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THE TRANSACTIONS
AND
JOURNAL OF PROCEEDINGS
OF THE
DUMFRIESSHIRE AND GALLOWAY
SCIENTIFIC, NATURAL HISTORY,
AND
ANTIQUARIAN SOCIETY.



SESSIONS 1880-81, 1881-82, 1882-83.

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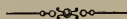
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R U L E S.



1st. The Society shall be called the "DUMFRIESSHIRE AND GALLOWAY SCIENTIFIC, NATURAL HISTORY, AND ANTIQUARIAN SOCIETY."

2nd. The aims of the Society shall be to secure a more frequent interchange of thought and opinion among those who devote themselves to Scientific, Archæological, and Natural History studies; to elicit and diffuse a taste for such studies where it is yet unformed; and to afford increased facilities for its extension where it already exists.

3rd. The Society shall consist of Ordinary, Honorary, or Corresponding, and Life Members. The Ordinary and Life Members shall be persons resident in Dumfriesshire and Galloway, present and admitted at a Public Meeting called for the purpose on 3rd November, 1876, and those who shall afterwards be proposed by two Members (to one of whom the candidate shall be personally known) and admitted at an Ordinary Meeting of the Society by a vote of the majority present. The Honorary or Corresponding Members shall consist of persons distinguished for attainments connected with the objects of the Society, who cannot attend as Ordinary Members, and who shall be proposed and admitted at an Ordinary Meeting in the same way as Ordinary Members.

4th. Life Members shall on election contribute the sum of Two Guineas to the funds of the Society. Ordinary Members shall on election pay Two Shillings and Sixpence entry fee, and contribute annually the sum of Two Shillings and Sixpence in advance, or such other sum as may be fixed at an Annual Meeting. Ladies joining the Society as Ordinary Members will be exempt from entry fee.

5th. The Office-bearers of the Society, who shall be Ordinary Members, shall consist of a President, four or more Vice-Presidents, Secretary, Assistant Secretary, Treasurer, and a Committee consisting of ten Members (five to form a quorum), holding office for one year only, but being eligible for re-election at the Annual Meeting of the Society.

6th. The Ordinary Meetings of the Society shall be held on the

first Friday of each month, and shall continue during winter, beginning in October and ending with April, and at which the ordinary business of the Society will be transacted, papers read and discussed, and objects of interest examined.

7th. Field Meetings shall be held during the summer, beginning with May and ending with September, to visit and examine places and objects of interest, to give field demonstrations, to collect specimens, and otherwise carry out the aims of the Society, arrangements for which shall be made at the last meeting of each Winter Session.

8th. The Annual Meeting of the Society shall be held on the first Friday of October, being the first meeting of the Winter Session, at which Office-bearers and Members of Committee shall be elected for the ensuing year, reports—general and financial—for the past year will be received, and proposals for the extension and improvement of the Society will be heard and discussed.

9th. Each Member may introduce a friend to any Ordinary or Field Meeting of the Society—such friend not to be admitted more than twice during the same year.

10th. The Secretary shall keep a minute book of the proceedings of the Society, and a register of the Members—Life, Ordinary, and Honorary or Corresponding; and shall give in a report of the Society's proceedings at the Annual Meeting.

11th. The Treasurer shall collect and take charge of the annual subscriptions and funds of the Society, and make payments therefrom, under the direction of the Committee, to whom he shall annually submit an account of his intromissions, to be audited and prepared for submission to the Society at its Annual Meeting.

12th. Alterations and Repeals of the foregoing Rules, and new or additional ones, shall only be made by three-fourths of the Ordinary Members present at any meeting of the Society, of which notice shall have been given at the previous monthly meeting.

13th. The Secretary shall at any time call a meeting of the Society, on receiving the instructions of the Committee, or the requisition in writing of any six Ordinary Members.

14th. All papers read before the Society shall become its property.

15th. All Members whose subscriptions have been unpaid for fifteen months shall have their names deleted from the roll of Membership if, after receiving notice from the Treasurer, they still neglect to pay.

DUMFRIESSHIRE & GALLOWAY

SCIENTIFIC, NATURAL HISTORY, AND

ANTIQUARIAN SOCIETY.



TRANSACTIONS.

SESSION 1880-81.

8th October, 1880.

ANNUAL MEETING.

Mr J. GIBSON STARKE, President, in the Chair.

Twenty-two present.

New Members.—Messrs Scott of Broomlands ; Martin, Town Clerk ; G. Gray Philips, Rosefield ; John Costin, Laurieknowe ; J. Brown, Drumsleet ; A. E. Truckell, Maxwelltown ; J. S. Stansfeld, Inland Revenue ; and J. Longmore, Industrial School.

Donations.—Report of Geological and Geographical Survey of the Territories of Idaho and Wyoming, The Shell Mounds of Omori, The 12th and 13th Annual Reports of the Peabody Museum of Archæology ; Report for 1878 of the Smithsonian Museum, U.S.A. ; Pair of old manacles recently found, at a depth of 6 feet, when digging a drain in Glasgow Street, Maxwelltown ; and 12 Micro-photographs, mounted and framed, presented by Mr F. W. Grierson, Chapelmount.

Exhibits.—Mr F. W. Grierson brought under the notice of the meeting a remarkable deposit of peat recently exposed near Rae Street when excavating foundations for new houses, together with a number of specimens picked up there a few days ago by Dr Gilchrist and himself, consisting of various pieces of birch and other woods,

one of which was penetrated by a green fungus, supposed to be *Peziza crucifera*. There were also in the collection various nuts, seeds, and debris of coleopterous insects. Mr Rutherford, Jardington, exhibited a fine stone celt found lately on the farm of Whitehill, Kirkmahoe, on moss land, and in proximity to bog oaks. Mr James Culton of Dildawn sent for exhibition a fine albino specimen of the common mole—colour, pale cream, with orange patches on abdomen and throat.

The Secretary (Mr R. Service) tabled the old minute book of the former Society, a collection of sea weeds, and several publications. These and a few other articles, he explained, had been in possession of the late Procurator-Fiscal for Dumfriesshire, and had been recovered through the courtesy of Mr Fenton. He further stated that there had been in the Society's cabinet for many years four fine old volumes of the sixteenth century, each bearing the inscription of the Hutton Library, belonging to the Presbytery of Dumfries; and that they had been returned to the Library, from which it was ascertained they had been missed.

The Treasurer (Mr Adamson) submitted his annual statement, showing—Income, £21 3s 8d; Expenditure, £20 4s 6d; balance to credit of Society, 19s 2d.

The Secretary read his report for the year. During the session 29 new members were enrolled, and 28 struck off, leaving a total membership of 108 ordinary and 12 corresponding members. Fifty-five books and pamphlets were presented by individuals and kindred Societies in various parts of the world; the generosity of the American Societies in this respect calling for special acknowledgment. Among the donations received by the Society in the course of the session were a splendid collection of 200 zoological specimens from Dr Gilchrist, and 34 species of carices from Mr J. M'Andrew, New-Galloway.

The President, Secretary, Mr Robb, and Mr Lennon, were appointed a Committee to prepare the Society's Transactions for publication.

On the motion of Mr James Lennox, it was agreed to alter Rule 5, to the effect that there may be three or more Vice-Presidents, instead of one only.

The meeting then proceeded to the election of Office-Bearers and Committee of Management, with the following result:—President, Mr J. Gibson Starke of Troqueer Holm; Vice-Presidents,

Sheriff Hope, Mr T. R. Bruce of Slogarie, and Mr J. Neilson, M.A., Dumfries; Secretary, Mr R. Service; Assistant Secretary, Mr James Lennox; Treasurer, Mr Adamson; Committee (in addition to above), Dr Grierson, Messrs Watt, Lennon, Maxwell, Halliday, A. B. Crombie, and J. W. Kerr. Messrs Moodie and Kerr were appointed Auditors.

Draft minute of agreement between the Observatory shareholders and this Society (as proposed by the former) was next considered.

Note.—The agreement effected subsequently between the two bodies is printed in Appendices to last published "Transactions."

5th November, 1880.

Sheriff HOPE, Vice-President, in the chair. Twenty-four present.

New Members.—Rector Chinnock, Dumfries; and Mr Milne, Cintra Villa.

Donations.—By Mr W. Gibson, a number of pieces of Samian ware found in an ash-pit of a Roman villa near Carlisle, at a depth of 10 feet.

Exhibits.—By Mr M'Meekan, piece of fossil sandstone; by Mr J. Wilson, the cast skin of an adder found by him at Woodhead of Troqueer; by Mr John Fairley (a young Dumfriesian located on the West Coast of Africa), specimens of native workmanship procured in the Ashantee and Niger countries, and which he described; from Mrs Gilchrist Clark of Speddoch, a splendid portfolio of 36 original coloured drawings of local fungi, representing nearly 100 species; from Mr Milne, fine gold coin (larger but thinner than a sovereign) of the reign of James I. of Scotland; by Mr Gibson, a Scoto-Scandinavian silver brooch, found at Drumcoltran, Kirkgunzeon, with reference to which a paper was read, stating that it was got under a stone at a depth of three feet, together with a thick plain silver ring, one inch in diameter, and a silver coin of Julius Cæsar, the whole being embedded in a black soft pulp, evidently decomposed leather.

Papers.—A paper was read from Dr Gilchrist on "The Peat Formation at Newall Terrace, Dumfries," in which the writer enumerated the objects found in the peat by Mr F. W. Grierson

and himself, shewn at last meeting, and mentioned that the coleopterian remains consisted of the elytra (or wing-sheaths) of the beetle *Douacia comari*, which still occurs in Lochar and other mosses in the neighbourhood. The paper also dealt with the geological relations of moss patches in the vicinage of Dumfries.

An amusing paper was read from a member who desired to withhold his name, and who raised a becoming protest, under the Scripture "Remove not the ancient landmark, which thy fathers have set up" (Proverbs xxii. 28), against the removal of the last stone of a megalithic circle which once stood on Greystone Flat. At the desire of the meeting the Chairman undertook to see the tenant of the place on the subject, and report.

An interesting communication was read from Mr W. M'Ilwraith, Brisbane (now of Rockhampton), entitled "First Impressions of Queensland," and describing such members of the Flora and Fauna as he had met with during the few months he had resided in the colony.

3rd December, 1880.

Mr J. GIBSON STARKE, President, in the Chair.

Twenty-two present.

New Members.—Messrs J. D. Fairley, Dair, Scott, Lawson, and Barbour (architect).

Donations.—By Mr Gracie, Kirkmichael House, collection of graphtolite fossils; by Mr Rutherford of Jardington, a rare old book on the Military Art, by Flavius Vegitius Renatus; by Mr Milne, cast of boss of groined arch from Melrose Abbey.

Exhibits.—By Mr Shaw, Tynron, large stone celt recently found by Mr Brown on his farm of Bennan; by the Secretary, a raven, shot the day before in the Stewartry, and a specimen of the silver-striped hawk moth (*Chærocampa celerio*), procured at Edenbank in October.

The Chairman read an interesting paper, entitled "The Volunteers in Dumfriesshire at the close of the last century."

The matter of printing the "Fauna and Flora" of the district was remitted to the Committee on Transactions.

Carniverous Plants.—Mr J. Wilson read a very interesting paper on "Carnivorous Plants," illustrated by numerous dried specimens and microscopical drawings. He said that although

some of these plants were known for a long time, it was only in 1874 that public attention was directed to the fact that these plants assimilated their food by means of their leaves. Having briefly referred to some of Darwin's experiments, he proceeded to describe the different plants, with special reference to our local species. These plants have been classified into four natural orders, comprising 15 different genera, and only three of these are local, viz.:—*Drosera*, *Pinguicula*, and *Utricularia* or bladderwort. He next referred to numerous experiments which he performed during the summer on *Drosera* and *Pinguicula*, the results of which were that the tentacles of the *Drosera* commence to secrete the viscid fluid immediately a nitrogenous substance is placed on the leaf, but it takes 10-15 minutes before these tentacles clasp the object. Also, the fluid which was secreted on the outer tentacles, if these cannot touch the object, becomes absorbed by them again, while the quantity secreted on the inner tentacles is considerably increased. He also noticed that the *Pinguicula* are not so voracious as the sundews.

7th January, 1881.

Rev. J. FRASER in the Chair. Eleven present.

Donations.—By Mr Shaw, Tynron, copy of *Graphic* containing article by him on "Growth of Reason in Animals;" by Mr J. Wilson, six old coins; by Mr John Rutherford, Kirkmichael, a fine geological collection, including a massive stone hammer, antimony ores, and a slate of Locharbriggs sandstone, bearing several supposed reptilian footprints.

Exhibits.—By Mr John Maxwell, a branch of the cork tree, and a curious stone, probably water-worn, of nearly the exact shape of the human foot; by Mr Rutherford, a number of photographic transparencies.

A short paper by Rector Chinnock, Dumfries Academy, was read, consisting of a translation of the title-page and notes on the text of the volume on the Military Art by Flavios Vegetius Rhenatus, presented to the Society at last meeting.

Carices of Colvend.—The Chairman read a paper on "The Carices of Colvend," in the course of which he stated that of the 45 species proper to Scotland Colvend has 24. Of these, however,

some are rare and local, being found only in single places in a wide district of country; namely, *C. limosa*, found only in Barscraigh Loch [it grew in Maxwelltown Loch some 30 years ago, but is now supposed to be extinct there]; *C. filiormis*, found only in Barscraigh Loch; *C. pendula* and *C. extensa*, and *C. punctata*. The last is the rarest of our carices. It was found by the Chairman and the Rev. Mr Farquharson of Selkirk some six years ago in three places in the parish of Colvend. A specimen of it was sent to Edinburgh for identification; but the botanists there failed to perceive the distinctive peculiarities of the carex. It was then sent to Mr Peter Gray, a Dumfries botanist residing in London, who placed it before the editor of the *Journal of Botany*. That gentleman pronounced it to be *C. punctata*, and stated that there was no record of another example of it having ever been found in Britain, though it was known to exist in Ireland. This specimen is now preserved in the British Museum.

Carabus Glabatus.—Mr Lennon read a short paper on the occurrence of this rare beetle on the top of Cairnsmore of Fleet in June, 1880. Mr Andrew Murray in his Catalogue of the Coleoptera of Scotland gives no particular locality for *C. glabatus*, but merely notes "North of Scotland, not common." Mr Lennon infers from this that Mr Murray never met with it. Perhaps the finest local collection of Coleoptera ever made was that of the late Rev. W. Little, Kirkpatrick-Juxta, which was sold in London after his death for £500. Little and Murray were very friendly, and the former contributed much valuable information to the latter when compiling his catalogue. As no mention is there made of *C. glabatus* south of the Perthshire mountains, Mr Lennon concludes that Little never met with it in Upper Annandale. Indeed from all he could learn, this specimen of his, found on Cairnsmore, was the first recorded in the South of Scotland.

4th February, 1881.

Mr WATT, Rotchell House, in the Chair.

Nineteen present.

Donations.—Four parts of Transactions of Epping Forest and County of Essex Field Club.

Report of Transactions Committee was submitted and adopted.

Dr Sharp, Eccles House, and Dr Grierson, Thornhill, were delegated to the York meeting of the British Association.

Exhibits.—By Mr Scott, Castle Street, fine specimens of the Black Scotor (*Oidemia*) obtained at Carsethorn.

Bryology of the Glenkens.—Mr J. M'Andrew, New Galloway, communicated the following paper on "The Bryology of the Glenkens."

The four parishes of the Glenkens are peculiarly favourable for the growth and development of cryptogamic plants. Sharing in the general humidity of the rest of the west of Scotland, and possessing a diversified surface of mountains, moors, marshes, bogs, rocks, glens, woods, and rivers, the district has quite a profusion of mosses, hepaticæ, and lichens. Everywhere the features of its picturesque scenery are enriched by a living drapery of vegetation, while, in particular, the sub-Alpine glens, formed by the hill-streams in their course to the Ken, afford excellent ground for the successful collection of cryptogams. For instance, the Holme Glen, formed by the Garpel Burn, contains at least a hundred species of mosses. The woods in the district are not extensive, but the trees are very richly clothed with cryptogamic plants, while the ground is one rich green carpet of mosses. The geological formation of the Glenkens presents no great variety—the two prevailing rocks being granite and whinstone, forming by no means the most favourable *nidus* for mosses. Still, rocks of granitic formation have several mosses peculiar to themselves, as, for instance, some of the *Grimmias*. The absence of such rocks as micaceous schist, limestone, sandstone, and trap, excludes the mosses peculiar to these formations, and distance from the sea precludes the appearance of littoral species. It is the prevalence of the schistose rocks on Ben Lawers and in many parts of the West Highlands which partly accounts for the luxuriance and variety of the mosses found in these districts of Scotland. The Kells hills form offshoots from the 'Southern Highlands,' and lie nearly midway between the Scottish Highlands and the mountains of Wales. Though not containing such a number of rarities as these productive fields of the bryologist, yet a district which contains such rare species as *Grimmia contorta*, *Grimmia commutata*, and *Leskea pulvinata*, cannot but be highly interesting, and must have some 'very good things.' From the extreme minuteness of some species, and the great apparent similarity among others, a thorough acquaintance

with the cryptogamic botany of any district must be a work of years—a labour, however, in my opinion, far more enjoyable and interesting than the collection and study of the flowering plants. Were I to extend my researches farther, such as to Cairnsmuir of Fleet, Cairnsmuir of Carsphairn, Merrick, &c., and to Loch Dee and Loch Doon, I am confident that I would be rewarded with finding many more species. None of the Kells hills attain more than sub-Alpine height, so that Alpine mosses, strictly so-called, are wanting. On the hills, the most productive spots are the ravines, especially those sloping to the south-east. Whatever theory may be advanced in explanation of this, the fact holds good not only in regard to the Kells hills, but also to Ben Lawers and the hills of the West Highlands. Certain spots, too, to all appearance not more productive than others, are found to be peculiarly rich in good species. A good example of this is seen on the Burnfoot hill, on the east slope of Cairn Edward, where, and in the vicinity, I find such lichens as the following :—*Parmelia incurva*; varieties, *exasperata*, and *prolixa* of *Parmelia Olivacea*, *Parmelia cetrarioides*, *Parmelia pertusa*, with a new British lichen, *Lithographia Andrewii*, which I found two years ago. In all likelihood this preponderance of species of cryptogams in certain favoured spots is the result of ice or glacier action. As the fruit of personal search, I have gathered in the district about 270 species of mosses, and of these 30 during the last year. This list includes nearly one-half of all the known British species. In bogs and wet places among the hills are found most of the genus *Sphagnum*, or bog-mosses, which afford much of the material of which peat-fuel is composed. Giving a shade of reddish-brown to the rocks on which it grows in quantity, *Andreæa Rothii* is common, while higher up *Andreæa Alpina* is found; other species of *Andreæa* are almost wanting. Of the *Weissas*, *crispula* is found at a good elevation, and *cirrhatta* lower down. *Rhabdoweissia Fugax* is rarer than *Denticulata*, which is common below loose stones on the hill sides. The *Dicranums* are well represented, while the sides of the drains and the damp places on the hills are abundantly covered with species of *Campylopi*, agreeing in this respect with the West Highlands, north of the Firth of Clyde. At least seven species of this genus are common, some of them fruiting freely. The *Tortulas* are represented by such species as *muralis*, *ruralis*, *unguiculata*, *fallax*, *rigidula*, *spadicea*, *con-*

voluta, *tortuosa*, &c. Of the Extinguisher mosses (*Encalypta*), it is rather strange that I have found only one species—*streptocarpa*, on lime walls. The most common species of *Splachnum*, with their flagon-shaped fruit, are occasionally met with on the hills on dung. *Diphyscium foliosum*, and *Tetraphis pellucida* are common. The interesting genus *Grimmia* is well represented. This genus is peculiarly saxicolous, and their neat, elegant, and darkish tufts adorn the otherwise bare and weather-beaten granite rocks and boulders. *Grimmia pulvinata*, the cushion moss, is not a common species in the Glenkens, though found in abundance in the south of the county. *G. doniana* and *trichophylla*, with various species of *Racomitrium*s, almost clothe some of the Galloway dykes. Higher up on granite is found in plenty *G. Schultzia*. My best finds in this genus are *G. commutata*, on boulders by Loch Stroan, evidently washed down by the Dee from some higher station, and *G. contorta*, a very rare species, on the Milyea. The moistness of the climate is very favourable to the growth of *Orthotrichum*s, no fewer than thirteen species being found, and among these *O. Hutchinsiae*, *saxatile*, *rivulare*, *stramineum*, *rupestre crispum*, *puchellum*, *Lyellii*, &c. I have hopes of finding also *O. Drummondii*, *calvescens*, and *sprucei*. *Bartramia ithyphylla* is plentiful along the Ken, and on stones in the river itself is *Cinclidotus fontinaloides*. *Bryum*s and *Mnium*s are fairly represented, and among them, *Bryum roseum*, the most beautiful of the genus, according to some. *Aulacomnium androgynum*, a rare moss, I find only in one spot. All the *Pogonatum*s, and nearly all the *Polytrichum*s, are found. *Neckera crispa*, a large and elegant species, covers the stems of trees and rocks in the glens, often in fine fruit. *Neckera pumila*, a much smaller species, is given as occurring near the coast in Wigtown and Dumfries. This I have not gathered. *Leskea pulvinata*, almost unknown in Scotland, I have found in the Kenmure Holms. *Anomodon viticulosus*, generally a common moss, occurs, with its soft pale green tufts, only on the rock on which Kenmure Castle stands. *Hookeria lucens* is common in some of the woods in wet places. It is one of the most beautiful of vegetable forms, both as regards its pale pellucid leaves and in its peculiar capsule, and also as having, when fresh, the odour of the sweet violet. The numerous genus of *Hypnum* is well represented by about fifty

species, being found chiefly in woods and glens. Some love wet places on the moors, as *H. revolvens*, *scorpioides*, *stramineum*, *fluitans*, &c. In addition to the very common species, I may mention rarer ones, as—*H. brevirostre*, *sarmentosum*, *giganteum*, *elodes* (very rare, near Castle-Douglas), *eugyrium*, *palustre*, *flicinum*, *elegans*, *depressum*, *flagellare* (a west of Scotland moss), *Swartzii*, *piliferum*, &c., the last eight species, except *H. flagellare*, being found in the Holme Glen. Higher up the hills, on the Milyea, such sub-alpine species as the following are found:—*Anectangium compactum*, *Cynodontium Bruntoni*, and *Polycarpum*, *Dicranum Blythii*, *Grimmia patens*, *Zygodon lapponicum*, the curious and interesting moss *Ædipodium Griffithianum*, *Tetraplodon mnioides*, *Oligotrichum hercynicum*, and *Racomitrium lanuginosum*, covering acres of the tops of the hills with its sombre, elastic, grey carpeting. The Glenkens is a district too limited in extent to admit of any remarks as to the distribution of species. Even when rare species occur they do so sparingly. I may conclude by stating that almost all the species collected have either been confirmed or determined by the kindness of the Rev. John Fergusson, Manse of Fern, Brechin, one of our ablest British bryologists.

Note.—20th February, 1884.—Since writing the above paper, I have added a considerable number of mosses to the above-mentioned found in the Glenkens. The district, I find, is very rich in the *Sphagnaceæ*, all the British species except one (*S. Laidbergii*) and a great many varieties being found. *Sphagnum Austini* is in great abundance in Moss Raploch. All the *Polytrichums*, except *P. Sexangulare*; all the *Ulatæ*, except *Ludwigii* and *calvescensocceer*. Among other mosses the following may be noted as interesting additions:—*Fontinalis squarrosa*, *Cryphaea heteromalla*, *Barbula papillosa*, *Grimmia funalis*, *G. Montava* (a very rare *Grimmia*), *G. subsquarrosa*; among the *Hypnum*s are found *H. crassinervium*, *falcatum*, *ochraceum*, *pumilum*, *dimorphum*, *polymorphum*, and *rivulare*; *Neckera pumila*, with var. *Philippeana*, *Bartramia pomiformis*, var. *crispa*, on the Black Craig, *Dicranella cerviculata*, *Seligeria recurvata*, var. *morensis* of *Lencodon Scuiroides*, on trees at the Holme, *Dicranum Scottianum*, near Forrest, and *Bartramia Halleriana* by the side of the river Ken—all have been found since writing the above paper.

Cuculus Canorus.—Mr Adamson read a paper on this the

common Cuckoo, in which he stated that it is the only British species of the genus, that for a number of seasons he has carefully observed its earliest notes, and that invariably it was first heard on or about the 23rd of April. If the weather was genial, it might be a day or two sooner; if cold and backward, a day or two later. It was rarely heard here after the month of July.

4th March, 1881.

Mr J. G. STARKE, President, in the Chair. Nineteen present.

Observatory Agreement.—The Chairman laid on the table stamped copies of the agreement entered into between this Society and the Astronomical Society (the Observatory Society), to which the members of committee adhibited their signatures.

Donations.—By the President, Transactions of the Society of Antiquaries of Scotland (Vol. 1—1782-1792), and Jamieson's Mineralogical Description of the County of Dumfries (1805); by Mr Scott, Castle Street, four fossil bivalve molluscs and a piece of lepidodendron from Dalmellington coal mines; and by their respective Societies, Part III. of the Epping Forest Field Club's Transactions, and five parts of the Annals of the New York Academy.

The Late Mr Carlyle.—On the motion of the President, it was resolved to record the deep regret of the members of this Society at the death of Thomas Carlyle, "who was born in Dumfriesshire, attained a world-wide reputation, and is now buried in his native village of Ecclefechan."

Altered Trap.—Mr Dudgeon of Cargen communicated the following paper descriptive of "An Altered Trap occurring near Newton-Stewart:"—In an exceedingly interesting paper on the "Carboniferous Rocks of the Firth of Forth Basin," which will be found in Vol. XXIX. *Transactions Royal Society, Edinburgh*, Professor Geikie notices the remarkable changes some of the trap rocks have undergone, the trap or basalt having been changed into serpentine. In most instances the whole mass has undergone a complete transformation, the upper part still retaining the characteristics of a hard compact trap or basalt. The change apparently takes place from the lower parts upwards. Professor Geikie says, alluding to a trap found at Blackburn

Quarry, "there is no line of demarkation to be drawn between the higher and lower parts of the rock; they cannot indeed be discriminated except by actual fracture and inspection, the whole mass appearing as one and indivisible." A striking instance of this metamorphic change lately came under my observation at the Black Craig Mine, near Newton-Stewart. I observed in the rubbish heap considerable quantities of a dark greenish black rock, which had been thrown out of the mines. On examination I found it of a very soft nature, readily disintegrated by exposure to the atmosphere, easily cut with a knife, and some portions of it containing amygdaloidal cavities filled with calcite. It was too soft for serpentine, but evidently of a serpentine nature. On asking the superintendent of the mine about it he said there was a vertical band of this rock running through the workings from 6 to 12 feet thick, the direction of the band being about N.E. to S.W., which exactly corresponds with the strike of the trap dyke running through the country, as is shown in the geological maps recently published. It immediately struck me this might be an instance of a transformed trap dyke such as Professor Geikie alludes to in his paper. I sent him some specimens. The rock is so soft that he found it extremely difficult to obtain satisfactory slices for microscopic examination. He says—"In the meantime I can announce with certitude that it is an altered eruption plagioclase rock or trap, the felspar and magnetite ore quite distinct, but the magnesian silicate, whatever it was, has gone. It is not a serpentine in the proper sense, but rather a serpentinized diabase or basaltic rock." The whole of the mass in question appears to have been completely transformed. I noticed nothing amongst the large quantities I examined that had the least approach to a hard trap or basalt. I found no appearance of any trap or dyke appearing on the surface in the neighbourhood. From its extreme tendency to weather and crumble down, any part of the eruption, if it ever came to the surface, must have disappeared ages ago. The external mineralogical characteristics of the rock are—Hardness, 2·5; specific gravity, 2·66; colour, dark greenish black; texture, granular; streak, light grey. Specimens of this rock and a sketch of a microscopic section sent by Mr Dudgeon were handed round amongst the members and examined with much interest.

Elfin Pipes.—A paper by Mr W. G. Gibson, entitled "Elfin

Pipes," was next read, and a large number of these ancient smoking tubes were exhibited in illustration.

Bat; and Voles.—Mr R. Service laid on the table specimens of Daubenton's Bat (*Vespertilio Daubentonii*, Leister), which he had captured at Loch Arthur, Lochaber, and other localities in the Stewartry. He found it to be much commoner and of more general distribution than had previously been suspected. He also exhibited several Bank Voles (*Arvicola glareola*, Schreiber), from Mabie, where these animals were not uncommon. The species had not hitherto been recorded from Kirkcudbrightshire.

Lincluden Excavations.—The President read a paper descriptive of recent excavations at Lincluden Abbey, not yet completed, and of the objects of interest thereby brought to light. Among the latter is what Mr Starke believes to be the effigy, in a broken condition, of Lady Margaret Douglas, daughter of the Scottish king—the figure life size, the costume that of a person of rank of the period, and the head reposing on a cushion.

1st April, 1881.

Mr GIBSON STARKE, President, in the Chair.

Large attendance.

New Members.—Mr T. Brown, Auchenhessnane, and Mr Andrew M'Kie of Anchorlee, Kirkcudbright.

Exhibits.—By the Secretary, specimens recently captured of the black variety of the Water Vol (*Ariocula amphibius*); by Sheriff Hope, a remarkable example of vegetable ternatology (procured at Drumlanrig), in the shape of what was said to be a round cluster of the cones of the pinaster, there being upwards of fifty cones in the bunch, and all growing from a central point; by the Secretary, a curious mushroom, or rather trio of mushrooms, one of the heads being of the usual size, and two others being inverted in the cap of it, on each side of the apex; by Dr Grierson, a very fine bronze goblet, recently acquired for his Museum, and which, he said, was found thirty years ago, along with two bronze plates and another goblet now irrecoverably lost,—the manufacture Romano-British, similar examples of which have been found in Wigtownshire and Wales. Dr Grierson also exhibited a very fine example of the nest of a trap-door spider from Australia.

A list of field-meetings as suggested by the Committee was submitted and approved of.

The Various Breeds of Dogs.—Dr Grierson then delivered an interesting lecture on “The Various Breeds of Dogs,” illustrated with a very full series of the skulls of several races. The lecturer first described the human skull; next he compared with this the skulls of various lower animals; and, thirdly, he compared the skulls of different races of dogs with each other, for the purpose of pointing out the most typical form, and the variations that had taken place in domestication. Alluding to the attachment of the dog to man, he remarked that the nature of a dog corresponded with its master’s. If he saw an unfriendly dog in a house, he was prepared to meet an unfriendly master. If, on the other hand, he met a kindly dog, he knew that the people who kept him would be kindly. He had never experienced an exception to that rule. Hogarth had the same idea. When he painted his own portrait and that of his dog, he produced a remarkable resemblance between the two.

DUMFRIESIRE & GALLOWAY
SCIENTIFIC, NATURAL HISTORY, AND
ANTIQUARIAN SOCIETY.

TRANSACTIONS.

SESSION 1881-82.

Mechanics' Institute, Dumfries. 7th October, 1881.

Mr NEILSON, V.-P., in the Chair.

The first meeting of this session was held here to-night. Fifteen members were present. Minutes of April meeting were read and approved of.

New Member.—Mr Seiffert, watchmaker.

Donation.—By Mr F. W. Grierson, 12 interesting Photomicrographs.

Exhibit.—Mr J. Wilson exhibited a barren frond of *Osmunda regalis*, found in Lochar Moss in July, and measuring 26 inches in length.

The Secretary's report of the past session was read and adopted.

The Treasurer submitted his annual statement, shewing a balance in hand of £8 6s 6d, as against 19s 2d in the previous year; the income having been £17 9s 2d and the expenditure £9 2s 8d.

Election of Office-bearers.—President—Mr J. Gibson Starke, M.A., F.S.A., and F.R.C.I., of Troqueer Holm. Vice-Presidents—Mr David Boyle Hope, Sheriff-Substitute; Mr J. Neilson, M.A.; and Mr J. Rutherford of Jardington. Treasurer—Mr J. Adamson. Secretary—A letter was read from Mr R. Service

requesting to be relieved of the office of Secretary ; but it was agreed to urge him to continue to discharge its duties, and he was thanked for his performance of them during the past five years. Assistant Secretary—Mr Sam. Chrystie. Committee (in addition to above)—Messrs J. Maxwell, J. Watt, J. H. Robb, J. W. Kerr, W. Lennon, J. Wilson, R. Chrystie, and J. Williamson.

11th November, 1881.

Mr GIBSON STARKE, President, in the Chair.

Twenty-six Members were present.

On the motion of the President, a minute of regret was adopted in connection with the death of Mr Gilchrist Clark of Speddoch, whose acquaintance with Scottish Archæology was extensive and intimate, and who was always ready to communicate information to this Society in regard to local antiquities.

The Secretary stated that he was unwilling to assume all the responsibility of his office, but was prepared to work with a colleague, and on his suggestion Mr A. E. Truckell was, on the motion of Mr Lennon, seconded by Mr Rutherford, elected joint-secretary.

New Members.—Mr Robinson-Douglas of Orchardton ; Mr F. R. Coles, The Hermitage, Tongland ; Mr J. Symington, Mr R. Fisher, and Mr H. C. Dickson.

Donations.—The Fourteenth Annual Report of the Peabody Museum of American Archæology, by the Trustees of the Museum ; comb of the white ant, by Mr J. Inglis, Cachar ; celt of porphyry, from Auchenhessnane, Tynron, by Mr James Shaw ; silver cup, and an apron from the mummy of an Inca, found at Lima, presented by Miss Eliza Sutherland, Eastbourne, Sussex ; Paris miner's halfpenny, by Mr Bailey ; two pennies of Geo. III., 1797, by Mr Williamson and Mr Scott.

Exhibits.—Spanish silver coin, 1635, found at Rockhall Tower, shewn by Mr T. Watson ; Spanish gold doubloon, 1788, by Rev. J. B. Johnston ; small silver coin, bearing the number 21 surmounted by the letter S, found on site of Greyfriars' Monastery, Dumfries, shewn by Mr R. Fisher ; large round copper plate, found in St. Michael's Church during recent alterations, exhibited by Rev. J. Paton ; pair of live pigeons taken from nest in Barlocco Cave on occasion of Society's visit there in May, by Mr Sam.

Chrystie ; series of all the species of wasps occurring in this district, by Mr R. Service ; Edinburgh halfpenny, by Mr Adamson.

Papers.—The President read a memorandum explanatory of tradesmen's tokens ; and also a paper, "An Antiquary's Tour in Switzerland," descriptive of his journeyings there in August and September last. The latter paper was illustrated by many photographs of scenery, historic buildings, monuments, together with exquisite specimens of Swiss wood-carving, and a few pretty groups of dried Alpine plants—Edelweiss, Alpine Ross, &c.

Mr Rutherford read a paper entitled "A Wasp's Nest, and how she built it." In the beginning of May last, he said, he observed where a wasp (*Vespa vulgaris*) had begun to build her nest. From day to day he carefully watched her operations ; and he particularly noted that when she returned with each load of pulp, she spent half her time on the small dome under which were the eggs. This he believed was for the purpose of imparting heat to the eggs from her body. Mr Rutherford also referred to the large quantities of wasps in this country in the summer of 1880, and the scarcity of these insects in the following year, when, as he believed, the cold weather which prevailed in June and July was fatal to nearly all the queens and their eggs. The nest described in the paper, dissected to shew the internal structure, was presented to the Society.

4th December, 1881.

Mr NEILSON, Vice-President, in the Chair.

Eighteen Members present.

New Members.—Mr W. M'Dowall ; Mr Irving Edgar.

Donations.—Seven coins, by Mr Forsyth, College Street ; series of 25 coins, by Mr R. Fisher ; two French sou pieces, 1692, by Mr Service ; and the Bulletin of the U.S. Geographical and Geological Survey of the Territories, sent by Dr V. Hayden, New York.

Exhibits.—By Mr Fisher, several rare old tomes, including a Huguenot Bible, 1616, "The Battle of Craginilder" (a Galloway legend in verse), and a curious collection of sermons dated from 1614 to 1680 ; by Mr R. Grierson, Chapmanleys, a potato through which a spear of couch grass had pierced a passage for itself.

Mr Fisher read a paper entitled, "Observations on Nature, and Sketches of Travel on the West Coast of Africa."

Birds that Breed in Parish of Dumfries.—Mr S. Chrystie read "An Annotated List of the Birds that Breed in the Parish of Dumfries." It was as follows:—

1. Kestrel (*Falco tinnunculus*).—Rare; Maiden Bower Craigs.
2. Sparrow Hawk (*Accipiter Nisus*).—Common; Dalscone Woods.
3. Long Eared Owl (*Otus vulgaris*).—Tinwald Downs.
4. Short Eared Owl (*Otus brachyotus*).—Rare; Tinwald Downs.
5. Barn Owl (*Strix flammea*).—Common.
6. Brown Owl (*Syrnium stridula*).—Dalscone Woods.
7. Spotted Flycatcher (*Muscicapa grisola*).—Common; banks of the Nith and Dalscone Woods.
8. Dipper (*Cinclus aquaticus*).—Common near running water.
9. Missel Thrush (*Turdus viscivorus*).—Common; Dalscone Woods.
10. Common Thrush (*Turdus musicus*).—Common.
11. Blackbird (*Turdus merula*).—Very common.
12. Hedge Sparrow (*Aroccent modularis*).—Very common.
13. Robin (*Erythaca rubecula*).—Very common.
14. Redstart (*Phaenicura rusticilla*).—Rare; Locharbriggs.
15. Sone-Chat (*Saxicola rubicola*).—Rare; Locharbriggs.
16. Whin-Chat (*Saxicola rubetra*).—Rare; Locharbriggs.
17. Wheat-Ear (*Saxicola aenanthe*).—Rare; Locharbriggs.
18. Sedge Warbler (*Salicaria phragimitis*).—Common; Auchencrueff Loch.
19. Blackcap Warbler (*Curruca atricapilla*).—Common.
20. Garden Warbler (*Curruca hortensis*).—Common.
21. Lesser White-Throat (*Curruca sylvicola*).—Rare.
22. Common White-Throat (*Curruca cinerea*).—Common.
23. Wood Warbler (*Sylvia sibilatrix*).—Very rare.
24. Willow Wren (*Sylvia trochilus*).—Not common; near Dalscone Woods.
25. Chiff-chaff (*Sylvia hippolais*).—Not common.
26. Golden Crested Wren (*Regulus cristatus*).—Common in woods.
27. Great Tit (*Parus major*).—Common in Dalscone Woods.
28. Blue Tit (*Parus ceruleus*).—Very common; near Carnsalloch.

29. Cole Tit (*Parus ater*).—Common ; near Carnsalloch.
30. Long Tailed Tit (*Parus candatus*).—Rare.
31. Pied Wagtail (*Motacilla alba*).—Very common.
32. Grey Wagtail (*Motacilla boarula*).—Common.
33. Ray's Wagtail (*Motacilla flava*).—Rare.
34. Tree Pipit (*Anthus arboreus*).—Common.
35. Meadow Pipit (*Anthus pratensis*).—Very common ; Locharmoss.
36. Sky Lark (*Alauda arvensis*).—Exceedingly common.
37. Common Bunting (*Emberiza miliaria*). — Common in Dalscone Woods.
38. Red Bunting (*Emberiza schoeniclus*).—Common ; Locharmoss and Auchencrieff.
39. Yellow Hammer (*Emberiza citrinella*).—Very common.
40. Chaffinch (*Fringilla cælebs*).—Very common.
41. House Sparrow (*Passer domesticus*).—Very common in and near Dumfries.
42. Greenfinch (*Coccothraustes chloris*).—Common in thick hedges.
43. Goldfinch (*Carduelis elegans*).—Not common ; Dalscone and Carnsalloch woods.
44. Siskin (*Carduelis spinus*).—Very rare ; Locharbriggs.
45. Linnet (*Linota cannabina*).—Common ; Locharbriggs.
46. Bullfinch (*Pyrrhula vulgaris*).—Not common ; Tinwald Downs and Dalscone woods.
47. Starling (*Sturnus vulgaris*).—Common.
48. Crow (*Corvus corrone*).—Not common ; Brunt Fir Wood.
49. Rook (*Corvus frugilegus*).—Very common.
50. Jackdaw (*Corvus monedula*).—Very common in church towers and ruinous buildings.
51. Tree Creeper (*Certhia familiaris*).—Common in woods.
52. Common Wren (*Troglodytes vulgaris*).—Very common.
53. Cuckoo (*Cuculus canorus*).—Common near Locharmoss and Locharbriggs.
54. Kingfisher (*Alcedo ispidia*).—Very rare ; near the Nith at Carnsalloch Merse.
55. Swallow (*Hirundo rustica*).—Common.
56. Martin (*Hirundo urbica*).—Common in church towers.
57. Sand Martin (*Hirundo riparia*).—Very common ; Locharbriggs Quarries and banks of the Nith.

58. Swift (*Cypselus apus*).—Common ; church towers ; Castlebank Mill.

59. Night Jar (*Caprimulgus Europæus*).—Rare ; Brunt Fir Wood.

60. Pheasant (*Phasianus Colchicus*).—Common ; near woods.

61. Ring Dove (*Columba palumbus*).—Very common.

62. Black Grouse (*Tetrao tetrix*).—Common ; Locharmoss.

63. Red Grouse (*Lagopus Scoticus*).—Very common ; Locharmoss.

64. Partridge (*Perdix cinerea*).—Common ; Locharmoss ; Carnsalloch ; Dalscone.

65. Lapwing (*Vanellus cristatus*).—Very common in pastures.

66. Common Heron (*Ardea cinerea*).—Not common ; Brunt Fir Wood.

67. Curlew (*Numenius arquata*).—Common ; Locharmoss ; Carnsalloch Meadow.

68. Common Sandpiper (*Totanus hypoleuca*). — Common ; Locharmoss ; banks of the Nith.

69. Common Snipe (*Scolopax gallinago*).—Not common ; Locharmoss.

70. Dunlin (*Tringa variabilis*).—Not common ; Locharmoss.

71. Land Rail (*Crex pratensis*).—Common in meadows.

72. Moor Hen (*Gallinula chloropus*).—Very common near water.

73. Coot (*Fulica atra*).—Not common ; at Auchencrieff Loch.

74. Wild Duck (*Anas boschas*).—Common ; Locharmoss ; Auchencrieff Loch.

75. Teal (*Anas crecca*).—Rare ; Locharmoss ; Auchencrieff Loch.

NOTE.—The Black-headed Gull (*Larus rididindus*) has not bred in the Parish since 1881.

By way of illustrating his paper, Mr Chrystie exhibited eggs of the various species referred to.

6th January, 1882.

Mr J. GIBSON STARKE, President, in the Chair.

Thirty-two members present.

New Members.—Mr W. Grierson of Chapelmount, Mr F. Reid, Mr J. Thompson, and Mr Smith (C. R. Institution).

Donations.—Annual Report of Glasgow Archæological Society, 1881, from said Society ; from Mr Symington, Whinnyhill School-house, 20 coins of various dates and nationalities.

Exhibits.—By Mr Frank Grierson, specimen of the Lesser Bladderwort, *Utricularia vulgaris*, found by him in Lochar Moss ; by Dr Gilchrist, a mineral substance found near Holywood Station, which he considered to be an ærolite ; from Rev. J. Fraser, large mass of Common Barnacle, *Lepas passicularis*, found by him on Colvend shore.

Mr Rutherford exhibited a series of micro-photo transparencies, by means of the lantern, and a series of microscopic objects, projected from the lantern microscope, illustrating animal structure. He also exhibited a number of local and other views, and explained the different objects as they appeared upon the screen.

The meeting had next an opportunity of examining interesting objects by means of a number of microscopes of various construction and power belonging to Mr Rutherford, Mr F. W. Grierson, Mr Wilson, Rev. T. Bowman, Mr Davidson, and Dr T. P. Anderson Stuart.

3d February, 1882.

Sheriff HOPE, Vice-President, in the Chair.

Thirty members present.

New Members.—Rev. J. Thyrdie ; Mr James Herries.

Donations.—Proceedings of Perthshire Society of Natural Science ; Vol. I., part 1, and Vol. II., part 2, of the Transactions of the Epping Forest and County of Essex Naturalists' Field Club.

Exhibits.—By Mr Shaw, pieces of trap-rock from Tynron, with curious cup-like markings ; by Mr T. Brown, piece of steatite, picked up at Holestane ; by Mr S. Chrystie, an orange having central segments ; by Mr Rutherford, a jasper, found on Hightown Hill, Tinwald, a curious egg-shaped bit of Silurian rock, found at Jardington, and two trays of rare old coins, respecting which last he read some notes and an extract from an old work explaining why our sterling coinage has the symbols £ s d. Mr P. Stobie exhibited a volume of "Essays on Anatomy," from the French, dated 1832.

Propagation of the Filices.—Mr J. Wilson read a paper entitled "The Propagation of the Filices," illustrated by prepared speci-

mens and numerous microscopical drawings. He said:—The group of plants which is known by the name of *Filices* or Ferns forms one of the most interesting and beautiful in the vegetable world. The natural order of *Filices* is the most important section of the sub-kingdom of cryptogamia, or flowerless plants, and is distributed over the surface of the globe except the colder regions of the frigid zones. It includes about 3000 different species, which vary in size from about half-an-inch to more than 50 feet; and only 47 of these are indigenous to the British Isles. For more than 500 years these plants have excited the admiration of all classes of society, and were regarded by the superstitious to be more or less connected with the supernatural. During the greater portion of this time their method of propagation was a mystery, but it was thought that the “black spots” which were found on the backs of the fronds had something to do with it. Owing to the improvements made on the compound microscope, this vexed question of botanists was at length solved by the unceasing exertions of Nägeli and Count Suminski. The first account of the development was published by Nägeli in 1844, and, although erroneous in some particulars, it was in the right direction, but the credit is due to Count Suminski, who some years later discovered the true method. I shall not occupy your time in describing these discoveries, or the difference between them, but proceed to the subject of this paper.

If we look at the under surface of a ripe frond we find that it is more or less covered with minute reddish-brown patches resembling scales, which, if we examine closely, prove to be arranged in small groups, or in some ferns, in short lines along the margins, called sorii. I have here several fronds of different ferns on which the arrangement of the sorii may be observed with the aid of this small magnifying glass. In the polypodies (*Polypodium*), the buckler (*Lastrea*), and the shield ferns (*Polystichum*) the sorii are circular, in the spleenworts (*Asplenium*), the hart’s tongue (*Scolopendrium*), and the hard fern (*Blechnum*) they are linear; while in the bracken (*Pteris*) and maiden-hair (*Adiantum*) they occur at the margin of the frond. On examining a sorus of either the polypody or *lastrea*, with 1-inch objective, we find that it is composed of a number of minute rounded capsules or pouches, supported on short stalks and arranged in a circular cluster, and these are called *sporangia*, *thece*, or spore-cases. In the *filix lastrea*

the sporangia are covered by a thin membranous layer called the *indusium*. The presence or absence of this covering, as well as its shape, forms a distinguishing characteristic for several different species. We see in the polypody it is wanting, in the male fern it is kidney-shaped and attached at the side, in the lady fern (*Athyrium filix fœmina*) it is kidney-shaped and fringed, while in the shield fern it is circular and attached in the centre. Mr Wilson next described experiments which he made in propagating ferns from the spores, and exhibited numerous microscopic drawings of the spores during their development into the leafy expansion or prothallium. This prothallium, he said, does not develop into the true fern, but it bears on its under surface the organs of reproduction, viz. :—antheridium and archegonium ; these he described, and traced the embryo fern until the young fronds were fully developed. The result of his experience was that it takes about four to six months before the prothallium is developed, and twelve months more before the young fronds are fully formed. The length of time, however, depending on the age of the spores.

The method of propagation which I have just described is called the *natural one*, and if you will allow me, I shall briefly introduce to you another, which may be called the *artificial*. Some species of ferns possess peculiar vital properties, and although they can be propagated from spores, they may also be by cuttings. If a portion of the stipes of the common hart's-tongue be cut off so as to retain a piece of the caudex and planted in earth, covered with glass, or placed in the dark, and kept warm and moist, it springs up into a fully developed fern. If a portion of a vigorous growing frond of the *Filix Lastrea* or *Polystichum Angulare* be taken and the pinnae cut off close to the rachis on the one side, and placed under similar conditions as the hart's-tongue, young ferns spring up at the base of the other pinnae. There is one species, *Campylopus flexuosus*, which carries a young plant on the tip of its frond, and two others, *Asplenium Bulbiferum* and *Asplenium viviperum*, which bear a number of plants on their fronds. I have growing in this flower-pot four young ferns which were taken from the fronds of the parent *Asplenium bulbiferum* in June last. It was supposed that these were produced by the ripe spores remaining in the sporangia, and on their being moistened they developed into the young ferns, as is the case with some tropical plants. Without questioning the accuracy of this state-

ment, I say they are produced independently of the spores. On one of the plants before you there is a frond bearing a young one which I have watched for some months, and before noticing its progression you will observe that the parent plant has not yet produced spores. Soon after it was planted I noticed at this point a small spot of a lighter green than the rest of the pinnule, and on watching I observed the vein which runs through it gradually form into a little rounded mass, immediately nearer the base of the pinnule, while the epidermis became raised into the form of a little nodule. On several of the fronds of these plants you may observe these rounded bulbils. This increased to the size of a small pin-head when the epidermis became torn, and a tiny frond made its appearance, which is now after five months' growth about half an inch long and forked at the top. When this increases to a convenient size it may be separated from the parent by cutting off the pinnule to which it is attached, planting it in a suitable place, and covering it with a glass shade for a short time. I should like to have made a section through the point of attachment, and examined it with a high power, but as the plant is too young I must wait until a future occasion, when I hope to perform that delicate operation.

Tongland, with Notes of its Flora.—Mr F. R. Coles read a paper entitled “Tongland, with Notes of its Flora.” The paper comprised a survey of the many varied and beautiful landscape features of the parish, which lies in a triangle formed by the river Dee, the “Twynholm” Hills, and the streams forming the Spout of Auchentalloch and the Tarff, respectively on the east, north, and western boundaries. Within this space some 305 species of Flowering Plants had been collected by the author, exclusive of Junci, Cyperaceæ, and Graminæ. The rocky bank of the Dee and the hill region were especially rich in plants; but several maritime and semi-maritime species were also found, owing to the high level of the tide at the junction of the Tarff and Dee. Among the rarer or more interesting plants to be found in Tongland are several varieties of *Ranunculus aquatilis*, *Lychnis vespertina*, *Geranium lucidum*, *Enonymus Europæus*, *Poterium sanguisorba*, *Epilobium hirsutum*, *Valeriana dioica*, *Valerianella dentata*, *Andromeda polyfolia*, *Myosotis palustris*, var. *Strigulosa*, *Origanum vulgare*, *Primula veris*, *Serratula tinctoria*.

Notes on Local Ornithology.—Mr R. Service read a paper

entitled "Notes on the Local Ornithology of the last Six Months." As usually happens when we have a mild autumn and winter, more of the scarcer birds have put in an appearance than in severe weather. In hard seasons the birds go farther south to winter, and the scarce species, when they happen to call in passing, make such a brief stay that their presence is scarcely noticed. In the weather of the autumn months the birds found no cause for hurrying; but, on the contrary, frequent and violent gales detained the later migrants for weeks, when in calmer weather they would have passed rapidly southwards. Towards the end of September the quick and simultaneous departure of the Sylviidæ and some others was a very noticeable fact. In ordinary seasons the numbers gradually lessen day by day—or rather night after night, for it is during the night that they depart—during perhaps the entire month of September, and so gradually do they disappear that, when all have left, we hardly seem to miss them. But this was not the case last autumn, for some species left entirely within a couple of days. For instance, the Swifts were in their usual numbers up till the evening of the 6th August. I saw a few stragglers—not more than half-a-dozen—the following day, but not one afterwards in this district (although I may remark parenthetically that I saw a pair of Swifts at Ravelston, near Edinburgh, on the 26th of August). The stay of these and other soft-billed insect-eating birds is of course in a great measure influenced by the abundance or scarcity of particular kinds of food, and this again depends upon the weather. Some of the warblers can subsist upon berries after their usual food has disappeared, and instances have been often recorded of individual Blackcaps being met with long after their summer companions had gone. I can now add another instance to those that have been recorded of the stay of this species in this country till after winter had begun. This Blackcap which I now exhibit was brought to me on 29th November by a boy who had killed it with a stone, from off a rowan tree in his father's garden, which is situated behind the row of houses forming the east side of Galloway Street. The boy said he had observed the bird feeding on the rowanberries every afternoon for about a week previous. It was accompanied by another of the same species, which was seen frequently on the same tree during the first fortnight of December. It is a curious coincidence that the only Blackcap procured later

in winter than my specimen should have been procured in a precisely similar manner. Mr Robert Gray, who had the other specimen I speak of, stated "that the specimen was observed by one of the boys at Merchiston School, near Edinburgh, on the 5th January (1878), and brought down by a stone from a catapult, in the use of which these boys are certainly proficient, however much they may be behind in other attainments." [*Zoologist, Third Series, Vol. II., p. 221.*] During the most of August some very large flocks of Greenfinches were noticed in the immediate neighbourhood of Dumfries. They remained for a few weeks, and then left, and did not re-appear till the second week of January. In the last week of September, the Meadow Pipits or Titlarks were in extraordinary numbers here, and in walking through the fields in the evening, one put them up in two's and three's at almost every step. From the great numbers seen, I do not think the birds of these two species could have been of local origin. Snow Buntings were seen plentifully by the middle of October. I refer to the large migratory flocks that visit us nearly every winter, not to the stragglers that have been seen in every month of the year on some of the highest of the Galloway hills, where it is just possible they may yet be found breeding. For several winters past, Snow Buntings have visited the Stewartry in great numbers, frequenting the hillsides in open weather, and coming down to the shore and the fields when snow covered the ground. My friend and fellow member, Mr Tom Brown, Auchenhessnane, writing on Dec. 6th, with reference to Snow Buntings seen by him on the wild tract of country between Wanlockhead and Crawfordjohn, says: "On Sunday the ground was covered with snow, and they gathered down from the hills, and collected together into flocks containing several hundreds. On Monday the snow was all gone, when the birds again scattered over the hills, in pairs often, but generally in small parties." That is a very good description of their behaviour in our district during the winter months. About the beginning of November considerable numbers of the Bramblefinch, or "Cock o' the North" as they are locally termed, made their appearance. These are oftener seen about the woodlands than in the open fields. I exhibit a young male Great Grey Shrike, which was caught on 1st December in a rather singular way. It had flown at the call-birds of a birdcatcher, who was plying his vocation on the Dalbeattie road, and in its endea-

vours to get at the birds within it was caught on the lined twigs. It lived for more than a fortnight with me; I fed it with small birds, mice, soaked bread, and hemp seed. It had a capital appetite, but the food was unsuitable in some respects. It fixed the birds and mice between the wires of the top of its cage, and tore them in pieces before eating them. The species is of very rare occurrence in the Stewartry. Fieldfares and Redwings have been very seldom seen, while during October and November Song Thrushes and Missal Thrushes were exceptionally numerous. Sporting friends complain of the scarcity of Snipes and Woodcocks, and it is evident these have not reached our district in their usual numbers. A Spotted Crake was procured at Lockerbie House in September, and I had an opportunity of examining this rare species while it was in Mr Hastings' possession for preservation. The rarest bird I have to record is a Black-tailed Godwit, shot on the Nith, and sold to Mr Hastings by the young man who procured it. Mr Hastings tells me it is the first local specimen he has had in the course of his long experience. The great storms of October and November will long be remembered for the destruction of property and loss of life, both on sea and land, and these storms were not without an influence on the birds. Great numbers of Guillemots, and Razorbills, and a few Puffins were washed ashore on several parts of the Stewartry coasts. At one or two places on the Solway they might have been taken up in cartloads. This was more particularly the case after the storm of the 14th October. They were nearly all young birds, and most of them were in poor condition. A specimen of Leach's (or the Fork-tailed) Petrel was sent me which had been picked up near Carsethorn on the morning of the awful tempest that raged during the night of the 21st and 22d November. Mr Hastings also got a specimen at the same time from the same coast. These two are, I think, the first got in Kirkcudbrightshire. The species is not scarce off the outlying points of the west coast of Scotland, but it is only in the greatest storms that it seeks the comparative shelter of such places as the Solway Firth. Mr Hastings got a Little Auk in the middle of December from Mr M'Caskie, gamedealer. I have not yet learned in what part of the district this little Arctic wanderer was procured, but its occurrence here is doubtless attributable to the prevalence of stormy weather. There is a specimen of this bird in the Observatory, which was procured on the

Colvend coast about sixteen years ago, and another was got at Auchencairn by the late Mr Ivie Mackie about twelve years since. The severe gales retarded the migration of the shore birds during October to a great extent, causing them to "accumulate" in our district for several weeks. On the 12th October I saw a twenty-acre field completely covered with Lapwings. At the same time, and for about a fortnight afterwards, the number of birds on the Solway banks was most extraordinary. The great majority of these were Bartailed Godwits, Oyster Catchers, and Knots. Just outside the line of breakers opposite the rocks at Southernness Point, Scamps and Scoters were especially numerous diving above the mussel beds. As they rose and fell on the crests of the heaving waves, these birds formed many an interesting and beautiful group. Gray Plovers have not been uncommon on the Solway banks during the winter, but the larger wild fowl have been rather scarce. Barnacle-geese have been few in number, as compared with the immense flocks seen during the two previous winters. A few Wild Swans were seen in the early part of December, but the species was not ascertained. Several Mergansers were procured in November both on the sea and on inland waters. Although common in some parts of the country, they are very scarce here. A Great Northern Diver was shot on Castledykes pool on 17th November by Mr Irving Edgar. I cannot conclude this paper without drawing attention to the great good that is likely to result to our native birds by the Act passed in 1880 for the purpose of protecting them during the breeding season. In a few years we may hope to see a great increase in their numbers. Asking one of the professional gunners of the Solway one day lately how the Act was affecting him, he replied that "It has completely spoiled the best of the shooting!"—that is, during March and April, when the birds are pairing, and have put off that wariness which characterises most species during the winter months. From a naturalist's point of view, better testimony to the value of the Act could not be got. What is still needed is an Act to protect the eggs of birds. It seems quite an anomalous state of matters that people dare not shoot (say) a Hedge Sparrow, but may take its eggs with impunity. The gun-tax has also done a very appreciable amount of good in diminishing the number of idle fellows who wander along our tidal rivers and country roads, destroying everything in the shape of a bird

that they come across. If the tax were doubled in amount the birds and the revenue would be equally benefited.

2d March, 1882.

Mr NEILSON, Vice-President, in the Chair.

Nineteen present.

New Members.—Mr Campbell Boyd, yr., of Merton Hall; Mr John Cowan, Birkhill; Mr W. Allan.

Donation.—Transactions of New York Academy of Sciences (one part), presented by the Academy.

Exhibits.—By Mr R. Service, about 60 species of North American Birds, including several which occur in Britain as rare stragglers.

Mr Service read a paper entitled "*Sphinx Convolvuli* in this District," and exhibited a pair of these moths captured in the autumn of 1881. He also read a paper entitled "Notes on the Gold Coast," communicated by Mr J. D. Fairley.

13th April, 1882.

Mr STARKE, President, in the Chair.

Thirty-nine present.

New Members.—Mr Carson, Newbridge, and Messrs W. Allan, J. Maxwell, and J. Roddan, Dumfries.

Exhibits.—By Mr Scott, Castle Street, an old stone whorl, a series of carboniferous fossils from Dalmellington, and an iron ladle found in the Moat of Carlaverock Castle; by Mr W. G. Gibson, some beautiful examples of gum copal with insects enclosed.

It was remitted to the Committee to prepare a list of summer field meetings, and also, to be dealt with by them, a proposal of Mr Wilson's to hold a conversazione in the autumn.

Dr T. P. Anderson Stuart then delivered an introductory lecture on "Digestion," illustrated with numerous diagrams prepared for the occasion by Mr F. W. Grierson.

DUMFRIESSHIRE & GALLOWAY
SCIENTIFIC, NATURAL HISTORY, AND
ANTIQUARIAN SOCIETY.



TRANSACTIONS.

SESSION 1882-83.

6th October, 1882.

ANNUAL MEETING.

Mr RUTHERFORD, Vice-President, in the Chair.

New Members.—Messrs J. Grierson, solicitor ; J. G. Laidlaw, Bank of Scotland ; W. Bailey, *Herald* Office ; J. Smellie, Queen's Place.

Donations.—Picked dog-fish, from Mr Birrell ; flounder having both sides dark, caught at Carsethorn, 22d Sept., from Mr James Lennox ; Vendace, together with a block of wood of supposed lake dwelling at the Castle Loch, from Mr P. Waugh, Lochmaben ; impression in wax of "Great Seal" of Queen Anne, from Mr Davidson of Sunnerville ; coin of James I. of Scotland ; bottle containing young cod-fish taken off Girvan, from Mr Moodie ; annual report for 1880 of Smithsonian Institution, from the Secretary of the Interior, U.S.A. ; four parts of *Annals of New York Academy of Sciences* ; two parts of *Transactions of Epping Forest and County of Essex Field Club*, from said Club ; one part *Transactions of Edinburgh Geological Society* ; three numbers of the *Field Naturalist*, from Publisher.

Exhibits.—Mr F. W. Grierson exhibited the following plants beautifully mounted and hung round the walls of the room :—*Ranunculus peltatus* — Maxwelltown Loch. *Drosera anglica*

—Lochanhead ; Lochar Moss. *D. intermedia*—Lochanhead ; Lochar Moss. *Alsine verna*—Torrheugh, Colvend. *Vicia sylvatica*—Cargen glen. *Saxifraga granulata*—Cluden banks. *S. hypnoides*—Genquhargan Craig, Tynron. *Eryngium maritimum*—Bridge bay, Borgue. *Cicuta virosa*—Castle Loch, Lochmaben. *Senecio viscosus*—Laggan Hill, Colvend. *Lobelia dortmanna*—Lochaber ; Loch Lotus. *Scrophularia aquatica*—Colvend. *Linaria minor*—Lochmaben station. *Veronica anagallis*—Maxwelltown Loch ; Banks of Cargen, &c.. *Orobanche major*—Auldgirth ; Locharbriggs. *Lycopus europæus*—Castle Loch, Lochmaben. *Calamintha acinos*—Castle-Douglas road. *Utricularia minor*—Lochar Moss, near Racks. *Samolus valerandi*—Glencaple. *Typha angustifolia*—Castle Loch, Lochmaben. *Gagea lutea*—near The Grove. *Allium vineale*—Colvend. *Isoetes lacustris*—Ironhash Loch, Colvend. *Ulmus montana*—Cargen Glen. Mr Wilson also exhibited the following:—*Nepeta cataria*—Locharbriggs. *Linaria minor*—Lochmaben. *Ornithopus perpusillus*—Locharbriggs. *Listera cordata* ; *Saxifraga hypnoides* ; *Lycopodium selago* ; *L. selagnoides* ; *Habenaria bifolia* ; *H. albida* ; *Rubus saxatilis*,—which were gathered at the Society's excursion in June. *Sedum anglicum*, *S. acre*, and *Arenaria verna*—found at July excursion. *Sagina nodosa* ; *Glaux maritima*, Glencaple. The following were gathered in the neighbourhood of Dumfries:—*Mimulus luteus* ; *Parnassia palustris* ; *Polygonum bistorta* ; *Stachys betonica* ; *Lycopus europæus* ; *Calamintha acinos* ; *Chrysosplenium alternifolium* ; *Calluna vulgaris* (white variety). Also *Utricularia vulgaris* in flower, not from this neighbourhood. Mr J. M'Meekan exhibited a number of fossils from the Carboniferous Strata of the Kirkbean coast ; also a frond of *Lastrea filix mas.*, over 6 feet in length found at Arbigland. The Chairman also exhibited a number of fossils from the Carboniferous System.

The SECRETARY submitted the following report:—We have much pleasure in reporting that the Society has increased greatly in prosperity during the past session. Thirty-one new members have joined, and six members have been taken off the roll from various causes, thus leaving the roll of membership at 137—a net increase of 25. It should be noted that nearly all the new members are resident at a distance, which prevents them attending the meetings regularly, but they are almost without exception

gentlemen who take an active interest in the objects for which the Society was instituted, and who form a valuable addition to its strength and capability for carrying out its aims. The meetings have been with one exception—the September field meeting, which did not take place—very well attended; there having been an average attendance of 22 at the winter meetings and 21 at the summer field meetings, not taking the September meeting into account. The publication of a “Flora of Dumfriesshire and Kirkcudbrightshire” marks an important advance in the work of the Society. The volume has attracted considerable notice from botanical students, and obtained favourable comments in some of the scientific periodicals. The members are under great obligations to Mr M’Andrew for the laborious work he undertook in its compilation. The arrangement with the management of the Observatory, whereby the articles belonging to the Society have been deposited in the Museum, in return for which the members enjoy certain privileges, has wrought very well during the past year, and has conferred a mutual benefit on each institution. The articles sent to the Museum since our last ordinary meeting in April are as follow:—

No. 159, April 28, Vendace from Major Bowden; No. 160, do., Albino flounder, from Mr Ballantine, Carsethorn; No. 177, June 1st, Group of Zoophytes and Sponge, Southernness; No. 178, do., Pipe fish from Mr Black; No. 179, do. Egg from inside of an ordinary domestic hen’s egg, from Mr R. Maxwell; No. 180, do., Small Drawing of Kirkcudbright Castle, from Mr Thomson; No. 184, June 21st, Tiger python, shot in Cachar by Mr Inglis, from Mr Service; No. 187, July 18th, *Sepia officinalis*, caught at Loch fishery, Gretna, from Mr Irving; No. 191, Aug. 30th, Thirty-four specimens of Carices; No. 193, do., Centipede from Mozambique, from Mrs Aitken, Church Crescent; No. 194, do., Adder, Mabie, from Mr Service; No. 195, do., Slow-worm caught on Millgreen, from Mr Service; No. 196, Broad nosed eel; No. 197, Sharp nosed eel; No. 198, Jar with three roach; No. 199, ditto; No. 200, Jar with one roach; No. 201, Jar with perch;—all got at Kirk Loch on the occasion of the field meeting at Lochmaben. These articles bring up the total number of specimens belonging to the Society deposited in the Observatory to 137.

We would like to direct attention to the desirability of members doing something to form a collection of our local fishes, a nucleus

of which has now been got together. This might be done with but little expense, and such a collection would be of extreme interest. Almost nothing is known scientifically of our local ichthyology, and we have reason to believe that amongst the fresh water fishes *Coregonus mardenuta* (the vendace) is not the only unique species to be found here. What has become of that pretty little species *Cyprinus idus*, which the late Dr Walker is stated, in Stewart's Elements of Natural History, to have found at the mouth of the Nith? We throw out the suggestion in the hope that the members may take note of it. We have also to draw your attention to a clause in the Observatory Agreement which binds us to assist to the best of our ability in forming a collection representative of the local Fauna. Although we are depositing quite as many articles as are coming to the Observatory Committee, still we think the members might contribute to a much greater extent than at present. There are no insects in the Observatory; the birds are very inadequately represented; and many of the local quadrupeds are awaiting.

The report was unanimously adopted.

Thereafter the Treasurer (Mr Wm. Adamson) submitted his financial statement for the past session, shewing the Income and Expenditure to be as follows:—

INCOME.			EXPENDITURE.		
By Balance, ...	£8	6 8	Secretary's Account,	£9	17 7½
92 Subscriptions at 2s 6d,	11	10 0	Cost of printing "Trans-		
28 Do. at 5s,	7	0 0	actions," Circulars, Syl-		
2 Copies of "Trans." sold,	0	1 0	labus, Cards, Letter		
			paper, Envelopes, &c.,	14	7 6
			Treasurer's Outlay,	6	4 1½
			Balance on hand, ...	2	8 3
<hr/>			<hr/>		
£26 17 6			£26 17 6		
<hr/>			<hr/>		

After considerable discussion it was resolved that the Report should be received and remitted to the Committee for examination.

A letter was then read from Mr J. Gibson Starke, of Troqueer Holm, desiring that he be not re-elected President, as the honour had been so frequently conferred on him.

On the motion of Mr Maxwell, seconded by Mr Watson, it was unanimously resolved to record in the minutes the Society's sense of the admirable manner in which Mr Starke and the other retiring office-bearers had discharged their duties during their tenure of office,

The following office-bearers were then elected :—President, Dr Gilchrist, Linwood ; Vice-Presidents, Sheriff Hope, Mr Rutherford of Jardington, and Mr Wilson, Inland Revenue ; Treasurer, Mr W. Adamson—all unanimously.

The meeting then proceeded to the election of Secretaries, when Mr Watson moved, seconded by Mr Maxwell, that Mr R. Service be re-elected Joint Secretary. Agreed. Mr James Lennox moved, seconded by Mr F. W. Grierson, that Mr A. E. Truckell be re-elected Joint Secretary. On an amendment being proposed that Mr Truckell be elected as Assistant Secretary to Mr Service instead of Joint Secretary as heretofore, Mr Service objected, and resigned his appointment. After some discussion Mr Watson moved, seconded by Mr Chrystie, that Mr J. Wilson be elected Joint Secretary along with Mr Truckell. This was ultimately agreed to. Mr S. A. Chrystie was re-elected Assistant Secretary.

The following gentlemen were appointed Members of Committee :—Messrs W. Lennon, G. Robb, J. Watt, P. Stobie, J. Neilson, T. Watson, J. M'Meekan, and J. Lennox.

A letter from the Rev. W. Graham, Trinity, Edinburgh, was read, in which he stated that he had obtained the necessary consent to his opening up one of the inner Fosses at Lochmaben Castle, and requesting the patronage and assistance of the Society in doing so. It was agreed to comply with the request.

The meeting thereafter, on account of the lateness of the hour, agreed to adjourn till Friday evening next, when the remainder of the business would be taken up.

13th October, 1882.

ADJOURNED ANNUAL MEETING.

Dr GILCHRIST, President, in the Chair.

Thirty-three present.

A draft of the minutes of last meeting was read and corrected. A letter was read from Sheriff Hope regretting his inability to accept the office of Vice-President. On the motion of Mr Watson, seconded by Mr Wilson, it was resolved to appoint Mr M'Andrew, New-Galloway, to said office. Mr Watson read a correspondence which had passed between Mr Wilson and Mr Service as to

delivery by the latter to the former of the books, &c., belonging to the Society in his possession. Thereafter, by mutual agreement, Mr Wilson and Mr Truckell both resigned their position as Joint Secretaries. On the motion of Mr Truckell, seconded by Mr Wilson, Mr Rutherford of Jardington was elected Secretary in their stead.

Mr Wilson made a statement regarding a proposed course of Lectures in connection with the Society, and Mr Truckell read a letter he had received from Mr Reid, Bank of Scotland, on the same subject, suggesting a course of Lectures from the Combe Trust. After discussion it was resolved to remit the matter to the Committee for consideration. The Secretary was instructed to ascertain the conditions on which the Combe Lectures were delivered.

Mr Wilson moved, seconded by Mr Chrystie, that the place of meeting in future be the Free Masons' Hall, High Street. Mr Moodie moved an amendment, seconded by Mr Service, that the meetings be held as at present in the Mechanics' Institute. The motion was carried by a majority.

New Members.—Mr Wm. Dickie, *Standard Office*, and Miss Chrystie, Buccleuch Street.

Mr J. W. Kerr was re-elected Auditor.

The Secretary laid on the table a copy of the "List of Foreign Correspondents of the Smithsonian Institute, New York," which had been presented to the Society by that institution.

3rd November, 1882.—Free Masons' Hall.

Dr GILCHRIST, President, in the Chair. Twenty-seven present.

The minutes of last meeting were read, and, after some correction, approved of.

New Members.—Miss Robb, Castle Street; Miss May Robb; Dr Richardson, C. R. Institution; Mr Bruce, do.; Mr Jas. Bruce, do.; Mrs Wilson, Dumfries; Miss Muir, Linwood; Mr Robert Bruce, Wallace Street; Mr John Thomson, Irish Street; Mr Samuel Dickie, Glasgow Street; Mr T. Brown, Grammar School; and Mr A. Bennett, F.L.S., 107 High St., Croydon, as a Corresponding Member,

Exhibits.—By Mr Davidson of Summerville, a beautiful ammonite from Whitby, and a very perfect arrow-head from Knockgray, Carsphairn; by Mr Rutherford, a hornstone celt, found at Fernyeleuch, Tinwald.

The Secretary called the attention of the meeting to several encouraging letters he had received from Members of the Society; amongst which was one from Mr J. J. Armistead, The Fishery, Kinharvie, with the promise of a Lecture on “Fish and Fish Hatching,” which would be given on the 19th of January next, and an invitation to the members of the Society to go down to Kinharvie and see the “Fishery” when the hatching was in process. A letter was read from Mr Bennett, F.L.S., Croydon, offering for distribution a packet of *Characeæ*, and to assist any of the members at any time in naming *Potamogeton*, *Characeæ*, and other Pond-weeds.

The Secretary further reported that he had along with the Treasurer examined the accounts for last year, and that instead of there being a balance of £2 8s 3d in favour of the Society, as reported at the Annual Meeting, the Society was at that time £8 1s 9d in debt.

The Secretary intimated that the following course of extra lectures would be given during the winter:—November—“Nature’s Tiny Workmen,” by Dr Gilchrist; December—“Atmospheric Electricity, with Experiments,” Mr Rutherford; January—“Fish and Fish Hatching,” Mr J. J. Armistead, Solway Fishery; February—“The Brain and Nervous System,” Dr Grierson, Thornhill; March—“A Cup of Tea,” Mr J. Wilson; April—“Bruce’s Castle, Lochmaben, its Past, Present, and Future,” Rev. W. Graham, Trinity, Edinburgh.

The Chairman proceeded to deliver the first part of his lecture on Corals and Corallines, entitled “Nature’s Tiny Workmen,” which was illustrated with a large number of diagrams and proved to be highly interesting.

Rare Birds.—Mr Hastings, taxidermist, read the following paper on “Rare Birds.” In looking back upon what is past of this year, I have to communicate as follows regarding rare birds that occasionally make their appearance in this district. In the early spring I received a specimen of Blacktailed Godwit, *Limosa melanura*, shot on the banks of the Nith not far from Glencaple. It is the only one I have ever had shot in this country. I have

had the skins of some shot in Egypt. It is a small-bodied bird, not much larger than a common snipe, but it has very long slender legs, adapting it for wading in little pools that abound in the marshy districts which it usually frequents. It is the only bird that has come my way which I consider worthy of special notice on account of rarity. I have a bird here, however, that has puzzled me a good deal to ascertain what it really is. I have all along called it the Manx Puffin. There is a bird known by that name, but it belongs to a different class. It is also called the Manx Shearwater, and it is a true petrel. The bird before us is described by different authors as the young of the Razorbill, *Alca Forda*, but I cannot agree with that opinion, as I have had specimens of it in the spring, in the most beautiful adult plumage, and not a trace of the Razorbill could be seen more than is to be seen in the bird before us. Sometime about the beginning of August last I received from Stranraer a young Razorbill, the skin of which I have here, and it shows at a glance what it is. Some weeks later I received from Dalbeattie a young bird of the one under consideration; and the difference betwixt it and the one from Stranraer is very marked. The latter is the true Razorbill in spring plumage. Montaigne considered the other to be a distinct species, and gave it the name of the Black-billed Auk; Bewick also mentions the Black-billed Auk as distinct, but seems to have agreed with Latham that it was the young Razorbill. Before we can arrive at that conclusion we must admit that the bill of the bird is further removed from the normal type the second or third year than it is the first year, a conclusion contrary to all analogy. I should like if the Society could be the means of throwing some fresh light on the subject.

1st December, 1882.

Mr M'ANDREW, Vice-President, in the Chair. Forty-two present.

New Members.—Messrs Calderhead, burgh surveyor; Johnston, draper; Armistead, The Fishery, Kinharvie; W. Dunbar, High Street; Dr J. Connal Wilson, Thornhill; Miss Laing, 9 Catherine Street; Miss Johnston, Catherine Street; Miss M'Naughton; Mr Tait, tweed merchant; Miss Gillies, Maxwelltown; and Mr W. Anderson, Netherwood.

It was agreed that lady members be charged no enrolment fee, and that life members be admitted on payment of £2 2s each. It was further resolved that the name of the Society shall be "Dumfriesshire and Galloway Scientific, Natural History, and Antiquarian Society," which is the title printed in Transactions No. 2.

Exhibits.—Copy of the *Edinburgh Courant*, dated 1705, and piece of polished limestone conglomerate, by Mr M'Meehan; piece of the first steam ship, large ammonite, coralline, and several other fossils, by Mr Todd.

The Characeæ, with special reference to the British species.—A paper was read, contributed by Mr A. Bennett, F.L.S., Croydon, corresponding member. The paper was illustrated with a large number of specimens, which were presented to the Society:—After noticing the little attention which has been given to this branch of Botany, Mr Bennett said—"The *Characeæ* forms an independent natural order between the *Mosses* and the *Algæ*. In 1880, the Messrs Groves published in the *Journal of Botany* their admirable review of the British *Characeæ*, with four plates containing figures of all the then known species. At the end of that year he found that some Cornish specimens belonged to *Chara baltica*, and in September of that year he was fortunate enough to discover in Norfolk *C. stelligeria*. In 1881 Mr H. Groves found *C. contraria* in Wichen Fen, Cambridgeshire; soon afterwards Mr Bennett found in Norfolk *C. tomentosa*, and alongside of it *C. stelligeria*, the former being an addition to the British flora, but known in Ireland since 1847. There are still several continental species that may be found, especially in Scotland. The Scandinavian flora is very rich in these plants, especially that of the southern provinces; and these being mainly in the same latitude as Scotland, it is not unreasonable to expect additions to our lists. With regard to their distribution outside our country, they are found from the hot springs of Iceland to the tropics, high up in the Andes of South America to the Lakes of British North America, but principally in the temperate zones. The genera included in the order are *Chara* Lychnothamnus, Tolypella, and Nitella. The known species are about 140; of these we have 12 species of *Chara*, 1 of *Lychnothamnus*, 3 of *Tolypella*, and 7 of *Nitella*." Mr Bennett concluded his very valuable paper by intimating that if any of the members would take up

the study he would gladly help in any way in the naming or communicating of specimens, references to books, &c. A very neat diagram illustrating each genus accompanied the paper. The following is the list of British *Characeæ* sent by Mr Bennett :—

Chara fragilis, Desv.—Common.

„ *fragifera*, Durien.—Rare ; Cornwall.

„ *connivens*, Salz.—Very rare ; Hants, Devon.

„ *aspera*, Willd.—Rather rare.

„ *tomentosa*, Luin.—Rare ; Norfolk ; Ireland.

„ *polyacantha*, Braun.—Rare ; Fife.

„ *hispida*, Luin.—Fairly common.

„ *rudis*, Braun.—Rare ; Fife.

„ *vulgaris*, Luin.—Common.

„ *crassicaulis*, Kütz.—Rare.

„ *crinita*, Wallr.—Very rare ; Cornwall ; Dorset.

„ *delicatula*, Braun.—Rare ; Aberdeen.

Lychnothamnus alopecuroides, Delile.—Isle of Wight.

Tolypella glomerata, Leonhardi.—Rather rare.

„ *prolifera*, „ .—Very rare ; Sussex ; Dublin.

„ *intricata*, „ .—Rare.

Nitella tenuissima, Kütz.—Rare ; Cambridge ; Wales ; Norfolk.

„ *gracilis*, Smith.—Rare ; Sussex ; Dublin.

„ *mucronata*, Kütz.—Rare ; Sussex ; Bedford.

„ *translucens*, Kütz.—Rare ; Perth.

„ *flexilis*, Ag.—Rare ; S. of England.

„ „ var. *crassior*.—Very rare ; Perth only.

„ *opaca*, Ag.—Common.

LATELY ADDED—

Chara stelligera, Bauer.—Norfolk only ; 1880.

„ *baltica*, Fries.—Cornwall ; 1880.

„ *contraria*, Braun.—Rare ; Fife.

With many varieties and forms.

The Chairman read a paper of his own on “The Parmeliæ of the Stewartry,” illustrated with about 30 specimens (which Mr M’Andrew presented to the Society).

Place Names of Nithsdale.—Mr Shaw, Tynron, read a paper on this subject, of which the following are the principal divisions :—(1.) The various sources indicated from which we should endeavour to collect our slowly waning place-names. (2.) Necessity

of getting hold of the *oldest* spelling or sound, and instances given of changes of pronunciation, obscuring or obliterating the meaning of place-names, in Tynron and adjacent localities. (3.) An attempt to show that *Tynron*, formerly *Tindrim*, means "the hill or ridge in which the sacred fire was lighted" by the Celts of old. Afterwards, from thirty to forty place-names, nearly all of Celtic origin, are given, with the meaning assigned, according to Joyce, Blackie, and other recent writers on the subject. To collect the place-names of a county is a task (says Mr Shaw) somewhat like that of giving an account of its Flora, and would be best achieved by each member taking up the area with which he is best acquainted. Not only should books, but title-deeds, session records, old grave-stones, and old inhabitants be pressed into service. In a research of this kind the oldest spelling or sound of the word should be considered the most valuable, as phonetic decay, like much handling of a coin, is very apt to obliterate the characteristics of the original. I recollect the farm and wood adjacent to my birth-place were respectively named *Rawflesh* and *Racewood*, and it was not until perusal of the old title deeds that *Rawflesh* was discovered to be a corruption of *Roughlees*, and that the *Racewood* meant the park or wood in which roes had been accustomed to herd. The first case is that of a word drifting away from its original sound by attempts to pronounce it more easily, the second shows how an old pronunciation tends to become unintelligible from the Queen's English usurping the place of the vernacular. Since such changes are wrought in English words by an English-speaking people, greater changes are the rule when an alien race, speaking a different language, succeeds an aboriginal in possession of a country, and retains for convenience the place-names that had been given by the displaced race. It is not easy to observe at first glance that *Countam*, on the borders of Tynron and Penpont, means "the head of the hill," and contains, in its first syllable, the same word as *Can* in *Cantyre*, the headland, and in its second *Tom*, the knoll, *Tomachuriach*, the knoll shaped like a boat (*curagh*), near Inverness. It would be vain, unless we knew its more ancient spelling, to attempt to extract the true meaning from *Craigmay* in the Stewartry, since it appears in the earlier records as *Craigbeath*, which we at once recognise, as "the craig or hill of the birch trees." The loss of the meaning of a place-name gives rise to tautology. In Tynron it was forgotten that *Torr* meant "a

conical hill," so a new generation called it *Torrbrae*, and as if that were not enough, in order better to describe its shape, another generation added the word *head*; so we have *Torrbraehead*, which is very like hill, hill, hill. In Tynron we have the *Clone*, or "meadow beside the moss;" it is a name common to Gaelic, Manx, and Erse; thus *Clones* in Monaghan, *Clonard* in Meath, and it appears elsewhere as *Cluny*, *Clunes*, *Clones*. It elsewhere appears in Tynron as *Clonerea*, "the smooth, fertile meadow by the marsh." Carlyle, in his "Reminiscences," probably forgetting partially, calls this *Clone* of ours "the *Clove*, or cleft place between the hills," as he goes on to explain, and thus our old fine Gadhelic word runs a risk of being made a Saxon one, and all on the authority of a man of genius, whose ear, perhaps, was waxed up with cold when he first heard the place-name uttered. *Tynron*—In the old session records it is written *Tinnerin* and *Tindrim*. The last word connects it with *Tyndrum*, Perthshire. *Tan* is the Celtic for *fire*. We have it still in the Scotch word *Tawnle*, which, according to Jamieson, meant originally "a large fire, kindled at night, about the time of Beltane." *Drum* is a long-backed ridge. There is another word in Tynron beginning with the same syllable, *Tinleago* or *Tinlaght*. There is also a high hill, *Cormilligan Bale*. With these facts before us we are warranted in saying that *Tynron* originally meant, to the Celt, a "beacon hill" or "ridge on which was kindled the sacred fires." We meet with *tan*, fire, softened into *tin* in place-names, as *Ardentinny*, *Craigentinny*, and *Tinto*, and all these very well could be hills on which sacred fires were kindled. We now proceed to give some of the Tynron place-names, which, it will be seen, are mostly Celtic. *Maol-whinny*, the broad smooth hill. *Langarroch*, the rough land. *Croglin*, Joyce says *Crug*, a rick, a heap, a stack. *Lan*, *Linny*, a granary. *Marshmalloch*, the marsh in the upland. *Penzeree*, the smooth hill. *Knockenboy*, the yellow hill. *Snab*, the projecting point. *Mounthooly*, perhaps from *main tulloch*, the little hill. *Cormilligan*, little round hills (Joyce, 1st series); very descriptive. *Craigencoön*, the curved or winding stone (Joyce, 2d series). *Bennan*, the diminutive of *Ben*, a mountain. *Strathmilligan*, the glen of the little round hills. *Corrièdoo*, the dark glen. *Kilmark*, boundary kirk (Blackie). *Kirkconnel*, church of St Connel (Blackie). *Laght* or *Leaght*, sepulchral monument (Joyce). *Clod-roch* (*Clone-darroch*), the meadow of the oak trees. *Dalmakerran*

(*Dal-maol-Kiarin*), the bald or barren field of St Kiarin. It can be shown that the word *Dailly*, an Ayrshire parish, is ground down from the same original. (*Vide* Blackie.) *Auchengibbert*, Gilbert's field. *Auchenbrack*, the spotted field. *Auchenhessnane* (*ess*, waterfall; *essan*, the diminutive), the field of little waterfalls (Blackie). *Knockelly*, *Knock*, *Keelagh* (?) the narrow hill (Joyce, 2d series). *Corfardine*, *Cor* means a round hill. *Clack-whanam*, the stone amid the whins. *Denery*, *Den* or *Dene* is a Saxon word meaning *wooded valley*. *Aird*, a high place. *Tor-brachead*, a conical hill. It was forgotten that *Tor* meant a hill, and then Sax. *brae* was added, and again to emphasize it was added *head*; literally hill, hill, hill. *Camling*, the crooked linn; the farm being named from the linn, a striking feature. *Glenmarlin*, Merlin's glen, from the wonderful linn. *Doon* or *Dun*, was the name given to a fortified hill by the Celts. Traces of a fort are yet visible on Tynron Doon. *Cormilligan Bale*, the hill among the little smooth ones on which the bale fire or sacred fire was lighted. *Appin*, the high land. *Lann*, the enclosed ground. *Clonerea*, the smooth meadow, with water on one side, and marsh on the other (Blackie).

The Deil's Dyke West of the Dee.—Mr Brown, Drumsleet, read a paper on this subject. He said there are two dykes bearing this name in Galloway. The first runs from the mouth of the Cree to Dee's junction with the Tarff. It is very distinct from the second in locality, and it exhibits a base uniformly six feet, and having the fosse invariably on the south side. It is scarcely anywhere more than three miles from the sea, which is much in view; and the ruins are clearly of later date. I should set them down to the date of Norseman occupation. The second dyke is the direct topic of this paper, and the most that can be said of the old wall is that portions of it are still visible, and its course can still be traced, but it is very clear, from Train's account, that the course of time has made it much less distinct than he found it. It is well known to be very tortuous in its course, and difficult to follow, especially where it goes over soft land. In such a place it is lost, and its next ground must be literally searched out anxiously. The stones have in most places been completely carried away; in one place the *debris* was left, in another the foundation stones were as they had been first placed, and so continued for half a mile. This was a good trace. In a moss the

rampart was built of wooden piles found several feet below the surface. It stops at the edge of a loch, and begins again on the opposite side. But the course is very whimsical; there is no principle or apparent reason why it takes a particular lead. It may have been once manifest, not now. The width of the base is always eight feet, and the fosse is always on the north side. From Lochryan, where it begins, to the last trace near the Bridge over the Deuch, the fosse is present—on the north; where stones were scarce an earthen rampart was made, and strange to say that remains in as good a state of preservation as the stone, if away from arable land. The Deil's Dyke may be regarded as a contemporaneous continuation of the defensive wall of Severus, built 208-211 A.D. to stop the incursions of the Caledonians, or Northern Picts. The Deil's Dyke was a defence of the Southern or Galloway Picts who were nearly Romanised, as being, in Caledonia, longest in contact with them, viz., from 79 A.D. to 211 A.D., or from Agricola to Severus's time.

5th January, 1883.—Conversazione.

The fourth monthly meeting of the session was held as a conversazione to-day in Greyfriars' Hall, when a large collection of objects of interest, illustrating Archæology and the different branches of Natural Science, was exhibited. The exhibition was opened at 2 P.M. by Provost Lennox, who addressed the meeting on the objects and work of the Society. After a short interval the Hall was again opened at 7 o'clock, Dr Gilchrist presiding. The Secretary read the minutes of last meeting, which were approved of. The President then addressed the meeting on the "Aims and Claims of the Society," after which the following ladies and gentlemen were elected members:—Provost Lennox; Mr S. M. Brown; Rev. J. D. M'Kinnon; Rev. J. Cooper; Dr A. Davidson, Thornhill; Mr Fingland, Thornhill; Miss Aitken, Dumfries; Miss M. Aitken; Mr W. J. Laurie; Mr Armstrong, architect; Rev. G. W. Tooley; Mrs Tooley; Mons. M. De Prackie; and Mr J. Sloan of Barbeth. The Secretary announced the following donations:—Petrified palm; shark's tooth; gun flint from the Tower of London; nodule of flint enclosing echinus; and several specimens of Whitby jet from Major Bowden. In the course of the evening Mr J. Gibson Starke addressed the meeting

on "Archæology, Its Width and Importance." Dr Grierson followed with some very suitable remarks on "The Study of Nature and Its Advantages." The Hall was crowded with visitors during the evening. At the close of the meeting votes of thanks were passed to Provost Lennox and the other speakers, to the Contributors to the exhibition, and to the Sub-Committee appointed to carry out the arrangements.

The Size of the Old Bridge of Dumfries.—Mr M'Dowall read a paper on the above subject at the intermediate meeting on the 19th January. The Old Bridge, as you have all heard, was built by the bountiful Devorgilla; and as she died on the 29th of September, 1289, it must have raised its head above the waters of the Nith some time prior to that date. We may safely conclude that about the year 1283, precisely six centuries ago, the fabric assumed a completed form. A considerable number of years since I applied to the experienced antiquary, Mr Cosmo Innes, to see if he could oblige me with any reliable information as to the circumstances under which the Bridge had been constructed: his answer was brief and disappointing, to the effect that if the Bridge was so old as the date I had assigned to it, it must have been made of timber, since in the thirteenth century there were no workmen in Scotland capable of bridging a broad tidal river like the Nith with stone. Mr Innes wrote in seeming ignorance of the fact that the Lady Devorgilla had at a vast expense brought foreign architects and masons to this district for other purposes, and that the skill and craft which created the magnificent Abbey of Sweetheart (also founded by Devorgilla) would be amply adequate to link together, by means of a permanent stone erection, the sister shires of Dumfries and Galloway. It would, doubtless, be a work of considerable difficulty. The architect would, of course, have to take into account the nature of the shores on each side—high on the west, low on the east, and the tendency of the river when swelled by spate or tide to invade the houses of the Vennel, which had already sprung into existence. If reasonable provision could be made for this latter contingency, by giving six arches to the left or Dumfries side, against three to the other side, we may feel assured that money and time would not be wasted in building a single additional arch; and my decided opinion is that all the exigences of the case would be fully met by a nine-arched bridge. That the Bridge actually erected had never more than nine I shall endeavour to

show. Not having been able to get information on the subject from printed books or living authorities, I consulted the Dumfries record-room ; and from writs there kept I learned that Devorgilla's Bridge consisted of nine arches in 1681 ; and I think you will all agree with me that if it had only that number then, it would not be likely to have many more at the date of its erection. But if we are to credit a traveller who passed along the Bridge forty-two years after 1681, the arches had swelled in the interval from nine to not—ten, or eleven, or twelve—but to the baker's dozen of thirteen ! a growth that seems to me as surprising and incredible as that of Falstaff's men in buckram. Mr Pemberton in his "Journey through Scotland," of date 1723, says : "I passed the river Nith from Galloway to Dumfries over a fair stone bridge of thirteen large arches, the finest I saw in Britain next to London and Rochester." That extraordinary statement found its way into a local publication in 1832, and down till a comparatively recent period was accepted without challenge. But it wears the impress of fable on its very face : it is not only unsupported by a single particle of evidence, but runs counter to conclusive testimony which persistently restricts the arches to nine. Sometimes we are told—

" Travellers in pathless downs
Plant elephants instead of towns ;"

and in this instance, I think, the traveller, trusting to a treacherous memory instead of written notes, has been beguiled. I fancied that I had many years ago demolished this thirteen-arch theory, but it has sprung up again during the last fortnight, the occasion of its revival being a copperplate engraving of the Old Bridge shewn at our conversazione on the 5th instant, in which the venerable fabric appears dowered with ten arches ; and it has been argued, if ten, why not more than ten ; and may not Pemberton be right after all, and those who doubt his declaration be wrong. The date of this picture is not given ; but it has evidently been drawn about the period when Burns resided in Dumfries, and as the name R. Riddell appears upon it as the artist, it may possibly owe its origin to the Poet's good friend, the laird of Friars' Carse. But the picture, though a tolerably good one for an amateur, is sadly at fault as regards proportion : it has obvious defects, negative and positive, and I venture to class among the latter the amplification of the nine arches to ten. The artist, whoever he was,

must have taken his view-point at a considerable distance on the Dumfries side, from which the precise number of arches would not be seen very distinctly; and, not believing, like Rory o' More, that there's luck in odd numbers, he has given the even figures of ten to his picture of the Bridge. However this may be, I produce another picture taken about thirty or forty years before, which, I think, gives the Bridge its due allowance of arches, neither more nor less. When I state that the engraving now under notice is by Francis Grose, the distinguished antiquarian author and artist (at whose instance, as you all know, his admiring friend Burns wrote *Tam o' Shanter*), you will admit, I think, that when he limits the arches to nine, any evidence to the contrary, deduced from an anonymous engraving, is completely neutralised. But to put the matter beyond all reasonable doubt Grose measured the Bridge so as to ascertain its size as a whole, and in detail, with this result: "Dumfries Bridge (he says) is of stone, and consists of nine arches: its measures are four hundred feet in length; breadth within the parapets thirteen feet six inches; mean width, the parapets included, sixteen feet two inches; height from the top of the parapet to the water, twenty-six feet." Grose adds, with reference to the picture, "This view was drawn A.D. 1747." Another author who traversed the district about the same period published "*A Tour thro' the whole Island of Great Britain*;" and in the sixth edition of his work, dated 1761, he says at page 115, "Dumfries was always a good town, with large streets. . . . Over the river Nith is a very fine stone bridge at this place, with nine arches"; this author concurring with Grose to confute alike the Baron-Munchausen-story told by Pemberton thirty years or so before, and the less unreasonable but equally unreliable pictorial sketch supplied by Mr Riddell. It has been conjectured by some that even though the Bridge may not have had more than six arches to the east of its key-stone or port, it may have had one, two, or three more extending into the base of Corbelly Hill, Maxwelltown; but as I have already said, the high bank on the west side rendered the further extension of the Bridge in that direction unnecessary. I know that so far back as 1660 the Bridge on the Maxwelltown bank was just as it now appears (except any little change caused by wear and tear), and also as it is depicted both by Captain Grose and Mr Riddell. You will see from the two engravings that there is a two-storey tenement lean-

ing upon the end of the Bridge. That ancient house is still to the fore; and I am inclined to think that it has outlived all its contemporary erections, and is the oldest domicile in the sister burgh. The date of its precept chapter, as granted by the Dumfries Council to the owner of the house, James Birkmyre, cooper, is 1660; the property being described as "that new house builded upon the far end of the Bridge on the south side." This interesting document is in the hands of Mr J. H. M'Gowan, solicitor, Dumfries. Mr M'Dowall closed his argument by announcing the result of an excavation made at his instance some years ago at the spot in the Vennel where the pier of the tenth arch must have been put down, if any tenth arch had ever been in existence. The operation, he said, was carefully performed under the direction of an experienced local surveyor, Mr Barbour, who, taking Grose's dimensions of the nine-arch bridge—four hundred feet—added the length of an additional arch, and caused the spot and all around it for a long way to be excavated six feet deep, and probed to a still further depth, without finding a trace of anything resembling the heavy masonic pile of which the other piers consist. The conclusion came to was, that there never had been a tenth pier; and the inference seems unavoidable that the Bridge never numbered more than nine arches. This experiment, coupled with other testimony already adduced, convinced him that the foundation of the other four arches had been laid in the realms of fancy, and not in the solid earth or shifting sands of the Vennel.

The Chairman, in name of the meeting, awarded to Mr M'Dowall cordial thanks for his valuable paper, and for the research which he had undertaken to settle an interesting local question.

2d February, 1883.—Free Masons' Hall.

Mr WILSON, Vice-President, in the Chair.

New Members.—Miss Burnett; Mr W. Tweddle; Mr Joseph Elder; Mr D. Fenton; Miss Murray; Messrs John Milligan; James Adams; F. Gilruth; R. Maxwell; and John Symons.

Donations.—Fifteenth Annual Report of the Trustees of the Peabody Museum of American Archæology and Ethnology, 1882; Annals of the New York Academy of Sciences, Nos. 7, 8, and 9, 1881; Lists of Duplicates and Deficiencies of the New York

Academy of Sciences, 1880-1881 ; Nos. 2, 3, 4, and 5 of the Transactions of the New York Academy of Sciences, Vol. i., Session 1881-1882 ; Copy of Transactions of the Perthshire Society of Natural Science, 1882.

Exhibits.—A Cormorant, by Mr Rutherford, shot by him at Jardington ; Three Copies of the Psalter, dated 1580, 1623, and 1642, by Miss Gregan ; Eleven splendid cases of Beetles shewn and described by Dr Sharpe.

The Old Land Taxes.—A paper was read by Mr M'Dowall on "Old Land Taxes of Scotland, with special reference to the old Kirkcudbrightshire Valuation Roll of 1682." He gave a brief sketch of the condition of this country in early pre-historic times, when it was occupied only by wandering tribes who had little idea of the value of property in land. At that primitive period the wandering tribes had scarcely any more connection with the soil than with the air which they breathed or the water which they drank. A field of grass, as Lord Kames says, might be looked upon as belonging to a horde or clan while they really occupied it, but so soon as they struck their tents for pastures new they had no longer any claim to the deserted field. He then proceeded to notice how in course of years this state of matters underwent a thorough change. When William Duke of Normandy conquered England, the entire soil of South Britain lay at his disposal. Reserving the lion's share for himself, he rewarded his chiefs with large estates, and eventually what is called the feudal system was set up by him, according to which he was recognised as landlord-general over the whole kingdom, and his princes and other nobles as Crown vassals, who, in virtue of the estates assigned to them, were bound to render him military service, and eventually also to bear a large proportion of the general expenses of the government. A hundred years at least before Scotland had had any experience of a land-tax the barons and the yeomen of England had grown familiar with the impost, which amounted in their case at one time to about one-half of the whole national revenue. This very simple mode of making the land support the State was seriously interfered with by a practice introduced by Richard I. of selling out to the great barons the estates that they had hitherto held as tenants in name of the nation from the king. Thus it came to pass that the burdens on land were lightened and taxation of another kind had to be resorted to, falling chiefly on

trade and commerce, with which the treasury was replenished. But no king of Scotland ever stood in the same relationship to its soil as Norman William did to that of England. Had Edward I. subdued North Britain, he might have divided the land among his followers and placed Scotland on the same footing as England in regard to the feudal system. As, however, the Scottish soil never became the property by conquest of any foreign prince, and was never more than nominally the property of its own kings, the revenue it yielded to the Crown was precarious, and generally speaking small as compared with the land revenue of England. Towards the close of the eleventh century a modified feudalism had taken fast hold of this northern kingdom. By a fiction of law the ownership of the soil was vested in the sovereign; but the fact cannot be disguised that some of the old territorial families claimed to be absolute proprietors of their estates, and asserted they had as good a right to them as the king had to his own crown lands or to his regal sceptre. You remember what some mutinous Scotch barons said to the king when on one occasion he asked to see the title-deeds of their estates. In answer they drew their swords and boldly told his majesty that by these weapons they had won their lands and meant to keep them. These words were no idle boast; and while many of the smaller landowners and the vassals who *bona fide* held their estates from the king yielded him loyal service and tribute, not a few of the more powerful lords paid but scanty homage and scrimper sums of money to the Crown. In this way the feudal system, so far as taxation is concerned, was never anything like so successful on the north side as it was on the south side of the Tweed. Mr M'Dowall went on to show how the Douglasses held such an autocratic rule over Galloway and part of Dumfriesshire that the land impost levied by the government yielded little or nothing in these parts of Scotland for a long period. Speaking about the origins of the land tax he said: By law and custom the king was empowered to levy special taxes on three different occasions whenever they arose—one on his eldest son being knighted, another when his eldest daughter got married, and a third to ransom himself in case of being made prisoner, an unfortunate casualty that befell no fewer than three of our kings during the Middle Ages. To William the Lion we in Dumfries are indebted for having raised the town to the rank of a royal burgh about the year 1190. Sixteen years prior to that date he

experienced a disaster to which the whole of Scotland was indebted indirectly for a tax upon land, the first regarding which we have any knowledge. Crossing the Border with an invading host he was defeated by the English at Alnwick, and cast into a prison with no chance of getting out of it in a hurry unless by submitting to the outrageous demands made upon him by his royal jailer, Henry II. In an evil hour the kingly captive sold the liberty of his country in order to purchase his own personal freedom, the English Shylock exacting from him a goodly sum besides; though Hector Boece probably exaggerates the amount when he says that it was nothing short of a hundred thousand merks (a merk being 13s 4d.) Thus was laid the foundation of that claim to a suzerainty over Scotland, which, even after it had been redeemed, various English monarchs endeavoured to enforce. On the 25th of December, 1190, the two sovereigns whose surnames were both derived from the monarch of the forest, William the Lion and Richard the Lion-hearted, met by tryst in York city and signed a treaty of no ordinary interest, inasmuch as the English sovereign, for himself and successors, thereby renounced the claim conceded to his father Henry, thus rendering the Scottish realm free from it for ever, and restoring its national independence, on its sovereign, William, engaging to pay Richard ten thousand merks sterling, a sum which he needed much to cover the cost of his crusading expedition to the Holy Land. The claim was nevertheless basely revived by Edward I., and again bought off, but not by gold or silver, but by treasures greater far—blood drained from the dearest veins of a heroic people. Two other instances of the captivity of the Scotch kings were adduced to show that in their case also ransoms had to be paid, to defray which taxes on land had to be imposed, and thus, what was at first looked upon as a temporary impost, like our own income-tax, and one only to be resorted to on special occasions, became permanently established, and yielded a regular revenue towards the general expenses of the State. Glancing for a moment at the condition of the soil, on which these burdens were cast, Mr M'Dowall said that the prevalence of war during the middle ages arrested the progress of the plough and circumscribed the sweep of the sickle. In the golden days of Alexander III. a sufficient amount of land was cultivated to supply the national consumpt of oats, barley, and bread-stuffs, and in some few districts, naturally fertile, wheat was^s

grown. Afterwards agriculture retrograded, and commerce, which had also made extensive strides, experienced a disastrous check. In the fourteenth century and onward a greatly improved state of affairs became visible. Land increased in productive power, and was all the better able to bear the burdens cast upon it; the royal burghs, to which special privileges had been given by William the Lion, grew in size and yielded a goodly *quid pro quo* to the royal treasury, in the form of taxes paid for special purposes, and a perpetual impost termed the Great Custom, which was levied by means of the king's own customarii on all staple commodities of foreign trade. At a period when landowners followed the chase more than practical farming—during the precarious intervals of peace—the monastic fraternities rendered patriotic service in the subjugation of the soil. Mr M'Dowall then gave a series of illustrations shewing the value of land in the Stewartry two hundred years ago, and its principal owners, as drawn from a rare old volume (belonging to Mr R. K. Walker, town clerk, Maxwelltown) to which he had access recently—the Valuation Book of the Stewartry of Kirkcudbright for 1682. He explained that in that year the county was still in the throes of a fierce religious persecution, and that therefore the valuation put upon the different estates in the Stewartry might be less than usual on that account, as, when the people were resisting to the death the attempts made to force Prelacy upon them, they had no inducement to till the soil. When, therefore, we read in the roll of ten-acre farms yielding no more than sixty shillings Scots a year, it would be safe, perhaps, to add a fifteenth at least to represent fairly their nominal value. As the figures stand they show a grand total of £10,250 representing the annual rental of the land of Kirkcudbrightshire; and if we add say £1750 for house rents, only some of which are included in the returns, the amount is brought up to £12,000, which is only about a thirty-third of the yearly value of the Stewartry at the present day, exclusive of its railways and royal burghs. The lecturer had drawn up notices of some of the parishes, only a few of which, however, he read, as the time allotted to him had been already nearly all occupied. We give the form of the reference to Terregles as a specimen of the style of this part of the paper: Since the period, early in the twelfth century, when Sir John de Maccuswell acquired the barony of Carlaverock, the family which he founded paid immense sums to the Crown in

the shape of land tax and other tributes, and the aggregate would have been much larger had they not on repeated occasions impoverished themselves by their self-sacrificing loyalty to the royal house of Stuart. Their devoted adhesion to the cause of Charles I., the generous assistance given by them to that monarch's heir when he made a futile attempt to recover his ancestral throne, are facts which all must be familiar with. Eugene de Maccuswell by marrying the daughter of Roland, Lord of Galloway, acquired many broad acres in Kirkcudbrightshire, and his representative there during the first Jacobite rebellion lost them all, and nearly his life also, for the share he took in that enterprise, at once so bold, romantic, and forlorn. Lord Nithsdale, doomed to the scaffold, eluded his jailers through the ingenious strategy of his devoted wife and died in exile. It was gratifying to add that the forfeited estates were eventually bought back by his family for a wonderfully small sum—£803 sterling, being taken as the yearly rental on the testimony of a surveyor appointed by the Government, which amount was made up chiefly in money, some of the tenants paying their rent in such small items as bolls of barley, hens at tenpence a pair, and peats at a penny per dozen loads. Thirty years prior to the rebellion of 1715, the family, as represented by Lord Herries, possessed nearly the whole of Terregles. In 1819 when the parish was valued at no more than £2021 Scots, they drew a rental from it of £1457; and at present, when the valuation has risen to £6847 sterling, they, represented by Captain Maxwell, draw a proportionate income from the parish. The ancient roll shows the names of nearly all the farmers and tenants who tilled the soil of Terregles in 1682, together with the value of their holdings. Not a few of them seem to have been "puir tenant bodies," not over-plentiful of cash. Lord Herries kept Terregles Mains in his own hands, the value in the victuals it yielded to him being set down at £5 7s Scots per annum. Then, as now, the brook of Cairn "wimpl't through the glen," and after "cooking underneath the brae, below the spreading hazel," drove a couple of mills which ground the grain from which "bannocks of bere meal and bannocks of barley" were baked for the tables of the noble lord and his tenants. Glen Mill and New Mill, we are told, were worth to him twenty-one bolls of meal, value £101 10s yearly; but it was to be regretted that the name of the jolly miller, who then lived

by the water of the Cairn, is not recorded. Then, as now, dainty red fish were caught in the College pool, their annual value being given at £80 Scots, while the same fishings bring at present £20 sterling. Barnhill, now an excellent farm, yielded only £40 Scots, and after a lapse of two centuries it brings to its laird no less than £240 sterling. The farm of Terregles Town, now a capital piece of land, was let to David Welsh and Andrew Wight in 1682, they paying for it £40 Scots between them. It now yields £718 sterling; the advance in this latter instance being about the greatest that Mr M'Dowall had met with in the course of his inquiries.

Some Points of Interest in the Natural History of Islands.—An important paper on the above subject was read by Dr Sharpe, Eccles House. In it a brief epitome was given of the present state of knowledge as regards the natural history of islands. The natural history of St. Paul's Rocks on the equator, midway between Africa and America, was first sketched; then that of the Galapagos Islands, 600 miles from the South American coast; and afterwards that of the Sandwich Islands,—the most remote from other lands of all islands of any unusual size—was dwelt on at considerable length. The means by which these islands had acquired the animals and plants found in them were discussed. It was pointed out that, although all the islands of the world had a large number of animal and vegetable inhabitants similar to those found elsewhere, they had also a very large number of peculiar forms, some of which were very strange, and like nothing existing elsewhere so far as known. It was considered by the writer that the supposition that these facts might be accounted for by changes having taken place in the distribution of sea and land, so that the islands might formerly have been parts of continents or near to them, was not satisfactory; and it was concluded that though a great number of the plants and animals that are the same as those found elsewhere had been introduced by natural agencies, such as winds and floating timber, yet this did not explain the existence there of very peculiar animals; and these suggested that it was possible that in the past there had been more than one geographical centre of the origination of life. The paper ended with a forcible appeal for obtaining knowledge of these facts, which ultimately will prove of great importance. But meanwhile these curious creatures are being rapidly more or less completely exter-

minated, and there are no doubt many that we do not yet know that still exist but will soon cease to do so; and in many cases we know that it is already too late, and that the wonderful inhabitants of islands have been completely exterminated, all that we know about them being that they formerly existed. Mr Wallace's proposal for the appointment of resident naturalists, at a small expense in remote islands, was alluded to with approval.

2d March, 1883.

Dr GILCHRIST, President, in the Chair. Forty present.

New Members.—Mr Oughton, confectioner, Castle Street; and Miss Gilroy, Moat House.

Donations.—The Annual Report of the Bureau of Ethnology, Washington, 1879-1880, and 12 old coins, the latter presented by Mr Smith, Albany Place.

Exhibits.—By the Chairman: several rocks and fossils from Egypt; and a piece of silicious slate, found in an Egyptian Temple, and supposed to have been used as a charm. By Mr Watson: a sword, picked up on the Battlefield of Tel-el-Kebir; a proclamation in Arabic, found in Arabi's tent at Tel-el-Kebir; a copy of the Turkish journal "*El-Jawab*," got in the palace on the day that the British troops entered Cairo.

Rev. J. Fraser, Colvend, read an interesting paper on "Alpine Botany, with special reference to the Flora of Zermatt."

Mr M'Meehan read a curious paper, entitled "Quaint Epitaphs in the District."

The Study of Mosses.—The Chairman read a very valuable paper contributed by Mr P. Gray, London, on "Introduction to the Study of Mosses, illustrated with specimens." After noticing the divisions of the order and their characteristics, the fructification, mode of reproduction, and the special peculiarities of the different genera, which were each treated at some length; and having given instructions for collecting and preserving, Mr Gray concluded his admirably clear and interesting paper with the following remarks:—"I may here be allowed to remind you that it is impossible to teach any branch of natural history by papers or books. All that one can hope to do by bringing a new subject before an audience in this way is to excite to personal investiga-

tion. The fields must ever be the naturalist's study, and nature his book, and that itself constitutes one and not the least of the advantages of the pursuit—the combination of physical and intellectual exertion, and the pure air in which most of it is carried on, being one of the most effectual ways of attaining that highest of human existence, which consists in the possession of a sound mind in a healthy body."

SPECIAL MEETING.

30th March, 1883.

Dr GILCHRIST, President, in the Chair. Twenty-one present.

A special meeting of the Society was held to-night for the purpose of considering the alterations which the Dumfries Town Council propose making on the Old Bridge.

The Chairman explained the purpose of the meeting, and made some remarks against the proposed changes.

The Secretary read letters on the subject from Mr Dudgeon of Cargen; Sheriff Hope; Mr J. Gibson Starke of Troqueer Holm; and Mr Brown, Grammar School—all disapproving of any alterations or repairs which would in any way change the outlines or the form of the present structure. After some remarks from Mr Barbour, architect, Mr M'Dowall, the Chairman, Mr Rutherford, Mr Wilson, Mr Sloan of Barbeth, Mr Broun, solicitor, Messrs Grierson of Chapelmount, M'Meehan, Watson, and Chrystie, it was unanimously resolved, That Messrs Barbour and M'Dowall prepare a petition against the proposed alterations, and that the said petition be presented to the next meeting of the Town Council by a deputation consisting of the Chairman, Mr Barbour, Mr M'Dowall, and the Secretary.

A vote of thanks was awarded Mr Barbour for the active part he had taken in the matter.

6th April, 1883.

Dr GILCHRIST, President, in the Chair. Forty-three present.

New Members.—Mr Hamilton, Castlebank; Miss Burnside; Miss A. E. Reid; Miss M. Reid; Miss M'Cracken; Mrs Murray; and Mr John Thomson.

Donation.—By Mr Brown, Dumfries, a Jew's petition in Hebrew.

Exhibits.—By the Chairman, a Collection of Australian Ferns ; by Mr Adamson, on behalf of Mr Welsh, Waterloo Place, an Imitation Slipper, made of gutta-percha, which was found four years ago at Blackshawbank, where it had been washed ashore full of tobacco, having evidently been used for smuggling purposes ; also a very curious Key which had been made and used for many years by the late Mr Duff, of Cluden, he being the same Mr Duff who invented the double screw thread in 1830 ; also a Punch Bowl, which had been in the Duff family for 110 years, and which during that time had been used at several baptisms, ordinations, &c., in the parish. Mr Adamson also exhibited a piece of Sandstone from Locharbriggs, showing the footprints of one of the extinct *Labyrinthodon*.

Scandinavians in Dumfriesshire.—Mr T. Brown, teacher, read a paper on this subject. In acknowledging a vote of thanks, he said he had given some attention to the monumental remains of the Norsemen in the district, and had come to the conclusion that the runes on the Cross at Ruthwell were not Scandinavian, but appeared to be rather of Saxon origin ; he quoted Mr Kemble, who first threw out this idea, and who also said “That the inscription dated somewhere about 680,” which was long before we had any trace of the Scandinavians either in England or Scotland.

Local Names of Plants.—Mr F. R. Coles, Tongland, then read a paper entitled “Local Names of Plants.” The paper dealt with the mistaken idea, only too prevalent among those interested in Botany, that the scientific name, usually the Latin one, had slight importance or might even be dispensed with. The author, using the term “local” in its widest sense, as including all names, German, French, Scotch, or English, in distinction from the Latin name by which a plant was alone recognised by all who worked towards a scientific end, illustrated his argument by copious references to the names of common plants on the Continent and in Britain, the result showing that not only was one plant known by half-a-dozen different names in these countries, but that half-a-dozen different and entirely dissimilar plants were often called by one and the same name—to avoid which puzzling confusion a little labour well bestowed in learning the nomenclature of Science would work wonders, and in the end be a real gain to the student.

FIELD MEETINGS.

DUMFRIESSHIRE & GALLOWAY
SCIENTIFIC, NATURAL HISTORY, AND
ANTIQUARIAN SOCIETY.



FIELD MEETINGS, 1881.

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RERWICK.—7th May, 1881.

The first field meeting of the Summer Session, 1881, was held to-day under very favourable auspices. A large party left Dumfries by the 8.32 morning train for Dalbeattie, their number being increased by the way, and further augmented by a contingent from Castle-Douglas, who joined them at Dalbeattie. The granite workshops of Messrs D. H. & J. Newall were inspected, and also the paper-mill of Mr John Forsyth; and thereafter the company drove off by 'bus in the direction of Rerwick. Various objects of interest were observed in the course of the drive. A glimpse was obtained of the ruin of Buittle old Castle once the residence of the Baliols, and a place of great strength; and attention was called to rocky projections on the summit of a hill above Kirkennan, which form a configuration somewhat resembling a lion's head, and are so designated by the people of the place. A halt was made at the end of the road leading to Orchardton Tower, to which the party proceeded on foot, and the various characteristics of which were pointed out by Captain Wilson. The walls are of great thickness— $5\frac{1}{2}$ feet; and an intramural cork-screw stair conducts to the battlements. Only one floor now remains. On the top of the wall a bed of the lesser periwinkle (*Vinca minor*) was in full flower, and other portions of the battlements were carpeted with mosses and *Sedum Anglicum*. Lower down, both inside and outside of the tower, grew numerous plants of the Scale Fern (*Ceterach officinarum*)—a rare species in Scotland, whose only known habitat in the Stewartry is Orchardton Tower. Before the party left, Captain Wilson presented the Society with a pair of antlers of what was considered to be the old Irish Elk, found, along with the entire skeleton of the animal, at the mouth

of the Urr, about twenty years ago. The next halt was made at the picturesque and tidy little village of Auchencairn, where refreshments were partaken of. A few miles of further driving brought the party to Dons Knowe, where they left the conveyance, and proceeded to the shore at Barlocco. Here a mine formerly wrought for barytes was examined, and numerous specimens were picked up. On the wild wave-beaten coast the remarkable Caves of Barlocco were visited, the party being let down the cliffs by means of ropes and ladders furnished by the tenant of Barlocco, whose sons assisted in the process. The Black Cave, which is 256 feet long, 90 wide, and 40 in height, was first entered. It is a vaulted chamber, floored with shingle, and huge boulders are strewn about it. At the extreme upper end there is a little space above high-water mark whereon numerous rock-pigeons breed. The Rerwick shore is now almost the only place in Galloway where these birds nest and bring forth their young. The White Cave was next entered. It is perhaps the most wonderful natural formation in Galloway. The "gateway" is a vast Gothic arch, through which you pass into a magnificent temple "not made with hands." The flooring of the cave is composed of pieces of granite rounded to pebbles by the attrition of the tides, and the roof, which rises gradually, was decorated with the luxurious fronds of Sea Spleenwort. The length of the cave is 252 feet; greatest width, 190 feet; height, 60 feet. Nobody who has not visited these caves can form any idea of their grandeur. They are not inferior to Fingal's, we are told, in any particular, except that of the regularity of the strata forming the sides of the latter. Along the romantic shore some very fine corallines were observed, and Mr F. W. Grierson captured the rare Oil Beetle (*Meloe pro Scarabeus*). Here the party were joined by a company of kindred spirits from Kirkcudbright. The Hartstongue Fern was discovered, growing in thousands, by Mr J. W. Kerr, in a little dell at the top of the cliffs. Rerwick Kirkyard having been inspected, the party proceeded to the Dundrennan Arms Hotel, where tea was partaken of. Refreshed and reinvigorated, they next examined the beautiful ruins of Dundrennan Abbey, where a rare variety of the Common Maidenhair Spleenwort (*Asplenium trichomanes*, variety *incisum*) was found in one of the vaults. On the return journey to Dalbeattie, a remarkably fine view was obtained of the zodiacal light, which projected fully 30 degrees in the heavens, and is a rare occurrence so late in spring.

QUEENSBERRY.—*June 4th, 1881.*

The second field meeting of the Session took place on Saturday, 4th June, Queensberry Hill being the locality chosen. Anticipating a continuance of the hot weather of the previous week, most of the members preferred to remain at home, and there was consequently only a comparatively small muster, which included, however, for the first time in the history of the Society, several ladies. Leaving the King's Arms Hotel at nine o'clock, the party drove by waggonette to Mitchellslacks, near the foot of Queensberry. The morning was cool, and the landscape through which the journey lay, always picturesque, was enriched by the green and hawthorn bloom of early summer. Amisfield Tower was passed, hidden by embowering trees; in the vicinity of Glen-corse a passing peep was obtained of the romantic strath of the *Æ*, where portions still remain of the ruins of Glenæ Castle; and a remarkably pretty linn was visited on the moor at the head of the Gubhill property, where the waters of a small stream are precipitated down a precipice of shelving rock on one side the road, flow through a culvert beneath the road, and leap over a series of rocky declivities in the natural channel on the other side. Past Loch Ettrick—an artificial pond on a large scale, and well stocked with Loch Leven trout—the party went along an upland road, where no tree was visible excepting a small plantation beside the loch, and not even a furze bush or a thorn, until Mitchellslacks was reached. Here the horses were stabled, and Mrs Harkness and her son gave a cordial welcome to their visitors. Mr Harkness afterwards put the party on the right track for making the ascent of Queensberry, accompanying them as far as Hogg's Lodge, a ruined stone hut or bothy which was used as a shelter and resting place by the Ettrick Shepherd when in the service of the then Mr Harkness of Mitchellslacks. It was in this lodge that Hogg received and entertained James and Allan Cunningham, whom he there met for the first time. "Thus began," says Hogg, "at that bothy in the wilderness a friendship and a mutual attachment between two aspiring Scotch peasants over which the shadow of a cloud has never yet passed." But the "shadow of a cloud" was passing over the party of natural-historians who were treading their toilsome way up to the summit of Queensberry—(*i.e.*, Queenberg or Queenhill). From that windy

elevation they had scarcely a moment to glance at the wonderful panorama of mountain peaks around and below when the cloud enveloped them, and they were driven down the hill in a perfect storm of wind and rain and hail. At the "farmer's ingle" they met, literally soaked. Here they managed to dry some of their garments, and listened to recitals of the Covenanting and other traditions of the Harkness family. The Harknesses of Locherben and Mitchellsacks have played a prominent and honourable part in Scottish history. James and Thomas, who were tenants of Locherben, were suspected, and, therefore, found guilty and condemned, in connection with the rescue of captive Covenanters effected in Enterkin Pass in 1684; and William, tenant of Mitchellsacks, had already been denounced by royal proclamation as a resetter of fugitives. The two former were conveyed to Edinburgh, where Thomas was executed, but James managed to escape from the Calton to the Continent, whence he returned under the Revolution Settlement. A comfortable repast having been partaken of at the hospitable table of Mrs Harkness, a hearty vote of thanks was awarded to her and her son for the kindness shewn to the storm-smitten naturalists. The homeward journey lay by Auldgirth. Rain continued to fall, but the drive was made enjoyable by social contiguity, and by fits of recurring hilarity, which kept the company from lapsing into mute and miserable melancholy.

During the day Mr Lennon captured the following among other beetles:—*Harpalus tardus*; *Berosus spinosus*; *Myrmedonia collaris* (rare), in ant's nest; *Silpha opaci*; *Morynchus ceneus*; *Parmes prolificornus*; *Corymbetes pectinicornus* (rare); *Otiorhynchus rugifrons*. The Cloudberry (*Rubus Chamæmonus*), an Alpine plant, was picked up on Queensberry in flower.

CAIRNSMORE.—2nd July, 1881.

The third field meeting of the Summer Session was held to-day, the solitary event of the programme being the ascent of Cairnsmore-of-Fleet; but as that is a mountain 2331 feet in height, it afforded exercise sufficient to satisfy the strongest; and the very imperfect train service at the moorland station of Dromore, from which the walk was begun, rendered it necessary to give up to it

the whole of a summer day, leaving Dumfries at seven in the morning, and not reaching it again till within an hour of midnight. In these circumstances there was an unusually meagre muster of members, but what the party (six in all) lacked in number they appeared to have gained in enthusiasm. Two of the six included Mr Shaw, Tynron, and Mr T. Brown, Auchenhessnane, who had come to Dumfries the evening before in order to have a fair start in the morning; and the party were joined in the course of the journey by other three gentlemen. The weather fortunately favoured the enterprise, and a most enjoyable and not unprofitable day was spent. The base of Cairnsmore is some three miles from Dromore Station, in a north-westerly direction, and is reached over a heathy tract of rising ground. Here the plaintive note of the Golden Plover was frequently heard, and the bird itself was seen. The little Sundew and other plants common to peaty and heathy soils were met with in abundance. The hill seems to be formed of a mass of syenite, and is lightly covered with vegetation, which affords sustenance to black sheep and some goats. The Raven continues to find a haunt on Cairnsmore, undisturbed by man. Four nests were discovered, but whether of as many pairs or merely the successive abodes of the same pair, could not be said. Two parent birds were observed hovering about the cliffs, evidently watching with interest, if not solicitude, three fledglings that were making their first assays on the wing. The carcase of another Raven was picked up in the course of the day. A Golden Eagle has been seen on Cairnsmore within the memory of one of the party, but no such sight rewarded them to-day. This mountain is not a very rich field for the botanist, but a diligent search discovered some rather uncommon plants. The entomologists also had their finds. These included four examples of the *Carabus glabratus*—a large dark beetle never noticed further south than the Perthshire Hills until last year, when Mr Lennon found it here; the *Agrotis porphyrea*, a dark brown moth with a net-work pattern on the wings, from which it receives its common English name of the True-Lover's Knot; the *Scotiona Belgiaria*, or Grey Scolloped Bar, a moth not easily distinguished from the granitic block beside which it rested; the *Cænonympha Darus*, or Marsh Ring Butterfly; the Emperor and Fox Moths; and the high-altitude moths *Carabus violaceus* and *C. cancellatus*. Numerous specimens

of the Viperous Lizard were also procured, and what was either a variety of the Smooth Newt or a distinct species was caught in a muddy pool near the summit. Many fine quartz crystals were picked up; but the only specimen of the rarer stones said to be mixed with them was an agate, found by Mr Bruce of Slogarie. The view-hunter had perhaps the "largest content" in recompense for his arduous ascent. On all sides a magnificent sky-bounded prospect extended wide before the eye of the enraptured observer on the mountain top. Ailsa Craig was very distinctly seen without the aid of a glass, and the Mull of Cantyre could be descried in dim outline; but the Irish Coast, the Isle of Man, and the Cumberland mountains were hid behind a haze. There is a story told of a shepherd on Cairnsmore who boasted that he could look into five kingdoms from it—the Kingdoms of Scotland, England, and Ireland, the Kingdom of Man, and the Kingdom of God. An interesting experiment was made on the top of the hill, showing how the heliograph worked. According to prearrangement a party at Rhonehouse—twenty miles away—flashed a mirror in the sun at one o'clock, and the gleams were distinctly seen, notwithstanding that the sun was shining through a cloud-screen at the time. Descending the hill, the party divided, one section returning by the base, and the other walking over the knee of Cairnsmore and Meikle Mactaggart, and round the spur of Craig Ronald, to Loch Grannish, to ascertain whether the Black-backed Gull still breeds there. They (the latter division) were rowed over to the island, but were informed that although the gulls still frequent the loch they have ceased to build there, their nests having been wrecked by floods two years in succession.

The following is a list of the rarer plants found on Cairnsmore:—*Asplenium veride*, *Hymenophyllum Wilsoni*, *Sedum rhodolia*, *Saxifraga stellaris*, and *S. hypnoides*.

August, 1881.—It was arranged to hold this month's excursion on Thursday the 4th, and visit Annan and district; but owing to the unfavourable weather it was abandoned.

September, 1881.—The excursion for this month was likewise abandoned,

DUMFRIES & GALLOWAY

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FIELD MEETINGS, 1882.

KIRKCUDBRIGHT AND ITS ENVIRONMENTS.—*6th May.*

The first field meeting of this session was held on Saturday, 6th May, the places chosen for visiting being Kirkcudbright and its environments and the Borness Cave. A party numbering about 20 left Dumfries by the 8.20 train, and arrived at Kirkcudbright at 9.50. At the station they were met by Mr G. Hamilton of Ardendee, Mr Coles of Tongland, and Mr John M'Kie, R.N., curator of the Kirkcudbright Museum, who conducted them to the museum and pointed out the most interesting objects of archaeology and natural history under his care. The party next proceeded to the Moatbrae, the site of an old convent of the Greyfriars, immediately opposite the old castle and on the south side of the river Dee. It is supposed that the convent was founded by Alexander II., but owing to the records disappearing at the time of its suppression nothing certain is known of its former history. In 1564 the convent, which had been previously despoiled, was bestowed by Queen Mary upon Sir Thomas Maclellan of Bombie, Provost of Kirkcudbright, and the Friars' Church adjoining was granted, at the request of the General Assembly, to the magistrates of the Royal Burgh, to be used as a Protestant place of worship. Out of the ruins of the convent Sir Thomas erected Kirkcudbright Castle, whose massive walls, having withstood the storms of three centuries, are still complete in form, although they are now densely covered with ivy. It is of the Gothic style of architecture, and has above the

entrance door the escutcheon of Sir Thomas Maclellan. The party then proceeded to the ancient Market Cross, after having had pointed out to them the site of the old public-house at the Moat Well, where Kenmure challenged Claverhouse to mortal combat, to revenge the murder of his kinsman, Bell of Whiteside. The tower of the County Buildings was next visited, and from this elevation an admirable view of the sea and the country around was obtained. As it was now noon the party retraced their steps to the Commercial Hotel, where waggonettes were waiting to convey them to Senwick Churchyard and the Borness Cave. The churchyard, which is situated upon a wooded height overlooking the estuary of the Dee, and commands a view of singular beauty, is one of the most interesting and romantic in the district. The ruins of the Church were used in the construction of a more modern building, which is now in its turn also disappearing. The inscriptions are in solitary instances quaint and pointed, but the majority are commonplace. From the churchyard the party proceeded to Balmangan farm house, where an old tower was inspected, and where they were regaled with refreshing draughts of milk. From Balmangan they drove to South Park. Here they were met by Mr Currie, and conducted to the Borness Cave, where many of the remains to be seen in the Edinburgh Antiquarian Museum were unearthed. The Cave is not very large, but the entrance, which is shaped like an equilateral triangle, is lofty and expansive. Several minute bones and pieces of charcoal were found, and many beautiful stalactites were picked up by the exploring party. As the time at their disposal was now short, they returned to the waggonettes, and noticed on their homeward journey several old fortresses and ruined fosses constructed by the warlike tribes which inhabited this part of Scotland from the time of Cæsar to the thirteenth century.

Among the botanical specimens collected during the day were the following :—*Sanicula Europea*, *Adoxa moschatellina*, *Euonymus Europæus*, *Erodium cicutarium*, *Eryngium maritimum*, *polygonatum multiflorum*, *arum maculatum*, *fedia olitoria*, and *ophioglossum vulgatum*.

The party reached Kirkcudbright about five o'clock, and having partaken of tea at the Royal Hotel, they left by the 6.35 train, and arrived in Dumfries about eight, having enjoyed a very pleasant excursion.

GLENQUHARGEN CRAIG, &c.—*3rd June, 1882.*

The second field meeting of the Session was held on 3d June, the places selected for visiting being Tynron Doon, Corfardine Slate Quarry, The Glen of the Scaur, and Glenquhargen Craig. As the morning was dull and threatening rain, only a small party assembled at the Dumfries Station to meet the train due at 8.25 for Thornhill. On arriving at Thornhill they were met by Dr Grierson; and having taken their seats in the omnibus and waggonette which were in waiting, they were soon on their way for the Scaur. The first object noticed was the Runic Cross, in a field near the Nith, but as the programme for the day was long, this was only observed from the road. The first halt was made at the Scaur Bridge, and here the party were joined by their "guide, philosopher, and friend," Mr Tom Brown, who was to conduct them throughout the excursion. Turning to the right at the bridge, they proceeded along the romantic glen through which the Scaur winds its tortuous course, and as the road was rough, several of the party preferred walking, and collected specimens along the banks of the stream, adjoining fields, and roadsides. They continued in this way until Glenmarlin was reached, when another halt was made to admit of those who were inclined to ascend Tynron Doon doing so. The Doon—a fortified hill with a nose, as the name signifies—was not very inviting on this occasion, for it was enveloped in a cloud, and a shower coming on deterred the party from attempting the ascent. This hill, when seen from near Thornhill, presents the appearance of a human profile, and at its top there are the remains of an ancient fortress. It is said that Bruce, after he had slain Comyn in Dumfries, fled to the summit of the Doon, and remained there in safety for some time. Instead of climbing the height the party inspected a Roman Camp on its side, and two curious forest growths. The first was a rowan tree growing out of the stem of a crab, and the other was a large elm whose branches had descended and taken root, springing up again into as many separate trees. The next halt was at Corfardine Quarry, which was visited by the geologists. This place is memorable from the circumstance that Hogg, the Ettrick Shepherd, was tenant of the farm in which the quarry is situated. In 1814, Hogg, writing to a friend, says of his experience of the place:—"It pleased God to take away by death

all my ewes and lambs, and my long-horned cow and my spotted bull; for if they had lived, and if I had kept the farm of Corfardine, I had been a lost man to the world, and mankind should never have known the half that was in me." The drive was continued for a short distance along the glen until Auchenhessnane, the residence of Mr Brown, was reached, where the party were received and most hospitably entertained by Mr Brown, sen., and Mrs Brown. Here were inspected several cases containing botanical specimens, and the eggs of all the birds in the district, collected by Mr T. Brown. The garden and fernery, also inspected, contain specimens of nearly all the British ferns.

A new feature was now introduced into the excursions in the form of a "Business Meeting," at which Sheriff Hope, vice president, presided, and the Rev. G. Sturrock of Corsock Manse, and Messrs G. Hamilton of Ardendee and J. Dunlop of Borgue Academy, were proposed and duly elected members of the Society. It was agreed that the next field meeting should be held at Southwick and Colvend, going by way of Dalbeattie.

Having awarded Mr and Mrs Brown a hearty vote of thanks for their hospitality, the party resumed their seats in the machines. A drive of seven miles through the well-wooded mountainous country by way of Chanlockfoot brought them to Glenmannon farm house, where they arrived about two o'clock. Near to the farm house a large rocking-stone, roughly estimated to contain 90 cubic feet, and weighing fully 6 tons, was first visited. As two hours were now at their disposal the party scattered, each bent on his different pursuit. The Craig is a towering mass of Silurian rock, rising to a height of more than 1000 feet, presenting a bold and rugged outline. Far up its slopes were found two nests—a raven's and a buzzard's—both being empty. At four o'clock the party resumed their seats for the homeward journey, returning by way of Merkland, Auchenbainzie Hill, and Drumlanrig. At Merkland Glen a halt was made to inspect a small loch, the islands in which are the breeding grounds of the sea gulls. The drive down the road towards Drumlanrig Castle, with the well-wooded valley stretching out to the right and left, was most enjoyable. It was intended to stop at Tibber's Castle—the Castle of Tiberius Caesar—but as the time would not permit the party proceeded on to Thornhill, where they arrived in time to meet the train due in Dumfries at 8.40, having had a most enjoyable excursion.

The following is a list of plants found during the day :—*Geranium sylvaticum*, *Trollius Europæus*, *Melica uniflora*, *M. Nutans*, *Listera Cordata*, *L. Ovata*, *Gnaphalium dioicum*, *Lycopodium selago*, and *Lysimachia nemorum*, found along the Scaur and Tynron Doon. *Meum Athamanticum*, *Pinguicula vulgaris*, *Saxifraga hypnoides*, *Geranium Lucidum* and *Bartramia fontana* (Apple Moss) near Glenquhargen Craig ; *Habenaria albida*, *H. viridis*, *Pyrolia media*, *Rubus saxatilis* and *Menyanthes trifoliata* at Merkland Glen. Of the ferns there may be mentioned *Cryptogramme crispa* (Parsley), *Scolopendrium vulgare*, *Nephrodium Oreopteris*, *Polypodium Phegopteris*, *P. Dryopteris*, and *Aspidium aculeatum*.

COLVEND.—1st July, 1882.

The third field meeting was held on the 1st July, and according to the programme, "Barean Loch, Douglas Hall, Southwick Pre-Reformation Kirk and Kirkyard, Auchenskeoch Castle, and other places in Colvend and Southwick," would be visited. A party of twenty assembled at the Dumfries Station, and took the 12.20 train for Dalbeattie. Here they were joined by other members, and immediately proceeded, per 'bus, towards Colvend. At a point of the road about a mile and a half from Colvend Manse, they were joined by the Rev. J. Fraser, and at his suggestion dismounted to inspect the Lake Dwellings in the Barean and Ironhash Loch ; the 'bus meanwhile to proceed to the Manse and wait there for the party. The Loch is prettily situated among hills which have their sides covered with heather, and studded here and there with large granite boulders and patches of straggling brushwood, presenting on the whole a most striking and picturesque landscape. A boat had been kindly placed at the disposal of the party by Mr Dinwiddie, to enable them to visit the islands and explore the remains of the Lake Dwellings, which were found there. The piles on which one of these structures was originally built were distinctly visible, and a log of oak was fished up by one of the party. From the Loch they proceeded, botanising by the way, until they reached the Manse. Having partaken of Mr Fraser's hospitality a Business Meeting was held, when Mr Fraser occupied the chair. The Secretary read a letter from the

Rev. W. Graham, suggesting that the Society should visit Lochmaben Castle and Lochs at their next excursion, and this proposition was unanimously agreed to. On the motion of Mr Wilson, seconded by Mr Brown, the thanks of the Society were awarded to Mr M'Andrew and his assistants for the "Flora of Dumfriesshire and Galloway," which had now been published. The Chairman exhibited a small swivel-handled bell, made of brass, having a wrought-iron handle and bearing the inscription—"For the Parish of Southwick and Colvend. A. Z. Fecit 1702." His conjecture was that it had been used on the occasion of funerals.

Having awarded Mr Fraser a hearty vote of thanks for his hospitality, the party resumed their seats in the 'bus, and drove towards Douglas Hall, where they arrived about five o'clock. As two hours were now at their disposal the members scattered, some botanising, others gathering shells or collecting insects. At seven o'clock the party re-assembled at Douglas Hall; and as it was rather late they decided to return to Dalbeattie by the high road past Fairgirth, where there formerly stood St. Lawrence's Chapel—a Roman Catholic edifice—instead of carrying out their programme. Not a trace of the chapel could be discovered, it having been pulled down and utilised in the building of the adjoining farm houses. The party reached Dalbeattie about nine o'clock; and after a substantial tea, left for Dumfries by the 10.20 train, having spent a most enjoyable day.

The following plants were found during the day:—*Hypericum humifusum*, *H. elodes*, *Sedum telephium*, *S. acre*, *S. Anglicum*, *Scutellaria galericulata*, *Alsine verna*. (This plant was found here in 1864, by Mr P. Gray, and was now thought to be extinct.) *Allium Vineale*, *Senecio viscosus*, *Geranium Sanguineum*, *Primula veris*, *Genista tinctoria*, *Verbascum*, *Thapsis*, *Vicia angustifolia*, *Isætes lacustris*, *Crithmum maritimum*, and *Asplenium marinum*.

LOCHMABEN CASTLE.—12th August, 1882.

The fourth field meeting of the Session was held on the 12th August, when Lochmaben Castle and Lochs were visited. The party left Dumfries by the 1.15 P.M. train, and on their arrival at the Lochmaben station they were met by the Rev. W. Graham

of Trinity, who had kindly offered to guide them to the various places of interest. The Town Hall was first visited, where some objects of antiquity were duly examined and explained. From there they proceeded to the site of the old Castle, situated on the Castlehill overlooking the Kirk Loch. This building was probably erected before the days of David I., and is supposed to be the castle referred to in the charter by which David conveyed to Robert Bruce, the second Lord of Skelston, "all the territory called Estrahanneit"—*i.e.*, Annandale, "with his *castle* there and all the customs pertaining to it." Round the Castlehill there are traces of a deep fosse, and near its summit heaps of building material crop above the surface. Near to the Kirk Loch, and at the west end of the town, is the "Kirkyaird" of Lochmaben, where stood the old parish church with its choir, dedicated to St. Magdalene. Within that sacred edifice a sanguinary conflict between the Maxwells and the Johnstones took place, which resulted in the total destruction of the building by fire, all the Maxwells who had taken refuge therein perishing. The party next proceeded to the Castle Loch, and, having taken seats in four boats which were in waiting, sailed across to "Bruce's Castle," situated at the opposite side. Mr Graham described the building, and narrated several incidents connected with its history from the days of Bruce. He suggested that the present keeper of the "keys," Mr Hope Johnstone, and Mr Jardine, as "proprietor of the land without the gates," should be asked to allow the inner fosse to be cleaned out, so as to admit boats to pass round the Castle. A Business Meeting was now held on the site of the Old Castle, at which Mr Carruthers, of the Botanical Department, British Museum, and Mr Graham were elected Honorary Members, and Messrs Laurie and Duncan ordinary members. Several specimens of the fishes in the loch were obtained from the boatmen for preservation in the Observatory Museum, and a bottle of the water, which is of a greenish tint, was taken for analysis. Having thanked Mr Graham, the party returned to the landing stage, and from there proceeded to the residence of Mr Waugh, where an extensive collection of coins and interesting curiosities was inspected. A call was next made on the Rev. Mr Hill, who shewed his visitors over his extensive flower garden, which afforded a pleasing and refreshing variety to the day's enjoyment. The party returned to Dumfries about eight o'clock.

The following plants were found during the excursion:—*Ranunculus flammula*, *Nasturtium officinale*, *N. Palustre*, *Lycopus Europæus*, *Epilobium parviflorum*, *E. palustre*, *Senecio Aquaticus*, *Bidens tripartita*, *Cicata virosa*, *Mentha Sabra*, *M. Aquatica*, *Myosetes repens*, *Potamogeton natans*, *Sparganium ramosum*, *Lemna minor*, *Typha angustifolia*, *T. latifolia*, and *Ænanthe crocata*.

In September the Society was to visit "The Martyrs' Tombs, Irongray, and the Skeoch Hill," but owing to heavy rain the excursion was abandoned.

KIRKBEAN.—5th May, 1883.

The first meeting of the summer session, 1883, was held on the 5th May, the district visited being Newabbey, Kirkbean, and Carsethorn. The weather was the most favourable that could have been desired, being bright and sunny, but not oppressively hot. The party numbered twenty, nine of these being ladies, who have become members for the first time this session. Starting from the Fountain at nine o'clock in two open conveyances, they drove without halt to the hamlet of Preston Mill, a distance of thirteen miles—fully enjoying the invigorating influence of the pure morning air; the sight of pasture and corn field, hedgerow and woodland, in the fresh verdure of a late spring, and studded with the white blossoms of cherry, gean, and sloe; and the beautiful panoramic scene which every winding of the road discloses. At Preston Mill—where, by the way, lived "the bonnie lass" of Allan Cunningham's song—they were joined by Mr William Black, gardener at Arbigland, whose intimate acquaintance with the geology and botany of the district enabled him to offer some valuable suggestions for their guidance, although, much to their regret, he was not able to accompany the party on their walking excursion. Having dismissed the vehicles, the party proceeded to explore the Gill, a pretty little ravine, in some of the deeper nooks of which the hartstongue fern was found growing in abundance, and some specimens with divided fronds were obtained. In an open and elevated spot, midway up, a short stay was made, that the

party might picnic on the green and hold a short business meeting. Here a commanding view was obtained of a long stretch of the Scotch and English coasts, which seemed almost to landlock the Solway, swelled at this time by a full tide that filled the estuary of the Nith, and bathed in a glowing sunlight. Along the opposite coast-line, ending in St. Bee's Head, could be seen the towns of Silloth, Maryport, Workington, and Whitehaven, and the eye rested beyond them on the bold outline of the Cumberland hills, still flecked with snowy patches. Having made the ascent of the hill, the party turned their steps down Kirkbean Glen, a deeper, more picturesque, and well wooded ravine, terminating beside the church and village. It was too early in the season to find many plants in flower, but the busy botanists found a sufficiency of interesting specimens with which to fill their vasculums; and if their industry was not rewarded with many of great rarity, there was in the constant and ever-varying loveliness of the scene—albeit not yet arrayed in the blooming charms of “leafy June”—a rich reward for the visit, and sufficient inducement to explore its every corner. Turning off a little before reaching the foot of the Glen, the company returned to Cavens, and passed through the policies, for which Mr Oswald had kindly given permission. Close to the house—a substantial mansion of antique appearance—are two magnificent trees, a plane and a chestnut, which were greatly admired. They next bent their steps towards Kirkbean Churchyard. There are here no tombstones of great antiquity, the earliest date noticed being in the early part of last century; but there is one of considerable interest because of its connection with Paul Jones, the hero of many privateering exploits, and who has been styled by an enthusiastic admirer, “the founder of the American navy.” His father was gardener at Arbigland, in the time of Mr William Craike, one of the most enterprising of agricultural improvers of his day, and there Paul was born. Over his father's grave he has erected a large flat monument. From the inscription on this tribute of filial respect it will be seen that the name which he adopted, and under which he figures in story, was an *alias* formed by an easy play upon that which properly belonged to him. It is: “In memory of John Paul, senior, who died at Arbigland the 24th of October, 1767. Universally esteemed. Erected by John Paul, junear.” The pedestrian part of the excursion ended at Carsethorn, where a few fragments of the coralline fossil limestone

that abounds along the shore were picked up. A substantial and welcome tea was provided in the Steam Packet Inn; and thus refreshed the party began the homeward journey, time unfortunately not permitting of a visit to Arbigland. A halt was made at Newabbey, to allow of an inspection of the ruined fane of the Lady Devorgilla. We were pleased to see continued indications of the watchful care which has so well preserved this noble relic of past magnificence, while so many equally interesting edifices have been suffered to crumble and decay. Many of the weaker parts of the masonry were recently strengthened by pointing and the replacing of fallen stones, and material was lying at hand for further work of the same kind. The drive back to town in the early evening formed a very pleasant finish to what had been to all a most enjoyable day.

At the Business Meeting referred to above, Mr Wilson, one of the vice-presidents, presided. Three new members were admitted, viz., Miss Kirkpatrick, Mr Henry Sawyer, and Mr Mitchell Kerr. Mr Wilson, at the request of the Secretary (Mr Rutherford of Jardinton) shortly explained the distinctive characteristics of the different orders to which the plants which had been collected belonged. A cordial vote of thanks was passed to him for this service, and a hope was expressed that the practice would be continued at future field meetings.

Mr Wilson furnishes the following list of plants obtained :—*Anemone nemorosa*, *oxalis acetosella*, *Adoxia moschatellina*, *Chrysosplenium oppositifolium*, and *Mercurialis perennis*, abundant in the glens and roadsides near Kirkbean. *Cardamine pratensis*, *C. hirsuta*, *Myrrhis odorata*, *Tussilago farfara*, *Petasites vulgaris*, and *Equisetum arvense*, along the roadside near Kirkbean. *Barbarea vulgaris*, at Whinnyhill and Carsethorn. *Ranunculus hederaceus* and *Ajuga reptans*, near Ladyland farm. *Anchusa sempervirens*, at Ladyland and Newabbey. *Viola sylvatica*, *Luzula pilosa*, *L. sylvatica*, *L. Campestris*, in the woods along the banks of the Kirkbean burn. *Orchis mascula* and *Listera Ovata*, near Kirkbean, the former being very abundant, but only one plant of the latter. Of the *Ferns* there may be mentioned *Scolopendrium vulgare* (almost exterminated), in the Preston Burn; *Asplenium Rutamuraria*, growing on the walls of the old Abbey; and *Hymenophyllum Wilsoni* or *H. Unilaterale* (very rare), found only in one place during the day's excursion, and now recorded for the first time from this district.

DURISDEER.—*2nd June, 1883.*

On Saturday, 2nd June, the second field meeting of the season was held under the most favourable auspices. The weather was bright and summerlike, with the sun's rays tempered by the intervening movement of filmy clouds and the blowing of a soft fresh breeze. There had been sketched by the committee a full and fascinating programme—"Rail to Thornhill; thence by road to Durisdeer, where the tombs of the Douglasses and the Roman Camp in Wall Path will be visited; thence to Dalveen Pass; a halt to be made at the ruins of Enoch Castle; thence to Thornhill, where Dr Grierson's museum will be inspected;" and, owing to the attractive character of the district chosen, and the remarkably pleasant weather, there was the largest turn-out of members and their friends which had ever been seen at any of the Society's field meetings—there being no fewer than forty, including several ladies. The party left Dumfries at 8.52 A.M. At Thornhill Station a 'bus, a waggonette, and another conveyance awaited them. There are two ways of reaching Durisdeer from this point—a roundabout way by Thornhill, and a straighter and shorter, but also a steeper and rougher, by Drumcork, East Morton, and Gateslack. It was resolved to proceed by the latter, since the return would have to be made by the former, as being the more convenient when Dr Grierson's museum was to be visited. Unfortunately the Doctor, expecting the cavalcade to roll along to Durisdeer through the ducal village, there awaited its approach; exhibiting a degree of philosophical patience as the time passed without the party coming, and preserving the same philosophic temper when he learned that he might have to await them there until the sun went down, if he did not, by some means, endeavour to join them in Dalveen, which he straightway set himself to do, and in due course did.

The drive to Durisdeer was greatly enjoyed. On the left, surrounded by its rich environment of wood, stands Drumlanrig Castle; beyond it and above it a wide expanse of fertile valley, with cultured, woody eminences, and leafy hollows, and the fantastic form of Tynron Doon; and skirting the side of the road as Gateslack is neared a delightful little glen, where the road takes a sharp turn, and botanists are strongly tempted to call a halt, and make exploration on both banks of the babbling little brook.

The "King's Quarry"—whence the name we know not—was inspected by some geologists in the party, as the conveyances were being dragged empty and slowly up a "stey brae;" but there was nothing of any consequence reported by them regarding it.

At Durisdeer Village the horses were stabled, and the church and churchyard visited. The former is a composite structure of two periods. A stumpy tower surmounts the more ancient portion, which is now unused, and the windows of which are sealed with stone and lime; the more modern portion is cruciform; the whole presenting a singularly rugged aspect. It is conjectured that the foundation of Durisdeer Church was due to the Stewarts, near the obliterated site of whose castle it still stands. It was originally a rectory belonging to the see of Galloway, served by a vicar; and in the fourteenth century it was constituted a prebend of Glasgow. As to the present church, the writer of the somewhat bald and meagre "Statistical Account" of 1841, probably the then incumbent, Rev. George Wallace, says: "It is inconveniently situated, being in the very east side of the parish. It was built in 1720, and is not at present in a good state of repair. It affords accommodation for 350 persons, and all the sittings are free."

The most gorgeous, and perhaps for most folk the most interesting, object at Durisdeer is the mausoleum of the Queensberry family. It is under the same roof with the church; and an arched doorway from the church to the tomb is filled with thick glass, through which the gaudy tomb can be seen by the worshippers in their pews. The building is vault-roofed and floored with marble cubes, black and white. Against the wall opposite to the church, the monument is built. It represents the Union Duke of Queensberry reclining on a couch beside the lifeless form of his wife. They are dressed to the last detail in the heavy finery of the court of Queen Anne. The Duchess wears her coronet; the Duke, resting his head on one hand, gazes down upon her face from the curtained recesses of a highly curled wig. There is no intimation here of humility, no lurking suggestion of a conscious sense of the levelling decrees of Fate; but haughty parade and pomp on the edge of the grave, and over the decaying bits of humanity beneath. The same vain spirit is expressed in the panegyric that forms the epitaph. It would be difficult to imagine anything finer than the drapery of the figures or the accuracy with which the fabric in delicate ease, has been imitated,

Dr Ramage is disposed to accept as well-grounded a belief that the figures are the work of Roubilliac, who was the most distinguished sculptor of that time. There is no conclusive evidence on the point, however. The contents of the vault, we are informed in a note in M'Dowall's "*History of Dumfries*," were examined in 1836, and were, "in addition to the dust of the Duke and Duchess, that of Isabella Douglas, wife of William, the first Duke ; that of Lord George Douglas, son of the latter nobleman ; of Charles, the third Duke ; of his wife Catherine Hyde, daughter of Henry, Earl of Clarendon, celebrated for her beauty and wit by Pope and Swift, and who was the beautiful patroness of Gay, who said of her—

‘Yonder I see the cheerful Duchess stand,
For friendship, zeal, and blithesome humour known ;’

of Charles, Earl of Drumlanrig, younger son of the third Duke ; of Elizabeth Hope, Dowager Countess of Drumlanrig ; of Henry, Lord Drumlanrig ; and of Elizabeth, daughter of the Union Duke." In the architrave of the mausoleum there are several antique sculptured stones relating, it is believed, to various branches of the Douglas family ; and there are a few articles which were employed in the older sanctuary preserved here. The churchyard contains many curiously figured stones ; and there is one to the memory of Daniel M'Michael the Covenanter, who was shot in Dalveen Pass by Sir John Dalziel, and whose remains were here interred.

The name "Durisdeer" is supposed to be derived from two Celtic words indicating the opening of the forest ; and Dalveen—the "lang glen" of Burns' song, "Last May a braw wooer"—is also derived from two roots signifying the smooth field. It is evident that there must in early times have been large stretches of forest in and beyond the parish ; and the beautifully formed mountain eminences through which the Dalveen pass conducts, and whose steep sides are clothed with a verdure soft, smooth, and velvety as that of a well-kept lawn, render the name singularly appropriate. Durisdeer was the scene of that last fatal expedition of Johnie of Braidislee which the old ballad so pathetically relates—

Johnie has buskit up his good bend-bow,
His arrows ane by ane ;
And he has gane to Durisdeer
To hunt the dun deer down.

But less mythical personages than John of Braidislee have hunted other game in Durisdeer. After Wallace had relieved Sir William Douglas at Sanquhar Castle, "through Durisdeer he took the gainest gate," as Blind Harry tells us, towards Lochmaben; and we are further informed that he captured the Castles of Durisdeer, Enoch, and Tibbers from the English.

"Thir three captains he sticked in that stound,
Of Durisdeer, Enneth, and Tybristoun."

The naturalists, after quitting the churchyard, proceeded along the Wall Pass, a wild mountain path conducting direct from the village to Crawford Muir, a distance of about five or six miles. On the other side of a small stream which steals, scarcely visible, at the foot of the hollow, there are remains of a Roman camp, and traces of a Roman road which led on to Crawford Muir, and was there connected with the greater road which the Romans had formed into Annandale.

These objects of antiquarian interest having been inspected, a Business Meeting of the Society was held—Dr Gilchrist presiding—when Mrs Gilchrist was proposed and admitted a member, and some arrangements were made relative to the intended visit of the Cryptogamic Society to Dumfries. Thereafter the bulk of the party returned to the village, and drove along Dalveen Pass; a few others adhered to the Wall Pass, intending to rejoin their friends at the top of Dalveen. The sole of the Wall Pass is a difficult but not dangerous cart-road. For a portion of the way it is quite soft and turfy under foot; for another portion it is exceedingly stony; for the rest it forms the bed of a stream after rain, and you are obliged to pick your steps through bits of spongy moor. On the right hand side, going towards Lanarkshire, it was observed that the hills are covered with heather, and that there is little or none visible on the hills to the left; but when the march between the two counties is reached there is plenty on both sides, and the country opens upon Crawford Muir. The boundary line at this point is also the watershed. On one side of a fence you have the drainage percolating towards the streams that feed the Nith, and on the other side a considerable burn brawling over a bed of Silurian to its junction with the Daer, which is a famous trouting stream, and is maintained by some to be the true source of the river Clyde, since it is larger than the Clyde burn, which falls into it, not it into the Clyde. Pursuing their

unhindered way "o'er muirs and mosses many, O," the pedestrians turned on the left towards the old Edinburgh Road, which runs along Dalveen Pass, and which at this point enters upon Crawford Muir. Of the muir the most and the best that can be said is that it really is a muir—a vast extent of flat, spongy, altogether treeless land, on which there are pretty effects of brown and purple, and on the far-off verge of which the Caledonian Railway runs.

At Trolos House, which is now inhabited by a shepherd, a pastoral repast of milk and cheese and scones was partaken of. The house is two-storey, built by a former proprietor who has left behind him some memorials of personal eccentricity. The house itself is one of them. It is bridged over a mountain stream, which murmurs a drowsy lullaby in dry seasons beneath it, and roars with the voice of a cataract when the spate is on, and rock and other mountain *debris* are tumbled along its steep and rugged channel. On the opposite side of the road, in a small enclosure, where the underlying Silurian crops above the surface, covered with a scruff of lichen and moss, and the bleached and broken trunks of a circle of Scotch pines that had wrestled in vain with the violence of the wind and the winter in this high unsheltered region, project like a row of decayed and irregular teeth, there is a freestone monument, with four square panels, and a pyramidal top, terminating in a ball. On one of the panels there is this inscription: "This tomb, erected by James M'Turk of Stonehouse and John Forsyth of Troloss, Esqs., in 1815." And on another panel, partly broken: ". . . ies interred Menzies of Troloss, who died in 1768, aged 34 years. Likewise Mrs Ann Johnston, his wife, who died in 1766, aged 34 years, and their three children Isobel, Catheren, and James. Also, Jean Menzies, sister of the above Adam. She died 1763, aged 24 years. *Ætas supervenit Ætat., ut unda undæ.*" The English of which is, "Age comes on age, as wave on wave," a sad reflection chastely worded. On this lone but enjoyable spot Mr Menzies had built for himself and his a nest, and made of the place a little world for him and them. When the angel of death passed into their dwelling and robbed them of their children, they seem to have clung to them still, and to have desired to bury them near to their own home. This probably accounts for the tomb on the mound.

A section of the party had remained at Dalveen Toll, where a

pass penetrates the hills to the Wall Path at the Roman Camp. Between the Toll and Troloss there is a remarkably pretty spectacle. On one side the road, the Lavern Burn precipitates itself over the ridge of a hill, down whose side it has worn a deep ravine, shelved with projecting rocks. From shelf to shelf the stream descends, and forms a succession of waterfalls from top to bottom. Under a bridge over which the road passes the stream continues to descend a precipitous bank to the green meadow, where the Dalveen Lade receives it, and the two become the Carron Water. The character of the scenery in the Dalveen Pass is entirely unique. It has not the savage ruggedness of the Enterkin; it is a surprising combination of the wild and beautiful; and we know nowhere else that anything so picturesque in its way may be seen as the long extent of meadow far down beneath the level of the road, with the Carron glittering in silvery sinuosities like a snake in the bright green grass, and the beautifully rounded mountains carrying up the green of the meadow against the blue of the sky.

At Durisdeer Mill a pause was made, and some refreshment partaken of at the establishment of Mr John Grierson, who relieves the prosaic monotony of a country merchant's life by writing and printing poems in a minute pre-Raphaelite vein. Afterwards the party drew up at the site of Enoch Castle—of which there is no stone left, but which was at one time a strong fortress, situated on a precipitous bank of the Carron. At this point the glen through which the Carron flows is one of the sweetest bits of sylvan scenery conceivable; and it is said that it used to be a favourite resort of Gay when sojourning with the Duke and Duchess of Queensberry at Drumlanrig.

A short stay was made at Thornhill, where Dr Grierson's wonderful garden and his only more wonderful museum were hurriedly inspected, and his hospitality, as dispensed by his kindly housekeeper Mary, was partaken of.

The party returned to Dumfries by rail about eight o'clock, everyone perfectly delighted with the day's proceedings.

Mr Wilson furnishes the following list of plants, and Mr Lennon the list of coleoptera:—

List of Plants: *Pinguicula vulgaris*, *Ranunculus hederaceus*, in wet places on the hills; *Potamogeton natans*, *Draba verna*, *Helianthemum vulgaris*, *Polygala vulgaris*, *Viola tricolor*, *Viola*

Lutea (rare), *Empetrum nigrum* (crow-berry, rare), *Saxifraga hypnoides* (rare), *Lathyrus macrorrhizus* (Heath pea), in the Dalveen Pass; *Myosotes versicolor*, *Pedicularis sylvatica*, *Geum rivale*, and *Equisetum sylvatica*, along the roadside; found *Stellaria nemorum* (rare), at Enoch Castle. Of the ferns there may be mentioned: *Botrychium lunaria* (moonwort), growing along the roadside, and *Polypodium phegopteris* (Beech), *P. dryopteris* (Oak), *Lastrea montana*, *Allosorus crispus* (Parsley), *Scolopendrium vulgare*, and *Hymenophyllum Wilsoni* (Filmy Fern, rare), in the Dalveen Pass; and *Cystopteris fragilis* (Bladder Fern), at the Dalveen Pass and Enoch Castle.

List of Coleoptera: *Cicindela campestris*, *Carabus arvensis* (rare), *C. clathratus*, *C. violaceus*, *Libria chlorociphola* (rare), *Anchomenus gracilis* (rare), *A. oblongus*, (rare), *Amora bifrons* (rare), *A. spinipes* (not common), *Bembidium femoratum*, *B. doris*, *B. quadripustulatum*, *Corcyon minutus* (not common), *Quedius lateralis*, *Q. xanthopus*, *Q. impressus* (rare), *Silpha sinuata* (not common), *S. Opaca* (not common), *Aphodius hæmorrhoidolis* (rare), *A. inquinatus*, *Geotrupes mutator*, *G. punctatostriatus*, *Corymbites cuprens*, *C. metallicus*, *Agriotes sputator*, *A. lineatus*.

HODDOM CASTLE, REPENTANCE TOWER, AND CARLYLE'S TOMB.

7th July, 1883.

A large party (thirty-three ladies and gentlemen) participated in the July excursion. In the early morning the weather prospect was disappointing, but only one or two slight showers fell during the day, which was otherwise dry and fine. After a pleasant drive, the party arrived at Hoddom Castle about mid-day. The Castle is of the old Scotch baronial style of architecture, and belongs to different periods. The central tower is now the only part existing of the original Castle, which was built in the 15th century by Lord Herries from the stones of an ancient chapel; and, with the exception perhaps of the outer walls, the other portions of the building are comparatively modern, extensive additions being made so recently as 1878. To the back of the Castle and in the walls are the remains of Roman altars and inscriptions, which were discovered at the Roman camp of Birrens

or Burrens, a few miles distant, and also several fossils. Agricola is the reputed founder of this Roman station, and the fossæ, aggeres, and prætorium of the camp on the neighbouring height of Burnswark, from which innumerable roads diverge in every direction through the southern parts of the kingdom, were also formed by this distinguished Roman general during his governorship of Britain. Built into the wall to the west of the Castle is what has apparently been the lintel of a door, and is inscribed (as was the custom in early times) with the date, 1677, and a pious quotation—

16. GOD BE [M MR MC] HERE. 77.

The letters within the brackets, Mr Barbour is of opinion, are probably the initials of the person residing within the house.

The Tower of Trailtrow, or, as it is more commonly called, Repentance Tower—a name which it owes obviously to the word “Repentence,” which is carved between the figures of a dove and a serpent over the doorway—was next visited. It is situated on an eminence close to and overlooking the Castle, but is in the neighbouring parish of Cummertrees. Spottiswoode says “it was anciently used as a beacon ; and the Border Laws direct a watch to be maintained there, with a fire-pan and bell, to give the alarm when the English crossed the river Annan.” The traditionary tale regarding its origin is that it was built from the stones of a ruined chapel in the fifteenth century by the then Lord Herries —“Herries o’ the Thwaite” (a noted reiver)—as an outward token of penitence and remorse. The Tower stands in the centre of a small churchyard, now old and unused, in which are a number of curious inscriptions. Near to the Tower is a large enclosed burial-place belonging to the family of Murray of Murraythwaite. A Business Meeting was held here, after which Dr Gilchrist gave a brief address on the geology of the district. Descending from the hill, the party were kindly entertained to a refreshing cup of tea by Miss M. Carlyle Aitken, of The Hill, niece of Thomas Carlyle. The tea was prepared and partaken of in the house of Mrs Graham, Hoddam Mains, obligingly placed at the disposal of the party. After a brief visit to Hoddam Castle gardens and a little out-of-the-way burial-place in the centre of a field a short distance from the Castle, the party resumed their seats in the vehicles, and in a short time reached the churchyard of Eccle-

fechan, where a few minutes were spent at the grave of Thomas Carlyle. Near to the resting-place of the great seer is the tomb of "Robert Peal" (the reputed grandfather of Sir Robert Peel), who "died April ye 4th, 1749;" and many other distinguished sons of Annandale are interred here. Proceeding next to the village, a visit was paid to the little house in which Carlyle was born; and before leaving Ecclefechan a number of the party made the acquaintance of Mr Graham, the genial postmaster, by whom they were shown a number of interesting letters from Lord Nelson to Mr Graham's grand-uncle, Dr Thomas Graham, who was assistant-surgeon on board the same ship in which Nelson was a "middy"—probably the *Seahorse*. Dr Graham, who was drowned at Liverpool, was one of the founders of the Athenæum Library there. Mr Graham also shewed the company a curious old pistol, which is supposed to have belonged to Lord Nelson. Dr Graham at one time obtained a brace of pistols from the Admiral, and it is thought probable that this may be one of them. There is a small plate on the side with the inscription "Parks & Co.," and the pistol is so constructed that by a spring a dagger shoots out under the barrel. Leaving Ecclefechan at half-past five, the party returned *via* Lockerbie and Lochmaben, arriving in Dumfries at nine o'clock.

The following Plants were found during the day : *Ranunculus flammula*, *Papaver rhæas*, *Fumaria officinalis*, *Polygala vulgaris*, *Vicia angustifolia*, *Spergula arvensis*, and *Conium maculatum* (hemlock), which was very abundant near Repentance Tower. *Comarum palustre*, *Menyanthes trifoliata* (bog-bean), *Galium palustre*, and *G. uliginosum*, at the small lake near to Hoddam Castle. *Galium saxatile*, *Silene inflata*, *Hypericum perfoliatum*, *H. pulchrum* (not yet in flower), *Reseda luteola*, *Scrophularia nodosa*, at Ecclefechan. *Orobis tuberosus*, *Euphorbia peplus*, *Sedum acre*, *S. telephium*, *Callitriche verna*, *Linaria vulgaris*, *Epilobium montana*, *E. palustre*, *Lonicera periclymenum*, *Jasione montana*, *Pyrola minor* (rare), *Orchis masculata*, *Habenaria bifolia*, and *Listera ovata*, along the road side. Saw *Linaria cymbalaria* growing at the gateway of Hoddam Castle, and *Iris pseudacorus* in full bloom in the Lochar Moss.

CARLINGWARK LOCH AND THREAVE CASTLE.

4th August, 1883.

The August field meeting comprised an excursion by rail to Castle-Douglas, a pleasant sail on Carlingwark Loch, and a visit to the interesting ruins of Threave Castle. Only a dozen members attended, but, favoured with fine weather, the meeting proved an enjoyable one. They were met at Castle-Douglas by Mr J. H. Maxwell, the genial editor of the *Kirkcudbrightshire Advertiser*, who kindly accompanied the party, and supplied each of them with a copy of his "Guide to the Stewartry." Carlingwark Loch was first visited. The loch, which is nearly a hundred acres in extent, is beautifully studded with a number of small islets, and occupies a picturesque situation. It has also yielded up many antiquarian relics, and was much prized as a field for research by the late Mr Joseph Train, the well-known antiquary. A boat having been engaged, the party proceeded to the Fir Island, the largest of the group, which is said to have been used by Edward I. as a place for shoeing his cavalry horses, when he made his way in 1300 to the wilds of Galloway—a traditionary tale which is supported by the supposition that there used to be a road from the margin of the loch to the north-east of the island, by the fact that horse-shoes of an old-fashioned character and similar deposits have been repeatedly found in the bed of the lake, and by the further fact that until recently what were supposed to be the remains of an old forge were visible on the island. An object of curiosity here is a small memorial purporting to have been erected in March, 1863, "to the memory of Prince, for twelve years the faithful and attached dog of Lady Abercromby of Birkenbog;" and on the top of the stone is sculptured a bas-relief image of her ladyship's favourite pet. A rare specimen of *Ranunculus Lingua* was found on the island by Miss Gillies. The name of the lake is a compound of two old British words—*caerlin*, a fort lake, and *wark*, a castle—and its application is explained by the story that a town was sunk in the loch, and that churches once stood on two of the islands. Near to the lake is the place known as "The Three Thorns of Carlingwark," where James II. assembled his men for the siege of Threave Castle. Three thorn trees used to mark the spot, but they have all perished from old age, the last one having fallen a few years ago. After a brief visit to the garden of Mr

James Lidderdale, to which they were kindly invited by Mrs Lidderdale, the party directed their steps towards Threave Castle. The site of this venerable pile is an island formed by the river Dee, formerly occupied by a fortalice belonging to Alan, the last native Prince of Galloway; and the building material is said to have been brought from the old Abbey of Glenlochar, which was about a mile and a half distant. The precise date of its erection is unknown, but it is supposed to have been in the fourteenth century, and Archibald Douglas the Grim is its reputed founder. The castle, which has been of three storeys, consists of a tall oblong square tower, the walls of which are about 70 feet high and 8 feet thick, and surrounded by the remains of a barbican flanked with a circular tower at each corner, one of which is still almost complete. The entrance is on the east side, the doorway, which is on the level of the second storey, being approachable at one time by means of a drawbridge which spanned a deep fosse. Over the entrance a small granite block projects from the wall. This is called the "Gallows Knob" or "hanging stone," where the unhappy vassal, who had offended his lord, was "tucked up" to pay the penalty with his life; and near to Carlingwark Loch was a charnel, known as the "Gallows Slot," into which the lifeless bodies were afterwards unceremoniously thrown. William, eighth Earl of Douglas, kept a retinue at Threave of about 1000 armed men, and conducted his household with regal splendour. When the Act of Forfeiture was passed against the King's enemies in 1455, Threave was the last stronghold that held out, and King James conducted the siege himself. It was for this, it is said, that the ponderous piece of ordnance known as "Mons Meg" was forged by a blacksmith named M'Kim, who with his seven sons carried on his trade at Buchan's Croft, a hamlet in the neighbourhood. The "gun-stanes o' the granite grey" with which the cannon was charged were disastrously effective; and the garrison soon surrendered. For his part in the victory M'Kim, says tradition, received the lands of Mollance, and it is to a contraction of this word and the familiarised Christian name of his wife, that some attribute the name "Mons Meg." The gun, which now occupies a position on the bastion of Edinburgh Castle, bears by an inscription on the carriage to have been forged at Mons, Flanders, which shews that the traditionary tale is discredited; but there is still a general belief in its Galloway origin, which is strengthened by the fact

that a ball corresponding to Meg's "meikle mou'" was excavated at the Castle at a comparatively recent date, and that this and the other balls at Edinburgh are apparently of Galloway granite. After a short Business Meeting, the party returned to Castle-Douglas, and left for Dumfries with the 4.47 train.

The following is a list of the plants found :—*Ranunculus Flammula*, *R. Lingua* (rare), *Nymphaea alba*, *Nuphar Lutea*, *Nasturtium palustre* (rare), *Alisma plantago*, *A. ranunculoides*, *Potamogeton heterophyllus*, *P. perfoliatus*, *P. Crispus*, at Carlingwark Loch. *Galium Verum*, *G. saxatile*, *G. mollugo*, *G. palustre*, *G. uliginosum*, *Hypericum perforatum*, *H. humifusum*, *H. pulchrum*, *Antirrhinum majus*, *Agrimonia Eupatoria* (not common), *Genista tinctoria* (rare), *Sherardia arvensis*, *Lythrum salicaria*, *Stachys Betonica* (rare), *S. palustris*, *Teucrium Scorodonia*, on the way to Threave Castle. *Lobelia Dortmanna* (rare), *Menyanthes trifoliata*, *Potamogeton natans*, *Helosciadium inundatum*, *Carum verticillatum*, and *Juncus obtusiflorus* (very rare), in wet places and the river Dee near the Castle.

CORSOCK.—1st September, 1883.

The fifth and last excursion of the summer season took place to Corsock, when a party of twenty-two ladies and gentlemen set out in two waggonettes at ten o'clock. Though the morning was dry and sunny, there were yet indications of impending rain, in a lowering barometer and the glistening state of the atmosphere; and before the day was far advanced showers began to fall, and continued at intervals to do so. This interfered with the work of botanical exploration. The woods and meadows were too wet, and the showers too frequent, for the botanists to venture far a-field. But in other respects the outing proved to be a most enjoyable one. Some pretty bits of little-frequented country were seen as the party drove along, and one or two places of interest were visited.

At the village of Crocketford—the Nine-Mile Bar, as it used to be called—a halt was made, and some information obtained respecting that curious sect of religious fanatics, the Buchanites, who founded the village, and died and were buried there, though

the distinctive idea of their creed was a profession that they should never taste of death, but be lifted up bodily and alive into the New Jerusalem. The leader of this "peculiar people," Lucky Buchan, shared the common lot on the 29th of March, 1791; but it was not until half a century afterwards that all hope was abandoned by the last surviving of her followers of her miraculous ascension, and her remains were committed, "dust to dust," to the keeping of the grave. Though a sadly deluded community, the Buchanites were kindly, inoffensive, and industrious. As wheelwrights and spinners they established the work of their hands in the South of Scotland. It was they who introduced the two-handed spinning-wheel; and they obtained as much employment as they could address themselves to in spinning linen yarn for the well-to-do families of the neighbourhood. They possessed their goods in common; lived peaceably and "beinly" together; and were not without hope when the end came and they fell asleep in death.

This and the neighbouring parishes were the theatre of much black business in the time of the persecution. On the bleak, stony ridge of Larghill a rough obelisk of grey granite was seen, and ascertained to be a monument to the Covenanters, who were shot on the adjoining moor of Lochankit. The grave of the martyrs is on the moor itself, and over it a tombstone bears the following inscription :

"Here lies 4 Martyrs, John Wallace, Wm. Heron, John Gordon, and Wm. Stewart, found out and shot dead upon the place by Captain Bruce and Captain Lag, for their adhering to the Word of God, Christ's Kingly Government in His House, and the Covenanted work of the Reformation against Tyranny, Perjury, and Prelacy.

2nd March, 1685.

Rev. chap. xii. v. 2.

Behold here in this wilderness we lie,
Witnesses of hellish cruelty;
Our lives and blood did not their ire assuage,
But when we're dead they did against us rage,
That match the like we think ye scarcely can,
Except the Turk or Duke de Alva's men."

There were in all six Covenanters captured by Bruce on Lochinkit Moor. Nicholson says this occurred on the 19th February, 1685, and that four of them were at once ordered to be shot. Two others, Alexander M'Robin or M'Cubbin and Edward Gordon,

were carried by him to the Bridge of Urr, where Grierson of Lagg was administering the abjuration oath. Bruce desired that his prisoners should be formally found guilty by a jury; but Lagg was impatient of ceremony, and next day he had them conveyed to Irongray, where they were hung on an oak tree, and buried at the foot of it. Over them there is a tombstone with the following inscription :

“Here lyes Edward Gordon and Alexander M‘Cubbine, martyrs, hanged without law by Lagg and Captain Bruce, for adhering to the Word of God, Christ’s Kingly Government in His own House, and Covenanted work of Reformation against Tyranny, Perjury, and Prelacy, Rev. xii. 2, March 3d, 1685.

As Lagg and bloodie Bruce command,
We were hung up by hellish hand ;
And thus their furious rage to stay,
We died near Kirk of Irongray.
Here now in peace sweet rest we take,
Once murdered for religion’s sake.”

Mr Harper mentions that the fine engraving, by Mr B. Scott, of a picture by Thomson of Duddingston, designated “Martyrs’ Tombs in the Bog of Loch-in-Kett, Galloway,” represents in reality the Martyrs’ Grave at the Caldons, Glen Trool, and that the engraving has in some unexplained way been therefore misnamed.

At Corsock Manse a cordial reception awaited the party at the hospitable hands of Mr and Mrs Sturrock. Rain had been falling for half an hour before the Manse was reached, and the shelter was therefore no less welcome than the substantial repast, which was immediately partaken of. Disappointing to the visitors, the weather was equally so to the young people at the Manse; for arrangements had been made by them to entertain the company at lawn tennis, croquet, football, &c., and it was with no little reluctance that these instruments of outdoor amusement had to be abandoned. Leaving the Manse, with a pressing invitation clinging to them to return for tea, the party proceeded to Corsock House, the residence of Mrs Murray Dunlop, who had, when asked, kindly consented to throw the grounds and gardens open, and to place the boat at the service of the Society to navigate, if desired, the loch. Mr Croal, gardener, who accompanied the party, was most obliging in his information, and afforded no little entertainment by the raciness of his historical narrative and interesting bits of folk-lore.

Corsock House, though not of yesterday, is the modern representative of a much older structure—the Castle of Corsock, crumbling vestiges of which still remain on the farm of Hallcroft, and an armorial stone from which, with the initials “J. N.” and “M. G.” (John Nelson, namely, and his wife Margaret Gordon), is built into one of the walls of Corsock House. The Nelsons of Corsock, like their relatives the Gordons, were devoted adherents to the cause of the Covenant, and suffered much and long for their fidelity to the Presbyterian Church of the Reformation. When the Rev. Gabriel Semple was ejected from Kirkpatrick-Durham, he found a refuge in Corsock Castle, where he preached regularly to increasing congregations of eager hearers. Mr Nelson became a marked and obnoxious man for this, and for other conduct of his, and was made to suffer severely in his means. He was concerned in the rising which occurred after the affair at Dalry, and ended disastrously at Rullion Green; and he and John Gordon of Irongray were tried in Edinburgh, and condemned to be hung, a sentence which would have been averted probably by Sir James Turner, whose life had been saved by the intercession of Nelson when Sir James was seized by the Covenanters in Dumfries, but for the stern counter-plotting of the Rev. Mr Dalgliesh, the Episcopalian curate of his parish, who represented him to the bishops as the very ringleader of the disaffected, and urged the necessity of his execution, “for the sake of example and the establishment of peace.” On the 14th of December, 1666, after having been tortured by the “boot,” Mr Nelson was hanged accordingly at the Cross of Edinburgh.

On a green hill top near Corsock House there stands a chaste granite obelisk, erected to the memory of the late Mr Murray Dunlop, who was for many years an influential member of Parliament for Greenock, who espoused the cause of the Non-Intrusion party, who was afterwards the trusted legal adviser of the Free Church, who was respected by opponents and revered by friends, and of whom the late Lord Cockburn said—“Calm, wise, pure, and resolute, no one ever combined more gracefully the zeal of a partizan and the honour of a gentleman.” The monument on the height was erected by his sorrowing tenantry.

The party were received at Corsock House by Mrs Murray Dunlop, and shewn a number of interesting articles recently brought from Egypt by her son, including three large and hand-

some mosque lamps, some curtains in bright-coloured cottons, carpets, pottery formed of the mud of the Nile, and trays and vases of Damacene work and Benares brass.

Returning to the Manse, the party again partook of the hospitality of Mr and Mrs Sturrock, to whom, on the motion of Dr Gilchrist, president of the Society, a hearty expression of thanks was conveyed. Shortly afterwards the waggonettes drew up, and the party left for Dumfries, which was reached about eight o'clock, and without much rain having been encountered on the way. When, some years ago, the Society formerly visited Corsock, the weather was very similar to that of Saturday; but on that occasion as on this the hospitality of the Manse did not fail, and feelings of regret for lost opportunities in scientific exploration were supplanted by a sense of social enjoyment.

The botanical finds were not numerous. But in the walk through the woodland to the loch, the ground was seen to abound in very fine fungi and lichens, some of the rarer sorts of which were picked up by Dr Gilchrist. The following note from Dr Anstruther Davidson, Thornhill, was received:—The heavy rain which fell during the afternoon prevented the botanists of the party from exploring the glen and adjoining woods. In Corsock wood, however, Mr Chrystie, Dumfries, collected specimens of *Lysimachia ciliata*, a North American plant, mentioned in the Floras as having established itself in Cumberland and near Dumbarton; in this case doubtless a garden escape. Amongst the less common plants observed near Corsock House may be mentioned *Meum athamanticum* and *Arctium majus*. On the edge of the loch were gathered *Scutellaria galericulata* and *Alisma ranunculoides*, and in the loch itself *Nuphar lutea*, *Nymphaea alba*, *Potamogeton crispus*, *P. obtusifolius*, and *Chara flexilis*.

INTERMEDIATE LECTURES.

DUMFRIESSHIRE & GALLOWAY
SCIENTIFIC, NATURAL HISTORY, AND
ANTIQUARIAN SOCIETY.

INTERMEDIATE LECTURES.

17th November, 1882.

Dr GILCHRIST in the chair. Thirty-nine present.

The first of the intermediate course of lectures was given to-night by the President, Dr Gilchrist, the subject being "Nature's Tiny Workmen." The lecturer briefly summarised his communication to the Society of the 3rd inst., and proceeded to describe the life and habits of some of the coral polypes, and clearly explained the formation by them of atolls, barrier reefs, and fringing reefs. Passing from these he described the formation of the carboniferous series of rocks, their extent, and the numerous fossils which they contain, with especial reference to the corallines. The lecture was illustrated by several diagrams and numerous specimens of corals and corallines.

15th December, 1882.

Dr GILCHRIST in the Chair.

Mr Rutherford of Jardington gave a very interesting lecture on "Atmospheric Electricity," illustrated with a number of beautiful experiments.

19th January, 1883.

Dr GILCHRIST in the Chair.

Mr Armistead of the Solway Fishery delivered a most instructive lecture on "Fish and Fish Culture," with a fulness and

freeness possible only to one who, like himself, has made the subject a special study and practical pursuit. After giving some account of the fish culture of the ancients, Mr Armistead spoke of the many rivers, lakes, and ponds, especially in the northern part of Great Britain, which, if properly managed, could be made to produce much more than the same extent of land. Referring to the previous plenteousness of fish and the present scarcity, he remarked that "many rivers which thirty years ago were teeming with fish had not one in them now. They were as black as ink with sewage and the poisonous chemical wash of manufactories." "What," he went on to say, "is wanted to increase our salmon supply is cultivation, not restriction. It is the opinion of Professor Huxley that fishermen should be allowed to catch fish when they like, how they like, and where they like. He could not go the whole length of that; but such a change in the law might be safely made if cultivation was what it ought to be." In comparing artificial with natural hatching, the lecturer stated that not one egg in a hundred in the natural condition produced a fish, whereas by the artificial process as many as 100 per cent. of eggs had been successfully hatched, and the loss certainly never ought to exceed 20 per cent.. The importance of protecting and feeding fish was also explained. In speaking of reproducing with a sea trout and burn trout, the lecturer gave it as his opinion that they would reproduce, and he mentioned that Professor Day was of opinion that sea trout, *salmo trutta*, would in the end prove to be a sea going variety of the common trout, *salmo faro*. After discussing the natural and artificial impregnation of the ova, its progress in hatching, crippled fish, and diseases of fish, Mr Armistead concluded his highly interesting lecture by exhibiting some of the troughs used in the artificial hatching of fish.

16th February, 1883.

Mr J. WILSON, Vice-president, in the Chair.

Dr Grierson, Thornhill, delivered a lecture on "The Brain and Nervous System." The lecturer, who spoke without notes, discoursed in an easy conversational style, and treated his subject in a most lucid manner. He gave an account of the provision that has been made for the security of the great nervous centres, viz., the brain and the spinal cord—the structure of the skull and the

vertebra being fully described. The head of a sheep was dissected, and as the brain was being removed the names of its various parts were given, as well as of the nerves proceeding from it. It was afterwards compared with a human brain, which was preserved in spirits, and also with those of the horse and monkey. The nearest approach to the human brain, he said, was certainly that of the monkey, and he added that there is more difference between the brain of the cat and the monkey than between the monkey's and man's. After considering the substance of the brain structure, and offering some observations on mind and matter, Dr Grierson brought his highly instructive lecture to a close by remarking "that although much had been learned there remained a vast deal yet to be known respecting the brain and the nervous system, and in preference to much of the theory of the moderns, he was disposed to accept many of the speculations of the philosophers of former times."

16th March, 1883.

Dr GILCHRIST, President, in the Chair. Forty-three present.

Mr J. Wilson delivered an instructive lecture on "A Cup of Tea." The lecturer, after giving an interesting sketch of the history of tea, from its introduction into the Celestial Empire in the fifth century to the present time, described its botanical characteristics and the modes adopted in picking and preparing the different teas of commerce. He went fully into the chemical properties of tea, describing the effects produced by the constituents on the system, and also the various adulterants which were formerly mixed with the leaves. Having considered the different ingredients in "the cup of tea," he showed how to make it to the best advantage, and concluded by saying that when properly made it was an agreeable and stimulating beverage; but if taken in excess, at irregular intervals, or without sufficient food, it produced deleterious effects. The lecture was illustrated by samples of the different kinds of tea, microscopical drawings of various leaves, and numerous chemical experiments, showing the properties of the respective constituents.

20th April, 1883.

MR RUTHERFORD, Secretary, in the Chair.

LOCHMABEN CASTLE.

The sixth and last of the course of lectures was given by the Rev. W. Graham, Trinity, Edinburgh, his subject being "Lochmaben Castle: Its Past, Present, and Future." Mr Graham, in the course of his remarks, gave some interesting particulars which are not generally known. After referring to its earlier history and other circumstances connected with its recent demolition since the close of last century, he touched specially on the hereditary keepership of the Castle. The hereditary keeper is Capt. Hope-Johnstone of Annandale, a descendant of Wallace, through David Halliday's daughter, a niece of Wallace, marrying Johnstone, its hereditary keeper. This is told by *The Minstrel*, book 5th. Wallace, accompanied by Græme, took the Castle from the English in 1304. Wallace proposed to Græme to take the Castle, and Græme agreed. When about a mile from the Castle, in the Smalrigg direction, the night being dark, a consultation was held. Wallace said to his brother-in-law, Halliday, "Methinks thou knowest this country best. I hear no noise of folk." Halliday said, "I will take ane wi' me and ride before to let ye see the way to the Castle." At length they reached the Castle gates. Halliday asked the porter to open, he having some acquaintance with him as a neighbour, though his aim he said was to do the English ill. John Watson, the porter, opened the gate. John Halliday "soon by the craig him threw," and with a knife "sticked him dead." Wallace and Græme then entered, taking the keys out of the dead porter's hands, and slew all excepting the women and children. They examined the Castle next morning, and sent for "Johnstone, a man of greate degree," and made him the "captain of that place." After that Græme and Wallace left the Castle for the Corehead and Crawford Castle by Kirkpatrick and "Aisdail Woddie." This was the story of the taking of Lochmaben Castle by Wallace and the Græme, and the appointment of Johnstone of Annandale the full captain keeper, in whose family directly or indirectly it has remained from that time till now.

"Within the bounds of Annandale the gallant Johnstones ride;
They have been here a thousand years, and a thousand more
will bide."

About two centuries ago Charles II. granted the keepership to Johnstone, Earl of Annandale, with all its rights and privileges. That was by charter after the death of Murray, Earl of Annandale. Prior to that James VI. (15th January, 1610) granted a feu charter to the Earl of Dunbar of the whole of the four mains. The Earl was by the same charter constituted steward of Annandale and hereditary keeper of the Castle of Lochmaben, with parts and pertinents pertaining to the guardianship. By the same deed the foresaid lands and subjects were for the first time erected to the barony of Lochmaben. The feu duty was then declared for the lands; but a red rose, to be presented on midsummer day at Lochmaben Castle, was the price the keeper had to pay to the Crown; so that if Queen Victoria visited the Castle, Captain Hope-Johnstone would acknowledge her sovereignty in the Castle, within the gates thereof, by presenting Her Majesty with a red rose. The Earl of Dunbar, immediately before his death, sold the whole (stewardship and office of keeper) to John Murray, afterwards Earl of Annandale, in whose favour James VI. (1st July, 1612, two years after the Earl of Dunbar's charter) granted a new charter, whereby His Majesty disposed to the Earl of Annandale (Murray) "The Castle, Castellany, and Castle lands of Lochmaben, and assessed £40 13s 4d Scots and a number of oxen 'as fee and duty' for repairing the said Castle of Lochmaben"—the lands being anew erected into the barony of Lochmaben. Those charters were ratified in 1612, and again in 1621. By both of these Acts the lands and barony were again dissolved and disunited from the Crown. Another charter of a subsequent date in favour of David (Lord Stewart), who married the widow of the second Earl of Annandale of that period, was also ratified in 1669. Thus the right to the lands of the barony was finally separated from the Crown, and was vested in Lord Mansfield, a vassal of the Crown, and of the hereditary keeper's representatives of the Earl of Annandale, a modern proof of which separation from the Crown was that since 1839 the king's kindly tenants pay stipend to the minister of Lochmaben parish. But the Castle within the gates thereof still exists for behoof of the Queen and her royal successors, paying neither stipend nor taxes, all Crown lands being exempt from the same. In 1647 the second Earl of Annandale granted a perpetual lease of the mains of the Castle to Bailie John Henderson, Lochmaben, but reserving from

the tack the Castle within the gates thereof. The land came by marriage into the possession of Johnston of Thorniewhat, a vassal of the Annandale family. Johnston of Castlemains and Thorniewhat became insolvent about 1795-96, and those mains of the Castle were sold. The advertisement advertising the sale stated that the Castle within the gates thereof was reserved. In 1839 the present Captain Hope-Johnstone's grandfather got all his titles renewed 20th December, conferring on him anew the keeping of the Castle of Lochmaben. The Latin words were—"*Una cum hereditable officio custodiendi et gubernandi nostrum castrum de Lochmaben.*" All doubt, therefore, as to the present Captain Hope-Johnstone being the hereditary keeper of "the Castle within the gates thereof" is completely removed by the title being renewed to the same so recently as 20th December, 1839, Lord Mansfield being its guardian and watcher. Coming now to Lochmaben Castle in the present and future, he mentioned that in consequence of a letter which he had written to the Woods and Forests, in compliance with the desire of the inhabitants of Lochmaben, on the subject of the neglected state of their venerable Castle, it has since been protected from horses and cattle straying within its sacred precincts by a strong wooden railing from Raehills woods, with three gates opening into the Castle, and that the walls were then covered with ivy and the loose stones gathered together in places by themselves at the foot of the walls:—

Office of Woods, etc., S.W.
9th November, 1874.

SIR,—I am directed by Mr Howard to acknowledge the receipt of your letter of the 31st ultimo, addressed to Mr Bellairs, on the subject of the ruins of Lochmaben Castle, County Dumfries, and in reply I am to state that while fully agreeing with you as to the historical interest which attaches to the remains of the Bruce Castle, Mr Howard regrets that it is not practicable that this Department should interpose with the view of preserving what remains of the Castle from further destruction—you refer to some eight or twelve acres of excellent pasture—and some valuable trees as included within the Castle precincts, but Mr Howard presumes that all the land which is available for cultivation or produce of any kind is occupied, and that the premises are held and enjoyed by the hereditary keeper. It occurs to Mr Howard that the preservation of the ruins is an obligation which should be attached to the hereditary keepership, but whether this is so or not the preservation of the Castle of Lochmaben appears to be a matter in which the adjoining neighbourhood is principally interested, and in any case it is one which seems to concern the Department of Public Works and Buildings rather than this office.—I am, sir, your obedient servant,

J. BENNET SOWRAY.

The Rev. Wm. Graham.

The Castle Loch being within the burgh boundary, the inhabitants

have placed boats on the same—a great attraction to strangers, and a source of increasing amenity to the burgh. To increase its attractions Captain Hope-Johnstone, the keeper of the Castle, has asked the Town Council to supervise the cleaning out of the inner fosse in the interests of science, in the hope of procuring ancient relics, and also to allow of boats passing through it, as formerly the Brucian barges and other boats did, till the period of the destruction of the Castle from A.D. 1792 to A.D. 1800, or thereabouts. To help to pay the expense of clearing out the inner fosse, Lord Bute, who has done so much for clearing out Rothesay Castle, had sent him £5; and were Dumfriesshire friends, interested in historical and antiquarian research, willing to co-operate in a kindly and patriotic spirit for the public good, that might be easily accomplished without injury to a single stone of the ruin, and form an object of additional historic and antiquarian interest in Dumfriesshire. Of the desolate state of the Castle now compared with what it was in its entire state in 1790, when enclosed by its outer trench on a peninsula of the Castle Loch, extending to about fifty acres, one could hardly imagine the vandal spirit abroad at the end of last century which destroyed many of its architectural beauties. But for the ill health at that period of the keeper of the Royal Castle this almost impregnable fortress might still have remained entire. Still, though desolate, its ruins told of its ancient greatness, though weeds and nettles grew in its halls, and sedges filled some of its fosses; its ruined walls, especially by autumn moonlight, produced a picturesque effect. To visit the Castle under such circumstances was a gratification worthy of the painter, the poet, or the lover of nature. The Castle Loch was of itself a scene of beauty, with its rare vendace sporting in its waves, and the remainder of an old lake-dwelling under the shadow of the Castle walls, partly explored, but still further to be explored in search of some of the utensils used by its inhabitants, such as awls, bodkins, picks, spoons, plates, combs, bones of reindeer, horse and sheep, bronze weapons, remains of spear heads, and rings of gold, all of which had already been found in the lake dwellings of the iron age in the later British or the later Celtic or earlier Roman times, in other parts of Scotland and in Switzerland.

On the motion of Mr Wilson, seconded by Mr Watson, a vote of thanks was accorded to Mr Graham for his able paper, and the meeting terminated.

CRYPTOGAMIC SOCIETY OF SCOTLAND.

The Ninth Annual Conference of the Cryptogamic Society of Scotland was held in the Greyfriars' Halls, Dumfries, on Tuesday, Wednesday, and Thursday, 11th, 12th, and 13th September, 1883. Owing to the President of the Natural History Society (Dr Gilchrist) having been elected President of the Cryptogamic Society for the ensuing year, and the necessary arrangements for the Conference and Exhibition having been made by the Committee, who acted for the time as the Local Committee of the Cryptogamic Society, it is desirable that notice of the Conference should be recorded in these Transactions.

Some time prior to the date of Conference the Local Committee issued circulars to all the landed proprietors in Dumfriesshire and Galloway, requesting that instructions might be given to their gardeners and gamekeepers to gather cryptogamic plants and forward them to the hall for exhibition. A liberal response was made to the circulars, and when the time arrived a supply of Fungi, &c., came to hand sufficient to fill the large hall, which had been reserved for them. The small hall was occupied with dried specimens of Mosses, Lichens, Ferns, Salt and Fresh Water Algæ and Fungi, and all the available space (even the walls) was crowded with these. In the large hall, in addition to the Fungi, there were representative specimens of all the local and British Ferns, including many varieties; a large collection of Seaweeds, and about 100 specimens of Mosses and Hepaticæ growing in pots, which presented on the whole a most curious and interesting exhibition. The walls of this hall were also covered with dried specimens of Ferns and Water-colour Drawings (by Mrs Gilchrist Clarke) of all the edible Fungi.

Meetings of the Society.—On Tuesday, the 11th, the members and associates, about twenty in number, assembled at the Dumfries station in time to meet the 9.30 A.M. train for Dalbeattie. On arrival at the latter station, they were met by W. H. Maxwell, Esq. of Munches, who had invited the Society to visit his domains. The party having “fungi-hunted” along the hills and dales, through woods and fields, arrived at the Munches about 3 P.M., where

they were received by Mrs Maxwell and most hospitably entertained. After visiting the well-stocked gardens and hot-houses, they returned to Dumfries by the five o'clock train, having had a most enjoyable excursion. At seven o'clock the same evening a private meeting of the Council was held, and at 7.30 a private business meeting of the Society. At eight o'clock there was a public meeting, held in the small hall, when about 100 ladies and gentlemen were present, and Dr Gilchrist presided. The proceedings were opened by the presidential address from the Chairman, the subject being "Fossil Cryptogams." After the address and election of new members, communications on the following subjects were read :—"Notes on Scottish Uredineæ," by Professor J. W. H. Trail ; "Heterœcism of Leaf Fungi," by R. Turner. Esq.; "Remarks on the Fungus of the Potato Disease (*Peronospora Infestans*)," by T. King, Esq. On Wednesday, at 2 P.M., the Exhibition was opened by an address from Sheriff Hope, vice-president, on the "Aims and Claims" of the Society. At 5 o'clock the Annual Dinner of the Society was held in the King's Arms Hotel, when 33 gentlemen sat down to table. At seven the Exhibition was re-opened, and considerable advantage was taken of it by the public. On Thursday the Exhibition was open from 10 A.M. to 10 P.M. At intervals during the time the Exhibition was open, several ladies played selections on the organ and piano-forte. On Thursday morning the members of the Cryptogamic Society were entertained to breakfast by Dr Gilchrist. At 11 o'clock a party assembled at the King's Arms Hotel and proceeded in two waggonettes to Caerlaverock and Comlongan Woods, by way of Glencaple, and returned by Clarencefield. Another party went to Shambellie Wood and Newabbey.

On one of the tables in the exhibition hall, the Fungi were named and arranged according to their families by the Rev. James Stevenson of Glamis and Rev. Mr Paul of Roxburgh. The Lichens and Mosses were named by Dr Stirton of Glasgow. Among the specimens sent to the exhibition hall may be noticed *Lithographa Andreinii*, a lichen discovered by Mr M'Andrew, and named in honour of him. Of the Fungi :—*Hydnum gelatinosum*, not previously recorded from this country ; *Agaricus Valhii*, *Agaricus virosus*, *Polyporus sulfureus*, *Polyporus dryadens*, *Polyporus betulinus*, and a huge specimen of *Polyporus giganteus*. The following Cryptogams were gathered during the excursions :—

Lecidea canescens and *Peltigera horizontalis* (lichens); *Barbusta papillosa* and *Trichostomum mutabile* (mosses); and *Lactarius deliciosus*, that "epicurean treasure," in abundance.

The following gentlemen formed the Council and Local Committee :—*Council*—President, Dr Gilchrist, President of Dumfries and Galloway Scientific, Natural History, and Antiquarian Society; Vice-president, David Boyle Hope, Esq., Sheriff-Substitute, Dumfries; Hon. Secretary, Dr Buchanan White, F.L.S., Annat Lodge, Perth; Hon. Treasurer—Rev. J. Stevenson, Glamis. Professor J. W. H. Trail, F.L.S., Aberdeen; Rev. Dr Keith, Forres; M. C. Duff, Glasgow; Dr Stirton, F.L.S.; J. Richardson, Glasgow; J. Stewart, Glasgow; T. King, Glasgow. *Local Committee*—Chairman Dr Gilchrist, Dumfries; Secretary, J. Rutherford of Jardington, Dumfries; Treasurer, J. Wilson, 3 Norfolk Terrace, Dumfries. J. M'Andrew, New-Galloway; W. Lennon, Dumfries; G. Robb, do.; J. Watt, do.; P. Stobie, do.; J. Neilson, do.; T. Watson, do.; J. M'Meehan, do.; James Lennox, do.; S. A. Chrystie, do.; W. Adamson, do.

The Conference on the whole was a great success, and afforded great pleasure to the "strangers," who were thoroughly satisfied with the arrangements and to visitors, some of whom had their "eyes opened" for the first time to the beauties of puff-balls and paddock-stools.

"There's a soul of goodness in things evil,
Would men observe it, and distil it out."



A P P E N D I X A.

LIST OF MEMBERS OF THE SOCIETY, AUGUST, 1884.

(Those Members who joined the Society when it was re-organised, November 3rd, 1876, are indicated by an asterisk.)

LIFE MEMBERS.

Date of Election.

- March 3d, 1884—Maxwell, W. H., Esq. of Munches, Dalbeattie.
May 3d, 1884—Johnstone, J. J. Hope, Esq. of Annandale, Raehills,
Lockerbie.
June 7th, 1884—Stewart, Mark S., Esq. of Southwick House, Dumfries.

ORDINARY MEMBERS.

- *Adair, John, High Street, Dumfries.
Feby. 2d, 1883—Adams, James, High Street, do.
*Adamson, William, Broom's Road, Dumfries.
Jany. 5th, 1883—Aitken, Miss, The Hill, Dumfries.
Jany. 5th, 1883—Aitken, Miss M., do. do.
Jany. 4th, 1884—Aitken, John, Ravenshill, Lockerbie.
April 12th, 1882—Allan W., Chemist, High Street, Dumfries.
Dec. 1st, 1882—Anderson, W., Netherwood, Dumfries.
Dec. 1st, 1882—Armistead, J. J., The Fishery, Kinharvie, Dumfries.
Jany. 5th, 1883—Armstrong, Francis, Architect, Dumfries.
Oct. 6th, 1882—Bailey, W., *Courier and Herald* Office, Dumfries.
Dec. 7th, 1883—Baird, A., Marchbank Terrace, do.
Jany. 4th, 1884—Baird, Mrs., do. do.
Dec. 3d, 1880—Barbour, J., Architect, do.
Mar. 7th, 1884—Barbour, Robert, St. Christopher's, Dumfries.
Jany. 4th, 1878—Black, Charles, Arbigland, Dumfries.
Dec. 1st, 1876—Bowden, Major, Lochfield, do.
July 1st, 1882—Bridges, J., jr., Timber Merchant, Dumfries.
Mar. 5th, 1880—Broun, J. S., Solicitor, Dumfries.
Jany. 5th, 1877—Browne, W. A. F., M.D., Crindau, do.
Nov. 3d, 1882—Brown, T., Public School, Ancrum, Roxburghshire.
April 1st, 1881—Brown, T., Auchenhessnane, Penpont, Thornhill.
Oct. 8th, 1880—Brown, J., Schoolhouse, Drumsleet, Dumfries.
Nov. 3d, 1882—Bruce, J., Crichton Royal Institution, do.
Feby. 7th, 1879—Bruce, T. Rae, Slogary, New-Galloway Station.
Feby. 2d, 1883—Burnett, Miss, 35½ Loreburn Street, Dumfries.
April 6th, 1883—Burnside, Miss, Buccleuch Street, do.
Mar. 5th, 1880—Byth, Mr, Academy, do.

Date of Election.

- Mar. 7th, 1884—Carnegie, D., Castlebank, Dumfries.
 Dec. 1st, 1882—Calderhead, R., Burgh Surveyor, do.
 Jany. 4th, 1878—Callander, John, High Street, do.
 Nov. 5th, 1880—Chinnock, Rector, Academy, Dumfries.
 April 4th, 1879—Chrystie, R., Buccleuch Street, do.
 April 4th, 1879—Chrystie, S. A., do. do.
 Oct. 6th, 1882—Chrystie, Miss, do. do.
 Mar. 5th, 1880—Clark, J. J., Irish Street, do.
 Nov. 2d, 1883—Clark, J., Schoolhouse, Lochmaben.
 Nov. 1st, 1881—Coles, F. R., The Hermitage, Tongland, Kirkeudbright.
 Mar. 1st, 1878—Copland, W. A. F. B., Nithsdale Mills, Dumfries.
 Mar. 7th, 1884—Craig, J. S., Solicitor, Dumfries.
 April 5th, 1878—Culton, J., Dildawn, Castle-Douglas.
 *Cunningham, Dr J., Dumfries.

*Davidson, James, Summerville, Maxwelltown.

- May 6th, 1882—Davidson, A., Kirkeudbright.
 Jany. 5th, 1883—Davidson, Dr A., Sanquhar.
 Nov. 11th, 1881—Dickson, H., Town Hall, Dumfries.
 Oct. 6th, 1882—Dickie, W., *Standard* Office, Dumfries.
 July 7th, 1883—Dinwiddie, R. (New York), Hawthorn Bank, Dumfries.
 *Dinwiddie, W. A., Greenbrae, Dumfries.
 Mar. 2d, 1883—Dodds, J. W., Sculptor, York Place, Dumfries.
 Nov. 11th, 1881—Douglas, W. D. Robertson, Orchardton, Castle-Douglas.
 Decr. 1st, 1876—Dudgeon, P., Cargen, Dumfries.
 Decr. 1st, 1882—Dunbar, W., High Street, Dumfries.
 July 1st, 1882—Duncan, Mr, *Annandale Herald* Office, Lockerbie.

- Nov. 11th, 1881—Edgar, I., Royal Bank of Scotland, Dumfries.
 Feby. 2d, 1883—Elder, J., Inaville, Maxwelltown.

- Decr. 3d, 1880—Fairley, J. D., Gold Coast, and Dumfries.
 Feby. 2d, 1883—Fenton, D., Dumfries.
 Oct. 6th, 1879—Fergusson, J., Artist, Queen Street, Dumfries.
 Jan. 5th, 1883—Fingland, Mr, Thornhill.
 Nov. 11th, 1881—Fisher, Robert, Bookseller, Dumfries.
 June 7th, 1884—Fotheringham, A. K., Corn Exchange, Dumfries.

*Gibson, W. G., Clerkhill, Dumfries.

*Gilchrist, Dr J., Linwood, do.

- June 2d, 1883—Gilchrist, Mrs do. do.
 Decr. 1st, 1882—Gillies, Miss, King Street, Maxwelltown.
 Oct. 6th, 1879—Gillespie, D. A., Queen Street, Dumfries.
 Mar. 2d, 1883—Gilroy, Miss, Moat House, Dumfries.
 Feby. 2d, 1883—Giltruth, F., Academy, Dumfries.
 Nov. 1st, 1878—Gracie, Thomas, Greenbrae Terrace, Dumfries.

*Grierson, Dr, Museum, Thornhill.

*Grierson, Dr F. W., Prince Alfred Hospital, Sydney, Australia.

- Jan. 6th, 1882—Grierson, W., Chapelmount, Maxwelltown.
 Oct. 6th, 1882—Grierson, J., Solicitor, Dumfries.

- April 6th, 1877—Halliday, W., College Street, Maxwelltown.
 April 6th, 1883—Hamilton, R., Castlebank, Dumfries.
 June 3d, 1882—Hamilton, G., Ardendee, Kirkeudbright.
 Nov. 2d, 1883—Hannah, James, Church Crescent, Dumfries.
 Jan. 4th, 1878—Harper, Malcolm M'L., Castle-Douglas.

*Hastings, W., Taxidermist, English Street, Dumfries.

Date of Election.

July 7th, 1883—Henderson, Miss, 24 Castle Street, Dumfries.
 Feby. 3d, 1882—Herries, James, Gas Company's Offices, Dumfries.
 Feby. 1st, 1878—Hogg, James, Saughtree, Dumfries.
 *Hogg, W. S., Saughtree, Dumfries.
 Feby. 6th, 1880—Hope, D. B., Lovers' Walk, Dumfries.
 Nov. 2d, 1877—Houston, James, 9 Greyfriars' Street, Dumfries.
 Dec. 7th, 1877—Hutton, James, Ramsay Cottage, Maxwelltown.

Decr. 7th, 1883—Innes, A., St. Ann's Place, Dumfries.

Mar. 2d, 1877—Johnstone, G., Castlemilk, Lockerbie.
 Jan. 9th, 1880—Johnstone, Rev. J. B., Glebe Terrace, Dumfries.
 Decr. 1st, 1882—Johnston, J., Friars' Vennel, Dumfries.
 Decr. 1st, 1882—Johnstone, Miss, Catherine Street, Dumfries.

*Kerr, Dr, Dumfries.

Nov. 1st, 1878—Kerr, J. W., Academy, Dumfries.
 May 5th, 1883—Kerr, Mitchell, 55 Friars' Vennel, Dumfries.
 May 5th, 1883—Kirkpatrick, Miss, 120 High Street, do.

Oct. 6th, 1882—Laidlaw, S. G., Bank of Scotland, Dumfries.
 Decr. 7th, 1883—Laing, T., Schoolhouse, Noblehill, do.
 July 1st, 1882—Laurie, J., Schoolhouse, Tynron, Thornhill.
 Jan. 5th, 1883—Laurie, W. J., English Street, Dumfries.
 Decr. 3d, 1880—Lawson, A., English Street, Dumfries.

*Lennon, W., Brooke Street, do.

Jan. 5th, 1883—Lennox, Provost, Dumfries.

*Lennox, James, Edenbank, Maxwelltown.

April 5th, 1878—Low, Mr, Chemist, Dumfries.

Oct. 8th, 1880—Martin, W., Town Clerk, Dumfries.

Jan. 4th, 1878—Matthewson, James, 18 Copland Street, Dalbeattie.

*Maxwell, John, King Street, Maxwelltown.

April 5th, 1878—Maxwell, J. H., *Kirkcudbright Advertiser*, Castle-Douglas.

Oct. 6th, 1879—Maxwell, W. J., Terregles Banks, Dumfries.

Feby. 6th, 1880—Maxwell, Captain, Terregles, Dumfries.

Feby. 6th, 1880—Maxwell, E. C., do. do.

Apr. 12th, 1882—Maxwell, J., Bookseller, High Street, Dumfries.

Feby. 2d, 1883—Maxwell, Miss Agnes, Galloway Street, Maxwelltown.

July 5th, 1884—Maxwell, Frank, Gribton, Dumfries.

Mar. 23d, 1880—Miller, R. W., Queen Street, do.

Feby. 2d, 1883—Milligan, John, Friars' Vennel, Dumfries.

Nov. 2d, 1883—Montgomery, J., Rosemount Cottage, Maxwelltown.

Nov. 2d, 1882—Montgomery, Mrs, do. do.

*Moodie, James, David Street, Maxwelltown.

Oct. 6th, 1879—Murdoch, N., Netherlea, Dumfries.

Nov. 3d, 1882—Muir, Miss, Linwood, Dumfries.

July 5th, 1884—Murray, Robert, George Street, Dumfries.

April 6th, 1883—Murray, Mrs do. do.

Feby. 2d, 1883—Murray, Miss, Dunbar Terrace, do.

*Murray, Dr, Dumfries.

Oct. 6th, 1879—M'Andrew, James, Schoolhouse, New-Galloway.

April 6th, 1883—M'Cracken, Miss, George Street, Dumfries.

*M'Donald, Dr, Castle Street, Dumfries.

Nov. 11th, 1881—M'Dowall, W., *Standard* Office, Dumfries.

July 2d, 1883—M'Fadzean, R. W., Inland Revenue Office, Greenock.

Jan. 4th, 1884—M'Gowan, J., Ellangowan, Dumfries.

Date of Election.

May 7th, 1834—M'Gowan, Ed., 13 English Street, Dumfries.

May 6th, 1832—M'Kenzie, J. C., Kirkcudbright.

Jan. 4th, 1834—M'Kenzie, Mrs., Albany Bank, Dumfries.

Nov. 7th, 1879—M'Kill, P. B., Coal Agent, Dumfries.

Jan. 5th, 1833—M'Kinnon, Rev. J. D., Dumfries.

April 4th, 1831—M'Kie, J., Ankorlee, Kirkcudbright.

*M'Lean, J., High Street, Dumfries.

Dec. 1st, 1832—M'Naughton, Miss, Terregles Street, Maxwelltown.

Mar. 4th, 1879—Neilson, John, Academy, Dumfries.

Nov. 7th, 1879—Newbigging, John, Kirkbank, Dumfries.

*Nicholson, J. H., Chemist, Maxwelltown.

Mar. 2d, 1833—Oughton, Robert, Castle Street, Dumfries.

Dec. 7th, 1833—Paterson, Robert, 84 High Street, Dumfries.

Dec. 7th, 1833—Paterson, Mr., Schoolhouse, St. Mungo.

Jan. 5th, 1833—Pracki, Mons. De, Dumfries.

April 3d, 1834—Rae, W., Schoolhouse, Templand, Lockerbie.

*Reid, F., Greystone, Dumfries.

Jan. 6th, 1832—Reid, J., Bank of Scotland, Dumfries.

April 6th, 1833—Reid, Miss A., Greystone, do.

April 6th, 1833—Reid, Miss M., Greystone, do.

Nov. 3d, 1832—Richardson, Dr., Asylum, Isle of Man.

Jany. 4th, 1878—Robb, G., Academy, Dumfries.

Nov. 3d, 1832—Robb, Miss, Castle Street, Dumfries.

Nov. 3d, 1832—Robb, Miss May, do. do.

April 12th, 1832—Roddan, A., Plumber, do.

*Rutherford, J., Jardington, do.

Feb'y. 7th, 1879—Rutherford, John, Pleasance, Kirkmichael, Dumfries.

July 7th, 1833—Rutherford, Dr., Crichton Royal Institution, do.

May 5th, 1833—Sawyer, Henry, Episcopal School, St. David Street, Dumfries.

Dec. 3d, 1830—Scott, W. G., Castle Street, Dumfries.

Oct. 7th, 1831—Seiffert, C., Midsteeple Buildings, do.

*Service, R., Galloway Street, Maxwelltown.

*Sharp, Dr., Shirley Warren, Southampton.

*Shaw, James, Schoolhouse, Tynron, Thornhill.

April 4th, 1879—Shortridge, T., Beechwood Bank, Dumfries.

Jany. 5th, 1833—Sloan, J., Barbeth, do.

Oct. 6th, 1832—Smellie, J., 8 Queen's Place, do.

Oct. 6th, 1879—Smith, J., Commercial Bank, do.

Jany. 6th, 1832—Smith, J. A., Crichton Royal Institution, Dumfries.

*Smith, J., Terregles Street, Maxwelltown.

Dec. 1st, 1833—Smith, W., 9 Terregles Street, do.

Mar. 2d, 1877—Starke, J. Gibson, Troqueer Holm, Dumfries.

*Stobie, P., High Street, do.

June 3d, 1832—Sturrock, Rev. G., Corsock Manse, Dalbeattie.

Nov. 11th, 1831—Symington, J., Schoolhouse, Whinnyhill, Troqueer, Dumfries.

Feb'y. 2d, 1833—Symons, J., Royal Bank of Scotland, Dumfries.

Dec. 1st, 1832—Tait, Mr., Church Crescent, Dumfries.

*Thomas, James, High Street, do.

April 5th, 1878—Thompson, Mr., Ironmonger, do.

Jany. 6th, 1832—Thompson, J., jr., Rosemount Terrace, Maxwelltown.

Date of Election.

Nov. 3d, 1882—	Thomson, John, 90 Irish Street, Dumfries.
April 6th, 1883—	Thomson, J., Wallace Street, do.
Dec. 1st, 1876—	Thomson, Dr, do.
Dec. 7th, 1883—	Thomson, Mr, Midtown, Caerlaverock, Dumfries.
Oct. 8th, 1880—	Truckell, A. E., College Street, Maxwelltown.
Feby. 2d, 1883—	Tweddle, W., High Street, Dumfries.
Jany. 9th, 1880—	Watson, T., <i>Standard</i> Office, Dumfries.
Mar. 7th, 1879—	Watt, J., Rotchell House, do.
Oct. 6th, 1879—	Weir, Rev. R. W., do.
Oct. 6th, 1879—	Welsh, Mr, Waterloo Place, do.
Mar. 2d, 1877—	Williamson, James, Geddes Place, Maxwelltown.
Mar. 23d, 1880—	Wilson, J. 3 Norfolk Terrace, Dumfries.
Nov. 3d, 1882—	Wilson, Mrs, do., do.
Dec. 1st, 1882—	Wilson, Dr J. Connal, Thornhill.

CORRESPONDING MEMBERS.

Bennett, A., 107 High Street, Croydon.
 Black, G. F., Antiquarian Museum, Edinburgh.
 Brown, J. Harvie, Dunipace, Larbert.

Cameron, P., jr., 31 Willowbank Terrace, Glasgow.
 Carruthers, W., Botanical Department British Museum,
 London.

Dairon, J., Wells Street, Moffat.
 Dunsmore, J. Brideport, Conn., U.S.A.

Gill, Dr Battershell, 9 Cambridge Terrace, Regent's
 Park, London.
 Graham, Rev. W., The Manse, Trinity, Edinburgh.
 Gray, P., 24 St. Josephine Avenue, Buxton, London.

Hastie, George, Antiquarian Museum, Edinburgh.
 Henderson, R., Manitoba, America.

King, J. J., 207 Sauchiehall Street, Glasgow.

M'Ilwraith, W., Rockhampton, Queensland.
 M'Meehan, J., Tasmania.

Starforth, John, Architect, Edinburgh.

Thomson, Joseph, Gatelawbridge, Thornhill and Africa.
 Turner, R., 3 Westbank Place, Hillhead, Glasgow.

APPENDIX B.

LIST OF SPECIMENS, &c., DEPOSITED IN THE OBSERVATORY MUSEUM SINCE OUR LAST PUBLICATION.

No.	Date of Deposit.	Specimens.	Presented by
159	Apr. 28th, 1882	Vendace	Major Bowden
160	" "	Albino Flounder	Mr Ballantyne, Carsethorn
177	June 1st, "	Group of Zoophites & Sponge
178	" "	Pipe Fish	Mr Black, Arbigland
179	" "	Egg from inside of ordinary Hen's Egg	Mr R. Maxwell
180	" "	Drawing of Kirkcudbright Castle	Mr Thomson
184	June 21st, "	Tiger Python	Mr R. Service
187	July 18th, "	Sepia officinalis	Mr Irving
191	Aug. 30th, "	34 Specimens of Carices	Mr J. M'Andrew
193	" "	Centipede	Mr Aitken
194	" "	Adder	Mr R. Service
195	" "	Slow Worm	Do.
196	" "	Broad-nosed Eel	Lochmaben
197	" "	Sharp-nosed Eel	Do.
198	" "	Jar with 3 Roach	Do.
199	" "	Do.	Do.
200	" "	Jar with 1 Roach	Do.
201	" "	Jar with Perch	Do.
...	May 18th, 1883	27 Specimens of Mounted Parmeliæ	Mr J. M'Andrew
...	" "	Jew's Prayer in Hebrew	Mr J. M. Brown
...	" "	Gun Flint	Major Bowden
...	" "	5 Specimens of Whitby Jet	Do.
...	" "	Nodule of Flint enclosing Echinus	Do.
...	" "	Tooth of Extinct Shark (<i>Catcharidon megaladon</i>)	Do.
...	" "	Pitch Stone from Arran	Do.
...	" "	Petrified Palm, Barbadoes	Do.
...	" "	7 Copper and 1 Silver Coins	Mr Smith
...	Oct. 5th, "	Collection of Characeæ	Mr A. Bennett, F.L.S., Croydon
...	" "	Piece of first Steamship, Ammonite, and other Fossils	Mr Todd
...	Dec. 26th, "	Fish in spirit with Salmon Disease (<i>Saprolegni ferax</i>)	Mr T. Rae Bruce of Slogarie
...	Apr. 9th, 1884	6 Copper Coins	Mr D. Carnegie
...	" "	Large Mexican Silver Coin	Mr F. Armstrong

B O O K S .

Date of Deposit.	Name of Book.	Presented by
Oct. 5th, 1883	Catalogue of Antiquities in Brussels Museum	Mr J. Gibson Starke
Dec. 26th, ,,	List of Foreign Correspondents to Smithsonian Institution	Smithsonian Institu- tion
December, ,,	"Heart's Ease," 1682	Mr Roddick
Do. ,,	"Dying Thoughts," 1744	Do.

There are still in the hands of the Secretary a large Collection of Mounted Mosses and Lichens, presented by Mr M'Andrew; and in the hands of the President a Collection of Geological specimens, for which there is no room in the Museum at present. Nearly all the Books, which have been presented to the Society during the last two years, are in the hands of the Secretary, Assistant Secretary, and other Members.

