

THE TRANSACTIONS
AND
JOURNAL OF PROCEEDINGS
OF THE
DUMFRIESSHIRE & GALLOWAY
Natural History & Antiquarian Society.

SESSIONS 1887-88, 1888-89, 1889-90.



PRINTED AT THE STANDARD OFFICE, DUMFRIES.

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Nothing is so productive of elevation of mind as to examine methodically and truly every object which is presented to thee in life and always to look at things so as to see at the same time what kind of universe this is, and what kind of use everything performs in it, and what value everything has with reference to the whole, and what with reference to man who is a citizen of the highest city, of which all other cities are like families; what each thing is, and of what it is composed, and how long it is the nature of this thing to endure which now makes an impression on me, and what virtue I have need of with respect to it, such as gentleness, manliness, truth, fidelity, simplicity, contentment, and the rest. Wherefore on every occasion a man should say—"This comes from God."—*The Emperor Marcus Aurelius Antoninus (III. 11).*

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R U L E S .

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, Archæology, 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 residing in either Dumfriesshire or Galloway, 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 as Ordinary Members, but on the recommendation of the Council.

4. Ordinary Members shall on election pay the sum of 2s 6d entry 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, Curator 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 FIRST 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 FIRST FRIDAY of OCTOBER, at which the Office-bearers and other Members of Council shall be elected, Reports (general and financial) submitted, and other business transacted.

9. A Member may introduce a friend to any Meeting of the Society—such friend not to be admitted more than twice during the Session.

10. The Secretary shall keep a Minute Book of the Society's Proceedings, and a Register of Members, and shall give in a Report at the Annual Meeting.

11. The Treasurer shall collect the subscriptions, take charge of the funds, and make payments therefrom under the direction of the Council, to whom he shall present an Annual Account, to be audited for submission at the Annual Meeting.

12. The Secretary shall at any time call a Special Meeting of the Society on receiving the instructions of the Council, or a requisition signed by Six Members.

13. The Society shall have the right to publish in whole or in part any paper read before it.

14. Members whose subscriptions are in arrears for nine months, and have received notice from the Treasurer, cease to be Members unless satisfactory reasons for non-payment be given to the Council.

15. Alterations of any Rule, or the addition of New Rules, shall only be made with the consent of three-fourths of the Members present at any meeting, notice of the same having been given at the previous Monthly Meeting.



PROCEEDINGS AND TRANSACTIONS
OF THE
DUMFRIESSHIRE AND GALLOWAY
Natural History and Antiquarian Society.

SESSION 1887-88.

7th October, 1887.

ANNUAL MEETING.

Mr JAMES G. H. STARKE, M.A., Vice-President, in the Chair.
Twenty-six members present.

New Member.—Mr William Moodie, Solicitor.

Donations.—A section of the rock obtained from the sinking of the Artesian Well at Troqueer Mills, from Mr W. A. F. Coupland ; two specimens of native ore—silver and copper—and a large barnacle, from Dr Bruce of Castle Dykes ; a stone whorl found at Canonbie, from Mr William M'Dowall ; a MS. copy of the Minute Book of the Trades Incorporation of the date 1601, from Mrs Pearce ; the 6th Annual Report of the Bureau of Ethnology (United States) ; the Annual Report of the Smithsonian Institution, 1885 ; three Annual Reports of the Elisha Mitchell Society ; the Transactions of the Glasgow Natural History Society, the Belfast Naturalists' Society, the New York Academy of Sciences ; the Annual Report of the British Association, 1886 ; nine parts of the Journal of the Linnean Society, from Mr Robinson-Douglas ; and eight volumes of the Proceedings of the Society of Antiquaries, for which the Committee had exchanged Ethnological specimens from New Zealand.

SECRETARY'S ANNUAL REPORT FOR SESSION 1886-87.

The Secretary (Mr Wilson) read the Annual Report, which was as follows : In presenting the Annual Report for the Session which has now drawn to a close, I have much pleasure in stating that the past year has been the most successful in this Society's existence, and that in it the Society has increased in membership and considerably extended its usefulness, as the various details which I now briefly submit will shew.

At the last annual meeting our membership numbered 213, comprising 5 life, 187 ordinary, and 21 honorary members. During the session 24 ordinary members have been enrolled, and 1 ordinary member has been transferred to the list of life members ; but 14 names have been taken off the roll, 2 members having died and 12 either removed from the district or resigned. Now the total number of members is 223, which is 10 more than last session, and includes 6 life, 197 ordinary, and 20 honorary members.

During the session the usual 7 winter meetings and 5 summer meetings were held, also 2 special meetings devoted to lectures by members.

All the winter meetings were fully occupied, and 15 communications by different members were read and discussed, this being the same number as in last session. Several of these papers are of great local interest, and the majority treat of subjects immediately within the scope of the Society and for which the writers again deserve commendation. Special reference may, I think, be made to the papers by Mr Hastings on "Ornithological Notes," Dr Davidson on his "Additions to the Flora," Rev. W. Andson on "Meteorological Notes," Mr J. C. Aitken on "The Bridge of Nith," Mr Armistead on his observations of "Atmospheric and other Influences on the Migration of Fishes," Mr Coles on his explorations among the "Archaic Sculpturings and Ring Markings," and to Mr J. Wilson on "The Cinerary Urn found at Greystone."

The exhibition of specimens and objects of local interest at the meetings was an additional source of information and pleasure, and special reference may also be made to the unique articles kindly lent by Mr R. M. Witham of Kirkconnell.

The five field meetings were held in the neighbourhood of Dumfries, Dalbeattie, Moffat, Sanquhar, and Kirkeudbright, so

that members who live in different parts of Dumfriesshire and Galloway had the opportunity of attending one or more of them, and the Society had the pleasure of carrying on its investigations in different directions. With regard to the field meetings some good work has been done, but there is yet room for improvement, for the entomological department does not receive the attention it deserves, except by one member—Mr Lennon. The members are to be complimented for their endeavours in preventing the extirpation of the rarer flowering plants and ferns as well as for recording the lists of “finds.” The kindness and hospitality the Society received from Mr J. Gillon-Fergusson of Isle, Mr W. D. Robinson-Douglas of Orchardton, Mr J. R. Wilson, of Sanquhar, and Mr Hamilton, Kirkcudbright, deserve special mention.

The excursion to Moffat in July was again held as a joint excursion with the Scottish Natural History Club, Edinburgh, when the two Societies renewed their acquaintance and were rewarded by the finding of *Rubus Leesii* (Bab.), a plant not hitherto recorded for Scotland.

The average attendance at the winter meetings was 34 and at the summer meetings 27·6, the former being larger than last session, but the latter slightly under and no doubt due to the unfavourable weather for the June and September excursions.

There were 15 committee meetings, all of which were fairly well attended.

In January last a sub-committee was appointed to memorialise the Town Council of Dumfries in reference to the converting of the basement of the Midsteeple into a shop. The Town Council did not acquiesce in the petition, but carried out their plans and materially altered the stability and security of that historic building.

This Society approved of the action taken by the Rev. J. McFarlan and the Heritors of Ruthwell in protecting the Runic Cross from the detrimental agencies of the weather and exposure, and contributed towards the expense.

The donation of specimens to the Society's collection has been progressing favourably, and those chiefly added were geological and botanical.

The Society purchased two additional maps of Pont's series, and now possesses the parts for Dumfriesshire and Galloway.

The additions to the Library have been both numerous and important, and special mention should be made of Mr Robinson-

Douglas's donation of the "Journal of the Linnean Society" to date, the valuable volumes we receive through the Smithsonian agency, and the Annual Report of the British Association for 1886.

In addition to the ordinary business of the session, your committee decided upon holding a *conversazione* in Greyfriars' Hall on October 27, 28, and 29, and the success which this undertaking met with was beyond the most sanguine expectations. The objects sent in for exhibition were so numerous that the committee restricted the exhibits to those only of the archæology and natural history of the district, and even then the exhibition hall was well filled.

This *conversazione* has already been the subject of a special report to the Society, and it is sufficient to mention here that not a single article lent for the occasion was lost, that all the visitors were well pleased with the display, and that the balance in the Treasurer's hands was increased by more than £5 12s. However, for further information on this subject I beg to refer you to the preceding part of this Society's Transactions, as the appendix contains a brief description of the more important exhibits and other necessary details.

On the motion of Mr Starke, Mr Wilson was thanked for his services during the past session.

ELECTION OF OFFICE-BEARERS.

The following Office-Bearers for the ensuing session were elected :—President, Dr Thomas B. Grierson ; Vice-Presidents, Major Herbert Bowden, Messrs F. R. Coles, W. J. Maxwell of Terregles Banks, and R. Murray ; Hon. Secretary, Mr Joseph Wilson ; Assistant Secretary, Mr R. Barbour ; Hon. Treasurer, Mr James S. Thomson ; Members of Committee, Messrs James Barbour, A. Bruce, J. Davidson, A. Innes, T. Laing, J. Lennox, J. Neilson, T. Shortridge, J. G. H. Starke, T. Watson.

4th of November.

Mr JAMES BARBOUR, Architect, in the Chair. Thirty members present.

New Members.—Mr James Barbour, Junior, and Miss Milligan.

The Rev. William Andson was elected a Member of the Committee in place of Mr Alex. Bruce, deceased.

Donations.—Transactions of the Edinburgh Geological Society and of the Epping Forest Field Club.

Mr James Lennox submitted the audited balance-sheet for the preceding Session, which was unanimously adopted, and the Treasurer was thanked for his honorary services.

COMMUNICATIONS.

I. *A Note on the Roman Camp at Springfield Hill, Dunscore.* By
J. CALLANDER, M.D.

The height on Springfield Hill Farm, Dunscore, on which the Roman Camp is situated, is nearly oblong in shape. Its longer diameter, roughly speaking, runs nearly from east to west. On its north, west, and south sides it is separated from surrounding heights by wide and deep hollows. On its east side it is joined by a narrow sloping neck of land to the cultivated fields which trend away to the level holms far below. The surface of its summit is level, and measures about five thousand square yards. It is distant about two hundred yards from the public road leading over the hill from Dunscore Village to Dunscore Old Churchyard, and about the same distance from Springfield Hill farm house. It was for a cantonment in time of peace, and as a post of observation, we believe, that the Camp on Springfield Hill was constructed about the year A.D. 82. It marks not a position taken up by an army on active service in the field, but a permanent station held by a small force in time of peace. Several facts may be mentioned which appear to give support to this theory. The Camp is situated near to the line of a Roman road, which ran from the south-east in the direction of the north-west, some vestiges of which were discovered and removed a few years ago. It is far too small to have afforded accommodation to any considerable force. If a Roman army of twenty thousand men required an area of four hundred and ninety thousand square yards on which to construct its camp, as we know it did, the Springfield Hill Camp, with its available area of five thousand square yards, could only have accommodated a detachment of from two hundred to two hundred and twenty men. Water must have been brought from some distance to Springfield Hill. A small force in the field would never have entrenched itself in a position where an active and determined foe could easily have cut it off from its water supply. The Camp is not fortified in the manner in which a Roman army

on active service entrenched its camp. When a Roman army was in the field, and halted even for a single night, the unvarying practice was to throw up an entrenchment in the form of a square, large enough to contain the whole army with its baggage. The defences consisted of a ditch twelve feet deep and twelve feet wide. The soil dug out was thrown inward so as to form a rampart twelve feet high all round. On the summit of the rampart was a palisade formed of sharp wooden stakes. In the Springfield Hill Camp this style of circumvallation is departed from. On the east, a ditch, *fossa*, gently curved, stretches along the whole side. This ditch is backed by a rampart, *agger*, also curved, about fifty-eight yards in length. Immediately behind this first rampart is a second ditch, and on its inner edge rises a second rampart about sixty-three yards in length. This second ditch and rampart, with an interval at the north-east corner of the Camp for the entrance, *porta*, are carried round the whole length of the northern and western sides. A single ditch and rampart, with the deep declination of the ground beyond, appear, in the opinion of the garrison, to have afforded sufficient protection to the Camp on these two sides. Behind that part of the second rampart which defends the eastern side of the Camp is a platform, nine yards broad at its widest part. On this platform fifty men could be drawn up in order of battle, according to the Roman method. Behind this platform, and also running the whole length of the eastern side of the Camp, but stopping at the entrance way, is a third ditch backed by its corresponding rampart. From the inclination of the ground this third rampart rises high above and overlooks all the works in front of it. Each one of these ramparts would be surmounted by its palisade, *vallum*, made of sharp wooden stakes, *sudes*. On the southern side the rocks, which stand out bare and jagged and grimly overlook the level ground far below, would form an impassable barrier to any assailant. As a post of observation, the Camp is admirably situated. It overlooks the country to the west, to the north, and to the east for many a league. Constructed about A.D. 82, at the close of Agricola's wars—certainly before A.D. 84, in which year Agricola left the whole of England and the Lowlands of Scotland pacified, in the enjoyment of settled laws and the conveniences of life—it would be occupied till A.D. 120, when the Emperor Hadrian, who visited Britain in person, wearied out by the frequent incursions of the wild Caledonians into the

country south of Agricola's forts, withdrew his garrisons, left the inhabitants of the South of Scotland to their fate, built a wall between the Solway and the Tyne, and made a new boundary to the Roman Empire in Britain. The Springfield Hill Camp, along with the other military stations, would be evacuated at this time and left for nineteen years to ruin and decay. In the year A.D. 139 Lollius Urbicus, under Antoninus Pius, rolled back the tide of barbarian invasion which had swept over the Lowlands of Scotland, repressed the lawlessness and anarchy which prevailed, built a wall in the line of Agricola's forts, and re-established the Roman authority in the land as it had existed nearly sixty years before. The likelihood is that our Camp was restored and re-occupied because it was required for the same purposes for which it had been constructed in the days of Agricola, and that the occupation continued till A.D. 210, when the Emperor Severus rebuilt Hadrian's wall and again made it the northern boundary of the Roman province. The legionaries, recalled, marched from Springfield Hill never more to return for any length of time. It is true that, in the year A.D. 368, in the reign of Valentinian, the country between the two walls was re-conquered by Theodosius, the Roman governor of Britain; but as the Empire had at this time entered on its decline, it is very improbable he retained possession of his conquest for any length of time. The Romans finally abandoned Britain about A.D. 448.

This discussion shews, then, that in all probability the Camp on Springfield Hill was constructed about A.D. 82 as a military post of observation, that it was occupied as such till A.D. 120, that it was abandoned for nineteen years, that it was re-occupied in A.D. 139 and maintained till A.D. 210, when it was finally and for ever abandoned.

II. *Natural History Notes for 1887.* By Mr WM. HASTINGS.

There is little to note this year in reference to anything unusual among our native birds so far as I have seen. There has been a great scarcity of the cuckoo this year compared with the two last seasons. I have had only one specimen this year, whereas I used to have a good many both old and young birds. In the Spring I received a nice specimen of a pure white starling. I have had the starling peculiarly marked, but never before saw one pure white. In the month of May I received a fine specimen of the golden eagle (male bird), trapped in Argyleshire, where in

that shire and in Inverness-shire there are still a few pairs scattered throughout the country. I lately received a pair of crossbills shot upon the Shambellie estate. The crossbill is a very uncertain visitant to this country, many years elapsing and not one being seen or heard. However, when they do come, there are often a few pairs remain with us to breed and rear their young. Their nests with young birds have been taken in Dalswinton Big Wood, and I have had them from Baehills and seen them in Closeburn the whole season through. Their native home is in the pine forests of the Baltic, where they feed upon the seeds of the larch and Scotch fir. Their remarkably formed bill and powerful muscles of the neck are beautifully adapted for wrenching open the imbricated scales of the fir cones, so that they may get at the seeds. The hooded crow (*Corvus Cornix*) seems to be plentiful here this winter, as I have received several specimens from different parts of the country. They are plentiful upon the Argyleshire coast, feeding upon any garbage that the sea may cast up, upon crabs—in fact, upon anything that offers them a meal. They are very destructive of the eggs and young birds of almost every species that they meet with throughout the country. They are ascertained to breed with the common carrion crow, and I have myself seen a decided hybrid betwixt the two. In the month of July I was down on the Colvend coast, and I saw a small flock of birds that I had never seen before in life and could not make out what they were, and regretted that I had not a gun with me. A few days after I received one of the same kind of birds, which turned out to be the greenshank, which is rarely met with in this district. Not long after I had another sent me, shot upon the Annan Water, as far up as Dalfibble. I have not had above two or three specimens of the same bird for more than thirty years. This autumn I had a specimen of the solan goose or gannet brought me in a very peculiar dress. The gannet is a large white bird, with the points of the wings black. This one was dark brown and beautifully marked with round white spots, which gave it a very unusual appearance. About a month ago I received a specimen of the little stint, shot at Southerness. The little stint in its general appearance is very like the dunlin or sea mouse, only it is a full third smaller and very seldom met with upon our shores. In the month of April last I received a fine specimen of the female badger, trapped in Dalswinton Big Wood, the only one I have ever had killed in the district. In the month of

September last I received from Newton-Stewart a specimen of a shark called the Porbeagle Shark. It was 9 feet in length and weighed about 400 lbs. It is described as being rare, or at least very seldom seen upon our shores. This one was caught in Loch-ryan, having got entangled in some fishermen's nets, and was with difficulty brought to land. It has three rows of very sharp teeth in the upper as well as in the under jaw, and is said to be very voracious, having been known to attack men in a small boat and tear their clothes off their backs. It lives upon other fishes, and will have no difficulty in swallowing a fish two feet long at a mouthful. It was not a very agreeable subject to handle.

III. *Folk Lore in Tynron.* By Mr JAMES SHAW.

An old farmer who died three years ago in Tynron related to me his experience with a witch in Closeburn when he was a boy. He was carting freestones from a neighbouring quarry, when his horse came to a standstill opposite the witch's door. Two other carters passed him, and only jeered both at the witch and the boy, when the former, to whom he had always been civil, came forward and with a slight push adjusted the ponderous stone which had slipped and was stopping the wheel. "Now, go," she said, "thou wilt find them at the gate below Gilchristland." At that very spot he found the perplexed carters standing, both horses trembling and sweating, so that he easily went past them and got to his goal first. The same individual could name a person at whose glance the milk being drawn from the udders of the cows became blood, while his sister was milking them. I have observed horse-shoes nailed up against his stable wall to scare away uncanny influence. A dairywoman who resided beside me about fifteen years ago informed me that when young she had resided in Kirkconnel, Tynron, and that the house was haunted. At night strange faces peered in at the window, and eldritch laughter was heard. Her father once saw a red figure at dusk on the ledge of the bridge, near the house, which appeared of human shape, but disappeared as he approached. He also on one occasion saw my informant's sweetheart on the road coming to see her, although at the time he was several miles off. A housekeeper I had, who died a few years ago, assured me that, while she was a servant with a medical man in Moniaive, strange foot-falls were frequently heard in an upper room. The doctor, after a while, suddenly took ill, lay down on a sofa and died, over the very spot on the floor where these alarming

foot-falls had been most frequently heard. A young man who had been attending classes in Edinburgh came home, and one evening when I was in his father's house set off a balloon after sunset. The candle in it set the whole tissue on fire while it was soaring above our heads. A shepherd whom I knew, seeing the light from a distance, rushed in a state of great agitation into a neighbouring cottage, which he happened to be near, and brought out the good-man of the house. Both thought that it must have been *the light which is seen before death*; but the mistress of the house rather soothed them by remarking that such a light could not be seen by two at once. An old woman informed me that she had witnessed this premonitory light, which lighted up the interior of the byre while she was engaged milking her cows, and she learned that her mother, residing some miles distant, had expired that same evening. Readers will recollect the fateful light in Sir Walter Scott's ballad of lovely Rosabelle. James Hogg, the Ettrick Shepherd, refers to an omen called the "death bell," a tingling in the ears, which is believed to announce a friend's death. As the "light before death" could not be seen by two at once, so the death-bell could only be heard by one at the same time. The relations of a gentleman residing in Tynron have been warned of death by the sound of wheels upon the gravel walk leading to the door, when no wheels were there, and to a family in Durisdeer the warning came like a switch against the panes of the window. The old precentor of Glencairn, who died six or seven years ago, told me that while walking one moonlit evening in his garden in a meditative mood he heard a sound, as if a cart containing pieces of metal had been tilted up and the materials discharged. His belief was that a murdered infant had been buried in that garden. These murdered innocents were frequently heard wailing about forty years ago in the corn and in the thickets around Maqueston in Tynron. A gentleman of suspected morality had occupied this house early in the century. So troublesome were these sounds that the new tenant had for a while great difficulty in retaining servants. A white lady has been observed hovering by moonlight over the little cascade in the Shinnel which forms Paul's Pool. In "Bennett's Tales of Nithsdale" mention is made of the custom of placing a wooden platter with salt, or more correctly salt and earth—for a turf was cut and put above the platter—on the breast of a corpse. There is a reminiscence of this in our parish, and the reason given for the custom was that it prevented the corpse from

swelling. In Thiselton Dyer's "Folk Lore," and Napier's "Folk Lore of the West of Scotland," the custom is referred to. The plate of salt was intended for the sin-eaters, who came and devoured the contents with incantations, and thus relieved the spirits clogged with earthly frailties, and kept them from hovering too closely near their friends and relatives. Pennant mentions the custom, suggesting that the salt was an emblem of the incorruptible spirit and the earth of the body. When the sin-eater arrived, Napier mentions two plates—one of salt and one of bread—which required to be devoured. A shepherd in Tynron told me that he recollected seeing perforated stones, or stones nearly perforated, from the channel of the stream, attached to a rowan tree near a house at the head of the Kinnel, and that he understood both stones and rowan tree were looked upon as likely to scare away evil influences. At or near Fleuch-larg, in the adjoining parish of Glencairn, might have been seen a hole in the wall of the byre, letting out a rope, so that if the evil spirits got in they could get out more readily by the hole. I understand that when I was carried to church for baptism, the young woman who carried me bore a piece of bread and cheese in her pocket, presenting it to the first person she met, who was expected to bless me. Baptism being private in Tynron, I have nothing of this kind to record. The beggars' benison, however, was of such esteem in the eyes of an old woman in Tynron that it secured a night's lodging for many a tramp. Silver is lucky. A father gave a lucky shilling to his daughter at her marriage. Crooked sixpences are worn at the watch chain, so that you may have silver when you first see the new moon. Turn your apron three times and look at the new moon, wishing for a present, and a present will arrive to you ere it wane away. One person, trying the experiment, received in a present a pair of curtains, a dozen eggs, and a hen. If you see the plough coming towards you for the first time of the new year, it augurs well, but if you observe it going away it is unlucky. It bodes ill to turn when you are setting out on a journey. It is better for you should the day be a wet one. Great care should be taken not to burn hair or nails. It is unlucky to pare your nails on Sunday, but if you pare them on Saturday, expect to see your sweetheart to-morrow. Tuesday and Friday evenings are the orthodox evenings for courting, but it is not well to marry either on Thursday or Saturday, while most Scotch marriages are performed on Friday. Mr Mc'Caw, our

shepherd-author, told me that when he was young many persons in contributing to a raffle wrote against their subscription the word "Friday," expecting thereby better luck from the dice. It is not well to change situations on Saturday. "Saturday's enter is a short residenter." I quote the following rhyme from a native of the district :

" *Gang* and see the swallow flee,
Sit and hear the gowk,
 The foal before its minnie's e'e,
 And all that year ye've luck."

If a hare cross your path to the left it is of evil omen, but not if it cross to the right. If a person eats the brains of a hare he will be ill-tempered afterwards. This Tynron saying is something like La Fontaine's estimate of the hare, whose flesh produced melancholy. In Swift's "Polite Conversation" hare-flesh is called "melancholy meat."

" The robin and the wren are at God's right hand.
 The yeldrock and the sparrow are the Devil's bow-and-arrow."
 " The robin and the wren made their porridge in a pan,
 Ere the robin got a spoon, the wren had them all done."

A dairyman once asked me for the scientific name of the "worm that first breaks through the coffin lid." He also informed me that the bat and dormouse and the hedgehog were three of the seven sleepers. To rub shoulders with a bride or bridegroom augurs a speedy marriage. If a girl eat a herring before going to bed she has a chance to dream of her sweetheart. A rainy wedding-day goes with a greeting bride. It is the correct thing to dance in stocking soles at the marriage of a sister or brother younger than yourself, the sister at the sister's, the brother at the brother's. It bodes not well to make a present to your sweetheart of a knife or other sharp article, lest it should cut love. It was a custom at Hallowe'en to wind a clue in a kiln-pot with the expectation that your future partner in life might be seen holding the other end of it. Should a girl scoop a hole where three or more roads meet and apply her ear to it, she may hear a whisper telling her the trade of her future lover. If your palm tickle it is a sign that you shall soon shake hands with the rich or obtain money. Sitting down to meat causes the invited guests to arrive. The tongs falling head foremost into the ash-pit is a sign that a stranger is coming. An itching palm is a sign of change of weather. If your right ear be warm or tingle it is a sign that

somebody is praising, but if the left you are being reviled. A curly head is the sign of a quiet temper. The hair of the eyebrows meeting above the nose signifies unsteadiness and love of change. The howling of a dog at night is indicative of death. The burning of withered grass on the moors in spring "cankers the air and brings on rain." The clothes of dead men don't last long. A whistling woman and a crowing hen are uncanny. An excellent cure for warts is to rub them in the morning with your fasting spittle. It is unlucky to turn either horse or vehicle widdershins—that is, against the sun. It is dangerous for future welfare to pour out any liquid turning your hand backwards. When a candle runs—that is, when a shaving descends down its stalk—look soon for the coffin of a friend. If a window blind fall of its own accord, it is unlucky. Bees leaving a hive full of honey is a bad omen. Bees are encouraged to settle when swarming by loud noises and rattling of instruments. It is unlucky to spill salt at table or to help another to it. Cast some salt over your left shoulder and your mistake will be rectified. To drop your umbrella or walking-stick shows that your mind is likely to give way. The cuckoo remains until it gets an awn of barley into its throat. Thirteen at table is unlucky—he who rises first runs most risk; better, in such a dilemma, all to rise at once. To dream of a wedding signifies a corpse. The grandfather of a lady in Tynron dreamed he was at a ball with his sister, who looked well, and was in a white dress. She went out, saying to him, "You will not be long in following me." She died in a short time, and he died soon afterwards. If you dream on Sunday morning, you shall have a letter within a week. One instance has reached me of a person seeing another sitting in a chair when the person thus seen was not at all in the room. Brewster accounts for similar visions by a diseased condition of the retina. Swallows building in your eaves is lucky. Crickets leaving the house is a sign of death. The culm which accumulates on the bars of a grate foretells a visitor. The bright spark often seen on a candle declares, if it falls, a letter is posted to you; but if it sticks to the side of the candle, it denotes that it is only on the way to be posted. Such are the greater part of my gleanings of folk lore in Tynron and the neighbourhood. I fear there is not much new in it; but it may give you an idea of the residuum of belief which still lingers on from the time which some people have named "The Ages of Faith."

2nd of December.

Major BOWDEN, Vice-President in the chair. Twenty-six members present.

New Member.—Mr John A. Moodie, Solicitor.

Donations.—Mr Robert Thomson, Joiner, presented, through Mr James Barbour, the dove carved in wood and gilt which formerly stood over the canopy of the New Church, Dumfries (Greyfriars'). When that church was taken down the dove was purchased by the late Rev. Dr M'Farlane and placed by him over his pulpit in Troqueer Church, which has lately been rebuilt. This interesting relic came into the possession of the contractor, Mr Thomson. Mr James M'Andrew presented *Juncus tenuis* and *Rhyncospora fusca* found by him in the district and now first recorded. Fifteen new rules were adopted, on the motion of Mr J. Wilson, the Secretary.

COMMUNICATIONS.

I. *Certain Common Parasitic Fungi.* By Mr GEORGE F. SCOTTELLIOT, M.A., F.L.S.

The fungus (*Peronospora infestans*) that causes the well-known potato disease consists of a delicate series of branching filaments that penetrate between the cells of the potato leaf and suck from them the materials that should feed it. By this procedure the potato leaf decays, and this causes the unpleasant odour that is one of the signs of the disease. The fungus is enabled to spread from one potato plant to another by means of conidiospores. These are formed on the under surface of the leaf (giving rise to a sort of whitish bloom) on the extremities of a branched filament which is protruded through a stoma. The conidiospores are blown by the wind on to the upper surface of a potato leaf, or in some cases on an exposed tuber. If the weather happens to be wet, the conidiospores break up into 7 or 8 little "swarm spores," and these penetrate (in the case of the leaf) through the cuticle, and by germination produce a new series of filaments in it. (In the case of the tuber, the fungus makes its entrance by the "eye.") Towards the end of the autumn the fungus makes its way down the stalk to the tubers, and passes the winter in a latent condition in them. When the tuber germinates in spring the fungus grows, keeping pace with the growth of the young plant, which is thus doomed from its earliest days. A special kind of

spore (*Oospore*) with a hard coat, is also formed by the fungus inside the leaves and stalks. These are set free by the decay of the leaves and stalks, and in the spring germinate and infect new plants. This being the life-history of the fungus, the remedies found to be of service are easily explained. First, it is obviously necessary to destroy, by burning, all dead or decaying remains. Secondly, "earthing up" the tubers prevents their being infected by the conidiospores. Thirdly, a remedy which has been found thoroughly satisfactory in the case of the American grape vine mildew, also caused by a *Peronospora*, consists in sprinkling the leaves with a mixture of 8 kilogrammes of copper sulphate, 16 kilogrammes of chalk in about 130 litres of water. This need only be sprinkled on the leaves once for all, and a broom dipped in buckets of the liquid is found to be the most convenient method. It is extremely probable that this would prevent the spread of the potato disease, as the mixture prevents the conidiospores from forming swarm spores, and so infecting the leaf. The same remedy might also be used for the onion mildew, which is due to another *Peronospora*, *P. Schleideniana*, and a trial is highly desirable.

II. *A Strange Atmospheric Appearance.* By Mr ROBERT ROBSON, Penpont.

On the evening of one of those splendid summer days in the middle of July last, half-an-hour before sunset, a party of five of us, a lady and four gentlemen, were standing in front of Penpont Manse admiring the beautiful landscape directly in front of us—a view which embraces the greater portion of Middle Nithsdale. This view is bounded on the east and south-east by the Closeburn hills and on the south and west by the hills of Keir, broken only by the deep gorge at Auldgirth through which the River Nith enters the valley of Lower Nithsdale. Owing to the configuration of the hills and the low elevation of the manse, no view can be possibly obtained of the valley beyond. It was near sunset, and Sol himself seemed to cast one long, lingering look behind, and, as if bestowing his parting blessing, shone forth with special splendour, as he often does before sinking for the night behind the hills of Tynron. One of our number drew the attention of the party to the strange appearance of what at first sight seemed to be the sky towards the south. Another of the party pointed out the vivid outlines of a large field, with a wood to the south of

it, directly in the centre of the gorge already referred to, but on a level with the spur of the Closeburn hills. No such field had ever been observed there before. Then, to our surprise, what we had at first taken to be the reflection of the sun's rays by the clouds appeared to be the whole valley of Lower Nithsdale elevated to the level of the hills and brought within our view, while in the far distance the waters of the Solway were plainly visible. The surface appeared uniform and unbroken by any elevation, while the woods, plantations, and groups of trees shone as dark patches and more prominent than usual. The valley sloped gently upwards on the west, as it does towards the ridge occupied by the parishes of Tinwald, Torthorwald, and Mouswald, &c. The outline of this ridge on the west was somewhat indistinct, and at the sensible horizon merged into the clouds above. The general colour was of a reddish yellow, not unlike cultivated land, and formed a strange contrast to the sky above, which presented a natural appearance, with overhanging clouds in some parts. No houses were visible, nor, with the exception of the one already referred to, could fields be distinguished ; but the general contour of the valley, with a clearer outline of the Solway, was distinctly marked. This strange appearance lasted fully twenty minutes, and when the sun went down nothing could be seen but the well-defined outline of hills against the clear sky. On the following day I climbed the Doon, a hill in our neighbourhood over 900 feet high, and from this coign of vantage made minute observations of the landscape in sight. The general outline corresponded exactly to that seen on the evening previous, while I at once recognised, down in the valley, the field and wood that had appeared so vividly in the foreground. The relative positions of the woods and plantations were exactly similar. I may here remark that a correspondent in the *Scotsman* gave a brief account of a similar appearance observed by him about two weeks previous. Such phenomena are rarely seen in this country, and can only be observed by a person in a position such as we were—with his back to the sun. No doubt this phenomenon was simply caused by the refraction of the rays of light from the valley on passing through the denser atmosphere immediately above it.

III. *Notes on the Flora of Wigtownshire.* By Mr JAMES
M'ANDREW, New-Galloway.

As an introduction to the following notes on the Flora of Wigtownshire, I shall say a few words descriptive of the county itself. Wigtownshire is rhomboidal in shape, of about 30 miles on each side, and is deeply indented by two large openings of the sea, Loch Ryan and Bay of Luce, thus affording a large extent of varied sea-board in proportion to the size of the county, and also rendering the climate milder and more equable than it would otherwise be. For instance, fuchsias attaining the size of tall shrubs grow luxuriantly in shrubberies through the winter at such places as Logan House.

The usual divisions of the county are the *Machars*, the broad peninsula ending in Burrow Head; the *Moors*, the northern part of the county; and the *Rhins*, or western narrow peninsula. These three divisions are considerably different in character.

At the head of Wigtown Bay, Bay of Luce, and Loch Ryan are extensive tidal sands, and in addition, at the head of Luce Bay, on the western side, are extensive wind-blown hillocks of sand bound together by *Ammophila arenaria*, &c., and on the moor of Genoch, making an excellent rabbit warren. The remainder of the coast line is generally irregular, and in some parts, as near Burrow Head and the Mull, it is rocky and precipitous, while in other parts, as about Port-William, the coast is shingly. Sandy bays occur occasionally, and in these are found the best sea shore plants. No county rises so little above the level of the sea as Wigtown, yet its surface is varied by many heights, which on the Ayrshire border are about 1000 feet high, while those scattered throughout the county are considerably under that elevation. One of the striking features of the county is the great number of fresh water lochs, and another is the wide stretches of marshy, mossy, and boggy ground called "flows." A great extent of the inland part of the Machars, and most of the Moors, is composed of this unprofitable kind of ground, still undrained. The most fertile districts are near the coast, as at Stranraer, Wigtown, Whithorn, Port-William, and the Rhins generally. The most prevalent rock is greywacke or whinstone of the silurian system, and the soil is generally thin, though barley, oats, wheat, beans, &c., are cultivated on the richer ground.

The Flora of Wigtownshire, from a botanical, physical, and territorial point of view, should have been included in that of

Kirkeudbrightshire and Dumfriesshire, but from the paucity of information at the time, it was deemed advisable in the compilation of our local Flora to restrict the list of Wigtownshire plants to a few of the rarer ones, as given in the Appendix. Very strangely, Wigtownshire, as regards its flora, was, until a few years ago, as much a *terra incognita* as some counties of our Western Highlands. The late Professor Balfour of Edinburgh and other botanists paid flying visits to the county and recorded some of its rarer plants, especially those found in the neighbourhood of the Mull of Galloway, some of which, I have heard, were obtained by means of a boat. Such hasty visits lack the true means of knowing the flora of a district, viz., systematic research. Records of Wigtownshire plants are also found in the old Statistical Account of Scotland, in the Herbarium and Transactions of the Edinburgh Botanical Society, in the Transactions of the Philosophical Society of Glasgow, and in similar scattered literature. These records are, however, from 30 to 40 years old, and therefore many formerly recorded plants of "The Shire" require re-discovery. A great number of the Wigtownshire plants given in the Appendix to our local flora were observed by myself during two visits to Port Logan about 10 or 12 years ago. Mr Charles Bailey visited Wigtownshire in 1883, and made a few additions to its list of plants, but it was in 1883 that Mr G. C. Druce, of Oxford, who delights to botanise in out-of-the-way unexplored corners, gave an almost complete list of Wigtownshire plants. In the summer of that year, under the very great disadvantage of a sprained ankle, he botanised for five days the greater part of the county, and notwithstanding his accident and the shortness of the time at his disposal, his list is really astonishing in its completeness. During the past two summers I have personally verified the great majority of the plants in his list. In his list given in the Botanical Record Club Report for 1883, he begins his remarks in the following words: "The accompanying catalogue of Wigtownshire plants fills up the only gap in the counties of Britain for which no lists of common plants has been supplied to Mr H. C. Watson, or to the Record Club." Botanically considered this statement is not creditable to the district. At the end of his list he gives this summary :—

Recorded before ...	...	...	...	35
Baillie's additions...	...	...	...	10
New species recorded	...	...	...	439
Aliens and denizens	...	...	...	33
Varieties ...	...	...	...	35

Thus it is seen that until 1883 almost nothing was done in the way of making a complete list of Wigtownshire plants. To this list I have added at least 20 species hitherto unrecorded, and these from only two localities, viz., around Portpatrick in 1886, and around Port-William in 1887. Comparatively little now remains to be done as regards the Flora of Wigtownshire except to add a few additional species from time to time, and to note new stations for the rarer ones. Many plants not recorded from our three south-western counties in the Second Edition of Watson's "Topographical Botany" are yet given in our local Flora, which unfortunately was not available when this second edition was issued. As the matter at present stands it is bewildering to ascertain what plants have been recorded from this district and what have not, and therefore to pledge myself to perfect accuracy on this point would be impossible. This will, no doubt, be remedied in the third edition, for which Mr Arthur Bennett is collecting material. The plants new to Wigtownshire in 1886 from Portpatrick are:—*Botrychium lunaria*, *Cakile maritima*, *Raphanus raphanistrum*, *Arenaria trinervis*, *Circæa lutetiana*, *Juniperus communis*, *Cerastium tetrandrum*, *Veronica hederæfolia*, *Leontodon hirtus*, *Euphorbia paralias*; and at Port-William this year I gathered new to Wigtownshire:—*Carex punctata*, *Carex paludosa*, *Sagina apetala*, *Astragalus glycyphyllos*, *Cherophyllum temulentum*, *Lysimachia vulgaris*, *Typha latifolia*, *Scolopendrium vulgare*, *Ammophila arenaria*, and *Blysmus rufus*. Of these the two most interesting plants are *Carex punctata* and *Euphorbia paralias*. This gives another county record for the rare *Carex punctata* for Scotland. It has been found in Scotland before only by the Rev. James Fraser, Colvend, at Glenstocking, in his own parish. I gathered it at Craigs of Garchew, six miles north of Port-William. *Euphorbia paralias* I found last year at Morroch Bay, south of Portpatrick, and this year on the shingle north of Port-William. Hitherto it has been recorded for Scotland only from Fife as an introduced plant.

As the natural features of the two Galloways, East and West, are considerably different in many respects, it would be difficult to say which county has the greater number of flowering plants, but there can be no doubt as to the very marked superiority of Kirkcudbrightshire in the variety and abundance of its cryptogams. As far as present lists go, the Stewartry has also a decided advantage in the number of its phanerogams. Wigtownshire has

only the very commonest mosses and other cryptogams, and even its bogs have only a tiresome repetition of the commoner species. However, I would say without contradiction that Wigtownshire, from the character of its shores, has more seaboard plants than Kirkcudbrightshire, while on the other hand it is sadly deficient in alpine and sub-alpine species. Mr Druce says that *Galium boreale* is the only mountain and almost the only northern plant he found, and even this was washed down from the hills by the River Cree. In the rich and cultivated districts the weeds of cultivation are many and varied. Mr Druce remarks of Wigtownshire: "There is little in the flora to suggest its northern situation. One could easily imagine one was walking through the Midlands did not the prevalence of *Lepidium Smithii* and *Ceanothus crocata* suggests a more western flora. In mountain flowers it is almost destitute. The drier mosses are singularly sparing in the carices, and even *Juncus squarrosus* is rare. *Habenaria chlorantha* is present, to the exclusion of *H. bifolia*." Owing to the lateness of the season I had not an opportunity of verifying Mr Druce's last statement about *H. bifolia*; but it is very strange if it is true. Also many plants rare in Kirkcudbrightshire are more common in Wigtownshire, and *vice versa*.

I shall not inflict on you a list of the Wigtownshire plants, but I trust it may be useful and interesting if I were to make a few comparisons as to the abundance, the rarity, or absence of certain plants in the two Galloways, and in doing so I shall follow no definite order. The luxuriant fern vegetation of Dunskey Glen, near Portpatrick, interspersed with large patches of magnificent specimens of *Equisetum maximum*, reminded me of tropical vegetation or of the forests of the coal period. At Dinvin, again, the ground under the trees is one carpet of matted ivy, while at Monreith grounds the most striking feature is the profuse growth of *Lychnis dioica*, making the woods a perfect blaze of red, and excluding almost entirely *Mercurialis perennis*, so common in the woods of the Stewartry. Every visitor to Castle-Kennedy admires its pinetum, or collection of conifers, one of the best in the kingdom, while its lochs, terraces, and grounds would amply repay a good day's botanising. The sandy shores of Monreith Bay are gay with a profusion of *Ononis arvensis*, *Erodium cicutarium*, *Convolvulus soldanella*, *Eryngium maritimum*, and *Galium*. At Lag Point, south of Monreith Bay, there is an almost complete cover of *Salsola Kali*, resembling a field of young whins. In some

places north of Port-William *Glaucium luteum*, *Malva moschata*, and a prostrate form of *Vicia sylvatica* are most conspicuous, and south of Port-William *Crambe maritima* is in plenty. I saw one field almost covered with wild carrot and another with bugloss. Of ferns, the Parsley Fern, Green Spleenwort, and *Cystopteris fragilis* seem to be absent. The Royal Fern, now rare, was formerly very plentiful about Mochrum Loch, &c., but it has shared the fate of many other rare native plants—almost complete extirpation. A person told me that in her youth it was cut and dried to cover potatoes, &c., as brackens are commonly used, but that it had been carried off in cartloads by fern vendors. Mr Druce did not notice *Ranunculus bulbosus* in the county. *Hypericum dubium* is the most common St. John's wort, and *Epilobium obscurum* the most common willow herb. The typical plants of the county are *Lepidium Smithii*, *Enanthe Crocata* ("hech-how") *Carum verticillatum*, and *Jasione montana*. The Rock Rose is very rare and so is Golden Rod, so common in our sub-alpine glens. Swine's Cress is very common, though very rare in the Stewartry. Some of the shore plants become scarcer as we proceed up the Solway Firth, while others seem to increase in abundance. For instance, *Scilla verna*, the vernal squill, so abundant in spring on the heughs of the west coast, does not occur to my knowledge east of the River Dee. *Geranium sanguineum*, on the other hand, seems to increase in frequency as we go eastwards, until we find it in plenty at Almorness. *Erodium cicutarium* is very rare in the Stewartry but very plentiful in such sandy spots as Port-Logan and Monreith Bay. *Scutellaria minor* has been recorded from only one or two stations in Kirkcudbrightshire, whereas it is frequent in damp places between Glenluce and Port-William. I could easily point out other differences in the frequency, rarity, or absence of plants from the two Galloways, but the above will suffice.

I have compared the lists from Wigtownshire and Kirkcudbrightshire, and I find that while nearly seventy plants recorded from the Stewartry have not yet been found in the "Shire," only about twelve plants in Wigtownshire have not yet been noticed in Kirkcudbrightshire. These are *Sagina maritima*, *Spergularia neglecta*, *Erodium maritimum*, *Carduus tenuiflorus*, *Bartsia viscosa*, *Thymus chamædrys*, *Lamium intermedium*, *Euphorbia paralias*, *Equisetum maximum*, *Isolepis savii*, and *Caucalis nodosa*. The most of these should be in the Stewartry. Those in Kirkcud-

brightshire, but not yet recorded from Wigtownshire, where I have no doubt many of them will yet be found, are: *Hypericum hirsutum*, *Linum perenne*, *Radiola millegrana*, *Geranium pratense* and *sylvaticum*, *Rhamnus frangula*, *Genista tinctoria* and *Anglica*, *Ononis spinosa*, *Medicago lupulina*, *Teesdalia nudicaulis*, *Drosera Anglica*, *Alsine verna*, *Sisymbrium thalianum*, *Subularia aquatica*, *Orobis sylvatica*, *Vicia lathyroides*, *Lathyrus sylvestris*, *Potentilla fragariastrum*, *Saxifraga stellaris*, *Chrysosplenium alternifolium*, *Sedum rhodiola* and *villosum*, *Cicuta virosa*, *Æthusa cynapium*, *Meum athamanticum*, *Viburnum opulus*, *Adoxa moschatellina*, *Galium cruciata* and *mollugo*, *Valeriana dioica*, *Knautia arvensis*, *Serratula tinctoria*, *Carduus heterophyllus*, *Campanula latifolia*, *Vaccinium Vitis-idea*, *Pyrola media*, *Veronica scutellata* and *montana*, *Lathræa squamaria*, *Calamintha clinopodium*, *Stachys betonica*, the *Utricularias*, *Polygonum bistorta* and *minus*, *Rumex hydrolapathum*, *Euphorbia exigua*, *Salix herbacea*, *Listera cordata*, *Habenaria albida* and *bifolia*, *Epipactis latifolia*, *Ruppia*, *Allium vineale*, *Typha angustifolia*, *Scirpus sylvaticus*, *Cladium mariscus*, *Glyceria aquatica*, *Millium effusum*, *melica nutans*, *Carex remota*, *filiformis*, *sylvatica*, *elongata*, *limosa*, *teretiuscula*, and *aquatilis*.

It will thus be seen that Wigtownshire has leeway to make up before her list of plants equals that of the Stewartry. In conclusion, I would urge the expediency and even the necessity of embracing the Wigtownshire plants in any future edition of our local flora.

Note.—Many of the above plants have been found. 1890.

J. M'A.

6th of January, 1888.

Mr ROBERT MURRAY, Vice-President, presided. Twenty-eight members present.

New Member.—Mr Thomas Kerr, Teacher.

Donations.—"The Maes of Galloway," from the author, Mr Patrick Dudgeon of Cargen; "Annan and its Neighbourhood," by Mr Frank Miller, of Annan; the Journal of the Elisha Mitchell Society; the Transactions (Vol. IV.) of the New York Academy of Sciences; the Essex Naturalist for December; and a cast of the cup and ring markings from the stones at High Banks, Kirkcudbright, from Mr J. M'Kie.

COMMUNICATIONS.

I. *Dumfries 250 Years Ago.* By Mr James S. Thomson.

I intend in these few notes to call up a few of the characteristics of society as it existed here 250 years ago. The features are strongly akin in many particulars to those existing in our own time—the same failings are here portrayed and the same virtues, and the names are often those of dwellers in our midst. The notes are mainly taken from past records of old session-books, the truth of which I have taken pains to ascertain. In reading over the old records of the town—both municipal and sessional—one is taken back to the time of intense religious feeling and hard fighting that then existed in Scotland. Let me briefly recall the position of affairs during the period from 1635 to 1654. The National Covenant was signed in 1638, and the General Assembly had become rather than Parliament the power of the land, and, as has been justly observed, “Church and State were not convertible terms, but the former permeated the latter so thoroughly that the Government wore quite a Theocratic aspect. What the Assembly resolved upon the estates readily assented to.” The remembrance of this has to be borne in mind when the various penalties enforced are mentioned here. Various matters are touched upon that have an aspect almost comic in the light of the present, showing history to be repeating itself in small as well as great events. There is an impression that life at this time was painfully austere, but from these records we gather that people’s daily life was somewhat like what exists in the present. Concurrent with deep religious feeling there existed amongst the better class the weak brother whose life was not all that the minister could have wished. Dealing first with the social habits of the town, we find a set of roystering blades who carried their drinking to the extent of having the town drummer to assist them in their orgies, and it is ordained; “Nov. 1, 1649. That the session, resenting the great dishonour done to the Lord by sundry persons in this burgh in the height of their cups, not only abusing the creature to the excess of riot through drinking of healths, but likewise by calling the drummer to beat the drum at every health, do therefore discharge the drummer to answer any persons in such ungodly demand under pain of inflicting upon him the sharpest measure of kirk discipline and extruding him from his place withal. Margaret D., spouse to James L. D., to be rebuked in sackcloth for the sin of drunken-

ness." We have also the case of the habitual drunkard coming up, and although little is said, the mere intimation seems to convey the impression that a warm interview was in store. Short, sharp, and summary is the intimation, "Nicholas Greer and Marion Brown, for habitual drinking of hot waters, to be summoned." The ten o'clock movement is looked upon as being an innovation and Forbes Mackenzie as being an interference with the liberties of the lieges, but strange it is to find that both were anticipated so long ago. Drinking in any alehouse or tavern after ten o'clock at night is forbidden under pain of ecclesiastical censure, and it is commanded "that no person of whatsoever condition be found drinking on the Lord's Day in taverns or ale-houses." Parties at bridals and baptisms seem to have occasioned a good deal of scandal, not only as to the numbers invited, but also as to the disorderly habits of some of those who attended them, for we find that the minister is to intimate that none who have children to be baptised shall invite above twelve nor exceed the number of twenty-four at bridals, and no disorder to be committed. From the foregoing allusions one can quite understand that the Dumfries burgesses were men possessed of means, and with the will to enjoy the good things of this life. They seem also to have had a proper estimation of their own position and importance in the community, and to have had little reason to pray for a guid conceit of themselves, as the following will show: A supplication was given into the session, bearing in effect "That they, a number of merchants, as burden-bearers of this burgh (no ways to be balanced with the vulgar and promiscuous multitude, &c.), claim the two foremost seats of the loft in the kirk called the common loft, for their better accommodation (which place has been for many years possessed by plebeians who rudely and uncivilly have rushed themselves in there without any order), for which cause they oblige themselves to make new entries thereto and erect rails behind, so that those behind be not frustrate of the benefit of the doctrine," and the session ordained accordingly. A rev. gentleman, some time ago, complained of the offensive nature of the language employed by the lower classes, and the same thing seems to have caused serious concern to the session in those days, but in this case means to secure decency of language were adopted which one may well envy at the present time.—"1649.—Country people resorting to the mercat belching forth horrid oaths and imprecations."

tions, rending the name of God asunder, are to be delivered over to the Session for a deserved measure of punishment. Aug. 22.—James Moffat and James Wilson to search next Wednesday for cursers.” We have also private parties dealt with, and the nature of their punishment. “R. S., for habitual cursing and drunkenness, to declare his repentance next Sabbath, and is enacted under the penalty of banishment not to be found in the like sins. M. B., for cursing her husband, to sit two days in the pillar. J. T., sword sharper, to be rebuked for ordinary cursing.” We come next to a matter that caused much excitement all over the country at this time—the crime of witchcraft; and from the records here the Session seems to have had its feelings far more under control than in many other places. “Jan. 17, 1650.—The minister is to intimate that whosoever person shall brand any man or woman with the common upcast of witchcraft, unless they have pregnant and warranted grounds, shall have the sharpest kirk discipline. Jan. 5, 1654.—R. S. deponed that he heard M. C. say to Agnes J. ‘That the devil rode on her back seven years, and that she was but a dyvour,’ or witch.” The sin of talking scandal seems to have been put down with a firm hand at this time, and the various punishments meted out are of a kind fitted to keep unruly tongues in order. “Thos. Meik, for slandering Agnes Fleming, is ordained instanter to stand in the gorgets (a sort of pillory with an iron ring for the neck) at the Trone till 12 o’clock, and thereafter upon his bare knees to ask her forgiveness at the Mercat Cross.” “Janet Jardine is enacted, under the pain of twenty pounds, never henceforth to be heard scolding.” “Catherine Purdie, for calling Bessie Harper a lewd lown, debusht, mainsworn glutton, filthy lown and thief, wabster’s get, skemland stable raker, and praying ane black sight to Bessie and her bairns, to be rebuked from the body of the church.” A departure from virtue such as is now commonly brought before the Divorce Courts was dealt with as follows: “Allan Cunningham, for adultery, is ordained to appear before the Presbytery in sackcloth, and there confess his fault, and thereafter be remitted to the Session. John Black, for the same offence, to sit seven Sabbaths in sackcloth, and the first and last to stand barefooted at the church door between the second and last bell.” For a departure from virtue for the fourth time on the part of a woman, she is ordained “to be carted from the town.” Absence from worship was a frequently recurring subject before the Session,

and a few particulars of how it was met are of interest at the present time, when means to fill our churches are often discussed. "Jan. 28, 1641.—The Session, resenting the great slackness and remissness of certain persons in resorting to God's house, but more especially those of the Landward Parish, have, for remeid thereof, statute and ordained that every gentleman of note in the parish shall pay for every day's absence from the kirk thirty shillings, *toties quoties*. Also the lady Elshieshields, the Lady Craigs, &c., to be summoned for not haunting the kirk, and everyone of the inhabitants of Kelton is fined for absence." Akin to the sin of not attending worship, although more trivial, is the following: "The minister to intimate to the congregation that henceforth when they address themselves either to the Sabbath or week-day sermon that they walk not in the churchyard inventing worldly thoughts, but go into their seats, that so their unbecoming carriage be prevented, and the Lord less dishonoured than hitherto." I may also cite a few things that are forbidden as sinful. "Thomas Richardson purgeth himself, but paid twelve shillings for playing at cards." "John Clerk Taylor, for being observed to shave sundry of this burgh on the Lord's day in the morning is commanded that he be not found in the like breach of the Lord's day under the penalty of ten pounds." "A woman for gathering cale is fined and set in the pillar, and the year after this May games are forbidden and Dorothy Herries and Marion Hairson for going to St. Jargon's Well on the first Sunday in May in ane superstitious way to fetch the waters thereof, are ordained to acknowledge their offence in the body of the church on Sunday." There are also a few remarks about the poor that may prove interesting. "The minister is desired yet, as oft before, to intimate that the most part of the congregation are sparing (and many give nothing at all) to the great necessities of the poor, and the magistrates will be enforced to take course with those who withdraw from so pious a duty. The minister is to intimate on Sunday to the deficient in the necessary duty of charity to the poor that their names henceforth shall be read out publicly, to their great disgrace." I cannot close without a few remarks as to the feeling towards our neighbours over the border. There seems to have been little goodwill, which may possibly be accounted for by the fact of some of the burghers having been taken captive, yet at times there seems a race feeling at the bottom of it, as if they recognised the English

as their "auncient enemies." "July, 1640.—John M'Courtie, remitted by the Presbytery to the censure of this Session for his often falling into sin with Isobel Wright, they are ordained to resort to the pillar in sackcloth the ensuing Sabbath, and there, in face of the whole congregation, cancel and destroy the paper which they brought from England of their unlawful marriage and disclaim the same and for ever dishaunt her company. John Maxwell, one of the elders of the Session, for accompanying his brother over the march to their unlawful way of marriage contrair to the discipline of the church, is removed off the session, and ordained to pay twenty punds to the poor." "John Laurie, piper, petitions the Session for liberty to use and exercise his calling of piping and playing, undertaking not to play at all to any of the English. The Session notwithstanding, conceiving his way of living to be useless, have unanimously discharged him henceforth to use the same, and to take himself to some honester way of living." It may be conceived that boycotting would be unlikely to exist amongst neighbours at this time, but such undoubtedly was the case, for we find the Session (April 29, 1647), giving "liberty to Mr John Corson and Mr Cuthbert Cunningham to speak with the Lord Herries, notwithstanding he be excommunicate, in respect they have sundry business of good with his lordship. Also grants the same liberty to Robert Newall anent his affairs with Maynes and John Maxwell of Mylnstone." I simply lay these extracts before you as of antiquarian interest, and forbear, as contrary to our custom, to criticise in any way their religious bearings. They are matters that concern our good town, and serve to throw light upon a chapter of our history of no mean importance. Before concluding, permit me to read you the duties laid down to elders of the church. Their position at this time seems to have been particularly onerous, and the scale of Christian duty and observance no mean one. Their duties were to enquire as they went through their several quarters every quarter of the year : (1) How the master of the family behaves himself. If his wife walk orderly. If children and servants are obedient. (2) If children be trained up in their learning and honest trades. (3) If they be kept from profaning the Sabbath, and brought to the public worship. (4) If the little catechise be in every family and exactly learned. (5) If there be family worship, and the word read therein; and if in each family there be a bible and exhort to private worship. (6)

If there be cursing, swearing, scolding, and drunkenness in any of the families. (7) If any absent themselves from public worship, and who they are, and to exhort to keep the Thursday's sermon and Presbytery's exercises. (8) If there be any servants brought in, and if they have testimonies from the places they come from. (9) If there be any idle persons in families, and profane persons brewing. (10) That none of whatsoever condition be found drinking on the Lord's Day in taverns or ale-houses. (11) That no scandalous person coming from elsewhere be permitted to enter this burgh.

II. *The Meteorology of the Dumfries District in 1887.* By the Rev. WILLIAM ANDSON, of Kirkmahoe.

It may be right to give an explanation here respecting the instruments used in taking the observations which are recorded in the subjoined table. For the first three months of the year a common standard barometer, with Vernier scale to measure tenths and hundredths of an inch, was used. It was considered fairly reliable, though it had not been scientifically tested. But in the beginning of April it was replaced by a new one, made by Adie & Wedderburn, of Edinburgh, with Vernier to measure to two thousand parts of an inch, which had been tested in the office of the Scottish Meteorological Society, and was recommended by Dr Buchan, the secretary of that society. During the first two months of 1887, the temperature observations were taken from a Self-registering Sixe Thermometer, kept in the shade, but not protected. But since early in March last two thermometers have been used—a Philip's Self-registering Maximum (mercurial) and a Rutherford's Minimum (spirit)—both certified at Kew, and placed in a Stevenson box or screen, four feet above the grass in an open garden space. The rain guage is a Glaisher's, of 5 in. diameter, with the mouth raised 10 in. above the grass. The observations of the barometer are taken twice a day, at 9 A.M. and 9 P.M. Those of the maximum and minimum thermometer are taken at 9 P.M. for the previous 24 hours; and the rainfall every morning at nine for the same period. The direction of the wind is taken at 1 P.M., mostly from the vane of the Midsteeple. The instruments were inspected in September last by Dr Buchan, and on being compared with his standard ones were found to be extremely accurate.

Months.	BAROMETER.				Self-Registering Thermom. in shade 4 feet above grass.					RAINFALL.		
	Highest.	Lowest.	Range.	Mean at 32° and sea level.	Highest.	Lowest.	Mean Max.	Mean Min.	Mean Temp. of Month.	No. of Days it Fell.	Heaviest in 24 Hours.	Amount.
1887.	Inches.	Inches.	Inches.	Inches.	Deg.	Deg.	Deg.	Deg.	Deg.		Ins.	Ins.
Jan.	30.370	28.850	1.520	29.827	51	22	42.5	33.3	37.8	23	0.79	3.34
Feb.	30.600	29.304	1.296	30.205	54	21	46.4	34.2	40.6	11	0.46	1.97
Mar.	30.470	29.240	1.230	30.046	59.5	24	47	33.2	39.8	13	0.35	1.58
April	30.632	29.100	1.532	30.012	65	27.5	53.3	35.1	44.2	11	0.38	1.66
May	30.590	29.212	1.288	30.045	69	30	59.6	41.7	50.7	11	0.41	0.98
June	30.520	29.789	0.731	30.192	87	33.2	70.6	48.8	59.7	7	0.36	0.56
July	30.378	29.410	0.968	29.961	80.5	39	69.8	52.1	60.9	21	0.87	4.01
Aug.	30.384	29.240	1.144	29.938	77	36	67.8	48	57.9	14	0.91	2.62
Sept.	30.565	29.100	1.465	29.877	68.8	30.5	62.4	44.7	53.5	20	0.79	4.00
Oct.	30.563	29.189	1.374	30.061	63.5	24	52.8	37.3	45	12	0.28	1.34
Nov.	30.321	28.537	1.784	29.665	51.5	23.5	45.1	34.4	39.7	19	0.81	3.62
Dec.	30.260	28.911	1.349	29.749	51.3	21	41.1	31.8	36.5	19	1.26	5.31
Year	30.632	28.537	2.095	29.964	87	21	54.8	39.5	47.2	181	1.26	30.99

Barometer.—The highest reading of the year was on the 17th April, and reached 30.632 inches; the lowest on the 3rd November, 28.537 in. Annual range, 2.095 in.; and mean pressure (at 30° and sea-level), 29.964 in. In 1886 the range was 2.923 in., and the mean pressure 29.800 in. The month in which the greatest fluctuations of pressure occurred was November, when the range was 1.784 in.; but it was considerable also in January and in September and December. In June, when the weather was remarkably fine and settled for several weeks in succession, the range did not exceed 0.731 of an inch, and the mean pressure of the month was unusually high, being no less than 30.192 in. But the highest mean pressure of the year was in February, viz., 30.205 in., with readings ranging from 29.304 in. to 30.600 in. In the months from February to June, inclusive, anti-cyclonic conditions for the most part prevailed, and the mean pressure in each was over 30 inches (mean of the five months 30.100 in.), with a rainfall very much below the average. In 1887 there has been no such excessive fall of the barometer as occurred in December, 1886, and the storms which were at times experienced were only of moderate violence, and did little damage, at least in this part of the country.

Temperature.—The highest temperature of the year occurred on the 25th June, when the thermometer rose to 87°, and the lowest on 8th February and 22d December, when it fell to 21°, giving an annual range of 66°. The mean maximum for the year, as will be observed from the tabular report, was 54.8°, and the

mean minimum $39\cdot5^{\circ}$. The winter quarter, taking in December along with January and February, was not characterised by any great extremes of temperature. In these months there were 50 days in which the thermometer fell to the freezing point and under, with an aggregate of 228° of frost. This compares favourably with the previous year, in the same months of which the thermometer registered 444° of frost in 72 days. But it indicates at the same time a winter of considerable severity, the mean temperature of these months being about $37\cdot6^{\circ}$, as compared with an average of 39° . The wintry weather, however, extended as usual a long way into March, in which 10 nights of frost were recorded, with an aggregate of 28° . There was frost also to some extent in April and May. April had 10 nights with 24° , and May 2 nights with 3° . The temperature of the spring months was considerably below the average, with a prevalence of northerly, north-easterly, and north-westerly winds, and unusual dryness, which awakened fears of a late and deficient harvest. But the marked rise of temperature, which came with the bright and sunny weather of June, and was continued in July, along with copious rains in the latter month, proved so favourable to the progress of vegetation, that the harvest, instead of being later, was rather earlier than usual, though deficient in quantity in light soils, from the want of sufficient moisture at an earlier period. In June there were 14 days on which the maximum temperature exceeded 70° , and in seven of these it rose above 80° , ranging from 70° to 87° . In July also there were 14 days with a maximum of over 70° , the range being from 70° to $80\cdot5^{\circ}$. The mean temperature of June was $59\cdot7^{\circ}$, being more than 4° above that of last year, and about 3° above the average of the month. The mean temperature of July was still higher, being $60\cdot9^{\circ}$, exceeding that of July, 1886, by $2\cdot6^{\circ}$, and the average of former years by $1\cdot3^{\circ}$. The hottest days occurred in the latter half of June, but in July the nights were warmer. As illustrating the effects of this unusual heat on vegetation, it may be mentioned that in Mr Henderson's garden at Newall Terrace ripe cherries were gathered on the 23rd of June, ripe strawberries on the 25th, early vegetables, such as peas, turnips, carrots, and onions on the 30th, and ripe gooseberries on 11th July. August and September do not call for any particular remark on the point of temperature. Both were about 2° below the average, and there was a degree of unsettlement in the weather between the middle of August and the middle of September, which

greatly retarded the work of the harvest, and caused in many cases serious damage to the grain crops. In the other autumn months there was an unusual decline of temperature, the mean of October being only 45° and that of November 39.7° , as compared with 49.8° last year in the former month and 42.1° in the latter. As early as the 8th October the higher hills in Dumfriesshire and over Scotland had a covering of snow, and on the night of the 11th or morning of the 12th the thermometer registered 8° of frost. Northerly and easterly winds prevailed in both these months, and in November the sky was for the most part overcast, with a consequent minimum of sunshine, which made the weather both cold and gloomy. October had 10 nights of frost, with an aggregate of 28° , and November 13 nights, with an aggregate of 47° . The total number of days throughout the year in which the thermometer was at or below the freezing point was 96, and the aggregate degrees of frost 360. In 1886 the number of days was 112, and the aggregate 536° . So far, however, was the excess of cold this year counterbalanced by the unusual heat of June and July that the mean temperature of the year was 1° higher than that of 1886, viz., 47.2° as compared with 46.2° in the latter year. Comparing this with the mean temperature of other parts of Scotland, as reported this week in some of the newspapers, I find that Ardrossan had a mean temperature for the past year of 47.3° ; Leith, of 47.2° ; Aberdeen, of 46.4° ; and Wick, of 45.3° . It may be interesting to note, as showing the difference between a northern and southern temperature, that the mean annual temperature of Greenwich for the last fifty years is 51.8° . Mr Dudgeon of Cargen reports a mean for the year of 46.2° . How this difference from the temperature of Dumfries is to be explained I cannot say; but I have repeatedly observed that both the highest maximum and the lowest minimum temperatures of the month at Cargen are, as a rule, lower than those reported at Dumfries by one or two degrees, and sometimes more. There must be different local conditions affecting the temperature to give rise to this difference in places so near one another. The mean of 47.2° , though above the mean of the previous year, is still somewhat under the usual average.

Rainfall.—There were 181 days on which rain or snow fell (rain, 170; snow, 11); on 34 of which, however, the fall did not exceed one hundredth of an inch; total, 30.99 inches. In 1886 rain or snow fell on 224 days, with a total of 41.13 inches. The heaviest fall in 24 hours in 1887 occurred between 9 A.M. of 6th

December and 9 A.M. of the 7th. There was very heavy rain on the 6th, followed by snow during the night, which at 9 A.M. measured 6 inches in depth; and was the heaviest snowfall of the year. The rain and melted snow together gave a depth of 1·26 inches in the guage, equivalent to 126 tons of water to the acre. The year, as a whole, however, was remarkably dry. There were two months in which the rainfall was less than one inch; May having 0·98 in., and June only 0·56 in. From the 8th June to the 2nd July not a drop of rain fell. February, March, and April, and later in the year October, were also abnormally dry; the aggregate rainfall of these six months being only 8·09 in., whereas in the previous year it was 16·79 in., and the mean of the preceding 26 years as observed at Cargen was upwards of 19 in. The total rainfall of the year was 30·99 in.: that of 1886 was 41·13 in.; showing a deficiency for the past year of 10·14 in. as compared with the previous one, and of 13·66 in. as compared with the mean of the preceding 27 years at Cargen. In consequence of this unusual dryness, especially in the first half of the year, many of the springs and wells in the district failed as early as July, and were not replenished again till December. The same deficiency of moisture seems to have prevailed in a greater or less degree over the whole country, but more on its western than on its eastern side. Thus Colmonell, in Ayrshire, records a deficiency of more than 10 in., Greenock of nearly 15 in. (the lowest since 1875), Bridge-of-Allan of about 9 in., Leith of nearly 7 in., and East Linton in Haddingtonshire of nearly 5 in. In illustration of the fact stated, it may be mentioned that the River Tay, near Perth, is said to have been lower by half-an-inch on July 10th than its lowest point in 1826, which was one of the driest years on record; and the Nith for many weeks was lower than the writer remembers to have seen it.

There were few thunderstorms during the year, and none of any severity. The writer of this paper observed only six occasions on which thunder was heard—two in July, on the 2nd and 31st; two in August, on the 17th and 18th; one on the 1st November, with sharp hail showers; and one on 14th December between 4 and 5 A.M., also accompanied by hail showers. The total number of hailshowers observed was ten.

The following is a summary of the wind directions for the year:

Calm or Var.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
7	41	35	17	24	23	90	54	74

Note to Mr Thomson's Paper.

The following will throw light upon the expression "profane persons brewing" (page 28): "Bailie Johneson reports that in going through the town last Sabbath he found in the house of James Moorehead a large pot upon the fire boyling wort, and in John Baxter's house Wright found the said James Moorehead's wife with a choppin stoup in her hand, and the said James Moorehead's wife sitting at a table and said she was seeking barm."

The following extracts may be interesting from the form of punishment:—"1641. Bessie Black for her 3rd departure from virtue to sit six Sabbaths and at the cross in the Jougs." "1642. Euphane Thomson and Jane Johnson, servants, for scolding each other, to be put in the Jougs presently." "1644. A man and his wife for slander are sentenced to stand at the kirk style with the branks in their mouths." "1695. It is statute and ordained that who drink to excess shall pay the Nobleman twenty pounds; the Barron, twenty merks; the Gentleman Heretor or Burgess, ten merks; the Yeoman, forty shillings; the Servant, twenty shillings; and the Minister the fifth part of his stipend.

III. *The Druidical Circle in Troqueer.* By Mr JOHN BROWN, F.E.I.S., of Drumsleet.

The Druidical circle on the Hills farm lies about four miles from Dumfries, a little over half a mile to the left of the farm called East Hills, as one journeys towards Lochrutton. Or, taking the footpath to Lochrutton Kirk, a quarter of a mile past Turnfeen, the traveller would find it about 200 yards to his left just as he is about to reach the top of the ascent. It is, on a contour line of the trigonometrical survey maps, shewn to be situated exactly 500 feet above the level of the sea, and lies in a somewhat depressed place close to the last rising of the hills behind, which attain 625 feet. In the depression is a platform evidently to some extent artificial and irregularly circular, 70 to 80 feet in diameter. The top has been levelled, or rather made level, by using the materials brought from the sides. On this little platform is the Druidical circle. There are now ten stones in the circle, but, judging from the distances from stone to stone, it is probable there were a few more when the circle was complete. There is no central stone; all are round the sides. One was $13\frac{1}{2}$ feet distant from the next; other distances were, 17 ft., 19 ft. 8 in., 25 ft., 34 ft. 4 in., 37 ft. 7 in.; the average is about 25 ft. 3 in.; and the circumference

227 ft. 6 in. This measurement is not given as strictly exact, but includes the diameter of each stone. The stones are not from the quarry in the hill-side, which is a soft clay slate; but they present the usual forms of boulders obtained from the drifts of the glacial period. They are not granitic, and they are not silurian, yet seem to be metamorphic, judging from the appearance of white soft-looking grains of which they are largely composed, with one exception. This exception is the only one which is distinctly silurian, and is the most remarkable one in the whole circle, as it contains some of the "cup markings" on its flat top, which have so strongly attracted the notice of antiquarians of late. This stone has a flat top, but it is its natural top, and not made flat by the hand of man. It has two straight sides, the rest is roundish. From the angles two lines of 35 in. and 36 in. can be drawn. It has a circumference of nearly 10 ft. One of the cups is smaller than the others, of which there are three on the top, running in line nearly straight about a foot in length. A line drawn straight across the centres of the first and third would just cut the edge of the circumference of the second. The diameter of each of these three is the same, that is 8-10ths of an inch, and of capacity to hold a boy's marble—not the *taw*, but the forfeits. A good counter might be able to run the number of holes round it to a higher figure, but there will be no difficulty in counting 12 similar cups round the sides. The three on the top alone might arouse suspicion as to their great antiquity, but the others uphold their claim in a manner not to be disputed.

3rd of February, 1888.

Mr THOMAS SHORTRIDGE, ex-Provost, presided. Twenty-six members present.

New Member.—Mrs Thompson, Rosemount Terrace.

Donations.—Two volumes from the author, Mr Peter Gray, one on Fungi and Mosses, and the other on Seaweeds and Shells; a pamphlet on the Rock-Sculpturings in Kirkcudbrightshire from the author, Mr George Hamilton; a Communion Token of the associated congregations of Dumfries, dated 1766, from Mr Barbour; two Communion Tokens of St. Mary's Church, Dumfries, from Mr William Allan; the Tokens of Balmaclellan, Dalry, Minnigaff, and Kells, from Mr M'Andrew; and of the following

Parishes from the Kirkcudbright Museum, viz. : Borgue, Buittle, Dalbeattie, Dalry, Girthon, Kelton, Kirkcudbright, Kirkmabreck, Kirkbean, Newabbey, Parton, Rerwick, Terregles, Troqueer, Twynholm, and Urr.

COMMUNICATIONS.

I. *Botanical Notes for 1887.* By Mr JAMES FINGLAND of Thornhill.

The season of 1887 will be remembered for its ideal summer weather, which, for at least the months of June and July, was an almost unbroken record of sunshine and genuine warmth. This hot weather, although favourable and enjoyable for outdoor botanical work, was fatiguing for long excursions on foot, whilst a certain drawback was experienced in the shorter time plants remained in bloom. The rather unfavourable character, too, of the early autumn caused an unusually fine season to be also a short one from a field botanist's point of view.

A notable feature of 1887 was the early flowering of many plants, which I more especially observed amongst aquatics. The intermediate form of the yellow water lily, which occurs in Glencairn, was gathered in flower on the 12th of July last. In 1885 it was seen in flower on the 28th of August—perhaps, however, at a later stage, for which a few days might be deducted; nevertheless, making a marked difference of nearly six weeks between the two dates. The water lobelia at Loch Urr I obtained in flower on the 20th of July last, which was just a month earlier than in the previous year. Some of the Potamogetons or pond-weeds, I am sure, came very much earlier too, but I have no previous dates to compare with. It has occurred to me that the flowering of aquatics might more fairly indicate the character of a season in regard to temperature, these plants not being affected by drought, which so often hastens the maturing of terrestrial vegetation by stunting the growth, were it not that aquatics probably derive a stimulus and benefit from direct sunshine whether the atmospheric temperature is of an average warmth or not. The amount of solar heat absorbed by a lake will vary with its depth or shallowness. Other affecting circumstances will be found in its physical surroundings, situation, or exposure. The matter may appear to be unimportant. It is not so, however, to a collector who wishes to secure specimens valuable for exchange from a locality at some distance. Disappointment may be thus saved by

making a careful calculation. In the instances of early flowering I have given I do not think the atmospheric heat (which did not begin till June) sufficiently accounts for the phenomena, but that the sunshine of the earlier dry months had a share in it.

In giving a summary of results for 1887, I am indebted to Dr Davidson, Sanquhar, for some notes from his district. The finds of most interest which he reports are *Scabiosa arvensis*, at Drumbuie; *Arabis hirsuta*, Kello Linns; *Veronica hederæfolia*, *Phleum arenaria*, and *Lolium temulentum* variety *arvense*, from the river side at Sanquhar; *Cerastium semidecandrum*, from Crawick; and *Potentilla argentea*, near Holywood. Two of these at least, if not three, are additions to our Flora. Mr John Corrie, Moniaive, has made two good finds, both in his own parish of Glencairn. One is a valuable addition to our family of native Orchids in *Malaxis paludosa*, although Dr Grierson informs me since that he collected the same plant a number of years ago in the parish of Keir, but does not know whether it now exists there or not. The other plant is *Carex irrigua*, a locality for which has hitherto been a desideratum. In the Thornhill district I have to add *Callitriche autumnalis* and *Nitella flexilis* from the parish of Closeburn. Two other additions to the county are *Carex Oederi*, for certain at last, growing in considerable quantity in a dried-up pond near Auld-girth, and *Utricularia intermedia*, found at Loch Urr. Two more plants, *Stachys betonica* and *Hippuris vulgaris*, are new to the district. The former I gathered near Auldgirth, this new locality, therefore, becoming a link between the only other two localities for it at Sanquhar and Caerlaverock in the Nith valley; the latter plant was found in Closeburn, but the specimens of it there were rather dwarfed. Mr Corrie and I met with a very luxuriant growth of the same plant in Fingland Lane, Kirkeudbrightshire, alongst with *Potamogeton rufescens*, *Sparganium minimum*, and *Carex paniculata*. In critical genera *Rosa tomentosa*, var. *scabriuscula* is an addition and a variety of *Rosa canina* between "*arvatica*" and "*Watsonii*." There has also been found a variety of *Rosa mollis*, "*psuedo-rubiginosa*," on the Nith, which will, I think, be new to Scotland, as Mr Bennett of Croydon, who kindly named it for me, and also sent the specimen to Mr Baker of Kew, to have it confirmed, informs me that it has only hitherto been found in York and Surrey. In brambles, *Rubus macrophyllus* and *Rubus umbrosus* have been found near Annan, and *Kochleri* at Auldgirth. In Mints, the *subglabra*

variety of *M. sativa* has been identified from the Nith near Kirkland. A pendulous and distinct form of *Carex vesicaria*, from a marsh near Kirkbog, concludes our list from Upper Nithsdale.

During the season, however, I made one or two excursions to the Dumfries shore of the Solway, thinking I might find there some additions to our Flora, and I was not disappointed, having been able to add several species and confirm some previous doubtful records. The physical character of the shore is on the whole rather monotonous. The margin between the cultivated land and high-water mark (in many places of little width) consists mainly of sand or mud, merse-land, and shingle or gravel, rougher or finer. Each variety of land surface has its own grouping of plants, and throughout the season lovers of flowers may find much to interest them. At Tordoff Point I gathered *Scirpus caricis* and *Allium vineale*, var. *bulbiferum* Syme. Near Annan Waterfoot, *Erodium cicutarium*, *Juncus Gerardi*, and *Alopecurus agrestis*. Between Powfoot and Newbie I found *Cakile maritima* and *Agropyron junceum*. These are all new records. The following plants, some of which are rare, were also collected: *Ranunculus sceleratus*, *Brassica monensis*, *Ononis spinosa*, var. *mitis*, *Eryngium maritimum* (very sparingly), *Filago minima*, and *F. germanica* (both in dry banks below Powfoot), *Matricaria inodora*, var. *salina*, *Polygonum aviculare*, vars. *vulgatum* and *arenastrum*, *Atriplex patula*, *Salsola kali*, *Anemophila arundinacea*, *Lepturus filiformis*, *Juncus glaucus*, *J. supinus*, var. *subverticillatus* (near Brow Well), and *Juncus maritimus*, from Mr Robert Armstrong, obtained near Caerlaverock.

For the purpose of making a comparison between the shore flora of Dumfries and its two adjoining maritime counties, I have looked up the records in last edition of the "Topographical Botany," and in case of Dumfries and Kirkcudbright using also recent lists. Of the total number of 87 species which are designated as "littoral" in the "Cybele Britannica" (of course this excludes a number of plants common on the shore, but which are found inland near "coast level" or in lower grounds), I find 46 recorded for Cumberland, 40 for Kirkcudbright, and 27 for Dumfries. As there are about 12 species unrecorded for this county that are common to both the other counties, we may expect a closer examination of our shore will reveal an additional number of species.

II. *Wood-Castle, Lochmaben.* By MR JAMES LENNOX, F.S.A.

Wood-Castle, Woody-Castle, or Dinwoody Castle, is situate 1500 yards north-west of Lochmaben Town Hall, on the farm of Lochbank, on the estate of Elshieshields. It is a circular camp of British origin, and surrounded by a fosse and ditch which are well preserved, and also in part by remains of a second fosse, which, visible on the western and northern aspects, has disappeared on the southern and eastern. The extent of the fortification I have been at some trouble to ascertain by means of accurate measurements. There is one original entrance through the ramparts. Taking a straight line from this gateway (in line with the inner base of the rampart) to the most remote point within the lines the distance traversed is 207 feet. A transverse line, cutting this in its centre at right angles, measures 193 feet. The circumference of the fort, measured round the top of the rampart, is 704 feet. From the outer base of this rampart to the opposite outer base measures 280 feet. This rampart reaches the extreme elevation of 15 feet above the fosse on the north side, and declines to its least height towards the western aspect, where it is only eight feet high (at one point). This depression in the lines is directly opposite the gateway and at (what now appears to be) the weakest point in the defence. As the southern aspect is reached the rampart returns to about the same elevation as on the northern, and so it continues along the eastern face to the gateway. There is but one gateway, and it is situate on the east by north part of the fort: in width it is about 15 feet. At first sight a second gateway seems to be present directly opposite the entrance. But on more than a casual inspection it is found that the break in the ramparts on the east position is intentional, and has the pathway paved with boulders: whereas that on the west side is the result of demolition. What is left has the slope of the adjoining rampart, and there is no trace of a formed roadway. Besides, on the east the ramparts rise on either side of the entrance with an almost added strength, whilst those on the west dip gradually down to it. The interior of this British strength varies from two to four feet below the level of the rampart: the rampart rising highest above the camp level on the north side and lowest on the west. The fosse or ditch, which is still complete, runs in an unbroken manner from the north side of the gateway round the northern aspect of the fort to the west, where although traceable it becomes less distinct. In this clearly marked part it measures

15 to 16 feet wide. On the south-west it again deepens, and here it measures 14 feet, and so it continues to the south, where it altogether disappears. The second fosse, or rather what remains of it, commences at the north-east, being fairly marked on the side next the ditch, and reaching an extreme elevation of 8 feet, and sweeps to the north-west. At the west it is, however, barely traceable. But on the south-west aspect it again becomes marked, especially towards the ditch, and finally it ends at the south. This outer rampart is fast disappearing under the plough, and in a few years I fear no trace of it will remain. The gateway through this rampart, as shewn on the ordnance survey, has disappeared, but was situated about 70 feet north of the inner gateway. The greatest diameter of what remains of the camp is 370 feet. This runs from the south-west to the north-east. The ramparts are constructed of large loose stones, on which there is neither the mark of chisel nor trace of mortar. These boulders are covered with earth, dressed into a military shape. Having thus described the position, measurements, appearance, and construction of the camp, I pass to a consideration of its origin. Beyond all doubt the camp is British. This is obvious for the following reasons: First. It is circular. The fortresses of the ancient Britons are always found to consist of concentric circles of stones, whereas those of the Romans are invariably square. Hill Burton insists on the sameness of Roman camps in all parts of the world (p. 73 of History of Scotland), and says that in construction they evince "an extremity of immutability." And both he and Chalmers use "circular and British" and "square and Roman" as synonymous terms. Second. The ramparts are not of Roman construction. According to Chalmers (*Caledonia* Vol. I., p. 25) the ramparts of British forts "were composed of dry stones and earth, without any appearance of mortar or cement." Maclagan deals largely on this, but in a more extended form. This is the construction of "the lines" at Wood Castle. Third. The gateways through the different ramparts in a British strength are placed in a zig-zag manner, and not as in a Roman fort directly opposite each other. —*Vide* Hill Burton, p. 84-86, Vol. I. Fourth. The ancient Britons often chose lakes for fortresses. Now the position of Wood Castle is very peculiar. At the time of its construction it must have been a peninsular stronghold. On the south-east is the Mill Loch, on the south-west the Upper Loch, and stretching away along the whole of the west to the north is still mossy

ground, reaching to Chapelcroft Farm. This mossy ground passes to the north and ends on the north-east in a peat moss, used until lately by the inhabitants of Lochmaben to cart their peats from. Thus on three sides the camp was in the days of its occupation, in all probability, surrounded with water, or almost so, and the only possible mode of approach was from the east, where the gateway is. Wilson in his *Pre-historic Annals of Scotland* (Vol. II., p. 89) says of Wood Castle that it is "a remarkable circular fort near Lochmaben, in Annandale, which General Roy describes as a Roman post, though it differs in every possible feature from any known example of Roman castramentation. That it is a British stronghold is not now likely to be called in question. It bears a close affinity to the circular earthworks which accompany some of the Scottish megalithic circles. . . . The fortifications here specified are not, however, to be classed with the simple circular hill forts first noted, wherein we trace the mere rudimentary efforts of a people in the infancy of the arts. They display equal skill in the choice of site and the elaborate adaptation of such earthworks to the natural features of the ground." I have searched Roy's *Military Antiquities* for a description of Wood Castle, and I find no description of it. All I find is a ground plan and elevation drawn to a scale on Plate VIII. of "*The Roman Post of Wood Castle.*" Now, Roy belonged to a school of antiquarians who tried to prove that the chief remains in the country are Roman, just as old-fashioned teachers tried to inculcate English grammar by teaching Latin rules. The circumstance that a Roman way passes close to Wood Castle is, I think, purely accidental, and the fact that the camp is not on a hill top cannot be considered as powerful evidence against the theory of its being British, when it is remembered that the Britons affected lakes, that the camp is of essentially British construction, and that the Romans have never been known to alter the characteristic shape of their encampments. Those who wish to pursue the matter further will be aided by consulting MacLagan's *Hill Forts of Scotland*, Gordon's *Itinerarium Septentrionale*, and Leslie's *Early Races of Scotland*.

III. *New Studies of Some Old Scotch Ballads.* By Mr WM. M'DOWALL, F.S.A.

Mr W. M'Dowall occupied about an hour in analysing and commenting upon some choice specimens of our old ballad

minstrelsy. He stated that when bringing the subject before the Society about a year ago he had only a very slender stock of ballads in his wallet, but since then he had increased it to upwards of sixty; and the more he read of these ancient lays the more was he charmed with their simplicity, their pathos, their mingled force and tenderness, and their poetical beauty. Some of these new studies of old ballads he would now lay before them. As on the first occasion he had explained the manner in which they had been produced and their leading characteristics, he would not now occupy time by travelling over the same ground. After a few more preliminary remarks, Mr McDowall presented seven studies *seriatim*, the ballads selected being Edom o' Gordon, Johnnie of Breadislee, The Gay Goss-hawk, Jamie Telfer, Kinmount Willie, and The Marchioness of Douglas.

2nd of March, 1888.

Major BOWDEN, V.P., presided. Thirty-five members present.

New Members.—Mr Thomas Fraser, Dalbeattie, and Mr William M. Wright of Charnwood.

Donations.—Mr James Barbour presented a wooden plate with the initials J. F. and the date 1715, which belonged to a John Frood of Blackshaw, Caerlaverock; also a saucer with the initials M.D., 1752. The Rev. R. W. Weir presented the communion tokens of Closeburn, Dunscore, Greyfriars (Dumfries), Tinwald, and Trailflat. The Secretary presented from Dr Sharp an address read to the Entomological Society of London, and a copy of a pamphlet on *Insecta*; also nine parts of the Journal of the Linnean Society from Mr W. D. Robinson-Douglas, the 21st Report of the Peabody Museum, and the Transactions of the New York Academy of Sciences.

COMMUNICATIONS.

- I. *The Roman Baths of Aquæ Salis, Bath.* By Mr JAMES W. WHITELAW, Solicitor.

After apologising for choosing a subject not strictly within the lines of the Society, Mr Whitelaw went on to describe Bath and its history, dwelling upon the time of the Romans and the various traditions connected with it. He pointed out that there were evidences of the Roman Baths having been used for a long

time after the Roman legions left. Mr Whitelaw then went on to describe the baths, and in conclusion said they were a splendid memorial left by these old Romans, not only of the comfort, luxury, and splendour which they brought with them into this remote part of their dominions, but of that solid, all-enduring, time-defying work which they did, and which was emblematic of the indomitable courage and perseverance which subdued the whole of the then known world.

II. *The Old Church of Dumfries.* By Mr JAMES BARBOUR.

St. Michael's Church is still sometimes called "the Old Church," but the title was first and properly applied to the building which preceded the present one, after the New Church, now Greyfriars', was founded in the year 1727. It is the form and character of this earlier building, of which very little is known, although not quite one hundred and fifty years have elapsed since it was taken down, I propose endeavouring to elucidate in this paper. The site of the church is a conspicuous one, and with an outline showing that peculiar kind of eminence which is suggestive of the idea that it may have been a "high place" of heathen worship, afterwards appropriated to its present use when, under the influence of Christianity, such worship had ceased. This at least is the most ancient religious foundation in the town of which there is authentic record, receiving mention as early as the middle of the twelfth century, more than one hundred years before the founding of Greyfriars' Monastery by Devorgilla. It has no doubt continued uninterruptedly to be a place of public worship ever since. Dedicated to the Archangel Michael, the patron of the Burgh, whose image the official seal bears, it and the old Castle which stood near were doubtless the two institutions under whose protecting shadow and fostering care the town was first planted and reared. Here the citizens worshipped, and in the small cemetery around, the only one existing in the town until quite recently, all their past generations are laid.

Recently when repairs were being made on the existing building remains of old foundations were exposed, and some fragments of stones believed to be parts of the older church. Having these to start with, and wishing to follow out the subject, I examined the Records of various bodies likely to contain information, and fortunately found in those of the Presbytery, engrossed *in extenso*, the reports of tradesmen to whom remit had been made

in the year 1744, while the Old Church was yet standing, to enquire into the condition of the fabric. These reports furnish important and reliable information, from which, when supplemented from other sources and considered in connection with the foundations and other remains brought to light, may be obtained a fairly complete idea of the design of the Old Church.

The church had long been in a state of dilapidation, and from time to time complaints were made, followed by ineffectual attempts to put the building in order, but it was evidently worn out and ruinous. At last several families removed from it and declined to worship there owing to its unsafe state. In these circumstances the Presbytery was called in, and on the 22nd March, 1744, that reverend court held a visitation at the church, when a remit was made to tradesmen in the following terms: "To inspect the state of the church as to the walls, roof and windows, according to their respective crafts, and bring in against the afternoon a just report of the state and condition of the church as to these particulars, and what articles and pieces of reparation would be needful for putting the same in good and sufficient condition, as also to make up an estimate of the expense at which the needful reparation might be wrought and completed." It will be observed that the terms of the remit would exclude the reporters suggesting that a new church ought to be built, and accordingly, although reparation of the old one would practically mean renewal, they proceed in these reports to describe in detail one portion of it after another as insufficient and to be re-built, until nearly every several feature of the old church receives mention, rendering the reports much more valuable for our purpose than they would otherwise have been.

From these sources I proceed with the description of the Old Church as it stood in the year 1744, immediately before its demolition, in order to make room for the existing one. It comprised three divisions, frequently referred to in the reports on which we are drawing, the central one being described as "the body of the kirk," and the other two as "the two side aisles." "Middle walls" are mentioned as separating the aisles from the body of the kirk, and supporting the roof. These rested on arcades of three bays, each with a fourth bay on each side, not arched over. The pillars were six in number, with four half ones at the wall, giving four bays to each arcade, but only six arches are mentioned, not eight, as the number of spaces would require.

The discrepancy is accounted for by supposing the design of the church to have been originally cruciform, in which case the bays without arches would represent the joinings of the transepts at the crossings. The side walls of the aisles, which were finished with "cornices" and "rustic corners," were of equal height with the middle walls; and the roof was a triple one, being described as consisting of "the middle roof," which covered the body of the kirk, and "the two side roofs," which covered the aisles. In the east end of the body of the kirk, which was a gable, were two large windows, and there was a doorway in its west wall. Besides the west doorway there were four others, two being in the south wall and two in the north one; and in each of the aisles there were four windows, one being in the east end, two in the side wall, and one in the west end. One of the west windows is described as a large Venetian window of one hundred and seventeen lozenges. Admission of additional light was provided for by means of skylights placed in the roof.

The foundations of the Old Church, *in situ*, determine the position and extent of the central division or "body of the kirk," and its two sides and east end would correspond with those of the central division of the existing church respectively, but its west end was four feet short of the existing west wall. They also show that the arcades stopped short of extending up to the east end of the building. Other remains indicate that some of the pillars were octagonal, that the arch-rings were chamfered, and that the gable was of a high pitch and finished with a chamfered skew-stone, having a cross on the apex.

Attached to the west end of the church was a thick short tower, the room within which was known as the "Session" or "Session-house." Subscriptions were raised in the year 1740 for "the raising and exalting of the Old Kirk steeple to bear some resemblance to other spires," as it is expressed in a minute of the Seven Trades, but the walls proving to be insufficient, the tower, instead of being raised, was taken down, when the existing spire was erected on the same site, against the end of the old church.

Passing to the consideration of the interior fittings of the church, of which we have some early glimpses in the Kirk-Session books, and a very full "Abbreviate of the Minutes of the Committee of the Town Council, Heritors, and Kirk-Session of Dumfries, appointed by them to regulate the seats in the said church," in the year 1695. On 12th April of that year it was appointed "that

the chairs and stools in the body of the kirk be removed, and their room filled up with convenient seats (but movable), which are to be built by the Session and farmed out as they see convenient." This, however, was not the first time the church had been fitted with seats. The committee appointed on this occasion required parties to produce their titles to such seats as they might lay claim to; and many of them claimed possession from much earlier dates. Two claims were founded on titles reaching back to 1624, several referred to the year 1636, a few to 1661, and a large number founded on an allocation made in the year 1682. The Session claimed to have regulated the seats in the church "from the time of the first Reformation."

Such fixed seats as existed prior to the year 1637 appear to have been built by the occupiers, the Session giving consent, in consideration of payments to them for behoof of the poor. On 5th July of that year the Session instructed the partial seating of the church, as their minute bears: "It is enacted by the Session ye betwext ye two pillars over against the minister's pulpit" (the body of the kirk) "Desks be erected, one chiefly for ye use of John George Homes, and likewise for the honest men and best burden bearers." The seating seems to have undergone from time to time many changes, and the church was never more than partially occupied with pews.

The pulpit, which had a sounding board, stood at the east end of the body of the church, and near it were the Reader's desk, the Elders' pew, and the Baptism pew. In the year 1695 the arrangement of the pews was in five columns, and they were numbered 1 to 79; but of their form there is no special mention.

In addition to the ordinary seats there stood round the walls others, the family pews of the larger Heritors, each built by its owner, and displaying a variety of design more or less quaint and ornate. Some were of considerable size, sufficient for 12 or 16 persons. They were raised somewhat above the level of the church floor, enclosed with railings, and roofed with canopies. Hoddam had permission to "adorn" his pew and heighten the cover of it; and mention is made of a pew bearing the initials of the owner's name and the date of its erection.

The minutes of 1695 relating to the regulation of the seats bear also on the history of the galleries. The Magistrates' Loft and the Merchant's occupied the front part of the West Gallery, and behind these, separated from them by a railing, was the

Common Loft. The Trades Galleries began to be erected in the year 1610. The Smiths, in support of their claim to their gallery, declared they once had an extract of an Act dated about the year 1612, allowing their trade to build their loft. The Wrights founded on an Act of Session, dated 4th August, 1636, which they produced, with others. The Weavers declared they had lately the extract of an Act granted by the Session in the year 1655. The Shoemakers produced an Act of Session dated the year of God 1613, likewise another of date 27th September, 1655. In regard to the Tailors' Loft, the following interesting old Act of Session was produced. The minute proceeds—"Adam Wright, Deacon of Taylors, produced ane Act of Session, dated the 9th day of Feby., 1610, which (the register not being now extant quherin it was) is here insert as follows :"

"The 9th day of Februarie, 1610, the Minister and Session being convenit in the Kirk of Drumfreis, the quhilk day George Lorimer, Deacon of the Tailzoris, in name and behalf of the remnant of that Craft, desyrit libertie to build ane Loft, for the use of the Tailzoris of Drumfreis in time of Divine Service, in that part of the Paroch Kirk of Drumfreis quhair lang befor ye said Craft had obtaint libertie to build ane Alter of Saint Anna, as the warrant granted by the Counselle of the saide Burgh the yeir of God ane Thousand fyve hundred and fortie seven, therein producitt be the said George in parchment, at length purportes. To the quhilk desyre the Provost, Baillies, & Session fullie condescendit all in ane voyce without contradictioun, providing allwais that the sd Loft come not further without the pillars within the bodie of the Kirk above the space of ane feet and ane half, or thairby, wn the quhilk boundis the first furme of the said Loft might stand, and no more."

For the Glovers it was alleged there were several Acts in their favour, and one extant in the Session Register dated 25th May, 1654. And the Fleshers founded their right on an Act of Session dated 17th March, 1659.

The lofts were not then arranged in the church continuously and symmetrically as now, but each stood by itself with its own stair. One is described as being supported on "three stoops," and that they were not regarded as integral parts of the building appears from the terms of a Minute of Session dated February, 1638. Absentee seatholders were not tolerated by the Session; their seats were liable to be taken down or otherwise disposed of;

and the galleries were not exempt from being similarly dealt with. The minute referred to runs : "The Session resenting and taking into their earnest consideration the slender resorting to the house of God by sundry tradesmen, but especially of Masons and Wrights, and they for that effect being convened, are admonished to repair to the kirk in tyme coming better than heretofore they have done, otherwise their Loft which is erected in the church will be taken down."

The Trades, like the Heritors, were not without some ambition to make a display in the church, inasmuch as they were accustomed to affix to the front of their lofts the emblematic devices of their several Crafts, so much so that the Session found it necessary to put some check on the practice, and on the 11th March, 1683, "enacted and ordained that no Trade put any broad (painting) or sign (emblematic) upon the forepairt of their Loft, but ilk ane to be sighted and showed to the Sessione."

The only relic of the Old Church of 1744 preserved is one of these signs dated 1722, which had no doubt been duly "sighted and showed" to the Session. It consists of three wooden panels, which were until recently attached to the south wall of the present church behind the Squaremen's Gallery, and are now preserved in the Session-house. On one of the panels is displayed the numerous emblems of the Squaremen's Trade, artistically grouped together, and the following curious lines are inscribed on the other two :—

The · Ark · the · Church ·
 From · Final · Ruin · Savd ·
 When · God · on · Sinners' head
 The · Deluge · Lavd :
 And · Tho · By · Virtue ·
 Of · this Art · of ours
 Proud · Babell · Lifted · up
 Her · Lofty · Towers :
 Against · it · Solomon's ·
 Glorious · Temple · built,
 Where · God · the Vast Creation's
 Framer · dwelt ;
 Jesus · our · Cheif,
 The fabrick · once Renewed ·
 When · on · the · cursed · Tree ·
 His Blessed · head · He · Bowed ·
 His · Blood · the · shattered
 Works · of · God · Together · Glewd ·

Public exposure being a prevailing method of punishment, the church as a public place was fitted with the usual appliances for carrying into effect the sentences of the ecclesiastical courts, and also of the Civil Magistrate. "The seat of repentance" stood within, and the joughs and gorgets hung at the principal door, attached to the wall by chains. The first of these occupied at one time a place on the Common Loft, afterwards it was placed in the body of the kirk opposite the pulpit. That it was raised considerably above the church floor is evidenced by a minute of Session excusing a culprit going up to it on account of bodily infirmity. It is designated in the Session Records "the place of repentance," oftener perhaps "the pillar"—short for "pillory," which name occurs in full in a few instances.

After the Reformation a north wing was built, and other extensions and alterations followed from time to time, until only the nave and chancel remained of the pre-Reformation building, and the foregoing details exhibit the altered church and its accessories as an incongruous jumble, inartistic, uncomfortable, and inconvenient.

Its original form and character were different. The pre-Reformation Church comprised a nave, with aisles separated from it by arcades of three bays each and with the usual lean-to roof; also north and south transepts; and a chancel. Mention is made in the records of "the lean-to called the altar of St. John the Baptist." Other documents show that the windows were filled in with stained glass to St. Mary, St. Andrew, St. Christopher, &c. Many altars and chapelries were founded within the church. Mention is made of altars of the B.V. Mary, St. John the Baptist, St. Ninian, St. Andrew, &c., and of an altar erected by the Tailor Trade in the year 1547 and dedicated to St. Anna, the patron of that trade. The chapels were designated after their founders, and the areas occupied by them continued to be so named after the Reformation. Thus we have the M'Brair aisle, the Newall aisle, the Cunningham aisle, and the Maxwell aisle. In this connection the following extract from the Minute of Committee on the regulation of the Seats in the year 1695 is of interest. Referring to a claim by Martin Newall to the second seat in the Newall aisle, the minute proceeds: "And because it is by several old charters and papers evidenced that the Newalls had a special interest in that part of the church these hundreds of years, therefore they allow this dask to Martin Newall and his posterity."

One pre-Reformation memento of the church remains, the bell gifted by the Lord of Torthorwald, preserved in the Observatory Museum. It is of elegant form and tasteful workmanship. The Latin inscription translated runs: "William de Carlell, Lord of Torthorwald, caused me to be made in honour of St. Michael, in the year of our Lord 1443."

At the time when the old foundations were uncovered five tombstones were also exposed within the church at the south-east corner, and the state of the soil under the floor showed that the practice of burial within the walls prevailed extensively until a comparatively recent period. The tombstones are imperfect, but on two of them portions of border inscriptions remain. One reads: "Heir · Lyis · James Couplan [d] . . . [Dumf]ries · 1665; and the other . . . "J. S. Johnstoun · Sumtym Thesar" . . . Documentary evidence of the custom referred to also exists. A draft agreement between the town of Dumfries and the heritors of the landward parish, drawn in the year 1709, states the object aimed at to be: "To prevent mistakes and pleas betwixt the town and the landward parish anent the division of the seats of the church of Dumfries, and the burial places in the church and churchyard." In the year 1744 the Session consulted Mr William Grant, advocate, as to their position with those heritors to whom they had sold seats in the church; and Mr Grant gave it as his opinion that any heritor of the parish who has acquired by this title of grant from the Session of a heritable or perpetual right to a seat or burial place in the church his title is good. On the 21st Jan., 1714, the treasurer received two guineas from Geo. Gordon of Grange "for the liberty of his father's corps lying in the Session [house];" and in the year 1721, Mr Veitch was granted a burial place within the church for himself and his wife. The two following instances of this custom are of some interest. In the *Memorials of St. Michael's* Mr M'Dowall remarks on the absence in the churchyard of any monument in memory of the great family of M'Brair. The explanation of the omission is to be found in the fact that the family burial place was situated within the church. A minute of Session, dated 8th Nov., 1705, after narrating that Robert M'Brair of Netherwood is allowed to erect a seat for twelve or sixteen persons in the M'Brair Aisle, proceeds, "and finally the Session consents to the preserving of his right of burial place in the said isle as has been in use and wont by his predecessors;" and on 8th June, 1747, after the present church was built, the Provost reported "that the

Council had been summoned before the Lords of Session at the instance of the widow and children of Alexander M'Brair of Netherwood anent a burial place in St. Michael's Church, and that it would be proper an agent for the town should be appointed." The second instance is that of James Muirhead, in reference to whom Mr M'Dowall says, when speaking of his wife's tomb, "We cannot tell whether or not 'James Muirhead, late baylie of this burgh,' lies beside his spouse, as the inscription only mentions him in his married relationship to her; but if it could be found out by any means that the philanthropist was buried here or elsewhere in Dumfries, a stone erected to mark the hallowed spot would be a graceful, even though a tardy tribute to his great worth." James Moorhead was also buried within the church, although at what particular spot I cannot say. The following interesting Town Council minute, dated 18th March, 1745, bears on the subject, and its terms are in unison with Mr M'Dowall's sentiments: "The said day the Magistrates and Council, considering that the deceased James Moorhead, in Castledykes, made a handsome mortification for a Poorhouse in this burgh, and that the old church is now rebuilding, and that a part of the wall thereof is carried up near to the grave where the said James was interred in the said church, the Magistrates and Council are of opinion that a monument should be erected upon the said wall in memory of the said James Moorhead, and appoint a committee of the Magistrates, Provost Crosbie, Provost Ewart, Mr George Clerk Maxwell, the convener, and a deacon, whereof three a quorum, to consider of a proper monument to be erected in memory of the said James Moorhead, and to make an estimate thereof, and report the same to the Council."

With a few remarks on the existing Church and the origin of its design I will conclude the paper.

The spire was built, as before stated, in the year 1740, while the old church was yet standing; and although the details are crude its excellent proportions give artistic value, and make it a feature of the town to be held in regard.

The interior of the church is still more worthy of admiration. Unique as a Presbyterian place of worship with its massive and stately stone pillars and arches and over walling, separating the side aisles from the central area, one is curious to know something of the origin of such a design.

On the Old Church being condemned by the Presbytery, the Town Council obtained from Mr Adam, the celebrated architect,

a plan for a new building, but, being too expensive, one prepared by the tradesmen, on whose reports the reverend court acted, was preferred, and Mr M'Diarmid has suggested, in accounting for the elegance of the church, that the design must have been partly borrowed from Mr Adam's plan. A careful perusal of the process before the Presbytery and of the proceedings of the Town Council in the matter will, I think, lead to the conclusion that another and more likely explanation is to be found.

Estimates submitted to the Presbytery along with the reports on the reparation of the Old Church had been approved, and on the amount brought out, the proportion to be paid by the landward heritors had been arranged. Being thus restricted, the Council, on Mr Adam's plan proving too expensive, arranged one with the tradesmen on the lines of their reports and estimates, but with such modifications as the new conditions seemed to require. In this way the design originated and grew out of the form of the Old Church. The ground plan almost exactly follows the old one; the central division corresponds in position and width with the old chancel and nave, as do the aisles with those preceding; and the most prominent feature, viz., the arcades, a pre-Reformation characteristic, is also carried forward from the old church. Even the number of the pillars and half pillars agree, and the roof, although of pavilion form, was intended to be triple like the old one, the arcades being built for its support; but a change was afterwards arranged, as, according to a minute of Council dated 25th June, 1745, it was agreed on the suggestion of the tradesmen to alter the plan, and, instead of three roofs, to adopt a design of one span, with a platform on the top, which the tradesmen represented would be as sufficient and much more beautiful. The pulpit now occupies exactly the place where the ancient altar stood.

III. *A Bronze Ewer Found near Moniaive.* By Mr JOHN CORRIE of Moniaive.

The brass tripod ewer was found during May, 1885, by a drainer employed on the lands of Craigmuir, an estate on the boundary line between Dumfriesshire and Kirkcudbrightshire. The soil in the vicinity is of the character of moss, and the ewer was found embedded therein at a depth of about three feet from the surface. The broken foot was found lying close beside. Mr Thos. Conchie, mole-catcher, Moniaive, noticing the strange shaped

vessel lying on the bank, asked and obtained possession of it, and the relic was presented to me by Mr Conchie the same night.

The vessel measures $8\frac{5}{8}$ inches in height, by $2\frac{1}{2}$ inches across the mouth, while the body expands to $5\frac{1}{2}$ inches diameter. The legs measure 2 inches in length, and they are turned outwards at the end, forming small feet about three-quarters of an inch in length. The spout appears to be hexagonal in form, and tapers slightly to the mouth, where it has been worked into what may be considered a rude representation of an animal's head. By the kindness of Mr Wilson a rough sketch of the vessel, which I made at his request, was submitted to the experts in charge of the National Collection at Edinburgh, and Mr Black, who replied to Mr Wilson at some length, says: "The Moniaive vessel is a typical one of a class in use between the twelfth and sixteenth centuries. There is hardly any difference in their general shape. Their usual dimensions are about 9 inches in height by from 5 to 6 inches in diameter in the widest part, narrowing to about 3×3 across the mouth. There are in all twenty-one vessels of this class in the National Collection in a more or less perfect state of preservation. Of these, two are from Dumfriesshire, one from Birrens, Annandale, the other found in a moss near Closeburn Hall, was presented to the National Collection in 1830 by Mr (afterwards Sir) C. G. S. Menteith. This specimen is in the shape of an ordinary jug, the spout not being separated from the body of the vessel. It may be mentioned, he continues, that a brass tripod was found on the site of the Lake-dwelling in the Loch of Banchory, Kirkcudbrightshire, and another on a Lake-dwelling site in Loch Canmor, Aberdeenshire. This would lead one to suppose that they must be of great age, but, he adds, it does not follow, as we know that Lake-dwellings were used as places of residence and defence down to the sixteenth century."

6th of April.

Major BOWDEN, V.P., presided. Thirty-seven members present.

New Members.—Miss Hannay and Miss J. Hannay, Victoria Terrace.

Donations.—The Annual Report of the British Association; the Essex Naturalist for February; a Photograph of the Cup and Ring Markings at Highbanks, Kirkcudbright, from Mr J. M'Kie;

a Photograph of the Shark exhibited by Mr Hastings at the November meeting ; Tokens of Kirkmahoe Parish from Mr W. G. Gibson ; a Wasp's Nest from Mr Hume of Cherrytrees. Mr J. W. Dods presented a Roman Coin found in Egypt by one of the soldiers during the recent campaign.

COMMUNICATIONS.

- I. *The Kirkmadrine Crosses.* By Mr JAMES G. H. STARKE, M.A., F.S.A., of Troqueer Holm.

The Kirkmadrine Crosses have never been the subject of a paper before this Society, and as I went to see them last summer it occurred to me that you might be glad to have an account of their history, characteristics, and present condition. They were first brought to public notice in 1872 by a paper read before the Scottish Society of Antiquaries in Edinburgh by Dr Mitchell, who had accidentally discovered and examined them with the skill of a scientist some years previously. They are the oldest and only monuments of their kind in Scotland with the exception of one other, also situated in Wigtownshire, near to Whithorn. But they are fast going to destruction, and one of my objects this evening is to awaken the interest which has too long slumbered regarding them, in order that something may be done for their better preservation in future.

There are hundreds of monoliths with crosses incised upon them scattered throughout Great Britain, but only about half-a-dozen similar to those at Kirkmadrine, in having the sacred monogram of Christ upon them, and in peculiar characteristics which enable us to determine their date as being not later than the 7th century. The Rhind Lectures, delivered by Dr Anderson in 1879-80, and by Mr Romilly Allen in 1885 (since published) satisfy the mind of the most exacting student that these Kirkmadrine Crosses, as they are called, belong to a very early date after the introduction of Christianity into Scotland, not later, they believe, than the 7th century. They are probably older than the Ruthwell Cross, which, with its beautiful ornamentation and poetic lines from Caedmon, speak of an advanced art and literature derived from the teaching of Paulinus in Northumberland A.D. 625, while these Kirkmadrine crosses display a simpler and earlier style, derived from Rome through Gaul by St. Ninian and his followers. I may here mention that Kirkmadrine was one of several small parishes long ago merged in the modern parish of Stoneykirk, the

churches of which were chapels of ease in ancient times to the famous monastery at Whithorn. It is pronounced by the country folks Kirkmadreen, according to the Scotch pronunciation of the letter *i*.

And now I proceed briefly to describe the characteristics of pillar-stones, and in what respect these are distinguished from others. Pillar-stones are generally sepulchral, but sometimes they mark sacred boundaries, or are commemorative only of persons, or, as in the Ruthwell Cross, have been erected as a sign and memorial of the Crucifixion, and any name inscribed, *e. g.*, "Caedmon made me," being of secondary importance. These are probably sepulchral. Of the three stones, the two which serve as gate posts are about 5 ft. in height and between 1 ft. and $1\frac{1}{2}$ ft. in breadth. On the top of one are inscribed the first and last letters of the Greek alphabet, and on both of them are incised a simple Greek Cross, the limbs of which gradually expand in breadth towards their extremities; the perpendicular limb being turned to the right at its top, so as to make the Greek capital letter P, which, when thus united with the cross, constitutes the sacred monogram. On the third stone, which was seen and copied by Mr Todd 75 years ago, there was a similar shaped cross and monogram at the top, and at the foot, in Latin capital letters, the words *Initium et Finis*, to correspond and explain the Greek letters on No. 1. It is the sacred monogram, called the Chi-Rho Monogram, which give these stones their peculiar significance. The Chi-Rho Monogram is composed of two Greek letters, the former of which is similar to our St. Andrew's Cross; and the Rho is like our letter P. By swinging round one limb of the Greek letter X so as to place it at right angles with the other limb, we have the Latin form of a cross, which has either the one limb put exactly across the other limb or a little upwards. This Latin form of the Greek Chi-Rho Monogram soon spread from Rome to other countries, and is found upon monuments in Gaul A.D. 377. It is the chief characteristic of these Kirkmadrine Crosses. It is only found upon the very early pillar-stones. There are very few examples of it upon stone monuments throughout Great Britain, there being only 3 in the west of England, 1 in North Wales, 4 in Scotland (Co. Wigtown), and *none* in Ireland.—Allen's E.C.Sy. pp. 86-113.

The Kirkmadrine Crosses have these further special characteristics, viz., that they are rough undressed pillar-stones, without

ornamentation, and that the sacred monogram is placed *within* a circle. And further, although of less consideration, the formula employed in the inscription and the style of lettering materially differs from all those of a later date. These characteristics stamp the Kirkmadrine Crosses as contemporary with the earliest period of Christianity in Scotland, *i.e.*, between A.D. 400-700. Mr Romilly Allen says : " The monograms on the pillars at Kirkmadrine bear a great resemblance to those sculptured over the doorways of houses in Syria of the 6th century, which are illustrated in Mon. de Voguel's magnificent work on this subject." In regard to the inscription and style of lettering we have further evidence of great antiquity. In English the inscription is :—

I am Alpha and Omega.
Here lie holy and chief priests—
That is Viventius and Mavorius :
—us and Florentius.
I am the Beginning and the End.

The words *Hic Jacet* and *Hic Dormit* are those used in the Catacombs of Rome, and at a later time throughout Gaul. They were subsequently quite superseded by a request for prayer for the soul of the deceased, *Ora pro me*. The style of the letters R. M. F. and the occasional combination of two letters, resemble some stones in Wales which are ascribed in the *Archæologia Cambrensis* to the Romano-British period. Lastly, let me endeavour to give a probable answer to the natural enquiry, To whom were these stones erected ? In the fact that their names have not come down to us in history, we have an additional adminicule of evidence in favour of their antiquity, because in early times monuments were not raised to obscure individuals. It should also be kept in mind that until the life of Queen Margaret A.D. 1093, we possess only fragments of authentic Scottish history in Bede, Adamnan, the Irish and Welsh Annals, Northern Sagas, and Pictish Chronicles. The following is an interesting extract from the Ecclesiastical History of the Venerable Bede, who died in 735, regarding the district now under consideration. He writes : " The Southern Picts had long ago forsaken the errors of idolatry, and received the true faith by the preaching of Ninias, a most holy man, who had been regularly instructed at Rome, whose Episcopal See, remarkable for a Church dedicated to St. Martin of Tours (wherein he and many other Saints rest in the body) is still existent."

The names inscribed in these Kirkmadrine Crosses resemble those upon Christian graves in Gaul. We know that Ninian went

to Rome through Gaul, which was the overland route to Rome, and that he got masons from Tours to build Candida Casa. But it is reasonable to suppose that after St. Ninian's death Candida Casa would be sacred to his memory alone, and that Kirkmadrine would be named after St. Martin of Tours, to whose memory the holy men named upon these pillar-stones performed services. That district is studded over with the prefix of "Kirk," which is Anglo-Saxon, and the same dialect would harden the name Martin to Madrine. There is no *K* in the Gaelic, but *C* spelled sometimes *K*, as in Kilbride, Innokill; and later the Norman-French *Eaglais* for *Eglise* occur in this district for the word Church instead of Kirk. It has been suggested that they may have been Irish ecclesiastics, but all the facts are against this theory. There are *no* pillar-stones like them in all Ireland; and the Greek letters and Monogram, together with the Latin inscription, point to a Byzantine-Roman influence succeeding, if not contemporary with, the 4th century, when Constantine was converted to Christianity. If I have reasonably established this I shall have succeeded in the main object of this paper.

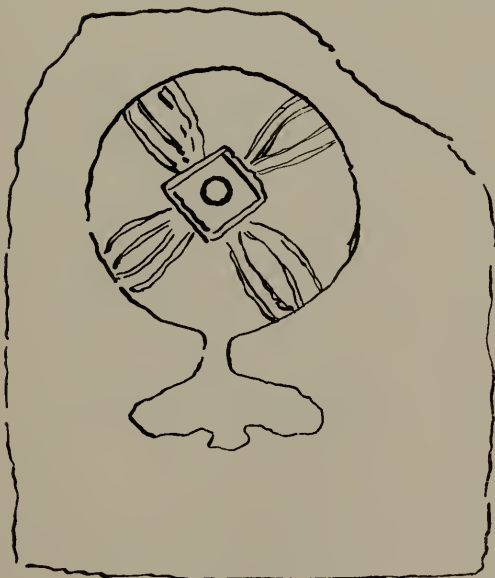
II. *The Oak and Other Trees.* By Mr FRANK MILLER of Annan.

Mr F. Miller, Annan, read an able paper, rendered more attractive by copious poetical extracts, on the subject of the "Oak and other Trees." He dealt first with the extraordinary longevity of the oak, stating that oaks were still standing in this country which were planted as acorns before the last of the Roman legions left these shores. He then vividly depicted the reverence with which the Druids regarded the tree, and the observances associated with it in Druidical times, and also treated of the many historical associations which had since centred round it. The oak had also proved its practical value, the strength and durability of its timber specially fitting it for naval purposes in the days when "the wooden walls of old England" were renowned all over the world, and making it valuable for architectural uses in the present time. Among large oaks, Mr Miller mentioned several majestic trees in Scotland, specifying particularly two at Drumlanrig, which had escaped the mania for destruction of the late Duke of Queensberry, and two on the Eskdale estate of the Duke of Buccleuch. Mr Miller then dealt at some length, and in an interesting fashion, with the characteristics of the beech, the ash, and the yew, and the poetical associations connected with them.

OLD INSCRIPTIONS & CROSSES IN KIRKMADRINE CHURCHYARD
(COPIED BY W. J. ON 31ST MAY, 1887.)
THE STONE IS SANDSTONE & SPOTTED WITH LICHEN.

I

STONE IN WALL ADJACENT TO ONE OF THE GATE POSTS
APPARENTLY UPSIDE DOWN.



EVIDENTLY THERE HAVE BEEN LETTERS IN THE
4 BLANK SPACES OF THE CROSS.

II, MONUMENT SERVING NOW AS GATE-POST
FOR THE CHURCHYARD

LEFT GATE-POST.



HIC JACENT
SCI ET PRAE
CIP VISACER
DOTES IDES
VIVENTIVS
ET MAJORIVS

CIRCLE 14 INCHES IN DIAMETER

INSCRIPTION TAKES UP 15½ INCHES IN DEPTH

12½ INCHES BROAD

FULL BREADTH OF STONE IS 16½ INCHES

HEIGHT OF STONE FROM GROUND 4 FEET, 4 INCHES

SIZE OF LETTERS 2 INCHES BUT A LITTLE VARYING

III, MONUMENT SERVING NOW AS GATE-POST
FOR THE CHURCHYARD

RIGHT GATE-POST



CIRCLE $9\frac{1}{2}$ INCHES IN DIAMETER
INSCRIPTION TAKES UP ABOUT $9\frac{1}{2}$ INCHES IN DEPTH
10 INCHES BROAD
FULL BREADTH OF STONE ABOUT 1 FOOT
HEIGHT OF STONE FROM GROUND 5 FEET
HEIGHT OF LETTERS $2\frac{1}{2}$ INCHES

IV

STONE IN MIDDLE OF WALL AT THE
S.W. ANGLE OF CHURCHYARD.



LYING HORIZONTALLY, ABOUT 9 INCHES IN BREADTH,
LENGTH EXACTLY 3 FEET.

III. *Buittle Old Church.* By Mr JAMES MATTHEWSON,
Dalbeattie.

The brief notes here contributed are intended as a small aid to the solution of the question, "Is Buittle Church of the time of Devorgilla?" In ground plan the church measures 80 ft. 10 in. in length by 25 ft. 4 in. in greatest width. The nave measures 46 ft. in length by 21 ft. 8 in. wide; the chancel, 34 ft. 10 in. long by 25 ft. 4 in. wide. The west door is circular-headed, 3 ft. $2\frac{3}{4}$ in. wide, a plain 2 in. chamfer running round the outside, checked at $8\frac{3}{4}$ inches inwardly, and thereafter slightly splayed. Over this door is a small round-headed window measuring 3 ft. 8 in. by 1 ft. 8 in. Two windows remain in the nave, one in the north, the other in the south wall. Between the nave and chancel a pointed chancel arch still stands. The clear width of passage measures 9 ft. 6 inches. The plan of the pier below the caps and profile of caps are here given full size; but an evident filling up of the floor prevents a proper examination of the bases. In the chancel one window appears in the north wall and two in the south. The north window measures 3 ft. $11\frac{3}{4}$ in. high by $11\frac{1}{2}$ in. wide. It is round-headed, and the interior elevation, as shown in the sketch, is worthy of notice. In the east gable is a door 3 ft. $2\frac{1}{4}$ in. wide, covered by a thin lintel, which forms the sill of a centre window. This window measures 8 ft. high by $14\frac{1}{4}$ in. wide. At a distance of 3 ft. 11 in. on either side stand windows 6 ft. 8 in. high by $11\frac{3}{4}$ wide. The three east windows are all round-headed, and finished externally by a plain chamfer. In the north wall, at the junction of the nave and chancel, and near the present floor level, I some time ago found, bedded in the old mortar, a portion of roofing slate. The slate had a pin hole, and had been well dressed. It had apparently been used by some of the builders as a levelling for the bed of the stone immediately above. Some of the stone dressings are a reddish freestone, others resemble mill-stone grit. In some parts of the building both kinds appear indiscriminately mixed. The perfect condition of the present pointed arch between nave and chancel, the jumble of materials in some places, the broken slate, and other features, seem to suggest that a much older church may have existed on or near the site of the present one, and that the present building is much later than Devorgilla.

IV. *The Old Cornkilns at Barclosh, Kirkgunzeon.* By Mr
WM. J. MAXWELL of Terregles Banks.

On the Farm of Barclosh, near Southwick Station, there are a number of circular pits which have recently attracted notice, and although two of them are marked on the Ordnance Survey map as Old Kilns, it was thought desirable that one should be cleared out so as to ascertain more exactly its construction and purpose. The result of this investigation is to shew that the structures in question are old kilns, and that they have probably been used for drying grain before grinding it in the hand-mills or querns formerly in use. The one recently cleared out was found to be 6 ft. 6 in. in depth, 13 ft. in diameter at the top, and regularly contracting to a diameter of 4 ft. 6 in. at the bottom. Like the others on the same farm it is circular, situated on the slope of a hill and firmly built with rough stone, without lime. It has a smooth compact floor of clay. At the bottom is an aperture resembling a pen or drain, 18 in. in width by 15 in. in height. Two stones project from the circular wall towards the inside, apparently to serve as steps in climbing out. At the side on which the ground is highest there remain the foundations of a rectangular building $13\frac{1}{2}$ in. by $10\frac{1}{2}$ in. inside measurement. This building is not sunk below the surface of the ground, and may have been used for storing the grain before or after the drying process. This kiln is about 90 yards to the south-east of Barclosh farm-steading, and about 40 yards from the road leading past it. 286 yards further south, and 55 yards on the other side of the parish road, there is another kiln of similar construction and dimensions. About 190 yards to the south-west of that last mentioned and close to the parish road, there is a third, and in the copse or young plantation adjoining, a fourth kiln—the last two of somewhat smaller size and without the rectangular building observed in connection with the first two.

It seems remarkable that so many of these kilns should be found so near together, but the remains of other buildings show that numerous dwellings have at one time existed at this place. Here and there throughout the copse and rough ground adjoining may be noticed curious mounds and cairns, which may perhaps be natural, or thrown up in clearing the ground for tillage, but which may, on the other hand, indicate ancient burial-places. In Sir Herbert Maxwell's work, I believe he translates Barclosh as meaning the Hill of the Trench, Pit, or Grave.

15th April, 1888.

At a meeting of the Council at which Mr ROBERT MURRAY, V.P., presided, the Secretary submitted the following letter from the Rev. R. H. Taylor, M.D., to the Rev. Robert W. Weir :

LIVERPOOL, 1 PERCY STREET,
April 14, 1888.

DEAR SIR,

Will you oblige me by being the medium of conveying to the "Dumfries and Galloway Natural History and Antiquarian Society" the gifts which I now send of the MS. History of the Parish and Town of Dumfries, written by my grandfather, the Rev. William Burnside, D.D., formerly minister of St. Michael's Church.

The conditions on which I bestow the volume are simply these :

1. That I may have an exact copy of the same.
2. That the volume may be open to the inspection of all who wish to see it, subject to the rules of the society.
3. That in the event of the society being dissolved, the MS. may be given to the Museum at present contained in the Observatory on the Corberry Hill, in the Parish of Troqueer.

It affords me much pleasure to hand over this interesting narrative to those who I know will appreciate it, and doing so will be careful to preserve it.

Be so good as apprise me of the safe arrival of the volume.

I am,

Very sincerely yours,

R. H. TAYLOR.

Rev. R. W. WEIR.

The thanks of the Council were awarded to Dr Taylor for his present, and to the Rev. Robert W. Weir for being the means of procuring this valuable document.

Field Meeting. 5th of May.

The first excursion for the season took place on the 5th May, when a small party inspected several objects of interest on the farm of Barcolsh, Kirkgunzeon, under the guidance of Mr W. J. Maxwell, Terregles Banks, and Mr Wellwood Maxwell of Kirkennan. A portion of the walls of Barcolsh Tower is still standing, although in a very decayed condition, adjacent to the farm-house. The walls are over three feet in thickness, and it is evident that the place has been one of considerable strength. Scarcely an indication remains of the existence of the castle, of which it formed

a part, and which was one of the principal seats of Lord Herries at the time of Queen Mary.

The party next inspected the old corn kilns, respecting which an interesting discussion took place at the last meeting of the Society, but despite much earnest investigation no fresh facts were elicited regarding them. It may be noted, however, that the remains of buildings are always to be found near these kilns, and the conclusion is therefore irresistible that a considerable population was at one time maintained on what now appears a stretch of the most unpromising pasture land in the Stewartry.

The party next proceeded to Barcosh Outer Hill, where much speculation was indulged in regarding a large number of cairns of stones which have been built, without much apparent design, at irregular intervals all over the hill. It was suggested by some members of the party that these cairns were erected by the Celts to mark places of sepulchre; but a more prosaic section contended that the ground had merely been cleared for purposes of pasturage, and no carts being available in those days to transport the stones to a distance, they had been collected in this way.

The usual monthly meeting was held in course of the afternoon, Mr W. J. Maxwell presiding. The Secretary intimated the following additions to the library since last meeting: The Proceedings of the Society of Antiquaries, 1886-87; of the Berwickshire Naturalists' Club (two parts); the Belfast Naturalists' Field Club; the New York Academy of Sciences; and from the Smithsonian Institution, a Bibliography of the Eskimo Language; Perforated Stones from California; Work in Mound Exploration; and a Bibliography of the Sionan Language. Also two monographs—one on the salt mines of Hallein, and the other on an Excursion to the Hospice of Great St. Bernard by the author, Dr R. H. Taylor.

Field Meeting. 2nd of June.

Owing to the heavy rain no excursion was made. Dr Taylor, of Liverpool was elected an honorary member on the recommendation of the Council.

A meeting of Council was held on the 29th June, at which Mr Joseph Wilson resigned the honorary secretaryship, on his

removal to Fifeshire. On the motion of Major Bowden, Mr Wilson was heartily thanked for his services as secretary, Messrs Watson and Murray making complimentary remarks upon the value of his exertions on behalf of the Society. Mr Robert Barbour was elected secretary till the end of the current session. The Council agreed to present a gold watch to Mr Wilson as a testimonial in recognition of his labours as secretary. This presentation was made on the 5th of July at a meeting of the Society specially summoned for the purpose.

Field Meeting. 7th of July.

A party of twenty-six members from Dumfries, who were joined on the way by Dr Grierson, president of the Society, and several members from Sanquhar, making thirty-five in all, had a circular drive on Saturday, 7th July, from Thornhill, proceeding up the Valley of the Nith and Mennock Pass to Wanlockhead and Leadhills, and returning by way of the Elvan and Dalveen Passes. On the way up Mennock, a halt was made at a spot called the Pangrains, to inspect two little grass-grown grounds, intersecting each other in form of a cross, supposed to mark the site of an ancient place of worship. The shaft of the cross is twelve yards in length; the arms each measures seven yards. At Wanlockhead the party were conducted by Mr Peter Stewart, resident manager of the Lead Mines, through the crushing, washing, and smelting works, the various processes being explained to them, and Dr Wilson, of Wanlockhead, pointing out the various minerals found along with the galena. They had also explained to them the methods employed in desilverising the ore (according to Pattinson's patent) and extracting litharge. At Leadhills the President obtained from one of the miners a few grains of native gold, and several of the members procured samples of different minerals from the lead mines.

Field Meeting. 8th of September.

The last field meeting of the session was held on Saturday, 8th September, when a party of thirteen left the Fountain by waggonette, at 9.30 A.M. They first visited Springfield Camp, near Dunscore, where they were joined by the Rev. Mr Simpson and Dr Callander. The latter undertook to act as conductor, and

pointed out the peculiarities of the camp. The camp is an interesting one. It occupies the summit of a span of Springfield Hill, and near by is a spring of water, from which its name is probably derived. The position is one of great strength, and it commands a most extensive prospect. Burnswark is in view; and the spectator overlooks the whole valley of the Nith downwards, and Glenesslin valley and a considerable part of the valley of the Cairn upwards.

Proceeding by way of Dunscore village, Dalgonar Bridge, and Glenesslin to Sundaywell, the fine single-span bridge over the Cairn at Dalgonar Mill and the beautiful glen below were noted. Further on, Collieston, the ancient lairdship of the Welshes, was pointed out, and Chapel, deriving its name from a small church which stood there, and of which only one stone is now to be seen. Arriving at Sundaywell, the old tower was examined. The building is now so much modernised that little of its ancient character is left. A panel over the door bears a shield, above which are the initials I.K.S.W. [J. Kirk, S. Welsh?], and below the date 1651. Sundaywell Camp, which is little known, was the next object of attention. It lies at the base of Bogrie Hill on a natural mound. It is somewhat larger than Springfield, measuring about 120 yards by 70; but the two camps resemble each other to a remarkable degree, and although more than five miles apart in a hilly country, they are visible one from the other.

Proceeding to Bogrie Tower, the oak fern was found in abundance in the glen of the burn. The tower which stood here was removed several years ago, but the remaining dwelling-house is of considerable age, and possesses some points of interest. In its walls and in those of the offices are a large number of moulded stones which belonged to the Old Tower, and they indicate that the building has been one of some importance and with characteristic features. There is a panel inscribed with the initials IK-IM and the date 1660. A small circular camp at Bogrie Hill was also visited.

The return journey was made by way of the Glen of Lag, and the remains of Lag Tower were examined with interest. Of it the late Charles Kirkpatrick Sharpe says: "I think I never saw so rude a ruin as the tower of Lag, in the glen of that name. The stones appear to have been taken out of the burn, and made walls of, without the help of pickaxe or chisel—not a tree, or anything like one, to be seen—nothing but huge round stones, and stunted

whin bushes, and a scanty rivulet flowing between the solitary braes. Things, however, may now be changed, for it is more than 20 years since I visited the Glen of Lag." No change is visible.

Mr Richard Rimmer, F.L.S., of Dalawoodie, and Rev. Richard Simpson, of Dunscore, were elected members at a meeting presided over by Mr R. Murray, V.P.

SESSION 1888-89.

5th 'October, 1888.

ANNUAL MEETING.

Mr JAMES G. H. STARKE, M.A., F.S.A., in the Chair.

New Members.—Mrs Wm. McDowall, Cresswell Terrace, and Mr John Smith, St. Michael Street.

Donations.—The Secretary (Mr Robert Barbour) laid on the table the Smithsonian Report, 1885, Part I.; Elisha Mitchell Scientific Society's Journal, 1888, Part I.; and the July and August numbers of the Essex Naturalist.

SECRETARY'S REPORT.

The Honorary Secretary submitted the following report :— One change has occurred during the Session which deserves very special mention. The Society has lost the valuable services of Mr Wilson, who for several years discharged in a most efficient manner the duties of Honorary Secretary. Mr Wilson having received promotion in the Civil Service, resigned the office in consequence of leaving the town. The Society is much indebted to Mr Wilson's activity during the time he held office, and the value of his services is fully recognised.

At the last Annual Meeting the membership of the Society numbered 223, comprising 6 life, 197 ordinary, and 20 corresponding members, while the Roll-book at present shows a membership of 209, 7 being life, 183 ordinary, and 19 corresponding members. During the Session 12 new members have been elected, while 26 names have been taken off the roll, on account of death, change of residence, and a stricter scrutiny.

Seven winter meetings were held as usual during the Session. The average attendance was 29.7, being a falling off as compared with last year, when the average was 34. Nineteen communications were read, most of which were of considerable local interest. At the December meeting a new code of Rules was adopted, on the recommendation of the Committee.

On account of the very unfavourable weather during the summer only three of the five Field Meetings arranged were held, and the attendance was small, except at the July excursion, when the party numbered 33. The districts visited were Southwick, Leadhills, and Dunscore.

The Society's Transactions for Session 1886-87 have been published. The volume contains the usual record of the work done and the more important of the papers read during the Session. Two of the papers are accompanied by valuable illustrations. A special feature of the work is an appendix containing a descriptive list of articles exhibited at the *Conversazione* held on the 27th, 28th, and 29th October, 1886. Many of the articles mentioned are of historical value, and have not before been exposed to public view.

Science Gossip, *Nature*, *The Scottish Naturalist*, and *The Journal of Botany* have been taken in during the Session and circulated among the members.

The Museum and Library continue to increase, donations having been received at all the winter meetings during the Session.

On the motion of Mr James Lennox, Mr Robert Barbour was thanked for his services as secretary.

ELECTION OF OFFICE-BEARERS.

President, Mr Richard Rimmer of Dalawoodie ; Vice-Presidents, Major Bowden, Messrs Francis Maxwell of Gribton, Wellwood Maxwell of Kirkennan, James G. H. Starke of Troqueer Holm ; Hon. Secretary, Mr Robert Barbour ; Hon. Treasurer, Mr James S. Thomson ; Council—Rev. William Andson, Messrs James Barbour, James Davidson, John W. Dods, James Lennox, William M'Dowall, Miles M'Innes, John Neilson, Thomas Watson, Rev. Robert W. Weir. Auditor, Mr Thomas Laing.

The Chairman moved a vote of thanks to the retiring president, Dr Grierson, which was heartily accorded.

10th November, 1888.

Mr RICHARD RIMMER, F.L.S. (the President), in the Chair.

New Members.—Mr John Blacklock, solicitor ; Mr Maxwell of Screel ; Rev. J. H. Thomson of Hightae.

Donations.—A fine specimen of the Peregrine Falcon, presented by Mr W. J. Maxwell of Terregles Banks ; the Proceedings of the Glasgow Natural History Society ; the first volume of the Transactions of the Highland Society (1799), presented by Mr James Barbour ; and a stake *alleged* to be from a lake dwelling in the loch at Lochmaben, presented by Mr James Lennox.

Mr J. G. H. Starke (advocate) having briefly referred to the loss which the Society had sustained in the death of Mr M'Dowall, proposed the following resolution, which was agreed to unanimously :—"That this Society records its deep regret at the sudden death of its most distinguished member, Mr William M'Dowall, F.S.A., the historian of Dumfries, and desires that its sympathy with his domestic circle in its bereavement be communicated to his widow."

PRESIDENT'S ADDRESS.

The President read a short inaugural address to the following effect:—Ladies and Gentlemen,—The first duty incumbent upon me this evening is to thank you very heartily for the honour you have done me in electing me to your presidential chair. When your wish that I should become the President of this Society was first intimated to me, I confess that, for a moment, I was somewhat doubtful whether I could conscientiously undertake the responsibilities pertaining to that office, but the invitation was conveyed to me in terms so cordial and so pressing that I felt myself bound in common courtesy to accept it, and this I did the more readily because it seemed to imply on your part a confidence in my ability to serve you, which was by me as unlooked-for as it is, I fear, unmerited. It will, however, be my earnest endeavour, so long as I occupy this chair, to do my little best to promote the welfare of our Society.

I will now make a few remarks respecting the progress which has been already made by the Society towards the attainment of the ends for which it was originally instituted, as well as some of the means by which it may best achieve that which still remains to be accomplished in the future. These remarks must, however, be very brief, because I rejoice to see that we are to be favoured with two communications which will, I am sure, be more attractive to you than anything I have to say this evening.

I have not yet had an opportunity of reading any of the Transactions of this Society except the last, which has recently

been issued ; but I gather from its pages quite enough to enable me to congratulate you heartily upon the work which has been done in archæological research, as well as in many of the branches of natural history. As to archæology, it would indeed be "passing strange" if we who have our home in this charming district, teeming as it is with monuments of the past, could go on our way all heedless of such relics, which, silent though they be, speak to us in "language more eloquent than words" of days and deeds which but for them would have been for ever buried in oblivion ; but, fortunately, there are among us those who have taken care to see that treasures such as these are not ignored. I read with much pleasure in the Transactions alluded to several interesting papers on this subject, especially those communicated by Mr Wilson and Mr Coles.

Passing on to natural history, botany would seem to hold a first place in the estimation of our members. This is not surprising, and full advantage has evidently been taken of the lavish manner in which Flora has bedecked this district. In geology and mineralogy I understand that good work has been done. Zoologists, too, have not been idle, and here I must not omit to notice a very interesting and able communication by Mr Armistead on "Atmospheric and other Influences on the Migration of Fishes," a subject which has not hitherto received the attention it deserves. The insecta have been well looked after, especially by Mr Lennon, whose unwearying zeal and energy in his favourite pursuit called forth my admiration, if I mistake not, so long as thirty years ago, and if he has continued until now to be as unrelaxing in his effort as he then was, it must be a very cunning species which has eluded his searching eye.

And now a word about the mollusca. It is much to be regretted that the study of these creatures has, in this district, been hitherto greatly neglected. If they are looked down upon with contempt by those who know but little about them, it ought to be remembered that nothing which the Almighty has seen fit to create can possibly be unworthy of our contemplation. To those, however, who would wish to make amends for neglected opportunities there is the satisfaction of knowing that a new field for research lies open before them in this locality, and to me it has always been a source of intense pleasure, so far as natural history is concerned, to find myself on hitherto untrodden ground.

Some of you at least may not be aware that a few years ago conchological maps of every county in Great Britain and Ireland, showing the distribution and number of species of land and fresh-water shells then known to occur in each county, were from time to time being published, and I was astonished to see that Dumfriesshire stood nearly, if not quite, at the bottom of the list, and deserving to wear the dunce's cap! Now, I want some of you to help me to blot out this stain upon our character as naturalists. Of course it is but little that I have been able as yet to effect in this direction, but that little convinces me that a diligent and persevering search will reap a rich reward. I trust, therefore, that our knowledge of the mollusca of this district will in the coming year be largely increased, and then I shall be glad, if permitted, to speak to you at greater length about them than I have been able to do this evening.

In conclusion, I would strongly urge upon you the necessity of striving to do original work. This will bring you face to face with Nature. Listen to her teachings, which, if rightly learnt, will help you to shake off the fetters of self-pride which are too often wont to stay our progress, and then she will lead you step by step onward and upward until you are enabled to form a better, though still feeble, conception of the stupendous majesty of Nature's beneficent Creator.

COMMUNICATIONS.

- I. *An Ornithological List for the Parish of Glencairn.* By Mr JOHN CORRIE of Moniaive.

The first bird to be mentioned is the Peregrine Falcon (*Falco Peregrinus*), now a rare bird in the district, although common, I believe, at one time, and known to nest regularly on the Auchinstrowan, Lorg, and Craigenputtock crags. Single birds were seen this year in the vicinity of Woodlea and Maxwelton, but it is unlikely they would be allowed to nest. The Merlin (*Falco Æsalon*), like the Peregrine, is yearly becoming less common. During May of the present year a pair nested on the Bogrie moors, but the female was trapped and her mate is said to have been shot. The Kestrel (*Falco Tinnunculus*) is still a fairly common species, but its extermination, like that of all the hawks, can only be a matter of time. The Sparrow Hawk (*Accipiter Nisus*) may be considered rare. The Kite (*Milvus vulgaris*) is now almost, if not quite, extinct. When a boy, a tame Kite or "Gled" as we called it, was

kept at the Craigdarroch Inn, Moniaive. It was allowed perfect freedom, but never attempted to escape. One Lamb Fair day a shepherd's dog, having stolen a piece of beef, retired to a quiet corner of the inn yard to eat it. The "Gled" happened to be perched on the roof of an adjoining outhouse at the time, and the dog had no sooner squatted with his prize than the "Gled" swooped down upon him, seized the piece of beef, and bore it off to his perch, the startled collie meanwhile bolting up the nearest passage. The Common Buzzard (*Buteo vulgaris*) is said to have been common thirty or forty years ago, but it is rarely met with now, and I have never seen the bird personally. The gamekeeper on the Craigdarroch estate informs me that he has once or twice seen a pair of Buzzards "sailing" down the glen as far as Craigdarroch, but they always turned there and made away back again. When seen it has always been during the winter months, and there is not the least likelihood of the bird being met with as a nesting species.

Nocturnal birds of prey are represented by four species: The Long-Eared Owl (*Otus vulgaris*), which is not common; the Short-Eared Owl (*Otus Brachyotus*), rarer still; the Barn Owl (*Strix Flammæa*), which, down to a few years ago, nested regularly at Hastings Hall; and last, the Tawny Owl (*Syrnium Stridula*), our only really common species. The Spotted Flycatcher (*Muscicapa Grisola*) may be considered common. It is a bird unconventional alike in its choice of nest sites and its selection of materials. Some years ago we found a nest in the vicinity of a joiner's workshop, built entirely of shavings, and placed in the crevice of a stone bridge.

The Common Dipper (*Cinclus Aquaticus*), a bird often spoken of as scarce, is common in Glencairn. It is met with along all our streams, and there are few places suited to its habits where I could not undertake to find a nest. It is one of our earliest nesting species, and often has its young hatched before the majority of our birds have even thought about egg-laying. I knew a nest this year in which the brood was hatched during the third week of April. It is unaccountable to me how the Dipper is so often overlooked as a songster. An attractive bird, with a good deal of individuality about it, and therefore often described, it is at the same time but rarely we see it referred to as a singer. Thus, for instance, in a series of well-written articles on bird life lately contributed to *Good Words*, the writer includes the Dipper in his list of winter residents, but omits it in his list of winter songsters,

--a most unmerited slight, as all who have listened to the bird will be ready to testify.

The Missel Thrush (*Turdus Viscivorus*) is common. Deservedly famous as a songster, he is no less gifted in the use of bird Billingsgate, and woe betide the luckless egg-collecting wight upon whose head is poured the full venom of his wrath! The Fieldfare (*Turdus Pilaris*) is of frequent occurrence in the winter months. The Song Thrush (*Turdus Musicus*), I am pleased to say, abounds. The Blackbird (*Turdus Merula*) is plentiful, and its near ally, the Ring Ouzel (*Turdus Torquatus*), not uncommon. The Hedge-Sparrow (*Accentor Modularis*) is common, and sociable as well. Two years ago a remarkable instance of interrupted egg-laying came under my notice. A nest had been built in the garden hedge, and a single egg laid therein, when the birds to all appearance forsook the nest. Six days later, however, the birds returned, and re-arranged the nest, when laying was continued. The Robin (*Erythaca Rubecula*), another lover of human abodes, is met with everywhere. The Redstart (*Phoenicurea Ruticilla*), although occurring throughout the parish, can scarcely be considered common anywhere. In Tynron district it seems to be much more abundant. On one occasion I found no fewer than three nests in the immediate vicinity of Tynron Village. The Whin Chat (*Saxicola Rubetra*) a bird we call Stonechat in Glencairn, and the Wheatear (*Saxicola Œnanthe*) are both common. A year or two ago I would have described the Grasshopper Warbler (*Salicaria Locustella*) as rare, but I have satisfied myself that in Glencairn at least it occurs in considerable numbers. I had my attention first directed to the bird some five or six years ago when rod-fishing on the Cairn, and I have frequently heard it during similar excursions since. The nest is said to be very difficult to find, and to this circumstance may perhaps be attributed my want of success in the search. I have information of a bird shot in the water of Ken district which, from the description I received of its note and plumage, and, what is still more characteristic, its peculiar habit of skulking, I have no doubt was the Grasshopper Warbler. That delightful nocturnal songster, the Sedge Warbler (*Salicaria Phragmitis*) is common. During mid-summer it sings the greater part of the night as well as the day, and while some people profess not to care for its hurrying manner in song, I have often been entranced with its melody. Both the Blackcap (*Curruca Atricapilla*) and Wood Warbler (*Sylvia Sibilatrix*) are rare. The

Whitethroat (*Curruca Cinerea*) and Willow Wren (*Sylvia Trochilus*) are fairly numerous, while the Lesser Whitethroat (*Carruca Sylviella*) and Chiffchaff (*Sylvia Hippolais*) may perhaps be considered rare. The Garden Warbler (*Curruca Hortensis*) I am disposed to think must occur with us, but I have failed to recognise it. The Gold-crested Regulus (*Regulus Cristatus*), the smallest not only of British but of European birds, and one of the prettiest, is not uncommon. It is our only species that builds a hanging nest, and the structure, in compactness and beauty and architecture, is only rivalled by that of the Chaffinch. The Wren (*Troglodytes Vulgaris*) is plentiful, and a favourite with everybody. Strange sites are often selected for nesting, and great ingenuity shown in concealment. We once saw a nest built in a tuft of waterdrift which a flooded stream had left suspended from the branch of an overhanging tree. On another occasion we found a nest concealed in a clump of polopody fern on the rocky face of Craigenputtock Moor, a site which appeared much better suited to the hawk than to the tiny wren. The Creeper (*Certhia Familiaris*) can scarcely be considered rare, but it is retired and unobtrusive in habits, and, on that account, often overlooked. The Great Tit (*Parus Major*) is met with sparsely throughout the parish. It is a bird endowed with great strength of bill, and we have seen it break the shell of a hazel-nut with ease. In autumn the sharp tap-tap of its bill in the nut woods may often be heard when the bird itself is unseen. The Blue Tit (*Parus Cæruleus*) is common. The Cole Tit (*Parus Ater*) and Long-Tailed Tit (*Parus Candatus*) are both somewhat scarce. When I have seen the latter at all it has usually been in flocks of six or more intent upon some winter food foray. The Bohemian Waxwing (*Bombycilla Garrula*) was seen once many years ago in the vicinity of Hastings Hall—the only instance of its occurrence. Among the Motacillidæ, the Pied Wagtail (*Motacilla Alba*) is the only really resident variety, and it is likewise the most common. The Grey Wagtail (*Motacilla Boarula*), the handsomest of its class, can scarcely be considered a plentiful bird. During the winter months it is entirely absent. Ray's Wagtail (*Motacilla Flava*), the smallest of the wagtails, is also the least common. I have seen it in one locality for several years in succession, but I am doubtful if it occurs anything like generally. The Tree Pipit (*Anthus Arboreus*) is not uncommon. The Meadow Pipit (*Anthus Pratensis*) is abundant. The Sky Lark (*Alauda Arvensis*), our "feathered Pan," as

Anderson calls it, carols over all our meadows. The Snow Bunting (*Plectrophanes Niv Lis*) has only been seen once. The Common Bunting (*Emberiza Miliaria*), although recorded for the lower portions of the parish, does not appear to be generally distributed. The Black-Headed Bunting (*Emberiza Schoeniclus*) is not by any means an uncommon bird, but it is rarely seen at any great distance from its nesting haunts—the rushy margins of streams or marshes. The Yellow Hammer (*Emberiza Citrinella*) is still a common species, although sadly reduced in numbers by recent severe winters. The Chaffinch (*Fringilla Coelebs*) is almost as common as the ubiquitous House Sparrow, and, despite his handsome coat, almost as little prized. He sings a good song, nevertheless, and builds the prettiest nest of all our British birds. The Mountain Finch (*Fringilla Montifringilla*) is known to us as an occasional visitor only. The House Sparrow (*Passer Domesticus*) is met with everywhere. The larger number build their nests under the eaves of houses, but no inconsiderable portion build on trees. When a tree is selected the structure is invariably large and ugly. The Greenfinch (*Coccothraustes Chloris*) occurs plentifully. The Goldfinch (*Carduelis Elegans*), a common enough bird, I believe, at one time, must now be considered rare. The Siskin (*Carduelis Spinus*) is occasionally seen as a visitor, but it has never been known to nest. The Common Linnet (*Linota Cannabina*) is abundant. The Mountain Linnet (*Linota Montium*) visits us from time to time in flocks. One winter, four or five years ago, I caught two of these birds in the hand by simply following a flock of them and imitating their feeding note. The Lesser Redpoll (*Linota Linaria*) is rare even as a visitor. The Bullfinch (*Pyrrhula Vulgaris*), although seen here and there throughout the parish, occurs in no great numbers anywhere. The Starling (*Sturnus Vulgaris*) in Glencairn, as elsewhere, is becoming increasingly common. A generation ago starlings were almost unknown, and I am credibly informed that the first starling seen in Glencairn was sold for half-a-sovereign, and the bird was a dead one. The Raven (*Corvus Corax*) down to within recent years nested regularly on the face of Auchenstrowan Crag, but the site has now been abandoned, and we are not aware of any other in the parish or its vicinity. The birds, however, are still seen at intervals. The Crow (*Corvus Corone*) is common, and, I need scarcely say, so is the Rook (*Corvus Frugilegus*). It is a popular belief in the South of Scotland that crow nest-building commences on the first Sabbath

of March ; but if this is so, the birds would appear to get confused in their dates occasionally, as we have seen them re-habilitating their old homes as early as the second week in February. In Chambers's "Book of Days," the twelfth day after Candlemas (O. S.) is similarly associated with the nesting habits of the crow ; and we are told the Rev. Dr Waugh used to relate that, on his return from the first year's session at the University of Edinburgh, his father's gardener undertook to give him a few lessons in natural history. Among other things he told him that the "craws" (rooks) always began building twelve days after Candlemas. Wishing to show off his learning, young Waugh asked the old man if the craws counted by the old or by the new style, just then introduced by Act of Parliament. Turning upon the young student a look of contempt, the old gardener said : "Young man, craws care naething for Acts of Parliament." We are disposed to think they care just as little for popular beliefs, and that in the matter of nest-building they observe no hard and fast rule whatsoever. The truth is that by the first Sunday in March, or even the twelfth day after Candlemas, nest-building has become so general that even the unobservant can no longer shut their eyes to the fact. The Jackdaw (*Corvus Monedula*) is plentiful. A few nest in ruined buildings and in chimneys, but the greater number make use of rabbit burrows. When White wrote his delightful "Natural History of Selborne," this habit of nesting in burrows was considered something very remarkable, but we suppose instances of its occurrence are now known to be frequent. The Magpie (*Pica Caudata*) is now almost, if not quite, extirpated. Our welcome visitor, the Cuckoo (*Cuculus Canorus*) is common. This bird's peculiar habits of nidification are well known, but I have an incident which is probably unique. Robert Currie, shepherd at Castlehill, in the parish of Durrisdeer, while on his usual morning round of inspection among the sheep stock under his care, noticed a young bird lying on the ground. Lifting it, and looking about him, he discovered a nest, which contained a similar birdling, not far off, and in this nest he placed the birdling he had picked up. Next morning, on making a return visit to the spot, he was surprised to find the bird outside the nest again. He replaced it once more, but soon afterwards found it outside as before—this time dead from exposure. He then discovered that both of the birds were young cuckoos, and each being actuated by the instinct to eject its fellow-occupant from the nest. The

sanguinary struggle had proceeded until one of the combatants succumbed, a victim to the instinct of its kind. That richest plumaged of British birds, the Kingfisher (*Alcedo Ispida*) is rare. The only place I have ever seen it is on the Cairn, in the vicinity of Maxwelton. The Swallow (*Hirundo Rustica*), the Martin (*Hirundo Urbica*), and the Sand Martin (*Hirundo Riparia*) are all common. A few Swifts (*Cypselus Apus*) still nest with us, but it is a rare bird compared with what it was at one time. A two-storey thatched house which occupied a somewhat isolated site in our little town of Moniaive used to be a favourite nesting place, but the house was pulled down some years ago, and the birds have never returned in anything like the same numbers since. The Night Jar (*Caprimulgus Europæus*) is said to nest in some of the more remote nooks of the parish, but I never even saw the bird personally until this summer, when a single bird was observed for two nights in succession hawking for moths in my own garden. The Ring Dove (*Columba Palumbus*) is abundant. This year I found a Ring Dove's nest, containing young, placed in a hawthorn tree at an elevation of not more than four feet from the ground, and side by side with it a nest of the blackbird containing eggs. The low elevation for a Ring Dove's nest and the companionship appeared to me alike remarkable. The Pheasant (*Phasianus Colchicus*) is common, and the same may be said of the Black Grouse (*Tetrao Tetrix*), the Red Grouse (*Lagopus Scoticus*), and the Common Partridge (*Pedrix Cinerea*). The Golden Plover (*Charadrius Pluvialis*) is met with on all our hills. The Lapwing (*Vanellus Cristatus*) is plentiful. This bird, as is well known, is a careful mother, and in the stirring days of persecution her watchfulness against intrusion is said to have often proved fatal to the lonely wanderers on the moors and fells. The Heron (*Ardea Cinerea*) is not uncommon in the district, probably owing to the circumstance that we have an old-established heronry at Craigmuir. The most of the trees were unfortunately blown down during the gales of December, 1883, and January, 1884, and I am disposed to think there has been a marked diminution in the number of birds since. The Curlew (*Numenius Arquata*) is very common. The Common Red-Shank (*Totanus Calidris*) we have recorded for one locality, Loch Urr, on the boundary line between Dumfriesshire and Kirkcudbrightshire, where a few pairs annually come to breed. The Common Sand-Piper (*Totanus Hypoleuca*) is met with along all our streams. The Wood-

cock (*Scolopax Rusticola*) is common as a winter visitor, and, I have reason to believe, not infrequent as a nesting species. Last summer, for instance, a pair took up their quarters in a small plantation on the Glencairn side of the hill-ridge separating Glencairn from Tynron. The cry of the birds was often heard on still nights, and the locality being a suitable nesting one, I have not a doubt the birds remained to breed. Sportsmen speak of the woodcock as "a hard-winged bird," and anyone who is familiar with it can recognise it at once by the rattle of its wings on taking to flight. Another peculiarity is the eyes, which are remarkably large and fine, hence Butler in his "Hudibras" speaks of men "finding woodcocks by their eyes." In marshy tracts throughout the parish the Common Snipe (*Scolopax Gallinago*) occurs plentifully. The Jack Snipe (*Scolopax Gallinula*), a much smaller and scarcer bird than the preceding, is somewhat rare. I am disposed to think it remains to nestle, but cannot speak positively as to this. It has been seen about the commencement of August, and, if not a nesting species, August seems a late month to leave and an early one to return. The Land-Rail (*Crex Pratensis*) may be considered common. The Moor Hen (*Gallinula Chloropus*) inhabits all our streams. The Coot (*Fulica Atra*) is not uncommon on lochs outside the parish boundaries. Inside the parish it is rather a rare bird. Both the Wild Duck (*Anas Boschas*) and Teal (*Anas Crecca*) are fairly common. The Widgeon (*Anas Penelope*) occurs as a winter visitor. I am told that some few birds remain throughout the breeding season, but I have been unable to authenticate this. Single specimens of the Golden Eye (*Fuligula Clangula*) and the Goosander (*Mergus Merganser*) have been shot within recent years on the Cairn, and the stuffed specimens are preserved in the gun-room at Crawfordton House. Another species of duck, said to be rare, was shot by Mr William Davidson, gamekeeper on Crawfordton, near to Snade Mill some three years ago. The Little Grebe or Dabchick (*Podiceps Minor*) was seen by me on the Cairn during the winter of 1885, and I have since found it nesting on one of the smallest of the lochs in the parish. It is by far the most interesting of the water birds with which I am acquainted, and if proprietors would only instruct their keepers to preserve, I am disposed to think it might become much more common than it presently is. The Common Cormorant (*Phalacrocorax Carbo*) is a regular visitor to Loch Urr, and has even been seen within a few hundred yards of

Moniaive—surely a remarkable record for an inland parish such as Glencairn. The Black-Headed Gull (*Larus Redibundus*) abounds during the summer months, and large numbers annually breed on the little rocky islet in Loch Urr. During winter they leave the district, although a few may return during seasons of exceptional mildness. The Common Gull (*Larus Canus*), though not nearly so numerous as *Ridibundus*, occurs in considerable numbers during summer, but is less common in winter. The Great Black-Backed Gull (*Larus Marinus*) is not infrequent as a visitor during the winter and spring months. When seen it is usually in the vicinity of the river, and, being anything but dainty in its tastes, it doubtless helps to keep our waters pure and sweet. It is not a lovable bird, however, and, as it is the last on our list, we half regret having adopted an arrangement which compels us to close our references to the Birds of Glencairn with one that is so ill-favoured.

Note.—Glencairn and Tynron being conterminous parishes, a comparison of the two lists may not be without interest. The Tynron list comprises eighty-six birds; the Glencairn list ninety nine birds, or one hundred inclusive of one doubtful. Three species included by Mr Brown in his Tynron list are absent from my Glencairn list, while sixteen species recorded for Glencairn are absent in Tynron. Of these fully one-half are water birds, clearly showing that the want of a loch of any considerable size is the reason why Tynron, a district otherwise admirably suited to bird life, falls so far short of Glencairn.

II. *The Birds of Upper Nithsdale.* By ANSTRUTHER DAVIDSON, M.D., of Sanquhar.

For the last three years I have been carefully observing and recording the numbers and habits of the *avi fauna* of this district. Some of these records I have transcribed for your benefit to-night, chiefly those dealing with the numbers and distribution of our native birds. It would serve no good purpose to enumerate the migratory species, as these are almost similar to migrants in other localities, only a very few notable captures having been recorded, so I will proceed to the account of the birds that breed in Upper Nithsdale, including thereby the parishes of Sanquhar and Kirkconnell.

First in order comes the *Passeres*, the most important in this district, numbering 41 out of a total of 67. Of these the Missel Thrush and Blackbird are both common, the former more wary and cunning, electing the less frequented woods, while the "blackie" shows a decided attachment to the haunts of man. The Song Thrush is comparatively a rare bird. Of the Ring Ousel this is *par excellence* the home. In every rocky glen or rugged mountain scar his impudent chatter may be heard. With his nest firmly planted on the ledge of a steep rock or buried in the heather bush on an overhanging crag in some lonely glen, he rears his voracious brood in complete security. The same, or presumably the same, pair return year after year to the same place to breed, and the nests of many seasons can be found within a few yards of each other. Some glens are, for no apparent reason, more affected than others. In one of these, not more than a mile long, I in one season saw five nests, and from the number of birds concluded that still others existed. In such circumstances suitable sites are not always available, and he contents himself with building on the edge of a sheep drain or sloping knoll. Solitary and wary in their breeding habits, they avoid the more frequented country. Once only have I found them forgetful, but the place (the Holm woods) being too public they forsook it when half the eggs had been laid. They begin to build very shortly after their arrival, in the end of April, and, in the event of the nest being destroyed, rapidly build anew. In one instance, when the nest was robbed of 4 eggs on April 24, the birds built again near the same site, and by March 9 had again 4 eggs. These having been removed by some wanton boys, they again renewed their toil, and had built and replenished a new abode by the 19th. Being again robbed they refused to build again, no doubt thinking that 3 nests and 12 eggs in 30 days were sufficient to command greater success. For the remainder of the season they frequented their unfortunate haunt and returned next season, when, I am pleased to say, they were successful in rearing a vigorous brood. The Wheatear, Whinchat, Redbreast, Wren, Willow Wren, and Hedge Sparrow are all common. The Redstart and Sedge Warbler are somewhat rare, the latter particularly so, on account of the lack of suitable breeding ground here, though common enough on the lower reaches of the Nith from Thornhill downwards. The Dipper comes next, and, like the ubiquitous sparrow, is rapidly acquiring the habit of utilising the crevices and holes in bridges and tree roots, instead of building a

proper nest. In this utilitarian age we can sympathise with his evolutionary progress, as his original nest is almost the size of a small bee hive, and must entail a vast amount of labour. I show you here one such nest, built behind a waterfall, lined outside with a sufficient covering of moss to prevent the entrance of water, which is also precluded by the entrance being formed below. Though the nest is so large, let not the uninitiated think they are easily discovered. The Dipper chooses the site with considerable care, the secrecy of which is enhanced by the mossy covering of its nest so closely harmonising with the surroundings. Unlike most of our birds he prefers to stay throughout the winter, and year after year selects the same, or almost the same, site whereon to build, and with a sublime indifference to climatic influence has his nest regularly built and four or five eggs deposited by the 14th of April. Mr Brown, in speaking of this bird, says: "The same nest is used year after year unless carried away by floods." My observations show entirely the reverse. I have never found them re-occupying the old nest, but if by design or otherwise the nest has been removed, they re-build in the same place, and to ensure their doing so it has of late been my habit to remove the nest when the brood has departed. Only once have I observed them re-occupying a nest which had been robbed and partially destroyed. The Whitethroat and Crested Wren are fairly common. The Garden Warbler is rare, only one instance of its nesting having come under my observation. Of the Tits family the Blue and Great Tit only are found. The Pied or Grey Wag-tails are the only representatives of that family. The latter, in spite of considerable persecution, is able by its retiring habits and cunning choice of nest to exist, though in decreasing numbers. The Meadow Pipit, Tree Pipit, Chaffinch, and Skylark are very common, as also are the Martin, Sand Martin, and Swallow. The House Sparrow is everywhere except at Wanlockhead. The Spotted Fly-catcher, Greenfinch, and Yellow Hammer are comparatively rare, though the latter are familiar enough as winter visitors to the farmers' grain yards. The Fly-catcher being a late builder is not easily discovered. By the nest shown you you will observe this bird has chosen an unusual site, having built its nest inside that of a blackbird's.

In the Euchar Woods, the Tree Creeper is not uncommon, but so far I have failed to find its nest. The Reed Bunting and Bullfinch are frequently met with in the wooded glens and rushy

moors. The Goldfinch is very rare. Only twice have I known it to nest in the last four years—once in Kirkconnell and once in Sanquhar. The Common Linnet probably breeds in the district, but I have so far failed to locate it. The Twite and Stonechat have been reported—the former, I think, correctly, but the latter, I think, must have been a mistake, as I have never seen the bird at any time. Starlings and Swifts occupy all the favourable sites in the walls of the old castle and other buildings. The Swifts, being late arrivals find the democratic sparrows in possession of every available hole, and the first week or so is occupied with their uncompensated eviction, and the subsequent occupation of the disputed premises, after which their shrill screaming is little heard till their brood is hatched and they congregate again for the autumn migration. The Magpie and Carrion Crow still continue to flourish in spite of guns and traps. Jackdaws nest in many of the chimney stalks in the town, but their chief strongholds are the rocky steeps in Kello, Spango, and Polveoch burns. Though there is but one rookery in the district, yet it is large enough to supply rooks for the whole shire. Much has been written for and against this bird, and my own observations lead me to regard him as being quite as black as he is painted. His principles are purely Socialistic—minus the dynamite. See him as he alights on the farmer's field, and paces with slow and dignified stride, with head erect and swelling breast—why he seems to be lord of the soil, or at least gives you the impression that he believes every rood of ground should maintain its rook. In this country they are far too numerous. To a certain extent they are useful, more especially in the autumn, when, retiring to the hills, they consume the larvæ so destructive to the pasture. For the greater part of the season he is a thief and a robber, living by reaping on what he bestowed no labour. It was not always so, however. The rook, like the genus *homo*, was created with perfectly innocent tastes, but he, too, fell, became civilised, and from being chiefly an insect feeder, he developed a taste for grain, potatoes, and other useful cereals. This is where he is at present. To what depths he may attain, time only can tell. In the nesting season their depredations among eggs are simply enormous. They make no distinction, but quarter the fields systematically, take every egg or young bird, either eating them near the spot or carrying them home to their nests. When the rook has removed the last egg he very carefully turns over the lining of the nest as if to ensure his having secured

the whole. I have often wondered at this habit, and think it has been acquired in the robbing of nests of those birds like grouse and duck, whose eggs are so carefully covered when the parent bird is absent. The lapwing alone of all birds nesting in the open can by his "right arm" hold his own against the crow; but he is sometimes outwitted by the superior cunning of the enemy. An illustration of this was given me by an eye-witness, who observed a crow fly away after a series of futile attempts on the lapwing's nest. In a short time after he returned with two companions, who successfully enticed the lapwing from the neighbourhood of its nest, and left the other to the quiet enjoyment of the plunder. In another instance, where two crows discovered and failed to dislodge a wild duck, different tactics were enforced. Apparently conscious that all comes to them who can but wait, they laid siege to the nest, and for two days one of them remained on the ground, and eventually seized the opportunity when the duck had gone for his diurnal constitutional, and plundered the whole. Of all the feathered tribes, the sparrow alone seems to understand the crow. He builds his nest among the very twigs the crow has gathered as the foundation of his nest, and there rears his brood unmolested by the abstract-minded thief who sits above him. For many years a pair of Ravens have nested in the parish. Two seasons ago they attempted to build on the steepest part of the rock which they frequent, but the wind carried it away, and they had to renew their work on more suitable foundation. Next year the same thing was attempted, and again it failed. I shall watch with interest whether next season they have profited by their failures. The Cuckoo is common; in Euchar glen even abundant. I once saw ten in a flock there. The dates of their arrival for the last three years have been April 28, April 7, and May 4. The Night Jar is very rare. One pair, however, have for years nested in the Holm woods. The Tawny Owl and Long-eared Owl are both natives. The former is common; the latter rare, and limited to one locality. The hilly nature of this district favours the continuance of birds of prey, and we can still find the Peregrine, Merlin, Kestrel, and Sparrow Hawk. The Peregrine has of late only appeared as a visitor in the spring, but for many years it nested regularly in Kirkconnel parish. The game little Merlin, nesting in the heather far among the hills, defies extermination. The Sparrow Hawk, more accessible, is gradually becoming scarcer, and may soon be extinct. The Kestrel, being more harmless than the

others, is quite common, there being scarcely an outlying glen in which his rude-shaped nest may not be found. That the Ring Dove exists you have but to ask the farmers. Of game birds we have the usual group—Red and Black Grouse, Partridge, and Pheasant—and all in abundance. The Corncrake or Landrail is common, arriving usually on the 13th May. A few pairs of Moorhen and at least one pair of Coots breed among the sedges near the Nith. Curlews and Lapwings are very abundant. Last season, on account of the cold spring, they were almost absent from the hills, and in consequence more than usually numerous on the plains. The Curlew is one of our most regular migrants, almost always arriving in the first week of March. Golden Plover and Snipe are present in fair abundance. The Sandpiper, or Sandwhaup, as it is locally called, is somewhat common on the Nith and tributaries, and so long as it continues to build so cunningly its numbers will continue to increase. This season a pair of Redshanks nested on Sanquhar Moor, but the possibility of their return was rendered improbable by the boy who observed it bowling over the bird with a stone and securing the eggs. So far this is the only instance I know of its having attempted to breed in the district, though common enough at Cumnock, where, however, the ground is more suitable. A few pairs of Herons have for many years occupied some large fir trees in the woods around, and have so secluded themselves as to escape general observation. Four years ago a few Black-headed Gulls bred on the small island in the Black Loch on the Town Moor. In the seasons following the numbers were so increased that the eggs literally covered the island, and some, unable to find accommodation there, build themselves nests like little boats on the floating leaves of the water-lilies and bogbean. Of the duck tribe, only the Teal and Mallard remain throughout the summer. The former is very rare and not a regular breeder; but the latter is common, and I think increasing in numbers. Contrary to its usual habit, it here generally builds in the hollows of some rocky steep or overhanging ledge from 5 to 20 feet above the river bed, and with true maternal forethought nests always above a pool. When the young are hatched the duck must carry her young to the water, or drop them over into the water beneath, an expedient certain to prove disastrous had she not chosen her nest over the deepest part. Year after year they return to the same ground. A gentleman in Kirkcannel, who interests himself in the

species, showed me a hollow where for the last eight or nine years a duck had regularly hatched her brood. At the time we visited it ten eggs had been laid, and through all these years there never had been less. A short distance from this another has nested successfully for the last four years, and so secluded is their retreat that I have every hope they will occupy it undisturbed for many years to come. These then are the 67 birds breeding in the district at the present time. Probably a few more will yet fall to be added, such as the Linnet, Twite (before mentioned), and the Woodcock, which this season was observed by one of the keepers in June. The absence of some of the more familiar songsters can be accounted for by the absence of shrub and sheltering bush, yet, withal, the record for an inland district is a large one.

7th of December, 1888.

Rev. WILLIAM ANDSON in the Chair.

New Member.—Mr Bernard Drummond.

Donations.—A List of the Mosses and Hepaticæ of Dumfries and Kirkcudbright Shires, by Mr James M'Andrew ; a Collection of Birds' Nests, by Dr Davidson ; "The Gardener's Dictionary," in 3 volumes, published in London 1748, by Mr Croal ; and the Transactions of several Societies.

TREASURER'S REPORT.

The hon. Treasurer submitted his annual report, which was unanimously adopted on the motion of Mr James Lennox.

CHARGE.

Balance from last Session	...	...	...	...	£7	9	1
158 Subscriptions at 2s 6d	...	...	...	...	19	15	0
6 do., New Members, 5s	...	...	...	...	1	10	0
Sale of Transactions	...	...	...	...	3	4	6
Do. Glass Case...	...	...	...	...	0	10	0
Donation from Mr Wilson (Plate)	...	...	...	...	1	0	0
Do. Mr Coles	...	...	...	...	2	0	0
Interest on Bank Account	...	...	...	...	0	6	3
Two Life Members at Two Guineas	..	...	..	...	4	4	0

£39 18 10

DISCHARGE.

Purchase of Books and Journals	...	...	...	...	£2	1	6
Binding Books	...	...	...	...	0	18	4
Stationery	...	...	...	...	0	6	0
Printing and Advertising	...	...	...	...	3	14	0
Gas	...	...	...	...	0	7	6
Secretary's outlays (Mr Wilson)	...	...	...	...	2	18	9
Do. do. (Mr Barbour)	...	...	...	...	0	14	5
Treasurer's do. (Mr Thomson)	...	...	...	...	0	7	4
Hall Keeper's Salary	...	...	...	...	1	10	0
Commission on Arrears to Mr Brown	...	...	...	...	0	8	0
Transactions—Printing and Binding—							
Akerman, London, for Plates	...	...	£10	10	0		
Herald, Printing and Binding	...	...	15	7	0		
						25	17 0
						£39	2 10
Balance at close of Session—Cash in hand	...	...	...	...	0	16	0
						£39	18 10

DUMFRIES, 3rd Dec., 1888.—I have examined the Treasurer's Accounts and relative Vouchers, and find them correctly stated.

MILES M'INNES, Auditor.

COMMUNICATIONS.

I. *The Tumulus and Stone-Circles at Cauldside.* By Mr
FREDERICK R. COLES (abridged).

The remains noticed in this paper are a mound of smallish rounded granite boulders sloping sharply up from a broad circular base to a summit some 10 feet wide. Its height is from ten to twelve feet; the base composed of a ridge of large and flatter stones, and guarding this there is a strong ring of much larger granite boulders, evidently embedded to keep the rest in position. The diameter of this base is sixty feet. In the centre of the heap of stones is a well-defined *Kist-vaen*. The lid and sides are of whinstone slabs, four feet three inches by two feet and six or seven inches thick. The grave lies open, having been explored many years ago, I believe, by Mr James Faed, but as to its contents I can learn nothing.

Thirty feet S.E. from the outer ring of boulders stand the remains of a stone circle. [It is ridiculous, in the face of recent antiquarian research, to use the term "Druidical" in connection with stone circles.] Its diameter is sixty-six feet. It is without trace of any central monolith, and the stones composing it were

fourteen in number, ten of which are still upright. On none of these stones is there anything like a carved cup or ring-mark. So much for tumulus and stone circle. If you turn your back to the tumulus on its N.W. side and walk away in a line with its diameter, you will, at one hundred and eighty feet off, trip against a half-sunk monolith; thirty feet further in the same direction and a second such stone arrests you; and again another thirty feet and you stand on the ring of a third circle, whose diameter also is thirty feet, and the peculiarity of which is that the kist-vaen within lies, not in the centre, but fully two feet off it, towards the arc nearest the tumulus. This circle and kist-vaen, not so many years ago, were as completely buried in a heap of granite boulders as the above described tumulus; but the stones were carried away to build part of the neighbouring dyke. The covering slab of this kist-vaen measures five feet three inches by three feet three inches, and is about eight inches thick; and is supported on two thin slabs at the E. and W. ends of the grave. Numbers of boulders fill up the space below it, so that it has most probably been at one time opened and its contents, if any, disturbed. There is no vestige of cup or ring mark on any of these stones. On my return to Cauldside, I passed several small irregular heaps of granite boulders. There being nothing to indicate any connection with the relics just explored, or any pre-arranged plan among themselves, I took scant notice of these heaps; but in the last of them (eastwards), on a stone somewhat conical and about two feet and a half high, two distinct marks arrested me, both, I am inclined to think, ancient and artificial—one certainly artificial. The one, which may be water-formed (or the lower half of the cavity of a pebble) is a purely circular depression about two inches in diameter, and $\frac{3}{4}$ of an inch deep. The other, nearly three inches in diameter and two and a half inches deep, is funnel-shaped, its sides narrowing with perfect smoothness to the small, flat, button-like hole at the extremity. The same funnel-shaped hollow occurs on a similarly-grained block of sandstone in Ohio, near Ironton, Lawrence Co., and at Redhills, near Penrith. There is only one other fact to notice in connection with this district, and that is the frequent occurrence of small circular ridges now overgrown with grass and heather, which, I have little doubt, would prove to be of the same nature as that which forms the northern kist-vaen circle in this series of three at Cauldside.

II. *Theories of the Ice Age and Notes on the Glacial Geology of the immediate Neighbourhood.* By MR JAMES WATT.
(Epitomised by the author.)

The primary cause of great variations of climate is the position of the earth in relation to the Sun.

Glacial conditions ensued in consequence of (*a*) a gradual increase of ellipticity of the earth's orbit until it reached a period of maximum eccentricity, or extreme elliptical form; (*b*) the precession of the equinoxes.

The combined effect of these two causes must, to a very large extent, influence the climate of the earth, because from precessional movement when the winter solstice in the northern hemisphere occurs when the earth is furthest from the sun in June, not as now in December, when it is nearest, and also, when from greater ellipticity of the orbit, the distance of the earth from the sun is, in the winter solstice, several millions of miles greater than now, then, in such circumstances, glacial conditions of excessive severity would prevail.

Sir Charles Lyall, in his great work on the "Principles of Geology," showed conclusively that changes in the geography of the globe, combined with precession, would account for great changes of climate. But it was not till the appearance in 1864 of Dr James Croll's remarkable paper, "On the physical cause of change of climate during Geological Epochs," that it became clear that the primary cause of great variations of climate was astronomical. Dr Croll made calculations for the form of the earth's orbit from the year 1800 for three millions of years back, and one million of years forward, calculated at intervals of 50,000 years, and his calculations have been verified by eminent mathematicians in Europe and America. According to these calculations, the period of the last great increase in the ellipticity of the earth's orbit was reached 240,000 years back, and terminated about 80,000 years ago, embracing a period of 160,000 years. That period we call the "Great Ice Age," or "Glacial Epoch." The cold was most intense about 200,000 or 210,000 years ago, and it is maintained by Croll and other eminent men that glacial conditions during the period of high eccentricity would not be continuous in northern and southern hemispheres, but that each hemisphere "must have," in Professor James Geikie's own words, "experienced several great vicissitudes of climate. Glacial conditions

lasting for thousands of years must have alternated with equally prolonged periods of genial conditions, for the latter no less than the former are a necessary consequence of extreme ellipticity combined with the precession of the equinoxes."

That the position of the earth in relation to the sun has been the great originating cause of the extraordinary climatal conditions which prevailed during the glacial epoch is now universally admitted, but considerable difference of opinion prevails as to the right interpretation of the testimony of the rocks; what the vast relics of the "Ice Age" really tell us as to the physical conditions which then prevailed over the surface of our planet. It is certainly known that the ice attained to a very great thickness, for marks of its presence are to be found on the tops of mountains in Canada from 3000 to 5000 feet high. It is certain that our own country and part of England was in the same condition as Greenland is now, and also that a large part of Northern Europe and America, at a comparatively recent period, geologically speaking, lay deep buried under a vast sheet of "thick ribbed ice," so thick that only the peaks of the highest mountains stood up unburied. It is held by Croll and other eminent geologists and physicists that a great ice cap would gather during long thousands of years, reaching far down into what is now the temperate zone, and that such conditions would prevail for thousands of years alternately in northern and southern hemispheres. But there are other eminent physicists who maintain that glacial conditions during the period of high eccentricity were simultaneous in both hemispheres. Able men differ on the matter, and for the present we can but regard their various and conflicting opinions as only "the guesses of the wise." While there are differences of opinion as to the nature and extent of glacial conditions, there is general agreement that the primary cause of such conditions was the position of the earth in relation to the sun.

Local Notes.—A remarkable example of the work of the great ice sheet came under my notice when the railway bridge below Dalbeattie was built a few years ago. The foundation for the piers of the bridge were laid at a depth of twenty or twenty-five feet below the surface, or bed of the stream. The material gone through was entirely boulder clay, and at the bottom, strange to say, indications of an earlier earth surface and soil were found, with fragments of wood and hazel-nuts.

The underlying strata over a wide area round Dumfries is Permian Breccia, covered over with boulder clay of a somewhat friable nature. The Breccia stands out at Cluden Mills, the Craigs, and other places. All are familiar with the Permian sandstone of Locharbriggs and other quarries in the county, but from the soft character of the stone, it does not retain marks of glaciation at exposed places so well as harder rocks.

A striking feature of the locality, as of nearly the whole of the Scottish Lowlands, is the rolling character of the country; the green knolls, and rampart-looking ridges usually called "kames," composed of stones of all sizes, gravel, and sand. It is admitted that these mounds cannot be clearly accounted for, but Professor James Geikie is of opinion that they point to abundant streams of running water discharged across the country from the rapid melting of snow and ice, to a "pluvial period," or after the Ice Age "Great Thaw" spoken of by Sir Charles Lyall.

N.B.—It may be noticed here, that Dr Croll and others, who have made calculations for the eccentricities of the orbit of the earth and other planets, used Leverrier's Formula in making their calculations. In conversation with Dr Young, Professor of Geology in the University of Glasgow, he hinted to me that the formula was not reliable. If this were true, it is obvious that the conclusions as to the last period of high eccentricity might be erroneous. In these circumstances I thought it would be well to make enquiry at the highest authority whether the formula was reliable or not. Dr Chinnock very kindly, in the interests of the Society, and on my own account, wrote to the Astronomer Royal making the enquiry. The courteous reply received from Greenwich Observatory is herewith given in full. It will be seen that Leverrier's Formula cannot be considered unreliable for the *last* Glacial Epoch, which is all that we have under consideration. When every allowance is made it does not appear that the period covered by the epoch, as calculated by Dr Croll and others, can be very far out.

J. W.

ROYAL OBSERVATORY, GREENWICH,
LONDON, S.E., 1890, *Sept. 19.*

Dr E. J. CHINNOCK,

DEAR SIR,

Leverrier's Formula for the eccentricities of the orbit of the earth and other planets have been computed with great care, but the calculations are rather complicated, and independ-

ently of a possible error in computing, the formula would be more or less affected by any errors which there might be in the assumed values of the masses of the planets, and, as Leverrier has pointed out, the resulting error in the calculated eccentricity of the earth's orbit would increase with the time, so that after several periods the formula could not be trusted. It is also to be noted that his memoir was written in 1839, before the discovery of Neptune, and that no account has been taken of the influence of the mass of that planet on the eccentricity of the earth's orbit. Leverrier states that his formula differs completely from those given by Lagrange in 1782, chiefly through the latter having assumed a mass for Venus, which is nearly half as large again as the value now accepted, and consequently, after a few years, Lagrange's formula became inaccurate. Though the uncertainty in the masses of the planets is now much less, caution is necessary in basing conclusions on the values deduced from Leverrier's formula for very remote periods. He has himself limited his computations from his formula to a period of 200,000 years, viz., 110,000 years before the epoch 1800 and 100,000 years after that date, though in a diagram he has given a curve showing the eccentricity of the earth's orbit for 200,000 years after 1800.

I am, DEAR SIR,

Yours faithfully,

W. H. M. CHRISTIE.

III. *Botanical Notes.* By Mr JAMES M'ANDREW, of
New-Galloway.

PREFATORY NOTE.—The following lists of Mosses and Hepaticæ—forming a contribution to the Cryptogamic Flora of Dumfriesshire and Kirkcudbrightshire—have been compiled from specimens gathered chiefly by myself. They are an expansion of a paper already read on 4th February, 1881, before the Society called “The Bryology of the Glenkens,” and recorded in the Transactions of that year. It is more difficult to know the Cryptogamic than the Phanerogamic Flora of a district, and workers in this department of Botany are rare. The Glenkens district is rich in Cryptogams, but the neighbourhood of Moffat and Upper Nithsdale should be equally good and productive if systematically worked. As a general rule that district is the richest which is best searched. The list of lowland, alpine, sub-alpine, limestone and sandstone mosses could be largely increased. My sources of information for the following lists are from plants gathered by myself; from specimens sent to me by Mr Charles Scott; Dr W. Nichol's lists of Cryptogams from the Moffat dis-

trict; lists compiled by the late Mr James Cruickshank; and from Cryptogams given in the Moffat Guide Book. Some of the species in these lists require re-confirmation. Doubtful species have been referred for determination to the Rev. John Fergusson, Manse of Fern, and to Henry Boswell, Esq., Oxford. I shall welcome any help given to enlarge the present lists. Mr Joseph Wilson, Windygates, Fife, the late secretary of our Society, also collected a number of mosses, &c., around Dumfries, but I regret that I have not kept any record of names and localities.—*Oct., 1890.*

I have botanized very little in Kirkcudbrightshire during the past summer (1888), but two days' work has enabled me to add the following new records for the County:

1. *Equisetum maximum*—in great abundance in damp places along the shore from Carsluith to Ravenshall.

2. The three forms or varieties of *Arctium lappa*, *L.* (*Burdock*)—along the same shore. The forms are *Arctium intermedium*, *Arctium minus*, and *Arctium majus*, and a peculiar form *Arctium minus*, which may almost be named *var. subtomentosus*.

3. *Atriplex littoralis*, *var. marina*—along the same shore.

4. *Hordeum pratense*—In abundance along the R. Urr, south of Dalbeattie harbour.

5. *Schlerochloa distans*—by side of R. Urr, opposite the farm of Little Richorn, south of Dalbeattie.

LIST OF MOSSES

Gathered in Dumfriesshire and Kirkcudbrightshire, and numbered according to the London Catalogue of Mosses and Hepaticæ, 2nd Edition, 1881.

N.G. is New-Galloway.

(m) refers to Moffat Guide Book.

(s) refers to Mr CHARLES SCOTT, late of Terregles Gardens.

(c) refers to the late Mr JAMES CRUICKSHANK, Crichton Institution, Dumfries.

(n) refers to a list of Cryptogams of the Moffat District, by Dr W. NICHOL.

The others were gathered by myself.

<i>No.</i>	<i>Name.</i>	<i>Locality.</i>
1	<i>Sphagnum acutifolium</i> , Ehrh ...	Very common
b	„ var. <i>deflexum</i> , Schpr form <i>lilacinum</i> , Spr. (<i>laxum</i> , Russow).	N. of Black Craig, N.G.—frequent Occasionally with the variety
c	„ var. <i>purpureum</i> , Schpr.	Common
d	„ var. <i>rubellum</i> , Wils....	Common
e	„ var. <i>tenue</i> , Braithw....	Barend Moss, Castle-Douglas; Bennan Hill and Moss Raploch, N.G.
f	„ var. <i>quinquefarium</i> , Lindb.	Barend Moss, Castle-Douglas—rare
h	„ var. <i>elegans</i> , Braithw.	Moss Raploch, N.G., &c.—frequent
i	„ var. <i>fuscum</i> , Schpr. ...	Moss Raploch, N.G.; Barend Moss, Castle-Douglas
j	„ var. <i>aretum</i> , Braithw.	N. of Black Craig, N.G.—rare
k	„ var. <i>luridum</i> , Hiibn	Cairnsmuir of Carsphairn, &c.—not common
	form <i>pallidum</i>	Near Craigenbay, N.G.
l	„ var. <i>late-virens</i> Braithw.	Barend Moss, Castle-Douglas—rare
m	„ var. <i>patulum</i> , Schpr.	Dullarg Hill, Balmaclellan.
2	„ <i>fimbriatum</i> , Wils. ...	Barend Moss, Castle-Douglas, &c.
3	„ <i>strictum</i> , Lindb. ..	Bennan Hill, Gairloch, &c., N.G.
4	„ <i>squarrosus</i> , Pers. ...	Colvend, Newabbey; W. side of L. Ken, N.G., &c.
5	„ <i>teres</i> , Angst.	Side of N.G. Station Road; S. of Dykefoot, N.G.
7	„ <i>intermedium</i> , Hoffm.	Side of Newton-Stewart Road, &c., N.G.
b	„ var. <i>riparium</i> , Angst.	N. of Black Craig, &c., N.G.
8	„ <i>cuspidatum</i> , Ehrh. ...	Common; Auchencairn Moss (s); Lochar Moss.
8b	„ var. <i>plumosum</i> , Nees.	N. of Black Craig, N.G.
c	„ var. <i>falcatum</i> , Russ....	Frequent, Burnfoot Hill, N.G.; Barend Moss.
d	„ var. <i>brevifolium</i> , Lindb.	Foot of Craignilder, Darnaw, Kells —rare.
9b	„ <i>molle</i> , var. <i>Mülleri</i> , Schpr.	E. side of Cairn Edward, N.G., &c.
c	„ var. <i>tenerum</i> , Sull. ...	Do.
10	„ <i>rigidum</i> , Schpr. ...	Cairn Edward, &c., N.G.—frequent
b	„ var. <i>compactum</i> , Brid.	Do.; Moffat Hills (m)
c	„ var. <i>squarrosulum</i> , Russ.	Between Cairn Edward and Bennan Hill, N.G.—rare
11	„ <i>subsecundum</i> , Nees....	Common.
b	„ var. <i>contortum</i> , Schultz.	Do.; Knockindock (s)

No.	Name.	Locality.
c	<i>Sphagnum</i> var. <i>obesum</i> , Wils. ...	Barufoot Hill, N.G.
d	„ var. <i>auriculatum</i> , Schpr.	Do. ; —rare.
12	„ <i>laricinum</i> , Spr. ...	N. of Barlae Plantation, Dalry—rare.
13	„ <i>tenellum</i> , Ehrh. ...	Black Craig, N.G., &c.—frequent.
14	„ <i>Austini</i> , Sull. ...	Moss Raploch, N.G. ; Barend Moss ; Auchencairn Moss.
b	„ var. <i>imbricatum</i> , Horns.	Do., but not so common as the species.
15	„ <i>papillosum</i> , Lindb. ...	N. of Black Craig, &c., N.G.—frequent.
b	„ var. <i>confertum</i> , Lindb.	Between Cairn Edward and Ben-nan Hill, N.G.
c	„ var. <i>stenophyllum</i> , Lindb.	N. of Black Craig, N.G.
16	„ <i>cymbifolium</i> , Ehrh. ...	Very common
b	„ var. <i>congestum</i> , Schpr.	Moss Raploch, &c., N.G.
c	„ var. <i>squarrosulum</i> , Nees.	Do.
17	<i>Andræa petrophila</i> , Ehrh... ..	Black Craig, &c., N.G. ; Criffel (s) ; Moffat (n).
e	„ var. <i>flaccida</i>	N. of Black Craig, N.G.
19	„ <i>alpina</i> , Turn.	Common on the hills ; (s).
20	„ <i>Rothii</i> , W. & M.... ..	Do.
30	<i>Gymnostomum rupestre</i> , Schwæg.	Holm Glen, Balmaclellan, &c. ; Moffat (m).
31	„ <i>curvirostrum</i>	Craigs, Dumfries (c) ; Grey Mare's Tail (n).
36	<i>Anæctangium compactum</i>	Kells Hills, about L. Dungeon, N.G. ; Blackhope, Hartfell, Grey Mare's Tail (n).
37	<i>Weissia viridula</i> (controversa)	Very common.
39	„ <i>crispula</i> , Hed.	W. side of Milyea, N.G. ; near Dumfries (c).
40	„ <i>cirrhatta</i> , Hedw.	Frequent ; on trees by side of R. Nith ; Terregles (s).
41	<i>Rhabdoweissia fugax</i> , Hedw.	Bankend Rocks, Holm Glen, side of R. Ken, N.G.
42	„ <i>denticulata</i> , Brid.	N. of Black Craig, N.G. ; Dalveen Pass (s) ; Criffel (s) ; Moffat Hills (m).
43	<i>Cynodontium Bruntoni</i>	Kells Hills, N.G.—rare.
44	„ <i>polycarpum</i> , Ehrh.	Rocks S. of Laggan of Dee, N.G. ; Door of Cairnsmuir, Creetown ; N. of Ballingear, N.G. ; Burnhills (s).
47	<i>Dichodontium pellucidum</i>	Common in sub-alpine glens ; The Glen (s).

No.	Name.	Locality.
b	<i>Dichodontium</i> , var. <i>serratum</i> (<i>flavescens</i>)	In similar places, but not so common ; Beld Craig Glen (n).
c	„ var. <i>fagimontanum</i>	Dalveen Pass ; on the hills near Terregles ; side of Carron Water (s).
51	<i>Dicranella squarrosa</i> , Schrad. ...	Wet hilly places ; Durrisdeer (s)
52	„ <i>cerviculata</i> Hedw. ...	Auchencairn Moss ; Dalbeattie Moss, &c.
53	„ <i>varia</i> , Hedw. ...	Burnfoot, Kenmure Holms, N.G. ; R. Liddel (s) ; Brownhall (c).
57	„ <i>heteromala</i> Hedw. ...	Common in hilly places and in woods ; (s).
58	<i>Dicranum fulvellum</i> , Sm. ...	Hartfell (n).
61	„ <i>Blytii</i> , B. & S. ...	N. of Black Craig and Milyea, N.G.—very rare.
65	„ <i>Scottianum</i> , Turn. ..	Dukieston, N.G. ; Colvend.
69	„ <i>fuscescens</i> , Turn. ...	N. of Black Craig, &c., N.G.—frequent.
70	„ <i>scoparium</i> , L ...	Very common ; (m) (s).
b	„ var. <i>orthophyllum</i> Schpr.	Dry rocks and boulders—frequent.
c	„ var. <i>paludosum</i> , Schpr.	Boggy places—frequent.
71	„ <i>majus</i> , Turn. ...	Very common on trees and on dykes ; (s).
72	„ <i>palustre</i> , Bry., Britt. ...	N.G. hills ; Colvend.
75	<i>Dicranodontium longirostre</i> ...	Near Moorbrock, Carsphairn.
78	<i>Campylopus atrovirens</i> , De Not.	On the hills ; (s) (c) (n).
79	„ <i>brevipilus</i> , B. & S. ...	Cairn Edward, &c., N.G.
82	„ <i>flexuosus</i> , Brid ...	Common ; Cluden ; Criffel ; Burnhills (s) (c).
83	„ <i>paradoxus</i> , Wils. ...	N. of Black Craig, N.G.
85	„ <i>Schwarzii</i> , Schpr, ...	N. of Black Craig, N.G. ; side of R. Ken.
86	„ <i>fragilis</i> , B. & S. ...	Sides of drains, &c. ; Burnhills and Criffel (s).
88	„ <i>pyriformis</i> , Brid. ...	Bennan Hill, N.G., &c. ; Terregles (s)—frequent.
90	<i>Leucobryum glaucum</i> ...	Very common on hills and moors ; Criffel, in fruit (c).
92	<i>Pleuridium nitidum</i> ...	Kenmure Holms, N.G.
93	„ <i>subulatum</i> , L. ...	Frequent on the ground ; Terregles (s) (c).
94	„ <i>alternifolium</i> , L. ...	Do. Powder Magazine (c).
96	<i>Seligeria pusilla</i> , Hedw. ...	Penton Linns (s).
100	„ <i>recurvata</i> , Hedw. ...	E. of Crummy Park and Allangibbon Bridge, N.G.
105	<i>Blindia acuta</i> , Hedw. ...	Frequent on the hills ; Dalveen Pass and Criffel (s).

No.	Name.	Locality.
108	<i>Sphærangium muticum</i>	Terregles (s).
110	<i>Phascum cuspidatum</i>	Fields and gardens—common.
116	<i>Pottia truncata</i> , L.	Common on mud walls and by roadsides ; (c.)
123	„ <i>Heimii</i> , Hedw.	Colvend shore ; S. of Caerlaverock.
128	<i>Didymodon rubellus</i>	Common ; Dumfries (s) ; Moffat (n)
b	„ var. <i>serratulus</i> , Ferg.	On R. Ken, near Dundough, Dalry.
130	„ <i>flexifolius</i> , Dicks.	Little Richorn Wood, Dalbeattie, &c.
131	„ <i>cylindricus</i> , Wils.	Black Craig, N.G. ; Criffel (s)—frequent.
136	<i>Ditrichum homomallum</i>	About Kenmure, &c., N.G. ; Durrisdeer (s).
141	<i>Trichostomum tophaceum</i>	Garpel Bridge, N.G.—rare.
142	„ <i>mutabile</i> , Br.	Dullarg Hill, Balmaclellan ; Colvend shore ; Durrisdeer (s)—frequent.
143	„ <i>crispulum</i> , Bruch.	Colvend shore.
145	„ <i>nitidum</i> , Lindb.	Do.
147	„ <i>littorale</i> , Mitt.	Do.
157	<i>Barbula muralis</i> , L.	Very common on limestone walls.
158	„ <i>unguiculata</i> , Dill.	Do. (s) (c).
159	„ <i>fallax</i> , Hedw.	Roadsides and waste ground ; Cluden (s) (c).
160	„ <i>recurvifolia</i> , Schpr.	Penton Linns (s).
162	„ <i>rigidula</i> , Dicks.	Walls—frequent.
163	„ <i>spadicea</i> , Mitt.	Ken Bridge, N.G.
164	„ <i>cylindrica</i> , Tayl.	Kenmure Castle, N.G.
167	„ <i>revoluta</i> , Schwæg.	Limestone walls.
168	„ <i>convoluta</i> , Hedw.	Do.
170	„ <i>inclinata</i> , Schwæg.	Colvend shore—very rare.
171	„ <i>tortuosa</i> , Schwæg.	On the hills ; The Glen (s)—frequent.
176	„ <i>subulata</i> , L.	Dumfries ; Routen Bridge, Terregles (s) ; N.G.
177	„ <i>lævipila</i> , Brid.	The Holm, N.G. ; The Glen, and Terregles (s).
179	„ <i>ruralis</i> , L.	Roofs of houses (s) (c).
	„ var. <i>arenicola</i> , Braithw.	Sandy sea-shores.
180	„ <i>intermedia</i> , Brid.	Threave Castle, Castle-Douglas.
181	„ <i>papillosa</i> , Wils.	On old trees—frequent.
184	<i>Ceratodon purpureus</i> , L.	Very common.
185	<i>Distichium capillaceum</i>	R. Ken, N.G. ; Nith and Cairn (s) (c) ; Grey Mare's Tail (n).
190	<i>Eucalypta ciliata</i> , Hedw.	Head of Blackhope Burn (n).
191	„ <i>streptocarpa</i> , Hedw.	Glenlee, N.G. ; The Holm ; Durrisdeer ; Lochanhead ; Penton Linns (s) ; Routen Bridge (c) ; Moffat (n).

No.	Name.	Locality.
193	<i>Grimmia apocarpa</i> , L. ...	Common on dykes and stones (c) (s).
b	„ <i>var. rivulare</i> , Brid. ...	On stones in streams, as R. Ken ; Garpel Burn, N.G. ; The Glen.
194	„ <i>maritima</i> , Turn....	Common on rocks all along the shore.
198	„ <i>pulvinata</i> , Dill. ...	Common on walls ; Brownhall (c).
199	„ <i>Schultzii</i> , Brid. ...	Cairn Edward and Bennan Hills, N.G. ; Criffel (s).
201	„ <i>contorta</i> , Wahl. ...	W. of Millyea, N.G.—very rare.
202	„ <i>torquata</i> , Grev. ...	Millyea, &c., N.G. ; Whitcomb (n)
203	„ <i>unalis</i> (<i>spiralis</i>) ...	„ Milyea, &c., N.G. ; Screel (s) ; Whitcomb (n).
205	„ <i>subsquarrosa</i> , Wils. ...	Colvend ; on Bennan Farm, N.G.
206	„ <i>trichophylla</i> , Grev. ...	Common on dykes, wall tops, rocks, &c. (s) (c).
207	„ <i>Hartmanni</i> , Schpr. ...	Frequent by side of R. Ken and R. Dee, N.G.
209	„ <i>Doniana</i> , Sm. ...	On whinstone on the hills ; Dur- risdeer (s) ; Moffat (m).
b	„ <i>var. Sudetica</i> ...	Along with the species.
212	„ <i>commutata</i> , Hiibn. ...	L. Stroan, on R. Dee, N.G.—very rare.
213	„ <i>montana</i> , B. & S. ...	Garrorie, N.G.—very rare.
218	„ <i>Stirtoni</i> , Schpr. ...	On dykes by roadsides, N.G. and Dalry.
220	<i>Rhacomitrium patens</i> ...	S.-W. side of Milyea, N.G. ; Blackhope Burn (n).
221	„ <i>ellipticum</i> , Turn. ...	Frequent on the hills, as on Black Craig, N.G.
222	„ <i>aciculare</i> , L. ...	Common on wet rocks, &c. ; Routen Bridge and Criffel (s).
224	„ <i>Sudeticum</i> , Funck ...	Common on rocks on the hills ; Burnhills (s).
225	„ <i>heterostichum</i> ...	Very common on dykes, &c.
b	„ <i>var. alopecurum</i> ...	W. of Cairn Edward, N.G.
226	„ <i>fasciculare</i> , Schräd. ...	Common on rocks and dykes ; Criffel (c).
227	„ <i>lanuginosum</i> , Hedw....	very common on the hills, &c. (s) (c).
228	„ <i>canescens</i> , Hedw. ...	Common on sandy places by road- sides, &c.
b	„ <i>var. ericoides</i> ...	Side of Newton-Stewart Road, &c., N.G.
230	<i>Ptychomitrium polyphyllum</i> ...	Dykes and dry rocks (s) (c).
231	<i>Amphoridium lapponicum</i> ...	Milyea, N.G. ; Blackhope Burn (n)—rare.
232	„ <i>Mougeotii</i> , B. & S. ...	Wet rocks and sub-alpine glens ; in fruit at Dob's Linn, Moffat, by Mr W. Bell ; Inglestone (s).

No.	Name.	Locality.
233	<i>Zygodon viridissimum</i> , Dicks. ...	Trees and on sheltered dykes—frequent.
b	„ var. <i>rupestris</i> (Stirtoni)	Holme, Balmaclellan; Troquhain—rare.
234	„ <i>conoideus</i> , Dicks. ...	Ballingear Wood, N.G.; Creetown Glen; Friars' Carse (c).
237	<i>Ulotia Drummondii</i> , Grev. ...	Hannahstown Wood, N.G.; Beld Craig (n)—very rare.
239	„ <i>Bruchii</i> , Horn. ...	Common on young oaks and hazels, &c.
241	„ <i>crispa</i> , Hedw. ...	Do. ; Moffat (m); Brownhall (c).
242	„ <i>intermedia</i> , Schpr. ...	Do.
243	„ <i>crispula</i> , Bruch. ...	Not so common.
244	„ <i>phyllantha</i> , Brid. ...	Common on trees; Terregles (s).
245	„ <i>Hutchinsiae</i> , Sm. ...	W. of Bennan and Cairn Edward hills, N.G.; Criffel (c).
247	<i>Orthotrichum saxatile</i>	Ken Bridge, N.G.; Rerrick; Terregles Village (s); Brownhall (c)
248	„ <i>cupulatum</i> , Hoffm.	Friars' Carse (c).
251	„ <i>rupestre</i> , Schleich.	On a dyke between Carlingwark Loch and R. Dee, Castle-Douglas; Knocklae, Balmaclellan, &c.
253	„ <i>affine</i> , Schrad. ...	Common on trees and on dykes.
254	„ <i>fastigiatum</i> , Br. ...	Garroch Wood, N.G.—very rare.
257	„ <i>stramineum</i> , Horn.	Common on trees.
261	„ <i>diaphanum</i> , Schrad.	At the foot of damp trees and walls; Terregles (s); Brownhall (c).
262	„ <i>pulchellum</i> , Sm. ...	Overton and Burnfoot, &c., N.G.; The Glen (s); Brownhall (c).
263	„ <i>Lyellii</i> , H. & T. ...	Common on trees, in woods, &c.; Terregles (s).
264	„ <i>leiocarpum</i> , B. & S.	Frequent on trees; Terregles (s); Brownhall (c).
266	„ <i>rivulare</i> , Turn. ...	Kenmure Holms, N.G.; Burnhills (s).
267	<i>Oedipodium Griffithianum</i> ...	S. of L. Dungeon, and on Milyea, N.G.; Cairnsmuir of Carsphairn; Blackhope Burn (n).
271	<i>Tetraplodon mnioides</i> ...	On dung on the hills—occasionally
272	<i>Splachnum sphericum</i> ...	S. of L. Dungeon, N.G.; Lochar Moss (c)—very rare.
274	„ <i>ampullaceum</i> , L. ...	Frequent on dung, as at Little Barskeoch, &c., N.G.; Knockindock (s).
282	<i>Physcomitrium pyriforme</i> , L. ...	Kenmure Holms, N.G.; Terregles (s)
283	<i>Entosthodon ericetorum</i> , Bals. ...	Sides of drains, &c., on the hills—frequent; Grey Mare's Tail (n).

No.	Name.	Locality.
184	Entosthodon Templetoni, Hook	Side of rocks by R. Ken, &c., N.G.
285	Funaria fascicularis, Dicks.	... Fields about N.G. ; Kirkcudbright ; Terregles (s) ; Brownhall (c).
287	„ hygrometrica, L.	... Common.
294	Bartramia ithyphylla, Brid.	... Sides of R. Ken ; Milylea, N.G. ; The Grove and Terregles (s).
295	„ pomiformis, L.	... Frequent ; Cairn Water (s) ; Moffat (m).
b	„ var. crispa, Swartz	... N. of Black Craig, N.G.
296	„ Halleriana, Hedw.	... Side of R. Ken at Dundough ; Crummypark Burn, N.G.—rare.
302	Philonotis fontana, L	... Frequent in wet places and in springs ; Moffat (m) (s).
305	Breutelia arcuata, Dicks....	... On the hills ; Moffat (m) (s)—common
308	Leptobyrum pyriforme, L.	... Kenmure Castle, on limestone road walls ; Cluden, Terregles (s) ; often in flower pots.
310	Webera polymorpha, Hoppe.	... Milylea, N.G. ; Whitcomb and Beld Craig (n)—very rare.
311	„ elongata, Dicks....	... S. of L. Dungeon and Milylea, N.G.
312	„ nutans, Schreb. ...	... Common on moors ; Durrisdeer (s)
313	„ cruda, Schreb. ...	... Holme Glen, N. of Black Craig, N.G.
314	„ annotina, Hedw.	... Common in damp fields and by roadsides—barren.
316	„ carnea, L. ...	.. Brownhall (c) ; R. Esk (s).
317	„ albicans, Wahl. ...	... HolmeGlen, N.G.—very rare ; Beld Craig (n).
318	Zieria julacea, Schpr. ...	... S. of L. Dungeon, N.G. ; Moffat (c) ; Whitcomb and Beld Craig (n).
330	Bryum bimum, Schreb. ...	... Marshy places ; Whitehills, Terregles ; Dalveen, Durrisdeer (s).
336	„ atropurpureum, W. & M.	On the hills on wet rocks—occasionally.
337	„ alpinum, L. ...	... Frequent on the hills, but rare in fruit ; Bengairn (s) ; Criffel (s).
338	„ caespiticiun, L. ...	... On limestone dykes, &c.—common.
339	„ argenteum, L. ...	... On roofs of houses and on the ground—common (s) (c).
341	„ capillare, L. ...	... On walls, trees, &c.—very common.
345	„ pallens, Swartz. ...	... Kells Hills, N.G. ; Cairn Water and Burnhills (s) ; common on Moffat Hills (n).
348	„ Duvalii, Voit. ...	... Head of stream forming the mineral well, Moffat.

No.	Name.	Locality.
349	<i>Bryum pseudo-triquetrum</i> , Hedw.	Wet rocks, &c., on the hills, but not common ; Dalveen (s).
383	„ <i>roseum</i> , Schreb. ...	Woods about N.G.
354	„ <i>filiforme</i> (julaceum) ...	Sides of hill streams, &c. ; Criffel and Burnhills (s).
357	<i>Mnium cuspidatum</i> , Hedw. ...	Holm, Balmaclellan ; N. of Kenmure Castle ; Parton, &c.
358	„ <i>affine</i> , Bland. ...	Common at foot of walls, &c. ; Terregles (s).
359	„ <i>undulatum</i> , Hedw. ...	Frequent in woods and on lawns, &c. ; Terregles (s).
360	„ <i>rostratum</i> , Schrad. ...	sub-alpine glens, as Holm Glen, N.G., &c.
361	„ <i>hornum</i> , L. ...	Common (s).
362	„ <i>serratum</i> , Schrad. ...	S. of L. Dungeon and N. of Black Craig, N.G.
366	„ <i>stellare</i> , Hedw. ...	S. of L. Dungeon and Holme Glen, N.G. ; Hartfell (n).
368	„ <i>punctatum</i> , Hedw. ...	Common in sub-Alpine glens, &c.
369	„ <i>subglobosum</i> , B. & S. ...	N. of Black Craig, &c., N.G. ; Hartfell (n)—not common.
370	<i>Aulacomnium androgynum</i> ...	Bankend rocks, N.G.—very rare.
371	„ <i>palustre</i> , L. ...	Marshy places—common (s).
375	<i>Tetraphis pellucida</i> , L. ...	Bennan Hill, Ballingear Wood, &c., N.G. ; Crichepe (s).
376	„ <i>Brownianum</i> , Dicks. ...	Raehills Woods (Greville's Scottish Cryptogamic Flora, 1823) ; Penton Linns on R. Liddel (s) ; Beld Craig (n).
377	<i>Oligotrichum hereynicum</i> ...	On bare soil on the hills ; L. Dungeon, N.G. ; Hartfell (n).
378	<i>Atrichum undulatum</i> , L. ...	Common ; Terregles (s).
382	<i>Pogonatum nanum</i> , Neck. ...	In fields and on banks ; The Grove (s) ; Moffat (m) ; Dumfries (c).
383	„ <i>aloides</i> , Hedw. ...	Very common in fields and on banks, and sides of ditches.
b	„ <i>var. minus</i> (Dicksoni).	Waulkmill Farm, N.G.—rare.
384	„ <i>urnigerum</i> , L. ...	Common on clayey and loamy banks ; Moffat (m) ; Terregles and Routen Bridge (s) ; Dumfries (c).
385	„ <i>alpinum</i> , L. ...	N. of Black Craig, N.G. ; Cairns-muir of Carsphairn ; Moffat hills (n) and (m).
387	<i>Polytrichum gracile</i> , Menz. ...	N. of Black Craig, N.G. ; Terregles (s).
388	„ <i>formosum</i> , Hedw. ..	Common on the hills by sides of drains, &c.

No.	Name.	Locality.
289	<i>Polytrichum piliferum</i> , Schreb.	Frequent on dry banks ; woods near Dumfries (c) ; Terregles (s).
390	„ <i>juniperum</i> , Willd.	Top of Milylea, N.G. ; Terregles Woods (s).
391	„ <i>strictum</i> , Banks. ...	Frequent in bogs, as N. of Black Craig, N.G. ; Dalveen (s).
392	„ <i>commune</i> , L. ...	Common on hills and woods and bogs.
d	„ <i>var. fastigiatum</i> , Lyle.	Opposite Darsalloch, N.G.
393	<i>Diphyscium foliosum</i> , L. ...	Frequent on banks in hilly parts ; Dalveen Pass, and Burnhills (s).
394	<i>Buxbaumia aphylla</i> , Hall. ...	On rocks in a field N. of Ballingear, N.G.—very rare.
396	<i>Fissidens bryoides</i> , Hedw. ...	Common ; Terregles (s) ; Brownhall (c).
405	„ <i>osmundoides</i> , Hedw. ...	Frequent on Kells hills.
407	„ <i>decipiens</i> , De Not. ...	Do.
408	„ <i>adiantoides</i> , Hedw. ...	Do. The Glen (s) ; Craigs (c).
409	„ <i>taxifolius</i> , L. ...	Frequent ; Whitehills and Terregles (s) ; Banks of R. Nith (c).
412	<i>Cinclidotus fontinaloides</i> , Hedw.	R. Ken, &c., N.G. ; Routen Bridge ; The Glen (s) ; Friars' Carse (c).
413	<i>Fontinalis antipyretica</i> , L. ...	Frequent, Carron Water and Dalveen Pass (s).
414	„ <i>squamosa</i> , L. ...	Garpel Burn and R. Ken, &c., N.G.
415	<i>Hedwigia ciliata</i> , Dicks. ...	Dykes, rocks, &c. ; Irongray (c) (s).
c	„ <i>var. viridis</i> , Schpr. ...	S. of Laggan of Dee and near N.G.
417	<i>Crypheia heteromalla</i> , Hedw. ...	Back of Kenmure Castle, &c., N.G. ; Tongland ; Rosebank (c).
419	<i>Leucodon sciuroides</i> , L. ..	Kirkgunzeon Manse ; Douglas Hall ; Terregles (s) ; Friars' Carse (c).
b	„ <i>var. morensis</i> , Brid. ...	The Holme, Balmacellann.
421	<i>Antitrichia curtipendula</i> ...	In woods on trees and dykes, &c. ; The Grove (s) ; Dalveen (s)
423	<i>Neckera pumila</i> , Hedw. ...	Common on trees ; Terregles and Burnhills (s).
b	„ <i>var. Philippeana</i> , Schpr.	Not common ; Kenmure Castle, N.G.
424	„ <i>crispa</i> , L....	Frequent ; Moffat (m) ; The Glen and Burnhills (s) ; Dalscairth (c).
425	„ <i>complanata</i> , L. ...	Frequent on trees, &c.
426	<i>Homalia trichomanoides</i> ...	Foot of trees, &c. ; The Glen and Terregles (s).

<i>No.</i>	<i>Name.</i>	<i>Locality.</i>
429	<i>Pterygophyllum lucens</i> ...	Glenlee, Ballingear Woods, &c., N.G. ; Grey Mare's Tail (n) ; Dalscairth (c).
431	<i>Myrinia pulvinata</i> , ^r Wahl. ...	Kenmure Holms, N.G.—very rare.
434	<i>Leskea polycarpa</i> , Ehrh. ...	Very common on trees overflowed, as in Kenmure Holms, N.G. ; Terregles Meadows (s).
437	<i>Anomodon viticulosus</i> , L. ...	Kenmure Castle, N.G. ; Ravens- hall, Creetown ; R. Dee, Tong- land ; Maidenbower, Dumfries (s) ; The Glen (s) (c).
440	<i>Pseudoleskea catenulata</i> , Brid. ...	Blackhope Burn (n).
442	<i>Heterocladium heteropterum</i> ...	Frequent in sub-alpine glens ; Routen Bridge and The Glen (s) ; Blackhope Burn and Whitcomb in fruit.
443	<i>Thuidium tamariscinum</i> ...	Very common in woods and on banks (m) (s).
448	<i>Pterigandrum filiforme</i> , Timm. ...	N. of Allangibbon Bridge, Dalry ; on R. Ken, N.G.
449	<i>Pterogonium gracile</i> , Dill. ...	On rocks and trees, generally near water ; The Glen (s).
451	<i>Thannium alopecurum</i> , L. ...	Very plentiful in sub-alpine glens (s) (c) (m).
452	<i>Climacium dendroides</i> , L. ...	Damp grassy places ; Terregles ; in fruit(s) ; in Mayfield marshes (c) ; Kenmure Holms in fruit.
453	<i>Pylaisia polyantha</i> , Schreb. ...	The Holme, Balmaclellan—very rare.
454	<i>Isothecium myurum</i> , Poll. ..	Very common on tree roots and on rocks ; (s).
457	<i>Homalothecium sericeum</i>	Very common on trees and on dykes ; (s).
460	<i>Scleropodium caespitosum</i> , Wils. ...	Kenmure Holms, N.G.
464	<i>Bracthecia glareosum</i>	Penton Linns on R. Liddel (s).
466	„ <i>albicans</i> , Neck. ...	Whiteport Bay, Almorness ; Dur- risdeer, and near Newabbey, &c. (s)—frequent.
467	„ <i>velutinum</i>	Rerrick ; Balmaclellan ; Terregles (s)—frequent.
471	„ <i>rutabulum</i> , L. ...	Very common ; (m) (s).
473	„ <i>rivulare</i> , B. & S. ...	Common ; The Glen and by R. Cairn (s).
474	„ <i>populeum</i> , Hedw. ...	Very common ; (s).
475	„ <i>plumosum</i> , Swartz. ...	Common by sides of streams.
476	<i>Eurhynchium myosuroides</i> ...	Common on rocks and trees ; (s)
480	„ <i>striatum</i> , Schreb....	Common in woods ; Terregles (s).

No.	Name.	Locality.
481	<i>Eurhynchium crassinervium</i> , Tayl.	Kenmure Castle, N.G. ; Holme Glen, Balmaclellan ; The Glen and Penton Linns (s).
482	„ <i>piliferum</i> , Schreb.	Common in woods, &c. ; The Cluden (s).
485	„ <i>Swartzii</i> , Turn. ...	Common in glens under shade ; (s).
486	„ <i>prælongum</i> , Dill. ...	Very common (s).
b	„ <i>var. Stokesii</i> , Turn.	Holme Glen, Balmaclellan.
487	„ <i>pumilum</i> , Wils. ...	Sub-alpine glens ; The Glen (s).
489	<i>Hyocomium flagellare</i>	In hill burns under rocks ; Lowran burn, N.G., in fruit.
490	<i>Rhynchostegium tenellum</i> ..	Dundrennan Abbey ; Spout Glen, Twynholm ; Cairn Water and Cluden Water (s).
492	„ <i>depressum</i> , Bruch.	Holme Glen, Balmaclellan ; Spout Glen ; The Glen (s).
493	„ <i>confertum</i> , Dicks.	Frequent on walls and stones ; Kells Church, N.G.
496	„ <i>ruscifolium</i> ...	Common in burns, ditches, &c. (s).
499	<i>Plagiothecium pulchellum</i> ...	Frequent on shaded rocks in glens and on the hills ; Dalscairith (c).
501	„ <i>denticulatum</i> ...	Common in woods on shady banks, &c. (s) (c).
502	„ <i>Borrerrianum</i> , Spr.	Frequent in places similar to 501.
503	„ <i>sylvaticum</i> , L. ...	Holme Glen, Balmaclellan ; near Glenlee, N.G.
c	„ <i>var. orthocladum</i> ,	Near Kenmure Castle stables, N.G.
504	„ <i>undulatum</i> , L. ...	In woods below trees, &c. ; The Glen (s).
509	<i>Amblystegium serpens</i> , L. ...	Very common at roots of trees, on dykes and walls (s) (c).
511	„ <i>irriguum</i> , Wils. ...	Garpel Bridge, N.G.—rare.
512	„ <i>fluviatile</i> Swartz. ...	N.G. ; Durrisdeer (s).
513	„ <i>riparium</i> , L. ...	Kenmure Holms, N.G.—not com- mon.
515	<i>Hypnum exannulatum</i> , Güm. ...	Frequent in wet marshy places ; Screel (s).
520	„ <i>revolvens</i> , Swartz. ...	Do. (s).
521	„ <i>fluitans</i> , L.	Do.
522	„ <i>uncinatum</i> , Hedw. ...	On tree roots by R. Ken, N.G., &c. in dry places.
523	„ <i>filicinum</i> , L.	Common in sub-alpine glens and by wet roadsides.
b	„ <i>var. vallisclausæ</i> ...	Tongland, R. Dee.
524	„ <i>commutatum</i> , Hedw. ...	Frequent on wet dripping rocks ; Terregles (s) (c).
526	„ <i>falcatum</i> , Brid.	Dullarg Hill, Balmaclellan, &c.— frequent.

<i>No.</i>	<i>Name.</i>	<i>Locality.</i>
535	<i>Hypnum cupressiforme</i> , L ...	Very common.
b	„ var. <i>tectorum</i> , Schpr.	On roofs of houses—common.
535c	„ var. <i>filiforme</i> , Bry. Eur.	Trunks of trees.
d	„ var. <i>ericetorum</i> , Bry. Eur.	Among heather.
536	„ <i>resupinatum</i> , Wils, ...	Holme, Balmaclellan ; Kenmure Castle, N.G. ; Terregles (s).
537	„ <i>patientiae</i> , Lindb. ...	Wet roadsides, &c. ; Durrisdeer (s).
538	„ <i>molluscum</i> , Hedw. ...	Frequent in damp places ; Terregles (s).
539	„ <i>crista-castrensis</i> ...	Grey Mare's Tail (m) (n).
540	„ <i>palustre</i> , L. ...	Sub-alpine glens ; The Glen (s) ; Routen Bridge (s).
543	„ <i>eugyrium</i> , Schp. ...	Holme Glen, N.G. ; Grey Mare's Tail (n)—very rare.
545	„ <i>ochraceum</i> , Turn. ...	Mountain rivulets ; R. Deugh, Carsphairn ; Dalveen Pass and Cairn Water (s).
548	„ <i>polymorphum</i> , Hedw... ..	Holme Glen, Balmaclellan—very rare.
549	„ <i>elodes</i> , Spr.	In meadows between Carlingwark Loch and R. Dee, Castle-Douglas—very rare.
552	„ <i>stellatum</i> , Schreb. ...	Wet places on the hills ; Criffel (s).
553	„ <i>cordifolium</i> , Hedw. ...	Among grass ; Kenmure Holms, N.G. ; Terregles (s) ; Irongray (c).
554	„ <i>giganteum</i> , Schpr.	Simpson's Bog, Tongland ; Larg Hill, Creetown ; Barmurray Moor, Balmaclellan—not common.
555	„ <i>sarmentosum</i> , Wahl. ...	Frequent in wet places on the hills ; Knockindock (s).
b	„ var. <i>subflavum</i> , Ferg...	Occasionally on the hills ; Burnfoot Hill, N.G.
526	„ <i>cuspidatum</i> , L. ...	Common in wet marshy places (s).
557	„ <i>Schreberi</i> , Ehrh. ...	Very common in woods and on the hills (s) (c).
558	„ <i>purum</i> , L. ...	Very common among grass (s) (c)
559	„ <i>stramineum</i> , Dicks. ...	Frequent in marshy places.
561	„ <i>scorpioides</i> , L. ...	Wet places on the hills ; Bengairn, (s), &c.
562	„ <i>splendens</i> , Dill. ...	Very common on banks, woods, &c. (s).
565	„ <i>brevirostrum</i> , Ehrh. ..	Common in woods ; Dalscairth (s).
566	„ <i>squarrosum</i> , L... ..	Very common among grass (s).
567	„ <i>loreum</i> , L. ...	Ballingear Wood, &c., N.G. ; Crichtope Linn and Terregles (s).
568	„ <i>triquetrum</i> , L. ...	Very plentiful on the ground in woods (s) (c) (m).

LIST OF HEPATICÆ.

N.G. refers to New-Galloway.

(n) refers to Notes on a List of Cryptogamic Plants collected by Dr W. NICHOL in the Moffat district.

(c) to a List of Jungermanniæ observed in the neighbourhood of Dumfries by the late Mr JAMES CRUICKSHANK, Crichton Institution, and published in the *Phytologist*, No. XIV., July, 1842.

(s) to a List of Hepaticæ gathered in the neighbourhood of Dumfries by Mr CHARLES SCOTT, late of Terregles Gardens.

The rest, without letters, were gathered by myself.

No.	Name.	Locality.
1	<i>Marchantia polymorpha</i> , L. ...	Common in damp places at foot of walls, &c. (s) (c).
2	<i>Preissia commutata</i> , Nees. ...	Wet rocks in sub-alpine glens (s) ; W. of Cluden ; Burnhills, &c.
3	<i>Conocephalus conicus</i> , L....	(s) Glen at Terregles ; Grove pond ; rocks by R. Cairn ; (c) Old College ; Dalscairth.
4	<i>Asterella hemispherica</i> , L. ...	Back of Kenmure Castle, N.G. ; rocks at Grennan, Dalry ; about Kirkeudbright.
8	<i>Riccia glauca</i> , L. ...	Delarran Holm, N.G., &c.
10	„ <i>crystallina</i> ...	(c) Brownhall Orchard.
13	„ <i>bifurca</i> (?) Bisch. ...	Burnfoot Hill, N.G.
19	<i>Frullania dilata</i> , L. ...	Common on trees (s) (c).
22	„ <i>Tamarisci</i> (Mich.) ...	Do. (s) (c.).
29	<i>Lejeunea minutissima</i> , sm. ...	Burnfoot Hill, N.G.—very rare.
32	„ <i>serpyllifolia</i> , Mich. ...	Frequent in glens ; (c) Craigs, Dumfries, &c. ; Grey Mare's Tail (n).
33	„ <i>patens</i> , Lind. ...	Do.
34	„ <i>flava</i> , Sw. ...	Do. Inglestone Hill (s).
35	„ <i>Mackaii</i> (Hook) ...	R. Dee, Tongland—very rare.
36	<i>Radula complanata</i> , L. ...	Roots of trees, stones, dykes, and under hedges (c) (s).
41	<i>Porella lævigata</i> , Schrad. ...	Frequent in sub-alpine glens (c) (s).
42	„ <i>platyphylla</i> , L. ..	Do. do.
44	„ <i>rivularis</i> , Nees. ...	Back of Kenmure Castle, N.G. ; Ironmacannie Mill, Balmacellan.
46	<i>Pleurozia cochleariformis</i> ...	Frequent in damp places on the hills, as Black Craig, N.G. ; Auchencairn Moss (s).
47	<i>Lepidozia reptans</i> , L. ...	Frequent on banks and decayed roots of trees, as in Ballingear Glen, N.G. (s) ; Crichtope Linn (c) ; Routen Bridge ; Dalskairth

No.	Name.	Locality.
49	<i>Lepidozia setacea</i> , Mitten	... Frequent in bogs and on damp banks on the hills (n); moors near L. Skene, Moffat (s); Crichope Linn (c); Lochar Moss; Criffel.
50	<i>Bazzania trilobata</i> , Budd.	... Frequent, as in Ballingear Wood, &c., N.G.; Penton Linns; R. Esk; Dumfries (s).
51	„ <i>trierenata</i> , Wahl.	... N. of Black Craig, N.G.
53	<i>Odontoschisma Sphagni</i> , Dicks.	... Frequent in bogs on sphagnum(s); Auchencairn Moss; marshes about Terregles (c); Criffel, &c.
54	„ <i>denudatum</i> , Nees.	... Occasionally on damp places on moors, as at Barmurray, Balmaclellan.
56	<i>Cephalozia Francisci</i>	... (c) Roadside between Rosehall and Brownhall.
57	„ <i>obtusiloba</i> , Lindb.	... Barend Moss, near Castle-Douglas—rare.
61	„ <i>byssacea</i>	... (c) Marsh above Routen Bridge.
62	„ <i>divaricata</i> (Starkii)	... Frequent on shady dykes in woods about N.G.
b	„ <i>var. Pearsoni</i> , Lindb.	... N. of Black Craig, N.G.—very rare.
64	„ <i>bicuspidata</i> , Dum.	... Common; (c) Lochar Moss; (s) The Glen; (n) the Beld Craig.
65	„ <i>Lammersiana</i> , Hübn.	... N. of Black Craig, N.G.; Barend Moss.
66	„ <i>curvifolia</i> , Dicks.	... Dunveoch Glen and near Garroch, N.G.—not common.
67	„ <i>connivens</i> , Dicks.	... Glenlee Glen, N.G.; Barend Moss; above Routen Bridge and Crichope Linn (c).
69	„ <i>catenulata</i> , Hübu.	... N. of Black Craig, N.G.; Colvend.
71	<i>Lophocolea bidentata</i> , L.	... Common; (s) (c).
72	„ <i>heterophylla</i> , Schrad.	... Frequent; Powder Magazine, Dumfries (c); Grey Mare's Tail (n); N.G.
75	<i>Chiloscyphus polyanthos</i> , L.	... West Risk, &c., N.G.; Holme Glen; Durrisdeer (s); Terregles (c).
78	<i>Saccogyna viticulosa</i> , Mich.	... Wet rocks; Lochar Moss (c); Bennan Hill, &c.
79	<i>Kantia trichomanis</i> , L.	... Crichope Linn (s); Dalscairth (c); N.G.
82	<i>Trichocolea tomentella</i> , Ehr.	... Wet places; Glenlee Wood, &c., N.G.; Dalscairth (c).

No.	Name.	Locality.
83	<i>Blepharozia ciliaris</i> , Nees.	... Knockgray Moor, Carsphairn ; Barlae Wood, Dalry ; Dalscairth (c) ; Dalveen (s).
86	<i>Anthelia julacea</i> , (L.), Lightf.	... Wet places and rocks on the hills.
88	<i>Blepharostoma trichophyllum</i>	... Holme Glen ; Ballingear Glen ; Routen Bridge ; Dalscairth ; and Moffat Hills (c) ; Grey Mare's Tail (n).
89	<i>Scapania compacta</i> , Dum.	... Frequent.
92	„ <i>undulata</i> , Dill.	... On the hills ; Inglestone (c) ; Ben- gairn (s).
93	„ <i>uliginosa</i> , Nees.	... Carline's Cairn, Carsphairn ; Whit- comb (n).
94	„ <i>irrigua</i> , Nees	... Barend Moss, Castle-Douglas.
95	„ <i>nemorosa</i> , L.	... Frequent ; Beld Craig (n) ; Friars' Carse (c).
96	„ <i>resupinata</i> , Dum.	... Frequent on rocks on the hills and on dykes in woods ; side of road, Lochar Moss (c).
97	„ <i>purpurea</i> (Dill.), Carr.	... Occasionally on the hills ; Criffel (c) ; Hartfell and Grey Mare's Tail (n).
99	„ <i>aequiloba</i> , Schwag.	... N. of Black Craig, N.G., &c.
102c	„ <i>curta</i> , var. <i>rosea</i> , Nees.	... Ballingear Glen ; Black Craig ; Viewfield Farm, on rocks, N.G. —very rare.
103	<i>Diplophyllum albicans</i> , L.	... Very common ; Crichton Linn (s), &c.
104	„ <i>Dicksoni</i> , Hook.	... Blackbank dykes, Glenlee, and N. of Black Craig, &c., N.G.
106	<i>Plagiochila asplenoides</i> , L.	... Very common in woods on banks, &c. (c) (s).
107	„ <i>spinulosa</i> , Dicks.	... Frequent on rocks and banks in hills and woods (c) (s).
b	„ var. <i>microphylla</i> , Carr.	... N. of Black Craig, N.G.
108	„ <i>punctata</i> , Tayl.	... Glenlaggan Hill, Parton ; Burn- foot Hill, N.G.—rare.
109	„ <i>tridenticulata</i> , Tayl.	... Grey Mare's Tail (n).
112	<i>Mylia Taylora</i> , Hook	... N. of Black Craig, N.G. ; Barend Moss, Castle-Douglas ; moors at L. Skene (n).
113	„ <i>anomala</i> , Hook	... N. of Black Craig, &c., N.G. ; Lochar Moss (c).
114	<i>Eucalyx obovata</i> , Nees.	... Opposite Waulk Mill, N.G.—rare.
115	„ <i>hyalina</i> , Lyell	... Routen Bridge ; Closeburn ; near Moffat Spa Well (c).
117	<i>Aplozia Schraderi</i> , Mart.	... Troquhain Wood, Balmaclellan ; Blackbank dyke, Glenlee, N.G. —very rare.

<i>No.</i>	<i>Name.</i>	<i>Locality.</i>
118	<i>Aplozia crenulata</i> , Sm. ...	Roadsides, &c. ; Glen Mills and Goldielca (c) ; Grey Mare's Tail (n).
118b	„ var. <i>gracillima</i> , Sm., (<i>Genthiana</i> , Hübn.)	Common on damp soil.
120	„ <i>pumila</i> , With. ...	Glenlee Glen, &c., N.G.; Moffat (n); Dalscairth (c).
122	„ <i>cordifolia</i> , Hook. ...	Dalveen (s); Criffel (c) ; Blackhope Glen (n).
123	„ <i>riparia</i> , Tayl. ...	Wet rocks in glens ; Holme Glen ; The Glen.
124	<i>Lophozia Bantriensis</i> , Hook. ...	Crummy Park Glen and Ballingear Glen, N.G.—rare.
129	„ <i>barbata</i> , Schr. (<i>Schreberi</i>)	Shaded dykes and woods ; Crichtope Linn (s) ; Dalbeattie Wood (s) ; Craigs (c) ; Moffat (c).
130	„ <i>attenuata</i> , Lindb. ...	In similar places ; Crichtope Linn (s).
131	„ <i>Flerkii</i> , W. & M. ...	N. side of Black Craig, &c., N.G. ; Crichtope Linn and Terregles (s).
132	„ <i>quinquedentata</i> , Web. (<i>Lyoni</i>).	In similar places ; Grey Mare's Tail (n) ; Dalscairth and Moffat (c).
133	„ <i>lycopodioides</i> , Wallr. ...	Near Hannahstown Bridge, N.G.—very rare.
134	„ <i>exsecta</i> , Schmid...	Bennan Hill and Ballingear Wood, N.G.—rare.
136	„ <i>ventricosa</i> , Dicks. ...	Common ; Whitehill (s) ; Kelton and Lochar Moss (c).
137	„ <i>bicrenata</i> , Lindb. ...	S. of L. Dungeon, &c., N.G. ; Lochar Moss (c)—rare.
139	„ <i>incisa</i> , Schrad....	Moss Raploch and Bennan Hill, N.G. ; Criffel (c) ; moors near L. Skene (n).
142	<i>Gymnocolea inflata</i> , Huds. ...	Frequent in damp places on hills and moors, as Barend Moss, Castle-Douglas ; Lochar Moss (c).
144	„ <i>turbinata</i> , Rad. ...	Orroland, Rerrick.
149	<i>Sphenolobum minuta</i> , Crantz. ...	Frequent on banks and on the ground on the hills.
151	<i>Nardia emarginata</i> , Ehr. ...	Very common on wet rocks, &c., on the hills (n) (s) (c).
152	„ <i>alpina</i> , Gott. ...	Common on the hills, as on Black Craig, N.G.
153	„ <i>Mülleri</i> , Nees. ...	Hartfell (n) ?
158	„ <i>Funckii</i> , Nees. ...	Milyea ; N. of Black Craig, Ballingear Woods, N.G.—rare.
160	„ <i>Scalaris</i> , Schrad. ...	Common ; Glen, N. of Durrisdeer (s) ; Lochar Moss (c).

<i>No.</i>	<i>Name.</i>	<i>Locality.</i>
163	<i>Gymnomitrium concinatum</i> ...	Rocks on Kells hills ; Hartfell and Blackhope (n)—rare.
167	,, <i>crenulatum</i> , Gott.	Frequent on rocks on the hills.
170	<i>Fossombromia pusilla</i> , Nees. ...	Fields near N.G. ; moist places ; common (c).
177	<i>Dikena Lyellii</i> , Hook	In one spot in Lochar Moss, near the side of the English road (c).
178	<i>Blasia pusilla</i> , L.	Damp roadsides, N.G. ; near Car-ronbridge (s) ; Cluden Mill (c).
179	,, <i>epiphylla</i> , L.	Sides of ditches, &c., common (n) (s) (c).
180	,, <i>calycina</i> , Tayl.	Damp roadsides, N.G. ; Whitehill ; Dalveen hills (s) ; Beld Craig (n).
181	<i>Aneura pinguis</i> , L.	Frequent in wet places ; Whitcomb (n) ; Powder Magazine (c) ; Knockindock (s).
182	,, <i>palmata</i> , Hedw.	Garroch Wood, N.G.—very rare.
184	,, <i>sinuata</i> , Dicks. (pinnati- fida)	Bennan Hill, &c., N.G.
185	,, <i>multifida</i> , (Dicks.) Gray.	Bennan Hill, N.G. ; Colvend in bogs ; Whitcomb (n) ; pretty com-mon in marshes (c).
186	<i>Metzgeria furcata</i> (L.), Dum. ...	Common on trees and rocks (n) (c) (s).
186b	,, <i>var. acruginosa</i> , Hook	N.G.—rare.
187	,, <i>pubescens</i> , Schrank. ...	Penton Linns (s).
189	,, <i>conjugata</i> (Dill.) Lindb.	In sub-alpine glens.
191	<i>Authocerus punctatus</i> , L. ...	Embankment at back of New Quay (c).

4th of January, 1889.

Mr J. G. H. STARKE, M.A., in the Chair.

New Member.—Mr James D. M'Veigh.

Donations.—Two numbers of the Transactions of the New York Academy of Sciences and two numbers of the Annals of the same Academy, presented by the Smithsonian Institute ; an old document consisting of an "Inventory of household furniture pertaining to the town of Drumfreis left in the manse, to be made furthcomeing by Mr Robert Patoun, minister of the gospell in the said burgh, 1723," presented by Mrs M'Dowall.

COMMUNICATIONS.

I.—*Meteorological Observations, taken during the year 1888.*

By the Rev. WILLIAM ANDSON.

Meteorological Observations taken at Newall Terrace, Dumfries, during the year 1888. Elevation above sea level 60 feet.

Months.	BAROMETER.				Self-Registering Thermom. in shade.				RAINFALL.				HYGRO-METER.		Temperature of Dew-point.	Relative Humidity Saturation=100.
	Highest in Month.	Lowest in Month.	Monthly Range.	Mean of Month.	Highest in Month.	Lowest in Month.	Monthly Range.	Mean Temp. of Month.	Days on which it Fell.	Heaviest in 24 Hours.	Total Amount.	Mean Dry.	Mean Wet.	Deg.	Deg.	
1887.	Inches.	Inches.	Inches.	Inches.	Deg.	Deg.	Deg.	Deg.		Ins.	Ins.	Deg.	Deg.	Deg.	Deg.	
Jan.	30.660	28.980	1.680	30.146	53.7	21.7	32.0	39.0	18	0.71	2.89	38.7	37.6	36.1	36.1	89
Feb.	30.529	29.350	1.179	30.068	52.6	13.3	39.3	36.4	7	0.17	0.60	35.4	33.7	30.8	30.8	83
Mar.	30.460	28.770	1.690	29.601	55	26	29	37.4	17	0.55	2.23	36.5	35	32.8	32.8	87
April	30.302	29.336	0.966	29.881	61	27.3	33.7	43.2	13	0.35	1.67	43.1	40.2	36.1	36.1	77
May	30.569	29.076	1.493	29.965	79	31.7	47.3	56.9	14	0.90	2.78	50.6	46.4	42	42	71
June	30.378	29.520	0.858	30.032	83.6	36.6	47	55.2	14	0.54	1.74	55	50.7	46.6	46.6	73
July	30.041	29.270	0.771	29.732	75.8	38	37.3	56.3	24	1.20	6.22	55.2	52.3	49.6	49.6	78
Aug.	30.313	29.510	0.803	29.936	69.6	37.6	32	56	22	0.56	3.29	56	53	50.2	50.2	81
Sept.	30.550	29.704	0.846	30.136	71.8	37.6	35.1	53.2	14	0.30	0.97	51.5	49.3	47.1	47.1	84
Oct.	30.500	29.180	1.320	29.983	61	25.3	35.7	47	9	0.83	2.80	46.1	44.3	42.3	42.3	87
Nov.	30.076	28.842	1.234	29.692	55	30.3	24.7	43.8	22	0.94	6.52	43.9	41.8	39.3	39.3	85
Dec.	30.427	28.907	1.520	29.846	56	22.5	33.5	40.8	21	0.76	4.20	40.3	39.3	38	38	92
Year	30.060	28.770	1.890	29.915	83.6	13.3	70.3	46.5	195	1.20	35.91	46	43.6	40.8	40.8	82

Directions of the Wind during the Year.

N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Var.
24	41	45	22	32	74	62	44	22

Barometer.—The highest reading of the barometer occurred on 13th January, when it rose to 30.660 inches; the lowest on 28th March, 28.770 in.; annual range, 1.890 in.; and the mean pressure for the whole year (corrected to 32° and sea-level), 29.915 in., as compared with 29.964 in. in 1887 and 29.800 in. in 1886. The months in which the greatest fluctuations occurred were January, March, May, and December. The stormiest month of the year was November, when the reading ranged from 28.842 in. to 30.076 in.; and rain fell on twenty consecutive days, from the 8th

to the 28th, with the exception of one day, the 11th. From the 12th onward to the 24th the Nith was in high flood. He had marked the 16th November as the day on which the severest storm of the year occurred. The months of lowest mean pressure were March, July, and November, when the mean ranged from 29·601 in. in March to 29·722 in. in July.

Hygrometer.—The mean reading of the dry bulb thermometer for the year was 46° ; the mean reading of the wet, $43\cdot6^{\circ}$; and the temperature of the dew point, $40\cdot8^{\circ}$; relative humidity, 82 (saturation being equal to a hundred).

Temperature.—The highest temperature of the year was recorded on 26th June, when the maximum reading of the thermometer was $83\cdot6^{\circ}$, as compared with 87° on 25th June, 1887; the lowest, on 12th February, when the minimum reading was $13\cdot3$, giving an annual range of $70\cdot3$. The month of lowest temperature was February, with a mean of $36\cdot4^{\circ}$; and March stood next, with a mean of $37\cdot4^{\circ}$; while January, which is generally and justly accounted the coldest month of the year, had a mean of 39° . The temperature of January was 1° above average; that of February and March nearly 4° below it. There was frost on 83 nights during the year, with an aggregate of 293° . In 1887 frost occurred on 96 days, with an aggregate of 360 degs. The mean temperature for the year was $46\cdot5^{\circ}$, as compared with $47\cdot2^{\circ}$ in 1887 and $46\cdot2^{\circ}$ in 1886. The estimated mean annual temperature of the south-west of Scotland is 48° , so that the last three years have been under average. In 1888 there were only fourteen days on which a maximum of 70° and above was reached; and the months in which the sun is strongest, and the greatest heat is usually experienced, were remarkably deficient both in sunshine and warmth. The mean temperature of June was more than two degrees below average, and that of July $4\frac{1}{2}$ degrees. In both months, but particularly in the latter, there was a prevalence of northerly and easterly winds, with cloudy skies and frequent and heavy rainfalls, which greatly retarded the progress of vegetation, and contributed to make the harvest very late. August was scarcely more favourable, the mean temperature having been $2\frac{1}{2}^{\circ}$ below average, and the number of days on which rain fell, 22. But these months were followed by an exceptionally dry, though cold, September and October, which permitted the harvest, though very late, to be gathered in for the most part in good condition. The temperature of November was about 3° above average, and that of December

nearly 2° , so that on the whole we have had during the past year mild and open weather during the winter months, the greater part of February being excepted, with a cold and backward spring in March and April (deficiency of temperature for the two months, $7\frac{1}{2}^{\circ}$); but as there was almost no frost in May, with a more than average supply of moisture, vegetation made considerable progress in that month, and though the exceptionally cold and wet weather of the succeeding months greatly retarded the ripening process, things were kept green and growing, and with a favourable September and October an abundant harvest was at last gathered in.

Rainfall.—The heaviest fall of rain within 24 hours was recorded on the 22d July, when 1·20 in. was registered. The wettest month of the year was November, with a fall of 6·52 in., more than 2 in. above the average; and July came next with a fall of 6·22 in., more than double the average for the month. In November there were 22 days on which rain fell, 20 of them consecutive; and in July 24 days, the greatest number of any month in the year. Though these were the rainiest months of 1888, there was a great difference in their character. The cause of the excessive rainfall in November was a series of cyclones coming from the Atlantic, with strong southerly, south-westerly, and westerly winds, after the first week, and a temperature much above the average for the season; whereas in July the prevailing winds were more from the east and north, and the temperature greatly below what is usual in that month. The total number of days in which rain or snow fell was 195 (rain, 186, snow, 9—mostly slight falls) as compared with 181 last year. The total rainfall for the year was 35·91 in., as compared with 30·99 in. in 1887 and 41·13 in. in 1886. The average rainfall at Cargen for the last 28 years, as reported by Mr Dudgeon, is 44·67 in. I have observed, however, from Mr Dudgeon's monthly reports that the rainfall at Cargen almost invariably exceeds that at Dumfries, probably from its greater proximity to Criffel, so that the mean annual rainfall here may with probability be estimated at 40 or 41 in. rather than 44 in. This would still leave a deficiency in the past year of 4 to 5 in., though we might naturally have the impression that it has been a peculiarly rainy year. But it is to be observed that, although the rainfall of July and November and in some degree also of December, was much above the average, that of most of the other months was below it, January, February, April, September, and October having been

exceptionally dry—February and September in particular showing a register of less than 1 in. each for the month, February, 0·60 in., September, 0·97 in., or 1·50 in. for the two months, in place of an average of 4 in. for each month, and October a deficiency of 1½ inches.

Thunderstorms.—There were six occasions on which thunder and lightning were observed, the 18th and 19th of May, the 9th and 14th of June, the 26th of July, and the 10th of August. There might have been more, but these were the only instances which attracted my attention. The most severe were those of the 19th May and 14th June, which occasioned considerable loss of life, especially in the south and west of Scotland. The former travelled from the south northwards, and affected more or less the whole country from Cumberland to Aberdeen.

Floods.—I have also noted the occasions on which the river Nith was in flood, viz., from the 4th to the 7th January, the 30th May, the 23d to the 27th July, the 28th October, during a considerable part of the latter half of November, and on the 3d December, the river reaching its highest point on the last-mentioned date.

II. *Some Notes on the Abbey of Holywood and on the Welshes of Colliestoun and Craigenputtock.* By Mr JOHN CARLYLE AITKEN.

Although there are excellent “Lives” of the famous John Welshes, of the family of Collistoun, who figured in the days of John Knox, as well as in the tragic time of the great Whig Persecution at the close of the seventeenth century, and in the reigns of King Charles the Second, and of James, his brother, nevertheless, we may here endeavour to do something in the way of further illustration of some of the more local features, the truly classic vale of Nith seeming to afford a fair field in its still greatly unwritten history. Therefore, should we be fortunate enough, in the course of our notes, to develop any new or characteristic features in the process, our labour may not be altogether in vain.

In the first place, as a featural peculiarity of those mountain and hill regions, amid which lay the ancient homelands of the Welshes, of Dunscore and Nithsdale generally, there is a pronounced and somewhat unusually Celtic association in the surnames of the clans, or communities of folk, who for so many ages lived and

died amid this country of “glens and dargles”—such surnames appearing as if they, in their origin, had belonged to the obscure eras in the unwritten history of that locality, as the ancient hereditary domain of the Earls of Mar prior to the 14th century. Here, accordingly, we may discern, through the medium of the ancient writings, which have survived until our own time, the clear presence of certain individuals, or families of clan-folk, bearing the surnames of the Macraiths, Padzanes, Makfadzanes, Rorysouns, Maccawils, Macmonhaths, otherwise Macmaths (originally a small clan of the island of Cantyre), Makgauchens, Macadams, Jamiesouns, and many others. This country of the Welshes, lying as it did within the ancient “Deanery of Dunfres,” *alias* of Nyth, in former ages was, to a very considerable extent, a region of churchlands, monklands, and ecclesiastical baronies, which for unknown centuries had remained in the consecutive hereditary possession of the churchmen and abbots of Melros and of Sacrobosco, or The Haliwod. For example, almost the whole area of the parish of Dunscore consisted almost exclusively of lands belonging to the Abbey of Sacrobosco, or The Haliwod, which were comprehended under the name of the “Barony of Sacrobosco,” so-called; the “Monklands of the Monks of Melros,” which occupied a whole valley of this parish, towards the Nith and the ancient church of Dunscoir, which was situated on the Nithward confines of the parish, not a great way from the Premonstratensian Priory of Friarscarse, and the Ailisland, or Ellisland, residence of the Bailie of those monklands of Melros, and in our own time of Burns memories and home associations. Both those once great religious houses seem to have owed their original possession of this region of wide-spreading natural forest and orchard country to the liberality of the ancient native thanes, lords, or barons of the vale and “Deanery of the Nyth,” as it was.

The Premonstratensian Abbey of Holywood, of which no vestige now remains, as its name seems to imply, was situated amid a plain country of the woodlands, natural oak forests, and sacred groves of the Pagan worship of their predecessors in the land. The Christian Church of Holywood appears to have been a house of religion of a very remotely antique origin, as it figures in various church records in one form or other at a very early date. The oldest name we have seen applied as descriptive of Holywood is contained in the “Scottish Rolls,” under anno 1376, as the Gaelic Darowghoquill, the meaning of which we leave to the discretion of

those acquainted with that ancient language. Other more common forms, all conveying in their own fashion one and the same original descriptive meaning, were : Dercongal, Sacrinemoris, Sacrobosco. The Abbey of Holywood and the Priory of Saulseat, in Galloway, as affiliated religious houses of the Premonstratensian order, had claimed as their hereditary commendators the family of the Johnstone of that ilk in Annandale. According to "Hutchison's Cumberland," "John dominus de Kirkconnel founded the Abbey of Holywood in the twelfth century, and William Fitzmichael de Kirkconnel, about the year 1200, made a grant of Kirkconnel in favor of the Abbey of Holmcultan, in Cumberland" (II., 331), and which Abbey, otherwise called of Holme, for several succeeding centuries had held chartered possession of extensive lands in Galloway. In the "Register Book of Holmcultan," besides numerous charters touching those their Galloway possessions, there is item "*Conventio inter Donum de Holme et Dundraynan.*" In the same record we have "*Carta Will. filius Mich. de Kyrkconnell,*" with the period of granting indicated by the mention therein of Lord Gilbert, who was elected Bishop of Galloway in anno 1235, and died in 1253 A.D. "*Carta Huttredi fil Fergus consensu Rollandi ville de Kyrkgunin,*" with indication of the period through mention therein of Walter, Bishop of Galloway, circa 1209-35 A.D. These excerpts we owe to the care of the learned John Goldie, "of Craigmuir," in Galloway, "Commissary of Dumfries," in and towards the close of the last century, the transcript from his notes having been made by Dr Clapperton of Lochmaben. Early in the thirteenth century King Alexander the Second of Scotland had granted "*locum de Dunscore in valle de Nyth*" to the monastery of Melros. There are many other early grants of lands, &c., of a similar nature to the Abbots of those two once great religious houses, whose baronial lands had originally comprehended nearly the whole of Upper Nithsdale, as we find by the record. Although the Abbey of Holywood, in common with nearly all its kindred houses of the south-west of Scotland, possesses not any history of its own, consecutively written by the fraternity, yet there are still some scattered notices not without interest to be found recorded in the general chronicle of Scottish history. The memory of the Abbey in the "*De Sphera*" of its once all famous mathematician, "*Johannes de Sacrobosco—John of Holywood,*" still survives in the literature of the land, while, owing to the foresight and pious care of the Lord Maxwell, of the

Reformation era, we may yet discern the effigy and cultured face of this once famous John, as drawn from the sculptured stone, and which, as Antiquary Riddell, of Glenriddell, notes as a sketch, was "A drawing of the head of John de Sacro-Bosco, which Mr Cardonel took for me when he discovered it in the parish church of Terregles in 1788, and which effigy, as having formerly stood in the church of Holywood, the Lord Maxwell had caused to be removed to Terregles Church at the Reformation." We may thus presume that this famous Abbot was buried at his own Abbey of Holywood. Concerning the early history of the Abbey of Holywood, we have such knowledge as is to be gleaned from occasional notices as fragmentary as they are inconsecutive in point of date. The Lord Maxwell, the Warden-hereditary of the West Marshes of Scotland, we find by early chartered evidences, had been the great chief natural Protector and Guardian Bailie of nearly the whole of the splendid Revival structures and great religious houses of the Lords of Galloway and of the south-west of Scotland in general. Not one of the least worthy of note was this Abbey of Holywood, as lying within the territory of the Lord Maxwell. Also figuring as of the ancient Abbots and Commendators of Holywood, we meet with certain Campbells, called "of Lowden and Mauchline;" Crichtons of Librie, of the Lord Crichton of Sanquhar's family; the Lords Maxwell and Nithsdail; Johnstones of that ilk, barons of Annandale, who would appear to have been among the last possessors of the wider domain lands and church barony of Sacrinemoris, or otherwise the "Barony of Holywood."

Among the few ascertained Abbots of this house we discern a certain fifteenth century "Nicolas Welsh, Lord Abbot of Holywood," who is mentioned, under the year 1480, incidentally in the course of some suit before the Lords at Edinburgh. In the "Taxt Roll of Nithsdale" we find the Baronies of Holywood, of Sanquhar, Glencairne, and of Drumlanrig, each severally taxed at £120 Scots in the year 1554; the "Monklands of Melrose, in Nithsdale," in the same roll, being taxed at £40 Scots. We also incidentally ascertain that the tenants of the Abbey of Holywood, in the ages of the old Border raids and wars, had been accustomed to do a good deal of tough fighting, following their own Lord Abbot and their Guardian, Lord Maxwell, to the field. The baronial lands had been leased out in long tacks, granted by the Lord Abbot, in name of his abbacy, to certain tacksmen, largely of the Maxwell surname, and who you find had oftenest been previously for long

generations in the consecutive hereditary occupation of the same parcels of land, &c., as tenants of the abbey and barony. As the document containing the recital of some of those facts and features is here given for the first time, and is not without its own characteristics, as mayhap even formulated at the dictation of King James the Sixth himself, as it bears traces of his own peculiar enunciation, we may make here some larger extracts.

We may also explain that the Grierson barons called "of Lag" were from, of oldest known time, the hereditary occupants of an old Border castle, and its contiguous barony lands called "of Lag" both, and which even in the fifteenth century are described as "lying in the broken barony amid the Monklands of Nithsdale." The Griers, or Griersons, of Lag, usually styled in the language of the district "The Lairds of Lag," had fought and fallen at Sauchieburn and in "the battle in Northumberland," afterwards known as "Flodden Field," as their charters bear witness. They held their lands direct from the Crown. We accordingly find certain "Royal Lettres granted in favor of Roger Grierson of Lag, dated at Halirudhouse, the 12th of May, 1585," and in the name and under the authority and subscription of King James the Sixth of Scotland. To all and sundry our lieges of quhatsumever estate, degree, or quality thai be of, and in special to the Baillie of the Abay of Haliwod, &c. Forasmuch as we and the Lordis of Our Secreit Counsaill perfytlie understandin that Roger Grierson, of the Lag, hes divers friends and kinsmen, tenentis and induellaris upon the threttie sax pound land, callit the Keir, of auld extent, lyand within the barony of Haliwod and Sheriffdom of Drumfries, quhilk in all tymes byegane haif bene onlie subject and haldand to serve and attend upone the saide Roger and his predesessauris Lairdis of Lag, their Chief, alsweil in our weiris and raidis as in their awin particularis affairs, naither were changit, alterit, nor hichit, payand thankfullie the auld accustomit maill and dewtie quhilk thair haif aye dune. Upone the quhilk consideration, and that the quhilkis duellis neare our Bordoures quhair by at all occasions thai behuiffit to ryis and ryid with thair said chief and his predecessouris in thaire and oure predecessouris service. It pleasit our deareste grantschire, King James the Feird [Fourth] of worthie memorie, to direct his lettres and charges to the Abbots and Baillies of the said Abay for the tyme, commanding thaim to desist and ceis fra all vexatione and disobedience of the said Roger and his predecessouris and kinsmen fra making ony

novation or imposition on thaim, nor to haif ony furdur intronission with thaim than, &c. . . . Quhair we being movit and remembering that there is divers actis and ordinances made be our dearest Moder and maist noble predecessoures in favors of the tenentis of Kirklandis, namelie, sic landis as lies neare our bordouris, that thai sal nocht be remouabill, hichtit, nor raisit by thair auld dewtie, quhairby thai may be the mair readdie to obey our service as occasion occurred. Therefore commands and charges—accordingly be thir our Lettres given under our signet, and subscrivit with our hand. At Halirndhous, the 12th day of May, of our raigne the augeine year, 1585."

But we must now take up the subject of the history of the Welshes, as inhabitants of those monklands. Of course the most prominent feature of all his kindred was the "Maister John Welsh of Air," surnamed "The Incomparable," and who, before and after his marriage with the heroic daughter of "Maister John Knox," had such a distinguished career. This John was of the Collistoun kindred of Welshes, and was the second son of the family; David, his eldest brother, succeeding their father, also a John Welsh, in the hereditary lands of Collistoun. Collistoun and Craigenputtock lands, which are associated with the history of the Welshes, lay amid the barony of Sacrinemoris, otherwise the barony of Holywood. Collistoun is known under the more ancient name of Makcollistoun, evidently derived from the clan of those parts known as the Maccawils or the M'Calls, who were also identified as the ancient owners of the lands of Vod, Grennan or Messenger-lands, of Kaidgelaucht or Caitloch, of the same mountain and hill country. Although in the 15th century the family of Welsh had been residents of the county town and ancient royal burgh of Dumfries, certain indications afford some ground of probability that in their own quarter and section of the wide barony of Holywood they must have acted as the hereditary resident deputy-bailies of the Abbots of Holywood long before as well as immediately after the Protestant Reformation, at which time they are clearly identified as holding that trust and office. Not many years after the Reformation of 1560—which on the Borders of Scotland generally, in the nature of things, had at first made slow progress, amid a population the ardent supporters of the waning fortunes of the unfortunate Mary, Queen of Scots, a population so long the tenants of the wide ecclesiastical lands attached to the Church under the Romish Faith in Scotland, with

their then still surviving liferentallers and tacksmen under unexpired leases, &c.—we find the family of Welsh, within the Deanery of Nith, had many important cures and charges. Shortly after the Protestant Reformation we accordingly find, as kinsmen and contemporary churchmen, a “John Velshe, vicar of Drumfries,” a “Schir Herbert Velshe, chaplain there,” both about the presumptive era of the birth of the Reformer, which is given as in the year 1568; a “John Velshe, vicar of Dunscoir;” a Dean Robert Velsch, Vicar of Tynron,” with “Sir Galbert Welch,” his brother, as well as others, all in possession of charges in Dumfriesshire. In the course of the seisin, dated the 21st of May, 1558, which was then granted to John Macbrair, Provost of Dumfries, as son and heir of his deceased father, Roger M'Brair, also *quondam* Provost of Dumfries, among numerous enough other items we find that of an annual rent of 13s 4d Scots money, as exigible by the said Provost from the tenant of the deceased “Thomas Velshe, now in the hands of Schir Herbert Velsche, chaplain, and John Velsch of Collistoun,” and having on the south part thereof the lands of David Cunynghame and on the north those of Ninian Logan, vicar of Cowen. Mention is also made of the bounding lands of Archibald Velsche. By the records it appears that a house called “The Weighouse,” and situated hard upon the “Lochmabengait Port,” or Gate of the Lochmabengait, now the modern English Street of Dumfries, even long before the Reformation had been in the hereditary possession of many John Welshes of Collistoun, who had owned other burgh property. On the 23d of May, 1575, one of those “John Welshes of Colingstoun,” belike the father of the Reformer, had sold this familiar mansion called “The Weighouse” to Thomas Maxwell, son and heir of the deceased Gilbert Maxwell, laird of Stroquhan. The house was at this time tenanted by a certain known “David Heris of Dumfries.” This John Welsh we identify as the gentleman who figures in the following entry, as taken from the original document itself, viz. :—

22nd of December, 1573.

“Johannes Velsche de Colustoun,” acting as Baillie for the Superior of the lands, the venerable Father in God, Thomas, Commendator of Sacrinemoris, grants seisin of the 10/ land of old extent of Skynfurd, in the barony of Sacrinemoris, to Andrew Makkynnay, following upon the Precept granted by the said Commendator to him. There were present, when the above seisin was granted, Cuthbert Velsche, brother of the said John Velsche (that is of Colustoun, as given above), John Grierson in Skynfurd, George Young, Robert Grierson, Herbert Stett, James Young,

and divers others ; certified and signed by Herbert Cunynghame, Notary Public, Dumfries."

We ascertain for certain that the above John Welsh of Colustoun and Cuthbert Welsh of Stepfurd were respectively the father and the uncle, or father's brother, of the Reformer. In other sections of the extensive churchlands and barony of Holywood there had been various holders or proprietors of more or less extensive portions of land, such as of Bargregane, Redskarris, or Skarr. Cornilie, Stepfurd, all occupied by persons of the surname of Welsh, who may most probably have been originally of the Collistoun family, which, as we may presently find, had in its direct line ended in an heiress about the beginning of the reign of King Charles the Second. A John Welsh of Scarr, who at this time was an elder of the Parish Church of Kirkpatrick-Irongray, was the eldest son of a William Welsh "of Redskarris," or "Skarris," and had been present at Pentland's Battle a few years later. This John Welsh of Scarr must have been among the nearest of kin of the John Welsh, the reputed "last laird of Collistoun," as his daughter, the very young "Hellen Welsh," his heiress, has for her tutors-nominate, under her father's testament, "John Welsh of Skarr and John Welsh of Cornilie." Craigen-puttock, as a possession of the family of Welsh, seems to us to belong to their more recent rather than to the earlier eras of the family history. By the testament of John Welsh of Collustoun, 11th November, 1661, it appears that he died without male heirs, leaving, as we have said, the daughter and heiress, Hellen Welsh. This testament mentions also John Kirks, otherwise Kirkhaught of Bogrie ; the famous Rev. John Welsh, of Irongray, the originator of the open-air convocation familiar as the "Scottish Conventicle ;" and James Welsh, writer in Edinburgh, who are of the attesting witnesses. It is also otherwise mentioned that the Rev. John Welsh, of Irongray, had attended the deathbed of the testator. The following note, taken also from its original, carries on the historical narrative of the Collustoun line :

" Anno 1678.

" John Welsh, in Glenburn, Bailie in that part, for Mary Welsh, spouse of John Gordon, of Kirkconnell, and sister and heiress of her deceased brother-german, John Welsh, Junior of Collistoun, the hereditary proprietor of the lands, under a Charter of Alienation, by the said Mary Welsh, and her said husband, dated the 21st of December, 1669, grants to John Maxwell, of Steelston (her kinsman) seisin of the twenty shilling land of

old extent, of Gibbinstone *alias* Macolvistoun, within the barony of Holywood, dated the 6th of May, 1678."

In the year 1685 there is the service of a Mary Welsh as heir to her father in the 20s land of Collistoun, the merk land of Larg, the 20s land of old extent of Nether Whiteside, and the 40s land of old extent of Craigenputtock. In the local records of the town and county of Dumfries towards the middle and close of the sixteenth century there are numerous fragmentary incidental notices of the actual existence of the family of Collistoun and other Welshes, which owe any interest they possess rather to their historic associations than to any intrinsic merits of their own. At the era of the Reformation the very antique royal burgh of Dumfries, then still the one great "provisioned town" of the marches, its Provost M'Brair, when called to Edinburgh by the authorities, in his evidence characterised the burgh, in its then past history of at least three centuries, as "a town aft brunt and harriet." This statement history fully corroborates, even in such details as have survived. At this period the native inhabitants of Dumfries, as you may discern, had been a vehemently daring race of men, actuated by the old chivalric spirit of the Borderer, with tempers and swords almost equally sharp and shrill, on supposed just occasion, and seemingly altogether without fear in some of their undertakings. The periodical meetings of the "Justices of the Peace of the Shire" seem to have been the known "gala days" for the settlement of old grudges and feuds, wherein they pricked at each other in the true old Border fashion, this popular institution and usage lasting in one form or other until after the period of the Union of 1707. Under such conditions it is the less surprising to find war-gear of all kinds still figuring so largely in the necessary requirements and furniture of existence as it was here as elsewhere in the Marchlands. In the interior of the burgher household you may discern bows and arrows, steilbonnets, lant-staves, guns, "pistolets," swords, long and small, in considerable variety; coats of mail, big and little, known generically as "Jacks;" grey-gowns, "riding-tippats," or hoods, for warmth and protection, while the staigs, or "Galloway Nags," are covered over with certain trappings and war-gear, the rider blowing his own "slogan" upon his "blowing-horn" in tones that if not sweet were terrific and loud enough. Froissart gives an amusing account of the infernal echoes of the hollow and middle of the night as raised in the Scottish camp in repose by such "blowing of horns" as was in

use and wont in the field. In the records there are some peculiar enactments regarding certain horses and nags, which have somehow strayed from the English Border, nobody seems to know exactly how, only their owners seem to have wished to re-acquire possession of them. Here is a curious official item, which seems to point in that direction, the temporary custodian of "Kinmont Liddell, Englishman's twa horse," having been without doubt the father of "Maister John Welsh of Air and Collistoun," the son-in-law of John Knox :

"Apud Drumfries, the 25th of October, 1580.

"Thomas Brattane, John Wrycht, co-burgesses of Drumfries, appointit ordainit, &c. Alexander Cairlell, Protonatar for them in their behalf to defend and pursew in the action and cause, wherein and whereby a fence was laid by John Newall upon twa horse of Kinmont Liddel, Englishman in the hands of Johne Welsche, of Burnfit, and accordingly require an Act to that purpose to be recorded, &c."

The next entry as to "John Welsche" establishes his identity under either of his two landed designations as "of Burnfit," or else as "of Collistoun." He was, of course, the Reformer's father, as John Welsh of Collistoun, the grandfather, would appear to have died not many years after the Reformer's birth.

"Apud Drumfries, 30th Nov., 1580.

"Welche in Collistoun.

"John Welche, in Burnfit, Andro Edgar, in Drumfries, and John Jackson, in Killalong, bind and oblige themselves to pay to Edward Irving, callit 'Lang Ritchie's Edward,' the sum of 88 merks Scots monie, &c."

Apud Drumfries, 15th Sepr., 1578.

"Robert Newal, Drumfries, enacts himself and becomes security for Johne Velsche, son of John Velsche, sumtyme of Collistoun, for twentie shillings fenced in the hands of Robert Velsche, burgess of Drumfries, at the instance of Thomas Hayning."

As we said, there are numerous other similar entries in the local records which represent "John Velshe, sumtyme of Collistoun" as an inhabitant of the town, if not during the whole yet for no inconsiderable proportion of the whole year. "Sir John Jamesoun, chaplain at Dumfries," the Reformer's ascertained first tutor or preceptor, we find had probably been the son of a Dunscore proprietor of land, who, about the year 1568, is designed in a local instrument as "Laird John Jamesoun." As this "Schir John Jamesoun" was a chaplain at Dumfries under Johne Velsche, vicar of Dumfries, and was afterwards parish minister of Dunscore,

Wodrow was probably quite correct in stating that the young Reformer had received the rudiments of his education within the town of Dumfries itself, although he has omitted to quote the needful authority, which he probably well knew.

According to the "Fasti," the parish kirk of Dumfries was dedicated to St. Michael, and previous to the Reformation belonged to the Abbey of Kelso. Among the Protestant vicars of Dumfries shortly after the Reformation we find "Maister John Velsche, 1568;" "Maister Ninian Dalzell," who was also head-master of the Grammar School of Dumfries, and "was deposed by the General Assembly in 1579 for having read to his scholars the Roman Catechism." Maister Peter Watson, vicar of Dumfries, originally of Markinch, had also under his charge Terregles, Troqueer, and Newabbey, and was by the General Assembly repeatedly nominated as Commissioner for visiting Annandale and Nithsdale. In 1575 he complained that "the town on Yule last, seeing that neither he nor the reader would read or use doctrine, brought a reader of their own, with tabron and whistle, and caused him read the prayers, which exercise they used all the days of Yule." He was called to account for the informal celebration of the marriage of the "Laird of Garlies," and at the Kirk of Durisdeer, as required, owned his transgression. Maister Thomas Maxwell, vicar perpetual of Dumfries, held previous charges throughout the county of Dumfries. At Morton, in Nithsdale, one of his charges, it is said of him: "He cannot serve at sundry places, maks no residence, but is a Jakman with Drumlanrig." (Reg. Assig.) He died previous to the 23d of May, 1601. From the original in the "Hoddon Collection," prompted by curiosity, we seem to have been the first who had attempted or thought it possible to still decipher the following letter of this "Maister Thomas Maxwell, vicar of Dumfries," and his kinsmen, to Homer Maxwell of Speddoch, an otherwise well-known Commissary of Dumfries. In one part of the letter the reference seems to be to "My Lord," thereby possibly meaning to their chief, John, eighth Lord Maxwell, Earl of Morton, &c., who, as we know, perished at Dryfesands Battle in 1593, or some nine years after the date of this letter. On the 31st of July, 1611, Homer Maxwell, of Speddoche, was declared and served heir to the deceased Mr Homer Maxwell, Commissary of Dumfries, his father (Records). The lairds "of Conhaith" and "of Kelton" were at this period brothers-german, one of whom, Robert Maxwell, was a Notary Public of

Dumfries. The authorship and penmanship of this very rare letter naturally fall to either the vicar of Dumfries or to this Maxwell of Kelton notary. The handwriting is neat, small, and well-formed, although now very indistinct, and looks like the work of some one quite familiar with such undertakings. The whole is contained upon one single quarto sheet of rough letter-paper, and is artistically ornamental in its arrangement and general execution. On the reverse of the quarto sheet is :

“To our maist assurit and traist Friend the Commissar of Drumfries.

“Rycht assureit and traist freind, eftir our varye hertlie commendatioun ye Maxwell with your wayif with the hail rest of your freinds varaye mekle consydering the greit travell and labor that we haif maid baith at my Lordi's handis and my Lady's fir your relief and fauor to be procureit at thaim, quhilk bie my Lady travell and uthir friends, is grantit to you and my Lord Warrant for you, that comes not to his Lordship. It is thocht bie your hail friends that lykis your weill, that ye owther esteme youre wysdome oure greit and bettir nor thairis can be, or ells that ye esteme not my Lordis favor, quhilk will turn to youre rewine, seing that all friends is content to tak thair part of his lordships burding and nane refusises quhat is thair pairtis. Thay think it meit ye cum to my Lord, with all possibil deligence, or ells ye will caus uss bie hardlie repressit with my Lord, and he will think that former taillis spooken of you is trew. Thus not doutting, bot witht all possable deligence yee bee at my Lord this nicht without onie forder delay, or ells say yee not ane uther tyme bot ye ar done for be freinds and advertisit of youre danger gif it cums heireftir. Sua Committis you to God Almighty. Off Drumfreis this Mondaye the xviii. of Maii 1584.

“Youris assurit Friends to command, Robert Maxwell in Keltoun, Thomas Maxwell, Vicar of Drumfres, and Robert Maxwell in Kirkmahoe, with the advise of the hail of your freinds and your Wayif.”

We have given these larger notes in order to make clearer the following examples of “Discipline,” which are rather picturesque in their form. Under the Church of the Reformation began the written chronicle of such transactions. The reverence paid to the person of the priest of the Reformation seems to have differed little in degree from the usual custom under all manner of belief throughout the world,

“Apud Drumfries, 10th Jany., 1573.

“The Wrights of Drumfries.

“The directioun of the Wrights of Drumfries by their Conventioun, halding in the Tolbuitht of Drumfries in presence of ane nobil and potent Lorde, Johne Lord Maxwell, ‘Patrick’s sone,’ and Andrew Maxwell, David’s sone.

"Compearit in presence of Maister Niniane Dalzell, Minister and Skuilmaister of Drumfries, in the pulpit, the hail of the congregatioun there present in the paroch kirk for the tyme, and there obedientlie passed down on thair knees and in presence of the hail congregatioun confessit thai had faltit to God, Our Fadir and Lorde the Kingis Majestie, his Majesties Regente, the Provost and Baillies throw thair disobedience devisit againis the forsaidis Conventioun in the moneth of November last bypast, and thair for askit God's Majesty and the saidis Judges forgiveness, promised never to do siklyke for ever; and thairupon obleissit thaim and ilk ane of thaim undir the hiest pane and charge thair of nicht follow, requiring the same to be set in Act &c. Ita est Herb. Cunynghame, Notary, &c."

"Apud Drumfries, 6th of Aug., 1578.

"Troublance of the Toune.

"The quihilk day upon complaint be Maister Peter Watsone, minister of Drumfries, given in be hym againis Robert Welsche: It is fund be the Tryall tane be the Provost, Baillies, and Counsell, that the saide Robert Welsch has dyvers tymes injurit and spokin evill of the said Maister Peter Watsone; and in special on Tyesday last was, at eftir None, spak injurious wordis to the said Maister Peter, in his face and sicklyke, to his wyfe, Dame Courtell, when the said Robert Welsche said: 'He had leifer see the mekill devill of —(Hades, let us say) nor the said minister.' Thairfore the saidis Judges and Counsell Ordainis the said Robert to find caution, undir the pane of £40 Scots that he sall not molest, nor trauble the saide Maister Peter, his wyfe and servandis, be injurious wordes or onnie uthir unlauchfulle deidis, in tyme to cum. And to cum on Sunday nextocum to the paroch kirk of Drumfries, in tyme of Preaching before None, and thair maiste Reverentlie upon his knees, befair the pulpit, ask Almichtie God mercie and the saide Maister Peter and his wyfe, the Provost, Baillies, and Counsell and hail congregatioun thair Forgivnes, and to promyse nevir to do the lyke openlie nor privalie againis the said Maister Peter and his wyfe in tyme to cum, undir the pane of £40 Scots.

"On the other hand the same day, Robert Welsche protestit that the Provost and Baillies wald cause dischaarge (*i.e.*, prohibit) the said Maister Peter Watsone, his wyfe, and servandis that they come not in his house in tyme to cum. And hereupon requyrit Act, &c."

From the following entry, taken along with many other similar contemporary notices in authentically vouched and written form, as still surviving, it would appear that the ancestors and certainly the grandparents of the Reformer had resided at Collis-toun, and had owned lands in another section of the great barony of Holywood, as on the

"22d of May, 1545,

"John Welsh, in Makcollistoun, and Marion Fergusson, his spouse, have seisin of the merkland of old extent of Stronschillat, called the merkland of "The Burnsyde," lying in the parish of Glencairn, Sherifffdom of Dumfries, &c."

The charter upon which this seisin follows was granted in their favour by the superior of the lands, Alexander Glencorss, and was dated the 14th of May, 1545. Among many other local witnesses mention is made of a certain "Schir John Dunbar, chaplain"—at Glencairn, as we think—who seems, according to the date and surrounding circumstances, to have been identical with the known and ascertained "Schir John Dunbar, rector of Castlemilk," in Annandale, who is mentioned in the "Latter Will and Testament" of Maister Gavin Dunbar of Mochrum, in Galloway, Clerk Register, Preceptor of King James the Fifth, Chancellor of Scotland, and one of the most notable Bishops of Glasgow, where he was entombed in 1547. They two had most probably been of one and the same kindred in common, although the positive degree of relationship appears not here or elsewhere. Another curious entry, belonging to this early period, records that on the "5th of August, 1536, Thomas Welsh, son and aire of David Welsh, called 'David of the Mill,' was made a Freeman burgess of Drumfries." As probably among the first of the Reformation "vicars of Dunscoyr" was a Schir John Welsche, or Velsche, who figures in certain transactions touching the vicarage lands of his charge of Dunscoyr, in concert with John Welsh of Collustoun, on one occasion recording a protest against the alienation of the lands, as they were his for the term of his lifetime. He is also mentioned in the testament of Dean Robert Welsh, vicar of Tynron, in 1568, wherein he figures as one of the executors as well as a legatee to the extent of some £20. Of the degree of positive relationship, if any there were, no mention is made in the testament itself. The testament of John Welsh of Collistoun, the Reformer's father, as reproduced in Young's excellent "Life of Rev. John Welsh," and from the Commissariat records of Edinburgh, is dated "At Collieston, the first day of August, 1600," or, that is to say, some days prior to his decease on the 5th day of the same month of August. By it we learn that Marion Grier, his wife, survived him, that he had a brother-german, Cuthbert Welsh, and sisters, Kait and Isabell Welshes. The said John Welsh and Marion Grier, his spouse, had at the time of his decease issue as follows:

1st. David Welsh of Collistoun, his eldest son and successor.

2d. John Welsh of Air, the Reformer, his second son, and who married Elizabeth Knox, third daughter of John Knox's second marriage with Dame Margaret Stewart, daughter of Andrew Lord Stewart of Uchiltrie (a very famous marriage in its own day).

3d. Cuthbert Welsh, who succeeded his uncle Cuthbert as heir to certain lands, and had two sons, John, his successor, and Thomas Welsh.

The daughters also surviving were :—Margaret Welsh, who, previous to this year of 1600, had married Hector Maxwell, of Fourmerkland, *alias* Rue Tower, and who appears to have been of the Maxwell family, designed of Steilston and Kilness, in the barony of Holywood; Marion Welsh, unmarried, and residing at Collistoun at the time of her father's decease. It would otherwise appear that the eldest son, David Welsh of Collistoun, had had a daughter, Jean Welsche, who forms the subject of the following unregistered and hitherto unknown contract of marriage. The William Grierson of Kirkbride, the would-be husband, was the son of Robert, the son of Gilbert Grierson of Kirkbride, who again is supposed to have been a son of the Laird of Lag, killed at Flodden in 1513. All had been the hereditary owners of those lands of Kirkbride, which they had held from their chief and superior, the Laird of Lag. This William Grierson, of the contract of marriage, had from Sir William Grierson of Lag a charter of the 40s land of Kirkbride, in the barony of Holywood, dated the 28th of June, 1614. Herbert Cunnyngname of Craigend and Swyre, Notary, Town Clerk, and afterwards Provost of Dumfries, and who had married the daughter of a "John Grier of Swyre," and who draws out the contract of marriage itself all in his own neat small handwriting, may thus very probably have been not unremotely related to the contracting parties of both surnames. This contract not having been recorded in the public register for some reason unknown, by association on the part of the lady, as the niece of the Reformer, the contract may be said to possess a borrowed lustre and interest :

"Copy Contract of Marriage.

"1st November, 1613.

"At Drumfries, the fyrst day of November, the yeir of God MDC. and therteene yeiris (1613), it is contractit and agreeit betuix William Griersoun of Kirkbryid, on that one part, and David Welsche of Collistoun, takkand the burden on him for Jeane Welsche, his lanfull dochter, on the uther part, in maner following : That is the said William sall, Godwilling, compleit and solemnizat the halie band of matrimonie with [each] utheris publiclie as efferis, betuix the dait hereof and the fyrst day of December nextocum, and thairefter indew utheris with bodies and guidis, as becumis mareit personis of Christiane dewtie. For the quhillkis cause of marriage, the said David Welsch of Collistoun, takkand the burden on him for his said dochter, bindis and oblaisses him, his aires, executoris, and assignais to content and pay to the said William Griersoun, in name of tocher with his said dochter,

the sowme of ane thousand merkis monie of Scotland at the Termis following, to wit sex hundredth merkis thereof betuix and the solemnizatioun of the said mariage, and four hundredth merkis in compleit payment of the said tocher, within twa yeiris nexte hereftir. At the payment of the quhilk four hundredth merkis, it is appointit that the said four hundredth merkis sal be laid wairit and bestowit upon sufficient landis annualrentis and other securities to the weill and utilitie of the saidis William and Jeane spouses futur, and the langest leivar of thaim twa in conjunct fie and the aires lauchfullie to be gotten betuix thaim and their bodeis quhilkis failzeand to the narrest and lauchfull aires and assignais of the said William quhatsumevir. And because the said soume of sex hundredth merkis quhilkis are to be payit betuix and the solemnization of the said mariage are to be warit and bestowit upon the purchasing of ane heretabill tytil of the fortie schilling land of Kirkbryid lyand within the baronie of Haliwod, Sheriffdom of Drumfries : it is appointit that how sone the said William obtainis the heretabill tytill thair of he sall infest and seise dewlie and sufficientlie by sufficient securities and infestment agreabil to the lawis of this realme the said Jeane, his futur spouse, in lyferent during her lyfetyne either in fortie poundis monie afoiresaide of annualrent yeirlye to be upliftit furth of the said lands of Kirkbryid at Vitsunday and Martymes in winter be equal portionis. Or ellis in the equal half of the said landis of Kirkbryid with the pertinentis. And heirto the pairties obleissit thaim thair airis, executoris, and assignais severallie to [each] uthers. And for the mair securitie the parties consents that thir presentis be registrat in the buikis of Counsell or the Commissarie Court buikis of Drumfries, and haif the strenth of ane decreit with letteris and executionis to be direct hereupon on ane simple chairge of ten dayis and for that effect statutis. Thir presentis conjunctlie and severallie firm and stabill. In witness quhair of the pairties hes subscrivit thir presentis as followis, writin be Herbert Cunynghame, notar, tyme and plaice above wryttin, befor thir witness, John Lyndsay of Laggane ; George Maxwell, merchand ; Herbert Cunynghame, younger ; and David Nelsoun.

“I, the said William Griersoun, with my hand at the pen, led by the Notar, underwrittin at my command, because I can not wryte.

“Ita est Herbertus Cunynghame, notarius mandas dicti, Willielmi Greirsoun, &c., &c.”

24th of January, 1889.

At a meeting of the Council held on this date, the Secretary submitted the following letter from the Town Clerk of Dumfries :

TOWN CLERK'S OFFICE, DUMFRIES,
22d January, 1889.

ROBERT BARBOUR, Esq.,
Secretary, Dumfries and Galloway Natural
History and Antiquarian Society.

DEAR SIR,

I enclose excerpt from the will of the late Mr William Baxter, from which you will observe that he has bequeathed certain specimens illustrative of Natural History to the Town Council of Dumfries, with power to the Council to allow said specimens to remain for such time as they see fit in the hands of any Geological or Natural History Society locally connected with the burgh. The matter has been considered by the Provost's Committee, and they are disposed to recommend the Council to place the specimens in the custody of the Dumfries and Galloway Natural History and Antiquarian Society, if the Society will undertake such custody, but, first of all, it is desirable that the articles be inspected, and I am instructed to enquire whether the Council of your Society will depute one of its members to accompany Provost Scott to Glasgow to make the inspection. From a letter from the agents of Mr Baxter's Trustees, I find that it is desirable that the inspection should be made on an early day.

Yours truly,

JOHN GRIERSON, Town Clerk.

The following is the extract from Mr Baxter's Will :

Thirdly, My geological and other specimens illustrative of Natural History shall be made over to the Magistrates and Town Council of the Burgh of Dumfries in trust for the community thereof, and shall be placed or exhibited by the said Magistrates and Town Council in a Public Museum or other suitable premises in the town, conveniently situated and readily accessible to the community, but expressly excepting and excluding the establishment known as the "Old Windmill" in or near Dumfries, with power to the Town Council to allow the said specimens to remain for such time as they see fit (subject to the after-mentioned stipulation in case of a free library being founded) in the hands of any Geological or Natural History Society locally connected with the said burgh, for the purpose of assisting the Society in illustrating Geology or Natural History or promoting the knowledge thereof. To the said Magistrates and Town Council the sum of Fifty Pounds sterling towards founding a Free Library for the said Burgh of Dumfries, in the event of the same not being founded prior to my death, providing also that the specimens and others before referred to and this

pecuniary legacy shall be made over or paid to the Town Council conditionally on their undertaking in such manner as my trustees may consider satisfactory; that the said specimens and others shall be prominently exhibited in said Library, if and when founded; and that such Library shall be conveniently situated in the town of Dumfries, without prejudice to the Town Council allowing said specimens and others to be removed therefrom for short periods from time to time for the before-mentioned purposes of a Geological and Natural History Society, and in the event of said undertaking not being granted as aforesaid, the said specimens and others shall be made over by my trustees to such society, museum, or public institution in the town of Dumfries, as they may deem proper, and the said Fifty Pounds sterling Legacy shall fall into and form part of the residue of my means and estate, to be dealt with accordingly.

The Council requested Mr James Davidson to go to Glasgow and make the necessary inspection.

1st February, 1889.

Major BOWDEN, V.-P., in the Chair.

Donations.—Ten numbers of the Journal of the Linnean Society, presented by Mr Robinson Douglas; the Journal of the Elisha Mitchell Scientific Society, 1888, Part II.; and the Zoological Record for 1887, presented by Mr David Sharp, F.R.S.

COMMUNICATIONS.

I. *Ornithological Notes for 1888.* By Mr WM. HASTINGS.

The most noteworthy of the birds sent to me is *Paleas Sand Grouse*, which is of very rare occurrence in this country. It is described as being met with in large flocks in some parts of Asia Minor, feeding upon the seeds of a species of an *astragalus*, a small pea-bearing plant, the seeds of which it seems to be fond of. The birds are well adapted for long and very rapid flight, the wings being long and very sharp-pointed, the first feather in the wing an inch longer than the second, and the feet very small and so much covered with short hairy feathers that the toes are almost hidden from view. There was a variety of different kinds of seeds found in the body of those that were sent to me, the most common being clover seeds and the common wild mustards. Some of them had their crops full of a very small black seed, but I could not say what it was. The birds have sometimes very long flights to take before they reach their feeding ground, and have equally long dis-

tances to travel before they can have a drink of water. About some twenty-five or betwixt that and thirty years ago I had two specimens of the same kind of birds sent me for preservation. If I mistake not, they came from the Moffat district, but they were too far gone and did not make good specimens. I have seen none of them since until this last season, when I received seven nice specimens. They have been met with in various parts of the country, always in flocks of a larger or smaller number. There are several different species of the Sand Grouse, some found in Russia, others in the deserts of Arabia, others in the north of Africa, and also in Spain. The plumage is of a warm, sandy colour, resembling the colour of the desert places that they frequent. I could hear nothing of them having nested and reared their young while here. Another very rare bird in this country is the Ruddy Sheldrake. I had one sent me last summer, shot in the Solway. It is much of the same size as the common Sheldrake, but very differently marked, being of a bright bay colour all over, and described as being met with to the north of the Baltic breeding in rabbit-holes, in the sand hills, much the same as the common Sheldrake. I can find no account of it ever having been met with in this country. Another little bird, the Spotted Crake, and also the Water Rail, which is equally scarce, I have had specimens of this last season. But although they are scarce they can hardly be called rare. The Great Spotted Woodpecker is another scarce species. I had one, shot last season in the immediate neighbourhood of the town, but it is seldom that it is seen here. I once had a specimen of the Lesser Spotted, shot at Amisfield thirty years ago, and have seen none since. The Great Grey Shrike, or Butcher Bird, was sent me this season from New-Galloway. It was shot feeding upon a hedge sparrow that it had killed. As it cannot hold on with its claws like a hawk, it transfixes its victim on a spike in the hedge, or else in a cleft in the hedge, where it tears it to pieces and makes a meal of it. About the month of August I received a specimen of the Red-eyed or Dusky Grebe, a bird which is not often met with here. It is a very beautiful species, a third larger than the Little Grebe. Some years ago I had one sent me, shot on the Lochmaben Loch. It is by no means common. I have had some curious Hybrid Pheasants sent me this last season, one (a large bird), betwixt the pheasant cock and barndoor fowl. It had quite a pheasant tail, although not quite so long as in the pure breed, and its general appearance shewed at once that it was a pheasant of

large size. I had also a bird bred between the Golden Pheasant Cock and the Common Pheasant Hen, the product being a bird a full third heavier than the pure breed. I have also had this week sent me a very curious Hybrid which I believe to be between the Golden Pheasant Cock and Silver Pheasant Hen. It is somewhat larger than the Golden Pheasant, and is a rich shining black with bright green reflections. It has spurs of a considerable size on each leg, and altogether it is a very curious specimen. In the month of December I had five specimens of the Cross Bill sent me. They appeared to me to be young birds, as they had not the bright colours of the adult bird. They have been known to breed here in various parts of the country. There is nothing that I have seen unusual to note among our native birds generally, but I may mention that the Hooded Crow was more plentiful last season than I ever saw it before. The same remark applies to the Short-eared Owl.

II. *How I Found my Stone Implements.* (Abridged). By Mr
JAMES R. WILSON, of Sanquhar.

The antiquity of the parishes of Sanquhar and Kirkconnel is no matter of conjecture, but on the contrary is strikingly revealed in the history of the northern part of this country. The town of Sanquhar glories in an origin dating back, according to authentic history, to a thousand years ago, and the Camps of South Mains and Saen Caer near the town, the Lacustrine Dwelling on the Town's Common, and the great Territorial Division Dyke which traverses the two parishes, tell of a more remote period still. Besides, the ancient Coal Workings in the parish of Kirkconnel, the Grave of St. Connal on Glenwharrie Farm, after whom the parish is named, the base of a large Runic Cross near the manse, now doing duty as the side of a sheep limbie, the Runic Stone in the Old Churchyard wall, and the Ornamental Stone in a wall on Kirkland Farm—each and all have their own tale of antiquity to tell.

Dr Underwood, who was temporarily resident in Sanquhar, shewed me a small piece of gold and asked what it had formed. Having previously seen in the Liverpool Museum a large number of Gold Lunettes found in Ireland, I at once unearthed the mystery, and by procuring the other piece of the article, found that the whole formed a magnificent Gold Lunette. It is described in the Transactions of the Society of Antiquaries of Scotland by the

late Mr Gilchrist Clark. It was found at Auchentaggart, parish of Sanquhar, by Mr John Wilson, a ploughman there, in 1872-3. After making certain of the genuineness of the metal, I purchased the article at the price of £25 for the late Duke of Buccleuch, and you may now see it in the Antiquarian Museum in Edinburgh, where it is deposited on loan. Visiting Mauchline on business, I saw in the rockery at St. David's this magnificent Ring. During drainage operations on Mossgiel Farm, near Mauchline, in 1883, it was got at a depth of $2\frac{1}{2}$ feet from the surface, and the gentleman from whom I received it procured it from the labourer who unearthed it. Dr Anderson, of Edinburgh, considers it a very fine Charm Ring, and anxiously wished to procure it. He shewed me one as large, but of ruder construction, from the north of Scotland. Those of you acquainted with the history of the poet Burns will remember that Mossgiel was for a number of years his residence. Strange, indeed, that this Charm Ring should have been associated with the land he tilled. It may have been embedded in the soil beneath the "wee, modest, crimson-tipped flower;" and the ploughshare of the simple bard may have frequently disturbed its rest. When Mr Lewis went to pick up the antiquities he had promised me, he had to employ one of his ploughmen to search for them about the farm buildings. On delivering them to his master he remarked, "I ken whaur there's a far bigger stone axe than these." "Where then?" was the query. "On the wa'-head of Ulzieside Barn." I lost no time in visiting Mr McCall at Ulzieside, and had a fruitless search in the barn. In the granary, however, I found the object I was in search of supporting a slate against a broken window, the stone axe I found measuring 11 inches in length and weighing 7 lbs. Another had at one time been lying about the Farm Offices, but after repeated searches I have been unable to pick it up. On close inspection you will observe this handsome Axe is ornamented with an incised line on the front, and with five such lines on the side. Dr Anderson and other antiquarians who have inspected it consider it one of the finest Stone Axes found in Scotland. The town of Sanquhar was formerly a place of great activity in the weaving trade, but the advent of steam, together with modern machinery, has nearly driven every loom from the place. One remnant of the extensive trade done in weaving in Sanquhar is the prevalence of loom-weights in and about the town. They are generally water-worn stones of a round formation, about two stones in weight, with a perforation in one side for insertion of the steeple or ring

by which they were suspended. Many fine specimens could at present be picked up, but in a short time they will disappear and find their way to the stone magazines and be converted into road metal.

Of Pot Querns I possess a large number. They are to be found on almost every farm in the two parishes. Some are very small and neat, while others are very capacious, and indicate that they may have been used for brewing or even dyeing purposes. I recently saw one in a wood at Langholm, parish of Auchinleck, in use as a dye-pot, and covered with a flat stone above of the same diameter as the pot below. Often you will find them used as pig troughs, and the late Mr Stitt of Ryehill, an experienced valuator, on seeing my collection in my garden, remarked that he had on one occasion valued over six as good as mine to the new tenant of Orchard. He knew their original use well, and informed me of one made of granite, which he had seen when a boy lying at Townhead of Auchenbainzie. I told Mr Hewetson of his remark, and he found the Quern referred to, and removed it for safe keeping to Auchenbainzie. I may mention that I have one which was removed from Queensberry Square, and I heard long after "that Wilson stole old M'Crick's grandfather's sow trough." This proves the late use of such articles, but there can be no doubt they were originally used for removing the husks from grain or for converting it into meal by aid of a wooden or stone pestle.

III. *A Relic of Burns—Original Miniature Portrait of Clarinda.*

By Mr JAMES BARBOUR, Architect.

Another Burns anniversary having just been celebrated, it may be appropriate, while his name is uppermost, to bring under notice a small but most interesting memento closely touching the celebrated correspondence between the poet, as Sylvander, and Mrs M'Lehose of Edinburgh as Clarinda. It is a miniature silhouette portrait of that lady. The history of it is thoroughly authentic. It was one of the articles given by the poet's widow to Mary M'Lachlan, her servant, on the occasion of leaving her situation to be married to Andrew Nicholson. Mr Nicholson, his son, inherited the relic, and his widow is now the possessor of it. The portrait is a black profile bust, delicately executed on ivory. The outline of the ivory plate is a pointed ellipse, one inch and a quarter high, and three-quarter inch in breadth. The picture itself is less than three-quarters of an inch high. It shows a prominent

and characteristic headdress. In Paterson's beautiful edition of Burns two silhouette portraits of Clarinda are given. One of them, which also appears in Gilfillan's edition, represents her at an advanced stage of life. It shows a headdress even more full and of a different texture than our miniature does, but the facial lines of the one resemble those of the other in a marked degree. The other portrait is a fine engraving by Banks, from the original picture in the collection of the late J. T. Gibson Craig. It is larger than the one just described, being two inches and a half high. The face shown differs somewhat as compared with the later portrait, and there are other points of diversity between them. The profile of the miniature partakes of both these portraits, while in other respects, such as the headdress, the form and dressing of the shoulder and breast, and the terminating lines of the bust, there is such close correspondence between it and the Gibson Craig portrait as to suggest that, not only do they represent the same person, but that in respect of date and origin they are closely allied. That they are by the same artist may be assumed—Miers, whom Burns calls a "profile painter," and who, at his request, executed portraits of several other friends. A very interesting question arises as to which of these pictures possesses the highest claim to be considered the portrait of the Clarinda correspondence. Their relative dimensions seem to bear on the point, and in favour of our miniature. Clarinda, before going to the artist, enquired of Burns what size the portrait should be, who replied that it was for a breast pin—a purpose this miniature seems to fit in with exactly, and its history is confirmatory of its having been so applied. In this view it is one of the most expressive relics of Scotland's great bard extant; he wore it next his heart. In Paterson's volume, opposite the Gibson Craig portrait, appear the following sentences from the Clarinda letters—the miniature seems to echo the words:—

Thursday, noon, Feby. 7, 1788.

Clarinda—"I shall go to-morrow forenoon to Miers alone. What size do you want it about? O, Sylvander, if you wish my peace let friendship be the word between us. I tremble at more."

Thursday night, Feb. 7, 1788.

Sylvander—"I thank you for going to Miers. Urge him, for necessity calls, to have it done by the middle of next week—Wednesday the latest day. I want it for a breast pin to wear next my heart. I propose to keep sacred set times to wander in the woods and wilds for meditation on you.

Then, and only then, your lovely image shall be produced to the day, with a reverence akin to devotion."

IV. *Dumfries in the Past.* By Mr PETER GRAY of Camberwell.
(Abridged.)

Whilst engaged in some researches among the books and MSS. in the British Museum I came upon several references to Dumfries, not perhaps very widely known, and I thought that these, with some others occurring in books in my own possession, although in themselves not of very much intrinsic importance, might prove interesting to the members of the Society. They are not of very great antiquity either, the earliest direct notice of the town occurring in one of the Itineraries of John Ray. Ray was perhaps the greatest naturalist between the times of Aristotle and Linnæus, and his Itineraries are records of what were termed in his day "simpling voyages," what are now known as botanical excursions or rambles. Three of these journals were published after his death, and it is from the second of them I am now going to quote. He entered Scotland by way of Berwick in the middle of August, 1661, passed on to Edinburgh, thence to Glasgow, and from Glasgow, through Lanarkshire, to Carlisle. "August, the 24th," he writes, "we rode to Dumfreis, or, as they spelled it, Drumfrese. . . . At Dumfreis they have two ministers—one a young man named Campbell, related, as we are told, to the M. of Argyle; the other an elder man, by name Henderson, who has married his daughter to the younger. Campbell prayed for the preservation of their Church government and discipline, and spoke openly against prelacy and its adjuncts and consequences. Here, as also at Dunbar and other places, we observed the manner of their burials, which is this: When any one dies, the sexton, or bellman, goeth about the streets with a small bell in his hand, which he tinkleth all along as he goeth, and now and then he makes a stand and proclaims who is dead, and invites the people to come to the funeral at such an hour. The people and minister many times accompany the corpse to the grave at the time appointed, with the bell before them, where there is nothing said, but only the corpse laid in. The minister there, in the public worship, does not shift places out of the desk into the pulpit, as in England, but at his first coming in ascends the pulpit. They commonly begin their worship with a psalm before the minister comes in, who, after the psalm is finished, prayeth, and then reads

and expounds in some places, in some not ; then another psalm is sung, and after that their minister prays again, and preacheth as in England. Before sermon, commonly, the officers of the town stand at the churchyard gate, with a join'd stool and a dish, to gather the alms of all who come to church. The people here frequent their churches much better than in England, and have their ministers in more esteem and veneration. They seem to perform their devotions with much alacrity. There are few or no sectaries or opinionists among them ; they are much addicted to their Church government, excepting the gentry, who love liberty and do not care to be so strictly tied down." The present practice of inviting to funerals by advertisement is thus practically a reversion to an old custom, which Ray found also at Nantwich, in Cheshire, and which was probably common throughout the North. There are no plant localities given, but a catalogue is referred to in a note, and I have observed Dumfriesshire habitats in the "Synopsis." Perhaps it might be well to keep this in mind against the next edition of the Flora.

The author of a "Tour through the Whole Island of Great Britain," written in the first half of the last century, says of the burgh : "Dumfries was always a good town, with large streets, and full of reputable and wealthy merchants, who trade into foreign parts and employ a considerable number of ships, especially since they have embarked in trade to England and the English plantations. This town is also advantageously situated for an increase of commerce on the river Nid, or Nith, for, though it stands near two leagues from the sea, yet the tide flows up to the town, and ships of burden come close up to the quay ; and about four miles below it the largest merchant ships in Britain may ride in safely. . . . They had formerly a woollen manufacture here, but the Union has in a great measure suppressed these things in Scotland, the English supplying them better and cheaper ; yet, at the same time, the Scots have more than an equivalent by an open trade to England and all the English plantations. The castle in this town is very old, yet is still pretty good and strong."

In Chamberlayne's "Magnæ Britanniae Notitia" for 1718 the state of agriculture and horticulture in Scotland at the time is spoken highly of, and the country is described as abounding with the best timber trees. Regarding Dumfries it is said : "The streets are large, and the church and castle very stately."

My next author is Dr Richard Pococke, Bishop of Ossory, a man of some note in his day. There are two manuscript journals of his travels in Scotland in the library of the British Museum. They have, I understand, been lately printed, in whole or in part, by an Edinburgh Society; but the work is not in the Museum—at least I was unable to find it—and have taken my excerpts from the MSS. These journals are in the form of letters to his mother, addressed “Honoured Madam.” The first of the journeys recorded in them was taken from Dublin to England, and the Bishop on that occasion arrived about the middle of July, 1750, in Dumfries, which he describes as “pleasantly situated on the river Nith, which winds so as to make a peninsula of the town and the fields to the north of it.” I possess a copy of an etching by Scott, of Eldin, the view being taken from a spot on the Maxwelltown side a little above the old Foundry. It shows a scroggy down from the river to the New Church; and a couple of men with guns and a dog are beating the meadow on the Galloway side for game, while a pack-horse and its driver are proceeding along the Lincluden road, indicating the state of the Galloway thoroughfares at the time. On the Dumfries side there is a steep brae to the river just as I remember it before the wall was built there. “The principal street,” Dr Pococke proceeds, “is broad and well built of the red freestone in which the country abounds. There are two churches in the town, one of which, if I do not mistake, is for an Episcopal congregation. They have a large building here called the Newwork, which, as well as I could be informed, served formerly as a warehouse. There are some little remains of an old friary in the town, famous in history for being the place where Cummins (who was suspected by Robert Bruce, King of Scotland, to have been treacherous towards him in his conduct with the English) took refuge, and was murdered by the King’s command, on which the King was excommunicated by the Pope and the chapel for ever interdicted in which the murder was committed; on which St. Michael’s, at the east end of the town, was built for the friary, which has a handsome steeple to it. There is a fine bridge here over the Nith into Galloway. This bridge and a waterfall, made by art to keep up the river for some uses, make a very beautiful prospect from the side of the river. Boats come up to the town, and ships of forty tons within two miles of it, and they have a great trade in tobacco. This town maintained its loyalty in the last rebellion, and severe contributions being raised on them ’twas

made up to them by the Government. . . . Over the river near the town is a small mount, which would not hold at the top above thirty people. It is called The Moat, and it is supposed that the heads of the place held their meetings here and promulged their laws to the people. There is a very fine prospect from it of the country round. I saw from it Lincluden, an old nunnery, and near it is a monastery called Holy Rhood (qy., Holywood), and at some distance from Dumfries what is called New Abby, and in the records *Abbatia dulci cordis*. (Johannes de Sacrobosco, an eminent mathematician of the thirteenth century, whose treatise, 'De Sphæra Mundi,' continued to be used in the schools for nearly four hundred years, is believed to have been originally a professed brother of the Convent of Holywood.) Not far from Dumfries is a chapel called Christo, where St. Christopher Setin is buried, who was beheaded (though a Scotchman and no subject) by Edward the First." It will be observed that the Bishop's history is not of the most accurate character, but the notices in his next journey are nearer to what is generally received.

Dr Pococke's next recorded journey ten years afterwards was a more extended one, and included the Orkneys and Western Islands. It is described in three large folio volumes in MS. In the beginning of May, 1760, he arrived in Dumfries from Portpatrick. "I came from Newabbey," he writes, "six miles near the Nith, the old Noiras or Nidius, having a bog to the right and pleasant hills to the left, to Dumfries, in Nithesdale, where I was in 1747 (?). This town carried on a great tobacco trade until the Tobacco Act passed, which destroyed that commerce, and the people being grown rich, and their money not employed in trade, they have lately adorned the town with beautiful buildings of the red hewn freestone, and the streets are most exceedingly well paved (!). They have a handsome town-house, and all is kept very clean ; so that it is one of the handsomest towns in Great Britain (and Pococke had travelled over the most of it), and very pleasantly situated on the Nith, over which there is a large bridge ; and as the Assizes are held here for all the south part of Scotland, the town is much frequented by lawyers. The shipping lie under Screfel (sic), eight miles below Dumfries, and come up three miles higher to unload at Glenteyrel (Glencaple ?) Here was a friary of Conventuals, founded by the same Devorgilla (referring to a previous account of Sweetheart Abbey), in which John Duns Scotus took upon him the habit, who died in 1308 at Cologn. In

the Church Robert Bruce, Earl of Carrick, killed Red Robert [John] Cuming before the high altar in 1305 ; and James Lindsey and Roger Kilpatrick murdered Sir Robert Cuming in the sacristy, and were excommunicated by John XX. in Avignon."

Thomas Pennant, the distinguished naturalist, made his second tour in Scotland in the summer of 1772. Entering Dumfries from the south "beyond Port Kepl," by which I suppose he means Glencaple, he says : "The country on both sides of the river is very beautiful, the banks decorated with numerous groves and villas, richly cultivated and enclosed." Dumfries itself he describes as "a very well built town, containing about 5000 souls. . . . It was once possessed of a large share of the tobacco trade, but at present has scarcely any commerce. The great weekly markets for black cattle are of much advantage to the place, and vast droves from Galloway and the shire of Ayr pass through on the way to the fairs in Norfolk and Suffolk." The two churches are described as "remarkably neat." The author then proceeds : "Had a beautiful view of an artificial waterfall just in front of a bridge originally built by Devorgilla. It consists of nine arches." Pennant's brief notice of the town concludes with the mention of "a fine circumambient prospect of the charming windings of the Nith towards the sea, the town of Dumfries, Terregles, a house of the Maxwells, and a rich vale towards the north" (probably from the Corbelly Hill).

Robert Heron, described as a miscellaneous writer—I suppose what used to be known as a bookseller's hack—made a journey through the western counties of Scotland in the autumn of 1792, the second year of Burns's residence in Dumfries. He describes the environs of the town as being in a high state of cultivation, with gentlemen's seats scattered around it as around Edinburgh and Glasgow. Since the beginning of that century, he says, it had risen from a state of considerable depression to considerable wealth and population, corresponding to the improvement of the surrounding country. The greater part of the High Street and of the older parts of the town would then be much as they are now, barring the ornate shop-fronts and the plate glass ; but the great towns not having yet risen to opulence, the streets would look handsome, as he describes them, by comparison. He praises the beautiful and advantageous situation of the town, says the streets are well lighted, but, unlike Dr Pococke thirty years before, thinks

that the pavements "might be improved"—a suggestion seasonable for many years afterwards. The schools of Dumfries, he tells us, had been long eminent, and that many very able scholars had received their initiatory classical education there, there having been a succession of three of the ablest teachers of the Latin language known for some time in Scotland, namely, Mr Trotter, Dr Chapman, and Mr Waite, the then rector. Heron's estimate of the townsmen, and his description of the Saturnalia going on on the occasion of his visit, are so fully quoted in Mr M'Dowall's excellent History that it is unnecessary to repeat them here. His description of the race-week is doubtless exaggerated; at the same time, making every allowance for that, one cannot but perceive how dangerous a place Dumfries must have been for a man of Burns's temperament. The author of the curious and interesting "Autobiography of a Beggar Boy" (James Burn) begins his memoir with the remark that where or how he came into the world he had no very distinct idea (not, by the way, a very uncommon experience), but that the first place he found himself in was a garret in the High Street of Dumfries about the year 1806. Burn did not remain long in Dumfries; but forty years later in his chequered career he travelled from Newton-Stewart to the town. He found great changes everywhere, mostly for the better. "I found," he says, "villages where formerly there was not the vestige of a house, and in other places ruins where I had formerly seen cheerful dwellings. I could see no greater change in that part of the country than what was observable in the condition of the soil; everywhere the hand of industry was abundantly visible in the improved state of the land. In one place hundreds of acres of moorlands were reclaimed, and in another what had been a deep bog was drained and bearing a rich harvest of grain."

"G. W., Haddington," is the *nom de plume* of a Rev. D. Laing, probably a Dissenting minister of some sort, who travelled through the southern and western counties of Scotland in 1817, and published a journal of his tour in a thin duodecimo. Mr Laing arrived in Dumfries on the last day of May in the year above mentioned, and, like Heron, found the town *en fête* on this occasion owing to the shooting for the Silver Gun. He was awakened the next morning in a fright by the banging of the Midsteeple bells, summoning the Trades to their muster on the Sands. On the

origin of this Wappingshaw he enters into a lengthened disquisition upon the authority of a "public and respected character in the town of Dumfries," who informed him that "in the reign of King James the Sixth, and on some of his excursions in that part of the country, being in danger, the news reached the town of Dumfries. Accordingly the Seven Incorporated Trades of that town went to the assistance of his Majesty. This fresh supply of troops arriving in time was the means of rescuing him from the danger he was exposed to ; and so sensible was the King of this timely interference of his Dumfries subjects, to show his gratitude the more, and wishing to improve [them] in the use of arms, he complimented them with a silver tube something like a pistol barrel, now called a silver gun, with a charge to set apart a day annually to shoot for the said gun." The writer then describes the march off to the Kingholm of the Trades, drums beating, colours flying, and a merry peal resounding from the famous Steeple. About six in the evening news arrived from what Mr Laing calls "the field of blood," to the effect that two young men had been accidentally wounded, one of them mortally, which prompted the following effusion of the author's muse :

" Ah ! thoughtless mortals think on this,
Your folly and your shame ;
O, turn your eyes and view the case,
And sorrow for the same.

Your precious time thus spent in vain,
How can the thought you shun,
That something's lost—now, where's the gain
Got by your silver gun ?

Is something lost ? Yea, sure there is,
More precious than the sun,
Your brother's blood is shed, and cries,
Discharge the silver gun."

On the following (Sunday) morning he heard a sermon by Mr D. (probably Mr John Dunn, the Independent minister of that time), and in the afternoon a "close and practical discourse" from the Rev. Walter Dunlop, who seemed to him to be "a serious man." Mr Laing describes the religious state of the town as not so favourable, "according to his information," as could be wished ; but adds that a few years previously "a worthy character," he (Mr L.) trusts "with the same feeling spirit as the Apostle when he

beheld the city of Ephesus wholly given up to idolatry, in like manner seemed to feel for the inhabitants of this town." What the worthy character did was to open schools for poor children and illiterate adults, which was the best and the only thing to do, for besides the two Established Churches, as Mr L. tells us, there were seven other places of worship in the town, which had then a population of about 7000. Dumfries is described by the author as "delightfully situated on the river Nith, exceedingly well built, although possessing very few remarkable or magnificent public buildings, and not only the county town, but also the most flourishing place in the south of Scotland." The houses he considers "in general handsome," and possessing "a light and an agreeable appearance." At the time of his visit "things were very dear, the quartern loaf one shilling and fivepence, the meal four shillings and sixpence a stone, and, what was still worse, oatmeal and potatoes could not be got."

Several of the novelists notice Dumfries. The complimentary references to the town and its inhabitants in Scott's pages are familiar to us all. In "Humphrey Clinker" Matthew Bramble is made by Smollett to express himself in high terms regarding the beauty and prosperity of the town; and his nephew, young Melford, describes it as "a very elegant trading town, with plenty of good provision and excellent wine at very reasonable prices, and the accommodation as good in all respects as in any part of South Britain." He adds: "If I was confined to Scotland for life, I would choose Dumfries as the place of my residence." "Humphrey Clinker" was written in 1770.

As for the poets, Burns is not the only one by many who has sung the praises of Nithsdale. In a poem of Keats' there is a remarkably comprehensive picture of the town and its site in a few words, communicating even an impression of the soft, "sleepy hollow" character of its summer climate.

"The town, the churchyard, and the setting sun,
The clouds, the trees, the rounded hills all seem—
Though beautiful—cold, strange as in a dream
I dreamed long ago, now new begun."

I conclude this rambling paper with a couplet of John Home's in the sentiment of which you will all concur:—

"Flourish Dumfries, may heaven increase thy store
Till Criffel sink and Nith shall flow no more."

BAXTER BEQUEST.

The following letter was sent by the Honorary Secretary to the Town Clerk in answer to his letter, dated 22nd Jan., 1889 :—

DUMFRIES, 6th February, 1889.

JOHN GRIERSON, Esq., Town Clerk.

DEAR SIR,

Referring to your letter of date 22nd January last, a meeting of Council of this Society was held last night, when Mr Davidson submitted a report on the cases of specimens bequeathed to the town of Dumfries by the late Mr William Baxter, which I herewith enclose. After hearing the report the meeting unanimously adopted the following resolution :—“ That the Society agree to accept custody of the Baxter specimens on the conditions following : That the Town Council provide suitable cases in which to place and exhibit the specimens, and otherwise do what is necessary to relieve the Society of any expense connected with their reception and custody. That the Society shall have power to weed the collection of worthless material. That the Society, while exercising the same care as they do with their own property, shall not be further responsible for the specimens. That the arrangement shall be terminable by either party on three months' notice.”

I am,

Yours faithfully,

ROBERT BARBOUR, Hon. Secy.

1st of March, 1889.

MR JAMES BARBOUR, Architect, in the Chair.

COMMUNICATION.

The Practical Outcome of Fish Culture. By Mr J. J. ARMISTEAD of the Solway Fishery.

Mr Armistead mentioned that fish culture was known to the ancients, but it seemed to have been entirely forgotten, and was re-discovered about a century ago in France by two peasants, and about the same time in Germany. The discoveries at first were regarded as of purely scientific interest, and no practical value was attached to them until within quite recent years. Although a beginning was made in France and Germany, really little was done until the Americans took up the matter in real good earnest, as they usually did with anything they took in hand. They were now competing with us in ova, as they did in almost everything

else. Only the other day he received a consignment of very healthy salmon ova from America. In Canada the salmon rivers had been taken in hand, and in some of them reception houses had been built which the salmon entered, being prevented by an artificial obstruction from going further up the river, and having attendants to wait upon them. In some instances they were actually kept for some time in the fresh water and then sent back to the sea. This alone, he need not say, would tend to keep them out of the hands of the poachers. In the management of our salmon rivers, he was sorry to say, we were much behind the Americans. What with pollutions of various sorts and absolute neglect in many cases, they seemed to be going to destruction. Fish culture had at first to encounter a good deal of opposition, partly arising from our ignorance of the subject. This was the cause of its being often carried on in a rather blind manner, not sufficient care being taken with the development of the embryos, &c. While people were successful in producing fish, in many cases these would not live to grow up. However, within the last ten years they had made great strides in their practical knowledge, and this difficulty had been entirely overcome. Having referred to the hatchery on the Tay, first at Stormontfield, now at Duplin Castle, and to the great encouragement given to fish culture by the American Government—which has provided an aquarium car for transference of fish from one part of the country to another, and allows trains by which it travels to be stopped at streams for watering and other purposes—the lecturer quoted from a letter by the late Professor Baird, inspector of fisheries in that country, to this effect: “In the Sacramento River we are absolutely certain of our ground, having brought up the supply of salmon to more than its pristine condition of abundance by planting about two millions of young fish every year. The catch has increased in five years from five million pounds to fifteen millions; and in 1881 there was more fish than could be utilised in all the canning establishments on the river.” With reference to the quantity mentioned, Mr Armistead observed that it was no use attempting to deal with a salmon river unless the thing was done on a large scale. Similar results had been attained on many other rivers both in the United States and Canada. As an example of the practical value of fish culture in our own country, he exhibited a diagram showing the results obtained from stocking Loch Leven with trout fry. 9000 fry were turned into the loch in 1875—a very small number for such a

sheet of water. Next year 22,000 were turned in; in 1877—70,000; in 1878—45,000. Then a disagreement arose, and the hatching was given up for three years. In 1882, 50,000 fry were turned in. Next year, again, nothing was done. What were the results? Before 1875 the yields were gradually getting less. Loch Leven was a favourite resort of anglers, and heavily fished; and the fishing had been getting worse and worse year by year until 1875, when the catch fell to 5093 in number, and in weight to 5668 lbs.; so that the fish averaged a little over a pound. In 1876 only 3086 were reported to be taken, and the weight was 3370 lbs. In 1877 the catch jumped up to 6092, but the weight was only 5385 lbs., being an average of less than a pound. Of course allowance must be made for atmospheric influences; and it might be that 1876 was an unfavourable year; but the catch of 1877 was a good deal larger even than that of 1875. The fry of 1875 had not had time to grow to any size. They would not average, probably, more than a quarter of a pound; and it was probably a number of these which swelled the take, but reduced the average weight. In 1878 the catch was doubled, being 13,319; and again the weight was less in proportion, being only 8919 lbs. In 1879, 21,045 fish were taken, and the weight was 16,192 lbs. Four times as many fish were taken from the loch than was the case before the stocking began. In 1880 the number taken was 19,405; weight, 18,552 lbs. In 1881 there was a marked falling off—from 19,000 to 16,000; and the next year only 9000 were taken. That was the result of giving up fish culture. In 1882 a spurt was made, and 50,000 fry were turned in. This addition could not tell on the year 1883; but they had that year a great jump, from 9000 to 14,000. This was accounted for by the fact that the conservators of the loch, finding they had neglected their business, tried to atone for the error by turning in 3000 two-year-old fish. The average weight that year again approached a pound—12,742 lbs. for 16,062 fish. This table shewed clearly the benefit accruing from fish culture when properly carried on, and how a fishery suffered from neglect of it. In our salmon rivers, where fishing was carried on year by year, by methods which were being continually improved and rendered more destructive, the stock of fish must be constantly diminished, unless fish culture were resorted to or we had a very much longer close time. Another benefit which arose from the cultivation of trout was that we could grow or produce very much larger fish than were produced naturally.

The fish in Loch Leven, they saw from that table, seemed to average about a pound, and he was assured by anglers that from a pound to a pound and a half was considered good weight. In Loch Kindar—to take a local example—we had fish weighing from three-quarters to one pound pretty freely taken. They sometimes reached $1\frac{1}{2}$ lbs. or 2 lbs. ; but if a 2 lb. fish were taken from that lake, he thought it would be pretty well talked about in Newabbey. He had heard of one five pounds weight being taken. But we could take fish and by artificial cultivation grow them up to 4 lbs. or 5 lbs. quite easily. Fish taken from Loch Leven had been grown up to 9 lbs. without any difficulty. Several years ago he turned into a Lancashire reservoir some Loch Leven trout fry, which attained a weight of from 3 lbs. to 4 lbs. in three years' time, or really in two and a half. As to the identity of the fish there could be no doubt. He made inquiry as to the food which they had been getting, and he found the reservoir was completely choked with little shell fish. Some of the trout, on being dissected, were found to be gorged with them. Again, he had another case in the Dalbeattie reservoir. Some fish which were turned in there were taken two years after $1\frac{3}{4}$ lb. and up to 2 lbs. weight, which was a rate of growth far beyond the natural growth of trout. He had for years maintained that fish, like cattle and poultry, could be materially improved by careful selection and judicious breeding ; and he was convinced that in course of time we should see remarkable results in this direction. In the case of animals and birds we had certain races of monstrosities developed. The fantail pigeon, for example, was really a monstrosity or deformity. So it was with the other fancy pigeons, all of which had been produced from the wild rock dove which frequents our rocks and caverns. With fish similar results were being produced. A particular kind of fish was just now being sold in London, he believed, at a guinea each. They were really little gold carps. You bought them in little glass globes at these enormous prices, simply because they were deformed, and had curious double tails, which were arched over. They might call them fan-tail fish. The name of telescope fish had been given to them—he did not know why. It was found that these fish had formed a race of their own, their young inheriting the double tail, hunchback, and deformities of the various fins. In the case of the char of Windermere (the *Salmo Alpinus*) we had a very striking result. The lecturer exhibited a very fine cast of one, coloured after nature, which had

been reared by himself, and which weighed 2 lbs. He had seen some thousands or tens of thousands of char taken from that lake, and never yet saw one which would turn the scale at half-a-pound. The common size, he thought, was five to the pound. Although he had heard of much larger fish being taken, they were very rare. These fish could be taken from Windermere, and in a few generations grown to the size of the one exhibited. He had grown them up even to 3 lbs.

Mr Armistead next alluded to the despatch of salmon ova to the Antipodes from this country by Mr Frank Buckland and Mr Youl, and also from America, and to the large proportion of loss caused by the hatching of the eggs during the voyage. It had since been discovered that by subjecting them to a low temperature hatching could be so retarded that they could be kept for a long time. He had himself adopted this process successfully in the case of ova taken from the Nith and exhibited at the Fisheries Exhibition in London. He next spoke of the improved results obtained by hatching the ova on glass grilles, which prevented contact with any deleterious substance, and expressed his preference for either glass or slate over metal, even when varnished.

Passing on to speak of the American trout, Mr Armistead said this fish was really a char. They had been introduced into this country for about twenty years. He got a considerable supply of ova, and the fish had passed through a great many generations, and been considerably improved in that time. He exhibited a few recently hatched fry, some of the ova, and a bottle containing two little double-headed fry and several others deformed in various ways. Peculiar forms, he explained, could be produced by pressure applied to the ova. The two-headed ones were the produce of what might be called double-yoked eggs. The American trout had been a good deal run down by some people; and one reason for that, he believed, was that wherever he had been put into rivers or lochs from which he could escape, he had done so and gone away to sea. There they attained to a considerable weight. Instances were recorded of them being taken of eight, ten, and even twelve pounds. The very fact that the fish would leave fresh water and go to sea was one strong proof of its value. One reason why we had been unsuccessful in stocking the large rivers with it was that we had not put in sufficient. In America it was quite a common thing to turn ten or twelve millions into a river in a season. Here, he believed, the largest known stock

ever put into a river had been about five thousand, which would be really nothing, put into the Nith or the Tweed. So we had never really tried the fish in rivers. But in ponds and lakes where he could be confined he had done remarkably well, and was really a great acquisition to our waters. He was lately at a place where a number of these fish had been turned in, and found them spawning in the race waters at the head of the pond. They had grown to a weight of 2 lbs. or 3 lbs., and were providing not only excellent sport but occasionally pleasant change of diet to the proprietor. He had also Loch Leven trout, which he could take at any time. To have fish thus at command was a very desirable thing, and he knew none which would thrive better in small space than the American trout. He had reared them in small tanks up to a weight of 4 lbs. or 5 lbs. He found that they bore a higher temperature than our trout; and they had also been acclimatised to greater extremities of temperature.

He believed the time would come, before very long, when every country house almost would have its fish pond, and the proprietor would be able to send out and have a few fish taken from it, just as he sent now to his poultry-yard and had fowls or ducks killed for dinner. For years all the energies of fish culturists had been devoted to the culture of trout and char, with an occasional attempt at the culture of salmon and sea trout, which had been greatly retarded by the withholding of proper facilities. But now the cultivation of coarse fish was being gone into a good deal. One advantage of this would be that this class of fish lived upon a vegetable diet much more than the salmonidæ. These warm water fish, or fish like the carp, tench, and others, did very well indeed, under cultivation. Some objections had been taken to their flavour, and objections which, he believed, had a good deal of weight; but these were entirely got over by simply transferring the fish before they were eaten to stews or tanks supplied with pure water. Keeping the fish there and feeding them for some time, they entirely lost the flavour of weeds and mud, and came out perfectly eatable. This was very much more widely known on the continent than here. If it were more widely known in this country, we might utilise many fish which at present people absolutely refused to eat. Mr Armistead next explained a method which he followed of rearing little shell fish, crustaceans, and tadpoles, to supply food for the fish in the ponds, which was done in a semi-natural way over sluices from ponds at a higher level. Fish

culturists had also their maggot factories ; and the ordinary earth worms could be gathered by the bushel by sending little boys to follow the plough. He further pointed out the necessity, in constructing a pond, of providing for the food supply of the fish by introducing aquatic vegetation. There were thousands of acres of barren water in this country—lochs and moorland pieces of water, which contained only fish so small that they were not worth taking out. Many streams likewise contained no fish worth catching. These waters could be cultivated to a very considerable extent. A good many reasons had been adduced for the small size of the fish. One was that they were far too numerous. He had heard people recommend the putting of pike into the water to keep them down. That was the very worst thing that could be done. The presence of pike was one of the great difficulties in the way of successfully stocking some of the lochs in Kirkcudbright, of which there were so many. He did not believe that the trout were too numerous in any of these mountain sheets of water. He had seen fish do better when crowded in tanks than when dispersed more thinly. He had reared two hundred or more large fish in a pond 60 feet long and only 4 feet wide and 3 feet deep. It was not that the fish were too numerous ; but it was probably a want of food in these lakes. That want could easily be supplied. Aquatic vegetation could be introduced if it was deficient, as it often was in mountain streams, and shell fish or crustaceans could be put in—the fresh water shrimp, for example. The snails were perfectly harmless to trout in all stages. The shrimps, unfortunately, preyed on the ova when they could get to it ; but he did not think they could do a serious amount of damage when the ova was naturally deposited by the fish, for the eggs were then buried deep in the gravel. Another reason which probably accounted to a great extent for the small size of the fish in many waters was the want of change of blood. He believed greatly in transferring fish from one water to another—introducing, of course, as far as possible, really good fish. Many of our streams which are not large enough to contain good fish could be best utilised by making a succession of dams, which could be stocked really to any amount. A stream which did not contain any trout worth mentioning could in this way be made to produce simply tons of fish.

5th of April, 1889.

At a meeting of the Council, at which Major Bowden, V.-P., presided, the Secretary intimated that he had received a communication through Mr James McGill, from Mr R. B. Clark, one of the late Mr Baxter's Trustees, proposing on the part of the Trustees that a collection of coins, which belonged to Mr Baxter, should be placed in the custody of the Society (for the Town Council) along with the other specimens. The Council agreed to accept these coins together with crayon portraits of Mr Baxter and his sister, and instructed the Secretary to convey the thanks of the Society to Mr Clark.

5th of April, 1889.

Major BOWDEN, V.-P., in the Chair.

New Member.—Mr Joseph Wilson, late Hon. Secretary, on the recommendation of the Council, was elected an honorary member of the Society.

Donations.—Transactions of the Society of Antiquaries of Scotland for 1887-88, and Reports on Local Museums in Scotland, presented by Mr G. F. Black; the 22nd Report of the Peabody Museum and an Index to their Reports; the Essex Naturalist for November and December, 1888; and two squirrels (local), presented by Mr Joseph Wilson; and also two tokens of Sanquhar, presented by Dr A. Davidson.

COMMUNICATIONS.

I. *Words in the Dialect of Dumfriesshire, found in Chaucer, Spenser, and Shakespeare.* By Mr JAMES SHAW of Tynron. (Abridged.)

To *Beat*, *Bete*, or *Beet*, *Beit*. To help; supply; mend by making addition; to add fuel to a fire; to make or feed a fire.

—Jamieson.
“Two fires on the anter she 'gan bete.”

—Ch., *Canterbury Tales*.
“They chant their artless notes in simple guise,
Perhaps Dundee's wild warbling measures rise,
Or noble Elgin beets the heavenward flame.”

—Burns's “*Cottar's Saturday Night*.”

In Tynron beeting a dyke means mending it.

Blae, livid.—*J.*

Ble, livid.—*Ch.*

“ Oh ! the bonny brackit lassie,
She’s blae beneath the e’en.”—*Scotch Song.*

Bug and *Bugaboo*, a bugbear.—*J.* Bug is used in the sense of bogle or spectre by Shakespeare.

Bogle, a spectre. The word boggle, to start aside, swerve for fear, occurs in Shakespeare’s “ All’s Well that Ends Well.” Skeat believes the two words to be connected.

Brogues. In “ Cymbeline ” we have “ And put my clouted brogues from off my feet.”

Bulk, for whole body, equivalent to the Scotch word Buik, occurs in Shakespeare’s *Lucrece*.

Bairn, a child.—*J.* In Langland’s “ *Pier’s Plowman*,” previous to Chaucer.

Bullyrag, to abuse another in a noisy manner.—*J.* Shakespeare in “ *Merry Wives of Windsor* ” has Bullyrook, a noisy, dashing fellow. To Bullyrag is known as slang among Cambridge students.

Belyve, *Blive*.—*J.* Immediately ; forthwith ; occurs in Spenser’s “ *Faerie Queen*.”

Bucht, *Boughts*, a bending, a fold, a pen in which ewes are milked.—*J.* In Spenser, circular folds or windings.

“ Will ye gang to the ewe’s buchts, Marion.”—*Scotch Song.*

Buff, a stroke ; a blow.—*J.*

Buffe, a blow ; a buffet.—*Spenser.*

Busk, to dress ; to attire oneself ; to deck.—*J.* This word is in “ *Pier’s Plowman*.”

Byre, cow-house.—*J.* This is also a North English word. It is cognate to bower. While Scotland has retained byre a cow-house, England has retained bower as meaning an arbour.

Carle, a man ; a boor.—*J.* In *Cymbeline* we have

“ Could this carle,
A very drudge of nature, have subdued me ? ”

Chirkers, this is the Dumfriesshire word for crickets. In Chaucer to chirk means to chirp. The verb is given in *J.*, the Dumfriesshire noun under Charkers.

Cark, a load ; a burden.—*J.* We are familiar with it in the expression “ *Cark and care*.” In Spenser it means care.

Crag, *Craig*, *Cragge*, the throat.—*J.* This word was common in Renfrew when I was a boy. It is used in Spenser for the “ neck.”

Collie, shepherd's dog.—*J.* In Brockett's Glossary of N. English Words, 1825.

Daft. In Langland's "Piers the Plowman," it means a stupid, a dolt.

"Thou dobert, daffe, quo she, dull are thy wits."

Deck. In Moniaive old people talked of a deck of cards, meaning a pack. This meaning is not noticed by Jamieson.

Dwined, wasted.—*J.* Chaucer's "Romaunt of the Rose."

Dool, grief.—*J.*

And I alone left all sole,
Full of complaint and of dole.

—Chaucer's "Romaunt of the Rose."

To Drie or *Dre*, to suffer ; to endure. Chaucer, *ibid.*—*J.*

Dicht.—*J.*, and in Dumfriesshire to clean, to wipe.

Dight, to order, prepare, dress, adorn.—Spenser.

Eild, *Eld*, advanced age, old people.—*J.*

"And doth beg the alms of palsied eld."

Sh. Measure for Measure.

Eyen. This plural, and also *shoon* for shoes, are found in all three authors.

Foisonless. We have this adjective meaning dry, sapless, without pith.—*J.* The word *Foysons*, for abundance, is found in Spenser and Shakespeare.

Feat. In the ballad of Aiken Drum, by a Galloway man, we are told of a wife "fond of a' things feat." Shakespeare uses feat in the sense of nice, exact. In "The Tempest" we have the comparative degree.

"Look how my garments sit upon me, much feater than before."

Fern, *Ferne*, before.—*Ch.* In *J. Fern* year, the preceding year. Mr Baird of Sanquhar has heard the word so used in South Ayrshire,

Frush, *Frusch*, brittle ; dry ; crumbling.—*J.* Shakespeare uses it as a verb, meaning to break.

"I'll frush it, and unlock the rivets all."—*Troilus and Cressida.*

Gab, to talk idly. In Chaucer it means to lie.

"Gab I of this?" *i.e.*, "Do I lie concerning this?"

Gipe, *Gipon*, *Jupe*, upper frock or cassock ; a word known to country lasses of the old school. In Chaucer's "Romaunt of the Rose" and 75th line Canterbury Tales.

"Of fustian he wered a gipon.—*J.*

Glede, a burning coal.—*Ch.* In Captain Dennistoun's *Battle of Craigneddin*, published in Galloway about the beginning of the century. I don't recollect hearing the word.—*J.*

Geck, to befool.—*J.*

Geck, to deride, to toss the head in scorn.

“And made the most notorious geek and gull

That our invention played on.—*Twelfth Night.*

Gre, prize. To bear the gree, to carry off the prize.—*J.* The word is in the Knight's Tale, Canterbury Tales.—*Ch.*

Gate, a way. The word is used in this sense in Spenser.—*J.*

Gaukie, a foolish person.—*J.* The word is old English, and, like the word Gowk, its original sense is “Cuckoo.”—*Vide Skeat.*

Ged, a pike.—*J.* A N. English word from the Icelandic Goad, named from its sharp, thin head, as is also the name Pike.

Gled, a kite.—*J.* In Tynron we have the Gled Brae. “We have the word in English, 1690.”—*Skeat.*

Grab, to seize with violence. Noun. A snatch ; a grasp.—*J.* Although the standard English word is Gripe, Grab is found as a “low word” in some English dictionaries.

Hyne or *Hind*, a farm servant.—*J.* The d is excrement. The word is in Spenser's “Faerie Queen” with the same meaning.

Hutch, a kind of basket in which coals are brought from the mine.—*J.* Shakespeare has bolted hutch, a chest for bolted flour. Chaucer uses the word in its sense of box or basket. It is of French origin.

Keek, to look.

“Auld Nicholas sat ever gaping upright, as he had kyked at the new moon.—*The Miller's Tale. Ch.*

Kers, a water cress.—*J.* This old pronunciation of cress, given by Chaucer, explains the meaning of our common expression, “I don't care a curse,” *i.e.*, I don't care a cress, equal to I don't care a button.

Kith, *Kythe*, to show, to make known. This old Scotch word occurs in our metrical version of the Psalms, “Froward than Kyttht.” In Chaucer's “Man of Lawes Tale” we have

“For but if Christ on thee miracle Kithe,

Withoute gilt thou shalt be slain as swithe.”

Loon, a worthless person, male or female, although in the east country I understand it always means a boy.—*J.* The word is spelled loon in “Macbeth” and lown in “Othello.”

Maund, a basket. In Ayrshire a potato basket.

“A thousand favours from a maund she drew.”

—*Sh. Lover's Complaint.*

Mirk, dark, obscure.—Spenser's “Faerie Queen.”

Mall, *Mell*, a hammer.—*Spenser.* Its diminutive is mallet.

Neif, the fist. In "Midsummer Night's Dream,"

"Give me your neif."

Puttock, a worthless species of hawk. The word, I believe, is twice in Shakespeare.

"I chose an eagle and did avoid a puttock."—*Cymbeline*.

The interest that attaches to it is that it occurs in our well-known, world-known I might say, Galloway place name, Craigenputtock. A sparrow hawk is named from its habit of preying upon small birds. A puttock preyed on pouts, young game birds. Pout, sometimes spelled poult, is akin to our poultry or pullet. Ock is probably a corruption of hawk.

Quick. We have this word in the Creed meaning "alive." In the sense of "alive" it occurs in Chaucer and Spenser. In Dumfriesshire Quickens is the name for couch-grass, a grass possessed of wonderful vitality.

Ramps. The Tynron word for wild garlick (*Allium ursinum*).—*J*. Ramsons is the old English word.

Reechy, begrimed. *Rogge* or *Rug*, to shake. Are in the Chaucer, Spenser, and Shakespeare Glossaries.

Skarre, *Scarre*, *Scaur*, *Skair*.—*J*. Bare place on a hill. Rock through which there is an opening. Rock in the sea.

"Bank, bush, and scaur."—*W. Scott*.

Rock, precipitous cliff.

"Men make ropes in such a Scarre."—*All's Well that Ends Well*.

The word is in Wycliff's bible. In Orkney, Skerry a rock in the sea. I recommend study of the word as possibly throwing light on the name of the river Skarr, the principal tributary of the Nith, the most remarkable part of whose course is the precipitous rocks of Glenmarlin, near Penpont.

Skathe, harm, mischief.—Spenser's "Faerie Queen."

Stour, fight, stir, trouble, misfortune.—*J*. Dust in motion, trouble, vexation. With the first four meanings it is found in Spenser's "Faerie Queen."

"How gladly would I bide the stour,

A weary slave frae sun to sun."

—*Burns's "Mary Morison."*

II. "The Grave" at Conchieton, Borgue. By Mr FREDERICK R. COLES.

In this paper, which was fully illustrated with diagrams and plans, Mr Coles described an ancient burial place on the farm of Conchieton, in Borgue Parish, its main features being a *tumulus* of

small rounded boulders now much reduced in size, the diameter of it being twenty-three feet, and its height about five feet. Within this heap of stones stands a roughly-circular ring of whinstone slabs set on edge, eight in number, and varying in size from fourteen inches to three feet and over; and at about sixteen inches distance within them, the *Kist-Vaen* proper, an oblong cavity formed by four thin stones set on edge, and measuring three feet N. and S., one foot eight inches E. and W., and twenty-two inches deep. The slab covering the grave was broken in two, and on these two stones were noticed tool-marks, such as Mr Coles is led to believe may be genuine cup-marks.

At a distance of five feet from the south end of the grave stands the head-stone of roughish sand stone, abundantly weather-marked, the dimensions of which are :—Height above ground, three feet five inches; width, 1 foot nine; thickness, nine and a half inches. That there might be no doubt as to the genuine character of this burial-place, and especially of the position of the head-stone, Mr Coles produced evidence in a letter from (the late) Mrs Gordon, whose husband was proprietor of Conchieton, in which these points were certified, and the additional information gained that after a careful search Mr Gordon could find nothing in either bronze or stone, but a handful of brown decayed bones, this exploration of his having been conducted in 1844, and soon after the spot was built round, by Mr Gordon's orders, with a strong dyke planted with trees and ivy and ever since properly preserved.

Footnote.—It is noteworthy that on one of the slabs unearthed from the Cairn on Woodfield, High Banks, Kirkcudbright, during March this year, cup-marks of the same form and size were found as those mentioned above.

III. *Notes on the Difference between the Dumfries of Dr Burnside's MS. History and the Dumfries of To-Day.* By the Rev. ROBERT W. WEIR, M.A.

In 1790 Sir John Sinclair addressed a letter to the ministers of all the parishes in Scotland asking their assistance in the production of a statistical account of the country. He enclosed in each letter a list of 166 questions, under the four heads of "geography, and natural history," "population," "production," and "miscellaneous questions." The answer to the letter addressed to the minister of Dumfries was given by the Rev. William

Burnside, then minister of the New Church, afterwards minister of the Old Church. It is given in full in the MSS. book lately committed to the custody of this Society, and in an abbreviated form in the "Statistical Account of Scotland," edited by Sir John Sinclair. I have lately had an opportunity of again reading the MSS. book prepared by Dr Burnside, and have been much struck with the very able manner in which it is written. I am convinced that if printed and properly edited, it would form one of the best contributions to the history of Dumfries that has yet been made public. As a foretaste of what may be in store for those interested in this subject when some one with sufficient leisure, knowledge, and enthusiasm can undertake the work I have indicated, I give a few notes shewing some differences between the Dumfries described in Dr Burnside's Statistical Account and the Dumfries of 1889.

Regarding the first head of inquiry, that of geography and natural history, there is not much to notice. Physical conditions do not alter greatly in the course of a century. Under this heading he observes that the distempers, as he calls them, are fever, rheumatism, and consumption. In this respect there is much change for the better. Dumfries, thanks to improved sanitary arrangements, is now more free from fever than almost any other town in Scotland. As regards rheumatism, the statistics shew that Dumfries occupies about an average position, and in regard to consumption that the death-rate is, as it was a hundred years ago, very high. Dr Burnside refers to the well-known characteristics of our climate—the moisture of the air, the dryness of the soil, the short time snow lies on the ground, and the high winds which often prevail. There is mention of floods which are now unknown to the extent to which they existed a hundred years ago. "The parish is subject to considerable swellings of the river which often lay the lower part of the town under water. In the houses near the bridge it will sometimes rise two or three feet. These floods are most frequent towards the end of harvest and the beginning of winter. The two most remarkable of late were in October, 1778, and in November, 1772. It was in the last-mentioned flood that the Solway Moss was carried off."

There are more changes to note in regard to the second head of enquiry, "Respecting the population of the parish." The estimate of the population is given from information derived from parochial visitations made by himself and his colleague in St.

Michael's. The figures are not so absolutely reliable as those in the Government censuses of subsequent years. He estimates the whole population of the town as 5600 or nearly 6000 ; in the landward part of the parish, 1200 or 1400 more. In the calculations I have made for the sake of comparison I have taken the mean between these, 7000. The population of the parish in 1881, according to the census, was 16,841, or an increase of 9841. In an appendix to his book, Dr Burnside gives a detailed account of the population of the New Church parish in 1795. According to this statement in that year there were in the New Church parish 1014 families and 3800 individuals. In 1881 there were in Greyfriars' parish (which has the same boundaries as the New Church parish had in 1795) 949 families and 4259 persons, or a decrease of 65 families and an increase of 429 persons. It thus appears that the large increase in the population has arisen from new houses having been built and inhabited in the districts now known as the parishes of St. Mary's and St. Michael's. The increase in the population has been gradual. The census returns at the decennial periods of this century have been as follows : 1801, 7427 ; 1811, 9262 ; 1821, 11,052 ; 1831, 11,606 ; 1841, 11,409 ; 1851, 12,289 ; 1861, 13,323 ; 1871, 14,841 ; 1881, 16,841. In 1795 Dr Burnside and Dr Scott considered that there were in the town 1488 families of 5860 individuals. In 1881 there were in the three parishes 3568 families of 16,841 individuals. If we may venture to compare these figures we have in 1881 4·7 individuals to each family to 3·5 to each family in 1795. This would indicate an increase in the amount of employment for young people. Another point of comparison leads to the same conclusion. Dr Burnside states that of examinable persons—meaning by that persons above seven or eight—"we have three females to two males," a phenomenon which he accounts for by the scarcity of employment for men, and by the demand for female servants. The census returns for 1881 do not distinguish in any way the ages of the males and females, but they do not indicate that the disproportion referred to exists now to the extent which Dr Burnside pointed out. In 1881 there were 9037 women and 7812 men, or an excess of females over males of 1225. The number of births, marriages, and deaths, as computed by Dr Burnside, when compared with the recent returns of the Registrar-General, furnish no indication of any remarkable change in the proportionate number of these events.

An interesting field of comparison is opened up by a table given by Dr Burnside regarding the number of persons engaged in different trades in the town. The statistics are derived, as regards the trades, from the books of the incorporations, and as regards the others, it is supposed, from personal information. Unfortunately, the statistics regarding the occupations of the community in the census returns are given not for the parish, as Dr Burnside gives them, but for the parliamentary burgh. An exact comparison is therefore unattainable. The respective numbers, however, may be of some value as indicating any marked changes, and therefore I give them :

	<i>Per Cent.</i>		<i>Per Cent.</i>	
	<i>1791.</i>	<i>of Pop.</i>	<i>1881.</i>	<i>of Pop.</i>
Hammermen (blacksmiths, whitesmiths, tinsmiths, coppersmiths, and saddlers)	70	1	133	7
Squaremen (joiners, cabinetmakers, masons, glaziers, coopers, and slaters)	220	3	391	2
Tailors	85	1	186	1
Shoemakers	236	3	148	·8
Skinners and glovers	23	·3	26	·1
Fleshers	33	·4	81	·4
Tanners, nailers, plumbers, brassfounders, silversmiths, watchmakers, dyers, and not incorporated	100	1·4	134	·8
Bakers	26	·3	116	·6
Stocking-weavers	30	—	—	—
Writers	30	—	31	—
Physicians and surgeons	4	—	29	—
Ministers	8	—	30	—
Apothecaries... ..	4	—	29	—

These figures are very much what might be expected. There is in proportion to the population employment for fewer artisans now than there was a hundred years ago. The much larger production is more than counter-balanced by the amount of work done by machinery. Notably, the trade of shoemaker has undergone a very great diminution. On the other hand, bakers are twice as numerous as formerly, a fact no doubt to be accounted for by the much smaller amount of oat cakes and other kinds of bread now made at home. It is very remarkable that the additional 10,000 of the population requires no more writers. It is also noteworthy that while the population has more than doubled, doctors have been multiplied sevenfold, ministers threefold, and apothecaries sevenfold. The decrease in the number of men employed in the older trades is more than made up for by the number of new employ-

ments which have been called into existence, such as railway, telegraph, and post-office officials. Printers have also largely increased in number, and those employed in the manufacture of woollen goods very much more so. It could not be said now as it was said by Dr Burnside, "The spirit of industry is by no means so great among us as could be wished, and we have but few manufactures, owing in great measure, as it is generally thought, to the scarcity and dearness of fuel." In 1791 there were 78 persons licensed to sell spirits, or 1 to 89 people. This year we have 84, or 1 to every 150 people. In addition to the 78 persons who, on an average, were licensed annually, there were on an average about 20 persons fined for selling without a license. Dr Burnside makes the reflection on this point, which has so often since been made: "The use of spirituous liquors, and especially of whisky since its price was reduced, certainly does produce very bad effects upon the good order, industry, and health of the lower classes of the people. Unhappily, individuals themselves are not the only sufferers, for their wives and children are often in great distress and misery. Hence, too, many of the petty crimes, debts, &c., which swell the list of those sent to prison and the correction house."

In 1791 there were, according to Dr Burnside, only 38 Roman Catholics in the parish. This, it would appear, was an understatement, as in 1795 he discovered in the New Church parish alone 64. The great difference between the number of Roman Catholics a hundred years ago and the number at the present day reminds us of the fact that a large proportion of the new population has come from the sister island. In 1791 it was supposed that there were in the parish 200 belonging to the Relief communion, 150 Episcopalians, 270 Antiburghers and Seceders of all ages. The remainder were supposed to belong to the Church of Scotland. In those days there was one church for every thousand of the population. The proportion at this present day is about the same.

The productions of the parish were said to be wheat, barley, oats, potatoes, lint, and, in the neighbourhood of the town, garden stuff. A farmer gave Dr Burnside the computation that there are in the parish about 720 acres of oats, 240 of barley, 180 of wheat, and at least 100 of potatoes, 20 to 30 acres of peas, and as many of turnips. Rev. John Gillespie, Mouswald, has supplied me with the following notes regarding the present produce, for the purposes

of comparison. Almost all the grain crops in Dumfries now are oats—very little barley. In 1888 there were 559 acres of barley in the whole county of Dumfries. There were only 51 acres of wheat in Dumfriesshire in 1888, and only 27 acres of it in 1887, so that Dumfries parish in 1790 far exceeded in its growth of that cereal the whole county now. There is now a very large acreage of turnips. They were just beginning to be cultivated in small patches in Dr Burnside's day.

The yearly rent of the landward part of the parish in 1791 was £4017 6s 8d. The same last year was £20,998 6s 8d. This large increase has arisen largely from the great increase in the number of houses in the outskirts of the town. The only illustration I have procured of the value of a farm shows no increase at all in proportion with the total. Dr Burnside mentions that in 1737 no one would take a lease of Tinwald Downs when it was offered at a rent of £35 per annum. The same lands, he adds, after a considerable number of acres be taken off for planting, do not yield £300 a year, and at the end of the lease may yield £100 more. The rental in the roll for 1880-81 is £412. "Netherwood," he says, "was sold fifty years before for £4000, and now is estimated at £30,000." The rental of Netherwood in the roll is given at £241. The valuation of the lands within the burgh in 1791 was £2243 9s, and of the houses £12,293, or in all £14,536 3s 9d. The valuation last year was £68,132 11s 6d, or nearly six times as great. The rise in rents, to judge from the only example we have, has not been great, and the increase must arise largely from the larger number of houses and from persons living in better houses. In 1791 a house of three rooms and a kitchen let for £10 or £12. It now lets for £12 to £15.

Fortunately, Dr Burnside chronicled carefully the prices of provisions and the average rate of wages. We have thus the means of ascertaining the great increase which has taken place in the value of commodities. The prices then paid were: Salmon, 2½d to 6d per lb.; flounders, 1d to 4d; cod, ½d to 1d; beef, 3d to 5d; mutton, 3d to 4½d; lamb, 3d; pork, 3d to 4d; geese, 1s 6d to 2s 6d each; ducks, 6d to 8d; chickens, 7d to 8d per pair; butter, 7d to 9d per lb.; Scotch cheese, 3d; meal, 1s 6d to 1s 10d per stone; coals, 7d to 8d per cwt. "All kinds of butcher meat and poultry," Dr Burnside remarks, "are now double the prices they were twenty years ago. The natural progress of luxury, the fears occasioned by the American war, the increased circulation of

paper money, and, of course, the raising of rents upon the tenants have each contributed to this rise in almost all kinds of provisions."

The rise in the wages is as remarkable as the rise in the price of provisions. Labourers' wages were 1s per day; carpenters and masons, 1s 8d to 2s; tailor, his victuals and 6d; labourer in harvest, without food, 1s and 1s 1d; ploughmen's wages, 7 to 8 guineas; dairymaids, £3 to £4 per annum; maid servants in towns, £2 10s to £4; men servants, £7 to £9.

The schools receive warm praise. There were three established schools for English. The masters of these received £20 amongst them, 2s 6d a quarter from each scholar, and a Candlemas offering. There was one established Grammar School, the master of which had £47 a year. He got no fees from the children of burgesses, but 8s a quarter from others. The Candlemas offering amounted to about 10s 6d a head. The average number of scholars was 100. There was an established school for arithmetic, book-keeping, and mathematics. The master had £20 a year, 5s a quarter from the children of burgesses, and 7s 6d from others, and no Candlemas offering. The number of scholars was about sixty. There was also an established school for writing, where the master had a salary of £22, and the same fees as the master of the arithmetic school. The pupils were said to number about seventy. Besides these there were a free unendowed school for reading and writing, and two or three boarding schools for young ladies. It is also recorded that French, drawing, and dancing are very well taught. Unfortunately the details given do not warrant any comparison with the amount of the school accommodation or the number of children attending school at the present day. If we might hazard a conjecture, they were much behind what we now have, but in some respects considerably more adequate than the schools were immediately prior to the passing of the late Education Act.

The number of poor in 1790 occasionally receiving alms was at least 150. The Poor-house (Moorheads' Hospital) supported 45 to 50 persons. The whole sum expended on the poor, including mortification revenue of the hospital, amounted to £400. The poor rate last year was £2930. When we add to this the revenue of Moorheads' Hospital, of the Carruthers' Cottages, of the Menzies and Crocket Funds, and of other Trusts, we have a total of at least £3999. It would thus appear that the people a hundred

years ago spent on the poor £5 per hundred of the population, or £4 per £100 of the rental. We spend at least £25 per hundred of the population. The proportion as regards the rental is about £4 9s per £100.

It thus appears that a hundred years have brought great changes to the Queen of the South. The population has been considerably more than doubled, the yearly rental has been quadrupled, wages have increased about three-fold, and the price of most articles of food is more than doubled.

In Dr Burnside's time the town consisted, he informs us, of eight or nine streets and six or eight lanes. The streets would be the High Street, Friars' Vennel, the East Barnraw (now Loreburn Street), the West Barnraw (now Irish Street), the Kirkgate (now St. Michael Street), Townhead Street (now Academy Street), Lochmaben Gate (now English Street), and probably Queensberry Street and King Street. The new bridge was then unbuilt, and all Castle Street, George Street, and Buccleuch Street were fields or gardens. The Town Hall and Court-House were in the Midsteeple, and underneath that were the Weigh-House and the Town Guard House. In the block of buildings where Mr Adams has his bookbinding shop were the Council Chambers and adjoining that was the Prison. On the site of the Militia Barracks was a House of Correction. Moorheads' Hospital was scarcely fifty years old, the old Infirmary was recently erected, and the Theatre was just opened. The churches were St. Michael's—the only one which remains in external appearance as it was—the old New Church, the Episcopal Meeting-House in English Street, the Anti-Burgher Church on the site of Loreburn Street U.P. Church, and the Relief Church in what is now the wool store in Queensberry Street.

Dr Burnside, in various parts of his MSS., speaks with satisfaction on the improved condition of the people. He had met men who remembered when there were only four carts in Dumfries—two for hire and two the property of gentlemen who had purchased wood, and when all the ordinary transport was done by creels and sledges. He was proud of there being a stage coach daily to Edinburgh and an English and an Irish mail coach daily, and looked forward to there being before long a Glasgow coach. He mentions with satisfaction that a waggon from Carlisle, with six horses, comes to town and goes out again weekly, that there are eight or ten post chaises kept at the inns, that six families in the parish each keep a four-wheeled chaise, and that four have whiskeys.

He could tell of an improvement in the roads of the parish within the twenty years preceding the date of his book so great that one horse could now do the work formerly done by two. He could also say that "within these twenty years the poor people are both better fed and clothed. At that period they had no butcher meat, and few or no hogs at all." At the period of writing, he says that there was scarcely a day labourer but kept a hog, and laid in some quantity of meal at Martinmas. He remembered when there was seldom any good fresh meat to be had from about Christmas till the new grass came in the spring, but in his day it was to be had throughout the whole year in great plenty and of good quality. Very probably the generation a hundred years hence will look back on us, as we now look back on the generation in which Dr Burnside lived and as he looked on those further back still, and wonder how we fared with fewer comforts and fewer means of communication with other places. It may be well to remember that while we cannot wish back the good old times, we may yet believe that then as now there were men and women with good heads and good hearts, and that wisdom neither begins nor ends with the people of our own times. It is pleasant also to know that it is not true that the poor are poorer. What were rare luxuries to the poor are now easily obtained by the many.

Field Meeting. 11th of May.

A visit was paid to Comlongan Castle and Ruthwell Church. The famous Runic Cross and the old tombs were inspected. Explanations were made by the Rev. J. McFarlan and Mr Campbell Douglas, the architect of the part of the Church in which the cross stands. Mr Robert Barbour, Solicitor, Maxwelltown; Mr Davidson, Teacher, Ruthwell; and the Rev. Mr Milroy, Penpont, were elected members.

14th of May.

At a meeting of the Council the honorary secretary, Mr Robert Barbour, resigned his office, and received the thanks of the Society, on the motion of Mr John Neilson. On the motion of Mr Robert Barbour, seconded by Mr Neilson, Dr Edward James Chinnoek was elected honorary secretary.

Field Meeting. 1st of June.

A visit was paid to Crocketford and Springholm. Auchencreech Loch was circumambulated, many botanical specimens being collected. At a meeting, presided over by Mr George H. Robb, Dr Clarke and Miss Tennant were elected members. Mr James Barbour exhibited a copy of Innes's History of the Buchanites, several leaves being in Innes's own handwriting, and also a copy of the proceedings taken against the Buchanites by the Sheriff Court. The party then drove along the old military road, round part of Milton Loch, and arrived at the Hills Tower, Lochrutton, which was inspected.

Field Meeting. 6th of July. (Described by Mr WM. DICKIE.)

A visit was paid to Whithorn, where Dr John Douglas and Mr William Galloway acted as guides. The ruins of the Priory were carefully examined, and then visits were paid to the Roman Camp, St. Ninian's Cave, and the ruins of St. Ninian's Kirk in the Isle of Whithorn. Finally the ruins of the old Norman church of Cruggleton were explored. At a meeting presided over by Major Bowden, Dr Douglas and Mr Galloway of Whithorn, Mr George Hamilton and Mr R. McConchie of Kirkcudbright, and Mr Alex. Ferguson, solicitor, were elected members.

It is the ruined Priory which invests Whithorn with such strong attractions for the antiquary, and to it the visitors proceeded, admiring by the way the ample thoroughfare and the tidy appearance of the long main street of the town. The existing charter conferring on Whithorn burghal rank and privileges was granted by King James IV., the most assiduous of the Scottish kings in his devotion to the shrine of St. Ninian, but it is understood that this was only a renewal of an earlier charter emanating from Robert the Bruce. The change of the commercial highway from the sea to the railway has injuriously affected it, like many other outlying towns, and has diminished its municipal revenue, of which the mainstay used to be the dues charged at the port of Isle of Whithorn, three miles from the town. But it bears its adversity placidly, and its appearance indicates a fair measure of prosperity among the burgesses. The old Town Hall and Tolbooth is a plain building, with square tower and extinguisher-shaped spire, surmounted by a ship in full rig by way of vane. It is not of great antiquity, having been built only about 1820 ; but it has already

been superseded for municipal purposes by a less obtrusive structure, but one more convenient and better suited to modern ideas. The present population of the burgh is about 1700.

St. Ninian, with whose fame the Priory is so closely linked, was the Columba of southern Scotland, and pursued his Christianising mission a century earlier than the apostle of Iona. The year 360 is assigned as the date of his birth, and his death is reported to have occurred in 432. The place of his nativity is a subject of dispute. One account represents him as belonging to a noble Scotch family, whose residence was in the vicinity of Whithorn. On the other hand, some of his biographers favour the idea that he was of Welsh nationality. Ireland, also, has put in a claim to be the country of his birth ; but with less apparent probability. It is certain, however, that during the period of the Roman occupation he established a religious house at Whithorn, and with the aid of a body of disciples set himself to proclaim from this centre the message of the Cross among the pagan inhabitants of the country. Much success crowned his missionary labours, and posthumous fame enhanced the virtues of the saint and invested even his bones with miraculous power. Before devoting himself to the apostolic career, Ninian had visited Rome, where he received consecration at the hands of the Pope, and spent some time at the French monastery of St Martin of Tours. This noted soldier saint—from whom we derive our term Martinmas, and whose monastic habits have not been considered inconsistent with his selection as patron saint of the tavern-keepers—is in some accounts styled the uncle of St. Ninian ; and to him the Priory in Whithorn is said to have been dedicated. A circumstance confirmatory of this is mentioned by Symson in his “Description of Galloway,” who states that in 1684, when his work was written, there was “a little hand-bell in this church, which, in Saxon letters, tells it belongs to St. Martin’s church.” There is some doubt whether it was at Whithorn or at Isle of Whithorn that St. Ninian built the modest chapel—the “Candida Casa” or Whitehouse of early chronicles—that was the first stone and lime edifice built for Christian worship in Scotland. The balance of evidence seems to favour the Isle. But the modern burgh had apparently been the seat of his later ministry ; and the undisputed historical record represents the Priory as the place of his sepulture.

The Priory of which the ruins now remain is of much more recent date, and would be of more extensive proportions than the

buildings of St. Ninian's day. It was founded in the twelfth century—in the reign of David I., the “sair sanct for the Crown”—by Fergus, Lord of Galloway, the reputed founder also of Dundrennan Abbey, and father of the founder of Lincluden Abbey. Almost the only fragment of it still standing above ground is a portion of the nave and of the lower walls of the steeple and porch at the west end ; but recent excavations have opened up a double row of crypts beneath the chancel and transepts, and have revealed the foundations of other walls and a piece of causeway near to the modern Parish Church, about two feet below the present level of the ground. The church and monastic buildings must have occupied the whole of the present churchyard, the modern interments being made among their foundations, and to some extent in the debris which has accumulated around the old walls. This has made the work of excavation one of difficulty and delicacy, and has very properly prevented it from being pursued to the full extent which in other circumstances would have been desirable. The Priory enclosure had extended to the main street of the burgh, from which a long lane now leads to the churchyard gate. At the street end of that lane there remains in position an old arch or “pend” with a lion rampant and unicorn supporters sculptured in bold relief over the key-stone. This may either be the royal arms or the arms of the province of Galloway. The excavations have been conducted at the cost of the Marquis of Bute, with consent of the heritors of the parish, and under the direction of Mr Galloway. The general result is to show that the church had been in shape like a Latin cross, with north and south transepts, and that the monastic buildings had been to the north side, a position naturally determined by the position of the Kett, a stream which flows at the foot of a gentle declivity to the north, and would supply water for domestic purposes and also for the mill, which it is understood was attached to the Priory. The present church stands on the site of part of these structures. The date of its erection was 1822. Before that time the remnant of the Priory had been used for public worship. The modern edifice is apparently a commodious one ; but its design is by no means artistic—a tower dressed with red stone projecting like an excrescence from a plain square building, whitened with a rough casting of lime. It so offended the susceptibilities of John Ruskin when paying a visit to the district that he declared he would gladly give £10 to help to remove the tower. The most notable feature in the Priory ruins

is a Norman doorway, of beautiful proportions and with richly carved arch, at the south-western corner of the nave. Mr Galloway is of opinion that this interesting fragment does not occupy its original position ; and the presence of interpolated stones in the arch courses is apparent on a careful survey. It had probably been "restored" when additions were made to the buildings in the fourteenth or fifteenth century. But in any case we have preserved what is undoubtedly twelfth century workmanship. Several quaintly sculptured stones are built into the wall at the same place. In one of these a small animal is seen to be entering the mouth of a larger ; and it has been conjectured that it may have been intended to symbolise the Christian's hope that death shall be "swallowed up in victory." On the outer side of the north wall are still to be seen some of the corbels which had carried the beams of the cloister arcade. The crypts to the east form a long double row, with barrel-vaulted roof ; but the remains of two short pillars indicate that originally the more ornamental form of the groined arch had been used. In the northern-most crypt have been found remains of the red deer, the boar, and other animals of the chase, indicating that it had served the purpose of a larder. In one of the walls there is constructed a beehive-shaped apartment of which the purpose can only be conjectured. It may have served either as a punishment cell or as a place of solitary retreat for some of the more spiritually-minded brethren. Within the nave are two low tombs built into the southern wall, and enriched with dog-tooth ornament. They have no doubt been the resting-place of persons of distinction ; but there is now nothing to indicate their name or condition, whether lay or clerical. In the course of recent excavations, the skeletons were found, in cists partly cut out of the rock and partly built, but there were indications that the graves had been previously opened. The nave is now a perfect antiquarian museum. There has lately been deposited within it, for better preservation, a curious monolith that long stood, like a mile-stone, by the road-side about a quarter of a mile from the burgh. On it are traced a peculiar combination of the circle and cross and this inscription, in irregular letters : "Lociti Petri Apustoli." (?) It is supposed to be as old as the fourth century, contemporary therefore with St. Ninian, and to have marked probably a place of worship dedicated to St. Peter. It is now taken under the protection of the board charged with the administration of the Ancient Monuments Act. Ancient crosses have been collected in large number

from the precincts of the church and from the surrounding district. The prevailing shape is the square cross, variously known as the Greek and Maltese, and the limbs are often indicated by five embossed circles. The larger shafts are generally ornamented with wicker-work or Runic pattern. On one small stone there are traced three Latin crosses close together, the one in the centre much larger than the others, a design obviously intended to represent the scene on Calvary. A large baptismal font, believed to be the one originally in use in the Priory, and elaborately sculptured corbel stones more or less entire, are also here preserved; and among heraldic devices the arms of the province of Galloway and the double chevron of the M'Lellan family are to be noted. A small bell, still intact, bears the date 1610, and appears from an inscription to have been cast in the city of Bruges.

Somewhat incongruously neighbouring the solemn mementoes of a devotional age is a stone which has upon it several words in large raised letters, some of which are now altogether effaced or so worn as to be illegible. Some ingenuity has been expended in the effort to give an English rendering to what was supposed to be obscure Latin. If we supply the missing letters in a manner suggested by their context, as Mr Galloway pointed out, we have, as will be seen below, an epigrammatic advice in homely Scotch phrase, viz.,

TENT T[O]

DEI[G]HT

WE[EL]

[*Anglice*—Be careful to clean well.]

The stone had occupied a place in the wall of an old farm building, where it would daily but silently admonish the household to habits of cleanliness.

In one of the apartments of the old Town Hall Mr Galloway has stored an extensive collection of fragmentary pieces of carving turned up in the course of the excavations. Some of these—notably a small but strikingly expressive face—convey a very high idea of the attainments of the early artists whose handiwork they were.

Having explored the Priory and its adjuncts as fully as time permitted, the company set out for St. Ninian's Cave, making by the way a short detour to see the large Roman camp on the farm of Rispain. A drive through a pleasantly wooded tract of country, and past the policies of Glasserton House

and Physgill, brought them to Kidsdale House. There they left the vehicles; and, following first a shady footpath through a winding glen, and then a more open road-way, a mile's walk brought them to the shore of Luce Bay, at the little inlet known as Port Castle, from the scanty relics of an old fortalice that crowned one of the headlands. From this point the cave, which faces to the mouth of the bay, and is just above the tidal line, is plainly visible; and only a short further walk over shingle and small boulders is necessary to reach it. The entrance is now closed by a stout metal screen, placed over it by Mr Stewart of Physgill, proprietor of the adjacent estate. The key is kept at Kidsdale House, and is readily given to responsible persons, as it was on Saturday. But the cave is so small that it can be fully surveyed from the outside. It might more appropriately indeed be termed a grotto. The rocks, which at this point are bold and precipitous, converge slightly in front of it, and probably a greater space was at one time under the natural arch. When the work of excavation was in progress a large piece of rock was lifted, which had obviously been detached from the cliff above; and beneath it was discovered a human skeleton—possibly the victim of some forgotten tragedy, most likely one whom the falling rock had buried. The rough natural walls of the cell are coated with oxide of iron, and present a damp appearance, suggesting anything but a luxurious or wholesome retreat. It was known by immemorial tradition in the district as St. Ninian's or St. Ringan's Cave; but it was only a comparatively few years ago that positive evidence of its monastic associations was discovered. The late Dean Stanley and Dr John Stuart of Edinburgh (author of "The Sculptured Stones of Scotland") were on a visit to the district, and one of their party traced upon the rock near to the cave the faint outline of a small cross. Further search has revealed the existence of four of these sacred emblems, both the Greek and Latin form being used. Excavations were thereafter undertaken, at the instance of Mr Stewart of Physgill, and carried out with great care under the personal superintendence of Dr Douglas, of Whithorn. A low wall in front of the cave was taken down (but afterwards re-built), and several small stones with crosses incised on them were found in it. Debris was removed, which had accumulated at some points to a depth of six feet, and a rough flag pavement exposed in part of the cave, the rest of it being paved with hard beaten earth. In the

pavement was a stone with a rudely carved inscription, of which only this fragment remained :

SANCT

NI P

This stone was lifted, and affixed to the wall of the cave for better preservation, but some mischievous youths broke it. The protecting grating was put up to prevent further malicious acts, and the fragments of the stone were taken for greater security to Kidsdale House. Numerous incised crosses were exposed—in all seven on the living rock and twelve on separate stones. Some of these are of the rudest and most primitive workmanship, and are approximately assigned to the fourth century. Others are more elaborate, and shew Runic ornamentation. At the entrance to the cave was also found a stone with a large cup hollowed out in its centre, so placed as to receive the drip from the rock, and with a drain laid from it to carry the overflow into the centre of a mound at a little distance. Probably this was a semi-natural baptismal font, or it may have been simply used as a receptacle for the collection of pure water. The cave has shared in the veneration attaching to the shrine of St. Ninian, and was also a common resort of pilgrims. The smooth surface of one of the rock faces bears a great many initials of visitors. Most of these are quite modern; but the antique form of the characters as well as the dates attached shew that in several instances we have here preserved the rude chiselling of men who lived two centuries or more ago. Such are these: "I [or J] P, 1634. I L, 1664. I C, 1678. A M, 1684." No doubt James IV. and other royal pilgrims would also visit the cave, but the stone bears no record of this.

In withdrawing to this remote and sea-girt retreat for purposes of meditation or penance, St. Ninian would be following the example of his teacher, St. Martin, and of other early Churchmen; and there is every reason to believe that it would be used by him as an occasional residence. The scene is one fitted by its solitude and grandeur deeply to impress a reverent mind. The seaward prospect from the beach or the cliffs above is also in clear weather a charming one, embracing the Mull of Galloway, the peaks of the Isle of Man, and a part of the Irish coast. The visitors on Saturday saw it under the disadvantage of a haze, which obscured the distant land points; but a flowing tide, under a brilliant sun, and the water flecked by an occasional sail, made up a picture of no small beauty.

They drove next across to the shore of Wigtown Bay, to the Isle of Whithorn. This is a tidy village of considerable size, built along the landward edge of what has at one time been an island, but by artificial banking has been converted into an isthmus, with a good pier and harbour, and having in it a turreted mansion, of which Symson in the seventeenth century speaks as "the Isle, a good stonehouse, which belongs to Patrick Huston of Drummaston." There are two rounded isthmuses—the inner and outer Isle. At the seaward side of the former are still standing the walls of a small chapel, roughly built of whinstone and shell lime. Its outer measurement is only twelve paces by seven. This building is believed to belong to the fourteenth century, and would be served by monks from Whithorn Priory. Beside it are traces of older foundations, supposed to be those of the original Candida Casa of St. Ninian, which is referred to by old writers as having been a land-mark for sailors and being surrounded on three sides by the sea. A life-boat house is now built on the same neck of land, and so situated that the boat can be launched into a bay either on the north or south, as the direction of the storm may render necessary. Traces of a triple line of ancient fortifications may be discerned on the two Isles.

Instead of returning direct to Whithorn, the party drove along the coast line of Wigtown Bay to Cruggleton Chapel—a small pre-Reformation building, and the church of an ancient parish, now united with Sorbie—which is in process of being restored by Mr Galloway, at the instance of the Marquis of Bute.

Field Meeting. 7th of September.

A visit was paid to Dornock Churchyard, where Mr John Nicholson pointed out some ancient sepulchral monuments. The Lochmaben Stane at Old Graitney was next inspected, and then Graitney Churchyard was visited. The antiquities of the place were explained by the Rev. William Bell of Graitney. Stapleton Tower was next explored, and, on the return to Annan, Mr Frank Miller acted as guide to Edward Irving's birthplace and his father's tannery. The Rev. William Bell, Mr John Dunlop, teacher, of Dornock; Mr John Nicholson of Stapleton Grange; Mr and Mrs Gunning, and Miss Hamilton, of Castlebank, were elected members.

Meeting of Council. 25th of September.

It was agreed, on the motion of Mr James Barbour, to hold an exhibition in November of the Baxter Bequest of mineralogical specimens, and of other interesting articles, together with the portraits of celebrated natives of the district.

The Kirkmadrine Crosses.

Note.—See p. 53.

I gladly add this note to my paper at the request of the Hon. Secretary in order further to emphasise the two points for which it was chiefly written, viz., to draw public attention to the neglected condition of these primitive grave-stones; and to strengthen my theory now for the first time, so far as I know, put forward that the Church of Kirkmadrine was originally dedicated to St. Martin of Tours.

The opinion of all learned antiquarians was summed up by Dean Stanley in 1872 when he wrote that, "Nowhere in Great Britain is there so ancient a Christian record." These stones were scheduled in Lubbock's Act, and yet no practical steps have been taken for their preservation, but they still serve as gate-posts and parts of the churchyard wall of Kirkmadrine. They had been carefully preserved until the Reformation, probably within the church (like the Ruthwell cross, which was not turned outside of its sacred edifice until after 1772); but now the sacred symbols and inscriptions upon them are almost illegible. It was anciently the custom to bury the dead and set up their tombstones within the church, but this was limited to priests in the 10th century (Bloxam's Gothic Archit. III., 11 Ed., p. 371). They should be removed to the Antiquarian Museum in Edinburgh, where there is a large collection of incised stones and also what is believed to be the first church bell, of *Candida Casa*.

In regard to the second point, it is well known that when St. Ninian was building *Candida Casa*—the first church of stone instead of wattles in Scotland—he heard of the death of St. Martin of Tours, A.D. 397, who had been his revered teacher, intimate friend, and generous helper towards its completion, and that he forthwith dedicated the church to his memory. But when Ninian died, A.D. 432, this church became the shrine of his grave, to which countless pilgrims resorted down to the time of the Reformation; and there is every probability, I think, that after that

event the people of Galloway would wish a church specially sacred to the memory of St. Martin. Apart from the personal relationship between these two, the Gallican Church had then and for long afterwards supreme influence in this country. There was a church erected to his memory at Canterbury so early as the 5th century, and out of 160 churches subsequently built, those at Hexham, Ripon, Jarrow, and Monkswearmouth were erected by masons and glaziers from Tours in the 7th century. The ancient liturgy of the British Church was derived from the Gallican Church, and the name of St. Martin of Tours occurs not only in pre-Reformation kalendars but in one of A.D. 1587 affixed to "The cl. Psalmes of David in Meter, for the use of the Kirk of Scotland." (Bp. Forbes's Kal., p. xlii).

There was no one whom the Church more delighted to honour; and in answer to the question, What mean these stones? I think I may with reason say that they commemorate Romano-Gallican priests who in the 7th century ministered in Kirkmadrine Church, then erected to the memory of *Sanctus Martinus*.

J. G. H. STARKE.

SESSION 1889-90.

4th of October, 1889.

ANNUAL MEETING.

Major BOWDEN, Vice-President, in the Chair.

New Member.—Mr R. M'Glashan, of the Inland Revenue. Mr Robert Barbour (late secretary), was elected an honorary member in consideration of his services to the Society.

Death of Dr Grierson.—The following resolution was passed :
“This Society records its deep regret at the death of its ex-President, Dr Thomas Boyle Grierson, of Thornhill, and desires to express its sympathy with the surviving relatives on the great loss they have sustained, and its admiration of Dr Grierson's personal character, scientific attainments, and wide philanthropy.”

SECRETARY'S REPORT.

The Secretary (Dr Edward J. Chinnock) then read the annual report.

The membership of the Society now numbers 198 ordinary members, of whom 20 have been admitted during the session now closing. There are also 7 life members and 19 honorary members, making 224 in all on the roll. The Society has sustained a loss in the resignation of its Secretary, Mr Robert Barbour, in May. The vote of thanks passed by the Council for his indefatigable services doubtless expressed the unanimous feeling of all the members.

Seven Winter Meetings and four Field Meetings have been held during the session. At the former 16 valuable papers were read, all showing laudable research, and some of very great interest. The papers read by Messrs Aitken, James Barbour, and

Weir, may be mentioned as particularly interesting without detracting from the merits of the other contributors.

The thanks of the Society are due to the painstaking scientific investigations of Messrs Andson, Hastings, M'Andrew, and Corrie. The President is desirous of obtaining help from members in collecting specimens of the shells of the district. It should be the aim of all the members to obtain the support and assistance of their scientific friends in carrying out the objects for which the Society exists.

Of the Field Meetings those to Whithorn and Gretna were particularly interesting and successful. It is a pity, however, that in these excursions, while archæology has been well represented, the natural history subjects have been somewhat neglected.

The museum has been enriched by our undertaking the custody of the geological and other specimens, as well as a collection of coins, bequeathed by the late Mr William Baxter to the Town Council. The resolution of our Council to hold an exhibition of these in November will give the public an opportunity of inspecting this valuable collection.

In connection with the British Association the Rev. Mr Andson has undertaken to keep a register of the temperature, &c., of the River Nith, and under his direction, and with the consent of the Town Council, a gauge has been fixed on one of the piers of the New Bridge for taking the depth of the water.

During the session we have lost our two most distinguished members, the one an antiquarian, the other a scientist. They were both natives of the burgh and men of whom Dumfries does well to be proud, and whose memory we should delight to honour. Mr William M'Dowall, in his books relating to his native town and Lincluden, could have said with the poet "*Exegi monumentum ære perennius.*" In regard to our venerable friend and ex-President, Dr Thomas Boyle Grierson, it is difficult to say whether his attainments as a scientist and a philosopher or his unaffected simplicity of character as a man was more to be admired. His mind was stored with knowledge of the most varied kind, and yet he was as free as a child from assumption of superiority over those less richly gifted. He spent the best part of his life in imparting to others what he had acquired, and he seemed to carry out the view of Epictetus, whose works he greatly admired: "God has introduced man into the world to be a spectator of Himself and of His works; and not only to be a spectator but an intrepereater."

TREASURER'S REPORT.

The Treasurer (Mr James S. Thomson) read his annual report.

CHARGE.

Balance from Session 1887-88	£0 16 0
124 Ordinary Members' Subscriptions (2s 6d)	15 10 0
6 New do. (entrance money, 2s 6d)	0 15 0
39 Transactions sold at 1s	1 19 0
Interest on Sums lodged in Bank	0 6 7
	<hr/>
	£19 6 7

DISCHARGE.

Postage and Bank Charges	£0 1 9
Salary to Hall-Keeper	1 10 0
Secretary's Expenses (Mr Barbour)	2 0 0
Do. do. (Rector Chinnock)	0 11 7
Copy Dr Burnside's History of Dumfries	2 2 0
Periodical and Stationery Account	6 15 8
Bridges, slater	0 16 8½
Commission of Collector	0 18 3
Flood Gauge on New Bridge	0 5 0
Gas Account	0 3 9
Lodged in Savings Bank to Credit of Society	3 7 2
In hands of Treasurer	0 14 8½
	<hr/>
	£19 6 7

October 4th.—Examined the year's accounts, compared with vouchers, and found the above abstract leaving a balance of 14s 8½d in hands of Treasurer correct.

THOMAS LAING.

ELECTION OF OFFICE-BEARERS.

The following were elected office-bearers and members of the committee for the ensuing session :—President, Richard Rimmer, F.L.S. ; Vice-Presidents, Major Herbert G. Bowden, Wellwood Maxwell, William J. Maxwell, and James G. H. Starke, M.A. (advocate) ; Treasurer, John A. Moodie ; Secretary, Edward J. Chinnock, LL.D. ; Members of Council, Rev. Wm. Andson, James Barbour, James Davidson, William Dickie, Thomas Laing, James Lennox, Robert Murray, John Neilson, M.A., George H. Robb, M.A., and James S. Thomson.

1st of November, 1889.

Major BOWDEN, V.-P., in the Chair.

Exhibition.—The Secretary intimated that the Council had resolved to hold an Exhibition of the Baxter Bequest and the

portraits of Dumfriesshire and Galloway worthies and other objects of local interest, on Tuesday, the 12th of November, till Saturday, the 16th. Messrs Barbour, Chinnock, Davidson, Dickie, Lennox, and Moodie were appointed a sub-committee to manage the Exhibition.

Donations.—Smithsonian Report for 1886, from Washington ; Transactions of the New York Academy of Sciences ; Proceedings of the Canadian Institute, Toronto ; Proceedings of the Academy of Sciences, Davenport, Iowa ; Essex Naturalist from January to June, 1889. Mr J. S. Thomson presented a fine specimen of blue from Kimberley Diamond Mine.

COMMUNICATIONS.

I. *Notes on the Minerals of Dumfries and Galloway.* By Mr PATRICK DUDGEON of Cargen.

Until comparatively recent years the greater part of this district has been almost a *terra incognita* as regards Mineralogy, with the exception of the district of Wanlockhead and Leadhills, which has for long attracted the attention of Mineralogists, from the variety of beautiful specimens found there. One seldom finds in any mineralogical work any notice of minerals to be found in this south-west corner of Scotland ; of course a few have been noticed, and the late Mr Copeland of Blackwood called attention to several mineral localities in the district, but he does not appear to have extended his researches to any great extent in Galloway. Of course, Mineralogists are attracted in their search for minerals to places where mining operations are going on, or where they have been carried on, as it is from lead, copper, iron mines, quarries, &c., that mineralogical specimens are most likely to be procured, for reasons which will be obvious to every one.

Few metallic mines have been worked in the Stewartry, and none that I am aware of in Wigtownshire, and none with any great success. Many *trials* for lead, copper, and iron have been made in different parts of the country, which have been abandoned, but they have given mineralogists opportunities they might not otherwise have had of making many additions to the very meagre list of our local minerals, which, until very lately, were to be found in mineralogical works. Since more attention in this direction has been turned to this part of the country, a very large number of

minerals, never before recorded as belonging to the district, have to be added to the list, and one new to science.* I leave out for the present the mining districts of Wanlockhead and Leadhills, which have been long well known—they are the only important metaliferous mines in the district. The Blackcraig mine, near Palnure, which was worked for lead for a good many years, but lately abandoned, produced very fine specimens of Dolomite, some of the crystals being of a fine purple tint, probably derived from the presence of manganese. I found there some very remarkable forms of Iron Pyrites—forms I had never before seen. The Pibble mine, about five miles north-east of Creetown, was long worked for lead, and large sums have been expended in opening it up; it has resulted in a heavy loss to the promoters; the usual lead and other minerals are to be found amongst the old heaps, but no very striking specimens. At Lackentyre, up the valley of the Fleet, Gatehouse, there are the remains of lead and copper workings, long since abandoned. Wulfenite (molybdate of lead) is found there—the only locality in Britain for this mineral. There are also the other usual lead and copper minerals. Hematite mines exist near Auchencairn (not now worked), and trials have been made in the neighbourhood for copper, which exists, but not in anything like paying quantities. The usual copper ores are found in the old heaps. Copper has been tried for about half-way up the west side of Cairnsmore; the working there appears to have been very superficial; good specimens of Chalcoperite were found in the heaps. Several trials for lead were made some years since along the side of the Monypool Burn, near Creetown. The lead was not found in paying quantities, and they were soon abandoned. I was fortunate to find there a thin vein of Kupfernickel and Arsenic. The only other places which I know of in Scotland where Kupfernickel has been found are Wanlockhead and Hilderstone, in Linlithgowshire; it was in the vein on the Monypool Burn I found the new mineral above referred to. Up the Kinharvy Burn, above Kinharvy House, one or two manganese minerals are to be found, and very good specimens of brown quartz; Antimonite was said to be found near that locality; I have looked for it very carefully, but never found a trace of it. Zircon also was said to be found in the Criffel granite; Mr Copeland mentions he could never find it; I have looked very carefully for it, and broken up many

*Mineralogical Mag., Vol. VIII., p. 200.

hundred pieces of granite in the search, but have been equally unsuccessful. There can be little doubt, I think, that crystals of Sphene, which are found in this granite, have been mistaken for it by careless observers, as some of the Sphene crystals, superficially looked at, somewhat resemble Zircon in colour and form; I think, too, that broken pieces of Psilomelane must have been mistaken for Antimonite, at Kinharvy, although there is little resemblance between these two minerals. Although I never found Zircon in the Criffel granite, my friend, Professor Heddle, and I were fortunate enough to find Allenite in it; this mineral is sparingly found in some of the granites in the north of Scotland. We also found in this granite, for the first time in Britain, the rare mineral Gadolonite; it exists very sparingly; since then we again found this mineral in the granite from Ben Loyal, Sutherlandshire. I may just allude to an instance showing the importance of being able to recognise granites from their enclosed minerals. A gentleman who was engaged in the investigation of the drift beds and boulder clays in the north-west of England and North Wales wrote to me that he and Professor Bonney had a strong impression that many of the boulders in these drift beds had come from the south of Scotland, and asked me if I thought I could identify any of the granites and rocks from this neighbourhood. I wrote to him I should be glad to assist him. He sent me a large number of rock specimens from the drift and boulder clays in the neighbourhood of Liverpool and North Wales. I found I could say with a great degree of confidence that many of the granites and rocks sent were from this district, as I found crystals of Sphene in them, and I was quite certain that this was the case when I found, by great good fortune, a crystal of Allenite in one of the pieces of granite. It was more than a thousand chances to one finding this crystal of Allenite, as it is rather a rare mineral to find in our granite, even when carefully looked for.* I have never found Sphene in the granite of Cairnsmore, but fair specimens of Epidote are to be got in the granite quarry near Creetown, and in some other localities—generally poor. Amethyst and Smoky Quartz (Cairngorm) are found on Criffel and a few other localities. The former is very abundant on the west side of Criffel, above Southwick House; more sparingly near Dalbeattie. Clear crystals of Amethyst, suitable for jewellers' purposes, are rarely found; I have

* "Quarterly Journal of the Geological Society" for May, 1883, p. 119.

never been fortunate enough to find any ; I have been shown cut stones of very good colour and transparency, said to have been found in the district, and have no reason to believe they were not so. The crystals from the west side of Criffel are often large, showy specimens, very suitable for rockeries, &c., for which they are used. Smoky Quartz is not so abundant ; I have found some tolerably clear crystals up the burn behind Kinharvy House, which, no doubt, came from the Psilomelane vein. Ordinary quartz crystals are found in many parts of the district ; no very good ones, so far as I know, are to be had except at Wanlockhead, where good specimens can be obtained. Calcite is, of course, found in many localities ; I have found very good specimens at Black Craig mine, and fair ones have been got at Arbigland. Very fine Calcites are found at Wanlockhead. A vein of Molybdenite was at one time worked to a small extent at Almorness Head, Buittle ; I have little doubt it was worked under the idea that it was graphite, which it somewhat resembles. Many mistakes of this kind are made from ignorance, and much money consequently thrown away. I have on several occasions seen bright yellow scales of Mica and pieces of Iron Pyrites sent from abroad under the idea they were gold ; and one of those so-called " mining experts " told me he was sure I " had a mine of wealth on Cargen," and advised me to bore for coal ! Some years ago a firm of iron and coal proprietors, under the advice of one of these quacks, spent several thousand pounds in the vain hope of finding lodes of Hematite on a property in this immediate neighbourhood. It has been said, and even stated in some publications, that Platinum was found in the water of Urr, near Dalbeattie ; from all I can ascertain, this statement is utterly unfounded. Pyrrhotine, it is also stated, has been found on Criffel ; I have never come across it, but Magnetite is occasionally found there, and in other places in the district. At Glendinning, in Eskdalemuir, an Antimony mine was at one time worked, and I hear it is, or about to be, re-opened ; if so, some interesting minerals are likely to be again obtained ; besides Antimonite and Cervantite, in the old heaps I found Valentinite—the first time, I think, this mineral has been found in Britain ; at least, there is no mention of it as being a British mineral in any mineralogical work ; I also obtained some interesting Pseudomorphs there—Cervantite after Valentinite, and Cervantite after Antimonite. An Antimony mine on the south spur of Hare Hill, between Kirkconnel and New Cumnock, was at one time worked ;

when working there I was not quite sure whether the workings were in Ayrshire or Dumfriesshire—they are close on the march of the two counties—so I will just mention I found Kermes (red Antimony) there, with the other usual Antimony minerals; I do not include this locality in the lists of minerals annexed to this paper. The rich field for minerals at Wanlockhead and Leadhills I need not further allude to, beyond saying that exceedingly fine specimens of Calcite, Barytes, Galena, Smithsonite, and Vanadinite are to be obtained there. Dr Wilson of Wanlockhead has done much of late in developing the minerals of that district, and has made a very fine collection; he has most kindly contributed some very fine specimens to the Observatory Museum. Leadhills is actually in Lanarkshire; the places are so near together, and the minerals of both localities are so nearly identical, that they may be classed in one list. Gold was at one time worked for over a large area in that district, and was all obtained from the alluvial deposits in the various valleys. That the gold originally came from quartz “reefs” containing the metal there can be no doubt, but none of these reefs, if they still exist, have been discovered; many pieces of quartz containing gold have from time to time been found by the miners and others, and one tolerably large piece of quartz showing a good deal of gold is now placed in the Museum of Science and Art, Edinburgh, and is well worthy of attention. The late Duke of Buccleuch ordered a lithographic plate to be made of this interesting specimen, a copy of which will be found in the Observatory Museum. Atkinson, in his “*Decouverte et Histoire de l’Or des Mines de l’Ecosse*,” 1619, mentions that a Mr George Bowes obtained from James VI. a permit to work the gold mines in Scotland, that at Winlocke Head he discovered “a small vaine of gold which had much small gold upon it.” He swore his workmen to secrecy, and after working the vein for some time, carried off to England a considerable quantity of gold; before leaving, he caused the shaft to be closed up and concealed; this vein appears to have been looked for, and is alluded to by several other parties about this time; it has never been re-found. In the preface to a French account of the reign of James V., a translation of which was published in London in 1710, it is said that “in the King’s reign (James V.) gold mines were found in Crawford Moor by the Germans, which afforded the King great sums. The Scots did separate the gold from sand by washing.” And again—“In James V.’s time 300 men were employed for several summers in

washing gold, of which they got above £100,000 English money." In a memorandum by Robert Seton, *temp.* James V., it is stated gold has been found at Newtoun, in Angers (?); Cartburn, in Annandale; Solway Sands, near the new town of Annand; Glen-naip, betwixt Carrick and Galloway; Galloway, in the Barony of Terregles; and in a hill called Colochere Hill; in the Hill of Skrill (Screel of Bengairn ?) "*mucho oro y grandes pedacos.*" As to these localities mentioned by Seton, I have never met with any notice of gold being obtained from any of them other than in the above-quoted memorandum. Gold can always be found in the Wanlockhead district; it is rather wet and dirty work obtaining it; and what with employing men to dig in the alluvium and assist in washing, any I have got myself has cost about a shilling a grain, the intrinsic value being about twopence. Wanlockhead lead contains about five to seven ounces of silver to the ton; the two metals are separated by Pattinson's beautiful process.

I attach lists of minerals to be found in the different localities in the district, so far as I know. I have not a doubt, however, but that the lists can be extended. For instance, I have never found such a common and widely distributed mineral as Garnet, which, I cannot help thinking, must exist somewhere in the district. I must, however, now leave further research in this direction to younger hands, feeling assured that perseverance, particularly in the remoter parts of the district, will be attended with success.

I think it should be one of the first objects of this Society to make as complete lists as possible of all the natural productions of the district. If all societies similar to ours did so, a mass of information would be obtained of the greatest use to all interested in the different branches of Natural Science, and at the same time save specialists an immense amount of unnecessary labour.

DUMFRIESSHIRE.

WANLOCKHEAD (including LEADHILLS).—Anglesite—Arragonite—Asholane—Aurichalcite—Barytes—Calamine—Calcite—Caledonite—Cerussite—Chalcedony—Chalcopryite—Chalybite—Chessylite—Chlorite—Chrysocolla—Dolomite—Erythrine (Cobalt bloom)—Galena—Gold—Greenockite—Hematite—Jamesonite—Jasper—Kupfernickel—Lanarkite—Leadhillite—Limnite—Linarite—Lydian-stone—Malachite—Melaconite—Mimelite—Minium—Mountain-wood—Mountain-leather—Plumbo-calcite—Plumbo-

nacrite—Psilomelane—Pyrites, iron—Pyromorphite—Quartz (rock crystal)—Smithsonite—Strontianite—Susannite—Vanadinite—Vanquelinite—Wad—Zinc-blende.

WESTERKIRK, *Glendinning*.—Antimonite—Calcite—Cervantite—Pyrites, iron—Valentinite—Zinc-blende. *Pseudomorphs*—Cervantite, after Valentinite—Cervantite, after Antimonite.

CANOBIE.—Selenite (Fibrous Gypsum). Coal.

SANQUHAR.—Calcite—Coal—Pyrites, iron.

MOFFAT, *Hart Fell*.—Alum-shale—Selenite.

GALLOWAY.

ANWOTH, *Lackentyre*.—Anglesite—Calamine—Calcite—Cerusite—Chalcopyrite—Chrysocolla—Galena—Malachite—Pitchy Copper Ore—Pyromorphite—Vanadinite (?)—Wulfenite.

BUITTLE, *Craignair*.—Amethyst—Sphene.

„ *Almorness-head*.—Molybdenite.

GIRTHON, *Pibble Mine*.—Anglesite—Cerusite—Chessylite—Chrysocolla—Galena—Malachite—Pitchy Copper Ore—Pyromorphite—Smithsonite—Towanite—Tungstate of Lead (?)

KIRKMABRECK, *Monypool Burn*.—Annabergite—Asbolane—Cerussite—Dudgeonite*—Erythrine—Galena—Kupfernickel—Pyromorphite.

KIRKMABRECK, *Cairnsmore*.—Chalcopyrite.

„ *Creetown, Granite Quarry*.—Epidote.

MINNIGAFF, *Black Craig Mine*.—Calcite—Dolomite, white and purple—Erythrine—Galena—Pyrites, iron—Zinc-blende.

NEWABBEY, *Criffel*.—Allanite—Amethyst—Gadolinite—Magnetite—Pyrrhotine (?)—Sphene.

NEWABBEY, *Kinharvey*.—Psilomelane—Smoky Quartz (Cairngorm)—Wad.

NEWABBEY, *Kirkbean*.—Calcite.

RERWICK, *Auchencairn*.—Chalcopyrite—Chessylite—Chrysocolla—Hematite—Malachite—Pyromorphite.

TROQUEER, *Kirkconnell*.—Barytes—Wad.

„ *Craigbill*.—Hematite—Sphene.

„ *Lochanhead*.—Epidote.

Quartz, Felspar, Mica, and Hornblende, the main constituents of Granite, are of course abundant in the district, but with the exception of the first, are seldom met with in distinct crystalline forms.

* Discovered by the author of this paper.—EDITOR.

Iron Pyrites is a very widely distributed mineral, and may be found almost anywhere ; in the above lists, only localities are given where really good specimens can be got.

II. *On the Anatomy of Arion hortensis.* By Mr JOHN RUTHERFORD
(late Secretary).

It was through some remarks and suggestions of our President, that I was induced to take up the study of the structure of this slug. The whole of the work, including the diagrams, is original.

Arion hortensis belongs to the family, Limacidæ—*Genus Arion*. This slug is very common ; may be found almost everywhere in company with *Limax agrestis* and other representatives of the slug family, and, after a little eye-training, its special characteristics become quite familiar. It has many varieties of colour, its fixed and marked distinctive features being its lateral longitudinal bands, running from the caudal gland along each side of the body, crossing the mantle on the upper margin of the respiratory orifice, and terminating at its anterior edge. It has sometimes a narrow border of grey, rufous, or orange colour. The foot is often tinged with yellow, the dorsal part a darkish grey. Length is from $1\frac{3}{4}$ to 2 inches. It has four anterior processes, two superior, and two inferior. The latter pair I believe to be feelers, in which is located the sense of smell. The superior pair, which are slightly knobbed, are the eyes, the eye proper occupying the knob or apex of the process. It has *cornea*, *crystalline lens*, *choroid*, and *optic nerve* ; is very short-sighted, not having any distinct vision beyond a quarter of an inch. The advantage of these pediculated eyes to the animal must be great, as it can turn in any direction (voluntarily) one eye, or both. The eyes, with their columella, can be drawn into the body by the retractor muscle, which is attached in such a way that the eyeball is first turned round, then the columella is drawn in, exactly as the finger of a glove would be if a string was fastened to its inside point and drawn into the palm. To extract the crystalline lens, snip off the eye with a pair of scissors, put under pressure under the microscope, when the lens will be forced out of its place and will float in the surrounding fluid.

The appendage known as the *mantle* is a fold or overlapping of the integument, in the right border of which is the respiratory orifice. Under the fold, on the same side, is the vent and common

generative orifice. There is a caudal slime gland, with a very short duct. The gland is in the substance of the skin.

After killing the slug, with the scissors cut down the centre of the foot, commencing behind the buccal mass, then pin down to the dissecting table by the edges of skin ; remove the visceral mass, and lay aside in water for future examination. There will remain attached to the skin the *retracted eye*, with its *retractor muscle* ; the cut attachment of the *generative organ* ; the *vent* ; the *heart* ; *pericardium* ; *aorta* ; *vena cava* ; *lung*, with *pleural membrane* ; and the *retractor muscles* of the head and inferior antennæ.

Respiratory System.—Breathing is carried on through the pulmonary aperture which leads into the lung cavity. In inspiration, the muscle which lines the floor of the mantle contracts and bulges it up, and air is drawn in when the muscle relaxes ; the mantle flattens and the air is expelled. The pleural membrane envelops the heart, pericardium, and lung, and is attached to the skin by its border.

Shell.—Molluscs without any external shell are called slugs ; those with external shells are called snails. In slugs, between the muscular floor of the mantle and the outer skin, there is a shell more or less developed. In the black slug, *Arion ater*, it consists of a few granules. The shell of *Arion hortensis* is a little more perfect, the granules being adherent, and measures from 1.50th to 1.32nd of an inch in its longest diameter. The shell is over the heart and forms a protective covering to that organ.

Circulation.—The heart occupies a position in the posterior part of the lung substance, immediately under the rudimentary shell ; it is about 1.12th of an inch in its longest diameter ; is enclosed in the pericardium ; the whole, as well as the lung, is covered by the pleura. The heart is a muscular sac divided into two cavities—an auricle and ventricle. It has a rythmical action, beating about 40 times in a minute, and may sometimes be seen pulsating externally a little to the left of the centre of the mantle. The heart of a frog or fish if removed at once after death from the body will continue to beat for some time. This power of rythmic contraction is sustained by small nerve centres in the substance of the heart, which are called ganglia. If those ganglia be destroyed, rythmic movements cease. I do not know whether the heart of a slug will continue to beat for any time after removal from its natural surroundings ; but I have seen the heart of a slug beat for an hour after the animal had been cut up and all the viscera

removed, the skin being pinned to the table, the heart, with pericardium, lung, and pleura remaining *in situ*. The blood enters the auricle by the pulmonary vein, passes from the auricle to the ventricle, is pumped into the aorta (which arises from the base of the ventricle), and divides into an anterior and posterior aorta. The anterior branch passes the generative organs under the intestine and on to the brain or large nerve centre, as the carotid artery, on its way giving off a branch to the generative organs, and other branches to the foot crop, buccal mass, head, &c. The posterior branch supplies the liver, stomach, intestine, and the posterior part of the generative organs. The blood is returned to the lung by *venous sinuses*, when after passing through the lung is returned to the heart by the pulmonary vein.

Liver.—The liver, or digestive gland, is large in proportion to the other viscera. It is a brownish yellow colour, and divided into two principal lobes. I believe the secretion from each lobe is conveyed to the intestine by separate ducts. It fills the cavities between the lobes of the ovo-sac and the stomach. The hermaphrodite gland, or ovo-testis, is embedded in its substance.

Digestive System.—The mouth, when closed, has a puckered or drawn-in appearance. It is furnished with a ribbed, horny, crescent-shaped superior maxilla, with a posterior projecting plate, which forms the hard palate, and to which the muscles are attached which move it. The mouth opens into the buccal mass or pharynx, which is a rounded muscular lump. From the lower and posterior surface of its cavity a pale diverticulum depends. This is the sac of the lingual ribbon or tongue. Although sometimes called by the latter name, it has no likeness to that on which our ordinary ideas of such an organ are founded, for instead of being a projecting body lying in the cavity of the mouth, it is to some extent a sac, which passes backwards and downwards, the open end opening obliquely upon the floor of the mouth. When this sac is dissected, laid open, and examined, it is found to be covered with small teeth, which have a superior and inferior process on those near the centre line of the ribbon. The inferior process gradually lessens from the centre to the side, and in the side teeth it is wanting. There are 112 rows, each row having 26 teeth on each side of the middle line, and is expressed: $26 + 26 \times 112 = 5824$ teeth, each measuring 1-500th of an inch in length. Below, and overlapped by the open end of the ribbon, is a tooth-like cartilage, hinged, and resembling to some extent the epiglottis. I have had some difficulty in

understanding the physiology of this curious mouth. I think that the jaw is used to snip off portions from the edge of the leaf, and by the action of muscles on the cartilage under the ribbon it is drawn to the front of the mouth, turning the teathy sac inside out to rasp portions from the flat side of the leaf, or it may be used to rasp the leaf when held by the jaw. Behind the buccal mass there is a short œsophagus, through which the food passes to the crop, which is used as a store. It then enters the stomach, when after digestion and mixing with the secretion from the liver, it passes on to the bowel and the vent, which opens externally by the side of the respiratory orifice. When examining the contents of the bowel I found a great number of small intestinal worms, or entozoa.

Nervous System.—Surrounding the œsophagus is a collar of nerve tissue, which may be called the large nerve centre or brain of the animal. It is divided into two divisions—the *supra-œsophageal ganglia*; and the *sub-œsophageal ganglia*. Both are united by bands of nerve fibres. The supra-œsophageal ganglia (which in some measure corresponds to the cerebrum of the higher animals) give off the principal nerves to the head segment, eyes, &c., the first pair going to the inferior antennæ. We know that in the higher animals the first pair are the special nerves of the sense of smell, and if we reason here by analogy we will call the smaller antennæ the organs of smell. The second pair are the optic nerves. The third supplies the retractor muscles of the eye, a branch going to the retractor of the head. The sub-œsophageal ganglia are divided into two portions—an anterior and posterior portion, the anterior giving nerves to the muscular substance of the foot, &c. The posterior gives branches to the body wall, viscera, &c. The beautiful silvery appearance of the nerves radiating from the large nerve centre is very striking, and when once seen is never forgotten.

Generative Organs.—This slug, like many members of this order, is hermaphrodite, *i.e.* it is both male and female, but not self impregnating. The common orifice is under the fold of the mantle in front of the vent. The organs consist of *vagina*; *vaginal prostate*; *receptaculum seminis*; *albuminiparous gland*; *penis sac*; *vas deferens*; *hermaphrodite gland*, with its duct. The principal organ is the gland, which is situated in the left lobe of the liver. It consists of numerous follicles of a darkish colour, held together by connective tissue. The ova and spermatozoa are both formed in

this gland, a common duct leaves this gland and enters the albuminiparous gland near its base, when after receiving the duct of that gland leaves it to form the common generative canal. This canal is composed of the *vas deferens* and *oviduct* united together. The *vas deferens* branches off at the neck of the oviduct, and gradually widens as it enters the penis sac. The seminal receptacle is a pear shaped body connected to the vestibule by a short neck.

It is to be regretted that the diagrams with which I illustrated this paper cannot be reproduced here, as by their aid the various parts described can be much more easily understood.

12th to 16th of November, 1889.

EXHIBITION.

(Description from Standard).

The immediate occasion of this effort on the part of the Society was the reception of the minerals bequeathed to the town by the late Mr W. Baxter, of Glasgow, which have been placed under its care. The minerals have been arranged in cases in the upper room, under the charge of Mr Davidson, Summerhill. There has been brought together also an interesting loan collection of local antiquities, and of Burns and Stuart relics and autograph letters ; and the room downstairs has been converted into a local portrait gallery, in which the works—chiefly engravings, with an admixture of crayons, pencil sketches, photographs, and silhouettes—number about two hundred.

A portrait of Mr Baxter, executed in crayon by his relative, Mr J. R. Ferguson, Dumfries, overlooks his mineral collection. The silver gun of the incorporated trades adorns the gable ; and below it is a wooden panel, with a figure of the donor, King James VI., carved upon it, and a Latin inscription, in which the divine right of kings is asserted, this being the property of Mr Davidson. Mr Wilson, solicitor, Sanquhar, sends a choice collection of stone and bronze celts ; and contributions to the illustration of the same ages are made by Mr James Lennox ; Mr J. H. Rutherford, Ash Bank, Parkgate (who sends a very fine bronze celt found in Tinwald) ; and Mr J. Corrie, Moniaive (bronze pot). The Burns relics include the miniature of "Clarinda," for which she sat at the poet's request, and which was discovered less than a year ago by Mr Barbour, architect ; various books annotated in Burns's hand-

writing, the original MS. of the song, "Gae fetch to me," his masonic apron, &c., the property of Mr James Lennox ; a drinking horn and early edition of his works presented by Mrs Burns to the grandmother of the present owner, Mr J. J. Glover, Hazelwood ; the books being autograph lines and inscription by Burns, which are in possession of the Mechanics' Institute ; a gold brooch, with miniature of Robert Burns, eldest son of the poet, and hair of the three sons, lent by his grand-daughter, Mrs Brown, Dumfries ; letters of "Lovely Polly Stewart," her father's will, &c., belonging to Mr Barbour. Captain Cutlar Fergusson of Craigdarroch has not only sent "the whistle" which his ancestor carried off in the contest immortalised by Burns, but has also allowed the will of Annie Laurie, the beautiful heroine of "Maxwelltown Braes," to be exhibited, we believe for the first time. We give below the text of this quaint and interesting document :

I, Anna Laurie, spouse to Alexr. Fergusson of Craigdarroch, Forasmuch as I considering it a dewtie upon everie persone, whyle they are in health and sound judgment so to settle yr. worldly affairs that yrby all animosities betwixt friend and relatives may obviat, and also for the singular love and respect I have for the said Alex. Fergusson, in caise he survive me I do heirby make my letter will as follows : First, I recommend my soule to God, hoping by the meritorious righteousness of Jesus Christ to be saved ; secondly, I recommend my body to be decently and orderly interred ; and in the third place nominate and appoynt the sd. Alexr. Fergusson to be my sole and only executor, Legator, and universall intromettor with my haille goods, gear, debts, and souns of money that shall pertain and belong to me the tyme off my decease or shall be dew to me by bill, bond, or oyrway ; with powr to him to obtain himself confirmed and decreed exr. to me and to do everie thing for fixing and establishing the right off my spouse in his person as law requires ; in witness whereoff thir putts. ([written?] be John Wilsone off Chapell, wryter in Drumfrise) are subd. by me at Craigdarroch the twenty eight day of Apryle, Jajvij and eleven [1711] years, befor the witnesses the sd. John Wilsone and John Nicholsons his servitor.

ANN LAURIE.

JO. WILSONE, witnes.

JOHN HOAT, witnes.

Mr Maxwell Witham of Kirkconnel enriches the collection with the valuable memorials of the Stuart period from Kirkconnel, and there are a number of deeds and documents connected with another important local family, the Griersons of Lag, referring particularly to Sir Robert of the persecution era. The parapher-

nalìa of the Incorporated Trades is well represented ; an Andrea Ferrara sword, with beautifully fluted blade (the property of Mr J. J. Glover), arrests attention in a small collection of weapons ; Mrs Gilchrist lends, among other things, an exact copy of the Lorne brooch ; Miss Richardson, Shakespeare Street, an impression of the original burgh seal. But want of space forbids that we should dwell at present on these or other exhibits. The autograph letters, however, call for mention. There are two of Carlyle's. One, the property of Mr Watson, Castlebank, was written to a friend in Dumfries during the cholera visitation. The other is in the possession of Mr J. C. McNaught, Queen's Place, and is in these terms :

Craigenputtock, 11th March, 1834.

Dear Sir,—Here are two boxes of old books, which still do not exhaust my stock : if you can change them for me into money, they will be much more easily carried in that latter shape.

Most of them are of very small value, and I have left you to dispose of these according to your own judgment and opportunity : a few I have marked as more notable, or hypothetically worth a Price, which is in general some *thirty per cent.* less than I bought them at in the same second-hand condition. You must do the best you can : I shall see you again in a week or two.

An Invoice is inclosed, which (tho' wrong ordered in the copying) will, if you attend to my *marginal directions*, give you the books somewhat in their actual order and position from top to bottom of the boxes. I keep the original of it here.

The little Box is not my own : as there are but a small number of books in it, perhaps you could get it emptied, and returned to-morrow by the same cart. But at anyrate there will be other opportunities. Only do not use that Box, for it suits a special purpose here.

I remain (in great haste) yours truly,

T. CARLYLE.

Mr M'Kie, Bookseller,

—, Dumfries,

with two Boxes of Books.

Mr McNaught also shews two brief letters of Sir Walter Scott. Two of Allan Cunningham's are contributed by Mrs Gilchrist, Linwood.

Belgrave Place, 15th April, 1835.

Dear Miss Gordon,—I enclose two letters, one to Archdeacon Strachan, and another to the Hon. R. Jamesone, his Majesty's Attorney-General. I have written a third to Mr Dunlop, secretary to the Canada Company ; but it would make more than Lord Dudley Stuart's frank can carry ; it will therefore go to-day with some letters from my brother

by the route you direct. You will see that I have thus introduced you to a good divine, a sound lawyer, and thirdly, to one who has much in his power in the disposal of land. My wife joins me in love to your mamma and yourself. I wish you all success, and bid God bless you and yours.—I remain, very sincerely,

ALLAN CUNNINGHAM.

Miss Gordon.

27 Belgrave Place, London,
16th April, 1835.

My Dear Friend,—I am about to tax the kindness of your nature. A young lady, Miss Gordon, my wife's dear friend and mine, goes with her brother to your land of Promise, with the hope of finding a sheltered nook and a comfortable home. She is amiable and highly respectable, and if you will be so good as befriend her it will be her safeguard among strangers, for your heart is not only warm, but the strength of the law is with you. I have introduced her to Archdeacon Strachan, and given her a note to Mr Dunlop, of the Canada Company.

Some literary reputations have risen and others have remained stationary since I had the pleasure of seeing you here. Of the former, one is near and dear to yourself; the fine true feeling and exquisite perception of beauty in her works have made them general favourites. I dare not say that I have risen, but if my books be not good they are read. [Songs?]. The Lives of the Painters and the Life and Works of Burns have sold very well, though these merciless curs the critics snarled a little. I am afraid they will have more cause to snarl at my next work, the Lives of the British Poets. Do, my dear friend, write me a word of encouragement about this undertaking. I have some misgivings. My wife unites with me in love to you.—I remain, my dear friend, yours ever and ever,

ALLAN CUNNINGHAM.

The Hon. Robt. Jamesone,
Attorney-General, &c., &c., &c.

An old placard prominently displayed (and which is in possession of Mr M'Naught, Queen's Place) recalls the story of the abortive duel and the law suit. In the placard, which is dated 1822, Mr Vair, wine merchant, Leith, denounces Mr David Armstrong, writer, Dumfries (afterwards Provost of the burgh), who was his rival for the hand of Miss Grieve, as "a rascal, a liar, and a coward."

The portrait gallery is enriched with some early sketches by Thorburn. A picture which is attracting considerable attention is a spirited caricature of Provost Fraser, at one time proprietor of the King's Arms Hotel, Dumfries, in which the Provost is represented in the form of an ass carrying his own black servant. The

history of this picture is as amusing as the sketch itself. In 1849 a gentleman named Frith was in the habit of caricaturing any Dumfriesian of note whom he might observe on the street, these portraits being usually hung on his shop window. Among others caricatured was Provost Fraser, who, being very indignant at being dealt with in such a manner, threatened summary vengeance with fire-arms, the result being that on the following morning the sketch now on exhibition in the Society's rooms appeared on Frith's window.

The local portrait gallery has been a source of much attraction to visitors. Mr Barbour, with whom this idea originated, and on whom the chief work of forming the collection devolved, has reason to be gratified with the success which has attended his effort. In the place of honour over the mantelpiece, the Earl of Mansfield, the eminent forensic lawyer and Lord Chief Justice, fittingly symbolises the majesty of the law ; and grouped in the same neighbourhood are representatives of some leading local houses, among them the late Duke of Buccleuch—of whom there is also a charming engraving as a child in a family group—the late Marquis of Queensberry, “the Union Duke,” a caricature sketch of “Old Q”; William, fifth Earl of Nithsdale, and his Countess, the Lady Winifred Herbert, who so cleverly managed his escape from the Tower of London. “The Admirable Crichton” typifies in his own person all learning and accomplishments ; and in Charles Kirkpatrick Sharpe we have a modern representative of versatile genius. The most striking symbols of the county's connection with art are Thorburn's early sketches and miniature portraits of the late Mark Johnstone of Stonehousecroft, Maxwelltown (the father of Mrs Symons) ; of the late Mr James Bogie, nurseryman (one of the party who undertook the duty of removing the mortal remains of Burns to the Mausoleum) ; and of the late Mr Rae, farmer in Gateslack. There is also a portrait of the late Mr Dunbar, the sculptor of the sleeping child in St. Michael's Church. The walls bear eloquent testimony to the skill of a Dumfries artist, Mr J. R. Fergusson, with the crayon, a department in which he has acquired a just celebrity. Besides his portrait of the late Dr Grierson there are hung large crayons by him of Carlyle and of the late Mr M'Dowall, both excellent likenesses. And of his facility in the use of oils a small painting of the late Mr John Jackson, solicitor, affords a very favourable example. Near to that of Dr Grierson are hung portraits of the late Sir William

Jardine of Applegarth, first president of the Dumfries and Galloway Natural History and Antiquarian Society, and of the late Dr Gilchrist, a more recent occupant of the office. There is also a portrait of the late Mr Starke of Troqueer Holm, the immediate successor of Sir William. The commanding figure in the local world of letters as here represented is of course that of Burns. Of the poet himself there are nearly a dozen engravings. Two of these (the property of Mr Maxwell, bookseller, and of Mr Gibson Starke of Troqueer Holm) bear inscriptions in the handwriting of the poet's sons. Grouped around the central figure are portraits of members of his family and literary friends; among the latter being Dr Currie, his first biographer; the Rev. Dr Blacklock, a native of Annan, and the blind poet-minister of Kirkcudbright; Mr Syme of Ryedale; the Earl of Glencairn; and an engraving of Mr Martin Hardie's striking portrait group, "Burns in Edinburgh." A photograph is also shewn of Miss M'Murdo, "Phyllis the Fair" of his song. In "the poet's corner" we find further three portraits of Allan Cunningham, one of them being a sketch which was in the collection of the late Sir James Gibson Craig; Henry Scott Riddell, a native of Ewesdale, and author of "Scotland Yet;" Thomas Aird, the friend of Ayton; and James Hogg, who was successively a shepherd and a farmer in Dumfriesshire before settling at Altrive. General Sir Robert Laurie, who represented Dumfriesshire in Parliament from 1774 until his death in 1804, and one of the three who took part in "the Whistle" contest at Friars' Carse, is also entitled to be ranked among the friends of Burns. Near his portrait is that of a descendant of his successful rival on that occasion, Mr Cutlar Fergusson of Craigdarroch, M.P. for the Stewartry, and a member of Earl Grey's Reform Ministry. The Senate has other representatives in the persons of the late Mr J. J. Hope-Johnstone, M.P. for Dumfriesshire; Mr Ewart, M.P. for the Dumfries Burghs; and Mr R. Milligan, brother of the late Mr Milligan of Westpark, who sat for Bradford in the Parliaments of 1847 and 1852. In Sir Thomas Kirkpatrick of Closeburn, Sheriff of Dumfriesshire, and Mr Andrew Crosbie, advocate, son of a Provost of Dumfries, and the "Pleydell" of Scott's "Guy Mannering," we have additional pillars of the law. Divinity is strongly represented. Perhaps the most attractive portrait in this series is a remarkably fine engraving of Edward Irving. There is a complete set of the ministers of the New Church of Dumfries, several of them gentlemen of distinction; and among others we

note the late Dr Wood, Dumfries ; Dr Dunbar, Applegarth ; Dr Robert Gordon, "the sweet preacher," a native of Glencairn ; Dr Wightman, of Kirkmahoe ; Dr M'Vicar, of Moffat ; Mr Gatt, of Graitney ; and a medallion of Dr Scott, of St. Michael's. Besides Mr Fergusson's crayon of Carlyle, there are a beautiful interior view of Chelsea house, with Mr and Mrs Carlyle at home, and an engraving of the Maclise portrait. Of Hugh Clapperton, the African traveller, a portrait is lent by his cousin, Miss Clapperton, Annan. Sir John Ross, the Arctic explorer, is also represented ; and there are portraits of Paterson, the founder of the Bank of England, and Telford, the engineer. Many faces of leading citizens of a past generation are figured on the walls. The silhouettes by Firth of prominent Dumfriesians of forty years ago we have already noticed. Besides the caricature of Provost Fraser there are characteristic portraits of Dean Hamilton, Mr Irving of Gribton, and Mr Sinclair, bookseller. A few portraits are also introduced of notables who were more slightly connected with the district ; among them being Queen Mary, Prince Charlie, "the great Marquis" of Montrose, who captured Dumfries for the Royalists in 1644, a transaction of which a contemporary printed account is exhibited upstairs ; Claverhouse, "the gallant Graham" of the Cavaliers, the heartless persecutor of the Scottish peasantry. A collection of Wedgwood cameos, from Flaxman's designs, illustrate another form of art.

Among the exhibits in the antiquarian section, in addition to those already noticed, we may mention the immense punch bowl of the Incorporated Trades, lent by Mrs D. Dunbar, Langlands ; the ram's horn snuff mull presented to them by the late Captain M'Dowall, now the property of Mrs Sloan of Elmbank ; the minute book of the seven incorporations, extending back to 1612, lent by Mr Primrose of Primrosehill ; that of the Glovers, belonging to Mr James Lennox ; a burgess ticket of 1773, in favour of an ancestor of his own, lent by Mr J. J. Glover, Hazlewood ; a book by the late Henry D. Thoreau, bearing the author's autograph, and also that of Carlyle, who presented it to Aird, the property of Mr Cumming, Albany. In the same case with this book and the Carlyle and Cunningham letters are a silhouette of Lieutenant Allan, of the Canadian Queen's Rangers, and an edition of "The Gentle Shepherd" edited by him, lent by Mr Allan, chemist, Dumfries. Mr Henry Gordon exhibits the MS. of Train's history of the Buchanites, with annotations and criticisms in the

hand of Andrew Innes, the last survivor of the sect; and Mr J. J. Glover, one of the spinning wheels made by them during their stay in Galloway. A cutlass which belonged to Paul Jones is exhibited by Mr W. A. Dinwiddie; Mr Lennox has two pistols that were also his property; and Mr J. Corrie, Moniaive, an imperfect pistol believed on good evidence to have belonged to James Renwick, the martyr. The "jougs" from Moniaive Cross are also on view, and beside them is hung the iron belt, with handcuffs attached, which was made for the security of Haggart, the murderer and prison breaker.

Among the few natural history objects which have been added for the occasion to the Society's collection may be mentioned a white hare, of unusual size and very pure in colour, which was shot on South Cowshaw, Tinwald, more than a dozen years ago.

Interesting explanations of the use of electric and galvanic apparatus were given by Messrs John Rutherford (late secretary) and John Neilson, M.A.

5th of December, 1889.

Mr JAMES G. H. STARKE, M.A., in the Chair.

New Members.—Mr John Primrose, solicitor, and Mrs John Craig, of Rotchell Park.

Donations.—Mr David Sharp, F.R.S., presented his work on Insecta; the Journal of the Elisha Mitchell Scientific Society of North Carolina; Transactions of the Stirling Natural History and Archæological Society; Report of the British Association meeting at Newcastle.

The Chairman congratulated the Society on the success of the recent Exhibition, and intimated that the Council had requested Mr James Barbour to endeavour to make a beginning of a collection of portraits of local celebrities to be permanently placed in the Society's rooms.

COMMUNICATIONS.

- I. *Additional Notes on the Flora of Wigtownshire, with Notes on Moffat, Dumfriesshire, and Kirkcudbrightshire Plants.*

By Mr JAMES M'ANDREW.

As our Natural History and Antiquarian Society should be interested in the Flora of Wigtownshire with a view of eventually

making as complete a list of the plants of West Galloway as possible, I need no apology for again laying before you some additional information on the Flora of our neighbouring county. Though much yet requires to be done towards the compilation of a full list of Wigtownshire plants, yet I am happy to say that material for this purpose is yearly accumulating; and if the information at present available for this purpose were utilised and catalogued, it would present a very respectable Flora of Wigtownshire.

During last July and August (1889) I spent a few weeks at the Isle of Whithorn and Garliestown—places in Wigtownshire I had not formerly visited. I botanised almost the whole seaboard from Burrowhead to Orchardton Bay, besides extending my walks several miles inland. The Isle of Whithorn affords to visitors quietness and bracing sea air; while Garliestown, from its situation at the head of its bay, and from the wooded nature of its vicinity, does not possess such bracing air, though it has numerous compensating advantages. Many of the fields in the south of the Machars have “scraggy knowes” where the common wild plants luxuriate undisturbed. In the hollows between these ridges are many small lochs containing aquatic plants, almost each loch having its own distinctive vegetation. The Flora of the south of the Machars is entirely lowland.

The following plants are new records for Wigtownshire :

1. *Thlaspi Arvense*—In abundance in some fields between the Isle of Whithorn and the Gamekeeper's Cottage.

2. *Allium Vineale*—In plenty all along the heughs between Cruggleton Castle and Port Allan.

3. *Ranunculus Sceleratus* and 4, *Valerianella Olitoria*—Both rare, at Port Yerrick.

5. *Medicago Lupulina*—In abundance on the roadsides, in fields, and in waste places all along the shore from Orchardton Bay southwards.

6. *Astragalus Hypoglottis*—About Burrowhead, and in greater plenty and in fruit on the grassy heughs east of the Isle.

7. *Convolvulus Arvensis*—On the roadsides south of Whithorn and at Garliestown.

8. *Æthusa Cynapium*—Among corn on Drummorral Farm; rare.

9. *Euphorbia Exigua*—On the Isle Farm; rare.

10. *Sanguisorba Officinalis*—North of Eggerness Point; not common.

11. *Calamintha Clinopodium*—In several large patches north side of Garliestown Bay.

12. *Thalictrum Flavum*; 13. *Arenaria Serpyllifolia*, var. *heptoclados*;

14. *Atriplex Littoralis*, var. *marina*—all in the same locality—Garlies-

town Bay. This *Atriplex* occurs in great profusion south of Garliestown.

15. *Lepidium ruderales*—Among corn on Penkill farm.

16. *Carex intermedia*—In several marshy places round the Isle.

17. *Carex paniculata*—Very luxuriant in High Arrow Loch, and in a loch north of Cutreoch farm, &c.

18. *Carex teretiuscula*—Prestrie Loch, &c.

19. *Carex flava*, var. *cyperoides* (Maison)—Garliestown Curling Pond.

20. *Chara polyacantha*—This is an interesting find. Mr Coles found it in 1883 on Culdoch Moor, Kelton, Kirkcudbrightshire. It has been found elsewhere in Scotland only in Fife and Roxburgh. I found it in two lochs near the Isle of Whithorn—in the loch north of Cutreoch farm, and in a loch immediately north of Burrowhead. Where the water is comparatively shallow, this chara almost entirely covers the bottom, and a characteristic of the plant is the way in which it spreads out its branches into the deeper water, “seeking rest and finding none.”

In addition to the above twenty new records, I may name a few of the rarer and more characteristic plants of the district. Garliestown Bay proved the most fruitful in the variety and luxuriance of its vegetation. Here such sea shore plants as *Samolus valerandi*, *Carex vulpina*, *Cenanthe Lachenalii*, &c., attain a great size. Port Yerrick Bay stands second in productiveness. At the south end of it I found a large patch of *Artemisia maritima*. *Carduus crispus* is common, and *Sium angustifolium* grows in lochs and ditches to the west of the Isle. South of Garliestown, along with *Atriplex littoralis*, var. *marina*, grows *Suaeda maritima* in great profusion. About the Isle I gathered *Scrophularia aquatica* in abundance in Drummullin Burn, running into the milldam, in which *Chara vulgaris* and *Potamogeton crispus* were found. *Crithmum maritimum* grows on the rocks about Burrowhead and east of the Isle. *Ononis spinosa*, *Helianthemum vulgare*, *Genista tinctoria*, *Ulex gallii* are frequent. *Juncus obtusiflorus* and *Juncus maritimus* are found in several places along the shore; *Spergularia rupestris* near the Isle Cairn; *Statice limonium*, var. *bahusiensis*, from Orchardton Bay to Garliestown; and *Epilobium hirsutum* frequent about Garliestown. In Eggerness Wood are found *Circœa lutetiana*, *Solidago virga-aurea*, *Mercurialis perennis*, *Hippophaë rhamnoides*, *Scirpus lacustris*, in Palmallet Pond; and *Typha latifolia* in Prestrie Loch. *Scolopendrium vulgare* grows in plenty by the sides of two ditches—one from Penkill Farm to Garliestown Bay, another from Palmallet Pond to the shore. *Asplenium adiantum nigrum* grows on dykes between Garliestown and

Millisle and about Eggerness Point. There is nothing new to be remarked about the cryptogamic flora of Wigtownshire.

The Rev. James Gorrie, F.C. Manse, Sorbie, who is well acquainted with the botany of his own and neighbouring parishes, sends me a list of a few plants, among which are other two new records for the county—1, *Adoxa moschatellina*, near Sorbie village; and 2, *Viburnum opulus*, at Waulkmill.

Also, in September last Mr Charles Bailey, of Manchester, botanised in Kirkcudbrightshire and Wigtownshire, chiefly among the Rosæ and the Rubi, but the result of his work has not yet been published.

Mr John T. Johnstone, secretary to the Moffat Field Club, has sent me a list of Moffat plants gathered by himself, as new records for Dumfriesshire. These are: *Sagina procumbens*, var. *spinosa*—near the Beef Tub; *Hieracium auratum*—Moffat Water; *H. Sparsifolium*—Craigmichen Scaurs; *Ajuga pyramidalis*—Black's Hope; *Saxifraga nivalis*—Black's Hope. The Rev. E. F. Linton, of Bournemouth, visited the Grey Mare's Tail during the past summer, principally in search of *Hieracia*, but he has not yet published a list of his gatherings in that locality.

The following plants have been recently confirmed from the Moffat district, chiefly by Mr Johnstone himself: *Thalictrum minus*, *Silene maritima*, *Cerastium alpinum*, *Saxifraga oppositifolia*, *Sedum rhodiola*, *Calamintha clinopodium*, *Saussurea alpina*, *Hieracium saxifragum*, *Hieracium pallidum*, *Hieracium prenanthoides*, *Crepis succisæfolia*, *Oxyria reniformis*, *Salix herbacea*, *Habenaria viridis*, *Veronica montana*, *Festuca ovina*, var. *rubra*, *Woodsia ilvensis* (from Corrieferran), *Cystopteris fragilis*, *Aspidium lonchitis*, *Nephrodium dilatatum*, with its vars. *dumetorum*, *collina*, *tanacetifolia*, *robusta*, *grandidens*, *micromera*, and *valida*. These last were gathered by Mr James Anderson, Moffat.

The following plants recorded from the Moffat district about 30 years ago, chiefly by the late Mr John Sadler and the Rev. W. Bennet, have not been recently confirmed, and await re-confirmation: *Lychnis viscaria*, *Alchmilla alpina*, *Saxifraga aizoides*, *Circea alpina*, *Arctostaphylos uva-ursi*, *Pyrola secunda* (this has been found at Beld Craig since Mr Sadler's time by the late Professor Balfour's class), *Trientalis europæus*, *Tofieldia palustris*, *Juncus triglumis*, *Juncus castaneus*, *Juncus bifidus*, *Carex rupestris*, *Carex rigida*, *Carex capillaris*, and *Lycopodium annotinum*. I am afraid that the names of the majority of the above mentioned

plants ought now to be erased from the Flora of Dumfriesshire. However, after finding *Saxifraga nivalis* in the Moffat district it is to be hoped that Mr Johnstone's diligence may yet be rewarded by a re-confirmation of several of the above plants.

Mr Charles Scott, late of Terregles Gardens, and now at Netherby Gardens, Longtown, has sent me lists of mosses and Hepaticæ gathered at Penton Linns, on the borders of Dumfriesshire; as also a list of some flowering plants, but with the exception of *Neottia nidus-avis*, and *Epipactis latifolia*, they are all common.

The only plants I have to record as new from Kirkcudbrightshire are (1) *Hieracium sparsifolium*, gathered by Mr Coles at Halfmark, Carsphairn, in July, 1884; and (2) *Hieracium holosericeum*, gathered by myself several years ago on Milldown, Kells Range. Mr Coles also records this year a new station for *Osmunda regalis* near Gatehouse.

II. *Notes on the Diamond Mines and Gold Fields of South Africa.*

By MR GEORGE F. SCOTT ELLIOT, M.A.

The Central Mine at Kimberley is one of the most astonishing monuments of human industry in the world. It is an enormous excavation, large enough to contain the whole of Trafalgar Square and deeper than the Nelson Column. Moreover, this gigantic pit is not by any means the whole of the mine. The workings are now carried on wholly underground and extend to a depth of 800 feet. They consist of narrow tunnels, up and down which Kaffirs, in very simple clothing, are perpetually shoving trucks.

The diamondiferous blue earth is first exposed to the rain and sun for some months. This exposure disintegrates it, and being subsequently washed, the diamonds are easily picked out.

The De Beer's Mine is almost as large as the Central. It lies to the south-east of the Central, and is an irregular ellipse some 1020 feet long by 480 feet broad.

Du Toit's Pan Mine lies to the south-west of De Beer's and is also elliptical in shape, with a strong projection inwards at one point. Its long axis lies E.N.E. and W.S.W., and it is about 2000 feet long and 1000 feet across.

Bultfontein is much smaller and circular in shape and lies a little to the south-west of Du Toit's Pan. Diamonds are also found in small quantities at other points near Kimberley, viz. : Olto's & Taylor's Kopje, Yager's fontein, &c. Diamonds are also

found in considerable quantities in a coarse conglomerate on the banks of the Vaal River. The stones in this conglomerate are all water-worn and about the size of a hen's egg. They appear to begin suddenly at Warrenton and Sixteen streams, and are found along its course for a considerable distance. Probably the river has cut into some mine similar to those at Kimberley, and the diamonds have been washed out of it. It is worth noting that at Warrenton this conglomerate is 60 or even 100 feet above the present bed of the river.

A very remarkable point about the occurrence of these mines consists in their being distributed along a narrow belt of country. This runs N.N.E. by S.S.W., and is about 80 miles long and 2 or 3 miles broad. Such a distribution may perhaps point to a line of weakness, along which volcanic craters were formed. It is now generally admitted that the diamond mines are simply volcanic necks or pipes, and they appear to occur, so far as I could judge, about the epoch of the Kimberley shales.

The following sections shew the rocks encountered in the shafts where records were kept :

	<i>Kimberley Central.</i>	<i>De Beer's, No. 1.</i>	<i>De Beer's No. 2.</i>
Débris	A few feet.	A few feet.	—
Red Sand	3 „	3 „	3 feet.
Dolerite	40-50 „	95 „	63 „
Black and other Shales	240-250 „	195 „	225 „
Amygdaloidal	626 „	?	395 „
Ancient	Diabase of Dunn.	?	Not bottomed.

The sections of De Beer's are peculiarly interesting, as they shew that the dolerite thins out as one proceeds away from the mine. This is also shewn, though not so well, at the Central Mine, as the bed of dolerite there is 6 feet thicker as exposed at the edge of the mine than it is where encountered by the shaft at some little distance from the edge. This thinning out of the dolerite, and especially its upward course from the mine, as well as the fact that it did not extend over the blue ground, tend to prove that it proceeded from the openings now filled by diamondiferous earth. The black shale below is also hardened (as one would expect), though I could not see the junction to tell if there was a special hardening there. I may mention here that the edges of the black shale are in the Central and Du Toit's Pan inclined upwards at an angle of some 45°. This is clearly shewn also at

the small mine, St. Augustine's, near the Central. Though this may be the result of a lateral thrust, it seems more simply explained as the result of volcanic action. Hence if we suppose the above reasoning correct, the period of formation of the craters is fixed as the epoch of the deposition of the Kimberley shales by the occurrence of this dolerite contemporaneously with the shales.

The next point of interest is to know whether the diamondiferous blue earth occurs really *in situ* or has been washed in from above. I am strongly inclined to the latter view, and for the following reasons :

1. The blue earth has no distinctively igneous appearance whatever.

2. Though in the case of St. Augustine's Mine the part of the blue near the edge of the pit is hardened, there is generally no sign of the blue having been ejected from below, and it certainly does not alter the rocks with which it is in contact. Usually speaking, those parts of the blue earth which are in contact with the surrounding strata are marked by a soft jumbled or "soapy" condition.

3. Mr G. R. Lee, of Kimberley, shewed me a piece of lignite found in the blue earth, and he also told me that he had found limestone shells apparently unaltered in the blue earth.

It appears therefore very probable that the blue earth has simply been brought in from above. There are even many reasons which tend to shew that the whole of the craters were subaqueous. The Kimberley shales have all the appearance of a deposit formed in deep and quiet water. One must also remember that they form the starting point of the fresh water beds of the Caroo formation and the Stormberg Beds (sandstones and coalmeasures), all of which are distinguished by a remarkable horizontality of the strata, and which attain a thickness of 2000 feet on an average. A glance at the map of South Africa shews a gigantic mountain chain within 80-120 miles of the coast and rising to an average height of 7000 feet above the sea. This range (the Drakensberg) includes such mountains as the Font aux Sourees, 10,000 feet ; the Giant's Castle, 9657 feet ; and Cathkin Peak, 10,357 feet. Now Kimberley is only 4200 feet above the sea. The basin of the Vaal River in fact is bounded by the Drakensberg, then by a continuous series of mountain ranges, under different names (Stormbergen, Bamboesbergen, Kikvorschbergen, Nieuwveld, Roggeveld, Gnaap, &c.), which run all round the southern corner of the continent at

from 80 to 170 miles from the sea. We have no reason to suppose that the deep and narrow gorges through which the Orange River now makes its way out of these mountains to the west always existed ; but we have every reason to think that these mountains were at one time much higher than they now are. If, in fact, one tries to realise this semicircular rim of mountains with the whole drainage of the Orange River enclosed as a gigantic lake within it, one will, I think, be able to explain the deposition of the Kimberley shales, Caroo and Stormberg Beds, which have a so remarkably regular and uniform appearance. The strata are perfectly horizontal now through most of their course, and the Caroo Beds, as well as at anyrate the coal beds of the Stormberg, are fresh-water deposits.

It follows from this that Kimberley must have been during part of this period at the bottom of a vast inland lake, and if I am right in placing the formation of the craters as closely succeeding, if not during the deposition of, the Kimberley shales, the volcanoes must have been subaqueous. The craters would therefore, after the lava had been ejected, become gradually filled up by mud (possibly tufaceous) containing organic remains. There is no reason, however, to suppose that volcanic action ceased altogether. It is possible that volcanic gases or steam continued to pass up through this porous mass of finely divided sediment.

Perhaps the peculiar veins found in the diamondiferous blue earth show that this really was the case. In St. Augustine's mines, as already stated, there is a band of hardened blue running round the edge of the mine. In De Beer's there is what is called "the Snake," which runs right across the mine from S.E.-N.W., and of a peculiar structure. In Du Toit's Pan there is an isolated laminated mass of rock of a peculiar kind (called Mount Ararat) in the centre of the blue earth, with three veins of hardened blue earth running across the mine from it to the sides. In the central mine there is a vertical narrow fissure, filled apparently by very hard blue earth, which appears to traverse the surrounding rocks in the direction of De Beer's mine.

I have not yet received a description of the petrological character of these veins, and therefore cannot say more than that it seems to be probable that they are due to the action of volcanic gases at a great heat and pressure penetrating the porous blue earth along certain lines or crevices. Moreover, such an action of volcanic gases would perhaps explain the formation of diamonds

from the organic remains in the sediment quite as well as anything that our present ignorance of the subject could suggest.

Goldfields.—It is almost impossible to exaggerate the richness of the Transvaal so far as precious metals are concerned. Gold occurs almost throughout its whole extent. Coal is found also over a very large area, while ironstone is common. Silver and copper, lead and cobalt also exist at different places in payable quantities.

Gold occurs in three distinct forms.

1. *As quartz or reef gold in veins amongst quartz rocks and very often in granitic rocks.*—Most of the Barberton mines consist of this kind of gold-bearing quartz rock, and the gold from the Waterberg Mountains, Swaziland, part of that from Bechuanaland and Matabeleland appears to be of this nature. This must of course be the original form in which it is found, and it is not surprising that apparently the whole district occupied by the oldest rocks in South Africa (viz., the North of the Transvaal, Matabeleland, and probably the whole country to the north as far as the Zambesi) contains gold. It appears to be invariable with primary rocks in this part of the world that they contain gold. Thus gold has been found in the Table Mountain granite, and also the granites and gneisses of Madagascar (probably of the same formation as those on the opposite African coast) contain gold.

2. *As alluvial or "placer" gold that is in large or small quantities in sand or gravel washed by water out of its original state.*—A noteworthy feature of the alluvial gold in South Africa is its occurrence at the Devil's Kantoor (*i.e.*, place of business), where it is found in sand almost on the summit of the highest mountain in the neighbourhood, showing that there has been an enormous amount of denudation in the surrounding district. It is also found at the Knysna between Cape Town and Port Elizabeth, apparently in connection with the granite of Table Mountain or some of the rocks which accompany it. I was, however, unable to visit either of these localities.

3. *In the "banket" of Witwater's Rand and Klerksdorp.*—This form appears to be peculiar to South Africa. The name is derived from a peculiarly horrible kind of sweetmeat something like almond rock which is much appreciated by the Dutch. It is in reality a coarse conglomerate consisting chiefly of quartz fragments, and containing gold in the matrix. I was only able to pay a very hurried visit, but the following notes may be of interest. At Klerksdorp the banket is found on both sides of a marked

anticline. Near the town it is found dipping west at an angle which appeared to be about 45° in the mine seen by me ; on the Nooitgedacht property on the other hand, about 3 miles off, it is found dipping east at from 12° to 60° .

At Johannesburg I was, after much difficulty, able to visit the Weinmer and Ferreira properties. Here the accompanying rocks, chiefly schists, a very hard limestone, and sandstones, dip south at a very high angle, usually about 80° (though in places only 45°). In the properties I saw there were about 7 of these belts of conglomerate interbedded with sandstones and usually 2 or 3 feet thick ; a thin belt of sandstone is interleaved with one of these belts of conglomerate. The few inches of sandstones in contact with the conglomerate are hardened slightly, and also contain gold. It is said that this conglomerate has been traced to Klerksdorp from Johannesburg, and it is also said that banket exists at Amsterdam considerably to the west, but I could not verify these statements.

From the manner in which it occurred with sandstones it can scarcely be doubtful that it is an ordinary water-formed conglomerate. (Mr Ballot of Rolfontein showed me a small shell embedded in banket which would of course prove this.) It has in all probability been formed along the shore of some great inland sea, and its position both in time and space are in favour of the existence of such an inland sea as that mentioned above. I found the strata to the North of Pretoria at the Macaliesberg Mountains again dipping north, which if I was right in recognising some of the Johannesburg rocks would prove that banket should exist somewhere near.

A series of sandstones and coalmeasures overlie the primitive auriferous rocks over a large area. Instead of being inclined at a high angle, they are horizontal or slightly folded. The coal is found and worked at Boksburg, twelve miles from Johannesburg. I again saw it worked at Middelburg, and further south at Errnelo. The whole country from Middelburg to Lake Chrissie and thence some distance to the south of Errnelo consisted of these sandstones and coalmeasures. The coal lies close to the surface, and the district being conveniently cut up into small valleys, one often finds the coal cropping out in the bed of the streams.

9th of January, 1890.

Mr ROBERT MURRAY in the Chair.

New Members.—Mr Samuel McKerrow, Boreland of Southwick, and Mr John Proudfoot, Ivy House, Moffat.

Donations.—A Paper on Recent Experiments on the Vision of Arthropods, by Mr David Sharp, F.R.S., and the Essex Naturalist for September, 1889.

COMMUNICATIONS.

I.—*Meteorological Notes in Dumfries for 1889.* By Rev. WILLIAM ANDSON.

Meteorological Observations taken at Newall Terrace, Dumfries, during the year 1889. Elevation above sea level 60 feet.

Months.	BAROMETER.				Self-Registering Thermometer in shade.				RAINFALL.				HYGRO-METER.		Temperature of Dew-point.	Relative Humidity = 100.	
	Highest in Month.	Lowest in Month.	Monthly Range.	Mean for Month.	Highest in Month.	Lowest in Month.	Monthly Range.	Mean Maximum.	Mean Minimum.	Mean Temp. of Month.	Days on which it Fell.	Heaviest in 24 Hours.	Total Amount.	Mean Dry.			Mean Wet.
1889.																	
Jan.	30.045	29.217	1.428	30.107	53.7	24.5	29.2	44.5	35.5	39.9	19	0.55	2.44	39.5	58.3	36.8	90
Feb.	30.444	29.039	1.405	29.880	52.5	20.5	32	43.3	32.3	37.8	18	0.33	1.82	37	35.3	32.9	85
Mar.	30.550	28.990	1.650	29.942	57.5	20.5	37	47.2	34.5	40.8	14	1.22	2.42	40.1	37.2	33.6	77
April	30.113	29.150	0.963	29.736	60.6	31.7	28.9	50.6	38.1	44.3	16	0.51	2.32	43.8	41.2	38.1	80
May	30.154	29.430	0.724	29.807	78.5	40	38.5	65.2	46.6	56	16	0.66	3.46	54.2	51	47.9	79
June	30.521	29.720	0.801	30.071	82.4	37	45.4	70.9	48.7	59.8	8	1.22	1.88	59.2	54.9	51	75
July	30.490	29.421	1.069	29.902	79	40.5	38.5	67.8	47.9	57.8	16	1.14	4.79	57.9	54.2	50.9	78
Aug.	30.261	29.135	1.126	29.770	72.2	40.6	31.6	63.1	50.5	57.7	25	0.75	4.29	56.6	53.9	51.4	83
Sept.	30.500	29.529	0.971	30.022	73.5	36.2	45.3	62.5	45.3	53.9	11	0.66	1.69	52.9	50.5	49.3	87
Oct.	30.365	28.445	1.920	29.661	62	31	31	53	40.3	47	21	0.89	5.16	46.3	44.7	42.8	83
Nov.	30.031	29.100	1.531	30.136	61.5	25	36.5	49.2	38.3	43.7	17	0.55	1.80	43.7	42.5	41	90
Dec.	30.725	29.103	1.549	30.064	53	26.2	26.8	44.1	33.4	38.7	21	0.50	3.10	38.6	37.6	36.2	90
Year	30.725	28.445	2.280	29.925	82.4	20.5	61.9	55.1	40.9	48.1	202	1.22	35.17	47.5	45.1	42.4	83

Directions of the Wind during the Year.

N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Var. or Calm.
23	91	79	58	42	210	74	118	29

Barometer.—The highest reading of the barometer occurred on the 5th December, on the evening of which day it stood at 30·725 inches—the highest reading for the last four years. The lowest reading was on the 7th October, when the mercury fell to 28·445 in. On that occasion a very deep depression moved from south-west to north-east, the centre of which passed over the north of Ireland and the extreme south of Scotland, and about 9 A.M. was very near Dumfries. A large amount of cirrus cloud in the afternoon of the previous day, with a backing wind and a falling barometer, gave premonition of the approach of a cyclonic disturbance; and the fact that at the hour mentioned, the wind, when the barometer was at the lowest, was comparatively moderate, though it had been very strong and squally during the night, was an evidence that the centre of the cyclone was then passing over this district. Between 9 P.M. on the 6th and 9 A.M. on the 7th, twelve hours, the fall in the barometer was 1·072 in. The range for the year was 2·280 in., and the mean pressure (reduced to 32 deg. and sea level) was 29·925 in.—very nearly the average of the three previous years. Low barometer readings, ranging from 28·9 in. to 29·2 in., occurred in January, February, March, April, August, November, and December, and were for the most part accompanied by storms of wind and rain, but the year has not been exceptional in this respect, and in no case has the mean pressure of any month fallen below 29·661 in., which happened in October, the month in which most rain fell. In January, June, September, November, and December the mean pressure exceeded 30 in., and in all these months the weather was of a favourable character.

Temperature.—The highest temperature of the year was recorded on the 22d June, when the maximum reading of the thermometer was 82·4 deg., as compared with 83·6 deg. on 26th June, 1888, and 87 deg. on 25th June, 1887. It is worthy of remark that the highest single day readings during the past three years have occurred in June, about or shortly after the summer solstice. The mean temperature of June last was also the highest of the year, viz., 59·8 deg., as compared with 57·8 deg. in July, and 57·7 deg. in August, though as a rule the highest mean temperatures usually occur in July. From the 14th June to the 6th July, there was very bright sunny weather, during which the maximum readings of the thermometer ranged from 64 deg. to 82·4 degs., and the minimum from 46 deg. to 54 deg., and no rain fell, and in all during the summer there were 46 days on which the maximum

readings exceeded 70 deg., in contrast with 14 days in 1888, and 40 days in 1887. The lowest temperature of the year was recorded on 10th February and 4th March, on both of which the minimum reading was 20·5 degs., as compared with 13·3 deg. in February, 1888, and 21 deg. in December, 1887. Annual range of temperature, 61·9 deg. The month of lowest mean temperature was February, with a record of 37·8 deg., and December came next with 38·7 deg., and January third with 39·9 deg. In 1888 the lowest mean temperature was also in February, and the next lowest in March. There were 55 nights on which the thermometer fell to 32 deg. and under, with an aggregate of 193 degrees of frost. This compares favourably with the two previous years, there having been in 1888, 83 nights of frost, with an aggregate of 293 degrees; and in 1887, 96 nights, with an aggregate of 360 degrees. An unusual circumstance was the absence of frost in April and May, in the former of which there was only one night on which the protected thermometer fell slightly below the freezing point, while in May the lowest recorded temperature was 40 deg., the mean temperature of that month being fully 5 deg. above average. The mean temperature of the year was 48·1 deg., as compared with 46·5 deg. in 1888, and 47·2 deg. in 1887, and 46·2 deg. in 1886. This is the first year since I began to take observations that the mean annual temperature of Dumfries has reached, or rather slightly exceeded, the value assigned to it in temperature charts, viz., 48 deg. With a fully average temperature, and a sufficient but not excessive supply of moisture, the year has on the whole been very favourable to vegetation.

Rainfall.—The heaviest falls of rain within 24 hours occurred on the 6th March and the 6th June, on both of which days 1·22 in. were recorded. On the former of these days there was a continuous and heavy fall of rain during the day, followed by sleet and snow during the night. The excessive fall in June was connected with a severe thunderstorm, which began about 6 P.M., and continued with more or less severity till near midnight. The rainiest month of the year was October, with a total of 5·16 in., which fell in 21 days. But August was the month in which the greatest number of rainy days occurred, viz., 25 out of the 31, to the sad interruption of harvest work in most parts of the country. But as if to compensate for this the driest month was September, with a record of only 1·69 in. spread over 11 days,—and November, February, and June came next, all of which shewed less than 2 in.

It is worthy of note that last year also February and September were the driest months. There was a period of drought extending from 15th of June to the 6th of July, in which no rain fell, and which was characterised throughout by warm and sunny days and mild nights. The mean of the day temperature during this period was 73·9 deg., and of the night temperature fully 49 deg. The total number of days on which rain or snow fell during the year was 202, as compared with 195 in 1888, and 181 in 1887. The total rainfall for the year was 35·17 in., as compared with 35·91 in 1888, 30·99 in 1887, and 41·13 in 1886. This gives a mean for the four years in which observations have been taken at Dumfries of 35·80 in.

Hygrometer.—The mean reading of the dry bulb thermometer for the year was 47·5 deg., and of the wet bulb 45·1 deg. The difference (2·4 deg.) is exactly the same as last year, but the temperatures of this year are higher by 1·5 deg., a difference very nearly corresponding with the increase in the mean temperature of the year—from 46·5 deg. to 48·1 deg. Temperature of the dew point, 42·4 deg. Relative humidity (saturation being equal to 100) 82.

Thunderstorms.—There were eight days on which thunder and lightning were observed, viz., the 5th and 7th of May, the 2d and 6th of June, the 15th, 16th, and 23d of July, and the 8th of October. Of these the storms of 7th May, 2d and 6th June, 16th July, and 8th October were most severe. The others were either somewhat distant or of short continuance, but they were almost invariably accompanied by hail showers. Once, on 16th May, at 9 A.M., I observed a very large solar halo; and on several occasions lunar halos were observed, which, though not invariably, were for the most part precursors of the approach of a cyclone, especially if accompanied by a backing wind and a falling barometer.

Wind.—It may be interesting to note the prevailing directions of the wind during the year. From an easterly direction, including E., N.E., and S.E., it blew 228 times (observations being taken twice every day, morning and evening); and from a westerly direction, including W., N.W., and S.W., 408 times; from due N., 23 times; due S., 42 times; the remainder, numbering 29, being either calm or variable. The most prevalent wind is S.W., which during the past year blew on 108 days out of the 365. It is to the prevalence of this wind in November, December, and January that the mildness of our winters is chiefly due.

We are indebted to Mr Bruce of Dalshangan for the following note of observations taken during 1889 at Dalshangan, in the parish of Carsphairn, which is about 500 feet above sea level. Temperature—highest, in June 79·5 deg; lowest, in March, 14 deg; range, 65·5 deg; mean temperature of the year, 45·9. Rain-fall—rainiest month, December, 6·07 in.; driest, June, 0·73 in. Total for year, 44·50 in.

II. *Notice of Antiquities found in Dumfriesshire, and now preserved in the National Museum in Edinburgh.* By GEORGE F. BLACK, Ph.D.

In describing the objects and implements from Dumfriesshire in the National Museum it will be convenient to take them in the order of their antiquity. According to this arrangement the implements of flint and stone are the first to be described.

The implements of flint, stone, and bronze found in Dumfriesshire and now in the National Museum are few compared with the number from one or two of the neighbouring counties, as, for example, Wigtownshire.* Nevertheless, the specimens, such as they are, are interesting and valuable for the purposes of comparative archæology.

STONE IMPLEMENTS.

1. *Axes*.—Axehead, or celt of felstone, 6½ inches in length, by three inches across the widest part at the cutting edge, which is of oblique form. The sides are flat, and the cutting edge is slightly fractured on each face. The obliquity of the cutting edge is supposed by some archæologists to be due to resharpening. This axehead was found at Dinwoodie Green, and was added to the Museum by purchase. An axe of the rare type, with sharp sides, was discovered in blowing up some large stones, possibly those of a dolmen, at Mainis, near Dumfries, in 1779, and is described in the *Archæologia* (vol. vii., p. 414) as of “fine granite stone, highly polished, 9 inches long, 4½ broad at one end, tapering to the other, its thickness in the middle $\frac{6}{8}$ of an inch, and quite sharp at the edges all round.” †

II. *Wedge-shaped Hammers*.—About the year 1840, Mr Graham, of the farm of Westhills, near the Solway, took down an

* The great abundance of the specimens from Wigtownshire is due to the fact that the sandhills of Glenluce, like those at Culbin, Elginshire, occupy the site of a prehistoric flint implement manufactory.

† Quoted by Evans, *Ancient Stone Implements*, p. 97.

old wall, which was said to have stood upwards of two hundred years, and the hammer here described was found embedded in it. The hammer is of whinstone, and measures $11\frac{3}{4}$ inches in length, by $4\frac{1}{2}$ inches across the widest part at the butt end, tapering to a point at the other, and is $2\frac{1}{4}$ inches in thickness. A haft-hole has been perforated through the flat face at about 3 inches from the butt end.

A hammer of greenstone, 10 inches in length, by $4\frac{1}{2}$ inches in breadth and 3 inches in thickness, was found at Kirk of Dunscore, and presented to the National Museum in 1827. It is a finely-made specimen, with a broad rounded butt gradually tapering to a sharp cutting edge at the other extremity. It weighs $6\frac{1}{2}$ lbs. The haft-hole is 2 inches in diameter on the outside, narrowing to $1\frac{3}{8}$ inch in the middle of the thickness.

The third and last specimen is of whinstone, $7\frac{1}{2}$ inches in length, by 3 inches in breadth and $2\frac{3}{4}$ inches in thickness, and is unsymmetrical in form. The haft-hole is 2 inches in diameter on the outside, narrowing to one inch in the middle of the thickness.

Several fine specimens of these implements are in the collection of the late Dr Grierson at Thornhill, and have been briefly described by me in the *Proceedings of the Society of Antiquaries of Scotland*, Vol. X. (New Series), pp. 374, 375.

A large and characteristic specimen of this type of implement was found on the site of a lake dwelling in the Loch of Friars' Carse, and is now in the possession of the proprietor of the place. It is of hard whinstone, 10 inches in length, by 5 inches in greatest breadth and nearly 3 inches in thickness, and has been several times figured.*

It is an interesting fact in archæology that this type of implement is much more common in the south than in the north of Scotland. Ayr, Wigtown, Kirkcudbright, and Dumfries are the four shires in which they are found in greatest number.

In the Edinburgh Museum of Science and Art there is a fine specimen of a hammer of a type peculiar to Shetland and the extreme north of Scotland. It is said to have been found in a wall at Dumfries, and is the largest specimen of the type known to me to have been found in Scotland. It measures 5 inches in

* *Proceedings of the Society of Antiquaries of Scotland*, Vol. IV., New Series, p. 76; Munro, *Scottish Lake Dwellings*, p. 156, and *Lake Dwellings of Europe*, p. 440; Anderson, *Scotland in Pagan Times*, Second Series, p. 317.

length, by $2\frac{3}{4}$ inches in breadth and $1\frac{1}{2}$ inch in thickness, presenting in the cross section a flattened oval. The shaft-hole is partially perforated from each face, and is at a right angle to the edges, which are rounded instead of sharp. The implement has therefore in all probability been intended for a weapon instead of a tool.

III. *Quern*.—A Quern, consisting of an upper stone 20 inches in diameter and a lower stone 21 inches in diameter, both of quartz, found in a peat bog at Canobie, and presented to the National Museum in 1863. The upper stone has three small socket-holes for the handle on its upper face.

IV. *Carved Stone Ball*.—A ball of felspathic greenstone, $2\frac{3}{4}$ inches in diameter, ornamented with six projecting circular discs, is stated by Dr (now (Sir) Daniel Wilson to have been “found near the line of the old Roman way which runs through Dumfriesshire on its northern from Carlisle.” While the large perforated hammers already described are common in the south of Scotland and rare in the northern counties, exactly the reverse is the case with these stone balls. The only other south country specimens known to me is an imperfect one found in 1886 on the farm of Stelloch, Glasserton, Wigtownshire, and presented to the

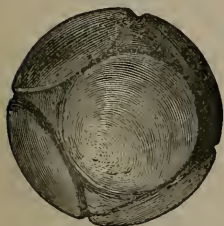


Fig. 1.—*Carved Stone Ball*
found in Dumfriesshire.

National Museum by Sir Herbert Maxwell, and a fine one of white quartz, 3 inches in diameter, with six projecting discs, found in Cree Moss, Wigtownshire, and now in the Thornhill Museum. In the north-eastern counties, especially in Aberdeenshire, they are found in considerable numbers. Only one specimen is known to me to have been found outside Scotland, namely, the one in the British Museum, which is said to have been found near Ballymena, County Antrim, in 1850. In all probability this specimen may really be a Scotch one carried over, lost and afterwards found in the place mentioned. The Dumfriesshire specimen is shown in fig. 1, and has also been figured elsewhere.*

* Catalogue of the Museum, 1876, p. 39; Wilson's *Prehistoric Annals of Scotland*, Vol. I., p. 195; Evans' *Ancient Stone Implements*, p. 376; *Proceedings of the Society of Antiquarians of Scotland*, Vol. XI., p. 36; Anderson, *Scotland in Pagan Times*, First Series, p. 169.

V. *Whorls*.—Until recently there was only one whorl from Dumfriesshire in the national collection, which was found at Moss-peeble. It is formed of claystone, one inch in diameter, and differs somewhat from the usual form of whorl in being spherical shaped. In February last (1889) other six specimens, all found at Mouswald, were added to the national collection by donation. Five are of sandstone, and the sixth is of claystone. The largest is $2\frac{5}{16}$ inches in diameter, and the smallest $1\frac{3}{16}$ inch. One is ornamented on each face with incised lines radiating from the spindle hole. The others are unornamented.

VI. *Arrow and Spear Heads*.—An arrow-head of greyish flint, found at Gretna, and presented to the National Museum in 1877, is one of the finest in the collection. It



Fig. 2.—Flint Arrowhead,
with barb and stem,
found at Gretna.

is of the variety with barbs and stem, and measures $1\frac{5}{16}$ inch in length. The stem is broad and is convex at the end. The apertures between the barbs and stem are most carefully made, and the ends of the barbs slant from the inner side outward and forward. Through an oversight on Dr Anderson's part, this arrow-head is described as from Glenluce, Wigtownshire. It is shown full size in figure 2, and has also been figured elsewhere. †

Another barbed and stemmed arrow-head of grey flint, also found at Gretna, is imperfect, one of the barbs being broken off.

A third arrow-head, also of the barbed and stemmed type, found at Riggmoor, has apparently accompanied an interment, as it has been subjected to the action of fire. There is little secondary working on either face, and one of the barbs has been broken off.

A fine spear-head of the barbed and stemmed type is also in the Museum. It measures $2\frac{5}{8}$ inches in length, and shows some minute secondary working on the faces. The stem is broad, square-ended, and the barbs are worked to fine points, one being a little longer than the other. It was found at Grainhead, Gretna Green.

A large lozenge-shaped spear-head of light grey flint, which was said to have also been found at Gretna Green, is in the

† *Scotland in Pagan Times*, Second Series, p. 358, fig. 358; and *Proceedings of the Society of Antiquarians of Scotland*, Vol. XII., page 270.

collection. In form and material this specimen so closely resembles a common Irish type that I have doubts about its being Scotch. It measures $3\frac{1}{2}$ inches in length, and has been formed from a large flake of almost even thickness, with a smooth fracture on each face, thus rendering surface chipping unnecessary. The edges, however, are finely worked. This specimen stands alone among the Scottish specimens in the Museum both as regards form, size, and material, but is matched by many from Ireland which are in the collection.

BRONZE IMPLEMENTS.

The commonest and best known implements of the Bronze Age in Scotland are (1) the axes, which are divided according to form, into (*a*) flat, (*b*) flanged, (*c*) winged, (*d*) socketed ; (2) daggers and rapier-shaped blades ; (3) javelin, lance, and spear heads ; and (4) leaf-shaped swords.

The flat axes are looked upon by all archaeologists as the earliest, and are considered to have been modelled on the form of the earlier stone axe. The flanged axe holds a position midway between the flat and the winged varieties, in many instances resembling the latter so much that it is often difficult to distinguish between them. Many of the flanged and most of the winged axes are further distinguished by the presence of a transverse stop-ridge, apparently for the purpose of preventing the implements entering too far into its handle when in use.

The winged axes, which are often called *palstaves*, differ from those of the second variety only in having "shorter flanges, combined with a greater amount of lateral expansion." Many of these winged axes are further provided with a loop on one side in the same plane with the blade.

The socketed axes, or those which are cored to receive the handle, are with good reason considered to be the latest form of all. This variety is rarely found without a loop at one side for greater security in attachment to the handle. Dr John Evans, our highest authority on bronze implements, speaking of the evolution of the forms of axes, says : " A gradual development can be traced from the flat celt, through those with flanges and wings, to the palstave form, with the wings hammered over so as to constitute two semi-circular sockets, one on each side of the blade ; while on certain of the socketed celts flanges precisely similar to those of the palstaves have been cast by way of ornament on the sides, and what

was thus originally a necessity in construction has survived as a superfluous decoration." *

I. *Bronze Axes*.—Dumfriesshire is unrepresented in the national collection by either the flat or the socketed varieties, there being only one flanged specimen and three of the winged type. The flanged example is a very fine specimen, and measures $5\frac{1}{2}$ inches in length. The lower part of each face below the stop-ridge is ornamented with narrow vertical grooves, and the outer sides of the flanges are ornamented with a cable pattern, similar to another flanged axe found near Perth and figured on page 60 of

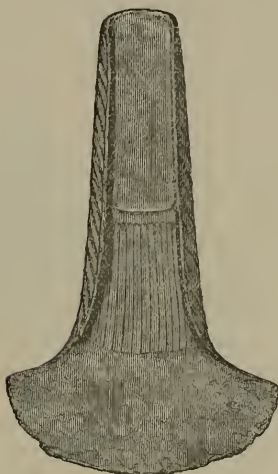


Fig. 3.—Flanged Axe of Bronze, ornamented,
Found at Applegarth.



Fig. 4.—Winged Axe of
Bronze, found at
Canobie.

Dr Evans' work already quoted. The Dumfriesshire specimen, which was found at Applegarth, is shown in figure 3, and has also been figured elsewhere. †

A winged axe found at Birrenswark measures 5 inches in length by 2 inches across the broadest part of the cutting edge, which is semi-circular in form. The wings are of lozenge form, and the stop-ridge on each face is imperfect through a flaw in the casting. The bronze is of a bright yellow colour.

* *Ancient Bronze Implements*, p. 107.

† *Proceedings of the Society of Antiquaries of Scotland*, Vol. XII., p. 602 ; Evans, *op. cit.*, p. 60 ; Anderson, *Scotland in Pagan Times*, Second Series, p. 196.

The second winged axe was found at Canobie, and measures $4\frac{1}{2}$ inches in length by 2 inches across the cutting edge, which is semi-circular like the Birrenswark specimen. The wings are triangular in form and are slightly bent over the faces toward each other. There is no stop-ridge, and the butt is imperfect on one side. This axe is figured in the *Proceedings of the Society of Antiquaries of Scotland*, Vol. VII., New Series, p. 163, and the illustration is here reproduced as figure 4.

The third and last specimen was found at Mouswald, and measures $4\frac{1}{2}$ inches in length by $1\frac{5}{8}$ inch across the cutting edge. The wings are of lozenge form with rounded angles, the butt is slightly imperfect, and there is no stop-ridge.

II. *Dagger*.—Of the type of weapon known as dagger, the National Museum possesses a very fine example which was found near Gretna. It measures 7 inches in length by 2 inches across the widest part of the handle plate. The blade is fluted at the edge, and is strengthened by a slightly raised ridge along the centre on each side. This blade has been attached to a handle of wood, bone, horn, or ivory, by two rivets, also of bronze, each $\frac{5}{16}$ inch in length, both of which are still in place. This dagger is shown on a scale of one half in figure 5, and has also been figured elsewhere.*



Fig. 5.—Dagger of Bronze, with Rivets, found near Gretna.

III. *Rapier Blade*.—A rapier blade of bright yellow bronze is also in the national collection. It measures $10\frac{3}{4}$ inches in length, but a piece about $\frac{3}{4}$ inch in length has been broken off the point. The breadth of the widest part of the butt is $2\frac{1}{2}$ inches, and the base is pierced for two rivets, which have been lost. These rapier blades hold an immediate position between the dagger-blade already described and the

* *Proceedings of the Society of Antiquaries of Scotland*, Vol. II., New Series, p. 97 ; and in Dr Anderson's *Scotland in Pagan Times*, Second Series, p. 176.

leaf-shaped swords, though some archæologists have suggested their use as spear-heads. This specimen was found at Fairholm, Lockerbie, and is very similar to one found at Coveney, near Downham Hithe, Cambridgeshire, figured on p. 249 of Dr Evans' work.

Three fine specimens of rapier blades, all found at Kirkgunzeon, $8\frac{3}{4}$, $14\frac{1}{2}$, and $15\frac{3}{8}$ inches in length, are in the Thornhill Museum.

IV. *Sword*.—The only other weapon of the Bronze Age in the national collection is a portion of a bronze leaf-shaped sword, now only $10\frac{1}{2}$ inches in length. It is imperfect at both ends, but the handle end shows two rivet holes in each wing and the side of another in the handle plate at the point of fracture. When perfect this sword would have been about 21 or 22 inches in length. No precise locality is attached to it.

V. *Caldron*.—A caldron, formed of thin sheet bronze, found in Whitehills Moss, Lochmaben, has recently been added to the national collection by purchase. It measures $13\frac{1}{2}$ inches in diameter across the mouth, and 15 inches across the widest part at the middle, and is $8\frac{1}{4}$ inches in height. The rim is gone, but its presence is attested by several rivet holes round the mouth of the caldron.

A caldron of similar form to the one just described, but slightly larger, was found not long since at Kyleokin, Skye, and is figured in the *Proceedings of the Society of Antiquaries of Scotland*, Vol. VII., New Series, page 311.

Another one of somewhat similar form, 25 inches in diameter, and 18 inches in height, which was found in Carlingwark Loch, Kelton, Kirkcudbright, contained a large number of tools, such as hammers, chisels, saws, &c., of iron. It is now in the National Museum, along with its contents.

These caldrons are assigned to the close of the Bronze or beginning of the early Iron Age.

As regards the date of the Bronze Age in Britain, archæologists are agreed in assigning its origin to between 1500 and 1200 years B.C., from which date it continued till about the third or fourth century B.C., when iron appears to have become known.

6th of February, 1890.

Rev. WILLIAM ANDSON in the Chair.

New Members.—Mrs Maxwell Witham and Miss Maud Maxwell Witham of Kirkeconnel.

Donations.—Transactions of the New York Academy of Sciences (February to June, 1889); Proceedings of the Canadian Institute, Toronto, for October, 1889.

COMMUNICATIONS.

I. *Notes on Birds.* By Mr JOHN CORRIE.

I have to report two noteworthy additions to my ornithological list for the parish of Glencairn, viz.: (1) The Great Snipe (*Scolopax Major*); (2) The Spotted Crake (*Crex Porzana*), Neither of these species would appear to be very common in Scotland. Morris, while recording the Spotted Crake for Dumfriesshire, says that the species is a very local one, and in his notice of the Great Snipe he gives no nearer localities than Orkney on the one hand and Northumberland on the other. It is not unlikely, however, that both birds occur sparingly throughout our counties, more particularly, I would imagine, the county of Kirkcudbright, where the lochs are numerous and of a character in keeping with the tastes of such birds. The Dabchick, I am glad to say, continues to nest in the parish. Last year the birds were subjected to so much annoyance by some boys that I was quite prepared to see them forsake the locality. This summer they nested as usual, however, and, I have reason to believe, succeeded in rearing a brood in safety. A new nesting locality for the Redshank has been discovered in Stroanshalloch Loch, a remote nook where the birds may be considered secure. The Goldfinch, a species that has long been scarce in the district, would appear to be again becoming common. Several small flocks have been observed this winter, and individuals are of frequent occurrence. It is to be hoped that this increase will not tempt the bird-catchers to a renewal of their ignoble craft. The present season, as is well known, has been a remarkably mild one, and the birds as was to be expected have been greatly influenced thereby. The Common and Black-headed Gulls, for instance, which visit us but rarely at this season, may be seen daily. The Grey Wagtail has also been observed, although only once. On the other hand, the Brambling Finch, a bird which never fails to visit us in severe weather, has

been conspicuously absent. The Raven has been seen once. Birds of prey have been even scarcer than usual. Speaking of birds of prey, I am disposed to claim for Glencairn the honour of having contained the last Dumfriesshire "Gled" or Kite (*Milvus Regalis*). The year of its death would be 1869 or 1870.

II. *The Balance of Nature in Regard to Our Fisheries.*

By Mr J. J. ARMISTEAD.

In the course of this paper, Mr Armistead said that interference with the balance of nature was a matter which required a considerable amount of consideration. After an allusion to the rabbit pest in the antipodes, Mr Armistead pointed out that the killing of birds and beasts of prey, and so disturbing the balance of nature, cleared away many enemies of rats, &c., and thus left these in abundance. Undoubtedly, where man thoughtlessly interfered with nature's balance the result probably meant loss to himself, but where thoughtfully done the result was profitable. He alluded with satisfaction to the introduction of trout from this country and America into the rivers and lakes of New Zealand, and then went on to say that in many cases man had inadvertently or of necessity interfered with the balance of nature as far as regarded our fisheries. Instances of this would be found in the alteration of the flow of water, and its pollution, as well as the draining of hills, the latter practice cutting off nature's supplies for dry weather. The drainage of the hills had undoubtedly affected our rivers very materially, and every practical fish-culturist had become assured of that fact. Many large streams flowed into the Solway, for instance, carrying into it rain and snow water from a district ten times as big as the Solway itself, which, on account of the shallowness of the Solway, had a very material effect upon its waters. The North Sea contained a great number of fish, because it also contained immense quantities of other marine creatures, such as crustacea, worms, mollusca, echinoderms, &c. For the young fish which had been recently hatched, the presence of small microscopic organisms in very large numbers was of vital importance. At the very time when fish left their eggs the sea was full of young crustacea, mussels, and echinoderms, so that the little fishes inhaled as it were with the water they breathed large numbers of these exceedingly minute creatures. After a description of the effect of partially-drained lakes, Mr Armistead alluded to the work that could be done towards training fish to rise to the different flies. He

himself had at his place introduced a sort of training school, and tried experiments with food which would float on the surface of the water, or, at all events, not sink very deep. Mr Armistead, speaking of shad hatching in America, quoted a Mr Worth on the subject, who said that the great success achieved in the propagation of this fish demonstrated what could be done with many other valuable fish. The success of the shad-hatching work carried on by the United States Fishery Commission had been proved beyond the shadow of a doubt. At first the fishermen were rather inclined to oppose the work, but now they were willing helpers, and the shad fisheries, which showed a great falling-off prior to the commencement of the work, had since wonderfully improved, and showed an increase in the "take" each year. The evidence, too, which was very voluminous, was conclusive as to the successful operations of the Commission. There were rivers where shad had never before been seen, and now, as the result of the work of artificial propagation, they were teeming with shad. Going on to speak of disease among fish, Mr Armistead said where fungus existed it was impossible to exterminate it, but it might be prevented from attacking fish by antiseptic treatment. The problem of fungus epidemics was a difficult one. The fungus was always present, but only occasionally in an epidemic form, and fish could live happily in affected rivers. He was much indebted to Mr Allan P. Swan, of Bushmills, County Antrim, for the results of his interesting investigations in this matter. Mr Swan said, and he agreed with him, that the condition of health in fishes has much to do with the fungus disease. The first consequences of a low vitality might be a slow or imperfect excretion and epidermic formation. Sickly fish were attacked, and many of the fish which died in our rivers were no doubt the legitimate food of the fungus, and one of its chief means of propagation during the cold winter weather when development was not so rapid. The purest water was as favourable to the growth of fungus as any other, and pollutions were unfavourable to fungus, as the chemicals in these pollutions were apt to destroy the fungus. The life history of the fungus had been well worked out, and they now knew probably as much about it as was at all necessary, and any points left unravelled could easily be worked out to the smallest detail with time and patience. He thought this could not, however, be said of the salmon, and it was the missing link in the life history of the fish that required all the energies of both scientists and practical men

to elucidate the matter as was deserving of it. Until this could be done we might and would go on floundering in the mire. This was one of the cases in which by judiciously interfering with the balance of nature a vast amount of profit might accrue to the possessors of our fisheries. It was like a valuable mine of wealth unworked.

7th of March, 1890.

Major BOWDEN in the Chair.

New Member.—Mr Robert Maxwell Witham of Kirkconnel.

Donations.—Transactions of the Edinburgh Botanical Society ; Annual Report of the Belfast Field Club ; Report of the Berwickshire Naturalists' Club ; Bulletin on the English Sparrow in North America and North American Fauna, from the United States Board of Agriculture. The Transcription of Edgar's History of Dumfries from the Riddell MS. was also handed in.

COMMUNICATIONS.

I. *The Succession of Plant Life upon the Earth.* By Mr PETER GRAY.

After a brief exposition of the nature and mode of deposition of the sedimentary rock strata in which the remains of previously existing plants and animals are found, the author enumerated their principal sub-divisions and defined the four life periods in which they have been further arranged, namely, the Azoic (without life), the Palæozoic (ancient life), the Mesozoic (middle life), and the Kainozoic (new life). There were no dates in the geological record, and, as to the length of time occupied in the laying down of the sedimentary rocks, there was the widest diversity of opinion. Physicists, judging from the rate of cooling of the globe, and other data, were unwilling to place the time when it was possible for plants to exist upon it much farther back than from ten to fifteen millions of years. On the other hand, some geologists asked for at least six hundred millions. Of the shortest of these periods, however, we could no more form a competent conception than we could of eternity. Proceeding then to a detailed examination of the sedimentary deposits, from the earliest upwards, the author stated that though no fossils had been discovered in those of the Azoic period, yet the immense quantity of carbon, in the form of graphite or plumbago, occurring

in them, might reasonably be taken to indicate the previous existence of plant life, as we knew of no other source of unoxidised carbon than what is furnished by plants. Passing onwards to the Palæozoic period, it was shown that, to its close, the only vegetable remains that had been discovered were those of plants allied to the humble club-mosses of the present day, then, however, assuming the dimensions of lofty trees, other gigantic plants related to the equisetæ or horsetails, ferns in innumerable species, and the lowest class of flowering plants (gymnosperms) of the same nature as the pine and yew. The characteristic vegetation of the Palæozoic period died out in the Permian formation, and the flora of the early Mesozoic was at first transitional, although there was no great advance. However, about the end of the latter period, whether from a gap in the record, or from whatever cause, there appeared a sudden and wonderful incoming of the higher classes of the vegetable kingdom, including the existing genera, so that the aspect of the flora was the same as that of the present day, though it was much more varied, and cryptogams and gymnospermous phanerogams sank into the subordinate position they now occupy. This has been justly described as the true Edenic period of the earth's history, when the dry land was clad, perhaps from the very Pole, at least from the latitudes of Greenland and Spitzbergen, with an exuberant growth of foliage, flower, and fruit, accompanied by a remarkable uniformity of temperature throughout the globe. It was a noteworthy fact that the successive vegetable forms which have from time to time overspread the earth's surface appear to have originated within the polar circle, and this might now be regarded as established. Throughout the greater part of the Tertiary period, the land, in the northern hemisphere at least, continued to increase, and was tenanted by the "noblest vegetation and the grandest forms of mammalian life the earth ever witnessed." But towards its close a gradual refrigeration set in—the "great ice age" was approaching. Slowly, but surely, the ice and snow which formed in the now frozen zone spread downwards, until even within the tropics glaciers filled the mountain valleys, and the rich and multiform Tertiary flora was either destroyed or driven towards the equatorial region. This wintry period having at length come to an end, the exiled plants straggled back to their native soil, a sadly diminished band. The thick-ribbed ice that burdened so large a portion of the polar and temperate zones did not, they might be

sure, pass away without great disturbance, probably, in melting, raising the level of the ocean at least 1000 feet, perhaps causing a shifting of the earth's centre of gravity, certainly overwhelming much of the previously existing solid land. From the glacial period to the present time there had been no change in the species either of plants or animals, except that some of both have become extinct. In conclusion, the author said that he had not referred to the genesis of the various forms of plant life, extinct or existing. There was, however, it must be admitted, little in plant history, as at present elucidated, to support the evolutionary hypothesis. Still, in the main, there had been an advance in plants, as in animals, from the simpler to the more elaborate structure. In the great plan of Providence that was an abiding feature—

“ From lower to higher, from simple to complete,
This is the pathway of the eternal feet. . .
This is the solemn lesson of all time,
This is the teaching of the voice sublime.”

II. *Notes from Original Sources on the Erection of the Mausoleum and the Origin of the Dumfries Burns Club.*
By Mr JAMES R. WILSON.

The paper was compiled from the minute book of the Mausoleum Committee, of which Dr Grierson's father (Mr Wm. Grierson of Baitford) and the Rev. Henry Duncan of Ruthwell were secretaries, and from numerous letters from the celebrities of that time found among the effects of Dr Grierson, Thornhill, which letters Mr Wilson produced for the inspection of the meeting. A preliminary meeting of the “ friends and admirers of the late Scottish bard, Robert Burns,” Mr Wilson said, was held in the George Inn, Dumfries, on 16th December, 1813, for the purpose of taking into consideration the measure of opening a subscription for erecting a Mausoleum over his remains—John Syme of Ryedale in the chair. It was reported to the meeting that a number of gentlemen had signified their approbation of the measure, and it was thereafter agreed to form a Committee, and to adjourn the meeting to 6th January following. At the adjourned meeting General Dunlop, M.P., son of Mrs Dunlop, of Dunlop, the poet's friend, was called to the chair, and it was intimated that a large number of noblemen and gentlemen highly approved of opening a public subscription for the purpose. A large and influential Committee of noblemen and gentlemen was formed, and also a special Committee

with Dr Duncan, Dumfries, as convener. The raising of subscriptions, Mr Wilson said, had apparently been gone about in a most energetic manner, and he proceeded to read the following letter written by Mr (afterwards Sir) Walter Scott to the secretaries from Edinburgh on 14th January, 1814 :—

I am favoured with your packet enclosing proposals for erecting by subscription a monument to the memory of Burns, and I am very much obliged to you for affording me an opportunity of testifying my high veneration for the Ayrshire Bard. My society is very limited, but I hope to get some subscriptions, and would be much obliged to you to send me a list of such as have been already procured that I may have some general rule for assisting my friends, for I have observed that it is often advantageous to have an idea of what would be thought liberal and handsome. I beg you will put my name down for ten guineas, without limiting myself to that sum, however, should there be further occasion. We have to regret the loss of Mr Stark, the only architect in Scotland, as I greatly fear, who could have given a plan of simplicity and dignity corresponding to the genius of the author. I presume it is only meant to inclose, not to alter or violate, the stone which Mrs Burns placed over her husband. The situation is in all respects highly striking.

I will take the liberty to send one of the papers you have sent me to Mr Constable, the bookseller here, whose influence is considerable, and opens some avenues to which I have not personally any access.

WALTER SCOTT.

Edinburgh, 14th January, 1814.

On 29th of same month the poet's brother Gilbert wrote to Mr Grierson from Grant's Braes :—

Grant's Braes, 29th January, 1814.

I received yours of the 12th inst. covering resolutions of a meeting at Dumfries of the 6th inst. You will readily believe that I was much gratified with the exertions of a meeting so respectable to make so great a public testimony of their regard for my brother's memory. It will readily occur to every gentleman concerned that however much I might be inclined it is a matter I cannot stir or be seen in. I am not very sanguine in my expectations of aid to the subscription in this neighbourhood. I believe my brother was personally known to David Anderson, Esq., St. Germain's, near Tranent, a most respectable gentleman, and a man of taste, but of too shy and delicate a cast for bringing the subscription much forward. Robert Stewart, Esq. of Alderston, near Haddington, was in India, I believe, at the time of my brother's death, and has been more successful in the pursuit of wealth than of literary taste, in which he has not been much engaged, but I have heard him talk emphatically of heaven-born genius, &c. His near neighbour, Robert Veitch, Esq., Hawthornbank, is himself a votary of the muses, and sufficiently

enthusiastic, but as he has a large family and his circumstances comparatively moderate, I am not sure that it would be right to make any call on his purse. Alexander Houston, Esq. of Clerkington, M.P. for Glasgow in the last Parliament, has shewn me more obliging and useful attention than any other great man in this country, but though his subscription will not be wanting if applied for, yet, I suppose he would not like to solicit subscriptions. I have thought it right to mention these gentlemen to you that Mr Duncan may judge how far it will be proper to apply to any of them. A Mr Richardson, merchant in North Shiels, once left a letter for me at the King's Arms, Dumfries, inclosing some poems of his own. As I had many communications of that kind from people I knew nothing of, I never thought of taking any notice of them. I happened lately, however, to meet an English clergyman who is intimately acquainted with Mr Richardson, who spoke in high terms both of his talents and worth, and that he had risen from a low beginning to considerable eminence and success in life. I may likewise mention to you that he is a leading member of a Marygold Society in North Shiels. I should think him a person very likely to interest himself in promoting the subscription.

GILBERT BURNS.

And George Thomson, Edinburgh, the correspondent of Burns, wrote to Mr Syme of Ryedale of date 10th May following :—

Edinburgh, 10th May, 1814.

It gives me the greatest pleasure to find that there is now a certainty of a monument being erected to the memory of the greatest poet our country has produced. May I request that you will put down my name for five guineas ?

I cannot help feeling some anxiety that a design should be obtained worthy of the illustrious dead, and honourable to those who take charge of it. This will depend entirely on the artist to whom you apply, and 'tis of the utmost importance, therefore, to fix upon one who is decidedly eminent for invention, knowledge, and classical taste, and to be guided entirely by him. For if gentlemen get various designs and then exercise their own judgment upon them, the chance of their chusing the worst is much greater than that they would chuse the best ; for this obvious reason—that there is no art or science in which our countrymen are so utterly ignorant as that of architecture or sculpture. The fine arts do not make a part of the studies either of our men of fortune or of those educated for the liberal professions. And if they acquire a smattering of knowledge after they leave the University, it is generally so superficial that it only serves to give them pretensions and to mislead them. Even those who live by the profession of architecture in Scotland are notoriously uneducated and ignorant, and since the recent death of the truly ingenious Mr Stark, I do not know one of our countrymen who deserves

the name of an architect. If there are any whose fame has not reached Edinburgh, I ask their pardon.

The gentleman to whom I would strongly recommend it to you to apply for a design is Mr Smirke, R.A., London, an eminent painter well known to every amateur of the fine arts, or to his son, the architect in London, well known by his design for Covent Garden Theatre, the front of which is worthy to have stood in Athens.

I presume the design for Burns' monument will be architectural, or chiefly so ; whatever there may be of sculpture about it will, I should imagine, consist only of alto or basso relievo. Now, the Messrs Smirke are, of all the artists I can think of, the most competent to give you a chaste, classic, and noble design, in whatever style the fund may permit it to be executed. Sculpture, I believe, even in bas relief is very expensive, and if the fund should not admit of a monument sufficiently large to be a striking object, and of much ornament from the sculptor to be superadded, then you must no doubt be contented to have the one without the other, or with the less of it. As soon as you have ascertained the total amount of the fund you should state it to Mr Smirke or the artist to whom you apply. Give him a slight drawing to show the elevation and form of the ground where the monument is to be built, letting him know the exact price of building per cubic foot in Dumfries with the best freestone, and ask a design architectural and as much ornamental as he thinks it ought to be, and as the fund will admit of, beseeching him to estimate it correctly, and not to let you begin what the fund will not enable you to finish, an error into which we Edinburghers have fallen most grievously, and more than once, as our unfinished University and Nelson's Monument do testify.

I had a conversation soon after the lamented death of Burns with Mr Smirke, R.A., upon the very subject of a monument to the poet. Upon that occasion he expressed his highest admiration of his genius and writings, said he would be happy to furnish a design, and I understood him to say that profit would be the least thing he should have in view. And I remember well he expressed it to be his conviction that if any respectable character on 'Change in London would take charge of a subscription paper for erecting a monument to Burns and set about it in earnest, he would get many hundred pounds in two or three days.

What would you think of writing to Sir James Shaw or any other warm-hearted Scotsman on this subject who has influence among those most liberal of all men, the London merchants ?

If you write to Mr Smirke you are at liberty to communicate what I have said.

G. THOMSON.

Mr Wilson added that he might mention a fact in connection with Thomson which was not generally known. In a letter by Dr Patrick Neill, Canonmills, to Mr Grierson of date 4th February,

1850, the following occurred: "I had the satisfaction of seeing old George Thomson last week. He tells me he *never saw* Robert Burns, although he corresponded so much with him, and got him to write some of his finest words for the old Scottish airs." Friends and admirers of Burns in all parts of the world were asked to subscribe to the fund. The Provost and Magistrates of Dumfries gave the scheme their countenance. Mrs Jordan, the celebrated actress, gave a performance in Dumfries in aid of the funds, as is shown by this play bill, which produced £33 18s; and Sir Walter Scott was instrumental in securing the valuable services of Mr and Mrs Siddons for the same object, and they gave a full dress benefit night in Edinburgh, which realised the sum of £39 14s. His letters to Mr Grierson on that subject were as follow:—

Edinburgh, 20th May, 1814.

I did not answer your last favour because I did not find an opportunity to suggest to Mr Siddons the plan of a benefit for Burns' Monument. The fact is there are so many demands of this nature upon a theatrical manager that unless I were to find a very favourable moment I should not much like to suggest any thought that may enlarge this tax. My own idea was to speak to John Kemble when there, which would have been certain to make a house, but I was obliged to leave town while he was acting. I will keep the proposal, however, in view; in the meantime, I send some subscriptions on the other side, which may be added to those lists already circulated.

My own circle of friends is very limited, but I trust to get a good many guineas if I go to London before the books are closed. I have always declined taking money, so that you will have the trouble to collect the subscriptions by some proper person here.

WALTER SCOTT.

Edinburgh, 3d December, 1814.

I have only time to write you two lines, being very busy just now. Mr Siddons readily and handsomely agrees to give the benefit, and gives two guineas himself. The expense of the house is £40. It holds £200. I must endeavour, though my interest lies little in that way, to get some women of fashion to patronise the thing, when possibly we may gather £100.

WALTER SCOTT.

Edinburgh, 14th December, 1814.

Our benefit took place last night. We had by no means a crowded but a very genteel audience. The boxes particularly were filled with fashionable people, but neither the pit nor gallery so full as I should have expected they might have been from the name of the bard. In this

instance the higher classes have been more favoured in doing honour to Burns' memory. Mrs Scott took two boxes, and used all the influence she had with her friends, of whom several took boxes and filled them well. So if the returns do not quite equal our zeal and my expectations it is not our fault. But the produce will be something considerable. As Siddons has behaved so handsomely, the gentlemen of the Committee will probably be of opinion that it will be proper to write him a letter of thanks, by which he will be highly gratified. Both he and his wife gave us a good play and farce, and did all that could be suggested for rendering the evening productive. I will pay my subscription to Mr K. W. Burnet, who will also, I hope, take the trouble to settle with Mr Siddons and remit the money

WALTER SCOTT.

On the 8th February, 1816, Walter Scott again wrote to Mr Grierson :—

You were so good some time since as to send me a drawing of Burns' Mausoleum, which I think will look very handsome. I believe I am in debt to the fund in the sum of £5 received from Mr Weld Hartsteng, of Dublin. I got the sum when I was in England, and wrote to a friend to send the said sum to you, but I fancy it was neglected, as looking over my receipts from him I do not see any from you, so I am afraid it was forgotten. Should it be otherwise, you will have the goodness to return the £5 note which I now enclose.

I think it would be highly advisable to repair the old monument at Kirkconnel, but I feel somewhat doubtful whether there would be perfect good taste in placing upon it our ingenious friend Mr Mayne's very pretty verses. I should rather prefer doing what has been done on the tomb of Sir John the Grahame at Falkirk, (*i.e.*) cutting a new stone of the same dimensions and exactly a fac simile of the old monument. There is something in the forlorn simplicity of the *hic jacet Adamus Fleming* that I think would be injured by any modern additions. I do not the less admire Mr Mayne's verses, to which he has added a very good stanza. I intend to solicit his aid in getting words for some fine Gaelic airs lately collected by Alex. Campbell, which I think will prove the purest as well as most extensive collection of Scotch music yet made, as he has recovered some very fine airs.

WALTER SCOTT.

Edinr., 8th Feby., 1816.

About fifty plans, designs, and models were received, out of which twelve were selected as preferable to the others, and at an adjourned meeting of the Committee and subscribers held on 25th April, 1815, the design for the mausoleum by T. F. Hunt, architect, London, was adopted, while that of John Hendry, Edinburgh, was placed second. Mr Hunt declined to accept the premium

of £10 to which he was entitled as successful competitor, and agreed to furnish working drawings free of expense. His working plans and drawings are still preserved in the Museum in Thornhill. Builders' estimates were advertised for, and that of John Milligan, Dumfries, amounting to £331 8s 6d, was accepted, and Mr James Thomson was appointed superintendent of works. On 30th May following the Committee "having walked down to the Church-yard and inspected the burial place of Burns, are of opinion that it is so much encumbered with monuments and tombstones surrounding it and a risk that it may still be more obscured by other erections, have therefore resolved, with the consent of Mrs Burns, to remove the whole remains of the family to another and more eligible situation in the new burial ground, and the mausoleum erected over the remains is agreed on, the remains to be removed in as delicate and proper a manner as possible." This resolution was carried into effect, and on the King's birthday, 5th June, 1815, a grand procession took place, and the foundation stone of the mausoleum was laid with masonic honours, and the usual documents and coins deposited therein. On the same day the Committee, architect, Mr Turnerelli, sculptor, London, and others dined in the King's Arms, and at a subsequent Committee meeting the Apollo's head, for the centre of the dome, designed by Mr Hunt, and also the designs for the daisy and thistle to surround it, were approved. Mr Hunt at the same time marked off the ground in the new burial-ground. Previous to this Mr Turnerelli had sent in a design for the sculpture. On 6th June the Committee met with Mr Turnerelli, and it was agreed to adopt his design provided the necessary sum could be procured either to erect it in marble or Roach Abbey stone. His estimate for marble and figures of life-size was 750 guineas, and if the figures were a quarter less 600 guineas. On 8th June the Committee, architect, and others were entertained to dinner in the King's Arms Hotel by the magistrates of Dumfries, when the freedom of the burgh was conferred on Messrs Hunt, Turnerelli, Walter, and Captain Hehl. At this stage many difficulties began. The contractor for the mausoleum was troublesome, and tore in pieces the committee's written remonstrances as to the insufficient jointing of the granite steps. He placed stones in the dome disconform to contract both as regards thickness and quality, and Mr Hunt had to step in and see his directions carried out. The Committee inspected the model of the plough for the sculpture

as made by Mr Smale, of Edinburgh, and for which he charged £4 4s, and thought it should not have cost above a guinea, or 40s at most. It is noted "that the plough in Mr Turnerelli's model not being considered anything like the ploughs used in Scotland, it was judged proper to have a model of a proper plough made by Mr Smale in Edinburgh, to be sent to the sculptor in London." On 9th August, 1816, the Committee inspected the building, and condemned the execution of various parts, and particularly "with respect to the stone which Mr Milligan calls an Apollo's head, which he has placed in the centre of the dome, the Committee can have nothing to do with it, and require Mr Milligan to remove it, as an Apollo's head is preparing in London under the direction of Mr Hunt, as originally resolved, and which must be placed in its proper situation when received. The daisies are not according to the patterns sent by Mr Hunt, but not having been sent in time the contractor could not delay the work, and was obliged to proceed with his own idea of the pattern." The Apollo's head was duly received, and a duty upon it of £2 12s 9½d was paid at the Custom House. Mr Thomas M'Caig and Mr Alexander Crombie were arbiters in settling the sum due to Mr Milligan, and found him entitled to an extra payment of £101 16s 2d, and at a Committee meeting a letter by Mr Milligan to Mr Hunt was read, "of so scurrilous a nature as to be altogether unworthy the notice of the meeting, they determined to treat it with the contempt it deserves." Work ceased, and the Committee agreed to employ a tradesman to finish the curtain wall; and also to enter into another reference with the contractor for the work performed on curtain walls, and a charge for rejected dome stones. An interdict followed the erection of the iron gates at the instance of Mr Milligan, and they were allowed to be put up after the matter had been heard before the magistrates. Mr Milligan again began work at the curtain wall, and he in turn was interdicted by the Committee, and after hearing he was dismissed from the work. Mr Hunt prepared drawings for the sarcophagus, which were approved; but great difficulties had to be overcome in regard to it on account of Mr Milligan, the contractor, insisting on doing all the work, although the Committee considered only a professional sculptor could properly execute it. Difficulties also arose in connection with the proceeds of the subscriptions received at the commemoration dinner held in London on 25th May, 1816, over which the Earl of Aberdeen presided; but in the end Mr A. Gordon, the

Committee's agent in London, and Mr Hunt and Mr Turnerelli effected a settlement, and the latter received £220 from this source as a first payment to account of the contract price of the sculpture. In connection with this dinner it may be noted that the subscriptions and dinner tickets brought in £528 3s 6d, while the dinner and expenses connected therewith brought the clear balance down to the above sum of £220.

The whole work was now approaching completion, and on 8th August, 1818, Mr Hunt reported upon it to the Committee, who afterwards met and gave effect to a number of his suggestions, and made arrangements for the sculpture being shipped to Dumfries. Mr Turnerelli, however, would not part with it until he knew how the balance due to him would be made good.

Mr Wilson here read the correspondence between Mr Turnerelli and the Secretary in regard to this matter. Mr Turnerelli first wrote regretting that the proposition of exhibiting the marble monument of the poet in Edinburgh had not met the approbation of the Committee, and declaring that he felt it to be his duty to ascertain previous to its being forwarded to Dumfries how and in what manner the Committee intended to discharge payment, particularly as there were no funds in hand, and the Mausoleum in its unfinished state had cost more than £800, and would require a sum set apart after being finished to keep it in repair. He positively asserted that the monument was worth double the sum stated in his estimate to the Committee. Replying to this letter, the Secretary wrote to Turnerelli, and in the course of his letter said the Committee "considers that it (the letter) reflects no credit on you, and is in direct opposition both to your profession and agreement. I need not again recapitulate your own proposal and agreement which of yourself you ought not to have forgot, but which you have not had the candour to admit—on the contrary, have studiously avoided taking notice of—as if the Committee had been acting as children and not to have known what they were doing. However, every transaction is minutely narrated, and the proposal and agreement distinctly stated, which you cannot deny, or should you attempt it there are sufficient witnesses to prove the fact, which we must now establish on oath, since we see now who we have to do with. Although we have hitherto been disappointed in procuring the funds we have good reason to expect, yet we have confident hope of very considerable sums from different quarters, abroad particularly. We had lately

advice of £160 being subscribed in Demerara, and the prospect of its being made out £200, and in all probability we will receive it early in the spring, as the gentleman, a native of this place, is then expected, who had the management, and we are at present in correspondence with America." "Surely," the letter went on to say, "he could not expect the Committee to advance the money out of their own pockets, particularly for a work not delivered, although part paid for, and which none of them had ever seen or heard any opinion of except from Mr Turnerelli himself. They had never urged the affair upon him, but he had urged himself upon the Committee." The letter added, "you have already our ideas respecting exhibiting in Edinburgh. The Committee never entertained the idea of exhibiting the tribute to the memory of Burns through the country as a *pupit show*. We feel more veneration for our country and our Bard."

Further correspondence of a similar nature followed, and in the end the sculpture was sent down from London and placed in the Mausoleum. At this time Gilbert Burns, now drawing near the close of his life, when asked to visit Dumfries, wrote to Mr Grierson:—

Your obliging letter of the 27th I only received yesterday. I am much afraid it will not be in my power to visit Dumfries during the time the London marbleman is to be with you, though I much wish it; not that I think I could be of any use in improving the marble, as I scarcely think it possible to make an artist produce the likeness of a person he has not seen, but it would certainly gratify me much to comply with the wishes of those who have taken so much trouble to do honour to my brother's memory. I trouble you with the enclosed to Mrs Burns, and beg you will get it immediately sent to her. If I do make out my visit to Dumfries at this time it will be on Thursday, the 2d Sept., and wish her to be aware of my coming, as I believe the coach arrives late at Dumfries. I will send and invite Dr Sibbald to accompany me if I find I can set out, or send what despatches with me he wishes if he do not think of journeying, which I rather doubt. I beg you will present Mrs B.'s and my assurances of kind regard to Mrs Grierson, and believe me to be ever,

GILBERT BURNS.

Grant's Braes, 31st August, 1819.

A large balance, continued Mr Wilson, was still due to Mr Turnerelli, and all the Committee did was to undertake to raise it if at all possible. Nothing further seems to have been paid except a sum of £150 remitted from Demerara. Letters down to 6th

April, 1821, passed between the parties, and in the end Mr Turnerelli apparently considered his claim totally bad, and ceased to write on the subject. These facts as to the price of the sculpture were totally different from those given in a leaderette of the *Dumfries Standard*, wherein it was stated that the sculpture was gifted to the community by Turnerelli. The Mausoleum itself, as well as the sculpture, had been the subject of much hostile criticism, and even to this day the discussion was periodically revived. Even "honest Allan" could not refrain from passing his judgment, and in a letter to Mr Grierson, of date 30th July, 1834, he speaks out boldly :—

I am grieved to find that my remarks on the Burns monument have given pain to a worthy gentleman and a lover of the muses. I agree with you that the design of the architecture is elegant, and may add further, the unity and harmony of the whole are much to my mind. My objection is that the structure wants that massive vigour of design and hardness of material which insure duration in this moist and stormy climate. The sculpture I most heartily and conscientiously dislike. It is ill conceived, and worse executed, and, indeed, the sentiment is beyond the power of sculpture to express. Who can carve an inspired or rather an inspiring mantle? It is but a bit of marble. The muse in the hand of Turnerelli was not likely to succeed in her task. It reminds one of that passage in Scripture—"And a certain woman threw a piece of a mill-stone on the head, &c." (The quotation is from Judges, c. 9, v. 53, and is—"And a certain woman cast a piece of a mill-stone upon Abimelech's head, and all to break his skull.") I am supported in my dislike by very high authorities. A few days ago Mr Wordsworth, the poet, wrote to me saying that he had been in the vale of the Nith, and had walked in the footsteps of Burns. "By-the-bye," he says, "what a sorry piece of sculpture is Burns' monument in Dumfries Churchyard. Monstrous in conception and clumsy in the execution, it is a disgrace to the memory of the poet." Chantrey had no chance for the monument—he was not one of the competitors—so I was not at all disappointed. Had it been confided to his hands, you would have had a statue for your money worth a couple of thousand pounds. I have had a drawing made of the monument—the architectural portion I mean—and it will be engraved for the concluding volume; nor will I fail to intimate to whom we owe the first monument raised by the gratitude of Scotland and to the memory of Burns. You did your best to have the poet honoured, and who can do more? I have likewise done my best, nor shall I be displeased should a worthier life be written or a better edition of his works published.

I have, however, no cause to repine at my success. There is a regular sale of five thousand copies of each volume of Burns' works, and

of the six thousand printed of the life only a few copies are unsold. Though I understand that my labours have not been quite acceptable to sundry persons in the vale of the Nith, it is otherwise with the rest of the country, and some of the first men in the island have written concerning the life and notes in terms of praise too flattering for me to mention. I am not much mortified at this reception in my native valley; so long as it is remembered that I wore an apron and wrought with a scabbling hammer in the Friars' Vennel, so long will my works not have "fair play;" but time renders justice to all, and the day is not distant when I shall either be forgotten altogether or be more honoured than at present on the banks of the Nith.

I am told that our friend Mr M'Diarmid has a life of Burns in progress. I am glad of this. He will set the world right in many important matters regarding the genius and fortunes of the poet. So solicitous was he, I have heard, about the truth, that he actually sat beside Mrs Burns with an interleaved copy of my life for two days questioning her till, to use her own words, she was both weary and ill-pleased about it. His love of truth on the part of our friend did not shorten, I trust, the life of the lady, though it seems to have embittered it. I observe that he says the true history of the poet's marriage has never yet been told. That is true, but can it be told with propriety? Should he desire to tell the whole truth, I can help him to three of the poet's letters on that very subject which have not been published, and which contain his sentiments on the matter.

I hear with some sorrow that the poet's sword and pistols, which he presented to Dr Maxwell, were sold at a sale of the latter for a mere trifle. This is not at all creditable to the admirers of Burns about Dumfries. I am trying to regain them, and I hope to succeed.

I beg you to accept my best thanks for the kind expressions contained in your letter regarding my edition of the poet. When I am next in Dumfries—and that will be soon—I shall find my way to Thornhill, without an invitation, and spend a day with one whom I remember with pleasure.

When I was a humble labourer in Dumfries, I looked up to you as one of those who loved literature, and I assure you time has rather strengthened than diminished this feeling.

ALLAN CUNNINGHAM.

Belgrave Place, 30th July, 1834.

The minute book, concluded Mr Wilson, contains no further information in regard to the cost of the Mausoleum and sculpture, although it appears that all charges against the Committee were duly advertised for and called in. Mr Grierson, the secretary, appears from a correspondence with Mr M'Diarmid in regard to a disputed subscription to have got his strong iron box robbed of the cash book, visitors' book, and other documents connected with the

Mausoleum when on a visit to the coast, and it is therefore impossible to tell from the documents at my command what amount was actually expended. The cost seems to have been well up to £2000, and I fear the verdict of the present day is that a very bad return has been received for the money expended.

Mr Wilson then alluded to the origin of the Burns Club in Dumfries. The Committee entrusted with the erection of the Mausoleum and their friends, he said, appeared to have celebrated the anniversary of the poet's birthday by dining in the King's Arms Hotel on 25th January, 1817. No dinner appeared to have taken place in 1818, but on 25th January, 1819, the event had been celebrated in the Globe Inn. At that meeting it was agreed to open a subscription for the purchase of a china punch bowl, to be used on all similar occasions, and the sum of £19 8s 6d was then subscribed in guineas and half-guineas. Accordingly a bowl was purchased, made by Spode of Staffordshire, of excellent workmanship, with elegant emblematic devices, capable of holding 3 gallons, and the original subscribers' names were placed thereon. A handsome silver punch spoon and three dozen glasses were also acquired, and along with the bowl produced at a meeting of subscribers on 18th January, 1820, and very much admired. The cost of the bowl was £15; of the spoon, £2 2s; and of the glasses £4 15s. It was then resolved in order to give effect to the celebration of the birthday of the bard to form the subscribers to the bowl into a society, to be named "The Burns Club of Dumfries," and Mr John Commelin was chosen president and Mr Grierson secretary, and minute regulations drawn up for an annual dinner. The newly-formed club dined in the King's Arms on 25th January following, about forty gentlemen being present, under the presidency of Mr Commelin, with Mr Syme as croupier. At this meeting Thomas White, mathematician, and James Hogg, the Ettrick Shepherd, were admitted honorary members. At the same meeting it was resolved as soon as the funds of the club would permit to purchase a *snuff mull*, and to have a portrait of the bard painted for the Club by an eminent artist. It had been arranged that Major W. Millar should preside at the dinner on 25th January, 1821, but in his absence Mr Commelin again presided, and Mr W. Gordon, jun., acted as croupier. This meeting took place in the Commercial Hotel, when thirty-seven sat down to dinner, which was excellent, the wines were good, the large china bowl was often filled with good whisky toddy, and the

company enjoyed the entertainment to a late hour. In the course of the evening Mr Gilbert Burns, the brother of the poet, and Mr Mayne, of the *Star* Office, London, a native of Dumfries, and author of the "Siller Gun," were created honorary members. Mr Gilfillan, a new member, and a rising artist, intimated that he would paint and present the Club with portraits of Burns and his widow, an intimation which was received with much pleasure. On 11th January, 1822, the Club met and appointed Mr John McDiarmid president, and created as honorary members Robert Burns, Wm. Burns, and James Glencairn Burns, sons of the bard ; Sir Walter Scott, Thomas Campbell, James Montgomery, Allan Cunningham, William Tennant, Professor of Oriental Languages, and author of "Anster Fair," and George Thomson, Edinburgh.

Sir Walter Scott replied to the secretary :—

23d January, 1822.

I am honoured by the intimation that the Dumfries Burns Club have distinguished me by admitting me an honorary member, to which I am not otherwise entitled, excepting my sincere and heartfelt admiration of the great national poet, whose memory it is the purpose of the institution to celebrate.

I beg you will make my respectful thanks acceptable to the members.

WALTER SCOTT.

The original of this letter is framed and hung up in Dr Grierson's Museum, Thornhill, and it is believed to contain the first notice of Burns as the "Great National Poet." At the dinner on the 25th, James Hogg was present, and at the particular request of James Glencairn Burns "a strong bottle was filled with punch from the bowl to be sent out to him to India," the carriage of which to London cost 7s 8d. James Hogg appears to have sung several fine songs. Keith Douglas, M.P., and Thomas Moore were admitted honorary members, and Mr Gilfillan presented the portraits of the bard and his widow decorated with wreaths of laurel taken from the shrubbery at the poet's tomb. Letters were also read from James Glencairn Burns and Mr Mayne.

In 1823 it was agreed to ask General Dirom of Mount Annan to preside at the anniversary dinner. The General consented to preside, and he was elected president for the year, while Sir John Malcolm, Sir Pultney Malcolm, and others were enrolled honorary members.

Allan Cunningham, of date 14th January, 1823, writes to the secretary :

I will thank you to express my acknowledgments to the Burns Club of Dumfries for having elected me an honorary member. Such a distinction was as much beyond my hopes as it was unexpected and welcome. To obtain the notice of our native place is a pleasure which befalls few, and I have the proverbial intimation of its rarity to warrant me in thanking you with as much warmth as delicacy will allow me to use. To the most gifted it seems honour enough to be named with Burns, and I know not that such honour is enhanced by electing me along with some of our most inspired spirits. Some declaration of my faith in the illustrious subject of your meeting may be necessary. I am proud to name the name of Burns, and I recall his looks and dwell on my remembrance of his person with fondness and enthusiasm. In my youth, when poesy to me was an enchanted and sacred thing, I loved to wander in his haunts and muse on his strains everywhere so full of pathetic tenderness and sublime and moral emotion. I thought then, and I think now, that capricious and wayward as his musings often were,—mingling the tender with the comic, and the sarcastic with the solemn—that all he said was above the mark of other men, that he shed a redeeming light on all he touched, and that whatever his eye glanced on rose into life and grace and stood consecrated and imperishable. I saw that his language was familiar yet rich, easy yet dignified, and that he touched on the most perilous themes with a skill so rare and felicitous that his good fortune seemed to unite with his good taste in keeping him buoyant above the mire of homeliness and vulgarity in which so many meaner spirits have wallowed. That in him the love of country, devotion, enthusiasm, love, happiness, and joy appear characterised by a brief and elegant simplicity at once so easy to him and unattainable to others that all those, and they were many, who sought to follow his track among themes of domestic life and homely joy wanted his power to dignify the humble, adorn the plain, and extract sweet and impassioned poetry from the daily occurrences of human life. All this and much more than this has been better expressed before, but I know on such a subject I will be indulged in a moderate degree of enthusiasm. I am not sure if you have safe accommodation in your Club Room for works of art. I ask this because I wish the Burns Club to accept from me the bust of a poet, one living and likely to live in his chivalrous poems and romantic stories as long, perhaps, as British literature shall live—the production, too, of the first sculptor of the Island—the bust of Sir Walter Scott by my friend Mr Chantrey. If such a thing can be accepted be so good as tell me, and I shall gladly confide its presentation to your hands.

ALLAN CUNNINGHAM.

Eccleston Street, Pimlico,
14th January, 1823.

The bust of Sir Walter Scott, by Chantrey, referred to in the above letter was duly despatched, and the donor again writes on December 25th, 1823 :—

Some ten or twelve days ago I forwarded to you by way of Leith the bust of Sir Walter Scott for the Burns Club of Dumfries. I hope by this time it has reached you in safety. You know much better than me how such things are introduced. You will therefore oblige me by presenting it in your own way at the next meeting. I trust you will have a large increase of members, and much mirth and eloquence. It was my wish to have written you earlier. I have long felt how much all owe to your discreet and active enthusiasm in other matters as well as those of song, and though slow in expressing it, I have not felt it the less sensibly. To render our native town distinguished, to make it, though less populous, as far known and famed as prouder cities, ought, and I trust has been, the wish of all her sons. For my own part, though living in a distant place, and out of the way too far to be with you in person, I feel not the less solicitude for the fame and name of Dumfries than those who have the happiness of dwelling in her streets. Humble and remote as I am, my best wishes are ever with you, and I love my native vale and district zealously to do it honour as the wisest or the proudest of its children. I am willing to think that I have, though in a far less degree, in the wish of him in whose honour you are so soon to assemble redesired, and was ever a desire more amply fulfilled for the sake of his country and the love he bore her—"To sing a song at least."

Remember me to Mr Macdiarmid.

ALLAN CUNNINGHAM.

London, 25th December, 1823.

The only further trace of the Burns Club he could produce was contained in the following letter from Sir Walter Scott, dated from Abbotsford, 29th December, 1831 :—

I am very much flattered with the invitation of the Burns Club of Dumfries to take their chair upon the 26th of January next, and were it in my power to do myself so great honour it would give me the most sincere satisfaction. But my official duty detains me in close attendance on the Court of Session during its sittings, besides which I am not now so equal as at a former part of my life either to winter-journeys or to social exertion. The severe illness to which I was subjected some years ago obliges me to observe great caution in these particulars.

I beg to express my sincere wishes for the conviviality of the meeting, and to express my most respectful thanks for the honour which the Club have conferred upon

WALTER SCOTT.

Abbotsford, 29th December, 1831.

4th of April, 1890.

Major BOWDEN, Vice-President, in the Chair.

New Member.—Mr John Thorburn Johnstone of Moffat.

Donations.—Annual Report of the Canadian Institute, 1888-9 ; Proceedings of the Society of Antiquaries of Scotland, 1888-9 ; and Mr J. J. Reid's paper on Mouswald and its Barons. Mr Scott Elliot presented a copy of Lees's Yorkshire Naturalists' Union, and botanical papers from Mr J. G. Baker, F.R.S., the author of them.

COMMUNICATIONS.

I. *The Flora and Fauna of Madagascar.* By G. F. SCOTT
ELLIOT, B.Sc.

Nothing would seem to be easier than for a botanist to describe the flora of a tropical island, but in reality nothing is so hard as to give an account of so strange and outlandish a vegetation. The flora of Madagascar contains probably 6000 or 7000 species, of which 10 per cent. are endemic. Most of these special forms, moreover, are so strange and extraordinary that anything like a detailed description is impossible. They are in fact vegetable kangaroos. I shall simply try to describe the vegetation, or rather the different vegetations, as one sees them. The island consists of an enormous mass of granitic mountains rising to a height of 10,000 feet in isolated peaks, but usually forming an irregular tableland or mountainous plateau about 4000 feet above the sea level. The flanks of this tableland are covered with dense and luxuriant forest, which thus forms a belt all round the island and limits the bare upland plateaux of the centre. Between this forest and the sea is a rather wide stretch of sandy plains broken by lagoons, brackish and freshwater lakes, and intersected in all directions by deep and broad rivers.

The flora of this sandy littoral is very monotonous. There is usually a stretch of short turf with *Phaseolus*, *Ipomæa Pes Capræ* and other plants with long trailing runners rooting at intervals. Our English sandpiper is common along the shore, but the commonest creature is a small red crab, of which myriads are always running up and down just outside the reach of the waves. It is a ferocious little animal, and snaps its extremely small claws whenever one approaches, while gradually sidling away into the water. There are in places very dense brushwood, formed chiefly

by *Lobelia Scævola* and certain *Rubiaceæ*, and this is at times broken by clumps of *Casuarina* trees and *Pandanus*. The former is a favourite perching place for the guinea-fowl, which are found in large numbers along the coast.

Every now and then one has to take to a canoe and travel up some sluggish river. The banks of these rivers are fringed by groups of Traveller's tree, Baobab and other trees, not differing so much from our own forms in appearance. A gigantic *Arum* with leaves nearly 4 feet long is often arranged in long rows along the margins. The beautiful blue water lily and the yellow *Limnanthemum* rest on the surface of the water, and occasionally one finds the latticed leaves of the *Ouvirandra*, one of the curiosities of the island. The lovely little blue and red kingfisher may often be seen perched on the bushes, and occasionally darting off after some incautious fish. Looking over the sides of the canoe one is astonished at the quantity of fish that inhabit these waters, and this explains the presence of crocodiles, which in such places are extremely numerous. They are not really often seen, but one hears frequently of oxen caught by the crocodile and dragged off for assimilation, or of some unfortunate woman gathering rushes who has been seized and disappeared for ever. Occasionally one rows under a group of flying foxes hanging by their tails. They turn their foxlike heads downward, expostulate vigorously, then unhook themselves and fly off with a strong steady flight. Such a stream ends in a wide lake or reedy lagoon, chiefly formed of *Cyperus æqualis*. Along its sides grow huge grasses 10 or 12 feet high, and on a withered tree one often sees a cormorant perched with its bill in the air and looking sideways downwards at the canoe with a peculiarly leery expression. Such places are the chosen haunts of the thirteen or so species of ducks, some as big as a small goose, others not larger than a quail. Herons of all shapes and colours abound, and other kinds of waterfowl are quite innumerable. Occasionally, though rarely, one sees a flock of flamingoes drawn up side by side, shoulder to shoulder, in a regular military line. The pure white line which their bodies form is visible miles away. Near at hand one sees the bright scarlet wing coverts which form a belt halfway down the white uniform. Such lakes and sandy stretches form a large portion of the coast, but one soon begins to leave them and mount the outlying flanks of the hills. These form a series of gentle slopes and valleys before one enters the forest proper. This is the home of the Traveller's tree, one of

the most striking plants in existence. It has a stem 8 or 10 feet high and about 20 leaves spreading out like a fan, each of which is about 10 feet long. The bright white flowers grow on a sort of cone at the bases of the leaves, and the honey is busily visited by a beautiful little sunbird with a scarlet and blue breast. The seeds are the great mainstay, moreover, of the rather dingy slate-coloured Malagash Parrot, which frequents them in great numbers. This tree is of the greatest use to the natives, whose houses are built almost entirely with its leaves. The water, however, obtained by piercing the leaf bases is lukewarm and of a very vegetable taste. It is also here that the Rofia palm, whose split leaves are so much used by gardeners, grows. It is also here that the Bamboos thrive, with their enormous gracefully curved leaves, like a gigantic bunch of ostrich feathers, of a delicate yellowish green. The extraordinary *Nepenthes*, moreover, is not uncommon on these slopes. The grass clothing these gentle rises is very harsh and useless, and there is an abundance of the common bracken everywhere.

Soon, however, one enters the true forest, which covers three or four ranges of parallel mountain chains. It is usually not very beautiful. The path is only about two feet wide, and is walled in on either side by a sort of gigantic hedge 70 or 80 feet high. This is formed of dense undergrowth and huge trees, from the lower branches of which hang the enormous foliage masses of the climbing plants. The aim of Nature seems to have been to fill every available space with leaves. There are no glades and none of those agreeable vistas so common in English woods. Though the appearance of these trees is not really very striking, they are all of entirely different kinds. One here meets huge *Compositæ*, the *Vernonias*, with enormous umbels of purple heads; such *Leguminosæ* as *Neobaronia* with fleshy, flattened, leafless branches. *Brexia*, a tree 80 feet high, whose nearest relative in our country is the *Saxifrage*; *Weinmannia* is also a *Saxifrage*. Many of the largest trees belong to *Euphorbiaceæ*, such as the genus *Euphorbia* itself and *Croton*. There is also a huge forest tree, *Wormia*, a near ally of *Ranunculaceæ*. Few of these trees are at all beautiful; perhaps the bright pink flowers of *Ixora* or *Colea* are the handsomest, and one of these in full blossom is very beautiful indeed. The creepers are chiefly objectionably spiny *Asparaguses* or *Smilax*, but their number and variety is enormous. The undergrowth of *Plectranthus*, *Balsams*, &c., is often very

beautiful, but it is on dead trunks and decaying stumps that one sees the finest plants of all : *Bolbophyllums*, *Angræcum superbe* with its long spikes, 18 inches long, densely covered with huge white flowers and *A. sesquipedale* with its enormous spur. Ferns of all kinds abound ; tree-ferns 20 feet high ; and in the deeper denser parts huge quantities of *Hymenophyllum*, as well as many of our common forms. The silence in these huge forests is sometimes almost oppressive. Almost the only animals are the different kinds of lemurs, whose shrill whistling bark may occasionally be heard. Different species are adapted to play the parts of monkeys, squirrels, dormice, &c., none of which exist here. The larger kinds live in large bands flying from tree to tree, and feed on small birds, fruit, &c. Others live in hollows regularly hibernating, and to do this store up their winter food in their tails, which become extraordinarily fat and fleshy. Here the wild boar, really a *Babiroussa*, spends most of his time. He wakes up towards evening, and spends the night wandering about feeding on the *pommejacot* (*Imbricaria*). Sometimes one comes on huge furrows made by him when ploughing up the Lily bulbs, *Dioscorea*, &c. Sometimes he digs up the unfortunate *Tenrec*, a kind of hedgehog which hibernates below ground, and eats him, but his most favoured morsel is a snake. He begins at the tail and eats up the snake to the head, which he always leaves untouched. Towards morning he retires to a shady spot, and there makes a comfortable bed, covering himself with dead leaves and grass, where he slumbers till the evening. The only important carnivorous mammals are insectivoræ, the largest being the *Fouche*, a nondescript mastiff-like creature which one seldom sees. The whole of the animals are far less specialised structurally than those of the continent, while in habit they seemed quite as distinct. Of birds the handsomest are the *Couas*, with very beautiful bluish plumage ; there are also hoopoes ; several kinds of pigeons, one of which has a sort of whining bark very much like a small terrier ; a peculiar black starling also lives in flocks, flying from tree to tree. A bird called the "Tolo," a kind of cuckoo with an absurdly long tail, is very common ; it is very stupid, and never seems to realise that its tail can be seen when once it has concealed its head. Still, in spite of these exceptions, it is really insects, and especially butterflies, which give a little brightness and colour to the forest. Fifty or sixty brilliant blue and black butterflies fluttering above a little stream by the path are really a wonderful sight, and Red

Admirals, pure white Papilios, and Acraeas with bright red spots on their wings, are all very common in the darker places. Sometimes one sees a millipede about 10 inches long, with hundreds of twinkling red feet crawling over the path, and a very large wood-louse, which rolls into a ball about an inch in diameter, is very common. But the insects are a study in themselves in Madagascar. When one emerges from the forest into the interior, the difference is extraordinary. As far as the eye can reach, there is nothing but range after range of bleak granite hills covered with a uniform grey grass broken by low scrubby perennials. Only small bushes with heath-like leaves seem able to live on the soil, which is a hard red clay, the debris of the granitic and gneissose rocks. The flowers are usually very inconspicuous, and it is most remarkable to find Rubiaceae such as *Anthospermum*, *Leguminosae* e.g. *Indigofera*, *Hypericums*, *Stachys*, *Philippias*, &c, all taking the same appearance. There is even an extraordinary Monocotyledon which has done its best to become something of the same kind—*Vellozia*. Where there is more water the flowers are more beautiful, and it is in such places that one finds *Disas* and *Habenarias* with long stalks and bright pink and white flowers, or that most beautiful *Gentian Tachiadenus* with a corolla 4 inches long, and the handsome shrubby *Impatiens* forms; but it is impossible to do justice to these flowers in such a paper as this.

The main features of the flora are, however, easy to understand. There is a certain number of seaside plants usually the same as those found along the Eastern Coast of Africa. The flanks of the mountains are covered with forest, and this flora shows most affinity with the forest plants of the East African Coast, while the bare steppe-like highlands of the interior are covered with plants which show distinct relationship with the similar grassy plateaux of the Transvaal and the Shiré Highlands.

II. *Annan : Its Historical and Literary Associations.*

By Mr FRANK MILLER.

Mr Miller said the town which he had been asked to describe was interesting to every student of Scottish history as one of the famous old border burghs. Owing to its geographical position, it was sadly exposed to the fury of invaders during the long-continued wars with England; and again and again it was the scene of desperate conflict. When at length the union of the crowns secured a permanent peace, it was universally acknowledged that

the exertions of the stout burgesses of Annan had proved of the utmost value in the struggle for the maintenance of the rights of the little kingdom of Scotland. Not only was the burgh renowned in history ; it was rich in association with some of the most illustrious of modern Scotchmen. The greatest lyrical poet the British Isles have produced, one of the most intrepid of African explorers, a pulpit orator of unique power and spiritual elevation, and the deepest and most earnest thinker of our time had all been more or less closely connected with it. As the town in which Irving was born, and in which Carlyle received his education, Annan would never cease to be regarded with interest.

Having made a brief reference to the churchyard, and quoted several of the more curious epitaphs, Mr Miller proceeded : Annan Castle, the site of which has so long been occupied by the churchyard, was erected at least a hundred years before the War of Independence for the protection of the town, which, as references in various ancient documents show, was even at that early period a place of some importance. In the year 1300 the Castle was repaired by Robert the Bruce, whose ancestors had obtained the whole of Annandale in fief. A stone from the building, with Bruce's name and the date 1300 inscribed on it, was seen by Pennant "in the wall of a gentleman's garden," when he visited the town in 1769. It is now at Bideford, in Devon, from which, let us hope, it will one day be brought back to Annan. The Castle is associated with not a few stirring events in Scottish history. Of these perhaps the most memorable is the defeat of Edward Baliol by Lord Archibald Douglas in 1332. Shortly after his coronation at Scone Baliol gained possession of the fortress, and commanded the barons of Scotland to repair to it and do him homage. His movements, however, were carefully watched by Douglas, who, at the head of one thousand horsemen, rode hastily from Moffat, and falling upon the town and castle at midnight, routed the forces of the usurper with much slaughter. Baliol lost his brother Henry and the most distinguished of his English followers in the action, and only saved his own life by fleeing precipitately to Carlisle. During the long wars with England the Castle was frequently captured and laid in ruins. As the chief stronghold of the town which was the key to the West of Scotland, it could not be abandoned to destruction ; and after demolition by the foe it was always speedily rebuilt. Eventually the pious but poverty-stricken burgesses obtained permission from James VI. either to

convert it into a place of worship or use its stones to build one. Though its Castle was the main defence of Annan in time of war, the church, which stood near to it, was also a place of strength, the tower being fortified. The destruction of "Annan Steeple" was the chief object of an English invasion in September, 1547. At the head of 2500 men, "whereof 500 were Scotsmen that served the King," Lord Wharton advanced to the attack, planting his siege train on the slope known as Battery Brae. The defenders were ably commanded by an officer named Lyon and by the Master of Maxwell, and the Lairds of Johnston and Cockpool. They did not exceed a hundred in number, yet for eight hours the unequal struggle was maintained, the heroic men of Annan hurling defiance at the foe—

"Till forty of the poor hundred were slain,
And half of the rest of them maimed for life!"

The battered church after its capture was completely destroyed, being blown up with gunpowder. "This done," writes the old historian, "the English sacked and burnt the town, and left not a stone standing, for it had ever been a right noisome neighbour to England. The Englishmen had conceived such a spite to it that if they saw but a piece of timber remaining unburnt they would cut the same in pieces."

Near to the brae from which on that far-off September morning the invaders' guns poured their deadly discharge stands "The Moat," a long old-fashioned house, guarded by spreading elms and beeches. In the midst of the grounds, which stretch down to the holm, is a small tree-crowned height—one of the artificial eminences so common in Annandale. The "Moat Hill" is generally supposed to have been raised in early times as a spot on which to assemble for the administration of justice, but its origin is really wrapt in mystery. The Moat for a few months in 1808 was the residence of the Rev. James Grahame, author of "The Sabbath," who married an Annan lady, a daughter of Richard Grahame, town clerk. In his charming retreat the poet wrote "The British Georgics," gaining fresh inspiration from the old-world garden and the little wildernesses of tree and shrub. Only a Virgil can treat satisfactorily such a subject as "Husbandry," but Grahame's work has merit, and in many of the lines the influence of local scenery can be traced.

Proceeding, in his description of Annan, to the Town Hall, a handsome modern erection, Mr Miller gave some of the results of

his examination of the records preserved in that building. These documents include the Council Minutes from 1678 to the present year, and a number of important "dispositions." The lecturer expressed his surprise that the older Council records, from which much curious information could be gleaned, had never been transcribed and published. Referring to the state of the burgh two hundred years ago, he said : The poverty of Annan in the closing years of the seventeenth century seems to have been great. One privilege, that of collecting customs, was enjoyed by the town, having been granted by Charles II. to recompense the burghers for their losses during the civil wars which raged in the time of his father. A ferry boat on the river was "pairte of the common good," but the rent yielded by it seldom amounted to 40 pounds Scots per annum. The appearance of the town shewed its insignificance. The houses were small and of rude construction, while the church was a plain building without a steeple. The sanitary condition of the burgh was unsatisfactory, though the magistrates now and again issued orders for the cleansing of the street, and fined persons found guilty of indulging in practices detrimental to the public health. The inhabitants being "sudden and fierce in quarrel," fights and aggravated assaults were common. In 1686 the schoolmaster was fined ten pounds Scots for fighting, and in 1700 the town clerk was condemned to pay fifty pounds Scots "for a blood and ryott committed by him upon Robert Johnstone, son to the deceased David Johnstone, sometime bailie." Women not infrequently figured in assault cases, "ryving of hair" being one of the favourite amusements of the gentler sex. The good old sport of tossing in a blanket was not unknown in Annan, as is shown by an entry, dated 1694, recording the infliction of a fine upon two men "for raising of an blanket and throwing of David Johnstone and Adam Johnstone to the ground." If quarrelsome, the people were comparatively honest. At times a goose was stolen from the common, or peas and beans were taken from a neighbour's garden, but few serious cases of theft occurred. Offences against property were punished with more than the usual severity. In 1701 a servant maid, convicted of complicity in a theft of barley from her master's barn, "was ordained to be put in the stocks on Monday morning, and to continue there during the magistrates' and Council's pleasure." The court, considering it probable that the girl's master would prove tender-hearted and refuse to give her up on the awful Monday morning, wisely appended to the sentence

these words, "and the said John is ordained to be imprisoned if he fail to produce her." Amongst other offences with suitable penalties attached were, "saying that the magistrates did not give true judgment," "building of peat stacks upon the High Town Street," "raising and pulling up of march stones," and "cutting and carrying away of wood" from plantations in the neighbourhood. Persons were frequently fined for "irregular marriage," and on one occasion a man was prosecuted for "resetting the Egyptians and also eating and drinking with them"—in other words, for sheltering gypsy outlaws and fraternising with them.

Passing from the picture of life in the burgh two centuries ago as reflected in the Council records, Mr Miller alluded to the connection of Carlyle with Annan, mentioning that the Old Academy, to which he was taken by his father on that "red sunny Whitsuntide morning" in 1806, has long been the residence of Mr Batty, who for many years was Chief Magistrate of the burgh. The house is large and dark—one of the buildings which Dorothy Wordsworth had in her observant eye when she penned her singularly graphic description of Annan. Carlyle's "doleful and hateful school life" lasted till 1810, when he was sent to Edinburgh University. Four years later he returned to Annan, having obtained by competition the post of teacher of mathematics in the Academy. He remained in the town till 1816, boarding with Mr Glen, the burgher minister, in the house in Ednam Street now occupied as the United Presbyterian manse.

With the name of Carlyle will always be associated that of Edward Irving, who was born in 1792, in a house in Butts Street. Gavin Irving, the father of the preacher, was a tanner, carrying on his trade in a yard near to his dwelling-house. He held the office of bailie when the election celebrated in Burns's "There were five carlins in the south" took place. His wife, Mary Lowther, was a native of the parish of Dornock, where her father owned a piece of land. She was a handsome woman, with brilliant black eyes, and her energy and force of character won the admiration of all who came in contact with her. Irving received his education at Annan Academy, of which the talented Dalgliesh was head master. In a few sentences the lecturer outlined Irving's meteoric career, and remarked that not a few of his townsmen would still tell with strange awe how they witnessed in their youth his solemn deposition in Annan Parish Church and listened to the cry of anguish which burst from his lips when his opinions were condemned.

Another celebrated man, Hugh Clapperton, the African explorer, was born in Butts Street, in 1788. His father (a native of Lochmaben) was the only surgeon resident in the healthy town. Miss Clapperton, the explorer's cousin, had kindly allowed the exhibition to the Society of Dr Clapperton's ticket of admission as a burgess of the royal burgh.

Annan, it was mentioned, was also the birthplace of Thomas Blacklock, the blind poet-minister, author of the beautiful sixteenth paraphrase ; but the house in which he was born has long since disappeared—its very site has been unknown for at least fifty years.

Towards the close of his troubled life Robert Burns had often occasion to visit the town, which was then the home of numerous smugglers, a large contraband trade being carried on with the Isle of Man. "The Deil's Awa' wi' the Exciseman" was written in a house in High Street, not on the shore of the Solway, as stated by Chambers on the authority of Lockhart. The poem, immediately after composition, was read by Burns to a large company assembled in the house. Mr Miller explained that this fact was made known to him by Dr Williamson, whose father and grandfather were both included in the poet's audience.

Another building in High Street was worthy of notice. In December, 1745, the retreating army of Prince Charles Edward bivouacked at Annan, and "Scotland's Heir" found shelter in the Buck Hotel. The burgesses were prudent enough not to quarrel with the Highlanders ; but over their "white port" they breathed devout wishes for the speedy destruction of the Prince and all his followers. During the Rebellion the Magistrates and Council met in the public-houses almost daily to discuss the movements of the enemy. Much liquor was, of course, consumed at the expense of the burgh, and some of the publicans' bills remained unpaid until 1749. A quotation from the minute of the Council meeting at which payment of the outstanding debts was authorised may be acceptable.

Find upon examination of the said accompts that the greatest part of the articles therein stated have been contracted by some of the Councillors when met together for intelligence and advice about their common safety in the years 1745 and 1746, when the country was in the utmost confusion by the late unnatural rebellion. . . . Do declare that this indulgence is only on account of the late troubles, and that this act shall be no precedent to invalidate or infringe the foresaid act of the

Town Council on the 7th of December, 1740, regulating the extent and method of payment of the burgh's expenses in public-houses.

2nd of May, 1890.

Major BOWDEN in the Chair.

New Member.—On the motion of the Secretary Mr J. G. Baker, F.R.S., curator of the Kew Botanical Gardens, was elected an honorary member.

Donations.—Proceedings of the Natural History Society of Glasgow, 1887-9 ; Proceedings of the Nova Scotian Institute of Natural Science, 1888-9 ; Annals of the New York Academy of Sciences ; the Seventh Annual Report for 1885-6 of the United States Geological Survey.

Mr Scott Elliot made a report of his preliminary efforts in procuring assistants for forming a *Flora* of the district, and the formation of an Herbarium for Dumfriesshire and Galloway.

The Dinwiddie Library.

The Secretary read the following letter, received through Mr Robert Stoba, Solicitor, from Mr Robert Dinwiddie, of New York.

BRAE SIDE, SCARBOROUGH-ON-HUDSON,
NEW YORK, 1st March, 1890.

TO DR EDWARD J. CHINNOCK,
Secretary of the Dumfriesshire and Galloway Natural
History and Antiquarian Society,
Dumfries, Scotland.

SIR,

Mr Robert Stoba has kindly consented to hand you with this letter two cases of books as per enclosed list, formerly the property of my late father, Robert Dinwiddie, a native of Dumfries, and, as I believe, a member of your Society. These books were bequeathed in his will to me, but I have concluded to offer them to your Society in the hope that they may prove of value to its members in many ways. I trust that they may prove acceptable to your Society, and find a permanent home among the fellow-townsmen of my father, and I desire that they shall be added to your library of reference, and be known as the "Robert Dinwiddie Library," and held subject to such regulations that, while promoting to the utmost usefulness to all members of your Society, they will still be protected as far as is possible from loss, destruction, or mutilation. In presenting these books to

your Society, I do so believing that such disposition would have been agreeable to my father's wishes could he have been consulted, and I am glad to be the medium of tendering you this donation to your library.

I have the honour to be,

Yours very truly,

ROBERT DINWIDDIE.

The Secretary was directed to write thanking the donor for his valuable present.

Mr James Lennox, F.S.A. (the Librarian) read the following paper entitled "The Dinwiddie Library, and how it came to this Society":—

The original owner, Mr Robert Dinwiddie, was born in Dumfries, 23d July, 1811, and died at New York, 12th July, 1888. He was the third son of Mr William Dinwiddie, hosier. Commencing life in the Dumfries branch of the Commercial Bank of Scotland, he rose to be teller. He emigrated to America in 1835, and joined the house of Brown Brothers, merchants and bankers in New York; shortly afterwards entering the employment of J. Laurie & Co., commission merchants, in which business he succeeded them, being left by them to administer funds for St. Luke's and the Presbyterian Hospital in connection with the St. Andrew's Society of New York.

He retired from business in 1883, and then devoted more of his time to scientific pursuits, although he had always been a worker both in archæology and botany. His attainments in these had been recognised, as he was fifteen years a member of the New York Academy of Sciences and an active member of the Microscopical Society up to the day of his death. Some years ago he gifted the whole of his extensive scientific library to the New York Academy of Sciences, and what is now under our own roof has been collected since that date, being more valuable as they are more recent.

He visited this country a few years ago, being here when the Cryptogamic Society were in Dumfries, and during his stay he was admitted a life member of this Society. The history of the New York Academy of Science contains a portrait of him, but no mention appears in the text, as it was with great difficulty that they persuaded him to sit for this plate, but on no account would he allow anything to be said of him.

The books consist of 229 bound volumes and 22 unbound. They embrace:—24 Microscopic, 5 Medicine, 8 Geology, 24

Natural History, 38 Botany, 13 Natural Philosophy, 4 Meteorology, 6 Travels, 43 Reports of Societies, and 57 Magazines, &c.

To go fully into these would make a lengthy paper, as many of these subjects can be sub-divided into very many special studies. Amongst them we have books on fresh water plants, salt water plants, shells and fish, cryptogamic botany and flora, &c. The books are, in the main, English; many of them are elegantly bound in half morocco and half calf, which will add much to their usefulness in handling.

COMMUNICATIONS.

I. Observations of the Temperature of the Nith and its Estuary for the year ending 15th April, 1890.

By Rev. WM. ANDSON.

The observations were taken at the instance of a committee of the British Association, which was appointed to obtain observations of the temperature of rivers, estuaries, and lakes over the United Kingdom as compared with that of the air, and as modified by the direction and force of the wind, the state of the weather, &c., the chief object being to ascertain the seasonal variations. The observations at Dumfries were taken throughout the twelve months. Mr James Lewis took the observations of the estuary at Kingholm Quay, from 25th June to 21st March, and observations were begun at later dates in the River Dee by Rev. W. I. Gordon, of Tongland, and in the Dee estuary by Mr Macdonald, lighthouse keeper, Little Ross. These, he understood, were still being carried on, but as the year was not completed they could not be reported upon. The Nith observations, he explained, were taken at the Dumfries boathouse, where there was an average depth of more than three feet. In consequence of the damming of the water by the weir below the Old Bridge the river at this point never fell very low; he had never seen the depth less than $2\frac{1}{2}$ feet. On two occasions of heavy flood even the parapet wall was overflowed—once in the beginning of November, when the depth was estimated to have been fully ten feet, towards midnight on the 1st; and again on 25th January, after heavy rain and the melting of snow on the high grounds, with a south-west gale, when the depth of 9 feet was registered at the gauge on the Old Bridge. The hour of observation was at or near noon. The following table shewed the mean temperature of the air and water for each month

separately, along with the state of the river or the mean depth as registered at the gauge (which was erected in July), viz. :—

	<i>Air.</i>	<i>Water.</i>	<i>Dif.</i>	<i>State of River.</i>
Corrected Means for April .	51·3°	45·8°	5·5°	Average.
„ May....	60·5°	56·6°	3·9°	Under average.
„ June ...	65·8°	63°	2·8°	Low and very low.
„ July....	63·3°	60·3°	3°	Very low till 10th, then above avg.
<i>Mean Depth at Gauge—</i>				
„ Aug. ...	62·3°	57·5°	4·8°	5 feet.
„ Sept....	59·7°	53·1°	6·6°	4·6 „
„ Oct.	49·6°	45°	4·6°	5·1 „
„ Nov. ...	45·6°	43·1°	2·5°	5·2 „
„ Dec....	40·2°	38·2°	2°	5·5 „
„ Jan. .	44·4°	40·5°	3·9°	6 „
„ Feb. ..	42·8°	38·1°	4·7°	4·8 „
„ Mar. ..	48·5°	41·1°	7·4°	4·9 „
	<hr/> 634°	<hr/> 582·3°		
Means for whole year	52·8°	48·5°		
	<hr/> 48·5°			

Mean difference between air
and water for year 4·3°

From this table it will be seen that the highest monthly mean temperature of the air for the year was in June, when it was 65·8°, the mean temperature of the water for the same month being 63°, also the highest mean for the year. The lowest was in December, when that of the air was 40·2°—water, 38·2°; but the mean temperature of February for the water was a fraction lower than this, viz., 38·1°, while that of the air was 42·8°. Range for monthly means—air, 65·8°; water, 38·1°—27·7°.

The highest single reading for the air was on 31st July ... 76°

The lowest single reading for the air was December ... 31°

Extreme range for air 45°

Highest single reading for water was on 4th July ... 66·6°

Lowest single reading for water was on 13th February ... 32°

Extreme range for water ... 34·6°

The months in which the mean monthly temperature of the air and water most nearly approximated were: December, when the difference was only 2° (*i.e.*, of air above water); November, 2·5°; June, 2·8°; and July, 3°. Those in which the temperature varied

most were : March, 7.4° ; September, 6.6° ; and April, 5.5° . Mean difference for whole year, 4.3° . Thus it will be seen that the months in which the temperatures of the air and water most nearly approximated were those in which the day was at the shortest and the longest. In other words, there were two maxima and two minima of difference between the temperatures of the air and water, the former occurring in the months of March and September, the equinoctial months ; and the latter in December and June, the months of the winter and summer solstice. The former fact is easily explained, but it is rather a curious circumstance that the same thing should hold good of the month in which the sun is longest above the horizon, and most vertical. The explanation, I have no doubt, is that in the latter part of June and the first part of July, when there was a period of drought and warm weather, which lasted more than three weeks, the river fell to its lowest level, and the current was very sluggish. Hence the water became more heated than in ordinary circumstances, and its temperature more nearly approached that of the air.

Though as a rule the temperature of the air was higher than that of the water, there were a good many exceptions to this rule, especially in the months of May, June, July, November, and December. Thus there were five days in May in which this occurred, six in June, and four in July, with an aggregate excess in the temperature of the water of 37° . In November and December there were also 15 days with an aggregate excess of 30.4° , the greatest number being in December, viz., 10 days, while on other two days of that month the temperature of air and water was equal. The conditions under which this state of things was observed were, as a rule, in summer, when the temperature was lowered by cloudy and wet or dull and foggy weather, or by the prevalence of cold winds ; and, in winter, when the conditions were similar, or when frost set in. The most extreme difference was observed on July 7th, when the reading of the air temperature was 53° , and that of the water 65° —a difference of 12° . This was at the close of the period of drought before alluded to. The greatest excess in the temperature of the air above that of the water occurred in March, when on 16 days it was higher by more than 7° , ranging from 7° to 14.5° ; and the next in September, in which month there were 13 days in which the difference exceeded 7° , ranging from 7° to 13.2° . On these occasions the weather was

for the most part bright and sunny, or if cloudy or rainy, very mild, with south or south-west winds.

I have also to submit a table shewing the mean monthly temperatures of the air and water of the estuary of the Nith at Kingholm Quay, and taken with great regularity by Mr James Lewis, for a period of about nine months, from 25th June, 1889, to 21st March, 1890. The hours of observation necessarily varied, because the proper temperature of the estuary could be obtained only when the tide was up. For the most part they were taken between the hours of 9 A.M. and 4 P.M., though sometimes a little earlier and sometimes a little later.

				Air.	Water.	Difference.
				<i>Means.</i>		
From 25th June to 31st July	...	...	...	61.3	61.5	+0.2°
„ 1st to 31st August	...	...	...	59	56.9	-2.1
„ 1st to 30th September	...	...	...	56.2	54.4	-1.8
„ 1st to 31st October	..	...	..	45.5	45.8	+0.3
„ 1st to 30th November	...	...	...	45.8	41.6	-4.2
„ 1st to 14th December	...	...	...	38.3	36.8	-1.5
„ 1st to 31st January	..	...	...	41.1	39.5	-1.6
„ 1st to 28th February	...	...	...	40	37.4	-2.6
„ 1st to 21st March	..	..	...	42.7	40.4	-2.3
Sums				429.9	414.3	Mean
Means				47.7	46	Difference.
						1.7

From this table it will be seen that for the period from 25th June to 31st July the mean temperature of the estuary was a fraction of a degree higher than that of the air, and the same thing occurred again in October. In all the other months it was lower, but not to the same extent as in the case of the river temperature. Taking the whole period during which observations have been made, the mean temperature of the air was 47.7° and of the water 46°, giving a mean difference of only 1.7°, instead of 4.3° as in the case of the river. This result might have been somewhat modified if the observations had been extended over the whole year instead of nine months, but not, I think, to any great extent, there being an obvious reason why the temperature of the estuary should be higher than that of the river as compared with that of the air, viz., the fact that when the tide rises it passes over the extensive tracts of sand which in the Solway Firth are left bare by the receding tide, and in sunny days become heated by the sun, to which it may be added that the influence of the Gulf Stream must tell in

some degree upon the temperature of the tidal water, while that of the river is wholly unaffected by it. It may perhaps be asked why the mean annual temperature of the air in my observations should be $52\cdot5^{\circ}$, while in those of Mr Lewis it is only $47\cdot7^{\circ}$, and the mean temperature of the water $48\cdot5^{\circ}$, as compared with 46° . But this admits of an obvious explanation. For one thing, there were no observations taken by Mr Lewis in April, May, and the greater part of June, while mine included these months, and another thing to be taken into account is that my observations were taken invariably about noon, when the heat of the day was approaching its maximum, while those of Mr Lewis were taken at all hours when the tide was up.

I regret that I have not been able to procure a sufficiently extended number of observations of the temperature of Lochrutton Loch to be of much value, but by the kindness of Mr Beck and Mr Lindsay I got observations made from the 8th to 19th August, and from 13th September to 1st October, with the following results :

				<i>Means.</i>		
				<i>Air.</i>	<i>Water.</i>	<i>Difference.</i>
From 8th to 19th August	...	...	...	58·3	61·1	+2·8
,, 13th September to 1st October	...	...	...	54·3	55·2	+0·9

From this we may probably infer that during at least the autumn and winter months, and possibly in summer also, the temperature of the Loch is, as a rule, in excess of that of the air. But the observations are too limited in number to warrant any decided conclusion being founded upon them.

II. *Seaweeds.* By Mr JOSEPH WILSON (late Secretary).

Seaweeds form by far the largest section of the Algæ, which is one of the three great classes into which the thallogenous plants are divided. They are most abundant in the tropics, and many thousand species have been found in the waters surrounding the British Isles. These aquatic plants vary very much in size, form, texture, and colour. Some species are entire and coriaceous, others branched and filamentous ; some are flat, with or without a midrib ; others are round, and in some instances measure several hundred feet in length. One characteristic feature of all is that they have no true roots, but absorb their food instead from the medium in which they exist.

The seaweeds found along the shores of Dumfriesshire and Galloway have not, as far as I am aware, been catalogued, and although they are not so varied or plentiful as those on more exposed coasts they form a portion of the flora of the district and should not be overlooked.

Seaweeds are found in greater abundance on the rocky and exposed coasts, in the pools of water among the rocks, and growing in the water when the tide is at the ebb. As there are no rocks along the coast of Dumfriesshire, but sand banks instead, and the distance to the water's edge when the tide is out considerable, only a few specimens can be obtained growing in the natural state, and not many are to be gathered when washed ashore by storms. The Galloway coast differs from that of Dumfriesshire, for there are rocks at Douglas Hall, Colvend, and further westward, but these are either of the Silurian or Igneous formations, and are not so favourable to the growth of seaweeds as the softer rocks.

In order to investigate the seaweeds of the district it is necessary to examine the rocks or other structures where they grow at all seasons of the year, and every opportunity should be taken to collect specimens washed ashore by spring tides and storms. Under these circumstances the making of a complete list of seaweeds is no easy task, and as the spare time at my disposal was limited, I have only been so fortunate as to secure some of the commoner species, many of which I now exhibit and briefly notice.

SUB-CLASS I.—*Melanospermeæ*.—The seaweeds in this sub-class are of an olive colour and grow in abundance on every shore, except one genus—*Sargassum*—which covers immense tracts of the Atlantic in the tropics. This sub-class is divided into six orders, which we shall briefly notice.

Fucaceæ.—All the plants in this order are dark olive and have the peculiarity of turning black when dry. The following are frequently met with: *Halidrys Siligiosa*, growing in rocky pools, and at low water mark on the rocks at Douglas Hall and the Galloway coast. *Fucus vesiculosus*, common sea-wrack, grows on every stone washed by the tide.

F. Serratus, common, is distinguished by the serrate fronds, no air vessels, and grows in large patches on the rocks between tide marks. *F. Nodosus*, also common, generally washed ashore at Glencaple and Ruthwell by the tide. A number of parasitical species attach themselves to this plant. *F. Canaliculatus*, a small

plant scarcely four inches in length, grows in tufts on rocks between tide marks at Douglas Hall and Colvend. *F. Ceranoides* at the mouth of Nith near Glencaple.

Himanthalia Lorea, or sea thongs, grows on the rocky shores at low water mark and is frequently washed ashore with spring tides. *Desmarestia aculeata* is a representative of the second order—*Sporochnaceæ*--occasionally met with growing in pools on the Colvend coast. Order III.—*Laminariaceæ* is represented by *Alaria esculenta*, occasionally washed ashore in winter; *Laminaria digitata* and *L. Saccharina*, frequently met with along the Caerlaverock shore; and also *Chorda filum* in winter and spring. The plants in the next three orders grow attached to rocks at low water, or in tidal pools, but I have only been able to distinguish one genus—*Dictyosiphon*—from Ruthwell.

SUB-CLASS II.—*Rhodosperrmeæ*.—The plants in this sub-class differ in texture and colour, and the frond is more or less jointed, as you will notice from the specimens exhibited. *Odonthalia dentata*, frequently met with on the coasts of Fife, should be found at Colvend. *Polysiphonia nigrescens*, *P. fastigiata*, are very frequently met with on the stems of *Fucus nodosus*. *Laurencia pinnatifida*, or pepper dulse, found growing on stones at Colvend. *Corallina officinalis* grows on the rocks at Douglas Hall, &c., and *Delesseria sanguinea*, *D. alata*, grow attached to the stems of the *Laminariæ*. *Plocanium coccineum* is abundantly met with along the whole coast, and is a great favourite with every sea-side visitor. *Rhodymenia palmetta*, dulse, not so frequently used for dietetic purposes as formerly, grows attached to the rocks, and the lesser dulse, *Iridwa edulis*, is occasionally met with among the larger seaweeds attached to the rocks. Several species of the *Ceramiceæ* may be found in the waters of the Solway. *Ceramium rubrum*, *C. roseum*, *C. Turneri* are occasionally gathered growing on the larger seaweeds.

SUB-CLASS III.—*Chlorosperrmeæ*.—The grass-green seaweeds are represented by the *Siphonaceæ*, *Confervaceæ*, and *Ulvaceæ*, among which *Cladophora rupestris*, common; *Conferva rupestris*, *C. Albida*, *Enteromorpha intestinalis*, and *Ulva latissima* are frequently met with on the sand shores at Caerlaverock and Ruthwell.

III. *Edgar's MS. History of Dumfries.* By Mr JAMES BARBOUR.

Dr Burnside's MS. History of Dumfries, written in the year 1791, contains reference to an earlier MS. account of the town by Edgar. The original of this latter work is not known to be extant, but a transcript of it is embraced in the Riddel MSS. preserved in the library of the Antiquarian Museum, Edinburgh. A copy has been obtained for this Society, and, as desired by the Secretary, I have prepared a brief notice of it.

A note prefixed to his transcript by Riddel explains how it was obtained and who the author was. He says:—"This account of Dumfries was wrote by —— Edgar, a burgess of that burgh. He was father to the late Theodore Edgar of Elsisields, near Lochmaben. I had it copied from the original MS. in —— Edgar's own handwriting, which, in 1790, was in the possession of John Clark, senr., writer (and late Provost) of Dumfries." (In.) R. R. 1791.

A monument to the memory of Theodore Edgar of Elsisields stands in St. Michael's Churchyard, from which we learn that he died 5th February, 1784, aged 68. On another stone within the same enclosure we read: "Here lyes the body of Mr Robert Edgar, writer in Dumfries, who lived almost four score years and ten, and died an honest man. July 4th, 1759." This was our author, of whom, although doubtless a prominent man in his day, little is now known. Many legal documents are extant in his handwriting, and the Seven Trades' minute book shows that he acted as clerk to the Incorporations during the long period of forty-five years, from 1701 till 1746, when he resigned.

The MS. appears to have been written at a period later than 1745, the events of that year being referred to in it in terms indicating the lapse of some time since their occurrence. It is entitled:

INTRODUCTION TO THE HISTORY OF THE TOWN OF DUMFRIES.

In which the Origin, Situation, Length, Convenience, Royalizing, Buildings, Demolitions, Advances of Trade, are considered from the Earliest Accounts.

2nd. The Government, Administration and Execution thereof, Crafts Increase, Industry and Manufactures are shown, with Reasonable Remarks and Advices on the Whole.

By a Lover of Truth and of the Welfare of the Burgh.

There is prefixed an address "To the Reader," from which it may be inferred the MS. was intended for publication. The names given to Dumfries, the origin of the town, and its situation, antiquity, and topography are treated of, but the work may be regarded mainly as a disquisition on the constitution of the Burgh and the administration of its affairs.

I will submit a few of the topographical details. The main street is described as extending from the head of Friars' Vennel to Catstrand, a mile in length. Many of the names then common continue in use, such as Friars' Vennel, Townhead, Fleshmarket Street, and Whitesands. Others have given place to new names. Irish Street was formerly known as West Barnraws, Shakespeare Street as East Barnraws, Loreburn Street as North-east Barnraws, and Queensberry Street as Mid Barnraw. The peculiar arrangement of the numerous closes in the town is described as resembling the teeth of a comb. They were on each side of the streets 30 or 40 feet apart, and led down to the inhabitants' houses, yards, and barns. The streets are described as being well paved and free of standing water.

The public buildings belonging to the town were :—The Old Tolbooth, now a bookbinder's workshop, situated opposite the Midsteeple on the south side of Union Street, which was rebuilt before the Rebellion of 1715 ; the Prison or Pledge-house, which stood on the north side of Union Street, and was built at the King's command and the town's expense in 1583 or 1585, as appeared by an inscription on the forewall ; the Midsteeple, built in 1707 ; and the New Church, built in 1727. The town also added a north-west wing and a tower to the Old Church after the Reformation.

Previous to 1708 there were only two bells in the town—one in St. Michael's Church, supposed to have belonged to Sweetheart Abbey, and one over the Tolbooth, which had been gifted to the town in 1443 by William Lord Carlyle in honour of St. Michael, described as "a little clear sharp sounding bell." It is preserved in the Observatory Museum.

The Fish Cross stood in the High Street opposite English Street ; and the site of the Market Cross was the centre of the block of buildings north of and adjoining the Midsteeple.

A great building, called the "New Wark," stood in the space now called Queensberry Square, on the staircase of which were the Royal Arms of Scotland and others, and the date 1583 or 1585.

The Castle, which stood on the site of Greyfriars' Church, was built by John Lord Maxwell and Elizabeth Douglas, his lady, anno 1572, on part of the ground formerly belonging to the Greyfriars' Monastery. The building was of three storeys, with four large vaults in the basements, and a turnpike stair and bartizan covered with lead ; and there were four or five acres of ground attached to it and walled in. For near thirty years, from 1660 to 1687, the Castle was not possessed by the Nithsdale family, but in 1688, immediately before the Revolution, it was put into complete order and occupied by them. Before the Rebellion of 1715 the Earl of Nithsdale sold the Castle to John M'Dowall of Logan for the sum of one hundred and forty guineas.

The bridge of Dumfries consisted of nine arches, with a tenth arch under the street, and there was a port on it in the middle of the river, which had, our author says, till within these sixty years great valves or gates, which the administrators have laid aside as troublesome.

It was the custom for the county families to reside occasionally or permanently in the county town, and many of them built comparatively handsome houses for themselves there, which much enhanced the town's appearance.

The situation of the town is described as one of the most delectable in the nation, the river Nith being on one side and Lochar Moss on the other, with corn lands between, and with many delightful walks and "refreshing turns" around. The following verses are offered as applicable :

In Nithsdaleshire towards the south there stands
A royal burgh, which all that shire commands,
Drumfries 'tis call'd, and very near the town
The river Nith in chrystal streams runs down ;
A pleasant bridge that's built with arches nine
Of red freestone as stretched with a line
From Vennel-foot to Galloway it tends
And divers roads thro all that country sends.
Near eight miles south the mountain Criffel stands
Well known, and seen from several distant lands,
And on the east old Solway's force makes way
With swelling tides both in the night and day,
And north-east too, tho' distant from the town
Queensberry stands with her adorning crown,
Yea round about with many little hills
This town seems guarded from all threatning ills ;
And yet we find much of the country round

Lyes uninclosed, uncultivate the ground,
 Which great defect doth from the owners flow
 For tenants by well-try'd experience know
 (Their tacks being short, as seldom long they be,
 Perhaps three years, or five, or three times three).
 If they should be at cost and pains to make
 Their land prove fertile and much labour take
 To bring the ground a better crop to bear
 Their rents are rais'd or they turn'd out next year.
 This to amend let all attempt with speed
 Who have it in their power to give remead ;
 May many join, and all with one consent
 Obtain at length an Act of Parliament,
 That in North Britain all who set yr. lands
 Shall on stamp't paper sign it with their hands
 That all their tenants' tacks or leases bears
 The fixed term of one-and-twenty years,
 That tenants may have time to try and make
 Improvements of their lands for their own sake.
 Let them enclose some aikers every year,
 And plant such planting as the soil will bear ;
 Let summar' justice 'gainst the tenants be
 Quite laid aside, and let them courteously
 Pay all their rents, but if the landlord find
 His tenant backward go, or come behind
 In his improvements, and no friends he have
 That will assist him or his credit save,
 Then let his tack be registrate with speed,
 And others take that will perform the deed.
 If some such method could be thought upon,
 Much money might be sav'd, for much is gone
 Of late to other countries to procure
 Corn, wheat, and rye, that did not long endure.
 But if our lands were all enclosed well,
 And well manur'd, all that in Scotland dwell
 Would be sustain'd, and much would be in store
 For every year's produce would produce more,
 And then North Britain might lift up her head,
 And thankful be when all her sons have bread.

The constitution of the Burgh and the administration of its affairs are criticised at great length and severely. It was the custom, our author says, for the old Council to elect the new, the community having no voice in the election, and no direct power to impugn the actions of their rulers. The result was that affairs were managed mostly by a faction forming little more than a majority of the Council, composed of relatives and friends, banded together to perpetuate the magistracy among them, and whose motive was

love of power and self aggrandisement rather than the good of the town.

Unfortunately there is meagre mention of events of interest to us which took place in the writer's time. Of King James's Provost and of the Revolution we gather the following:—In 1686 King James VII. arbitrarily discharged Burghs from electing their Magistrates and Town Council; and following on this he himself nominated persons to these offices. John Maxwell of Barncleuch in this way became Provost of Dumfries, who was known afterwards as King James' Provost. He was descended from a cadet of the House of Kirkconnell. Being bred a lawyer in Dumfries he became Town Clerk at the Revolution of 1660. He acted as agent for the Earl of Nithsdale, by which he gained considerably. Being a professed Catholic he became, in 1681 or 1682, disqualified by the Test Act to continue as Town Clerk and demitted that office after having arranged for a yearly pension of £5 for life. In 1686 King James VII., as before mentioned, nominated him to be Provost of the Burgh, in which office he continued till the Revolution of 1688, when he and his Council fled, but being taken he was sent to Edinburgh and imprisoned there. His Council granted him, instead of the usual Provost's allowance of 100 merks, a salary of 500 merks per annum in consideration of his residing in the town and attending to its affairs. He sought by his authority to embellish and ornament the town in which he first drew breath by new buildings, causing those that were old and waste to be rebuilt. The paving of the public streets was also initiated by him, the work being brought in his time above the Cross. He had a patent to be a senator of the Court of Session at Edinburgh, for which he was well qualified by long practice and a long head and subdolous wit. This Provost had a sour melancholic command and authority to conciliate reverence and regard, and to ingratiate the people, proceeded in appearance of strict justice more and beyond many of his predecessors; and in regard to his position in the Council, he was sure to have a set of Councillors who, he being King's Provost, only asked what said the Provost and then it was so.

At the Revolution in December, 1688, after King James had gone away to France, the people of Dumfries and the country about arose and burnt the Pope in effigy and took away the popish books out of the popish houses in Galloway, with their priest's vestments in crimson and velvet, and trinkets, and also carved

idols of wood out of the Castle or Palace, and burned all at the Cross of Dumfries on Yule day 1688. And the Magistrates having absconded, the principal heritors and old Magistrates advised the family to remove from the Castle and all Catholics from the town by tuck of drum, to prevent further trouble and damage, which they did accordingly ; and in May following famous Mr Campbell was repossessed in the Kirk to the universal joy of the inhabitants.

Here is a characteristic extract which bears on the history of the Old Bridge :

It is a memorable Remark on some families of Divine Justice that all may fear and beware of exemplary punishments on the enemies of the Church of God, even to the third and fourth Generation of their Fathers, who were guilty, which, says mine author, is discovered in the History of the Church of Scotland, viz., Saturday, the 4th of August, 1621, the time of the proceedings of the Parliament of Scotland and the moment the Commissioner, the Marquis of Hamilton, his rising to sceptre the Act of Parliament ratifying the Assembly holden at Perth, 25th August, 1618, now ratified. In which Parliament John Corsan was an affirming Voter for the Town of Drum [fries] and Amisfield and Lag for the shire of Dumfries, ratifying the five Articles of Perth—there fell out such Blackness and Darkness, three successive great Lightnings, three loud claps of Thunder, Hailstones and prodigious Rains, Fire in the houses of Edinburgh in the morning called the Black Saturday. This Prodigious, tremendous, terrifying, unseasonable weather continued all August, began again in October, And on the 4th of October Ten arches of the Bridge of Perth were broken down by the deluge of waters, and the Bridge of Tweed, almost finished, at Berwick was broken down, and one or two arches of the Bridge of Dumfries next to the town fell, all as tokens of God's displeasure against the cowardly Commissioners, and the places who sent them, in concurring to destroy the Church of Scotland. So that it may be apply'd, that for 120 years these places and families have not prospered. As to the falling or demolishing of the one or two arches of the Bridge of Dumfries nigh the town, I remember, says mine author, a Tradition from some old people in my hearing, half-a-century ago. That a worthy Presbyterian minister being lodged in the house on the East of the Friers' Vennel, named Lag's Lodging, did all that day to twelve o'clock at night, watch and enjoin the people to watch and pray, for that some strange occurrence would fall out that night, and that He himself did watch and heedfully observe the swelling of the River Nith, with the great Tempest of Wind and Rain, and said that he perceived a moles or monstrous Bulk as of many Stones or Trusses of Hay together come down through the Bridge, which took away one or two arches between eleven and twelve at night about that time.

The following accounts not being now extant in the Town Council books may be of value :

The Provost who most improved it was C—ston, who hath left an Account of his management from Michaelmas, 1702, to Michaelmas, 1708, which is as follows :—

Accompt of Debts paid by Colistoun for the Town of Drumfries from Michaelmas, 1702, to Michaelmas, 1704.

	Mks.
To Arbigland of prinl. and @ rent which was owing to his Father, p. Bond	3700 0 0
To J. Irvine, Lady Terraughty, of prinl. and @ rent conform to Bond	3300 0 0
To B. Ewart £1900 prinl. and £18 str. of @ rent owing by Bond	3174 0 0
To Mrs Reid, relict of B. Reid of bygone, @ rents £36 str. ...	0650 0 0
Mrs R.'s prinl., 2600 merks.	
To Janet Real, daughter of J. R. C., of prinl. and @ rents p. Bond	3080 0 0
To 41 Firelocks, @ £9 p. peice	0554 0 0
To Lochaber Axes, Partisans (or Halberts), and Drums ...	0150 0 0
To a part of the Expense of Bridging Lochermoss	0400 0 0
To Sr. David Cunningham in full of several years' salaries accepted by him and discharged	0200 0 0
To Mr Wm. Veitch 50 merk of bygone @ rent of the prinl. sum of £20 str., which I would have paid him, but he could not uplift it without the Presbyrs. consent	0050 0 0
To Dean Johnston the balance of his Treasurer accompts ...	0600 0 0
To 2 years' rent of Mr Robt. Patoun's house, at £12 str., P. ..	0216 0 0

And this beside the Ordinary Salaries and spendings on the Town's affairs, which in one of these years was only about £10 sterling.

1. *Nota.*—I assert that the Town's revenue the said two years at my first entry was only £3000.
2. At Michaelmas, 1704, when Provost Rome succeeded me in the office of Provost, the Town's debt was only about 3000 merks due to B. Ried's children and Mr Vietch as above, and the oldest debt of £600 sterling by Dr Johnston's mortification, which the Town borrowed in 1649, for completing their outreik at the Duke's Levie, for which the Town gave security on the Milnhole Miln (which, as it is known, Provost Crosbie and others have ruined) and which the Church Members should look into.
3. I procured a Compliment from the Royal Burrows of £200 Scots to the poor people burnt out by the fire in the Friars' Vennel in May, 1702, and which I brought home and distributed amongst them according to their several circumstances and necessities.

- 4, The Town having thought fit to relinquish the horse miln which cost the Town great Expenses in Anno 1686, and to build a Miln beyond the Water in Anno 1705 or 1706), several sums were borrowed on that head, to which I was not witness, Mr Thomas Rome being then Provost.

Account of the Town's Debts paid from Michaelmas, 1706, to Michaelmas, 1708.

	<i>Mks.</i>
To the Trades to help to build the Meal Mercat conform to Act of y ^l . Community	400 0 0
Spent by B. Barclay £100, and John Neilson of Chapel £100, abt. Margt. Ramsay's Inditement, and £200 given herself when she went out of the Kingdom, and £200 as the Expences of her Tryal and incident Charges	900 0 0
All this Tryal being before the Magistrates as Judges, the Expencc was an peculate and imposition on the Burgh's Revenue.	
Sept., 1707.—Paid to Barncleugh Maxwell of the Arrears of the 100 merks yearly which John Herries, called Butt, should have paid him and relieved the Town, and which Kelton, as then Provost, and now his heirs, should make good to the Town	900 0 0
To Dr Geo. Archbald 1000 merks and a year's @ rent borrowed by Provost Rome towards building the Mill	1055 0 0
To William Rae in Lintonside another 1000 mks. and a year's @ rent for the Mill	1055 0 0
Bought by Coliestoun from Netherwood, 4 Acres of Ground between the Dove-Cote Croft and Castledykes, being a continual bone of contention between him and the Town, they daily poinding one another's Cattle, and more especially on this Motive that Netherwood had a Charter bounding said 4 Acres of Land with the Water of Nith, and having raised a Breve of Perambulation before the Sheriff, by which he designed to have carried away the greatest part of the Dock ; but his perambulation being advocate and made litigious, I forced Netherwood to sell the 4 Acres of Land, whereby the Dock and the same are now worth yearly £240 Scots, and for which 4 Acres of Ground disposed to the Town I paid him Eleven Hundred Merks	1100 0 0
To Gavin Carlyle for an road thro' his park in prosperity to the Town's Mill on the other side of the Water	100 0 0
To John Gilchrist (now Baillie) the balance of his Treasurer Accounts	400 0 0
To Mr M'Naught £44 10s as 2 years @ rent of 600 mks. and borrowed for the Mill at Whitsunday, 1705... ..	66 10 0
To James Gordon and Janet Real, spouses, £168 6s, as 2 years a rent of 2000 mks., and £45 10s as 2 years a rent of 600 mks., both borrowed for the Mill at Lammas, 1705, the @ rent being paid to Lammas, 1707 ; both is	320 10 0

25th March, 1708.—Paid to James Gordon the 2000 mks. Bond	Mks.	
and @ rent thereof from Lammas, 1707	2064	0 0
To him the other Bond of 600 merks and 7 months and 20 days		
@ rent thereof, and the Bonds and Discharges put up		
in the Town's Charter Chest	627	6 0
At Michaelmas, 1708.—Left at my outgoing £50 str. in the		
hands of John Killhagys, as Treasurer, which was desti-		
nate to repair the Steeple of the Kirk	900	0 0
Suma Totalis	25,993	0 0

Nota.—The Burrow's dues on the head of the Missive and fitting the Town's Æque being £20 sterling these 4 years, inde 1460 mks. Item the whole Magistrate's, Officers' fees, and Contingencies ; But all are augmented and altered.

IV. *Recent Antiquarian Discoveries at Kirkcudbright.* By EDWARD J. CHINNOCK, LL.D. (Secretary).

I am indebted to the kindness and courtesy of our esteemed member, Mr George Hamilton, for the following particulars of the interesting discoveries recently made near Kirkcudbright by himself and his friends in connection with the Kirkeudbright Museum. The illustration is taken from a photograph presented by Mr John M'Kie, who is also an honoured member of this Society.

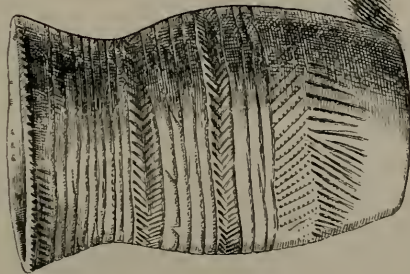
On Thursday, the 10th of April, while the shepherd at High Banks, parish of Kirkcudbright, was driving in stobs to which to hang his sheep nets, his gellock or crowbar pierced a large flat stone about eighteen inches from the surface, and disappeared under the soil. On making examination he found that it had gone into an open chamber, and on laying it bare he found it was a place where some one had been buried. Information was sent that evening to Mr M'Kie, the hon. convener of the Museum Association, and next morning he, with Mr Bell of Gribdae and Mr Hamilton, the hon. secretary of the Museum Association, went to the field and examined the cist. They found that it was the field known as Woodfield, on the farm of High Banks, which was in turnips and being eaten off by sheep. They were joined by Mr Rigg, the tenant, his son William, and the shepherd, who gave them all the information regarding the discovery.

It was a pentagonal chamber, three feet in length and two feet in width, the sides being the longest and parallel, formed of two slabs of slatey rock, the base one slab of the same, and the apex pointing S.S.W. of two similar slabs of stone. Each slab was about eighteen inches wide, and kept in their place by a

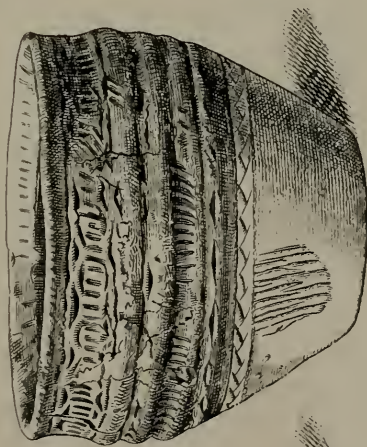
packing of small stones behind each. The top or covering stone was lying alongside—a large irregular-shaped stone, four inches in thickness. This had completely covered the chamber. The floor was composed of two slates, which rested on the soil. The whole was quite clear of anything except two pieces of arm bones, a small piece of a skull, and a piece of a left under jaw, in which were three teeth (two molar and one canine)—young fresh teeth evidently belonging to a youth. At the west side of the cist was a small urn, which, however, fell to pieces very shortly after being exposed to the air. Its contents were apparently nothing but a little earth. This urn was $6\frac{1}{2}$ inches in height by $4\frac{1}{4}$ inches in width. It was well proportioned, had no lid, and was of burnt clay. It was ornamented with old Celtic ornamentation of a kind known to belong to the bronze age, and might have lain undisturbed where it was found at least 2000 years. The ornamentation was evidently done by hand with a comb or some such toothed instrument tracing it round the vase. It consisted of lines drawn round, but not regularly, of zig-zag lines with a chevrony appearance, and was all over the outside of the urn from the top to the bottom. There was no ornamentation inside nor at the bottom outside.

Noticing remains of two large cairns in Woodfield, and having obtained leave from the proprietors, Mr Hope and Lady Isabella Hope of St. Mary's Isle, and the tenant, Mr William Rigg, the members of the Kirkcudbrightshire Museum Association proceeded to open these cairns on the 17th of April. Both cairns are about the same size, being some 200 feet in circumference, quite round, and rising only some six feet from the natural surface of the field, as for years back they had been probably used to get stones for dykes and rude drains connected with the agriculture of the land around. They are 150 yards apart, and nearly north and south of each other. Two good, stout, intelligent labourers, under the direction of Mr M'Kie of Anchorlee, commenced at seven in the morning on the most southern of the two (which lay on the top of a small hillock that had some half a century ago been occupied by the officials of the trigonometrical survey while they were surveying the surrounding country between 1840 and 1850) and cut two trenches at right angles to each other towards the centre, keeping the natural surface of the ground as the floor of the trench. At first they pierced through a circle of smaller stones, which had evidently fallen at different times from the cairn ; then they came

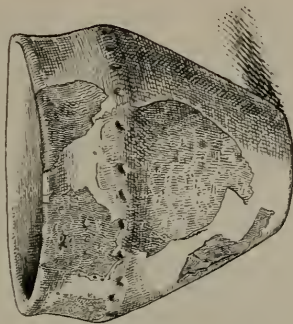
URNS FOUND AT HIGH BARNS, KIRKCUDBRIGHT.



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2



3

upon a ring of large pieces of rock, chiefly quarried from the neighbourhood. Very few travelled boulders were found among them, but inside this ring, which had evidently marked the outside base of the cairn, were heaped up stones of all kinds and descriptions, among which was found a flat stone with evident cup markings and the peculiar dotted appearance caused by the rude sculpturing in these olden times by sharp-pointed pieces of stone. On approaching the centre, the floor, or under part of the trench, which had all along been the original surface of the field, sank, and a rounded chamber about three feet in diameter was reached, filled with very fine earth. This hole was set round with largish stones laid lengthwise, and with no stones inside at all. Rather an amusing incident occurred here. All present, in a great state of excitement, were watching every stroke of the men's pick-axes and spade-ful of earth that was thrown out, when one of the members of the Association called out, "Stop, stop; there is something carved on this stone," and he brought a stone about a foot square, and, clearing away the soil adhering to it, laid bare a beautiful specimen of the "broad arrow." There was a good laugh at this discovery and some disappointment, for, if this were all, it showed the mound was of recent construction, as the broad arrow is the mark of the Government surveyors, who had used this mound only some half century ago, and many were the quotations from the "Antiquary" of Edie Ochiltree's observations to the Laird of Monkbarns when Aiken Drum's lang ladle was turned up on a somewhat similar occasion. However, the conclusion come to was that this stone had been sunk by the trigonometrical surveyors to uphold their flag or measuring pole while there, and the search was continued with increased zeal. The fine earth in the centre hole was carefully lifted out by hand, and in a short time an urn (in pieces), more highly ornamented than the one found on the 10th, was discovered, and a quantity of bones around it. These bones were in small pieces and considerable quantity, as if more than one body had been buried there, and the remark was hazarded that the urn may have contained the cremated remains of the chief who lay there, while the bones were the remains of slaves who were killed and buried along with him to be his companions or servants in another world, so that he might arrive in it with his customary attendants and in all due state becoming his position in this world. The urn is about six inches in height and six and a half in diameter with no cover, ornamented on the outside

with a running pattern, and lines going round the upper part and lines converging from near the shoulder to the bottom. It was more glazed on the outside, and the burnt clay of which it was composed was much thicker and the mouth coarser and larger than in the one discovered the preceding week.

There was nothing more found, so the trenches were filled up and the mound smoothed over, and the second cairn was attacked in the same way by cutting two trenches from the south and east to meet in the centre. The stones which surrounded this one on the outside were much larger than those encountered in the other, and the workmen had not gone far till they came on pieces of a very plain urn with a quantity of bones, and close by a large flat stone, 3 feet by $2\frac{1}{2}$ in size, which, on being carefully lifted, exhibited a quantity of bones resting on a second but smaller slab of stone, which was also lifted, and a quantity of bones found under this, also resting on another and still smaller stone, which was at the bottom of a sort of well cut out of the solid rock and going down about three feet. There was no urn found there, nor was there any grave or chamber found in the centre, but to the left of it traces of artificial workmanship were found, which it was resolved to follow up some other time. The proprietors of the ground have presented the urns and other objects found to the Kirkcudbright Museum. The urns are beautifully moulded and prove a knowledge of the pottery wheel, and as they are imperfectly burnt, the makers, in order to strengthen them, mixed small pieces of hard stones or perhaps quartz with the clay (all angular). I append a few remarks made by Mr Hamilton in his communication to me :—
“One curious feature, I wonder if it is common elsewhere, is that there were three layers of stones with cremated bones placed between them, and all in a well kind of a pit in the solid rock. The largest stones were on the top, the centre one much smaller, and the bottom one smaller still. The bones were evidently placed there after cremation, as all were in small pieces, mostly under an inch square. There was no cremation before the Bronze Age. There was no tinge of iron or rust on these bones as would have existed had any iron weapons or instruments been found near them. The Iron Age commenced about 150 B.C., so we may put the age of these remains as at least more than 2000 years ago. The urns establish the fact that whoever put them there were not savages. They testify a belief in a future existence, and the cremation teaches a belief in purification by fire. There were no

idols or idolatrous representations found in the cairns or upon the urns, no crescents, crosses, or astronomical signs."

7th of June, 1890.

Field Meeting—Terregles, Holywood, and Dalawoodie.

New Member.—Mr Wm. Stone, Brooke Street.

A party numbering close upon fifty left the town at one o'clock, and drove first to Terregles Church, where they were met by Mr W. J. Maxwell, Terregles Banks, and had an opportunity of inspecting the "Quhair." Then they paid a visit to Terregles gardens; and, making a short detour to see the Druidical Circle and Holywood Church, they proceeded to Dalawoodie, the residence of Mr R. Rimmer, F.L.S., president of the Society, by whom they had been invited to a garden party.

The Quhair, which is an annexe to the church and forms the burial place of the Maxwells of Terregles, was erected by the Lord Herries of Queen Mary's reign, and restored by the late Captain Maxwell, who placed in it the beautiful white marble statue, named "The Angel of the Resurrection" (which was, we believe, the last work of Burnie Philip, one of the sculptors of the London Albert Memorial), and had constructed the series of vaults in the crypt, one of which received his own remains in December last. It is understood that Lord Herries was himself interred here; but no stone indicates his tomb. A slab with a mailed figure quaintly carved in relief, and the date 1568 (being the tombstone of Edward Maxwell of Lamington) is inserted in the pavement of the crypt; and an elaborate monument to Sir John Maxwell of Spottes and his wife, Dame Elizabeth Gordon, the son and daughter-in-law of the Lord Herries just referred to, is placed against the south wall. The first of the family whose tomb is distinctly indicated is "William, commonly called Earl of Nithsdale," the son of the attainted nobleman of 1715. That nobleman and the heroic Countess who effected his rescue from the Tower both died in Rome and were buried in the Eternal City. A very interesting relic preserved in the Quhair is a portion of the carved woodwork of the priests' stalls from Lincluden Abbey. Mr James Barbour gave an address on the history of the edifice.

The Terregles gardens and ornamental grounds are notable for their extent and their magnificence. Stately trees, beech

hedges of giant stature and perfect symmetry, terraces and banks of velvety turf, cunningly contrived grottos, lake and stream, and statuary present at every turn new features that invite the visitor to linger in admiration; at this season the grounds are gorgeous with the bright and artfully blended tints of the rhododendron and azalea, while on their outskirts a long bank of the yellow broom reflects a golden glow. At the joiner's shop they were afforded an opportunity, through the courtesy of Mr Alexander, of seeing the remaining fragments of the bedstead which was occupied by Queen Mary during the few nights that she spent at Terregles after the flight from Langside. These consist of the woodwork which had formed the head and foot. They are of oak, enriched with a good deal of carving, and two of the turned feet intact. The wooden canopy and some of the tapestry are also preserved, and we were glad to hear that it is in contemplation to have the surviving portions of the interesting but much decayed relic fitted together again.

Only brief halts were made at the Druidical circle and at Holywood Church. At the latter place several gentlemen ascended the belfry, but failed to make out quite satisfactorily the inscription on the ancient bell—a relic, it is understood, of the Abbey of Holywood—although they gave those who remained below a slight taste of its melodious quality.

Dalawoodie, as all Dumfriesians know, is one of the most delightfully situated country seats in the vicinity, immediately overlooking one of the prettiest reaches of the Cairn; and the spacious and picturesque mansion is in keeping with its pleasant surroundings. Here the large party were hospitably entertained by Mr and Miss Rimmer; and they were afforded an opportunity of examining rich collections illustrative of natural history and numerous artistic objects which bespeak the learned pursuits and refined tastes of the owner. Mr Rimmer is a distinguished authority and author in the department of conchology, and possesses a magnificent cabinet of British shells. Botany has also engaged much of his attention, and the fruits of his industry are apparent in a wealth of mounted specimens. Numerous fine examples of antique oak carving, of embossed copper work between two and three centuries old, and of early art in other forms, add a charm of their own to the elegantly furnished apartments. Mr Rimmer possesses some fine specimens of antique furniture carved, and rare old china; and those who visited the Fine Art Exhibi-

tion in Dumfries do not require to be told that he has turned his attention with good purpose also to the gathering of rare old engravings. A very pleasant hour was spent in the gardens and grounds, which are most tastefully laid out and beautifully kept. The botanists found much on which to question their genial host, and his store of information was readily at their command. Having expressed through Major Bowden their thanks for the hospitality which had been extended to them, and been assured by Mr Rimmer that he would be delighted to have them again as his guests next season, the party left about seven o'clock and drove in to Dumfries.

3rd of July, 1890.

At a meeting of the Council, Mr G. F. Scott Elliot, F.L.S., was appointed curator of the Herbarium, with the Misses Hannay and Miss M. Aitken as assistants. A letter was read from Mrs Walter Grierson of Chapel Mount, acknowledging one from Dr Chinnock, in which he had accepted the gift of her late son's (Dr Frank Grierson) Herbarium to the Society.

5th of July, 1890.

Field Meeting--Kirkcudbright, Cally Park, Anwoth, Gatehouse.

New Members.—Mr John Henderson, solicitor; Mrs Sloan, Elmbank; Miss Copland, Abbey House, Newabkey.

Twenty-six members attended, and proceeded by rail to Kirkcudbright, where they were joined by thirteen of the Kirkcudbright Club. The whole party, under the escort of Mr John M'Kie, then drove to Gatehouse, going by way of Nunmill and Borgue, passing the old churchyard of Kirkchrist, and along the foot of the wooded moat of Doon. Some distance further on, they passed the bye-road leading across the farm of Balmangan to the burial-ground of the ancient parish of Senwick, now incorporated in Borgue. The party, however, did not visit the churchyard, which is some distance off the road; but pushed on past Balmangan Tower, the seat at divers times of the families of Charteris, M'Lellan, and Carson, and by Pringleton, Borgue, and Plunton Castle. The latter was the seat of the family of Lennox—or, as it used to be

written, Levenaux—which was kin to the family of which Lord Darnley came. The Lennoxes were at one time proprietors of Cally, then called Lennox-Cally, and afterwards inter-married with the Galloway Stewarts.

On entering the policies of Cally, the party were met by the gardener, who showed them through the well-kept gardens, and over the charming walks which intersect the extensive lawns shaded by giant trees of unknown antiquity. By the generous permission of Mr H. G. Murray-Stewart of Cally, the visitors were allowed to explore the mansion-house, under the guidance of the genial butler. They entered by the Marble Hall, which is almost oriental in the splendour of its polished marble and delicate statues. In this hall, on a polished marble table inlaid with coloured pebbles, there stands a fac-simile of Cleopatra's Needle, in black marble. The marble forming the floor was brought from Italy in a rough state and polished at Cally Sawmill by marble cutters brought thither for the purpose, and the huge rounded pillars are built of granite boulders taken from Craigmews, at the back of Cairnmore of Fleet. The size of the blocks is remarkable. The drawing-room was next visited. On the walls are hung striking portraits of the proprietor's wife and mother, and the large table in the room has its top wrought into graceful designs formed by inlaid gems in profuse variety. Several fine examples of the old masters are hung upon the walls.

On leaving the mansion the visitors passed by and inspected the old Cally tower, and proceeded through Gatehouse to Anwoth Churchyard. Here they were met by Rev. Mr Black, the minister of the parish. The old church—roofless now and ivy-grown—is a small building, measuring about twenty-two yards long and scarcely seven broad. A stone over the entrance bears the inscription: "Built A.D. 1627." This is the date of the settlement of Samuel Rutherford as minister of Anwoth, which is said to have been only at that time erected into a separate parish; and it is this association with the memory of the saintly and scholarly divine who first administered within its walls that invests the humble ruined fane with unusual interest.

There are a number of memorial stones within the precincts of the church, some of them elaborately sculptured and bearing quaint inscriptions. The most massive is an architectural structure of light-coloured sandstone, which commemorates several members of the Gordon family, who were for a time owners of the

Ardwell and Cardoness estates. At least one of the interments recorded, it is enrious to note, is of earlier date than the church, and this circumstance would seem to indicate that there had been an earlier place of worship. The three boars' heads of the Gordon arms are sculptured on a circular top stone, which bears also the initials "I.G.," and the armorial device is repeated on other parts of the monument, quartered in one instance with three sheaves and three stars. The inscriptions are elaborate, of rude verse but pious sentiment. The first in order of time is that which appears on the north end of the stone, viz. :

Walking with God in puritie of life,
In Christ I died, and endit al my stryfe ;
For in my saule Christ heir did dwel by grace ;
Now dwelis my saule in glorie of his face.
Thair foir my bodie sal not heir remaine,
Bot to ful glorie sal suirlie ryse againe.

Mariovne Mure, goodwife of Cullindach, departed this life anno 1612.

This lady was the daughter of the laird of Torhousemuir, Wigtown, afterwards of Cassencary, Kirkmabreck ; and her husband was William Gordon of Cullendoch. Two wives of their son, John Gordon (by whom in all probability the monument was erected), are the subjects of the other inscriptions.

Dumbe, sensles statue of some painted stones,
What means thy boast ? Thy captive is but clay ;
Thow gaines nothing but some few lifles bones.
Hir choysest pairt, hir soule, trinmphis for ay,
Then, gazeng friendis, do not hir death deplore ;
Yow lose a while ; she gains for evermore.

Margrat Makelellane, goodwife of Ardwel, departed this life 2 Apprile,
162—, ætatis suae 31.

The title Ardwell here employed is understood to have been derived from the farm of Over Ardwell. Nether Ardwell was at that period in possession of the M'Cullochs ; as was also the estate of Cardoness ; but John Gordon acquired the latter by purchase from his kinsman, William M'Culloch, and it will be seen that in the epitaph of his second wife the title is changed from Ardwell to Cardoness. The second union must have subsisted only for a short time, when it was interrupted by the death of the lady.

Ye gaizers on this trophee of the tombe,
Send out one grone for want of hir whoise lyfe,

Twyse borne on earth and now is in earth's wombe,
 Lived long a virgine, now a spotles wiff;
 Church keepis her godlie life; this tombe hir corps;
 And earth hir famous name.
 Who then doth lose? Hir husband no, since heaven
 Hir Saule does gane.

Christen Makcaddam, Lady Cardynes, departed 16 Juny, 1628, ætatis
 suæ 33.

For the convenience of readers we have introduced some punctuation marks and capitals in reproducing the epitaph; and have so far modernised the spelling as to use the ordinary characters, instead of *v* for *u* and *z* for *y*. The initials of the parties are cut in bold characters on the stone in the following order, *I* being used for *J*, and *C* as the second initial both of M'Clellan and M'Cadam:

WG MM IG MMC IG CMC

The burial place of the M'Cullochs of Ardwell is also in the church. Built into a recess in the south wall there is a stone bearing the crest of the Maxwells of Cardoness—a man's head within two laurel branches—and their motto, "Think on," and beneath, along with other heraldic devices, the initials of Captain William Maxwell and his wife, Nicolas Stewart, with an intimation that the monument was rebuilt by them in 1710. This recess formed the doorway by which Mr Rutherford entered when about to ascend the pulpit, which stood against the wall on the west side of the doorway.

John Bell of Arkland is commemorated by a large tablet in the outer wall, with a slightly mutilated Latin inscription, and a piece of sculpture in relief, representing the skeleton figure of Death bearing a scythe in one hand and discharging with the left a dart at a sleeping figure. It may be his wife to whom this epitaph, on a flat tombstone, is dedicated:

Heir lyis Margrat Halliday, spouse to Johne Bel in Archland, who departed this lyff anno 1631, Jan. 27, ætatis suæ 76.

O Death, I will be thy death. Now is Christ resin from ye deid, and is the First froot of them that beleive.

These were no doubt relatives of John Bel of Whiteside, the martyr, whose tragic story is told on a neighbouring stone. He was a step-son of Viscount Kenmure, and his mother was a M'Culloch of Ardwell. The inscription over his grave is as follows:

Here lyes John Bell of Whytesyde, who was barbourously shot to death in the paroch of Tongland, at the command of Grier of Lag. Anno 1685.

This monument shall tell posterity
 That blessed Bell of Whitesyde here doth ly,
 Who at command of bloody Lag was shot,
 A Murther strange, which should not be forgot.
 Douglas of Morton did him quarters give,
 Yet cruel Lag would not let him survive.
 This martyre sought some time to recommend
 His soul to God before his dayes did end.
 The tyrant said, What, devil, ye've prayed enough
 This long seven years on mountains and in cleugh;
 So instantly caus'd him, with other four,
 Be shot to death upon Kirkconnel Moor.
 So thus did end the lives of these deare saints
 For there adherance to the covenants.

Small stones in the churchyard commemorate Archibald Faulds and Thomas Irving, servants at Bardarroch, who had accompanied their employer—no doubt the Captain William Maxwell above referred to—"in Flanders and Germany during the wars of the glorious King William."

The party next proceeded to Rutherford's monument, passing on the way Rutherford's Well. The monument is a granite obelisk, erected on the summit of Boreland Hill in 1842, at a cost of £200, raised partly by subscription and partly by a collection taken at a sermon preached on the site of the monument by Rev. Dr Cook of Belfast in 1838. It is 60 feet in height, with a 7 feet square base, and bears on its southern face the inscription:

To the memory of Rev. Samuel Rutherford, minister of the parish of Anwoth. He was appointed Professor of Divinity in the University of St. Andrews, where he died, 1661.

This monument was erected 1842 in admiration of his eminent abilities, extensive learning, ardent piety, ministerial faithfulness, and distinguished public labours in the cause of civil and religious liberty. Surely he shall not be moved for ever; the righteous shall be in everlasting remembrance.—Ps. cxii. 6.

On the reverse side there is an inscription stating that the monument was struck by lightning in 1847, and rebuilt in 1851. In the latter year a conductor was added, which now bears trace against the granite of many a discharge of the electric fluid down the side of the monument. A splendid view was here obtained of

the Isle of Man, with mists hovering over it, and of the Wigtown coast.

The carved stones and remains of the vitrified fort on Trusty Hill adjoining were then inspected.

After dining at Gatehouse, votes of thanks were passed to the Kirkcudbright Society and to the Rev. Mr Black. As representing the Kirkcudbright Field Naturalist Club, Mr Thomas Campbell expressed the pleasure they had in meeting the Dumfries Society.

Votes of thanks were passed to Messrs George Hamilton and M'Kie, Kirkcudbright, for superintending the arrangements of the excursion.

2nd of August, 1890.

Field Meeting—Irongray, Jarbruck, Moniaive, Glencairn Church.

A large party drove first to Irongray Church, where the grave of Helen Walker, the prototype of Scott's Jeanie Deans, was visited. The beautiful falls of the Old Water of Cloudeu at Routan Bridge were next reached, and then the party proceeded to Glenriddell and Jarbruck Butts. This remarkable elevation was mounted and carefully examined. There are four theories of the origin of this mound—first, that it was a Roman encampment; second, that it was an ancient British burial place for chiefs or priests; third, that it was erected as a moat or place of judgment; and fourth, that it was a British encampment. The visitors, after an investigation and discussion, in which Messrs Barbour and Watt took the principal part, came to the conclusion that the only artificial part of the hill is the western knoll, and that the whole is due to the natural action of the river or water in bygone ages. Probably the place was utilised by the ancients as a moat, and subsequently as a place for the exercise of archery. Here a meeting of the Society was held, under the presidency of Mr James Shaw, and, on the motion of the Secretary, Mr Thomas M'Kie of the Moat was elected a member. Dr Chinnock also intimated that the Council had recommended the election of Messrs W. Lennon and W. Hastings as honorary members on account of their merit as scientists and their services to the Society. On the motion of Mr J. Barbour and Mr W. Moodie respectively the election of these gentlemen was ratified. Mr John Corrie, Moniaive, now conducted the visitors to various objects of interest

in the village and its vicinity, especially noteworthy being the monument erected to James Renwick, the last of the martyrs, who was executed in Edinburgh early in 1688. This heroic young man was a native of the village. A gean tree now marks the site of the cottage where he was born. After passing a vote of thanks to Mr Corrie for his services as guide, the party drove to Glencairn Church, where the Rev. Patrick Playfair was waiting to point out objects of interest. The remains of the old pre-Reformation church and the tombstones of the three Ingleston martyrs were observed, Mr Playfair supplying as much information as he had been able at present to acquire about the old church, the gable ends of which alone remain. He then shewed the visitors through his exquisite garden, pointing out various rare and beautiful plants and flowers. After the Secretary had conveyed the thanks of the Society to Mr Playfair, the party drove back to Dumfries through Dunscore and Holywood villages.

Report of the Formation of the Herbarium. By G. F.
SCOTT-ELLIOT, M.A.

The herbarium of the Dumfriesshire and Galloway Society may now be regarded as an actual entity. It now numbers fully 500 species, in which are included almost all the rarer plants of Dumfriesshire. The majority of those not represented are either very common plants, such as Daisy, and naturalised or planted species and outcasts or escapes. There is no reason why the end of next season should not see us in possession of a complete herbarium of the three counties.

The arrangement adopted has been to number each sheet after the London Catalogue as well as after Bentham's Manual, We have entered on every sheet as definite an account of the locality as we could obtain.

The entire labour of mounting these 500 and more sheets has been performed by the Misses Hannay, with some assistance from Miss Margaret Aitken and Miss Hamilton, and the thanks of the Society are especially due to these ladies for the extremely neat and beautiful way in which this part of the work has been done. It is, moreover, a peculiarly monotonous and self-denying task, and the time and labour spent upon it has been very great indeed. The herbarium has been arranged in order, and is now ready for

consultation by any member of the Society. After consulting with Miss Hannay I have thought the best plan will be to keep it in her house, 1 Victoria Terrace, as a fire cannot be kept in the Society's Rooms during winter. Miss Hannay has, however, kindly saved us all risk in this respect, and members of the Society are cordially invited to inspect it.

The *Hieracia* and certain other doubtful forms will be sent to the Rev. E. F. Linton, of Bournemouth, who has very kindly offered to name all for us and return them. His knowledge of British plants is extremely correct and of great width.

We have received plants from a large number of members of the Society and others, and some have been extremely valuable consignments indeed. It would be invidious to particularise, so I simply append a list of our benefactors : Miss Aitken, Miss Babington, Mrs Gilchrist Clark, Miss Copland, Mr J. Corrie, Mrs Grierson, Miss Hamilton, Mr J. T. Johnstone, Revs. E. F. and W. R. Linton, Miss Milligan, Mr J. Rae, Miss Reid, Mr R. Rimmer, Mr J. Shaw, Miss Ethel Taylor (2 sendings), Miss Tennant, Mrs Thomson, Mrs Carthew-Yorstoun. The rest have been collected by the Misses Hannay and myself.

A special notice, however, is required of Mrs Grierson's munificent bequest of the herbarium of the late Dr Grierson to the Society. This herbarium is so complete and so accurately named, carefully mounted and prepared, that it is a most valuable bequest, and will, I hope, lead to a great botanical revival in Dumfries. It is also, however, a responsibility to the Society, and should, I hope, be much used next summer.

I hope next summer to begin exchanging duplicates both with members and other societies. This summer I have forwarded some to the Kirkcudbright Museum, which have been acknowledged by Mr Watson, curator. Next year I hope to do this on a more extended scale.

8th September, 1890.

Life Members.

Miss Dobie, Penfillan House, Penpont, Thornhill.
W. D. Robinson Douglas, J.P., Orchardton, Castle-Douglas.
Alexander Young Herries, J.P., Spottes, Dalbeattie.
J. J. Hope-Johnstone, J.P., Raehills, Lockerbie.
W. H. Maxwell, J.P., Munches, Dalbeattie.
W. J. Maxwell, M.A., advocate (Chairman of County Council),
Terraughtie, Troqueer.
Mark J. Stewart, M.P., Southwick.

Honorary Members.

Robert Barbour, late secretary, Cape Town.
Arthur Bennett, F.L.S., 90 High Street, Croydon.
George F. Black, Ph.D., Antiquarian Museum, Edinburgh.
J. G. Baker, F.R.S., Royal Herbarium, Kew, Surrey.
J. Harvie Brown, F.L.S., Duniface, Larbert.
William Carruthers, F.R.S., F.L.S., British Museum, Cromwell
Road, London.
James Dairon, F.G.S., 6 Garden Street, Glasgow.
Battershell Gill, M.D., 9 Cambridge Terrace, Regent's Park, London.
James Grant, M.D. (Bey), The Sandovian, Cairo.
Peter Gray, 71 Paulet Road, Camberwell, London.
R. Henderson, Manitoba, Canada.
J. J. F. X. King, 207 Sauchiehall Street, Glasgow.
William Hastings, taxidermist, Dumfries.
Walter Lennon, Brooke Street, Dumfries.
William M'Ilwraith, Rockhampton, Queensland.
J. M'Meehan, Hobart Town, Tasmania.
William K. Robertson, 13 Pitt Street, Edinburgh.
David Sharp, M.B., F.R.S., Wilmington, Dartford, Kent.
J. Starforth, architect, Edinburgh.
R. H. Taylor, M.D., 1 Percy Street, Liverpool.
Joseph Thomson, F.R.G.S., Gatelawbridge, Thornhill.
R. Turner, 3 Westbank Place, Hillhead, Glasgow.
Joseph Wilson, late secretary, Florida Villa, Windygates, Fife.

Ordinary Members.

- John Adair, High Street, Dumfries.
Dr John Aitken, Asylum House, Inverness.
Miss Aitken, The Hill, Dumfries.
William Allan, Irving Street, Dumfries.
William Anderson, Netherwood, Dumfries.
Rev. William Andson, Newall Terrace, Dumfries.
J. J. Armistead, The Solway Fishery, Newabbey.
James Barbour, architect, St. Christopher's, Dumfries.
Mrs James Barbour, St. Cristopher's, Dumfries.
Robert Barbour, Belmont, Maxwelltown.
Robert Barbour, solicitor, Maxwelltown.
Rev. William Bell, M.A., Graitney.
J. Blacklock, solicitor, Irish Street, Dumfries.
Major Herbert George Bowden, Irving Street, Dumfries.
John Brown, F.E.I.S., Drumsleet, Troqueer.
Thomas Brown, Auchenhessnane, Penpont.
T. Rae Bruce, Dalshangan, New Galloway.
Rev. James A. Campbell, M.A., Troqueer.
John Callander, M.D., Dunscore.
John Callander, High Street, Dumfries.
Rev. Alexander Chapman, M.A., Maryville.
Edward James Chinnoek, M.A., LL.B., LL.D., Rector of Dumfries Academy.
J. J. Clark, Town Councillor, Irish Street, Dumfries.
Frederick H. Clarke, M.B., C.M., 37 Castle Street, Dumfries.
Frederick R. Coles, The Hermitage, Tongland.
Miss Copland, Abbey House, Newabbey.
John Corrie, Burnbank, Moniaive.
William A. Costin, Roseland, Maxwelltown.
John Cowan, Birkhill, Dumfries.
John Craig, solicitor, Rotchell Park, Maxwelltown.
Mrs John Craig, Rotchell Park, Maxwelltown.
William T. Craig, solicitor, Irish Street, Dumfries.
John Cumming, English Street, Dumfries.
Alexander L. Davidson, Schoolhouse, Ruthwell.
James Davidson, Summerville, Maxwelltown.
William Dickie, *Standard* Office, Dumfries.

William A. Dinwiddie, 1 Buccleuch Street, Dumfries.
John W. Dods, St. Mary's Place, Dumfries.
John Douglas, M.D., Whithorn.
Bernard Drummond, Moffat.
Patrick Dudgeon, J.P., Cargen, Troqueer.
John Dunlop, Schoolhouse, Dornock.
Alexander M. Fergusson, solicitor, Irish Street, Dumfries.
John R. Fergusson, artist, Castle Street, Dumfries.
J. Gillon Fergusson, J.P., Isle, Dumfries.
James Fingland, druggist, Thornhill.
Rev. George Laurie Fogo, M.A., Torthorwald.
Richard P. Fotheringham, Brooke Street, Dumfries.
Rev. James Fraser, M.A., Colvend.
Thomas Fraser, High Street, Dalbeattie.
William Galloway, Whithorn.
Mrs Gilchrist, Linwood, Dumfries.
John Grierson, Town Clerk, Dumfries.
John Gunning, Castlebank, Dumfries.
Mrs Gunning, Castlebank, Dumfries.
W. Halliday, College Street, Maxwelltown.
George Hamilton, Ardendee, Kirkcudbright.
Miss Hamilton, Castlebank, Dumfries.
Miss Hannay, 1 Victoria Terrace, Dumfries.
Miss J. Hannay, 1 Victoria Terrace, Dumfries.
James Herries, Loreburn Park, Dumfries.
James Hogg, Saughtree, Dumfries.
David Boyle Hope, Sheriff of Dumfriesshire and Galloway.
James Houston, Church Crescent, Dumfries.
George Johnstone, Castlemilk, Lockerbie.
John Thorburn Johnstone, Victoria Place, Moffat.
John Kerr, Blountfield, Ruthwell.
Thomas Kerr, 112 Friars' Vennel, Dumfries.
Thomas Laing, F.E.I.S., Schoolhouse, Noblehill.
James Lennox, F.S.A., Edenbank, Maxwelltown.
Alexander D. M'Donald, M.D., 18 Castle Street, Dumfries.
J. C. R. Macdonald, solicitor, Irish Street, Dumfries.
W. R. M'Diarmid, 8 Palmerston Place, Edinburgh.
James M'Andrew, Schoolhouse, New-Galloway.
Matthew S. M'Kerrow, Boreland of Southwick.
Dr Mackie, Thornhill.
Mrs Mackie, Thornhill.

John M'Kie, Anchorlee, Kirkcudbright.
Thomas M'Kie, advocate, 1 Gloucester Place, Edinburgh.
Thomas C. M'Kettrick, Viewfield, Dumfries.
Mrs James H. M'Gowan, Ellangowan, Dumfries.
Thomas M'Gowan, solicitor, Rotchell, Maxwelltown.
Robert D. M'Glashan, Saughtree, Dumfries.
Mrs M'Kenzie, 3 Queen's Place, Dumfries.
Rev. John D. M'Kinnon, Newall Terrace, Dumfries.
James D. M'Veigh, Buccleuch Street, Dumfries.
James Matthewson, 18 Copeland Street, Dalbeattie.
James Maxwell, Screel, Auchencairn.
Francis Maxwell, J.P., Gribton, Dumfries.
James Maxwell, Bank House, Maxwelltown.
William J. Maxwell, Terregles Banks.
Wellwood Maxwell, Kirkennan, Dalbeattie.
Frank Miller, Bank of Scotland, Annan.
John Milligan, Friars' Vennel, Dumfries.
Rev. William Milroy, Penpont.
John A. Moodie, solicitor, Finella, Maxwelltown.
William Moodie, solicitor, Finella, Maxwelltown.
Miss Morgan, Shakespeare Street, Dumfries.
Thomas A. Moryson, Jeanville, Dumfries.
Miss Mounsey, Castle Lodge, Ludlow, Salop.
Neil Murdoch (ex-Bailie), Netherlea, Dumfries.
Patrick Murray, M.D., Castle Street.
Robert Murray, 14 George Street, Dumfries.
Mrs Murray, 14 George Street, Dumfries.
Miss Murray (care of Dr Murray), Castle Street, Dumfries.
John Neilson, M.A., Catherine Street, Dumfries.
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Charles Stewart Phyn (Procurator-Fiscal), Dumfries.
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John Proudfoot, Ivy Bank, Moffat.
John Rae, Rashiegrain, Teviothead, Hawick.
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David Watson Rannie, Conheath, Dumfries.
Frank Reid, St Catherine's, Dumfries.
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Dr J. M. Robertson, Penpont.
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John Rutherford (late secretary), Jardington, Terregles.
John Rutherford, Archbank, Kirkmichael.
Henry Sawyer, Rae Street, Dumfries.
Alexander Scott, Bailie, Annan.
Rev. J. H. Scott, M.A., Sanquhar.
George F. Scott-Elliott, M.A., B.Sc., F.L.S., Newton, Terregles.
Charles Seiffert, Midsteepie, Dumfries.
James Shaw, Schoolhouse, Tynron, Thornhill.
Thomas Shortridge (ex-Provost), Beechwood Bank, Dumfries.
Rev. Richard Simpson, M.A., Dunscore.
Mrs Sloan, Elmbank, Dumfries.
James Smith, Commercial Bank, Dumfries.
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William Tweddle, Park View, Dumfries.
J. R. Wallace, Auchenbrack, Tynron, Thornhill.
William Walls, Bridge Street, Dumfries.
Thomas Watson, editor of the *Standard*, Dumfries.
James Watt, Milnwood, Maxwelltown.

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Mrs Maxwell Witham, Kirkconnel, Troqueer.

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William M. Wright, Charnwood, Dumfries.

