Saxifraga granulata—margin of river near Moniaive. Only station, 330 ft.

Saxifraga hypnoides—rare. Benbrack, 1800 ft., and Cairnhead, 1700 ft. Both new stations.

UMBELLIFERÆ.

Sanicula Europæa-frequent.

Carum verticillatum—plentiful throughout Glencairn.

Myrrhis odorata—not uncommon.

Oenanthe crocata—not common. Near Moniaive and Maxwelton House.

Meum athamanticum-plentiful but local.

RUBIACEÆ.

Galium cruciata—not common. Roadside near Moniaive.

VALERIANEÆ.

Valeriana pyrenaica—margin of river near Moniaive. New station 1892.

COMPOSITÆ.

Arctium lappa--occurs generally but sparingly.

Centaurea radians-single station, rare.

Tanacetum vulgare—near Moniaive. Probably an escape.

Solidago Virga-aurea—not unfrequent.

CAMPANULACEÆ.

Campanula latifolia-not common.

Lobelia Dortmanna-rare. Loch Urr.

ERICACEÆ.

Vaccinium Vitis-Idea-rare. Trostan Hill, 1250 ft.

APOCYNACEÆ.

Vinca minor—one station.

GENTIANACEÆ.

Gentiana campestris—not common. Old hill pastures, 500 to 600 ft. Menyanthes trifoliata—not common. Girharrow, 800 ft.; Loch Urr, 700 ft.

CONVOLVULACE Æ.

Convolvulus sepium-Riverside near Moniaive.

SOLANACEÆ.

Solanum Dulcamara—Not frequent. Backwater marsh on Cairn, 330 ft.; Brookside, near Maxwelton, plentiful.

SCROPHULARIACEA.

Linaria vulgaris—fields and roadsides near Moniaive. Not common.

Mimulus luteus—Naturalised escape or outcast, rapidly becoming common.

LABIATÆ.

Scutellaria galericulata—two stations. Loch Urr and opposite Maxwelton.

Goleopsis versicolor-not unfrequent.

PLANTAGINEÆ.

Plantago maritima—not common inland. Occurs along western border; 600 ft.

BORAGINACEÆ.

Symphytum officinale-frequent.

LENTIBULARIACEA.

Utricularia neglecta—recorded 1891. New to Scotland. ("Scottish Naturalist," 1891.)

Utricularia intermedia—not common. Rare in flower. New Dumfriesshire record. 1887.

Utricularia minor—new Dumfriesshire record 1890. Several stations along western border.

POLYGONACEÆ.

Polygonum Bistorta—three stations, all new.

Polygonum amphibium—one station.

Polygonum minor—Loch Urr. First gathered by Mr T. Brown, 1891

EMPETRACEÆ.

Empetrum nigrum-frequent, but scarce in fruit.

SALICACEÆ.

Salix pentandra—rare. Three stations male flowers, one station female flowers.

Salix repens-rare. Single station.

ORCHIDACEÆ.

Habenaria viridis—not common.

Habenaria albida—not common.

Listera ovata—frequent.

Malaxis paludosa-new record for county. 1887. Rare.

ARACEÆ

Arum maculatum--recorded 1887. Jarbruck Woods. Doubtfully indigenous. Mr M'Andrew informs me that his Senwick Wood station is in the neighbourhood of ruins, and the same thing occurs with my Dumfriesshire station.

TYPHACEÆ.

Sparganium minimum-Fingland Lane, 1000 ft.

Sparganium ramosum—frequent.

CYPERACEÆ.

Carex dioica—Girharrow, Glencairn. Not common.

- C. pulicaris—generally distributed.
- C. pauciflora—rare. Girharrow and Loch Urr.
- C. ovalis-common.
- C. stellulata-common.
- C. curta-frequent.
- C. remota—not common. Dalmakerran, Woodlea, Caitloch All new stations.
- C. paniculata--rare. Fingland Lane, 1000 ft.
- C. muricata—frequent.
- C. vulgaris—generally distributed.
- C. limosa—rare. Stroanshalloch. First gathered by Mr Fingland.
- C. irrigua-new record 1887. Rare.
- C. glauca—generally distributed.
- C. pallescens—generally distributed.
- C. panicea—generally distributed.
- C. præcox-not uncommon.
- C. pilulifera-not uncommon
- C. hirta-single station. Rare.
- C. filiformis—Girharrow. New Dumfriesshire record Rare.
- C. flava-generally distributed.
- C. fulva—generally distributed.
- C. binervis-frequent.
- C. sylvatica—not common. Several new stations recorded; Jarbruck, 400 ft.; Caitloch, 430 ft.; Tynron, 450 ft.
- C. vesicaria—not common. Two stations on Cairn.
- C. ampullacea-frequent.
- C. paludosa—rare. Recorded for two new stations—Ingleston, near Moniaive, and neighbourhood of Maxwelton.

FILICES.

Ceterach officinarum—rare. Recorded for new Dumfriesshire station, where it is plentiful. 220 ft.

Polypodium vulgare-common.

- P. phegopteris—not uncommon.
- P. dryopteris-not uncommon.
- Allosorus crispus-not plentiful. Four stations, 700 to 1000 ft.

Cystopteris fragilis—rare in Glencairn. New station, Glenjaun Hill, 1400 ft.

Polystichum aculeatum—generally distributed.

Lastræa, Oreopteris-generally distributed.

L. Filix-mas—generally distributed.

L. dilatata—generally distributed.

Athyrium felix femina—generally distributed.

Asplenium Trichomanes—generally distributed.

A. Adiantum nigrum—not common. Minnygrile, 650 ft.; Crechan, 520 ft.

A. ruta muraria—not common. Two stations.

Scolopendrium vulgare—rare throughout Glencairn. Single specimens occasionally met with.

Blechnum boreale—generally distributed.

Pteris aquilina—generally distributed.

Hymenophyllum Wilsoni—rare. Recorded for three new stations—Glenjaun, 1000 ft.; Glencrosh, 700 ft.; Benbuie, 700 ft.

Botrychium lunaria-frequent, 300 to 800 ft.

Ophioglossum vulgatum—rare. Recorded for three new stations, from one of which it has now disappeared—Caitloch, 600 ft.; Dalmakerran (Tynron), 770.

LYCOPODIACEÆ.

Lycopodium clavatum—not common. Girharrow, Loch Urr, &c. L. Selago—not common. Caitloch, near Holmhead, &c. Selaginella selaginoides—not uncommon.

NOTE.—This list is obviously incomplete. Some of the more critical orders and genera are omitted altogether; others are only partially represented. Carices and Filices, it will be noticed, receive exceptional treatment. All forms known to occur, common as well as uncommon, are included.

II.—The Battle of Dornock. By Mr George Neilson (Glasgow).

The year 1333 began with peace between England and Scotland—nominal peace only, for Edward III. was directly or indirectly aiding the efforts of Edward Balliol towards the Scottish throne, which he had occupied for a part of the previous year. In the early months of 1333 there was truce betwixt the two

countries. As usual, it was the mutual aggressiveness of the borderers that occasioned a renewal of the war. Whilst Edward III. was preparing his proclamation denouncing the Scots for a rupture of the peace, Sir Archibald Douglas on Monday, 22nd March, was making a flying raid into Gilsland, where he ravaged the lands of Sir Ralf Dacre, lord of Naworth and keeper of Carlisle Castle. Measures of reprisal were promptly taken. On the Wednesday³ following, the 24th, Sir Antony Lucy, leading a strong body of English marchmen, entered Scotland. His force is variously stated by the three early historians who deal with the expedition. The chronicle of Lanercost calls it merely a powerful body; Hemingburgh states it at 800 men; and Knyghton follows him in giving the same figure. William of Lochmaben, probably from his name a renegade Scot, was with the Englishmen, who marched twelve miles inland. The new moon had set in 5 on the 16th, so that there must have been moonlight all through the night of the 24th and far into the morning. This, of course, enabled them the better to effect their entry and achieve their purpose, which was not war so much as plunder. By next day they had scoured over an area computed at 12 leagues, and with a large booty, consisting of a great many head of cattle, they were with all possible despatch making their way back to bonnie Carlisle.

In raids of this kind it is obvious that the sooner the cattle could be got across the firth the better. The course they apparently took has a most interesting bearing on the history of the

¹ Foedera, 23rd March, 1333.

² Lanercost Chron., 272; Knyghton in Decem. Scriptores, 2562.

³ The editor of the *Lanercost Chronicle* misdated it 23rd March. The text says it was on the vigil of the Annunciation. But as the Annunciation was 25th March, the vigil was on the 24th.

⁴ Lanercost and Knyghton, where above cited. Hemingburgh (Eng. Hist. Soc.), ii., 307. See also Bower's Scotichronicon, ii., 310.

⁶ For this calculation I am indebted to my friend Mr Arch. A. Young. By Nicholas's Chronology of History I made out the date of the new moon to have been the 20th, but I am assured the lunar table given in that work is erroneous. Mr Young's calculation is explicitly confirmed by an amended Lunar Calendar, framed by Mr A. V. Gough of Chilton Thorn Vicarage, Fence Houses, County Durham, which he has with much courtesy put at my service in manuscript.

fords. There were three chief historic crossing places—one, the Solway or Sulwath proper, near the junction of Sark and Kirtle; another from Dornock to Drumburgh; and the third from Annan to Bowness. The second of these fords is known to have been used by the army of Edward I. during its retiral from Scotland in the autumn of 1300. On 30th August Edward was at "Drunnok." 1 On 1st September he was at "Drumbou." He and his army had probably crossed the day before,3 and the wardrobe accounts contain items relative to the destruction of corn at "Drunnok" and "Drumbou" at that time.4 It was this ford, available, of course, only at ebb.5 that Sir Antony Lucy made his objective. The reason for his choice is not hard to find. The forayers must have been in parties at considerable distances apart to enable them to cover the area said to have been overrun. The Dornock ford would be a good central meeting place, offering the most convenient and direct route to England. Had the invaders chosen to make for the eastmost ford of Solway there would have been a grave loss of time; the cattle would have had to be driven five or six miles further; and time was a first consideration. But even as it was Sir Antony did not succeed in crossing without having to fight.

The alarm had reached Lochmaben Castle, then under the command of William of Douglas, afterwards known to history with a chequered fame as the Knight of Liddesdale. He put himself at the head of a detachment of the garrison to the number of about fifty men, spoken of as well armed. Associated with him were several local knights, Sir Humphrey Boys, Sir Humphrey Jardine (called Sardyne in one edition of one chronicle!), and William Carlyle. Another person named as taking special part in the affair was William Barde—referred to as Warde by one author. These leaders appear all to share the epithet flung at them by the Lanercost chronicler of "solemn malefactors" whatever that may mean. Besides the fifty men-at-arms the whole

¹ Lib. Quot., Garderob. 172, 175.

² Ib., 126, 172, 198, 200. Drumbou is now Drumburgh.

³ Ib., 165, 173, 174, 196.

⁴ Ib., 126.

⁵ Statistical Account, Dumfriesshire, 257

 ⁶ Lanercost Chron., 272.
 ⁷ Decem Scrip., 2563.

available force of the country-side, "the flower of the soldiery of all Annandale," as Bower¹ puts it, was mustered under Douglas's command.

Probably there was no great difficulty in divining the road the Englishmen were going to take. At anyrate, when they reached the ford Douglas was there too. A smart engagement was the result, fought "near the vill of Drunnok at the Sandy wathe." ²

It is from the mention of the "wath" that I have been led to draw my inferences regarding the intention of the Englishmen to return into England by it. The battle was fought on Thursday, 25th March, about three o'clock in the afternoon—circa horum nonam. A friend who has been good enough to compute the tides for me calculates that at that time, or a short while before, it was ebb, and the ford passable. The plan of the conductors of the expedition doubtless was to reach the ford at low water. The Scots, however, were at the ford as soon as they: the retiral was intercepted: battle was inevitable.

The Scots made a sharp attack. By one account it would seem that they had a particular animosity against the captain of the invading expedition, and "fell with one accord and with one shout upon the person of Sir Antony." But as the friar of Carlisle says—he who wrote the chronicle of Lanercost—"Thanks to God and the stout help of the young men" the two Scottish knights, Boys and Jardine, were slain and 24 men-at-arms with them. Hemingburgh represents that the casualties greatly exceeded this number. He adds William Carlyle to the list of dead, saying that 160 men were slain. Knyghton states the slaughtered Scots at 140. Baird and Douglas were captured with, says Hemingburgh, about 100 others. The rest were put to flight—base flight, of course, the Englishmen called it.

On the English side it is recorded that only two esquires fell. These were Thomas of Plumland and John of Ormesby, the latter of whom had long been a thorn in the flesh to the Scots.³ Their bodies, borne to Carlisle on horseback, were honourably buried

¹ Bower, ii., 310.

² Juxta villam de Drunnok apud Sandywathe.—Lanercost Chron., 272.

 $^{^3\} Qui\ semper\ ante\ fuerat\ stimulus\ in\ oculis\ Scoticorum.—Lanercost\ Chron., 273.$

there. The English captain, Sir Antony, was himself badly wounded in the foot, eye, and hand, but after a while he completely recovered.

The official record of the battle closes somewhat dolefully for our side with the letter¹ addressed from Pontefract by King Edward III. to Sir Ralf Dacre, constable of Carlisle, commanding that William Douglas and William Barde should be kept safely ironed and in prison. The Sheriff of Cumberland was at the same time to proclaim that the several captors of Scotsmen should keep their respective prisoners secure. Barde was still a captive three years later. Douglas's exact term of confinement has not been ascertained, but Bower says it endured for two years. The flower of Annandale soldiery had been nipped in its early bloom. And, unfortunately, as Wyntoun notes in his brief record of the event, the misfortune was only the "arles" of more—the carnest of worse things, in especial of the evil day of Halidon.²

That ilke tyme at Lowchmabane
Off Anandyrdale the floure wes tane
With off the West Marche men
That had thame in till Ingland then.
Amang thaim Willame off Dowglas
Takyn and had till presowne was.
This was bot erlys for to tell
Off infortwne that efftyr fell.

Bower, above cited, also mistakenly places the engagement at Lochmaben.

III.—Recent Excavations at Birrens—The Interior Buildings. By James Barbour, F.S.A.

The council of this Society having brought under the notice of the council of the Society of Antiquaries of Scotland the desirableness of having excavations made at Birrens, that body promptly took up the suggestion, and appointed a committee of superintendence, on which the writer represented the local Society, and made other necessary arrangements. Operations were begun on 29th May, 1895, and were carried on for a period of nearly nine months. Important information resulted regarding the structure of the fortifications and the plan of the interior buildings; and altars, inscribed stones, pottery, and other objects

¹ Foedera, 28th March, 1333; Bain's Cal., iii., 1074.

² Wyntoun's Cronykil, viii., 27.

of interest were recovered, a full account of all which is contained in *The Proceedings of the Society of Antiquaries*, vol. xxxi. This paper on *The Interior Buildings* follows, with some alterations, the one by the writer on the same subject contained in the volume above mentioned.

The results of the excavations in the interior of the station were somewhat unexpected and remarkable, for the slightly irregular sward covered at a greater or less depth the foundations of a whole military town. Long ago all of the buildings above ground had been pulled down and carried away for modern uses, but Nature, as if appreciating the situation, century after century, unceasingly created mould, which, at every fresh spoilation, was cast as a protecting covering over the place; and so remains of considerable extent and interest have been preserved.

Great part of the foundations of the buildings remain, and a few fragments of upper walling. At many places, however, the masonry is quite gone, or so disturbed as to be hardly distinguishable from debris.

Two circumstances proved of material assistance in following out the plan. All, or nearly all, the trenches remained open while the survey was in progress. In this way the well-defined lines were serviceable in ascertaining the trend of those less certain. And where no masonry was left, the position in which it had stood was often clearly evidenced by a peculiar method afterwards described, which had been applied in preparing for the reception of the foundations.

Many of the division walls were not traced, and all the doors, windows, and other such details are wanting. The outlines of the several buildings, however, have been ascertained, almost to completeness, and the general disposition of the station is fully displayed.

On the plan, plate IA., the walling actually exposed is indicated by black tinting, its continuation in the spaces between the openings being marked in diagonal hatching. It has been found that work of two distinct periods exist; and the secondary, as far as opened, except where it covers the primary, is indicated by square hatching. Secondary work, however, as will afterwards appear, exists to a greater extent than it has been found convenient to indicate on the plan. The diamond hatching shows the position of walls, of which little or no remains exist. The

lines, however, are conjectural only to a very limited extent, as in every instance evidence more or less conclusive of the situation occupied was found.

The buildings with their intervening streets form a rectangular block, measuring 500 feet from north to south, and 300 from east to west; and the interior of the station when complete would extend to about 4 acres.

A principal street crosses the station from the east gateway to the west, dividing it into two unequal parts, embracing respectively two-fifths and three-fifths of the area. Another leads from the north gateway to the south end, and marks the station longitudinally into two equal and almost uniformly arranged divisions. This street is divided at the centre of the station by a building, supposed to be the praetorium (XII. on plate IA.), round which it is carried, one-half on either side. The building in this way stands out separately.

No minor streets are found in the southern division, but eavesdrops intervene between the different blocks of buildings. In the north division three subsidiary streets run from the east side to the west; and eavesdrops alternate with these.

The buildings appear to be grouped according to the several purposes they were intended to serve; and those conjectured to be meant for administrative and other more special ends occupy the main street between the east and west gateways. The praetorium is the most prominent, and probably also the most interesting. The walls are 2 feet 10 inches thick, strengthened with buttresses. In the south one is the entrance gateway, which shows the seats of the scuntions, and two stone-posts for stopping the gate. This leads into an open court, floored with characteristic irregular polygonal pieces of stone fitted together, and provided with a drain all round for carrying off the surface water. At the west side of the court is the public well, 18 feet deep and 4 feet 4 inches diameter, yielding water for the supply of the station. It is built of dressed stones in regular courses, and the bottom is paved with cobbles over a bed of well-tempered clay. On the east and west sides of the court was a narrow apartment, and on the north a verandah, supported on slender pillars of wood or iron, and an arcade of seven bays behind it, had extended across the building from east to west. Remains, partly in situ, partly in fragments lying on the pavement, prove that square piers, with splayed bases and moulded caps, had separated the bays, and that they were spanned with arches, closed with thin projecting keystones.

Passing through the centre bay, which is a little wider than the others, a full width space is reached, and communicating with it at the north end of the building is a series of chambers, five in number. In the floor of the centre one is a pit 5 feet deep, approached by descending steps. The walls are formed of large stone flags set on end, and remains seem to indicate that a parapet, finished with a moulded cope clamped with a continuous bar of iron, rose above the floor. Some grain and a quantity of fragments of window glass were found in it. The floor of the chamber west of the central one shows a square sinking about 3 inches deep, in the centre of which some kind of pedestal has stood, and the surrounding pavement is worn with use, mostly at one side. The two flanking chambers of the row also show square blank spaces in the centre of the flag floors.

Comparing this building with the corresponding one shown on the plan of Chesters, and named the Forum in Dr Bruce's *Hand-Book to the Roman Wall*, it is found that the same number and arrangement of chambers obtains in both, and only in one respect is there any material difference. At Chesters the aspect is towards the north; here it is southwards.

The next building eastwards (XIII.) is enclosed by walling 2 feet 6 inches thick, strengthened with buttresses, but no division walls were found, and it and those numbered IX. and X. do not present any particular distinguishing features.

No. XIV. is the bath. There is a hypocaust, with pillars for supporting the floor, a furnace door, air duct, flue, and drains, and a well for the supply of water. The well is four feet square at the bottom and 12 feet deep, and it widens out somewhat at the top, becoming nearly circular on plan. The walls are rudely built of undressed stones over a square oak frame. The remains of an oak ladder, chips of pottery, and some shoe leather were found in it.

Nos. XI. and XV. are peculiar. The narrow form, the great thickness of the walls (3 feet 8 inches), and the numerous heavy buttresses exhibited, leave little room for doubt that the buildings were spanned by vaulted stone roofs. The floors were raised on walls, with air ducts between them. A quantity of calcined wheat

was found in No. XI., and the buildings probably served the purpose of food stores.

The opposite frontage is wholly occupied by two large buildings, numbered respectively IV. and VIII. on the plan. The latter is peculiar, inasmuch as it exhibits partition walls separating the area into house-like apartments. Unfortunately, owing to the lines being incomplete and the want of indications of doorways, the connection of the several spaces is not clear. The former (IV.), judging by its dimensions and general character, would appear to have been one of the most important buildings in the station. The only exterior wall of which substantial remains exist is the front one. It is of superior workmanship, 2 feet 10 inches thick, and buttressed. There were fifteen heavy buttresses towards the street, each showing a projecting base, finished with splayed and neatly hewn top course (plate IIIA.); a thick wall, crossing it from north to south, divided the building in the centre; and the floor was raised high above the ground, and supported on walls forming intervening ducts for the distribution of air, possibly heated, soot being found in them.

The west end of the building recedes a little from the line of the north and south street, forming a sort of square, just in front of the praetorium. In this recess there is a stone plat, measuring 5 feet each way, and raised a step above the level of the street. At one place it is much worn, as if by the movement of the feet—the mark, it may be, where the sentinel in charge of the standard stood.

Other buildings in the station may be classed in three groups. One embraces the large blocks I., II., and III. in the south-east area, stretching between the longitudinal street and the east rampart. So far as has been discovered, these were undivided. Being separated only by eavesdrops 2 feet 6 inches in width, the doorways would, it may be presumed, be in the end walls, and whatever light there was would probably be admitted at the roof. Another group consists of corresponding buildings V., VI., and VII. in the south-west space. They are differentiated by longitudinal division walls, one in each. All the buildings in the north part of the camp, XVI. to XXIX., comprise the third group. The northmost, east and west of the longitudinal street, appear in some respects to be exceptional, but the others exhibit uniformity. These are very narrow as compared with the buildings in other

parts of the camp, being only 16 feet wide with a length of 136 feet. Each is divided into several apartments; and the cross walls, so far as exposed, indicate much similarity of division. The several blocks are ranged in pairs, back to back, with intervening eavesdrops, and so as to front the streets.

In regard to the condition of the walling, while, as previously mentioned, the masonry is entirely gone at some places, generally the footings, consisting of one or two courses of stones, remain, much of the work being in fair condition, although in part disturbed and broken. A few pieces rise to a greater height, as part of the front wall of No. IV., with the buttresses and dwarf walls, and fragments of Nos. XII., XIV., and XV., which show three and four courses; and the north wall of XI., the highest, rises eight courses of stones above the foundation.

The walls, as before indicated, belong to two distinct periods. Evidently the original buildings had been destroyed and razed. "There shall not be left one stone upon another that shall not be thrown down" represents something like what appears to have happened over at least a great part of the area; and the place continued waste for a lengthened interval, until the earth accumulated and covered out of sight the underground footings, which escaped. When occupation again took place, the buildings were reared of new. A large proportion at least of the old foundations were left unsearched for and unused, and the new walls were run up, of inferior workmanship, upon the accumulated soil. Over great part of the north-east and north-west sections, and at some other places also, footings of both the primary and the secondary walls remain, the latter being sometimes over the former, or partly so, but more commonly, one runs alongside the other. Much of the walling, however, cannot be discriminated as belonging to one class or the other; and on this account, and as the lines sometimes coincide, the general tints on the plan probably embrace a considerable proportion of secondary work, which it has not been possible to show in its proper colour.

In the course of the erection of the secondary buildings, or afterwards, a few variations of the arrangements appear to have been effected. Such, probably, are the narrow apartments on either side of the court of the praetorium, the blocking in several of the openings of the arcade, and the central enclosure in the space behind the arcade, square hatched on the plan. The secondary wall-

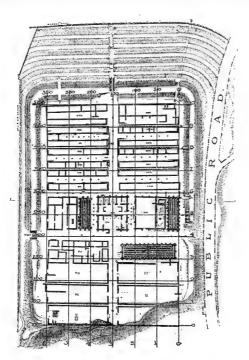
ing of the bath, indicated by square hatching, stands on the original foundations, except the piece overlapping the building on the west, which it is evident must be a departure from the original. The walls blocking some of the subsidiary streets probably represent changes also. Nevertheless, the reconstruction works appear to have proceeded practically according to the old lines; and it is remarkable, considering that the primary footings in the north parts of the camp were undiscovered, that the secondary buildings rose up of the same form and dimension as before, and in point of situation varied only to the extent of the thickness of the wall or less—a circumstance which seems to imply that the station was probably a fixed and constant type.

It will be observed that the plan is strikingly compact. The south-east and south-west sections, but for the narrow eavesdrops, present each a solid covering of buildings. In the central section, excepting the passages on either side of the practorium, the buildings are almost solid, and being turned endways towards the street, frontage is economised. The north sections are less closely built, but nowhere is there redundancy of space; and the ovens near the east gateway, previously described, and other structures admitting of it, which must otherwise have encroached on the interior, were embedded in the body of the rampart.

The plan is characterised also by symmetry, exemplified in the uniformity and balancing of the parts. It is believed, and on good grounds, that the Romans rested the proportion of their edifices, not only as regards the clevation and sections, but the plan also, on the square; and the method would seem to apply to, and explain, the Dumfriesshire station.

If the dimensions of the sides, 500 feet and 300, are bisected in order to obtain major and minor axes, the smallest number of equal divisions applicable to both is found to be ten an dsix respectively (see fig.), and lines extended along and across the plan from these points mark it out into sixty squares. The importance of the squares lies in the coincidence of these and of the lines with the divisions of the camp. The station shows five well-defined sections, separated one from another by the main streets, and it is found that each of them contains twelve of the sixty squares, therefore the areas are exactly equal one with another. Four of them correspond also in form and dimensions. In regard to the lines—No. 3, from the east, the major axis of the

camp, marks the longitudinal street, and passes through the middle of the praetorium; No. 4, from the south, supplies a reason, not otherwise obvious, for the position of the main cross street; No.



5, the minor axis, again passes through the praetorium, proving its central position; and No. 6 marks the street north of the praetorium. Four divisions remain at the north end, balancing a like number at the south. It will be observed also that the lines numbered 7, 8, and 9 so nearly correspond with the eavesdrops, that it seems probable that was intended, thus embracing in every division a subsidiary street, together with the buildings fronting it on either side.

Is it probable that all these coincidences are accidental; or is it not much more likely they are the outcome of design? "Wherever," says Josephus, as quoted by Gordon, "the Romans enter

upon hostile ground, they never think of fighting till they first make their camps, which they do not rear up at a venture, or without rule."

The constructive methods exhibited are interesting, being in many respects in contrast with those now in use. The formation of the streets does not bear out the common conception of a Roman road. Generally, it consists of a thick bed of gravel, hard and well bound together. The crown is well raised, and the gravel formation is retained at either side by means of two courses of stones, laid flat, one over the other; and outside these are the water channels, composed of stones 18 inches broad, and in lengths of 2 feet to 4, having the gutters about 9 inches wide and 4 deep, cut with a square section out of the solid. In the case of the subsidiary streets only one line of gutter, placed at or near the centre of the roadway, is found. At several points continuous channelling of this description, several stones in length, remains in situ.

The surfacing of the northward portion of the longitudinal street is different, for, over a similar bed of gravel, it is paved with whinstone cobbles, but the work is much disturbed. At a depth of 12 inches another similar surfacing is found, the cobbles used being somewhat larger. In this case, however, the waterchannel is in the centre of the roadway, and is composed of a flag for the bottom, with the sides constructed of stone kerbing. This latter formation rests on forced ground about 18 inches deep; the streets towards the south rest on the natural till.

The water-channels of the higher formation would thus seem, as regards position at least, to be secondary, and it may be that the channelling itself is also to be assigned to that period.

The floor pavements in the station are of several sorts. With in the buildings examples made of squared and dressed freestone flags, such as are in use now, are found. But the most common kind is the irregular polygonal pattern, patches of which are found in all parts of the area. It also is composed of freestone flag, but in small pieces, and the joints, instead of being hewn, are hammer-dressed, so as the pieces may fit together on all sides.

Numerous drains traverse the camp, of various dimensions and depths, but it is not ascertained on what system they are disposed Near the south end of the longitudinal street, one is found 8 feet in depth, measuring from the surface to the bottom. The drain

itself is 3 feet 6 inches high and 16 inches wide, and the sides are built of rubble without mortar. The course of a drain between the east rampart and the adjoining buildings, numbered I., II., III., and IV., is indicated on the plan, and in connection with it there remains in situ a curious inlet, consisting of a piece of open channeling similar to that found at the sides of the streets, but of greater breadth, and a built hopper with sloping flag bottom and flag cover (see drawing, plate IIIA.). It is opposite the eavesdrop between Nos. II. and III., and doubtless the channelling would extend the whole length of the eavesdrop, for the purpose of carrying off the water falling from the roofs of the buildings.

A characteristic method of preparing the foundations for the reception of the walls, to which reference has already been made, prevails. A trench is cut in the ground 9 inches deep or more, and of a width a little greater than the thickness of the intended wall, which is filled with well-tempered clay. The surface of the clay is paved with whinstone cobbles, accurately marking out the situation of the walls, even to the width and projection of the buttresses, and the pavement is beat into the clay, the substance being thereby consolidated and rendered suitable for the support of the superincumbent masonry. It is an excellent foundation; and its use, on account of its permanence, proved of much service in tracing out the plan.

The footings usually project, forming scarcements on each side of the wall, but not always; and for the lowest course of stones, and mostly the second also, or what of the wall would be lower than the surface of the ground, instead of lime mortar, clay is used for bedding and jointing. The work is exceedingly good, every crevice closed, and the whole a solid mass. Whether this method was followed with the view of protecting the walls from rising damp, or because it was thought better adapted to the circumstances, the work being in contact with the earth, than lime mortar would be, the result is that now, after the lapse of so many ages, these footings, so built, where undisturbed by force, are yet in perfect order, whereas the lime mortar used in the overwalling has been wholly absorbed by the accumulated soil.

These methods of constructing the foundations and footings are peculiar to the primary walls.

The walling discriminated as secondary is characterised by inferior workmanship; and the primary parts vary in quality par-

ticularly in respect of the manner of dressing the facing-stones. The materials used are the freestone of the district with lime mortar. Limestone is abundant in the vicinity, and the traces of mortar in the walls, although meagre, sufficiently establish its use. The facing-stones of both sides of the primary walls are headers, squared and arranged in regular courses, generally 6 inches to 7 inches high, and in lengths of 9 to 18 inches, and the centre is closed with stones fitted in between the headers. As showing the excellence of the work, it may be mentioned that in the case of No. IV. even the dwarf walls are so built.

Some specimens of bonding found are typical. One consists of freestone flags about $2\frac{1}{2}$ inches thick laid in the wall, so as to extend across its thickness and form a continuous course in its length. The best example remaining is in the north wall of No. XI., where it forms the seventh course above the foundation (see drawing, plate IIIA.). Bonding bricks appear also to have been used, for, although not found in position, numerous fragments of such are scattered about.

The manner of dressing the stones exhibited is various; generally the inside faces of the walls are scabbled, and in many cases the outside faces are similarly dressed. The dressing of the external face of the front wall of No. IV. is the most characteristic. The stones show diagonal lines forming a reticulated or diamond pattern of half-inch to inch mesh within a chiselled margin. This wall is of superior and artistic workmanship, and the great care bestowed on it is doubtless due to its prominent position in the main street. Appearance being less essential in other localities, less elaborately dressed work is made to suffice.

It now only remains to notice the indications of architectural treatment afforded by the vestiges. That appearance was an element in the design is sufficiently attested by the use of superior and more elaborately dressed masonry in the most prominent situation—the main street. From this, too, it may be deduced that the great display of buttresses, with their splayed and neatly bewn base course, while intended chiefly to secure strength, were probably likewise utilised to promote architectural effect. The arcade of the praetorium already described is an architectural feature, and a variety of fragments remain indicative of the existence of others, and of artistic surroundings.

Only a very few details relating to the buildings have been recovered. The mouldings are sufficiently characteristic of Roman type, but while they are not wanting in boldness, the quirking of the cymatium exhibited is a form inconsistent with the style in its purity. The examples are all single mouldings and of little diversity, but some of them may have been components of an assemblage. Referring to plate IIIA., fig. 7 shows a section of parapet coping worked with quirked cyma and fillet; fig. 9, a door or window rybat, the reveal of which is of ogee form; fig. 10, part of a pier cap, also worked with the quirked cyma; and fig. 11. horizontal and inclined pediment mouldings, the form being again the quirked cyma. These last exhibit sunk soffits, the dressing of which, however, is so dissimilar and inferior to other parts that it seems an afterthought. Probably the cornice, as constituted in the original building, embraced corona and bed-mould, and afterwards, when rebuilding took place, the cymatium was sunk as described, and applied alone.

The altars and other accessories present details more distinctly degenerate. The fragment fig. 20, plate IIIA. shows a sunk moulding; the framing of the historic altablet (fig. 15) is of low relief; and the mouldings of the disciplina altar (figs. 13 and 14), besides being deficient in boldness, are constituted of broken curves. Those of the uninscribed altar, however (figs. 17 and 18), are of better form and proportion. These mouldings, apart from the cavetto of the base of the uninscribed altar, bear a curious degree of resemblance one to another. It will be observed that the cornice mould of the disciplina altar is a repetition of that of the base turned upside down, and in the uninscribed altar the only difference is the absence of the quirking of the base mould.

The accessories are enriched more or less; profusely in some instances. The devices employed are the human figure (plate IIIA., fig. 22); dolphins, birds, leaves and stems of ivy, and the crescent (fig. 4, Inscribed Stones); leaves of the oak tree, and thunderbolts (plate II., fig. 3); rosettes of various designs; architectural forms, cabling in variety, and leaves of the laurel (plate IIIA., figs. 21 and 22); sacrificial implements and utensils (plate II. fig. 2); and beltings constituted of peculiar triangular-shaped depressions, the ridges between which form together zigzag lines.

Two belts of these depressions, separated by a sunk beaded astragal, ornament the upper member of the disciplina altar, and a

single line appears on the fragment (fig. 20, plate IIIA.). Fig. 19 presents analogous ornament of a bolder and more complex design; and the pelta (fig. 24) derives its form from depressions somewhat equivalent.

This peculiar form of enrichment, which possesses nothing in common with the more ancient Roman ornamentation, but appears to have been much and widely applied during the decadence of the style, is interesting as containing the germs of some characteristic forms of medieval decoration. The baluster pillars represented on the disciplina altar also accords with forms found in connection with early mediæval work in this country. Some importance may therefore attach to these meagre details, as reflecting a ray of light amid the semi-darkness which enshrouds the history of the art during the early part of the Christian era. The altars and other accessories of the station appear to belong to a time much later than the date of the historical tablet, unless it is allowed that the period of decadence commenced earlier than is generally supposed. The fragments, nevertheless, exhibit some excellent workmanship. The dressing of the fragment fig. 19, plate IIIA. in particular is an example of deft-handed use of a well-tempered and sharp chisel.

The station appears to have been laid out according to rule, and with a view to symmetry and utility. The structural methods are purposelike; much of the workmanship displays skill, taste, and care; and strength and endurance characterise the buildings, while they were not devoid of architectural design and adornment.

Nothing has been found recognisable as a mason's chisel, but the tooling on the dressed stones and numerous markings formed in sharpening the points afford evidence of their variety.

Of the several branches of building, mason work—the materials of which are the most durable—is best represented with stone-carving, sculpture, and brick-making. All wood work has perished. Iron has proved incomparably less durable than stone, and the remains of such work are only shapeless masses of rusty metal. Slater work is evidenced by a solitary fragment of a roofing tile, and plumber work by a few cuttings of lead. The place has yielded no evidence of plaster work; but the existence of numerous fragments of window-glass speaks of the glazier.

It would seem an omission not to mention, in connection with the constructive and artistic aspects of the station, the names of two architects (architectus), which appear in the paper on the Inscribed Stones. One is named "Amandus," and the other "Gamidiahus." Doubtless they were military officers, but architects nevertheless, since Vitruvius himself while an architect held an appointment and had charge of the engines of war, which he describes in his book on architecture. The first owes the preservation of his name to the religion of some one else. The inscription embracing it beneath the figure of Brigantia reads:—"Sacred to Brigantia. Amandus the architect (erected this) by command . . ." It may be inferred from the inscription that he had charge of such works. Through his own piety the name of the other has come down to us. "Sacred to Harmella. Gamidiahus the arc[hitect] performed his vows, willingly, gladly, deservedly."

FIELD MEETINGS.

30th May. -Eskdalemuir.

The start was made first to Lockerbie by rail, when about twenty members turned up to take part in the expedition. At Lockerbie the party was joined by Dr Macdonald, vice-president of the Society of Antiquaries of Scotland, and Mr Cunningham, C.E., its treasurer, who had come from Edinburgh for the purpose. From Lockerbie a large drag was engaged to convey the excursionists to Raeburnfoot, in the immediate vicinity of which the Roman camp is situated. The route taken was up the valley of the Dryfe for a considerable part of the distance. The first object of antiquarian interest which attracted attention was a carved stone over the doorway of a cottage at Berryscaur. This stone was said to have been brought from some old castle in the vicinity, but tradition did not give it a name. There was engraved upon it from left to right first a St. Andrew's Cross, then a holly leaf, and next the Royal Arms of Scotland, followed by the letters A.B. The curious thing about it was that it should have been marked with the Royal Arms, which seemed to point to the castle from which it came having been a residence or hunting lodge of a Scottish king or of some member of the royal family, although this, of course, is only the purest conjecture. The Parish Church of Eskdalemuir was at length-after a drive of nearly three hours -passed; and Raeburnfoot, a short distance beyond, at the junction of the Rae Water with the White Esk, where the ancient camp, which was the object of inquiry, is to be found. It may be mentioned, however, that between these places a monument to one of the martyrs who suffered in the times of the persecution in the 17th century was pointed out. His name was Hyslop, and he is said to have been put to death in 1685 as a follower of the Covenanters. The monument is a plain stone, with the usual inscription, and is said to have been originally erected in 1702, but more than once subsequently renewed. At Raeburnfoot the party

was joined by the Rev. Mr Dick, the minister of the parish, by Mr Bell of Castle O'er, and Mr Beattie of Davington. The tenant of the farm on whose ground the camp is situated happened to be from home on business, but both he and Mrs Scott, the proprietrix, had kindly offered to give every facility for the investigation. It was found that the ground covered by the camp was almost identical in form and extent with the camp at Birrens recently explored—that is, it was square, or rather rectangular, in form, not circular or oval, and measured about 500 feet in length by 300 in breadth. But there was this difference, that the surface, instead of being flat as at Birrens, sloped downwards towards the north or north-east. The rampart could be distinctly traced, and the ditch was said to have been 20 feet wide and 5 feet deep. There was also distinct evidence of a gateway at the south side. The experts present were of opinion that the probability was in favour of its having been a Roman Camp; but in the absence of any positive evidence, such as would be furnished by excavation. and the discovery of relics of Roman occupation, they hesitated to decide the question absolutely. After tarrying here about an hour and a half, the party set out on the return journey by a different route, having been kindly invited by Mr Bell, the proprietor of Castle O'er, to visit a camp on his property. The road taken, so far at least, was that which leads to Langholm by the valley of the White Esk. On the way two Druidical stone circles were pointed out by the driver on the other side of the river, and at some distance from one another, but time did not permit of their being visited. Castle O'er is a fine residence, beautifully situated in the river valley, and about four miles distant from Eskdalemuir. The camp occupies the summit of a hill in the immediate neighbourhood of the house, and, unlike that at Raeburnfoot, is oval in form. and estimated to be about six or seven hundred feet in length by two hundred and fifty to three hundred in breadth. On one side there seem to have been three ramparts with corresponding ditches; but on the other, at the farthest distance from the road, only one, owing apparently to the nature of the ground, which on that side descends more precipitously. This is not supposed to have been a Roman camp, but rather a British. Some authorities speak of it as Saxon, but as no excavations have ever been made, as far as known, the question as to its origin may be regarded as still unsettled. The proprietor pointed out extensive trenches in

the neighbourhood, which he supposed had been connected with the camp. After visiting this interesting spot, the party were hospitably entertained to tea at the mansion house by Mr and Mrs Bell. Before leaving, a meeting of the Society was held under the presidency of Mr Barbour, architect, at which the following new members were proposed and admitted, viz.: Mr Johnson-Ferguson, M.P., of Springkell; Mr Bell of Castle O'er; Mr M'Clure, banker, Lockerbie; Mr Beattie, farmer, Davington; and Dean Hiddleston, Dumfries. On the motion of Mr Murray, very hearty votes of thanks were accorded to Mr and Mrs Bell for their exceedingly kind entertainment of the members of the Society, and to the Rev. Mr Dick and Mr Beattie for information and assistance supplied in carrying out the object of the excursion.

19th September.—Craigenputtock.

The second field meeting was held at Craigenputtock. Various memorials of Thomas Carlyle in the room used by him as a study were inspected.

Messrs W. A. Coats, of Dalscairth; Charles R. Dubs, of Cargen; and Reginald Kirkpatrick Howat, of Mabie, were elected members.

→* LIST OF MEMBERS. **

Honorary Members.

E. G. Baker, F.L.S., British Museum J. G. Baker, F.R.S., Royal Herbarium, Kew. Arthur Bennett, F.L.S., Croydon. J. Harvie Brown, F.L.S., Larbert. William Carruthers, F.R.S., British Museum. Frederick R. Coles, Edinburgh, Dr Anstruther Davidson, Los Angeles. William Galloway, Whithorn, Peter Grav. Dumfries. James Macdonald, LL.D., Edinburgh. Alexander M'Millan, Castle-Douglas. Sir Herbert E. Maxwell, Bart., M.P., F.S.A. Alexander D. Murray (former Secretary), Newcastle Dr David Sharp, F.R.S., Cambridge. Robert Hibbert Taylor, M.D., Liverpool. William Thomson, Kirkcudbright. Joseph Wilson (former Secretary), Liverpool.

Members.

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John Carlyle Aitken, Gatehouse.
Miss Margaret Aitken, St. Albans, Maxwelltown,
William Allan, Irving Street.
Rev. William Andson, Newall Terrace.
Joseph J. Armistead, Newabbey.
Samuel Arnott, Carsethorn.
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James Barbour, F.S.A., St. Christopher.

Mrs James Barbour, St. Christopher.

James Barbour, Glendarroch, Dalry.

Robert Barbour, Belmont.

Robert Barbour, Solicitor, Rosemount Terrace.

James Beattie, Davington, Langholm.

Richard Bell, Castle O'er, Langholm.

Mrs Bell, Penfillan House, Penpont.

Colonel Edward Blackett, Arbigland.

Jonathan E. Blacklock, Rosemount Terrace.

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William Bowron, Marchmount.

Thomas M. Brown, Closeburn Castle.

Sir James Crichton-Browne, M.D., LL.D., F.R.S., Crindau.

Alexander Bryson, Irish Street.

Duke of Buccleuch and Queensberry, K.T., Lord-Lieutenant of Dumfriesshire.

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., St. Mary's.

Edward J. Chinnock, LL.D., Rector of Dumfries Academy.

Dr Frederick II. Clarke, Buccleuch Street.

W. A. Coats, Dalskairth.

Miss Copland, Newabbey.

John F. Cormack, Lockerbie.

Adam J. Corrie, Senwick, Borgue.

John Corrie, Moniaive.

John J. Cowan, Eliock, Sanquhar.

John M. Crabbie, F.S.A., Duncow.

John Cumming, Albany Lodge.

James Davidson, F.I.C., Summerville.

John Davidson, Crichton Cottages.

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William A. Dinwiddie, Buccleuch Street.

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Bernard Drummond, Moffat.

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John H. Edmondson, Riddingwood.

George F. Scott-Elliot, F.R.G.S., F.L.S., Newton.

Mrs Scott-Elliot, Newton.

Captain Robert Cutlar-Fergusson, Craigdarroch.

Joseph Gillon Fergusson, Isle.

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Rev. James Fraser, D.D., Colvend.

Thomas Fraser, High Street, Dalbeattie.

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Robert Gordon, London.

William M. Graham, Mossknowe.

John Grierson, Town Clerk.

Robert Grierson, Castle-Douglas.

John Gunning, Victoria Road.

Miss Hamilton, Victoria Road.

Miss Hannay, Calder Bank.

Miss Jane Hannay, Calder Bank.

John Henderson, Claremont.

Lord Herries, Lord-Lieutenant of the Stewartry.

Alexander Young Herries, Spottes.

James Herries, Loreburn Park.

James Hiddleston, Dean of Guild, Nithbank.

J. J. Hope-Johnstone, Raehills.

Reginald Kirkpatrick Howat, Mabie.

George Irving, Newcastle.

Matthew Jamieson, Craigelvin.

Mrs Matthew Jamieson, Craigelvin.

David G. Jardine, Applegarth.

J. E. Johnson-Ferguson, M.P., Springkell.

John Thorburn Johnstone, Moffat.

Mrs Johnstone, Victoria Terrace.

Duncan James Kay, Drumpark.

John Kerr, Blountfield, Ruthwell.

Rev. Thomas Kidd, Moniaive.

Rev. Roger Kirkpatrick, B.D., Dalbeattie.

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Rev. Sir Emilius Laurie, Bart., M.A., Maxwelton House.

James Lennox, F.S.A., Edenbank.

James M'Andrew, New Galloway.

James M'Call, Caitloch.

James M'Cargo, Kirkpatrick-Durham.

William M'Clure, Lockerbie.

Miss M'Cracken, York Place.

James C. R. Macdonald, M.A., Maryville.

Mrs James H. M'Gowan, Ellangowan.

Thomas M'Gowan, Rotchell.

Colonel Edward Mackenzie, Auchenskeoch.

William D. Mackenzie, Fowley Court, Henley-on-Thames.

Matthew S. M'Kerrow, Boreland, of Southwick.

Thomas C. M'Kettrick, View-Field.

John M'Kie, Anchorlea, Kirkcudbright.

Thomas M'Kie, F.S.A., advocate, Edinburgh.

Miss M'Kie, Moat House.

Rev. John M'Kinnon, Newall Terrace.

Dr James MacLachlan, Lockerbie.

Samuel Macmillan, Moffat.

Alexander Malcolm, Priestlands.

William E. Malcolm, Burnfoot.

Mrs M'Tier, Ladyfield.

Dr J. W. Martin, Holywood.

Wellwood H. Maxwell, F.S.A., Munches.

Wellwood Maxwell, F.S.A., Kirkennan.

William J. Maxwell, M.A., Terraughtie. William J. Maxwell, Terregles Bank.

William M. Maxwell, Rotchell Park.

Frank Miller, Annan,

Miss Milligan Irish Street.

James Moffat, Annan.

John A. Moodie, Irish Street.

Thomas A. Moryson, Montague Street.

Miss Agnes Mounsey, Thornhill.

Benjamin Rigby Murray, Parton.

Robert Murray, George Street.

Mrs Robert Murray, George Street.

William Murray, M.A., advocate, Murraythwaite.

George Neilson, Glasgow.

John Neilson, M.A., Catherine Street.

John Neilson, Mollance, Castle-Douglas.

John Nicholson, Stapleton Grange.

Walter Ovens, Torr, Auchencairn.

Charles S. Phyn, Procurator-fiscal.

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John Primrose, Arundel House.

John Proudfoot, Moffat.

Rev. D. Ogilvy Ramsay, D.D., Closeburn.

David W. Rannie, M.A., Conheath.

Frank Reid, St. Catherine's.

Rev. H. M. B. Reid, B.D., Balmaghie.

Sir Robert Threshie Reid, M.A., Q.C., M.P., Mouswald.

Richard Rimmer, M.A., F.L.S., Dalawoodie.

George H. Robb, M.A., Nithmount.

Miss Robb, Castle Street.

Dr J. M. Robertson, Penpont.

William D. Robinson-Douglas, M.A., F.L.S., Orchardton.

John Robson, Clerk to the County Council.

John K. Rogerson, Gowanlea, Holywood.

Dr James Maxwell Ross, M.A., Victoria Road.

John Rossie, M.D., Newabbey.

James Rutherford, M.D., Crichton House.

John Rutherford, Jardineton.

William Sanders, Rosebank, Lockerbie.

Colonel Patrick Sanderson, Glenlaggan, Parton.

Henry Sawyer, Greenbrae.

Alexander Scott, Annan.

Alexander Scott, Erkinholm, Langholm.

Rev. James Hay Scott, M.A., Sanguhar.

Robert A. Scott, Kirkbank.

Walter Henry Scott, Nunfield.

Count of Serra Largo, Cowhill Tower.

Mrs Thomas Shortridge, Stakeford.

Rev. Richard Simpson, B.D., Dunscore.

Adam Skirving, Croys, Dalbeattie.

James Smith, Commercial Bank.

Samuel Smith, M.P., Liverpool.

Christopher Smyth, English Street.

Earl of Stair, K.T., Lord-Lieutenant of Wigtownshire.

James G. Hamilton Starke, M.A., Advocate, Troqueer Holm.

Sir Mark J. M'Taggart-Stewart, Bart., M'P., Southwick.

Peter Stobie, Queen's Place.

John Symons, Irish Street.

John Symons, Royal Bank.

Philip Sulley, F.S.A., F.R.Hist.S., Cupar.

Mrs Philip Sulley, Cupar.

Miss Ethel Taylor, Longtown.

Miss Tennant, Aberdour House.

 ${\bf Alexander\ Thompson,\ Chapelmount.}$

Miss Mary Thompson, Chapelmount.

James S. Thomson, High Street.

Rev. John H. Thomson, Hightae.

Alexander Turner, Terregles Street.

Miss Wallace, Lochmaben.

Miss Amy Wallace, Lochmaben.

Robert Wallace, Brownhall School.

Thomas Watson, Castlebank.

James Watt, Noblehill.

Rev. Robert W. Weir, M.A., Castle Street.

David Welsh, Waterloo Place.

James W. Whitelaw, Troqueer Moat.

John H. Wilkinson, Annan.

James R. Wilson, Sanquhar.

Colonel James Maxwell Witham, Kirkconnel.

Mrs Maxwell Witham, Kirkconnel.

Miss Maud Maxwell Witham, Kirkconnel.

Dr John Maxwell Wood, Irish Street.

Edward C. Wrigley, Gelston Castle, Castle-Douglas.

William M. Wright, Charnwood.

Robert A. Yerburgh, M.P., Chester.





PLATE I.









PLATE II.





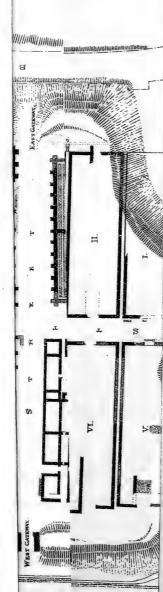


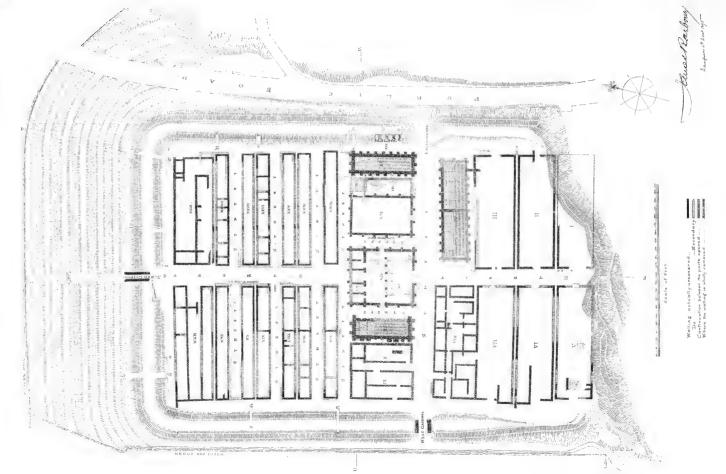


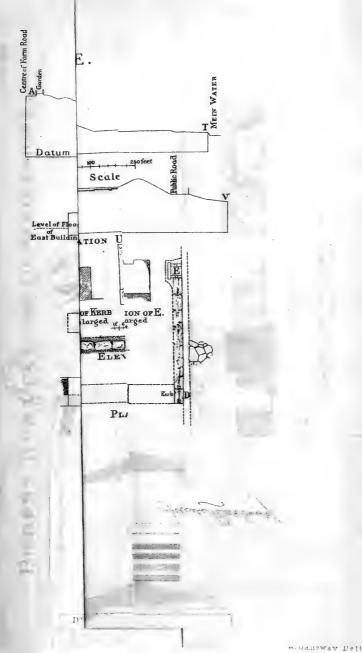


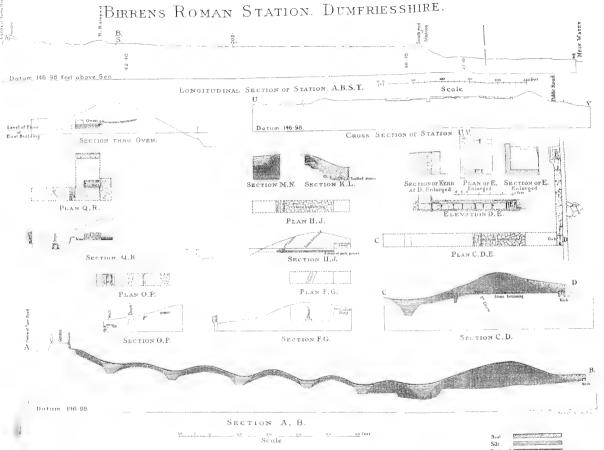
STATION 되 出 工 M ROMAN W 国 K 1 RENS I R M

PLATE IA.









Silt .

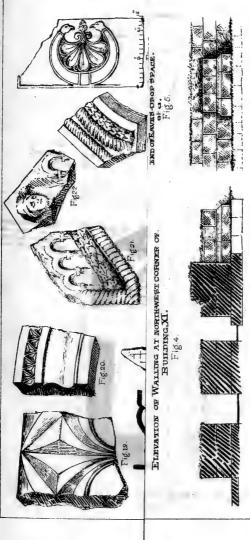
Red earth Englanders Clay

Brushwood

Depth Cut

Sumes Bur bour

BIRRENS ROMAN STATION, DUMFRIESSHIRE



FRONT OF BUTTRESSY

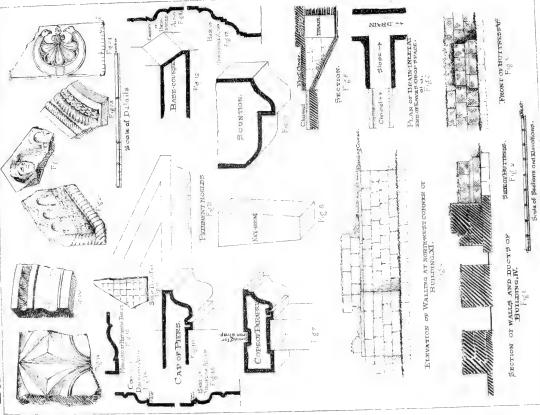
SIDEOR BUTTRESS.

SECTION OF WALLS AND IDUCTS OF BUILDING, IV.

Scale of Sections and Elevations.

W. Galloway

DUMFRIESSHIRE ROMAN STATION, BIRRENS



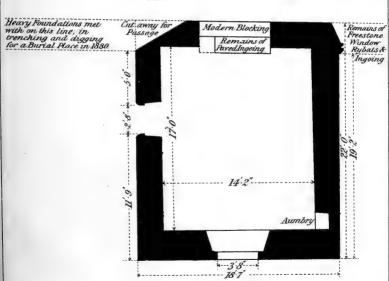


Rubble ingoing

Preestone
Rybat

East Wall
of Ausle

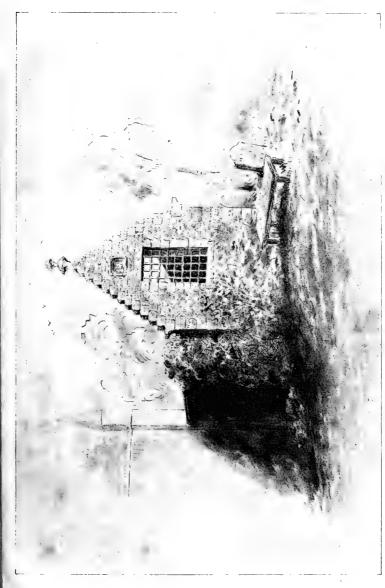
Section at North-east Angle of the Kenmure Aisle showing part of a North-east Church Still in Situs



Scale 16th of an Inch to the foot

KENMURE BURIAL AISLE. GROUND PLAN.





KENMURE BURIAL AISLE FROM THE S.W.



