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No. 15.

THE TRANSACTIONS

AND

JOURNAL OF PROCEEDINGS

OF THE

DUMFRIESSHIRE AND GALLOWAY

Natural History and Antiquarian Society

FOUNDED NOVEMBER, 1862.

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COUNCIL 1898-99.

Hon. President.

REV. SIR EMILIUS LAURIE, Bart. of Maxwelton.

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MISS HANNAY.
MISS M. CARLYLE AITKEN.

CONTENTS.

PROCEEDINGS AND TRANSACTIONS

OF THE

Dumfriesshire & Galloway Natural History and Antiquarian Society.

SESSION 1898-99.

28th October, 1898.

ANNUAL MEETING.

Rev. Sir EMILIUS LAURIE, Bart. of Maxwelton, in the Chair.

Donations and Exchanges.—Year-book of the U.S. Department of Agriculture, 1897; Missouri Botanical Garden Report, 1892; Journal of the Elisha Mitchell Scientific Society, 14th year, 2 parts; Prehistoric Burial Places in Maine (Peabody Museum Papers); Proceedings of Academy of Natural Sciences, Philadelphia; Bulletin of the Geological Institute of the University of Upsala; Transactions of Stirling Natural History and Archæological Museum, 1897-98; Transactions and Proceedings of the Canadian Institute, 1897-98; Annual Report and Proceedings of Belfast Naturalists' Field Club, 1897-98; Composition of Maize (U.S. Department of Agriculture).

SECRETARY'S REPORT.

Dr Ross submitted his annual report for the year to 30th September. Twenty new members were added to the roll during the year. Eight resignations were received, and two ordinary members died. Eight evening and three field meetings were held. At the evening meetings fifteen papers were read and a number of interesting specimens shown. The latter included impressions of ancient seals, cut stones, French tricolor, assignat, autograph letters of the Duke of Wellington, an ancient sasine throwing new light on the history of the burgh of Annan, insignia of Dumfries, and a remarkably fine collection of pebbles and other stones, with some beautiful specimens of amber. The field meetings were to Sanquhar and Eliock, Cove Quarries, Kirkconnel Churchyard and Springkell, and to Birrenswark. At Eliock the society enjoyed the hospitality of Rev. Mr Veitch, and at Springkell that of Mr Johnson-Ferguson, M.P. At Birrenswark an opportunity was afforded, under the guidance of Mr James Barbour, of examining the very interesting excavations made by the Scottish Society of Antiquaries. The excavations at Raeburnfoot undertaken at the expense of this society, and with the consent of the proprietor and tenant, were brought to a most successful issue under the close supervision of Mr James Barbour, and formed the subject of a learned and interesting communication by him which appears in the transactions for the past session.

TREASURER'S REPORT.

The Treasurer (Mr J. A. Moodie) read his Annual Report, from 1st October, 1897, to 30th September, 1898:—

CHARGE.

Subscriptions from 153 Members at 5s each	£38	5	0
Do. ,, 7 ,, 2s 6d ,, ...	0	17	6
	£39	2	6
Six Subscriptions at 5s each paid in advance	1	10	0
Arrears of Subsciption paid	0	5	0
Life Subscription from the Right Hon. Lord Balvaird (now the Earl of Mansfield)	2	2	0
Entrance Fees from 12 New Members	1	10	0
Carry forward	£44	9	6

Brought forward			£44 9 6
Copies of Transactions sold			0 10 4
Amount of Subscriptions received towards the work of Excavating Roman Camp at Raeburnfoot ...	£11 5 0		
Less Expenses—			
(1) Wages of Workmen, and Outlays of Mr James Barbour, Architect, while superintending Excavations ...	£4 18 11		
(2) Amount paid for labour filling up Trenches	1 17 0		
		6 15 11	
			4 9 1
Interest on Bank Account			0 4 5
Balance due to Treasurer	£13 12 0		
Less Balance in Savings Bank	0 4 5		
			13 7 7
			£63 0 11

DISCHARGE.

Balance due to Treasurer at close of last Account			£15 11 8
Less Balance in Savings Bank			1 7 0
			£14 4 8
Paid Salary of Keeper of Rooms and additional Allowance for Heating Rooms during Winter Months			3 3 0
Paid for Stationery, Printing, &c.			3 2 4
Paid for Periodicals and Books			3 0 7
Paid for Coals and Gas			0 14 2
Paid Fire Insurance Premium			0 4 6
Paid for Repairs to Building			1 18 2
Paid Expenses of calling Meetings as follows :—			
Post Cards	£4 12 6		
Addressing same	1 2 0		
Printing same	1 6 6		
			7 1 0
Paid Expenses of publishing Transactions for last year, as follows :—			
Dumfries Standard for Printing Transactions	£24 17 0		
Postages of Transactions	1 6 9		
			26 3 9
Paid *Dumfries Standard* for Printing Library Catalogue ...			1 11 6
Paid Secretary's Postages and Outlays			0 6 10
Paid Treasurer's Postages and Outlays			1 2 0
Miscellaneous Payments			0 8 5
			£63 0 11

Account in connection with the Publication of "Birrens and its Antiquities," for the year ending 30th September, 1898.

Balance due to the Treasurer as at 30th September, 1897							£15	12 3
Less Copies of Book sold during the year, as follows :—								
15	Copies at 3s 6d each	...	...	...	£2	11 6		
10	,, 3s ,,	...	...	...	1	10 0		
1	,, 2s 11d ,,	...	..	...	0	2 11		
26							4	4 5
	Balance due to Treasurer...			...		...	£11	7 10

DUMFRIES, 28th December, 1898.—I have examined the foregoing Accounts and compared them with the Vouchers, and find the Balances stated to be due to the Treasurer to be correct.

JOHN NEILSON.

ELECTION OF OFFICE-BEARERS.

The following were elected Office-Bearers and Members of Council for the ensuing session: *President*—Rev. Sir Emilius Laurie, Bart.; *Vice-Presidents*—Mr James Barbour, Mr W. J. Maxwell of Terraughtie, Provost Glover, and Rev. J. Cairns; *Secretary*—Dr J. Maxwell Ross; *Treasurer*—Mr John A. Moodie; *Librarians and Curators of Museum*—Rev. Mr Andson and Mr James Lennox; *Curators of Herbarium*—Mr G. F. Scott-Elliot and Miss Hannay; *Council*—Messrs William Dickie, Matthew Jamieson, James Clark, James Davidson, W. J. Maxwell (Terregles Banks), J. M'Gavin Sloan, R. Murray, Mrs Thompson, Miss Hannay, and Miss M. Carlyle Aitken.

Exhibits.—Mr James Barbour showed (1) a circular stone from the neighbourhood of Birrenswark with indentations on two sides for finger and thumb supposed to be a hammer dating from the Stone Age, (2) from the Roman Villa recently excavated in Kent a piece of roof-tile with circular markings, tesserae from the floor, and part of a tile from the hypocaust.

PRESIDENT'S ADDRESS.

Gleanings from Family Records.

In the paper which I had the pleasure of reading before the Members of this Society some years ago, I took as my subject

"The Home of Annie Laurie." In that paper I made some remarks upon the family history of its present possessor, and I stated that the facts I mentioned were based upon authentic records. This led to the request that I would at some future time give further information upon the same subject; and this, with your leave, I now propose to do.

The family of which I am a member has, of course, as all families have, a double lineage; one on the father's, another on the mother's side. In our case we are descended on both sides from Protestant Refugees, and it is chiefly of that connection that I propose to treat.

Our paternal name of "Bayley" is neither English nor Scotch, but Flemish. It was an old tradition in our family that we were descended from a Protestant Refugee, who settled in the neighbourhood of Thorney in Cambridgeshire. It was also a tradition "that none of the family were ever engaged in any kind of trade;" they certainly lived as gentlemen; they brought with them their love of field sports; they associated with and married into the best families of the neighbourhood.

My father's brother, who was the genealogist of the family, gave most of his spare time to the investigation of the family history. The first discovery he made was of a French register of baptisms at Thorney, containing numerous entries in the name of de Bailleul, and in one instance of Bayley. In an entry of 1655 Philippe de Bailleul is named as a sponsor; this Philippe was our ancestor.

Philippe de Bailleul about the year 1650 bought an estate at Willow Hall, near Thorney, where he built a house, in which the family resided for several generations. Attached to the house were stables and granaries, remarkable for their height, size, and construction; which indicates that the land was used for grazing purposes, no occupation connected with the cultivation of a person's own land being considered as any disparagement to his nobility. Arthur Young, a well-known agricultural authority in the last century, writes in his "Travels" that "in Flanders the cattle are tied up and fed in stables all the year round, but kept scrupulously clean;" and was told that no practice was considered so wasteful as letting the cattle pasture abroad, from the loss of food which was spoiled, as also of manure, to which great value was attached. The nature and extent of the buildings at Willow

Hall would seem to shew that the same practice was adopted there; and pointed to Flanders as the country from which the de Bailleuls came. Further investigation proved this to have been the case. In 1565 Hector de Bailleul was Seigneur of Eecke and Steenvoorde in Flanders; his great-grandson was Philippe, the refugee. There seems to have been a double migration, first into France, and then into England. In 1598 Henry IV. had published the Edict of Nantes, securing toleration in France. On the other hand, the Inquisition was still in force in Flanders, and in all countries subject to Philip II. At the close, therefore, of the 16th century there was persecution on the Flemish side of the frontier, but toleration on the French. Eecke was only 10 or 12 miles from the French frontier; once across the frontier and the Protestant was for the time safe. At that time the de Bailleul family realised their property in Flanders, crossed the frontier, and settled in France. The period of safety, however, was short. In 1610 Henry IV. was assassinated by Ravaillae; and his son Louis XIII. reigned until his death in 1643, when his son Louis XIV. succeeded to the throne. Under Louis 13th persecution had been somewhat veiled; under the Grand Monarque it was bitter and unrelenting, culminating in the revocation of the Edict of Nantes in 1685. The well-known saying of Louis XIV. explains the situation: "My grandfather loved the Huguenots without fearing them; my father feared without loving them; I neither fear nor love them." It was shortly before 1650 that the de Bailleuls sold their property and took refuge in England, forming part of a Huguenot colony settled at Thorney. The colony consisted mainly of farmers and labourers, but one family consisting of four brothers belonged to an old and noble family in Flanders; they brought money with them, bought land, and lived on terms of intimacy with the county families around them. One of these brothers was Philippe de Bailleul. His grandson Isaac had three sons, from the second of whom, John Bayley of Elton, as the name had then become, we are descended. John Bayley married Sarah Kennett, granddaughter of White Kennett, Bishop of Peterborough in Queen Anne's reign, of whom more anon. I know little of this John Bayley except that he was 6 feet 4 inches in height, a great sportsman, kept foxhounds, was among the first to ride thoroughbreds to hounds, and spent a large fortune. His son, my grandfather, was for many years on the English bench, and I can remember seeing him try

five men for murder at the Carlisle Assizes. I remember still more distinctly his sending me £5 on my taking a double Remove at Eton. He had been at Eton himself. "You have gladdened our hearts," he wrote; "depend upon it a man's success in life depends almost entirely upon himself."

So much for our descent from the de Bailleuls, a family holding a high position for many centuries in Flanders, early adherents of the reformed faith, driven from Flanders by the persecuting tyranny of Philip II., and from France by that of Louis XIV., and finding safety and liberty in this country.

A few words now upon our maternal descent. At the period during which the family of de Bailleul was seeking freedom of conscience—first in France and then in England—there was living at Cormont, near Montreuil, in the north of France, a middle-class family named Minet. The first of the family of whom we have any authentic record is Ambroise; born in 1613, he removed to Calais, where he built up a large business. He seems to have been a general merchant. He was a distiller, he supplied the country round with groceries and drugs, he sold more tobacco than was sold within a hundred miles round, being the first who had from London an ingin (sic) for cutting tobacco square. He seems to have had the true commercial instinct, and wherever a demand existed he was ready to supply that demand. Spirits, groceries, tobacco, drugs, all were alike to him; he was the forerunner of the modern stores, the universal provider. But not only was he a man of business and a citizen of Calais, he was a member of the Reformed Church, a deacon of the church at Guines, near Calais, which he attended, and of which the accounts, with his autograph appended, are still in existence.

Curiously enough, in the diary of Bishop White Kennett, to whom I have referred as one of our paternal ancestors, there is an account of a visit he paid to France in October, 1682, the crossing from Dover to Calais having taken 17 hours. He describes his first Sunday there. "Went up by boat to Guines. A custom for the Protestants formerly to sing Psalms in the several boats, but of late forbidden by authority." Then follows an account of the service in the church at Guines. "The reader at some distance from the pulpit reads the lessons and sets the psalms, their sermons set off with eager repetitions and vehement expressions. The sacrament administered after sermon, the table placed under the pulpit,

fenced off with seats for persons of better rank. The bread divided in a dish, and the wine poured into two large cups. The two ministers consecrate and administer to each other; the communicants occupying the table in sets, receiving the bread and wine, and then making room for successive sets. Each minister received a salary of £100."

On the Sunday following White Kennett was an eye-witness of the marriage of Daniel, son of Ambroise Minet. His account of the ceremony is curious. "Several waggons with four horses in coach order to carry the guests to Guines. The bridegroom clothed in black the first day. Three couples married without any repetition of the office; a list of their names being read by the minister from the pulpit. At our return to Ardres a very solemn bride supper prepared, after which they danced till bedtime. On Monday the entertainment continued. The custom for the people at such solemnities to sit at table from eight in the morning till four in the afternoon with supplies of fresh dishes without any rising up, and with very small intermission from eating and drinking. The poultry dressed without larding, pigs roasted with legs on, and the spit run through the head without wiping." White Kennett seems to have been a curious and minute observer. He was a young man at the time; and the future Bishop may have objected as little to Sunday dancing as he did to the feast prolonged from eight in the morning to four in the afternoon.

It is not, however, from Daniel but from his brother Isaac, the 6th son of Ambroise Minet, that we claim descent. Born in 1660, he conducted the Calais business with success after his father's death up to the revocation of the Edict of Nantes in 1685. At that time the persecution had waxed hot. Isaac and his mother, who lived with him, were cast into prison. The President told him that he was "a heritick and smelt strong of fagots, and that if he did not sign to be a Roman Catholic he should be burnt." After six weeks spent in prison, his mother being seriously ill, they were carried by the dragoons to church, threatened as if they had been dogs, and prevailed upon to sign the adjuration, though protesting with tears that it was against their consciences to do so. Of this he afterwards bitterly repented and publicly confessed his sin.

An Adventurous Voyage.

For the moment, however, he was free, but rested not until he had made his escape. Isaac has left two narratives of his flight from Calais. He had arranged with a brother, who had already escaped to England, to send a boat to carry him and his family across the channel, fixing a place of meeting about two miles east of Calais at midnight on July 31st, 1686, having bribed the mounted guards to allow him to embark. His own party consisted of seven persons, viz., himself, his mother, his sister, her husband and his mother and their two children. There were six seamen. The boat was small, and on coming down to it, to their horror they found two farmers, their wives, and six children and their baggage already in possession. The seamen declared that should there be any wind the boat would sink, and the farmers were ordered out, though, as Isaac remarks, "much against stomach." So piteous, however, were their entreaties that a passage was given them, on condition that if the boat should be in danger of sinking they should be thrown into the sea; to which they answered that "if it was God's will they would submit to it, but hoped that God in his mercy would preserve them all." And he did so. I quote the closing words of the narrative :—"The riding "officers had of me 40 crowns, and so by the grace of God we set "sail, and the seamen rowed sometimes. About two hours after "we left the shore we spyed a sloop, and fearing the Dunkirk cruiser, "they spread a sail over all the passengers' heads, who layd down "in the boat, and the fine wind and weather being favourable we "landed at Dover about eight o'clock the same morning (August "1st), for which mercy I shall ever give thanks to God, it being "a very great deliverance. We were met on the shore by brothers "Ambroise, Jacob, and Stephen, and sisters Susan and Mary, full "of tears of joy in our eyes, and many more of our friends, who "received us as brethren saved from the great persecution."*

We have thus brought Isaac Minet to England. He was shortly afterwards naturalized, and joining the mercantile and banking house which his brother had founded at Dover, pursued a successful and honourable career; dying at the age of 85 in the year 1745; held in high esteem for his religious principles, his business

*The landing was effected on the Bulwark Rock, where now the South-Eastern Railway Station stands.

capacity, and the overflowing gentleness and kindness of his Christian character.

An original portrait of the refugee was long in possession of our family; it was until recent years hanging at Maxwelton, when it was handed over by my predecessor to the Minet family, as having a deeper interest in it than we could have. The scroll in the hand has on it the words "Rappel de l' edit."

I now touch briefly upon the link between our own family and that of the Minets. At the time of the persecution in the 17th century, to which I have been referring, there was living at Mulhausen, in German Switzerland, a family of the name of Vechter. They were members of the Reformed Church, engaged in manufacture; and, whether drawn together by business or religion, they became intimate with the French family of Minet. A son of the family, Jeremy Vechter, established a house of business in Rotterdam, and married Mary, daughter of Thomas Minet, eldest brother of Isaac the refugee. Mary's son Peter came over from Rotterdam as a lad in 1739 to be clerk in his great uncle's house at Dover. Isaac's son John had become rector of Eythorne, in East Kent, and an account is preserved of the expenses of his induction in 1723, and of providing him with a horse, saddle, feather bed, and wig; and also of some Havana snuff, of which he seems to have been fond. The Rector of Eythorne had a daughter Mary, to whom her cousin Peter became attached, and whom, after several refusals on her part, he married. Born in 1724, he survived until 1814. His portrait is at Maxwelton, as also that of his son John Minet Fector, my grandfather.

And this brings me to another link of the chain which unites the Laurie family with all these ancient worthies. I quote from a copy of the *Kentish Register* of 1794, which I lately unearthed. "February 18. In London, by special license, John Minet Fector, Esq. of Updown, Kent, eldest son of Peter Fector, Esq., of Dover, to Miss Laurie, only daughter of Sir Robert Laurie, Bart. of Maxwelton, member for the county of Dumfries." My father's marriage with their daughter, Miss Fector, completes the chain which unites the lines of Bayley (de Bailleul), Fector (Vechter), Minet, and Laurie. The families of both Fector and Laurie are now extinct in the male line, but in the female line they are represented by your humble servant.

For lack of better material upon which to found my paper, I

have given a succinct account of some of the sources to which our family traces its origin. Of course, there are other sources if we cared to deal with our English or Scotch lines of descent; but enough has perhaps been said to show what variety of blood has from time to time entered into our national life. In our own case, Flanders, France, German Switzerland, as well as England and Scotland, have been contributors; whilst the one bond which has bound all together has been the bond of the Reformed Faith. In one product of your Scottish industry much stress is often laid upon the importance of a judicious blend ripened by age. We need not, I think, be ashamed of the blend which I have been describing. Whether it has been ripened by age I will not say, it certainly has stood the test of years; and we, the descendants, may well be content to walk in the faith and follow the example of those who have gone before us. In tracing up the story of our family life one fact stands out in view, viz., that in a sense we owe much as a family to the tyrannical monarchs of France and Spain. Indeed, but for the persecution waged against the Huguenots our family would have had no existence, certainly not in its present form. But for Philip and the Inquisition, the de Bailleuls, rooted for centuries in the soil of Flanders, would certainly not have sold their ancestral possessions and crossed the border into France; and again, but for the persecuting spirit of the French king they would not have again struck their tents, and, crossing the seas, sought refuge in England.

Again, if it had not been for Louis XIV. the Calais merchant would not have crossed the channel to Dover. He was carrying on a thriving business in France; he evidently clung fondly to his native land; but bonds and imprisonment compelled him to act upon our Lord's maxim, "When they persecute you in this city, flee ye into another;" and thus a second Huguenot family, driven from its own land by the wicked policy of a short-sighted intolerance, found a home in England. Whilst again, if the banking house had not been established by the refugees in Dover, the son of the Mulhausen manufacturer would never have been sent to make his fortune there; for the house, to the headship of which he rose, would have had no existence. And, to carry the sequence one step further, but for the modest but fructifying fortune which he left Maxwelton would have been sold to pay the ruinous calls of £2600 per share, on the failure of what Burns called "that villain-

ous bubble," the Ayr bank, in 1772. Three-fourths or more of the property was sold; but through the urgent advice, and, no doubt, assistance of the Dover banker, a residue was preserved; and in later years, out of the fortune which he bequeathed, some of the lost portions have been redeemed and restored to the old estate.

What curious links are sometimes evolved in the chain of cause and effect! Thus, when Louis XIV. put his signature to the Act of Revocation he unwittingly helped largely to found a new family, and to secure its modest prosperity in the land to which his tyranny had banished it. But he did far more; the influence of his act was world-wide. He put an end in France, for a time at least, to freedom of thought and liberty of worship; he inaugurated an epoch of mental stagnation, political depravity, religious hypocrisy, and moral decay. Protestantism was crushed out, Jesuitism was triumphant; and the reign of bigotry was followed at no distant date by the reign of terror, and the horrors of the Revolution; a Revolution which, beginning in 1789, has not, as it would seem, yet run its course.

This is not the place to dwell upon the fortunes, or rather the misfortunes, of France, which were largely consequent upon the expulsion of the Huguenots; but it is certainly a remarkable fact that since the time of Louis XIV. no ruler of France has, with two exceptions, died upon his throne. The fate of Louis XVI. and of his son is well known. Louis XVIII. died indeed upon the throne, but it was after long years spent in banishment. Charles X., his brother, died in exile; as also did Louis Philippe, who supplanted him. The Duc de Berri, son of Charles X., was assassinated, and his son, the Count de Chambord, the last of the elder branch of the Bourbons, lived and died a stranger to his own land. The fate of the two Napoleons is, of course, familiar to us; and who can say where the headship of that great nation at present resides, in the army, in the mob, or where?

We need only turn to the Huguenot dispersion to see how different has been the fate of the Refugees and their descendants. From the first their prosperity has been very marked; and whether as soldiers or sailors, as lawyers or physicians, as men of science or men of business, they have contributed their full share to the wealth and progress of the countries of their adoption. We are apt to boast perhaps too much of our Anglo-Saxon origin: the root stock may be Anglo-Saxon, but it had been largely recruited from

other races ; and I venture to believe that not the least valuable of this foreign blood has come from Huguenot sources.

Nor was it only that the refugees brought with them their skill and their industry ; they brought with them that which was far more valuable, their enlightened faith and their well-tested piety. It was the saying of one of them—"Ne sommes point venue de race illustre et noble. Sy est ce que nous sommes venue, Dieu merci, des gens craignans Dieu." Our family, as we have seen, owes its constitution to the fact that our ancestors feared God rather than man ; moved by that fear they went forth and found refuge in a foreign land. Nor is it undeserving of notice that when, a century later, numberless emigrés, priests and nobles, escaping from the horrors of the Revolution, flocked to our shores they received a ready welcome and substantial help from the descendants of the Huguenots ; foremost amongst whom were members of my own family. "There can be no pleasure," writes one of them, "equal to doing good, and particularly in assisting the stranger."

Nor is this all. When at the peace of 1814 the Emperors of Austria and Russia and the King of Prussia visited England, and Louis XVIII. quitted it on his return to France, my mother's father occupied a position which enabled him to open his house in Dover to those great Potentates : the humble descendant of the Huguenots thus overcoming evil with good, offering hospitality to the long-banished descendant of their cruel persecutor. Some funny stories of that "time of the Emperors," as it was called in the family, have come down to us : as that of the Russian servants drinking all the oil in the lamps, and leaving my grandfather's house in darkness ; and that of the uncouth dress and strange language of the Emperor Alexander's coachman nearly killing one of the domestics with fright, in the belief that he was the embodiment of Satan.

Another fact may be mentioned in this connection, and one not without some small historical interest. I had heard or read that Louis XVIII., when he embarked at Dover in 1814, was so infirm that he had to be carried on board the yacht which was to convey him to France. I asked my mother's sister, Miss Fector, then a child of ten, whether this was the case She answered "No. I was standing with my arm over the rail of the gangway when the king walked down it. The Prince Regent came up the gangway

to meet him. Both were infirm. One placed his hand on mine to steady himself. The other leant with his hand upon my shoulder, so that France and England met on my small personality."

This "small personality" survived until 1892. She was the last of the Huguenot descent to whom I will refer, and her life was an embodiment of some of the most typical features of Huguenot character. Of clear and sharply defined Evangelical principles, simple in her tastes and habits, unselfish, unworldly; with an income of some £1500 a year, she spent about £200 upon herself and gave the rest away, but she left nothing in charity at her death, holding that charity at the expense of others is little worth. She was proud, if I may use the word, of her connection with the Laurie family, leaving it as an instruction that in the notice of her death it should be mentioned that she was "niece of Sir Robert Laurie of Maxwelton." But her fullest sympathy was given to her Huguenot ancestry, or rather to the faith for which they suffered, and in which they lived and died. Sure I am that had she lived under Louis XIV. no power on earth would have made her sign a recantation of her faith; it held her, and she held it, with a grip which nothing could shake; an example not without its lesson for us in these days of easy-going Christianity.

Such, then, are some few gleanings from Huguenot story, so far as it bears upon the fortunes of our family. They may teach us to value the civil and religious liberty which was won for us by our forefathers; they may teach us to think more highly than some do of that deposit of truth which they handed down at the cost of so much suffering; they may teach us to hold fast our heritage of a free gospel and an open Bible; they may teach us, in a word, to "stand fast in the liberty wherewith Christ has made us free."

18th November, 1898.

Mr ROBERT MURRAY in the Chair.

New Members.—Mr James Hobkirk, Netherwood; Mr Robert Connor, Dumfries.

COMMUNICATIONS.

1. *The Botany of 1898.* By Mr JAMES M'ANDREW, New-Galloway.

I am sorry that my contribution to the Flora of the South-Western Counties must this year consist of only a very few brief notes. Numerous new records of plants cannot now be reasonably looked for in the district.

The Rev. H. M. B. Reid, Balmaghie Manse, showed me a large clump of *Sambucus ebulis*, L., near Balmaghie Church, close to the side of R. Dee. I question if this plant—the dwarf Bourtree or Danewort—is found elsewhere in Kirkcudbrightshire.

Wigtownshire.—For the new records of plants for Wigtownshire I am indebted to the Rev. James Gorrie, F.C. Manse, Sorbie. These are :—

1. *Ranunculus auricomus*, L. (goldielocks), near Newton-Stewart, in meadows by the R. Cree.
2. *Pyrus aria*, L. (service tree), Castlewig.
3. *Cichorium intybus*, L. (chicory), near Garliestown.
4. *Mentha sylvestris*, L. (horse mint), Barglass.
5. *Ulmus montana*, Sm. (wych elm), Sorbie.

I found the filmy fern, *Hymenophyllum Wilsoni* (Hook), in Knock Bay, Portpatrick. This fern is very scarce in Wigtownshire.

Cryptogams.—New records of mosses are as follow :—

1. *Andreæa falcata* (Schpr.), Grennan Bank, Dalry.
2. *Hypnum intermedium* (Wils.), at Bogue, Dalry, and on Cairn Edward Hill, New-Galloway.
3. *Eucladium verticillatum*, L., Portpatrick.

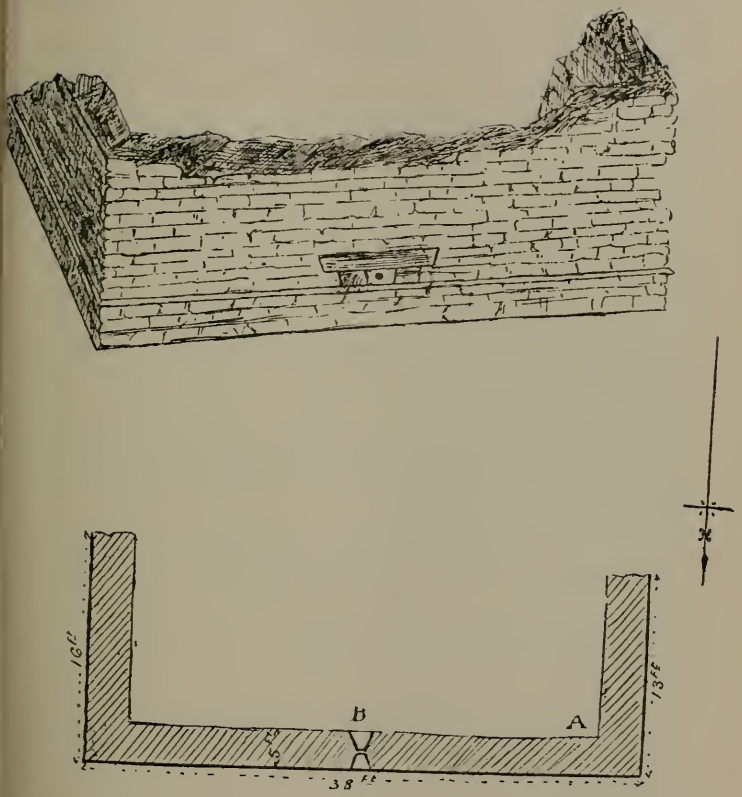
New records of Hepaticæ are :—

1. *Radula Lindenbergii* (Gottsche), Knocknarling Burn, New-Galloway.
2. *Lepidozia Pearsoni* (Spruce), in plenty on the north side of the Black Craig, New-Galloway. This hepatic has also turned up in Moidart, Inverness-shire.
3. *Hygrobiella laxifolia* (Hook), in Lowran Burn, New-Galloway.

Also a new species of Lichen, *Pannularia perfurfurea* (Nyl), from Burnfoot Hill, New-Galloway.

2. *The Old Hall of Ecclefechan* (*Kirkconnel Hall*). By Mr GEORGE IRVING, Corbridge on-Tyne.

When at Ecclefechan a few weeks ago my attention was called to an old wall at "The Ha'." I went and examined it, by the kind permission of Mr Wilson, the present occupier of Kirkconnell Hall. I found the wall all covered with ivy, climbing roses, and other greenery, and included in the grounds attached to the present residence. The part now standing is the North side, measuring 38 feet; part of the West side, measuring about 13 feet; and part of the East side, about 16 feet. The South and remaining parts of the West and East walls are gone, and now covered by the lawn, but I have no doubt, by digging, the whole extent of the walls of this old Tower might be ascertained. The existing walls are about 10 feet high and 5 feet thick, built of good, large blocked rubble of Brownmuir stone. There is a six inch plinth of the softer red sandstone of Corsehill or Kirkpatrick. The part of the North wall still standing is in good repair and shows very good workmanship. The outer stones of the West wall have nearly all been "skinned" off. I have ascertained that during the absence of Dr Arnott with the Army his mother sold the stones of the old Tower. When I write of Dr Arnott, I refer to the well-known and greatly respected surgeon of the 20th Regiment, and personal medical attendant of Napoleon at St. Helena, where the Emperor died. There are signs in the interior that it had the usual vaulted chamber, and in one corner, marked (A) on plan, signs of a spiral staircase. At point (B) on plan there is an opening through the wall to the North to let in light and air



The Ruins of the Hall of Ecclefechan.

to the vaulted chamber, and also for defensive purposes. The plinth is about 3 feet from the present surface of the ground on the North side, but in the interior, where it has been levelled up for the lawn, it is only a few inches. No doubt this is the original "Hall of Ecclefechan," which stood on certain lands "pertaining to Kirkconnell." Very curiously, no notice is taken of this tower in any of the Gazetteers of Scotland, nor is it figured on the old Ordnance Survey. In the original Valuation Roll of 1671 these lands are described as the "Ten merkland pertaining to Kirkconnell." In the Roll of 1827 these lands appear as divided up among a good many owners. Thus, "Dr Archibald Arnott, Hall of Ecclefechan, part of Kirkconnell," and about 33 other owners whose holdings are all described as "part of Kirkconnell," and appear to have included the whole of the East side of the Ecclefechan Burn, from Cowthat to Cressfield and Grahamshall.

On the old Dwelling House adjoining, apparently built about the begining of last century, there is cut over the doorway in strong Roman letters,

MDCC. WK. SJ. XXXV.

On the window head, but reversed the wrong end up,

WK. SI. 1738.

And on another window, again reversed,

JJ. WK. SJ. 1724.

Though the form of the letters are old, they seem from the clearness of the edges as if some "Old Mortality" had renewed their looks.

My difficulty is to shew how the place came to be called Kirkconnell. The Irvings were Lairds of Kirkconnell, now Springkell, and their lands appear to have extended through part of Middlebie to Ecclefechan. The Irvings of Woodhouse and Bonshaw, we know, took in all the land on the west side of the burn. It is well known that the Kirkconnell, now Springkell, estates were sold to the ancestors of Sir J. Maxwell in 1609, and that the Irvings of Kirkconnell moved to the Hall of Ecclefechan.

William Irving of Kirkconnell died in 1706, aged 80 years. He would be born 1626, or about 17 years after the Maxwells

acquired Springkell. William Irving left a son named Herbert, who died in 1709, aged 60 years. Herbert and Janet his wife left a daughter, Sarah. Sarah married William Knox. They had an only daughter, Janet Knox, who married in 1754, according to the session records, George Arnott. George Arnott and Janet Knox were the parents of Dr Archibald Arnott, who died in 1855 and is interred in Ecclefechan Churchyard. Now, if we turn to the initials upon the window sills what do we find? 1724 we find the initials of Janet Irving, William Knox, and Sarah Irving; 1735, William Knox and Sarah Irving; 1738, William Knox and Sarah Irving. The above is, I think, a fair interpretation of the inscriptions upon the old house, and is supported by the inscriptions upon the tombstones in Kirkconnell and Ecclefechan churchyards. The property still remains in the possession of the Arnott family. It is said that the first Arnott came to Ecclefechan from Fife to manage some linen works — a flourishing industry early last century. It is recorded that when he married Miss Knox it was before a Magistrate, and that they were summoned before the Kirk-Session and censured for irregularity and fined ten shillings and sixpence. It was apparently not convenient for the young couple to pay cash, so the bridegroom granted a bill. Unfortunately there is no mark or date on the Tower to shew when it was built, but it is of precisely the same type as the other Border Towers in the district. I have said that Kirkconnell was held by an Irving, and in those days it was customary, and to some extent still is, to name the Lairds by their lands, and *vice versa*. Now what would be more common than to say it was Kirkconnell's Land or Bonshaw's Land?

In the same old valuation we have the Hoddom estate described as "pertaining to Southesque," just the same as the "Ten merkland pertaining to Kirkconnell." Kirkconnell was the familiar title of the Laird of that Ilk. All this, I think, justifies me in saying that the proper name for this old Border Tower is the Hall of Ecclefechan. The name Kirkconnell Hall applied to the present residence is quite a modern name—no doubt adopted by Dr Arnott from the early associations of his mother as a descendant of Irving of Kirkconnell.

Mr William Johnstone, formerly schoolmaster of Hoddom, in his "Bard and Belted Knight," says its ancient name was Tyre-

connell, but gives no authority for it, except Graham, "The Bard of Milk's" poem, "The Fall of Tyreconnell."

I have stated that the Laird of Kirkconnell's land extended through part of Middlebie into Hoddom. The name of these lands was Blackwoods or Blacklands, one moiety of which belonged to the Laird of Kirkconnell, and the other to the heirs of Herbert Irving.

It would be interesting if some one having access to the old deeds of the lands "pertaining to Kirkconnell" would look this question up.

According to the tombstones in Kirkconnell Churchyard one of these reads:—

Here lyes William Irving of Kirkconnell, who departed this life August 10th, 1706, aged 80 years.

Here lyes also Herbert Irving of Kirkconnell, who departed this life Feby. the 27th, 1709, aged 60 years.

Erected by Janet Irving, relict of Herbert, and Sarah Irving, their daughter.

Here lyes Rosina Knox, daughter to William Knox and the said Sarah Irving of Kirkconnell, who departed this life June the 24th, 1722, aged 3 years; also their son George, who departed this life April the 14th, 1727, aged 10 days.

IN MEMORY OF

Janet Knox, only daughter of Sarah Irving of Kirkconnell, and Spouse to George Arnott, who died the 22nd day of December, 1796, aged 67 years.

This emblem may to all disclose
That beauty withers like a rose;
We live and die within an hour,
And quickly pass like any flow'r.

Also George Arnott of Kirkconnell Hall, husband of the above Janet Knox, who died there in May, 1801, aged 80 years.

And John Arnott, their son, who died at Kirkconnell Hall, the 17th April, 1830, aged 61 years.

Also Margaret Oswald Arnott, their daughter, who also died there the 28th May, 1840, aged 83 years.

Also Catharine Shorte, relict of the above John Arnott, who died at Kirkconnell Hall, 13th Feby., 1873, aged 93 years.

IN MEMORY OF

George, son of George Arnott and Janet Knox of Kirkconnell Hall, who died at Ecclefechan, on 24th Feby., 1829, aged 65 years.

Also of Elizabeth Murray, his wife, who died at Greencroft, Ecclefechan, on the 3rd of March, 1864, aged 82 years.

The above George Arnott was a brother of Dr Archibald Arnott, who was interred at Ecclefechan. The following is a copy of the inscription on his tombstone:—

SACRED TO THE MEMORY OF

Archibald Arnott, Esq.,
Kirkconnell Hall.
Born 18th April, 1772.
Died 6th July, 1855.

Dr Arnott was for many years Surgeon of the 20th Foot, and served in Egypt, Maida, Walcheron, throughout the Peninsular War, and in India.

At Saint Helena he was the Medical attendant of
Napoleon Bonaparte,
Whose esteem he won, and whose last moments he soothed.

The remainder of his most useful and exemplary life he spent in the retirement of his native place, honoured and beloved by all who knew him.

"The Memory of the Just is Blessed."

Dr Arnott was presented by Napoleon Bonaparte with a gold snuff box, enclosing a cheque, with the letter N engraved upon the lid by his own hand. This precious relic is still in the possession of his heirs.

On each side of the front entrance to the modern mansion house, called Kirkconnell Hall, there is a fine specimen of the old Creeing trough, now utilised as flower vases. They are about two feet high and about one foot six inches in diameter.

In the dining room is a fine sideboard, made out of an old black oak chest that belonged to the Arnott family.

Mr Wilson is also the possessor of a very unique old carved black oak cradle, on which is carved on a small panel round the figure of an Angel, "East West Hame's Best." This, however, did not belong to the Arnott family.

It would not be right to close these notes without referring to the "Ha' Ghost" This mysterious apparition seems to have haunted the place from the distant past, and whose mysterious and noisy demonstrations have from time to time disturbed the residents. It is said to make its appearance before and at the time of the death of any member of the family.

3. *The Douglas Tomb at Hampstead.* By Dr E. J. CHINNOCK.

In looking over the old Churchyard of Hampstead, in the north-west of London, I came upon an old tomb lying shattered, but with the pieces placed together. The inscription is as follows:—

"This stone is erected
in memory of
Charles Douglas,
brother of
Sir John Douglas
of Kellhead,
in the County of Dumfries,
North Britain,
who died the 13th of December, 1770,
aged LX."

Above the inscription is the Douglas coat of arms.

On consulting Burke's "Dictionary of the Peerage and Baronetage" I find that Charles Douglas of Brecouwark married a Mrs Young, but died without issue, on the 13th December, 1770. This, no doubt, is the person buried in Hampstead Churchyard. This Charles Douglas was the third son of Sir William Douglas, the secoud baronet of Kellhead. He was one of thirteen children, ten sons and three daughters. His brother's grandson, Charles, the fifth baronet of Kellhead, became the 5th Marquis of Queensberry in 1810, on the death of the 4th Duke of Queensberry ("old Q."), and the present Marquis, the 8th, is descended from him.

16th December, 1898.

Mr JAMES BARBOUR, Vice-President, in the Chair.

Donations and Exchanges.—Proceedings of Natural Science Association of Staten Island; Was Middle America peopled from Asia? By Prof. Edward Morse.

COMMUNICATIONS.

1. *Rod-Fishing in the Nith.* By Rev. H. G. J. VEITCH of Eliock.

One man's hobby is often another man's aversion. My hobby would therefore never have been trotted out before you unless I had been asked to show his paces.

Well, it is an ancient art, and some of you who have studied Egyptian antiquities may have missed the records of the manner of fishing for crocodiles in the Nile in the days of Herodotus.

It was as follows:—They took a nice little pig and "put him round a hook." Then they took with them a small live pig, and beat him and pulled his tail to make him squeak. Then when the crocodile, attracted by his cries, approached the bank, they cast in the little dead pig that was "round the hook." The crocodile, having swallowed the bait, was played as we now play a salmon, and either lost or brought to the basket, as the case might be.

But this was rough fishing. Rod-fishing now-a-days has become a science and an art. To be an expert there must have been long study of entomology. The various flies and their seasons, the different kinds of worms (would that someone would find me a breed that would squeak to attract the trout!), the innumerable creeping, crawling, and swimming creatures which inhabit the water, and on which trout and salmon feed, open up a field for life-long scientific enquiry.

But rod-fishing is also an art. There is no other which so enthrals its devotees. An old friend of mine puts this most pointedly.

"It is a grand sport, a noble sport; it is the only sport of which it can be said that the man who can wander about the riverside in thunder, lightning, hail, rain, wind, and snow, or sit all day without bit or sup on a wet sod, in a cramp-inviting

position, surrounded by a fog thick with influenza, asthma, and rheumatic gout, is the same man who cannot be induced to go to church because the pews are uncomfortable."

But rod-fishing is an art. Why should we deny to it that which we grant to all other arts? The poet, the painter, the architect, can never rise to eminence unless he be highly gifted with the faculty of imagination. Why, then, if I, an angler, tell you how I caught twenty salmon in the Nith in one hour with a trout rod, should you suggest mendacity? Put it down to exuberant imagination. Anglers are hurt when they are denied the exercise of that faculty which, believe me, they possess in quite as large a measure as poets or painters.

But my subject is Rod-fishing in Nithsdale. The Nith rises in Micklehill, and flows as a burn to New Cumnock; there it is joined by the Glen Allan water; increased in volume it rests in long, quiet lanes, and ripples over gravelly shallows, till, having received the waters of Kelloe, Crawick, and Euchan, it becomes a river, and having made a great bend round the old grey ruins of Sanquhar Castle, plunges into the rocky gorge from Eliock to Drumlanrig. Below Thornhill bridge the river is less rocky, and by many gravelly streams it flows with willing sport to the wild ocean.

Now, rod-fishing is supposed to be the contemplative man's recreation. Recreation it is, and one of the most seductive; but "contemplative?" Did you ever see a man wading deep in some rocky stream, waving his rod frantically, and straining every nerve and muscle in his endeavour to reach the distant salmon, or the trout rising by that big rock on the far side? Did you ever see him when he had got out every inch of line that he could cast, hook the top of a fir tree behind him, or the thorn bush opposite to him? Did you ever hear what he said on such an occasion? Did he look contemplative?

The truth is that rod-fishing on such a river as the Nith is very hard work, and he who would rise to eminence in the art must possess muscular strength, a good temper, patience, keen powers of observation, and, as I said before, imagination in a high degree. You would not, I fancy, care to listen to a long disquisition on the various kinds of rods which are at present in use, nor the vast variety of tackle, and the innumerable species of flies which are turned out by the tackle makers. All I would say is,

if you would go a fishing, let your tackle be of the best (good tackle is far cheaper than bad in the end, no matter what you pay for it), and your rod suited to your strength and the water you are going to fish.

When rod-fishing was first practised on the Nith I know not. I have a rod, and not a bad one, which belonged to my grandfather and must be getting on to a hundred years old, and I had some salmon flies which must have been some hundred and fifty years old. They were mounted on thick, twisted horsehair, were much of the same colour as those now in use, but were of a strange and weird shape, and I feel sure that a salmon of to-day with any self-respect, were he to see one in the water, would turn and flee to the Solway, and bury himself in an agony of fear in some thick bed of weeds. These flies were kept as a curiosity, but some time ago, when I went to look for them that they might accompany this paper, I discovered that the rats had eaten the horsehair and the moths had eaten the feathers.

Many people look upon rod-fishing as an amusement, which is all very well for those who like it. Some ladies look on it as a most useful way of getting rid of their husbands when they are troublesome, and will suggest that the water is in good order, and that they would like some trout for dinner, or for breakfast next morning. The husband who is fishing is considered safe—he cannot get into any mischief, so they think. But few think of the enormous value of rod-fishing as a recreation for overworked men. The hard-worked mechanic, who has toiled week after week in workshop or factory, whose muscles have been strained to the utmost, whose lungs are full of smoke and dust, is a better man, morally and physically, for a few days' fishing in one of our lovely glens. The air of the hills and moors is like champagne to him, and the little stream (if he will but hearken) makes music for him such as he can hear in none of his city haunts.

But it is perhaps to the overwrought brain worker that rod-fishing affords the greatest recuperation and rest. The professor who has burnt the midnight oil too much, the doctor, the lawyer, the clergyman, whose patients and clients and parishioners have sorely tried his powers and his patience, becomes a new man when for a few days, having clothed himself in some well worn old suit of fishing garment, he casts off care and worries and wanders, rod in hand, by some rippling stream. The wooded

banks of the river, the heather-clad braes of the burn, and the the great round hills sweeping down in every imaginable curve, speak to him with a still voice, which only some can hear. The beauties of nature lead him up to nature's God, and to thanksgiving for this fair world and our power to enjoy it.

But there is another view of the subject. Very few people have any idea of the economic value of rod-fishing to Scotland. The rents that are paid for salmon fishing, and the rents that might be paid for trout fishing, were it cared for as it should be, would amount to an enormous sum, and by far the greater portion of the money would go to makers of fishing tackle, water bailiffs, river keepers, and gillies. The breeders of trout, the makers of flies, the diggers of worms, &c., &c., would be multiplied, and all their families would be better fed and cared for. The deterioration of rod-fishing in many, very many, of our rivers is therefore much to be lamented. All this applies strictly to the Nith. When I was a boy I could catch many more trout in the Nith than I can catch now, with all my increased experience and skill.

When my father was a boy, he and his brothers could fill their baskets in the Nith and the burns which flow into it so easily that they left off fishing because they could carry no more. Why is it the fishing has degenerated? First and foremost, because so large a portion of spawning ground has been utterly destroyed, or rendered so dangerous to the eggs, that few or none come to any good.

The draining of hill farms has entirely altered the character of our burns. You probably know that trout run up the burns to spawn. They pick out some nice gravelly shallow on which to lay their eggs. They are generally all laid before Christmas, and come out in the end of February or March. Now, before the days of sheep drains, the rain sank into the moss as into a sponge, the burns rose slowly, and fell slowly to their ordinary level. But now a few hours' heavy rain sends the burn down, roaring round rocks, and tearing up the gravel, destroying the eggs, or the little fish which have just come out of them, and so working utter ruin with the year's spawn.

2nd. There is a pollution from factories and coal-pits. On certain days the upper Nith is quite ruined for fly fishing. It does not always kill the fish, but it makes them so unwell that they will not rise.

3rd. There are now-a-days probably twenty anglers for one who fished fifty years ago, and the trout have become so highly educated that the young ones are taught to distinguish not only between the natural fly and the artificial, but between the different patterns of the artificial. An elderly trout lying in some nice little eddy points out to her pupils the distinguishing marks of English and Scotch flies, and sometimes when some lovely work of art floats over them, a perfect dream of beauty in tinsel and silk and feathers, unhesitatingly names the artist from whose hands it came, and points out that these are vanities to be severely left alone by all right-minded little trout!

No wonder, therefore, that our baskets are not so heavy as they used to be, and that in spite of our finer tackle, and more exact imitation of the natural insect, we are becoming a laughing stock to well-educated trout. But as no man is wise at all times, so no trout is safe from making an occasional mistake, and the increased difficulty of catching trout adds to our pleasure when we do succeed.

One other cause there is for the decline of rod-fishing which I have not mentioned, that is poaching with nets. I do not know whether that evil practise exists on the Nith, but on the Clyde and rivers of like character it has ruined rod-fishing.

But it is with regard to salmon that the falling off of rod-fishing is the most serious. When I was quite a boy, I knew well an old fisher in Sanquhar, who told me of wonderful catches of salmon which he had made long before I was born. Of course it is possible that he added a little to the numbers and weight of fish which he had killed. But the legislation of past years with regard to salmon has been against the rod fisher and in favour of the nets. Those who have framed the various Acts relating to the subject have many of them been altogether ignorant of the life history of the salmon. The upper proprietors of our salmon rivers who own the streams in which salmon spawn have been ignored, and the net fishers have got it all their own way. The cry has been that net fishing was a great industry, and that any reduction of the time during which their nets were allowed to work would reduce their earnings, and what was worse, would reduce the food supply of the people. Can you understand the sapient legislators being led away by such a cry as that? Salmon the food of the people! How many of the people ever taste a bit of salmon from

one year's end to another? Salmon is a luxury, and unless considerable alteration is made in the laws which regulate its capture it will become a more expensive luxury as years go on. Rod-fishing on the upper portions of many of our rivers has been ruined. Few fish get up till quite late in the season, and we upper proprietors, who are told that we have been most generously treated, in that while the poor net-fishers are not allowed to fish, we are allowed to wield our rods for some six weeks and more after the nets are off and have the chance of killing a fish or two heavy in spawn, or black and utterly unfit for killing.

Yet it is in the upper waters that the eggs are laid and the fish reared. Can you wonder that upper proprietors cease to care for the preservation of salmon and the watching of spawning beds? Someone may say that the Board of Conservators put on a watcher for the upper waters, but how many miles of river has he to look after? Can he prevent salmon being killed on the spawning beds, or kelts being killed for salting? Give the upper proprietors a chance of a fair share of the fish hatched in their waters, and then they will take an interest in the preservation of the fish, and some would begin to rear salmon to stock their waters. It is my private opinion that if the nets were off for three days in the week the upper proprietors would find it worth their while to cultivate salmon, and in a few years' time net-fishers at the mouth of the river would get many more fish than they do now.

It may perhaps seem to you that I am taking a very pessimistic view of the prospects of rod-fishing, but really I have hopes. There is a stir being made in the matter of trout-fishing in Scotland which will bear good fruit if anglers will support it.

Meetings have been held in Edinburgh lately, with the object of establishing a National Association, which if carried out will go a great way towards improving the trout-fishing in our rivers; and if we could get the shepherds on our side, and make it worth their while to watch the burns and spawning beds on their respective beats, and get proprietors to do a little artificial rearing of trout, a very marked effect would soon be produced.

It is some thirty-five years ago that I began the artificial rearing of trout, and it is so easy that any intelligent man might be taught in a few lessons to take the eggs and impregnate them and place them on some gravelly shallow, or in boxes in some

little run from a good spring, where they would be safe from floods. Of course the percentage of fish reared would not be nearly so large as if the eggs were placed in a regular hatchery under cover, but it would be much larger than that of eggs laid by the trout on beds which might be left high and dry one day and the next torn up by some sudden flood.

My special love for the Nith may, I think, be traced to the fact that more than fifty years ago I caught my first trout with rod and line in it, just where Mennock burn pours its crystal clear water into the river. Probably the little trout was not more than a few ounces in weight, but to me it was a monster, and though since that day I have killed salmon in the Nith and monsters in Norway, I have never felt such a thrill of triumphant joy as the capture of that little trout gave me; and though I am growing somewhat old, and the trout-fishing is poor, I enjoy a day on the Nith more than any other river that I know. The stretch of water from a little below Sanquhar to Thornhill bridge is charming to the eye of the artist and the angler, and brings to me old memories, some joyous and some sad. In that stream I once made a good basket—behind that rock long years ago I caught that big trout, here I fell into the water and had a hard fight to get out, there I parted from an old friend whose cheery voice I shall never hear again, and though the wading of rough streams is no longer a delight to me, and the sudden and unexpected sitting down on a hard rock (it seems to me that rocks have got much harder of late years) is a positive pain, I still love the rocky streams and wooded banks of Nith, and would gladly see the fishing restored to something like what it was long years ago.

I have just come across an article in one of the papers which reminds me that Frank Buckland, when appointed one of the commissioners of fisheries, expressed a hope that by wise legislation salmon might become so much more abundant that it might be sold at sixpence a pound, and really become food for the people. Had he been invested with sufficient power to carry out his schemes, it is probable that our supply of salmon would have been much increased. But popular prejudice and vested interests were too strong for him, and I know that he was sorely disappointed at the failure of his efforts, for the good of both upper proprietors and net-fishers.

The past season has been a bad one both for rod-fishers and netters, but there is little real hope of satisfactory amendment till the net-fishers learn that it is to their advantage that a larger number of salmon should be allowed to go up the rivers to lay their eggs, and should combine with upper proprietors to fight manfully against pollution whatever form it may take.

You may perhaps think that I have strayed a good deal from my subject and have treated the matter too generally. But every word refers to the Nith as much as to other rivers. If trout are scarce and salmon absent till too late in the season there can be no good rod-fishing, and I feel sure that if you are not anglers yourselves, you would be glad to see your poorer brethren and your fishing friends get better sport than they do now.

This brings me to a very much vexed question; that is Free Trout-fishing. There are some who assert that trout-fishing in Scotland is free, and many who think that it ought to be. You probably know that there is no such thing on the Nith, nor on any river that runs into the Solway. The Solway Fisheries Act is very stringent, and the penalties for rod-fishisg in any water without the permission of the proprietor are heavy. But a great part of the Nith can be fished by ticket from one or other of the angling associations for a very small sum. Therefore practically a large portion of the river is free to all who will conform to the rules under which the tickets are issued.

Free trout-fishing as some understand it—that is, that every-one should have the right to fish wherever he pleased—would very soon complete the ruin of our fisheries. Something which happened to me a few years ago opened my eyes to the danger of free-fishing. I was in the habit of giving leave freely to all who asked for fishing in my waters. One man, to whom I fancied I might safely give unlimited leave, was found with his pockets full of pheasants' eggs, which he picked up in coverts by the waterside. A right of free fishing would give to evil men the opportunity of collecting the eggs of grouse and black game to such an extent that the moors would be denuded of game. A whole army of keepers would not be able to protect them.

It is my earnest wish that our rivers and streams should be thrown open as much as possible to hard working men who fish legitimately; and if they would band themselves together against the poacher, and all illegal methods of capturing trout and salmon,

and help a little to restock our waters, and refrain from killing undersized fish, their baskets would year by year contain better fish in greater numbers. A fishing holiday would then be not only a source of enjoyment and health, but would be rewarded with a basket of trout fit to be taken home to the wife and bairns.

May I be permitted to give a piece of advice to the wives of anglers? If your spouse comes home with an empty basket do not jeer at and flout him. It is not given to every angler always to command success. If he brings home trout much larger than any that are to be found in the stream which he has been fishing do not suggest that he has paid a visit to the fishmonger on his way home, because even should he have done so he may still say he caught them, and at all events he has shown a desire to please you. He may say he caught them, for there is a story told of a Yorkshire angler who, returning with an empty basket, seeing some very fine trout reposing on a fishmonger's slab asked the price, and, finding it reasonable, astonished the fishmonger by asking him to throw him half-a-crown's worth. He caught them one by one in his hand and deposited them in his basket. He could then truthfully tell his wife that he had caught them all himself.

I would suggest also that it is wise of the wife to sympathise with her husband and pretend to believe in the enormous size of the trout which he has lost during the day. It pleases him and does not hurt anyone.

Let me conclude this very rambling paper with an apology for a mistake which I have made on the first page. I there wrote of salmon *feeding* on certain creatures which inhabit the waters.

A certain very scientific body has discovered that salmon do not *feed* in fresh water. We are told that it is well known that salmon do occasionally take and swallow worms and other wriggling objects—but this is not *feeding*. *Feeding* means "not the mere swallowing of material, but the digestion, absorption, and utilization of that material by the body."

I crave your pity, therefore, for the poor salmon who has stuffed himself with worms during a flood. What a dreadful stomach ache he must have! The scientific society which has been enquiring into the life history of the salmon has dissected some salmon and declared that their stomachs were found to be functionless. Therefore they could not feed. Therefore no

salmon feed in fresh water. Therefore, though they swallow worms, minnows, and parr, and take march browns like any trout, they do not *feed*. Therefore the plain meaning of the English language is to be distorted to support a scientific theory. But it is a scientific dictum, and of course we are bound to accept it.

2. *Annotated List of Antiquities from the Stewartry of Kirkcudbright now preserved in the National Museum.* By Mr F. R. COLES, Assistant-Keeper, National Museum of Antiquities, Edinburgh.

In offering this contribution to the Society, I thought that the preservation of such a list might be helpful to students of Archæology, and also useful for reference to visitors from the country in need of a direct and ready method of finding the objects in which they are likely to be most interested. Perhaps, too, some useful inferences may be drawn from a survey of what the Stewartry has yielded in comparison with what it has not. I make the Catalogue of the National Museum the basis of arrangement, than which it is impossible to find one that is more thorough, complete, and in all respects satisfactory.

At the very outset one is struck with the fact of the entire absence of even a small collection of Flint Implements—a fact all the more strongly emphasised by the presence of only one insignificant piece of Flint out of all the varied objects, numbering nearly two hundred, unearthed during the famous Borness Cave excavation. This is the more astonishing when we know, that from Wigtownshire, the Glenluce Sands alone have yielded nearly eight thousand Flint Implements of many various forms.

The earliest Implements, then, as yet credited to the Stewartry, are *Stone Axes*, of which there are six, ranged as follows in the Museum: Section AF 27, Axe of Felstone, 6 in. by $2\frac{1}{2}$ in., found in Twynholm and presented by Rev. J. Milligan in 1868. Number 28, Axe of Greenstone, 8 in. by 3 in., from Tongland; 66, Axe of Syenite, $6\frac{1}{4}$ in. by $3\frac{1}{2}$ in.—both presented by Rev. J. Milligan; the next, Number 77, an Axe of Greenstone, measures only 3 in. by 2 in., and is from Girthon, presented by Rev. G. Murray in 1861. Number 86, portion of the pointed end of a finely-polished Axe of Green Avanturine, presents several

points of interest. It is a mere fragment 3 in. long of an Axe which, when complete, must have measured about 8 in. by $2\frac{5}{8}$ in. The extremely brilliant polish of both its surfaces and its beautifully regular edges fit it to compare with any of the finest specimens; and, as it was found near Castle-Douglas, and presented by Thomas Forrest in 1782, it is one of our oldest possessions. The original entry of the donation of this fragment is: "By Mr Thomas Forrest, Bailie of Douglas, a flat piece of polished green marble with sharp sides $3\frac{1}{2}$ in. long, broken at the base where it has been broke off, the sides tapering to a point; found in an outfield, in tilling, within a mile and a half of the antient Castle of Douglas." Number 140 is a Felstone Axe, 5 in. by $2\frac{3}{4}$ in., found at the bottom of a Circular Moat—probably the small one which gives its name to Moat Croft—in Twynholm, and presented by Rev. J. Milligan, 1868. The total number of Stone Axes in the Museum, it may be well to remember, is over 450.

In the next group, that of *Perforated Stone Axe-Hammers*, which exhibit considerable variety of form, we have to deal with five specimens. The distingishing feature of this group is that, at the thicker end, there is a circular hole for a wooden handle made by drilling from both sides. Some of the specimens show the process in a half-finished state. AH 9 is a good Wedge-shaped Hammer of Sandstone, $9\frac{1}{2}$ in. by $4\frac{1}{2}$ in. by $2\frac{1}{2}$ in., from Deebank, near Kirkcudbright, presented by William Turnbull in 1833. Number 10 is almost identical with this; from Carlingwark Loch, presented by Alex. Gordon in 1781. Number 19 is a much-broken Axe of Sandstone from Balmaclellan, one of the many donations of the late Rev. Geo. Murray. Originally it must have measured $8\frac{1}{4}$ in. by $4\frac{1}{2}$ in., and is very thick, rounded, and heavy. Number 27 is a Wedge-shaped Hammer of Greenish Sandstone, $7\frac{1}{2}$ in. by 4 in. by 2 in., from Kelton; Rev. J. Milligan, 1868. Number 64, a Hammer Head of Greenstone, 8 in. by $4\frac{1}{4}$ in., the butt imperfect; from Monybuie, and presented by Dr W. G. Dickson in 1886.

Whetstones and Polishers.—Over a hundred of these may be seen in the Museum, only one of which is from the Stewartry: AL 26. It is a very small oblong piece of dark reddish Quartzite, measuring only $2\frac{7}{16}$ in. by $\frac{1}{2}$ in. by $\frac{1}{2}$ in. It came from Cairnsmore, Kells. These very small whetstones form a class by them-

selves: narrow in proportion to their length, always tapering evenly towards both ends, which are square cut; the largest in the collection barely reaches 4 in., and the smallest barely 2 in., the majority being quite small. They are not all of Quartzite; but even when made of a much softer stone none of them show any signs of use; they are not hollow in the middle, as one would expect, had tools been sharpened upon them. Dr Anderson suggests that the very small quartzite specimens may have been used as touch-stones for gold. The smallest of all is from Uist; it is under 2 in. in length, it is of a rather soft, dark stone, and, in common with others of the same kind, it has a neatly-drilled round hole at one end. In the Uist specimen there is still a small metal ring attached to the perforated end. Is it not just possible it and its cognates were used as charm stones? The fact that several other whetstones of an ordinary type, and abraded by use, also have holes at one end, does not militate against my supposition. Sir H. E. Maxwell notes that these very small whetstones of Quartzite were used in Wigtownshire within living memory to smooth seams in needlework. (Proceedings xxiii., 219.)

Perforated Stone Implements.—These are mostly water-worn pebbles pierced through the centre with a drilled hole; but in one of the two specimens from the Stewartry, AO 24, we meet with an example of peculiar form. It is triangular, the delicately-curved sides measuring $3\frac{1}{4}$ in. each, and was probably a true hammer. It is from Balmaclellan, and was presented by Rev. Geo. Murray in 1868. No. 83 shows the common type, a regularly oval flattish pebble of sandstone, almost black-gray, $3\frac{7}{8}$ in. by $2\frac{1}{2}$ in. by $1\frac{1}{8}$ in., with a central perforation $\frac{5}{8}$ in. wide.

The one *Stone Cup*, AQ 64, is an unhandled, rude, thick, uninteresting specimen from Kirk Andrews. It was purchased in 1888. Its diameters are $5\frac{1}{2}$ in. by 5 in., and on its outside are a few poorly incised nearly perpendicular lines. These heavy stone cups appear to be mostly of iron age date, or even later; and judging this uncouth specimen by its clumsy denial of all attempt at either grace or dignity, I should be inclined to place it among the examples of degradation in its special line.

The *Pivot Stone*, AW 24, of Quartzitic Sandstone, presented by Rev. G. Murray, calls for no comment; nor is there any striking feature about the *Sink-Stone*, AX 31, which measures $8\frac{3}{4}$ in. by $2\frac{3}{4}$ in., and is more oblong than many others. It was found at Borness, Borgue, and presented by James Marr in 1882.

Among stones fashioned by use as *Grain Rubbers and Knocking Stones* the small mortar-like vessel of sandstone, BA 27, from Glenlair, was presented by Rev. J. Milligan in 1868.

Quern Stones, of which there is a noble collection, are represented from Kirkcudbrightshire by but one upper stone, but a specially fine one, interesting alike on its own account, and for its having been found in association with a number of fine bronze ornaments presently to be described in trenching a moss in Balmaclellan. It was presented to the Museum by Rev. G. Murray in 1861. Its catalogue designation is BB 7. It is not, however, among its fellow Querns, but on a wooden block below the case in the Pre-Historic room, where the bronze relics are deposited. This fine quern stone measures 14 in. in diameter, and the style of its ornamentation may be seen in the woodcut in the Catalogue. The elegance and freedom of this are very remarkable, and one particularly notes how the upright bar on the left of the central raised rim annihilates the stiffness of what otherwise would have been a merely symmetric short-armed cross.

With the two *Stone Weights*, BG 116-117, not requiring detailed notice, we close this section, and proceed to the varied and interesting relics in bronze.

The Museum possesses a fine collection of *Flat Axes in Bronze*, and it so happens that it is only the most recently added specimen, DA 67, that hails from the Stewartry. It measures $5\frac{1}{2}$ in. by $2\frac{5}{8}$ in., and is ornamented on both sides with a chevrony pattern—a rather favourite style with this type of implement—and was found at Mainshead, Terregles.

Bronze Flanged Axes, DC 17, a good specimen of workmanship, deeply flanged, with rivet hole, stop ridge, and raised rib down the centre, measuring $6\frac{3}{4}$ in. by $2\frac{1}{2}$ in. Found at Kilnotrie, Crossmichael, and presented by James Napier in 1830. The other flanged axe is a very small one, $3\frac{1}{2}$ in. by $1\frac{3}{4}$ in. It is one of Rev. Geo. Murray's donations in 1866 from Dalry.

Bronze Socketed Axes.—DE 3, Axe $3\frac{1}{4}$ in. by $1\frac{7}{8}$ in., a neat specimen with raised lines on the sides. From Kilnotrie. Number 5, in the original entry of date 1785, is thus curiously described by Mr Robert Riddell, the donor: "Part of an ancient instrument of mixed white metal resembling the small end of a trumpet, found in the Loch of Carse." It is a smallish imperfect axe with parallel lines by way of ornament, and the usual loop on one side; the absence of such loop being so rare that out of three score specimens in the national collection there is only one without the loop. Number 53, presented by Sir H. E. Maxwell, is a plain, solid axe, $3\frac{13}{16}$ in. by $2\frac{1}{4}$ in., from Muirfad, Kirkmabreck.

Bronze Spear Heads, DG 30.—Portion of a spear head, 4 in. long, from Buchan, Glen Trool, presented by John Forsyth, 1871. The other specimen, No. 44, from Balmaclellan, was presented by Rev. G. Murray, 1862.

Of *Bronze Dagger Blades*, properly so called, there is not one specimen from Kirkcudbrightshire; but a small and imperfect specimen of a bronze blade is catalogued under DI 3, and its original entry in Smellie's Account of the Society of Antiquaries offering some points of interest, I here quote it in full: "June 25th, 1782. By Alex. Copland, Esq. of Collieston: A piece of a Roman sword of fine brass, with a round pin of the same metal, found in Carlochan Cairn, on the top of a high hill in the lands of Chappelerne, and parish of Crossmichael, in the year 1776, when the remains of this cairn, once the largest in Galloway, were removed for enclosing a plantation round it. In the middle of this cairn, at the bottom, was found a coffin composed of large flat stones, but there were no bones in it." Now let us examine this account a little in detail. Letting pass the writer's opinion that Carlochan Cairn was the largest in Galloway (which from actual measurements of all the cairns extant I know could not have been the case), we have the statement "that in 1776 the remains of this cairn were removed." The presumption is, therefore, that previously to 1776 many of its stones had been removed, probably to build dykes, the usual destination of cairns in those days of vandalism. At this date then, 1776, the bulk of the remainder of the stones were removed, not, mark you, to construct common field dykes, but in order to make a fence to protect the young firs and beeches which were then planted. What object

any one could have had in marking out the site of a great cairn twice subjected to destruction at the hands of dyke builders passes my wit to understand. Lastly, if, as appears from Mr Copland's account, there was only one interment, central, and at the bottom of so vast a heap of stones, it is almost incredible that the only object preserved was this fragment of a bronze blade.

Bronze Swords.—This section gives us better, but still imperfect, specimens. DL 26 is a sword now measuring 20½ in., originally over 23 in. It has three rivet holes in each wing, but two of these on each side are imperfectly cast and do not go through the metal. The hilt plate also has three rivet holes. This sword was found in Carlingwark Loch, and presented by D. A. Gordon in 1873. On a portion of the edge of the blade of this sword there are, as noted by Dr Joseph Anderson in the Proceedings XIII. 33, "minute parallel lines crossing other lines running nearly parallel to the edge," a feature unique even in his long experience and examination of bronze swords.

Portions of another sword, DQ 118, and of a Plain Ring of Bronze, DQ 119, were presented in 1885 by the Rev. Dr C. J. Cowan of Kelton, on whose glebe they were dug up. Unfortunately, as stated by the donor, the sword, which was complete when found, was broken into three pieces by the careless handling of the workmen. Originally it must have measured about 25 inches in length and nearly 2 in. in greatest width. The edge is much spoilt, but there is fine quality in the texture and colour of the *patina* all over the surface, and in one of the six rivet holes the rivet still remains fastened securely. The Bronze Ring is quite plain, nearly 1½ in. in external diameter and nearly ¼ in. thick.

Bronze Caldron.—This, with its contents, is really one of the best of our possessions. The Catalogue describes it under DW 1, Bronze Caldron with Hoard of Iron Implements. As these various objects number eighty-six, we can here name but a few of them, *e.g.*, an axe-head, four hammers, portions of saws, punches, a file, a hinge, a snaffle horse-bit, a gridiron of iron bars with feet, and a multitude of nails and fragments of tools, evidently the refuse of a smithy. The Caldron itself will be best appreciated, failing actual examination, by the woodcut. It is formed of very thin plates of yellow bronze, the bottom of one

large sheet, and the sides of various smaller portions, all rivetted together. Here and there it is patched. Across the mouth it measures 26 in., the bulge being about 1 in. wider. It was dredged up from Carlingwark Loch by Messrs S. Gordon and J. T. Blackley in 1866. Most of the better preserved objects found in it are well figured in the Proceedings, VII., p. 8.

Besides the Caldron, we have at present on loan the little *Bronze Pot* found in Barean Loch, the property of Mr Lowden. It is described and figured in your Transactions for 1868. I think no one has hitherto observed that on the bottom of this vessel there are a few finely scored lines, perhaps the mark of its owner.

Keeping still to the order of the Catalogue, the next great class of relics is represented by the *Urns*. And here again one is struck by the absence of any of the large cinerary urns so typical of burials of the Bronze Age. The collection of cinerary urns is one of the marked features of the National Museum, and it does seem extraordinary, considering the very large number of cairns that have been rifled and of open cists that have been noticed in the Stewartry any time during the last 150 years, that not one specimen of the typical large urn has found a resting place among its fellows. One is inclined to hope that it is not through the same evil fate, presently to be alluded to, having overtaken them, but that mere inattention and forgetfulness have been the cause. The first urn, then, I have to notice belongs to what for convenience is called the *Food-vessel Type*, EE 32. This, like some other objects just noticed, was presented by Mr Alex. Copland in 1872, and is described in the original entry thus:—"A Roman Cinereal Urn [everything a century ago was Roman, of course!] of gravely brown earth, $6\frac{1}{4}$ in. in diameter and $5\frac{1}{4}$ in. in height, found in the parish of Urr, on the lands of Glenarm, in a cavity large enough to hold two or three people, on removing a quantity of stones in a quarry. There was in it a little black liquor like tar. There were other vessels [this is the distressing point] found along with it, which were broken by the carelessness of the workmen." The phrase, "a cavity large enough to hold two or three people," and the fact of "other vessels" being found, seem to indicate that the place of interment here was a long cist, such as are found, so far as I know, rather frequently only in the

western districts of Kirkcudbrightshire, several cairns there being of the long barrow or double circle type and containing several interments.

The section lettered EQ is devoted to Sepulchral Deposits, and Nos. 95 and 96 are a flat ring of silver, ribbed on the outer side, measuring $1\frac{3}{4}$ in. diameter, and a bead of amber, another of the donations of Mr Copland in 1782. They were found at Blackerne, Crossmichael.

Personal Ornaments.—The most important of these are contained in the group FA 1-14, all from New-Galloway, and all of bronze with Celtic ornament. (1) A bronze mirror 8 in. diameter, with a handle 5 in. long, with late-Celtic ornament both sides alike; (2) bronze gorget, 15 in. wide, ornamented with spiral scrolls; (3-5) bronze belts or mountings; (6) bronze plate in five fragments, 27 in. by 11 in., with raised border; (7-11) fragments of similar plates with similar ornament, but the outer edges curved; (12 and 13) ornamental bronze studs; (14) portion of the cloth in which these articles were found under the Quern BB 7, above described. All found at Balmaclellan and presented by Rev. Geo. Murray in 1861. The bronze armlet (36) is of late-Celtic type; it is very thin and light and is jointed, a contrast in every respect to the object immediately following. It is the smallest armlet in the museum, measuring only $2\frac{5}{8}$ in. by $2\frac{1}{4}$ in. by $1\frac{1}{8}$ in. in height. It was found near Plunton Castle, Borgue, and presented by Dr Wm. M'Ewen in 1859.

In FA 40 we recognise a veritable trophy of the skill displayed by our forefathers, whom an ancient Roman author contemptuously describes as "the barbarians in the sea." It is a crescent-shaped pendant of bronze, probably a harness ornament, beautifully decorated with Celtic designs in champleve enamel—that rich and intricate process of filling in segments of copper with molten pigment which was distinctively British. This pendant, which was found at Anchendolly, and presented by Major Archibald Hume in 1886, measures $3\frac{1}{2}$ in. by $2\frac{5}{8}$ in., and the colours used in filling in the circles and segmentals are opaque vermilion and opaque yellow, while the curvilinear design so characteristic of this art is left raised and is now covered with a brownish *patina*. At the date of discovery no means were taken to identify the exact locality.

FC 171 is a very remarkable little object. It is of bronze, a square vessel $2\frac{1}{2}$ in. by $2\frac{1}{8}$ in., and just half an inch thick; at two opposite corners are small loops, by which the little bottle has been suspended, and at the upper angle between these is the remains of a narrow neck. Though much corroded, the flat face of one side bears traces of a square check pattern, while the sides have all been beautifully decorated with interlaced work, a combination of a pair of cords, each forming a series of loops facing alternately to right and left, derived from a six cord plait. This pattern is No. 551 in the list of Celtic interlaced work designs reproduced in Mr Romilly Allen's great work on the Ornamentation of the Sculptured Stones of Scotland, now printing. The same pattern occurs on the Hunterston Brooch, and on stones in three localities in Scotland—Papil, Meigle, and Iona—and in seven localities in England. This rare little bronze vessel was found at Barr of Spottes; and, in view of there having once existed an old church thereabouts, the surmise may not be amiss that this was an Inkbottle used by some of the monks.

Of *Gold Ornaments* there is but one specimen from the Stewartry, FE 16, a thick plain ring, weighing 1 oz. 8 dwt., and measuring $\frac{15}{16}$ of an inch inside, the metal being nearly $\frac{3}{16}$ in. thick. It was found at the Parish Church of Kirkpatrick-Durham and claimed as treasure trove. A single ring of *Jet*, FN 1, comes from Dalry, presented by Mr Copland in 1782. It measures $4\frac{1}{2}$ in. diameter, and was found in a moss; and in the Roman and British Section, FR 224, represents the only find, in its way, however, a very fine thing. Its beautifully modelled head of Medusa, and the other devices it bears, make this handle of a bronze vessel a valuable relic. It was found at Cairnholly, Kirkmabreck, under what special circumstances is not known, and presented, along with many other valuable relics, by Sir H. E. Maxwell in 1889.

In the collection of relics found in the famous Borness Bone Cave, in Borgue, the Museum has a good index of the species of objects belonging to this period of man's occupation of Scotland. The separate objects are numbered in the catalogue HN 1-179, and comprise masses of breccia with pieces of skull and other bones adherent, a large number of animals' bones, *e.g.*, those of the red deer and the badger being specially interesting; several whetstones and polishers; an implement of flint $1\frac{1}{8}$ in. by $\frac{1}{2}$ in..

showing, however, but little signs of secondary working; some curious and uncommon handle-like implements of bone, mostly ornamented with diagonal incised lines, their use problematical; bone combs of the long-handled, long-toothed type, probably used in teasing wool, as are similar combs but of metal used at the present day in North India; pins and spoons of bone and a highly-polished long, slender marrow-scoop of bone with a ring cut in its handle. There are also eleven fragments of bronze, including a thin circular brooch $1\frac{1}{4}$ in. diameter, upon which there are very faint traces of enamel, and one fragment of the lustrous red ware usually called "Samian," and so frequently found among the refuse pottery at Roman stations. The Borness Cave as a human habitation is not even of Neolithic Age. Indeed, the cave itself is not, in the opinion of the experts who explored it, old enough for deposits of the Neolithic Period, but belongs to the later remains of the Post Glacial Period. The presence of even one minute fragment of red "Samian" ware is "a world of evidence" alone; "and it appears," say the authors of the account, "that we must fix the state of this cave as most probably between the year 409 A.D., when the Roman legions were withdrawn, and 650, the date of the Saxon conquest of these parts." At the conclusion of the paper on the second exploration of the cave, the authors make the following suggestive remark: "In every one of some six or seven caves along the Muncraig shore some sheep or ox bones similar to those from the Borness Cave have been found. It needs but five minutes' examination to assure one's self that they, like the Borness Cave, were formerly the home or refuge of some ancient Scottish family."

Archaic Sculptured Stones.—In this section, IA 16-19, worthily represent some of the best Cup-and-Ring Marks in Kirkcudbrightshire. They are the four excellent casts made from the famous High Banks rock by our friends, the late George Hamilton of Ardendee and Mr E. A. Hornel. One of these portions of rock displays groupings of many scores of cups as closely put together as possible, surrounding triple concentric circles which enclose one large cup, a grouping we may certainly call unique. Another is specially interesting because it shows many spaces of the rock surface only begun to be worked on. We have here caught the primitive sculptor in the midst of his labour. Was it a flint

chisel he had in his hand or a bronze one? Some minds would be relieved were that little question answered!

Canoes.—The ancient mode of hewing and burning out the interior of a living tree is exemplified by three specimens, by far the largest of which is from Loch Lotus, IN 3. It originally measured fully 45 feet in length, and the stern was 5 feet wide; the prow is carved into the rude likeness of an animal's head, and the sides are pierced with holes for 14 oars. It is a pity that the other half should be allowed to rot away on the banks of its original berth. The canoe was presented by Mrs Hyslop in 1875.

KJ 18 is the half of a stone mould for casting leaden tokens, found about 1843 at Dundrennan Abbey, and deposited by Dr R. Trotter in 1875.

The section lettered KL is devoted to *Carvings in Wood*, number 2 in which is the oak pulpit from Parton Kirk, presented by the Rev. A. Patullo in 1865, at which date it is thus described in the proceedings: "The pulpit is hexagonal shaped, measuring 4 feet in height to the edge of the reading desk. The body is formed of longitudinal panels carved with an interlaced ribbon, with moulded styles above, terminating in a projecting square fillet mouldings in three rows. The panelled back rises 4 ft. 4 in. above the desk, and is 3 ft. 6 in. broad; the centre panel is ornamented with a pattern of interlaced ribbon and leaves forming heart-shaped devices, and the side panels with vine leaves and grapes. The canopy forms the top of the back and is flat; it has in its centre a rose-shaped boss, at the angles above are short projecting pinnacles or finials, between which are raised semicircular panels. On the centre panel is carved in relief—

FEIR
THE LORD
AND HONO
R HIS HOVS

The one on the left is broken at the top, but shows the remains of letters and date $\frac{\text{R. G.}}{1598}$ and on that to the left is a shield with armorial bearings between the letters I. G. of the family of Glendonwyn of Parton, patrons of the Parish Church, where the pulpit formerly stood, and whence it was removed on the erection of a new church in 1834."

Domestic Utensils, ME.—Of these number 47 is given in the Catalogue as a greybeard, 12 in. high, from Thorney Hill, Kenmure, by Mr Gilchrist, in 1865.

Lighting Appliances, MG. — In this section, many of the objects of which are, even in our own day, fast becoming obsolete, snuffed out by new and even newer inventions, seven come from the Stewartry. No. 48 is a combined tinder box and candlestick made of thin sheet iron, with lid and bottom of cork; 50, a pocket tinder box with hinged lid; 55, steel for striking fire—all presented by the late Dr John Shand in 1880. No. 76 is a peerman of iron with sliding top and tripod stand, presented by the Kirkcudbright Museum Association in 1889. No 81, the exceptionally neat and well-finished little bronze save-all, for using the last bits of candles, was found in or near New-Galloway, and presented by Rev. Geo. Murray in 1863.

The objects connected with *Spinning and Weaving* comprise extremely interesting appliances and specimens. MN 14 is a pair of stockings made of white spindle-made yarn, and the note upon this seemingly commonplace donation is interesting: "They were knitted," says Sir Arthur Mitchell, the donor, "by Sarah Rae, an old imbecile who lived in the parish of Balmaclellan. The yarn she used was made by herself. In making it she employed a spindle weighted with a potato for a whorl." Close beside these stockings is a spindle with grey-blue yarn on it which once was also weighted with a potato, and the potato is preserved in a bottle beside it. These were also picked up by Sir Arthur Mitchell at Daviot, Inverness-shire.

In the old Scottish loom for weaving tape for braces, from Carsphairn (47), we have one of those homely, but ingenious, and effective hand appliances, in the construction of which Scotsmen have been famous. It is not the most archaic hand-loom in the collection, but its method of working—somewhat too elaborate for description here—is much the same as that of the very primitive specimen from West Calder. Our loom was presented by Rev. Geo. Murray in 1881.

Among *Miscellaneous Exhibits* MP 40 is an iron anchor, 6 ft. long, found in a meadow near Kirkcudbright, and presented by Rev. J. Milligan in 1868. Nos. 92-99 represented a perhaps quite

unique "find." It consists of a ball of oak 7 in. diameter and seven pins of oak each 13 in. long, 3 in. diameter at lower end, and tapering towards a ball-shaped top $1\frac{1}{2}$ in. wide, found in a moss at Balmaclellan 12 ft. under the surface. Some of the pins were standing and some thrown down as if they had been suddenly left in the middle of an unfinished game. This fine set of mediæval ninepins was presented by Mr John Nicholson in 1865.

An archaic curling stone, with iron handle, from Borgue farm (MP 158), presented by John M'Laren, 1885, and a piece of waistband tape (NA 222), woven in a primitive loom at Balmaclellan, and presented by Sir A. Mitchell in 1867, complete this list—337 objects in all.

We know, however, that a considerable number of relics were found many years ago which are now in private collections. In order to carry out the intention of compiling a comprehensive list of all the Stewartry relics, I shall append the briefest possible description of such objects. There are, *e.g.*, the following five objects named on p. 335 of the seventh vol. of the Proceedings:—

1. Bronze mummer's head mask found at Torrs, Mid Kelton, in 1820; sent to Sir Walter Scott by Mr Train, now at Abbotsford. This is really a Mask or Chanfrein made to place on a horse's head; in the Mediæval Jousts and Tournaments such masks were not uncommon. Through the courtesy of the Hon. Mrs Maxwell-Scott, the National Museum is now enriched by the possession of a fac-simile in bronze of this remarkable relic.
2. Buistie or antique bedstead, found at Threave.
3. Brass or copper helmet, "with several implements of war," found in a stone coffin taken out of a cairn on Gelston.
4. Bronze tripod jug from Mid Kelton.
5. Bronze head of a war horse turned up by the plough near Glenlochar Bridge; was preserved at Culvennan.

In *Archæologia*, appendix to Vol. X., Mr Riddell of Friars' Carse describes and figures several "Galloway" relics, among which are these:—

Fig. 5. A spear head of cast brass, $6\frac{3}{4}$ in. by $1\frac{1}{2}$ in., with a loop at one side, found in Glenkens.

Fig. 8. A ring of mixed metal gilt, or rather plated with gold, found near the friary of Tungland, and was sent to Mr Riddell by the Hon. John Gordon of Kenmure. May, 1791. [This is a signet ring.]

Fig. 11. A flint axe, 3 in. by 2 in., tapering to about 1 in., found in Galloway.

20th January, 1899.

Mr JAMES BARBOUR, Vice-President, in the Chair.

Donations and Exchanges.—Annals of New York Academy of Sciences, October, 1898; On the Habits and Instincts of the Solitary Wasp, by G. W. and Eliz. Peckham, Wisconsin Geological and Natural History Survey; On the Forestry Conditions of North Wisconsin; Proceedings of the Academy of Natural Sciences of Philadelphia, 1898, April-September; Report of Secretary of Agriculture, Washington, 1896; Proceedings of Berwickshire Club, 1896; Two Botanical Papers by Mr Scott-Elliot.

COMMUNICATIONS.

1. *The Meteorology of 1898.* By Rev. Mr ANDSON.

I present as usual in tabular form first of all the main points of interest in connection with the meteorological observations taken at Dumfries during the past year. And I wish now to offer some discussion of the facts which may help to bring out more distinctly the leading features and characteristics of the weather of 1898, as compared with those of the past twelve years, during which observations have been made at this station, and the averages of that period. In many respects 1898 was an *annus mirabilis*, and I believe it will be found that this holds true with respect to its meteorological as well as its otherwise eventful character.

Report of Meteorological Observations taken at Dumfries during the year 1898.

Lat., 55° 4′ N.; Long., 3° 36′ W.; Elevation above sea level, 60 ft.; Distance from sea, 9 miles.

1898.	BAROMETER.				S.-R. THERMOMETER. In shade, 4 feet above grass.						RAINFALL.		HYGRO-METER.		Dew Point.	Relative Humidity. Sat. = 100.
Months.	Highest in Month.	Lowest in Month.	Monthly Range.	Mean for Month.	Highest in Month.	Lowest in Month.	Monthly Range.	Mean Maximum.	Mean Minimum.	Mean temper. of Month.	Heaviest in 24 hours.	Amount for Month.	Days on which it fell.	Mean Dry.	Mean Wet.		
	In.	In.	In.	In.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	In.	In.		Deg.	Deg.	Deg.	
Jan.	30·562	29·300	1·262	30·157	55·	30·	25.	48·4	40·1	44·2	0·44	2·22	18	44·	42·6	40·3	87
Feb.	30·200	29·073	1·127	29·804	53·5	22·8	30·7	45·8	34·4	40·1	0·46	3·45	20	38·8	36·7	33·9	82
Mar.	30·328	29·409	0·919	29·921	56·	24·7	31·3	47·3	32·8	40·1	0·19	0·79	14	39·2	37·1	34·3	83
April	30·227	29·293	0·934	29·826	62·	29·	33·	54·4	40·	47·2	0·61	3·55	19	46·4	44·1	42·4	84
May	30·355	28·867	1·488	29·855	70·	31·8	38·2	58·8	40·7	49·7	0·64	2·35	17	49·5	45·4	41·	72
June	30·407	29·360	1·047	29·942	79·	41·	38·	67·	48·2	57·6	0·44	1·84	17	56·2	52·2	49·3	75
July	30·530	29·760	0·770	30·188	76·	41·	35·	69·2	48·9	59·1	0·09	0·23	6	58·	53·3	49·1	73
Aug.	30·287	29·380	0·907	29·925	81·3	42·	39·3	68·2	52·8	60·4	0·74	4·47	17	58·7	55·6	52·9	80
Sept.	30·447	29·540	0·907	30·025	82·8	34·	48·8	66·1	48·9	57·5	0·76	2·28	15	56·4	54·2	52·1	85
Oct.	30·429	29·000	1·429	29·816	78·7	33·	45·7	58·	45·9	52·	0·71	3·25	17	51·	49·	46·9	86
Nov.	30·365	28·841	1·524	29·781	59·	30·8	38·2	48·5	36·7	42·6	1·71	4·25	19	42·6	40·2	37·3	82
Dec.	30·470	28·870	1·600	29·695	56·7	20·	36·7	49·	39·1	44·1	0·93	5·03	27	44·3	43·1	41·5	89
Year...	30·562	28·825	1·737	29·911	82·8	20.	62·8	56·7	42·4	49·5	1·71	33·71	206	48·7	46·1	43·3	81·5

WIND—

	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Var. or Calm.
Days ...	16½	23½	41	30½	39½	108½	59½	34	12

1. BAROMETER.—The highest reading of the barometer occurred on 15th January, when it rose to 30·562 inches. The lowest reading was on the 11th May, when it fell to 28·825 in., thus giving an annual range of 1·737 in. The mean barometrical pressure for the year was 29·911 in., which is higher than the average of the last 12 years by rather more than one-tenth of an inch (reduced to 32 deg. and sea level). The months in which the mean pressure was highest, exceeding 30 inches, were January, 30·157 in., July, 30·188 in., and September, 30·025 in., and these months were all remarkable for fine settled weather, with temperature above (except in the case of July) and rainfall under average, the details of which will be noticed afterwards. The lowest monthly means were those of February, October, November, and December, ranging from 29·804 in. in February to 29·695 in. in December. It was in the last two months, and also in May, that readings below 29 inches occurred, twice in November, on the 24th and 25th, and once in December, on the 27th. In May there were two days on which readings below 29 in. were registered, viz., the 11th and 12th. The lowest of these was 28·825 in. on the 11th of May. The depression in November was accompanied by a severe easterly storm, by which much damage was done both by sea and land, especially on the east coasts. In the other instances the storm was south-westerly.

2. TEMPERATURE (in shade, 4 feet above grass).—The highest absolute temperature of the year was recorded on the 4th September, when the thermometer rose to 82·8 deg. Its occurrence in September was an unusual circumstance. The highest single day temperatures occur most frequently in the latter part of June, about or soon after the summer solstice, sometimes in July, hardly ever in August; and on looking over my past record I find that this is the only year out of the twelve that it has been registered in September. But it occurred once also in May, which is equally exceptional. The other months in which temperatures exceeding 80 deg. were registered were 81·3 deg. on 12th August and 80·3 deg. on the 21st; and it is worthy of note that there were three in September on successive days, from the 4th to the 6th, ranging from 81·3 deg. to 82·8 deg. The lowest temperature of 1898 occurred on the last day of the year, viz., 20 deg. on 31st December, showing an annual range of 62·8 deg. With

regard to the monthly means of temperature, the highest was in August, with a mean of 60·4 deg., the mean of July was 59·1 deg., June 57·6 deg., and September 57·5 deg., so that August was the warmest month, but July had the highest mean maximum, viz., 69·2 deg. as compared with 68·2 deg. in August. It is worthy of being observed that no less than nine of the months of 1898 had a temperature in excess of the average, with an aggregate of no less than 27·5 deg., while the deficiencies in the remaining months were so slight as to make a very trivial deduction from this excess. One remarkable feature of this excess was that it occurred chiefly, although not exclusively, in what are usually the coldest months—January and December. January, for example, had over 6 deg. above the mean, and December 5·7 deg. (almost 6 deg.), and October over 5 deg. But April, May, August, and September had also considerable excesses, ranging from 1·2 to 2·9 deg. This suggests an unusual mildness of the winter months, which comes out very distinctly when we take into account the number of nights on which the protected thermometer fell to and below the freezing point. These were only 38 in all, with an aggregate of 103 deg. of frost. This exhibits quite an exceptional state of things as compared with the average of other years. January and December are usually the coldest months, as might be expected from the shorter period during which the sun is above the horizon, and also the greater obliquity with which the solar rays fall upon the earth. But in 1898 the mean temperature of both these months was no less than 44 deg., only 2 deg. short of the average of April, with only five nights of frost, two in January and three in December, with an aggregate of 21·8 degs.; while February alone had ten nights with an aggregate of 32 deg., and March eighteen with an aggregate of 41 deg. The two latter months were the coldest of the year, with a mean of 40 deg., as compared with 44 deg. in January and December; and yet the temperature of February was a little above the mean, and March only slightly below it. The explanation of the high temperature of January and December is to be found in the unusual prevalence of southerly to westerly winds, and the convection of heat from the warmer to the colder regions by means of atmospheric currents, which greatly modify the effects of solar radiation. To illustrate this, I may mention that southerly, south-westerly, and westerly winds prevailed for no less than 26 days

out of the 31 in January and for 27 in December. The mean annual temperature of the year was 49·5 deg., as compared with an average of 47·5 deg. This is the highest annual mean recorded during the 12 years of observation, the next highest being 49·4 deg. in 1893, and only once or twice did it reach, or slightly exceed, 48 deg. The year 1898 may thus be justly considered as in point of temperature an *annus mirabilis*, inasmuch as it has been the warmest of twelve, and of I do not know how many more, in this district, as I can only speak of the period to which my observation extends.

3. RAINFALL.—The amount of rain which fell during the year, including melted snow, which formed a very small proportion of the whole, was 33·71 in.; and the number of days on which precipitation took place was 206, on 28 of which the rainfall did not exceed one-hundredth of an inch. As might be expected from the extreme mildness of the winter months, snow was conspicuous by its absence. There was no fall worthy of being called a snowstorm, and the slight falls which did occur were chiefly in February. The heaviest rainfall in 24 hours in the course of the year took place on the 1st November, when 1·71 in. were registered by the guage. It was followed by 0·54 in. on the 2d, giving a total of 2·55 in. for the two days. On that occasion the river Nith was in very heavy flood, shewing a depth of 11 feet at the New Bridge; and as a strong south-westerly gale prevailed at the same time the tide also rose to an abnormal height, and the Sands were flooded to some depth, the water extending up into the adjoining streets of Friars' Vennel, Bank Street, and Nith Place for a considerable distance. This was the heaviest flood of the year, as it was the only instance also in which the rainfall was in excess of one inch. The total amount for the year was less than the average of 12 years by 2·11 in.—33·71 in., as compared with a mean of 35·82 in. The rainiest month was December, with an amount of 5·03 in., and 27 days on which it fell. The driest was July, a very exceptional circumstance, the amount having been less than a quarter of an inch—0·23 in.—as compared with an average of 3·92 in. There was another month in which the amount was under an inch, and less than half the average, viz., March, which had only 0·79 in., as compared with a mean of 2·12 in. The other months were for the most part not far from the

average, excepting April, usually one of the driest months, which had an excess of about two inches. On the whole the year was a very favourable one in point of rainfall as well as in point of temperature. Although the drought of July gave a check to the progress of the growing crops, no weather could have been more favourable for the in-gathering of the hay crop, which had already received a copious supply of moisture in the early spring and summer months, and the check of July was largely compensated by the unusually fine weather in respect both of heat and moisture of August and September, extending into October, which had a record without frost and a temperature of 5 degs. above average, and even into past the middle of November.

4. HYGROMETER.—The mean of all the readings of the dry bulb thermometer, taken twice a day, at 9 A.M. and 9 P.M., was 48·7 deg., and of the mean wet 46·1 Temperature of the dew-point, 46·1 deg. Relative humidity (saturation = 100), 81·5. This shows a humidity decidedly less than the average of 12 years, which comes out at about 83. The monthly means of humidity varied from 72 in May and 73 in July to 89 in December.

5. THUNDERSTORMS, &c.—The past year was remarkably free from thunderstorms, as far as I have observed. I noted one, however, of considerable severity, which lasted from 6.15 to 6.45 P.M. on the 16th of August. Once in May there was a solar halo—there may have been others but I did not see them—and lunar halos were of not unfrequent occurrence throughout the year. On the night of the 15th March there was a remarkably brilliant and protracted display of the aurora borealis, which will, no doubt, be in the recollection of the members of the society, as it excited great attention at the time and was described in many of the newspapers.

With regard to the wind observations, I find that, as usual, the south-westerly wind prevailed most frequently. It claims 108½ days out of the 365 ; and if we add to it the southerly and westerly, 39½ and 59½, we have 207 days for the warmer direction, while the northerly and easterly amount to about 130, without taking into account the calm and variable. We are partly indebted to this preponderance of southerly to westerly winds for

the mildness of our climate in the British Islands—especially when they prevail to an unusual extent in what would otherwise be the coldest months, viz., January and December, which was remarkably the case during the past year. As I mentioned before, January had 26 and December 27 days with southerly to westerly winds. But partly also the mildness of our climate, especially in the winter months, is due to our insular situation, and to the influence of the Gulf Stream, that great oceanic current which conveys no small amount of heat from the tropical regions to the shores of our islands, and which is not varying and irregular like the winds, but a constant factor, which never ceases to modify the low temperatures, which might otherwise be our lot. If it were not for these modifying causes the winter climate of Great Britain would be by many degrees colder than it is, and would resemble that of those countries on the Continent which are situated in the same latitude.

Mr Murray begged to propose a hearty vote of thanks to Rev. Mr Andson for his valuable and accurate paper. The attention Mr Andson had given to that work for so many years had made his paper a valuable addition to their *Transactions*. They regretted his absence, and hoped he would soon be restored to health. (Applause.)

Mr Clark, in seconding, said he thought the paper a entirely interesting one, and particularly dealing with the *annus mirabilis*, as Mr Andson termed it. It was particularly interesting at the present moment as a reminder to them that there was some dry weather in 1898—(laughter)—and that 1899 was doing its best to make itself an *annus mirabilis* too in regard to rainfall. (Laughter and applause.)

Dr Ross said he had received from Mr Rutherford, Jardineton, who was unable to be present, a record of the rainfall he had taken there during the year, which showed a total of 33·68 inches, a difference of ·03 less than at Dumfries during the year. There were, however, greater variations during the months, the records being as follow :—January—Jardineton 2·78, Dumfries 2·22; February—Jardineton 3·41, Dumfries 3·45; March—Jardineton 0·90, Dumfries 0·79; April—Jardineton 2·90, Dumfries 3·55; May—Jardineton 2·32, Dumfries 2·35; June—Jardineton

1·60, Dumfries 1·84; July—Jardineton 0·50, Dumfries 0·23; August—Jardineton 4·12, Dumfries 4·47; September—Jardineton 2·40, Dumfries 2·20; October—Jardineton 3·25, Dumfries the same; November—Jardineton 3·85, Dumfries 4·25; December—Jardineton 5·65, Dumfries 5·03. Mr Rutherford did not give the number of days on which rain fell, but Mr Andson stated the number at Dumfries as at 206. The figures for Cargen appeared the other day in the *Courier and Herald*, and there were 48 more days of rain last year at Dumfries than at Cargen. In this connection a curious discrepancy referred to last year by some of the speakers was explained by Mr Andson by a difference in some of the rain gauges, which did not record falls so small as one or two-hundredths of an inch. The totals for the year were—At Dumfries 33·71, at Jardineton 33·68, and at Cargen 49·12, the last being much the heaviest rainfall. There was only one month at Cargen in which the rainfall was under one inch—namely, in July, when it was a little over half an inch, or ·56. In March, when it was under an inch both at Jardineton and Dumfries, the fall at Cargen was 1·04.

2. *Ptolemy's Scotland.* By Dr E. J. CHINNOCK.

Claudius Ptolemæus, the astronomer and geographer, lived in the first half of the 2nd century. He wrote in the reigns of Hadrian and Antoninus Pius. In his celebrated work on the geography of the world he gives a bare description of the various countries then known, simply marking down the names of the various places and appending to them their longitudes and latitudes, without giving any detailed account of them. His work is a complete contrast to that of Strabo, which is rich in the description of the objects of interest connected with different countries and places. With the exception of the introductory matter in the first book, and the latter part of the work, it is a mere catalogue of the names of places. Here and there he makes a few desultory remarks, but not often. A part of the seventh and the whole of the eighth book are occupied in the description of a set of maps of the known world. These maps are still extant. I have extracted from the work all that Ptolemy says of Scotland, leaving out the longitudes and latitudes which he appends to each place. Ptolemy's order is carefully followed.

"The peninsula of the Novantæ and the cape of the same name" are what are now called the Mull of Galloway and Corsill Point; Rerigonian Bay, Loch Ryan; Vindogara Bay, Girvan Bay; Estuary of the Clota, Firth of Clyde—Clota is also mentioned by Tacitus (*Agricola*, 23); Lemannonian Bay, Loch Fyne; Epidian Cape, Mull of Cantyre; mouth of the river Longus, perhaps represents Lochs Linnhe and Lochy; mouth of the river Itys, probably the Sound of Sleat, between Skye and Mainland; Vola Bay, perhaps Loch Broom; mouth of the river Nabar (I can suggest nothing for this); Cape Tarvedum or Orcas, Dunnet Head. Ptolemy then returns to the Mull of Galloway and works round the west coast to the Land's End. He first mentions the mouth of the river Abravannus, which appears to represent Luce Bay; then the estuary of the Jena, which ought to denote Wigtown Bay; the mouth of the river Deva, denoting that of the Dee; the mouth of the river Novius, by which is meant the Nith; the estuary of Ituna, the Solway Firth. He then returns to Dunnet Head in the north and works down the east coast. Cape Virvedrum, Duncansby Head; Cape Verubium, The Noss, near Wick; the mouth of the river Ila, Dornock Firth; the High Shore, by which is meant perhaps the Ord of Caithness; the estuary of the Varar, Moray Firth; the mouth of the river Loxa, the Findhorn or Cromarty Firth; the estuary of Tuesis, the Spey; the mouth of the river Caelis, the Devoran; the Cape of the Taezali, Kinnaird's Head; the mouth of the river Deva, the Dee; estuary of Tauva, the Tay; the mouth of the river Tina, the Eden; estuary of Boderia, Firth of Forth. Tacitus calls this Bodotria (see *Agricola*, 23, 25). Then he gives the various nations inhabiting Scotland. It must, however, be remembered that he treats the whole island as one country, which he calls the Britannic island *Albion*. The Romans found Britain in the tribal state, and made no distinction between the southern and northern parts thereof, that which lay beyond the boundary being called Britannia Barbara.

1. The Novantae, in Wigtownshire and part of the Stewartry. The towns were:—Lucopibia, probably Whithorn; Rerigonium, Stranraer.

2. The Selgovae, to the east of the Novantae in east of Galloway and Dumfriesshire, the name survives in Solway. Towns:—Carbantorigum, probably Kirkcudbright; Uxellum, supposed to be

Carlaverock; Corda, either Castle O'er or Old Cumnock; Trimontium, Annan or Langholm.

3. Damnonii, to the east and north of Selgovae. Towns:—Colanica, Lanark or Carstairs; Vindogara, Girvan or Paisley; Coria, Crawford? Alauna, Kilsyth? Lindum, Ardoch, where are the remains of a Roman camp; Victoria, Strageth, near the remains of a Roman road. (Horsley thinks it is Abernethy, near Perth.)

4. Otalini, to the south-east, from the Forth to the Tyne. Town: Coria, Borthwick Castle.

5. North of the Damnonii came a number of tribes without towns, the Epidii in Argyleshire, the Cerones, the Creones, the Carnonacæ, the Cæreni, and the Cornavii. From Loch Fyne to the Moray Firth lived the Caledonii; north of them was the Caledonian Forest; to the east were the Decantæ, the Lugi, and the Smertæ.

6. Beyond these were the Vacomagi in Moray and Inverness shires, who had these towns:—Bannatia, Bean Castle, near Nairn; Tamia, Dunkeld; the Winged Camp, Burgh Head*, near Inverness; Tuesis, a town near the Spey which had the same name.

7. To the west of these were the Venicones, with a town called Orrea, said to be Orrock, near the water of Orr in Fife. It may be Anstruther.

8. More to the east were the Taezali, with a town Devana, now Aberdeen.

9. The only islands lying near that of Albion mentioned by Ptolemy are Vectis, Wight; Tanatis, Thanet; Coiinus, Convey, at mouth of the Thames. Near the Cape Orcas (Dunnet Head) the island of Scetis, Skye; the island of Dumna, Lewis; the islands of Orcades, about 30 in number, the Orkney Isles; beyond them a degree or two, Thule, which must be Mainland, the largest of the

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*The fort called Alata Castra (or the Winged Camp) was probably raised by Lollius Urbicus after his victories in Britannia Barbara, A.D. 139, to repress the incursions of the Caledonian clans, but it was soon abandoned, and all traces of it were soon obliterated. (See Capitolinus, Life of Antoninus Pius, 5.)

Zetland Isles. Ptolemy is wrong about the number of the Orkneys. It is 67, of which 39 are now inhabited.

This is all that Ptolemy has to say about the part of Albion which we now call Scotland. He has nothing to say about Roman settlements in this part of the island; and it is evident that most of it was a terra incognita to the Roman, except the south and the east coast. The towns mentioned seem all of them to be British not Roman, except Victoria and Lindum, which were evidently settlements near the Wall of Antonine. Lindum was also the Roman name of Lincoln.

Of course many of the identifications of places are merely conjectural, but I have done the best I could.

3. *Roman Roads in Britain.* By Dr E. J. CHINNOCK.

There are supposed to be three authorities for the Roman roads in Britain. The Romans called the whole island Britannia. In the plentitude of the Roman power in Britain the part now called England and Wales was divided into four provinces, and the Emperor Hadrian added a fifth province by annexing the part of Scotland south of Antonine's Wall and calling it Valencia. This was, however, soon abandoned. The three supposed authorities for the Roman roads are the Itinerary of Antonine, the British Itinerary of Richard of Cirencester, and the Ravenna Cosmography. The last-named work was compiled in the seventh century, and the Itinerary of Richard is a forgery, as will be shewn anon. Therefore Antonine's Itinerary, being the only work compiled during the period of the Roman occupation of Britain, is our sole authority for the Roman roads and stations. There can be no certainty about the genuineness of any so-called Roman camp or station, the name of which does not appear in the Itinerary of Antonine, unless some undoubted Roman remains are discovered upon the spot. Scotland was a purely nominal Roman possession, and that only for a short time. The wall of turf erected by Antoninus Pius between the Forth and the Clyde was soon abandoned, and the Romans retreated beyond Hadrian's Vallum, which stretched from the mouth of the Tyne to the Solway. After the death of Severus at York, A.D. 211, Scotland was left to the natives. Doubtless during the half century of

their occupation of the southern half of Scotland the Romans founded various stations and constructed roads; but they do not seem to have made any permanent roads or camps like those which they made in England.

It is desirable to understand what the Itinerary is. It is entitled the "Itinerarium of Antoninus Augustus." Augustus was the official designation of the Emperor of Rome. Wherever the Romans penetrated as conquerors they formed camps, and constructed permanent roads, the distance being marked along them by mile stones. From the time of Augustus Cæsar a tabulated account of these roads and stations was kept at Rome. This Road Guide or Itinerary was not published until the reign of Antoninus. The best authorities understand by this Antoninus neither of the emperors usually known as the Antonines, viz., Antoninus Pius and Marcus Aurelius Antoninus, but Antoninus Caracalla, the infamous son of Septimius Severus, who reigned in the early part of the third century. From names which occur in it, it is evident that the Itinerary was revised and kept up to date till the end of the reign of Constantine the Great, *i.e.*, to the early part of the fourth century. It represents, therefore, the official record of the Roman roads from the middle of the third till the middle of the fourth century.

The Imperial Itinerary of Antonine gives 15 roads existing in Britain. The part relating to Britain is entitled "Iter Britanniarum." Notice the plural *Britains* not *Britain*. In imperial times the country was called Britanniae, because there were several provinces. Hence on our own coins the legend runs: "Victoria regina Britanniarum." Antonine's Itinerary describes the roads in the following order, giving the number of miles between each station on the route:

The 1st Road—From the Wall at Newcastle (Bremenium) to Praetorium (probably Hull), 156 miles, passing through Eburicum or York, which was garrisoned by the 6th Legion, Victrix. On this road there were 10 stations.

The 2nd Road—From Portus Rutupae (Richborough or Sandwich) to Blatum Bolgium or Birrens, 481 miles, passing through Canterbury, Rochester, London, St. Albans, Dunstable, to Chester, which was garrisoned by the 20th Legion, Victrix,

thence through Manchester, York, and Carlisle to Castra Exploratorum and Blatum Bolgium, where it ended. The "Camp of the Scouts" (Castra Exploratorum) is stated to be about 12 miles from Luguvallium (Carlisle). It is Netherby. Blatum Bolgium is stated to be about 12 miles beyond Castra Exploratorum. It must be Birrens. On this road there were 37 stations.

The 3rd Road—From Dover to London, 66 miles, passing through Canterbury. On this road there were 4 stations.

The 4th Road—From Hythe to London, through Canterbury. On this road there were four stations, three of which were the same as in the preceding.

The 5th Road—From London to the Wall at Carlisle, 443 miles, passing through Colchester, Thetford, Cambridge, Lincoln, and York. On this road there were 20 stations.

The 6th Road—From London to Lincoln (Lindum), 156 miles, passing through St. Albans and Leicester. On this road there were 14 stations.

The 7th Road—From London to Chichester (Regnum), 96 miles, passing through Windsor, Reading, and Winchester. On this road there were 6 stations.

The 8th Road—From London to York, 227 miles, through St. Albans, Dunstable, Leicester, Lincoln, and Doncaster. On this road there were 15 stations.

The 9th Road—From London to Norwich, 128 miles, passing through Colchester and Ipswich. On this road there were 9 stations.

The 10th Road—From Cockermouth to Whitchurch, 150 miles, passing through Keswick and Lancaster. On this road there were 9 stations.

The 11th Road—From Chester to Carnarvon, 74 miles. On this road there were 4 stations.

The 12th Road—From Aston to Carmarthen, 186 miles, passing through Caerleon (Isca) in South Wales, which was garrisoned by the 2nd Legion, Augusta. On this road there were 10 stations.

[There is mention of only 3 legions stationed in Britain, one at Eburacum (York), one at Deva (Chester), and one at Isca (Caerleon).]

The 13th Road—From Caerleon to Reading, 109 miles, passing through Monmouth and Gloucester. On this road there were 8 stations.

The 14th Road—Another route from Caerleon to Reading, 103 miles, passing through Bristol and Bath. On this road there were 9 stations.

The 15th Road—From Reading to Exeter, 136 miles, passing through Winchester, Dorchester, and Honiton. On this road there were 9 stations.

In after times there were four roads in England which ran along the ancient Roman roads. Watling Street represents the old zigzag route from Dover to Chester and York, and northward in two branches to Carlisle and Newcastle, principally along the 2nd of Antonine's roads. The Fosse Way ran diagonally through Bath to Lincoln, along the 6th and 14th roads. The Ermin Street led direct from London to Lincoln, with a branch to Doncaster and York along the 6th and 8th roads; and the obscure Icknild Street curved inland from Norwich to Dunstable, and went on to the coast near Southampton along the 7th, 8th, and 9th roads.

In the Antonine Itinerary Birrens is the only Roman station in Scotland mentioned. There is generally said to have been a Roman road from Newcastle to near Edinburgh and another from Carlisle through Carstairs to Dumbarton, and then to Falkirk, Cupar Angus, Brechin, and Stonehaven. The existence of these and other Roman roads in Scotland can be proved by remains if they are to be found. There is, however, no contemporary Roman authority for their existence. Of course, when the Romans occupied the country as far as the Wall of Antonine they must have constructed roads and built stations; but at the time of the publication of the Antonine Itinerary Scotland had been entirely evacuated, and the roads and stations must have fallen into ruin and disrepair, and gradually became obliterated. For more than a century antiquarians and historians were deluded by the so-called Itinerary of Britain said to have been compiled by Richard, a monk of Cirencester. Nothing was ever heard of this work till

1747, when Charles Bertram declared he had deciphered a MS. existing at Copenhagen, written by Richard of Cirencester, a well-known monkish historian. He made what he called a copy of the non-existent Latin text, with notes and a map. It was one of the most clever literary forgeries ever devised, being the fruit of his own genius without a vestige of foundation in fact. Bertram resolved to dupe Dr William Stukeley, the most noted antiquarian of the time. Stukeley was quite taken in by the supposed Itinerary, and published it with a commentary and map. The Itinerary gave 18 Roman roads. Stukeley's authority was sufficient to give the forgery possession of the field. Whitaker, the historian of Manchester, General Roy, Dr Lingard, Lappenberg, Stuart, the author of "Caledonia Romana," and others. have treated it as a genuine work. Classical atlases like that of Sir William Smith abound with errors from this source, and many of Bertram's imaginary names have found their way into the ordnance map. Even in 1872 Dr Giles translated the forgery as a genuine work for Bohn's Antiquarian Library. The forgery was exposed by the late Mr B. B. Woodward, librarian of Windsor Castle, in a series of papers published in the *Gentleman's Magazine* for 1866 and 1867. Those who cannot procure Woodward's papers may consult Mr Henry Bradley's article on "Charles Bertram" in the Dictionary of National Biography. Doubts had been expressed as to the genuineness or authenticity of Richard of Cirencester's Itinerary by Thomas Reynolds, who published, at Cambridge in 1799, the part of Antonine's Itinerary entitled "Iter Britanniarum" with a commentary and maps. Birrens, therefore, enjoys the singular distinction of being the only Roman station in Scotland bearing the imprimatur of the Imperial Itinerary. This enhances the value of the work recently performed by our distinguished members Dr James Macdonald and Mr James Barbour. Can anyone throw light upon the meaning of the name Blatum Bolgium?

17th February, 1899.

Rev. JOHN CAIRNS, Vice-President, in the Chair.

Donations and Exchanges.—Some Questions of Nomenclature, by Theodore Gill; An Account of the Work of the Surveys of Egypt and of the Egyptian Institute during 1892-3-4, by J. de Morgan; Bows and Arrows in Central Brazil, by Hermann Meyer; Preliminary Account of an Expedition to the Pueblo Ruins, near Winslow, Arizona, by J. Walker Tewkes; Was Primitive Man a Modern Savage? by Talcott Williams.

COMMUNICATION.

Observations and Experiences of the Breeding of Salmon and Trout. By Rev. H. G. J. VEITCH of Eliock.

Away from home, in a lodging on a high cliff overlooking Tor Bay, with a fierce north-east wind raging across the sea and whistling through the ill-fitting windows of our room, without books or any notes of my experiments and difficulties in rearing salmon and trout from the egg, it is impossible for me to do more than write a chatty sort of sketch on the subject.

I had thought my first paper to your Society might have had the same effect upon you that the first sermon of a certain English bishop had upon his diocese. He used to tell the story with a twinkle of his eye. "When I first came into the diocese I was asked to preach at a great function in the Cathedral. I told the Dean that I had very little voice, and was by no means a good preacher. But they would have me preach, and so I did. The result was what I expected. All the week after my famous sermon the people went about telling one another that they could not hear a word I said, and that they hoped never to hear me preach again; and they never did. So I was able to give my whole attention to the business of the diocese, and have been able to introduce many first-rate preachers into it." However, as you have given such a cordial reception to my last paper, I feel that it would be impossible for me to refuse the request which I have received for another.

The breeding of salmon and trout is a subject which must before long be seriously taken in hand, unless our fisheries are to

go to decay. If the authorities would only take a lesson from the Americans in the matter of the cultivation of fish and the protection of fisheries, there would be good hope that we might see our net fishers and anglers rejoicing in such takes as were not uncommon sixty or seventy years ago. In those days there were plenty of streams in all our land where salmon and trout could find clear water rippling over gravelly beds, well-suited to all their requirements. There they could rest after their long and toilsome journey from the far-off sea, and there, in quietness and peace, they could deposit their eggs and leave them in confidence and hope. But now great numbers of those lovely spawning beds are silted up with coal dust, or foul with refuse from manufactories, or poisoned with less manifest but quite as deadly chemical liquids. There were no railways up our lonely glens amongst the hills in those days. There were no gangs of poachers from far-off towns who could take the train in the evening, get out at some lonely station forty or fifty miles away, harry long stretches of water through the night, and return with their spoils by the early morning train. If a like amount of grass land and moor had been rendered unproductive, and bands of men had come by train to drive off sheep and cattle by night, what would have been the state of our flocks and herds now? Therefore something must be done, and that soon, or our fisheries will decline almost to extinction. County Councils and members of Parliament are no doubt useful, and a few of them do make a noble fight on behalf of the poor salmon. They are but a few folk crying in the wilderness. The many are quite apathetic. A great deal may be done in the way of purifying our streams, but perhaps more will have to be done by artificial rearing if our fisheries are to be restored and kept up to a high standard. If I were a salmon I really think I should try if it were possible to live a jolly bachelor life in the sea, without care, and with plenty to eat. If marriage is a failure, it must be a terrible failure to many a love-sick salmon. Let me say a few words first on natural breeding of salmon and trout, and secondly on the artificial rearing of them. And what I say of salmon holds good of trout, except that the one goes back to the sea after depositing its eggs, and the other does not. Sixty or seventy years ago there was very little accurate knowledge of the ways of salmon on the spawning beds. The difficulties of observation were many and great. It was hard to get a clear view of

them in the rippling streams, and if one incautiously showed oneself to them they took fright, and retired into deep water. To sit on a wet bank or a cold rock in the end of November and through December, perhaps in driving sleet or snow, was not on the whole comfortable. Now, had it been possible to take a salmon and get it to lay its eggs in a nice comfortable nest in a tub by the fire, observation would have been easy. But no salmon could be induced to behave in this reasonable manner.

Salmon, as you all probably know, run up our various rivers at all times of the year, whenever the water suits them. Some rivers are early and some are late. In the early rivers the fish make their way slowly up to the head waters. In the late rivers great shoals of heavy fish come in late in the autumn heavy in spawn, and make their way up as far as they can. By the end of November great numbers get on to the spawning beds, and through December and January the laying of eggs goes merrily on if weather and water are propitious. They are very particular in the choice of a suitable spot for their operations. What it is that decides them in their choice I could never make out. They must have a gravely bottom, and sufficient stream over it to keep it clear of mud; any deposit of mud or sand on the top of the eggs is fatal. But I have seen streams which looked in every respect suited for salmon or trout with scarcely ever a spawning fish on them, and others apparently of much the same character crowded with them. But I judged that the fish knew their own business better than I did, and therefore did not interfere. You will see them cruising about examining the ground as if they were not quite able to make up their minds, but when they have once made up their minds the female sets to work with a will. Her great broad tail sweeps over the gravel from side to side, and sends it flying from under her. Whether she actually touches the gravel with her tail or not I am not sure, but I think not, except sometimes by accident. Were she to do so it seems to me that her tail would be worn away in a short time. I think she has some knowledge of hydraulic power, and drives the water down upon the gravel with such force that it is scattered on each side and away down stream behind her. Opinions differ as to whether the male fish takes any part in the making of what I suppose we may call the nest. Some have told me that the male uses the sort of horn which develops at the point of the lower jaw at spawning time to

plough up the gravel, but I have never seen it done. I have had more opportunities of closely watching large trout on the spawning beds than salmon, therefore do not like to speak positively. The male fish takes up his position a little way behind the female, and gives his attention to keeping off intruders. I have seen a male trout of a pound rush at an intruder of twice his size like a tiger and drive him away, and then draw up beside his mate, and I fancy whisper to her that it is all right now, that he will protect her, and that she can go on with her business without fear of interruption; then drop back to his place, or take a little cruise around just to see that nobody is lurking about who has no business there. Gradually the eggs are deposited with much swishing of tail, and covered over with gravel. This may take more or less time according to circumstances. Sometimes a flood comes down and plays terrible mischief. Sometimes the water falls in and leaves the bed high and dry, and the eggs perish. What the percentage of eggs that hatch out may be who can tell? but in some years I fear it must be very small. And when the poor little things come out of the egg they have indeed a bad time of it. Minnows, and sticklebacks, and trout gobble them up as soon as they can swim. Ducks and certain crawling things which live amongst the stones feed on them before they have absorbed their umbilical sack. Kingfishers sit on overhanging boughs and watch for them. Herons fill themselves with them, and worse than all, when returning next year to the sea as kelts, their mamma's and papa's devour them as pike would. Verily, it is strange that any of them ever reach the sea or live to come back again.

Some of the earliest experiments in the artificial rearing of salmon were made in Nithsdale by Mr Shaw, the head keeper at Drumlanrig, and he it was who fired me with a desire to discover something of the ways of salmon and trout. He succeeded in rearing little fishes from the egg, and thus proved beyond all possibility of doubt that parr were young salmon. Many people in those days declared that parr were young trout. Even as late as 35 years ago I was flatly contradicted on the question, but fortunately was able to prove that I was right. After my companion and I had finished our discussion on salmon and their ways we talked on other things, and then went for a walk in the garden. Suddenly I said, "By the way, I have some little fish I want to show you. I wish you could tell me what they are." We

went round to the back of the house, where I had some small parr in a box half full of gravel, with about three inches of water running over it. The moment he saw them he said: "They are parr; I should have thought you would have known that, as you have been talking so positively about them." "Yes," I said, "I know they are parr, and they came out of salmon eggs which were hatched out in that little tray above them, and that is why I know that they are not young trout; unless you mean to say that trout come out of salmon eggs, and salmon out of trout eggs."

But perhaps I shall interest you more if I tell you of my own experience, of my failures and successes, of the messes which I made of myself and other people, and of the nuisance I must have been to everybody, from the time I put my eggs into their boxes till I carried off the young salmon and sea trout and placed them in a nice little burn about half-a-mile above its junction with the river.

It was about five and thirty years ago that for the first time in my life I found myself in a position to carry out my long cherished scheme. At the back of the house was an old cistern which at one time was filled from a pump and used to supply the kitchen and back premises with water. A new water supply having some time before been put into the house this cistern had fallen out of use. It was discovered that it would still hold water, and that a few slight repairs would put it in working order. But I suspected that old pump and also the quality of water in the disused well. There were old drains suspiciously near it, and I fancied that it had an odour not quite to be expected from pure water, and a taste which had a certain richness about it but was not altogether nice, so I connected the cistern by pipes with a spring not far off, and at length filled my cistern, turned on the tap, and found that I had a sufficient stream of water. But would the spring keep up a good supply for three months? Suppose my pipes got frozen up, what then? So I determined to keep both sources of supply in working order. And it was lucky I did so, for some four weeks before the eggs hatched out the spring failed a good deal, and I was obliged to supply the eggs, which up to that time had behaved remarkably well, with a blended water. Some people say that a blended whisky is better and more wholesome than that which comes from a single still, and the blend of water did not disagree with the eggs.

Now the boxes had to be made. There is no need that I should trouble you with dimensions. You can have no idea of the trouble I had with the local carpenter. Like others of his fraternity, he seemed to think that he knew what I wanted much better than I did myself. When I told him that I wanted two boxes of certain dimensions to hold water, he suggested that barrels would be much more suitable for the purpose, not knowing of course in the least what my purpose was. But at last I got him to make them exactly as I ordered, and when I got them home and set them up found they were not the right size and not the right shape. However, I could not find courage to confess that I had been wrong lest he should say "I told you so." I set to work, and at last managed to get them into their places, filled them with fine sifted gravel from the burn, and turned on the water in triumph. The upper box was about 3 inches below the tap, and the lower one about 3 inches below the upper. The end of the lower one was placed close against the end of the upper box, and the idea was that the water from the tap was to fall into the upper box and carry air in bubbles to the bottom of it, and then flow into the lower box, with a fall of a few inches so as to aerate that box also.

With pride I watched the water fill the upper box; but, alas! it did not flow into the lower one, it ran all over the sides and end of the box. I had forgotten to cut the groove and place the little spout in position which was to convey the water from one to the other. I tried to stop the water. The tap would not move; do what I would I could not turn it. I rushed off to find some instrument with which to turn it, and after long seeking discovered a powerful pair of pincers. By this time the water had run all over the place, and I began to feel a sense of animosity against that tap. I seized the key with the pincers and at once broke it off, and the tap kept running serenely on, its voice seeming to have a mocking note of triumph in it. "I will stop your games," I said, and fetching a cork cut it as nearly as I could in my haste to fit the tap and stuffed it well up. For a moment the tap seemed puzzled. Then as the force of water increased it began to chuckle and fizzle and squirt in all directions, till at last, being pretty well wet all over, I had to give it up. That tap was one too many for me. I cut off the water from the cistern and let it empty itself as it liked. I really think that tap smiled when the cook came running

out to say that the water was all over her kitchen floor, making a horrid mess. I think I could have stood up to one or the other of them, but an irate cook and a triumphant tap together were too much for me. I fled and left them to settle the matter between them. But, to make a long story short, after many difficulties and troubles I got things in order, and all was ready to lay down the eggs.

At that time the Acclimatization Society, to which I was a subscriber, had begun to rear fish near London, and my old friend, Francis Francis, editor of the fishing department of the *Field* newspaper, was in charge of their establishment. He supplied me with 3000 eggs, 2000 of salmon and 1000 of a large kind of sea trout which run up one of the Hampshire rivers. They were packed in two tins filled with damp moss, and so well had the work been done that only two or three eggs out of the whole lot were bad when they arrived, after a three hundred mile journey by railway. They were placed on the gravel in the two boxes, the water turned on, and all went well. Filled with enthusiasm, and somewhat proud of my triumph over innumerable difficulties, I dreamt of the future, when I should place the young of the true salmon in our river, where there had never been any before, and of a more distant future when these little fish, having gone down to the sea and having fattened themselves up into great salmon, should return to the river and I should every day catch huge fish in great numbers, eat some of them myself, and send others as presents to my friends; and to a still more distant time, when the nets at the river's mouth should be full of salmon and the fishermen should bless my name, and I should be looked upon as a public benefactor. I was young in those days! and you will not be surprised to hear that all my dreams did not come true. We all know that no great work can be carried out without enthusiasm; some of you may from experience know what a terrible nuisance the individual enthusiast may become to all about him. Some of the members of our household began almost to hate me before many weeks were over. Some said I could talk of nothing but fish, and that I was always damp and messy. But the greatest grievance was that of two maid servants. I overheard one say to the other—"There he is out there messing about with his eggs and things again, bother him!" Why should it annoy them? I made no messes in their department. I was puzzled,

but suddenly it dawned upon me that my presence in the back premises at all hours of the day hindered certain little innocent flirtations with the butcher and the baker, &c., when they called.

From the time that the eggs were deposited in the boxes there began a fierce struggle between nature and myself. Nature seems to me to be supposed by some people to be a beneficent power which holds a balance, and that if you do anything to destroy the balance of nature you have committed a great sin. Well, I suppose I had destroyed the balance of nature by putting 3000 eggs into so small a space, any way nature in many forms fought against me. All went well for about a week. Then I missed one or two eggs, or rather I should say found the skins of those eggs in a corner. Careful examination with a powerful magnifying glass showed that the outer skin of the egg had been pierced and the contents abstracted. I visited the boxes as often as I could every day. Who was the culprit? At last I caught a creature about half an inch long with many legs and a cruel looking pair of nippers for jaws clinging to one of the eggs and apparently sucking it with much contentment. I promptly slew him, and thus again destroyed the balance of nature. In fact, before the conclusion of my experiments in rearing fish from the egg, I quite made up my mind that one of man's great missions in this world was to see that nature held her balance right.

Suddenly I remembered that I had never boiled the gravel before putting it into the boxes. There might be innumerable ravenous insects hidden away in their dens amongst the stones lying in wait to ravage my eggs. There was nothing for it but to take them all out, boil the gravel, and put them back again. Now the taking up something like 3000 eggs one at a time in a little wire spoon is a tedious business, but I got through with it at last, boiled the gravel for an hour in the copper, put it back in the boxes, turned on the water, and fancied that I was at the end of my trouble. But one morning soon after this I went out as soon as it was light and found the water in the boxes as thick as pea soup. There had been heavy rain in the night; it had run off a ploughed field into my spring, and was flowing from the tap in a rich yellow stream. I cut off the water from the spring, and when the cistern was empty pumped it full from the well. After the clear water had been running for a while I found the eggs all covered with yellow mud. Unless that were cleared off them not

one would ever hatch out. The eggs of salmon are about the size of medium peas, of a lovely flesh colour, transparent, and enclosed in a membrane quite as fine as gold-beater's skin. They will not endure anything like rough handling, and I was fairly at my wits' end what to do. However, taking a large camel's hair paint brush and gently stirring up the mud I did at last get rid of most of it, but it was a long and weary business, and I almost began to wish that I had not dabbled in salmon rearing and had left the fish to attend to their own duties. After this, for about a fortnight all went well. Then sharp frost set in, and all my time was taken up in keeping the boxes clear of ice. I used to come back into the house so numb with cold that I seemed to have lost all feeling, and was often reminded of a certain bishop of whom an amusing story is told. He was an old man, and was sometimes attacked with a loss of sensation in his limbs. If he grasped his arm or his knee he would find that he had no feeling in it. The doctor told him that whenever he found that to be the case he must at once take a dose of some potion which he always kept by him. He was a genial and amusing man, and one day when he was at a dinner party he was suddenly observed to turn pale and look very anxious. He said in a weak low voice—"Pray, excuse me, I must go home. I have that terrible feeling of numbness come over me. I have been grasping my knee for some minutes and have no sensation in it at all." "Excuse me, my lord," said an elderly lady who was sitting next him, "I do not think you need feel any alarm. It is my knee that you have been grasping for the last five minutes!"

When the frost was gone and I could examine my eggs again to my great alarm I found that a few were dead; they had become quite white and opaque. Others had white spots upon them, which day by day spread fast over the inside of the membrane or covering of the egg. As soon as this white substance had spread all over the egg it was dead.

This brings me to the most interesting part of my experience. It struck me that perhaps the water was too cold, but how to warm it was a problem which I could not solve. So I set to work to rig-up a small hospital for sick eggs by the dining-room fire. A large bath which had a tap in one end of it formed my cistern; under the tap I placed a small tin tray about six inches long and four wide and about three inches deep; glass rods

about half as thick as a cedar pencil were placed parallel to one another about an inch under water, and at such a distance apart that the eggs could not fall between them. The spotted eggs in the boxes were then carefully picked out in my little wire spoon and placed on the rods. The water was turned on and ran through the tin tray, the overflow falling into a small bath below. The water was kept at from forty-five to fifty degrees. From the day on which the eggs were placed in the warmer water the spread of the white matter under the outer membrane was arrested, and in time became detached, it was never absorbed, but floated about freely inside the skin. A very large proportion of the eggs hatched out, there were about two hundred of them, every one of which would have perished if left in the cold water outside. I used to watch the eggs through a strong magnifying glass. As they came near the time of hatching it was most interesting to watch the development of the little fish inside the egg. The eyes could be plainly seen, and a dim shadowy outline of the fish. After a while you could see them move and turn a sort of somersault inside their prison. At last I saw one look at me (I believe he would have winked if he had had any eyelids), give a violent struggle, burst the outer membrane, swim round the tray, and sink to the bottom between the glass rods. So my first little salmon were born.

There are three things which are absolutely necessary to success in rearing fish from the egg:—

1st. Well fertilized eggs.
2nd. Pure water.
3rd. Infinite care and pains about details.

Every egg that shows signs of going wrong must at once be removed from the boxes. If it be left to perish you soon see a sort of fungus begin to grow on it, and the moment that fungus touches another egg it will be infected, and in a few days you will find all the eggs bound together in a mass in the fungus and dead.

I have perhaps wearied you with detail more than I should have done, but I wished to show how it was possible to achieve a fair share of success even with very rude appliances. Since the days of which I have been writing I have had to do with a much larger rearing establishment from which we turned out hundreds of thousands of trout annually. But there we had all the modern improvements. A thickly thatched building in which the varia-

tions of temperature were very slight, with the purest water passing through up-to-date filters, made the work quite easy, and one year we hatched out ninety per cent. of the eggs. There is a very easy way of counting the eggs which may be of use to you if you ever have to deal with them in large numbers, for believe me the counting of even ten thousand eggs one by one is a very tedious business. Take a square board of any size you like and mark it off in square inches. Place as many eggs as you can in one layer on one square inch, count them, then cover the whole board with a layer of eggs and multiply by the number of square inches.

In conclusion, let me say that when the little fish first comes out of the egg he does not look anything like the little ones which you may have seen swimming about in our burns. He has a head and a tail, and a very thin body, but underneath where his receptacle for food ought to be, he has a large sack hanging down, the contents of which are gradually absorbed and upon which he lives for some six weeks. Day by day the sack becomes smaller, and at last when he has arrived at his proper shape he opens his mouth and begins to feed. It would weary you to enter upon all questions of feeding and the care of little fishes. They may be fed in the boxes for a few weeks, and then turned out into carefully prepared ponds, and the next year when they have put on their silvery dress as smoults should be turned into the burn or river, and with all good wishes sent off on their journey to the sea.

Should any of you wish to take up this subject there are text books touching on the matter in all its branches, and you have close to you, in the manager of the Solway Fisheries, one of the best expcnents of the art of rearing fish that I know. I wish you large families and good success in rearing them, and trust that the fish will show their gratitude for all your trouble by coming back from the sea well fattened and of large size and allowing you to catch them in great number.

LANTERN DEMONSTRATION.

Milk and Disease. By J. MAXWELL ROSS, Secretary.

Dr Maxwell Ross then delivered a lecture, illustrated by lantern slides, on "Milk and Disease." He first dealt with the

production and chemical constituents of milk, and then shewed how it might become a medium for disseminating disease, particularly tuberculosis, typhoid, diarrhœa, scarlet fever, diphtheria, and pointed out circumstances under which such dangers were likely to arise. He received a cordial vote of thanks.

17th March, 1899.

Mr JAMES BARBOUR, Vice-President, in the Chair.

Donations and Exchanges.—Papers from the U.S. Department of Agriculture on Life Zones and Crop Zones; the Geographical Distribution of Cereals, and Cuckoos and Shrikes in their relation to Agriculture; the Transactions of Wisconsiu Academy.

Exhibits.—Pebbles from Brazil; Tiles from the Old Summer Palace, Pekin; Indian Pebbles, Moss Agates, Devonshire Madrepore, Copper and Gold Ore from Rosario, and Russian Malachite, &c., by Mr Hope Bell of Morrington.

COMMUNICATION.

The Moral and Social Conditions of Dumfriesshire and Galloway a Century Ago. By Mrs BROWN, Barnkin of Craigs.

This is a subject which in such a paper as the present one it is only possible to treat very superficially, mainly by means of a few illustrative incidents. Neither must the definition, a century ago, be taken too rigidly. Many of the conditions of that particular period were those existing at a much earlier date, and lasting far enough into the present century to be actually within the memory of people still living, at that extremely advanced age not infrequently met with in this part of Scotland.

That the moral tone of Galloway and Dumfriesshire at the period in question was deplorably low is abundantly proved by the abuses and scandals which, at least in rural districts, were complacently tolerated in connection with religious ordinances, even with the lives and conduct of many of the clergy themselves.

It is hardly too much to say that in country places, with the exception of the weekly services in the church on Sundays, there was hardly a single religious ordinance the celebration of which was not an excuse for unbridled conviviality. The yearly or half-yearly celebrations of the holy communion, marriages, baptisms, funerals, all were occasions marked by one feature in common—an unstinted flow of whisky. For much interesting information on this subject I am indebted to Mr William Wilson, of Sanquhar, many of whose notes were taken down in past years from the lips of old people who had been witnesses of the scenes they described.

The celebration of the holy communion was, of course, the most important religious event of the year. It was a veritable festival, unfortunately apt to be one of a most unseemly character. The gathering into a village or small rural town of perhaps seven or eight ministers to aid in conducting the services, and of a crowd of intending communicants, many of whom had frequently walked twenty miles to be present, inevitably resulted in much crowding and confusion. Refreshment was necessary, and between the services both public-houses and private dwellings of hospitable residents were crammed. Whisky flowed freely, and only too often the whole gathering assumed more the aspect of a fair than of an assembly met for the celebration of a specially solemn religious service. Even at the table where ministers and elders dined together excesses were by no means uncommon, such as in these days would lead to very summary deposition of the offenders. One circumstance, related in connection with Sanquhar, is terribly significant of the tone of sentiment resulting from these abuses. The truck system was then general with the miners at Wanlockhead, but ten shillings were allowed to each man for the expenses of going to Sanquhar for the sacrament. It being found that the greater part went in drink, the amount was reduced to half-a-crown. One of the heavy drinkers of Sanquhar, meeting a convivial spirit from Wanlockhead, asked how it was he saw him so seldom now. "We never see ye at the sacraments noo," he added. "Na," responded the miner, "things are geyly changed noo. The sacraments are no worth a haet. They're only half-a-crown."

Of marriages it is needless to speak. Everyone knows well enough in what a regular orgie a rural marriage commonly ended. I fear it might be said commonly *ends*, even in these days, when

so radical a change has taken place in both sentiment and practice as regards the sacraments that a very staunch and earnest Episcopalian clergyman not long since remarked to me that he thought an open-air celebration of the Holy Communion, at which he had been present in the island of Arran, was one of the most solemn and impressive scenes he had ever witnessed.

The sacrament of baptism did not escape the desecrating accompaniment of whisky. Whether the ceremony was performed in private houses, or several infants were brought to some convenient place arranged beforehand, treating the minister afterwards was a common practice. A very old man of Mr Wilson's acquaintance once told him he distinctly remembered, when one of the younger members of his family was baptised, hearing his father ask his mother for half-a-crown "to treat the minister."

Of funerals little need be said. A century ago it was no uncommon thing for five, even six rounds of whisky to be served out before the party started for the churchyard, with additional supplies after their return to the house. Hence it is easy to credit a well-known story of a funeral party arriving at the churchyard and then discovering they had quite forgotten to bring the coffin with them.

Another proof of the low moral tone of the age is the open complicity of people in a most respectable position, even of ministers, with smuggling. The traffic was carried on between the Galloway coast and the Isle of Man to an enormous extent, and one of the charges against the Rev. Robert Carson, minister of Anwoth, who was deposed from his office by the Presbytery somewhere about 1770, was "that he not only smuggled himself but encouraged others to follow the same unlawful practice." Farmers and tradesmen of respectable position, even men of much higher social standing, were frequently implicated in the nefarious traffic. Balcary House, on the shores of the Solway, is said to have been originally built by a firm of smugglers, and I believe the construction of the cellars, with a view to safe concealment of smuggled goods, is most curious. At numberless farms along the coasts such places of concealment were rife. One ingenious method was brought to light in 1777 by Mr Reid, Inspector-General of Customs, who brought from Edinburgh with him two thoroughly practised drainers. They soon discovered under-cellars skilfully concealed beneath the ordinary ones, and in the course

of a few days Mr Reid secured, in the neighbourhood of the Mull of Galloway, over 80 chests of tea, 140 ankers (that is 1400 gallons) of gin and brandy, and nearly as many bales of tobacco. A whilom excise officer of Wigtown, who died at an advanced age toward the middle of this century, remembered having as a boy counted 210 horses, laden with tea, spirits, and tobacco, and guarded by about 100 men, passing in full daylight within a mile of Wigtown, in open defiance of the excise officers and a party of about 30 soldiers stationed in the town. He also remembered going with his father, then excise officer in Wigtown, and a small detachment of troops, to prevent a landing of smuggled goods at Port William. But the smugglers were in too great force, and a conference took place. The commander of the gang said if any interference was attempted he would clear the beach with his guns, but if he was left undisturbed he would leave some spirits thereon. Accordingly the excise party retired to a distance of a few miles, and on their return found 36 casks of spirits awaiting them at the appointed spot. Even as far as Sanquhar smuggling transactions were briskly carried on. Some of you perhaps know Pamphey Linns, a picturesque spot on the Barr Moor, immortalised by our gifted countryman, Alexander Anderson. The caves there, still in existence, were a century ago much more extensive than now, and very useful for the storage of smuggled goods. More than one worthy tradesman in Sanquhar, who towards the end of last century throve amazingly and became an important person in the burgh, owed his prosperity to transactions connected with Pamphey Linns.

As regards the social condition of Galloway and Dumfriesshire at the period in question, it must certainly have been such as would cause a severe shock to our more Sybirite habits. Only as a sarcastic relation of mine once remarked to me, "You know they drank water out of any well or burn that came convenient, and did'nt have any drains, so they never had typhoid fever." It has lately been argued that colds are a product of civilisation. In the presence of medical science I do not venture to embark on the slippery ice of an attempt to prove typhoid fever to be another beneficent result thereof; but certainly the water supply and other sanitary arrangements of even country houses of some importance a century ago are subjects better left in the oblivion to which the march of progress has consigned them. Whether or not the

acclimatised inhabitants of the district suffered from typhoid fever, it seems they did suffer from ague. In a now, I believe, rather scarce work, Mackenzie's "History of Galloway," published by Nicholson, Kirkcudbright, in 1841, I find the following paragraph referring to this period: "The draining of marshes and mosses, the erection of more spacious and better ventilated houses, the more comfortable clothing and nutritious diet now used, and the greater attention to cleanliness, have banished several diseases—such as ague—which formerly prevailed to a painful degree." To these changes may perhaps be due the fact that the population of Galloway, towards the middle of the present century, was fully double what it was at the middle of the 18th century. The figures are respectively 37,671 and 75,848. This claim to a more nutritious diet at the very time when tea was beginning to come into constantly increasing use may raise a question, in view of the jeremiads to which we are accustomed on this subject. There are very few of the ills which befall Gallovidian and Dumfriesian flesh and blood which I have not at one time or another heard attributed to the substitution of tea and scones and butter for porridge, milk, and potatoes. But if they were beginning a century ago to deteriorate the race with tea, there was at least the compensating advantage that the extraordinary improvements effected about that time in the hitherto rude, imperfect methods of farming in Galloway and Dumfriesshire had a most beneficial influence on both the quantity and quality of the food raised on the soil. If they were a finer race in those days the fact may be due to the general conditions of life, which were calculated to secure the survival of the fittest by prompt extinction of the weaker stock. Still, it is not very many years since a dozen men, taken at random from the parish of Balmaclellan, gave the greatest average height in Europe; while the chief constable of Dumfriesshire gives the average height now of the county police as 5 feet $10\frac{1}{2}$ inches. If these be the dwindling, deteriorated pigmies resulting from excessive tea drinking, it is a little difficult to understand how their more magnificently developed ancestors managed to dwell in the cottages of their time, unless they habitually went on all fours.

For rich and poor alike, one of the most trying conditions of a century ago must have been the difficulty of locomotion. I have heard my father, who was born in 1801, describe the roads of

Dumfriesshire, as he remembered them in his childhood, before the beneficent influences of M'Adam had made themselves generally felt. Anything like a hole in the road was promptly repaired by the casting therein of a big stone. Over this stone the wheels of passing vehicles heaved, descending on the other side with a thud; consequently in a short time the original hole was represented by a diminutive mountain with a small pit full of mud on each side of it. In Galloway and the upper parts of Dumfriesshire there were no means of conveyance for those not wealthy enough to keep carriages save common carts. I remember a woman, who died in Sanquhar about sixteen years ago at a very advanced age, telling me that in the year 1821 she had to go to Edinburgh to undergo an operation on her face, necessitated by a growth in the cheek bone. I asked her how she went. "Oh, just with the carrier's cart," she said, "and I was two days on the road. We went to Biggar the first day, and to Edinburgh the next." A two days' jolting in a carrier's cart, suffering the while intense pain!

These difficulties of locomotion must have rendered life in the most thinly populated parts of Galloway and Dumfriesshire intensely lonely. In such villages as Dalry, Carsphairn, and Wanlockhead people must have lived and died with only the most fragmentary knowledge of any public events, or of any occurrences beyond their own immediate neighbourhood. Newspapers they had none; postal communication was, on account of its expense, practically non-existent. A little information may have occasionally drifted down from some country mansion in the neighbourhood, or farmers returning from market towns may have brought home news from the outer world; but that was all. That the general rate of intelligence was not of the highest order may be gathered from the fact mentioned in Mackenzie's "History of Galloway," that so late as the year 1805 the Procurator-Fiscal of Kirkcudbrightshire thought himself bound to prosecute a woman for witchcraft. She was sentenced to be imprisoned for a year, and once in every quarter, on a market day, to stand openly for an hour in "the jugs or pillory" at the market cross of Kirkcudbright. This, as far as I am aware, is the latest instance of judicial punishment inflicted for witchcraft, though belief therein lingered on to a later date. Mr Wilson, in an interesting account of the famous Crawick Mill witches, mentions instances of un-

expected accidents or disasters being laid to their account as late as the year 1831.

I may further note one condition of the age which, though not exclusively affecting Galloway and Dumfriesshire, must have pressed particularly severely on the poorer inhabitants of the most thinly populated parts of the country. I mean what fully merits to be termed the iniquitous postal system of the time. Letters were a luxury in which the poor could not indulge. They had to pay the exorbitant postal charges. People of rank and wealth got their gossiping letters sent free of charge by securing the frank of some peer or official personage. In more thickly populated districts the poor might sometimes hear of distant friends or relatives through the medium of some passing traveller; but in the lonely wilds of Galloway and Dumfriesshire many a heart must have ached in vain for news of dearly loved ones far away, and gone down to the grave in ignorance of what had been their fate in life. Another reminiscence of my father's is worth pages of denunciation of the wretched system. My grandfather was one of the Commissioners of Customs for Scotland, and had thus a practically unlimited right of franking. My father has often told me how, when he and his brothers were boys at school in Edinburgh, they used occasionally to send packets of sweets to their cousins in Dumfriesshire or to other young friends by post, franked, which would have otherwise cost 3s to 4s. And this while parents and children, even husbands and wives, if parted, could receive no news of the absent ones because of the prohibitory rule of postage which they *must* pay.

One further recollection of my father's I may quote as illustrative of the chances afforded to tramps in such out-of-the-world districts by the then disgraceful condition of the coinage. There were no milled edges, and few of the smaller coins, such as shillings and sixpences, were anything more than round pieces of metal, with only the faintest trace of any stamps left upon them. The forge at Mennock, close by that bridge which ignominiously collapsed lately, was then kept by an old retainer of my father's family, and was, of course, a favourite resort of his brothers and himself. He told me he had often seen a tramp come in, lay a shilling on the anvil, take the hammer and beat it out, and then cut three sixpences out of it.

I must not trespass longer on your patience with a subject which can hardly claim the dignity of antiquity, and is clearly not within the scope of natural history. But such are briefly a few of the most suggestive conditions of life in Galloway and Dumfriesshire a century ago. In these days of telephones and phonographs, electric lights and Röntgen rays, and all the rest of our modern appliances, it requires almost an effort to grasp the fact that those among us who have attained to middle-age have in their younger days lived in intimate association with people for whom such conditions as I have described were the familiar surroundings of their youth.

Cordial thanks were passed to Mrs Brown for her admirable and interesting paper, on the motion of Dr Maxwell Ross, seconded by Mr J. A. Moodie; and a conversational discussion ensued, in course of which some facts germane to the subject were brought under review. Dr Ross observed that the people of the south of Scotland were considered to be of high average height; but with regard to the height of the members of the county police, he explained that nearly all the younger men are from the north-east country. He further alluded to the practice of a minister in the north utilising his pulpit for disseminating news to his congregation during the progress of the Napoleonic wars, in which many of his congregation had friends engaged, by taking the newspaper with him on Sunday and reading from it. Mr Moodie thought the hard struggle for bare existence and gross pleasure disclosed by the account made our ancestors appear almost savage in their way of living. Mr W. Dickie remarked that his commiseration of them was tempered by a good deal of admiration, and contended that amid much that was deplorable there existed a great deal of spiritual and mental activity among the peasantry. He spoke to having witnessed in this town an attenuated survival of the custom of serving whisky out of doors to persons attending a funeral. With reference to the witchcraft trial at Kirkcudbright in 1805, he explained that the charge there was not for possession of supernatural power—in which the judicial class had then ceased to believe—but of imposition by pretending to the possession of such powers.

The Chairman (Mr Barbour) spoke of the important part played in the social economy of the times by pedlars and chapman literature, and he supported the view that a large serious element

entered into celebration of the communion by large gatherings. In St. Michael's, he mentioned, the services were protracted over two weeks, and began at six o'clock in the morning, two ministers preaching simultaneously—one from the church, the other from a pulpit-tent in the churchyard. Smuggling was not regarded by the community as a very blameworthy offence, and besides the trade that went on with the Isle of Man and other places they used to make spirits in little stills, of which he had seen some on the hills about Dalswinton. Mr Dickie observed that it was not only whisky which was smuggled but salt: the people were obliged to carry on a contraband trade in necessaries of life if they were to procure them. Mr Barbour further referred to a curious case that came before the church courts from Irongray two hundred years ago, in which the German mud-bath cure for consumption was anticipated. A woman suffering from this malady was buried in the earth all save the head; and the parties were brought before the church courts on a charge of using certain incantations. Mr J. S. Thomson stated that several years ago, when a woman was taken ill in a close off the High Street, near his shop, a woman declared that she had been bewitched, and drew a circle round her and uttered incantations for the purpose of freeing her from the spell. The Chairman referred to the case of the Rev. Peter Rae, contemporary historian of the rebellion of 1715, who believed that a woman had bewitched him, and took the usual course for breaking the spell by cutting her across the brow. For this he was tried before the Presbytery of Penpont and reprimanded.

21st April, 1899.

Mr James Barbour, Vice-President, in the Chair.

Communications.

1. *Limestone Nodules in Glacial Deposits near Moffat.* By Mr J. T. Johnstone, Moffat.

In a former note I mentioned that the occurrence of these nodules in this district was confined to the glacial deposits, and

they had not been observed in the Permian breccia, although occurring there in the neighbourhood of Dumfries. Last spring (1898) a large excavation was being made in these glacial deposits in connection with the erection of a house in Grange and Academy roads, and in the course of the excavations I repeatedly examined the section for these nodules, and was fortunate in finding not only the nodules as formerly, but large Boulders entirely composed of the Permian breccia, containing the limestone fragments in abundance, but not in so large pieces as the detached nodules. Later in the season an excavation was being made in the neighbourhood of Langshaw, which was only about six feet deep, but which cut through the Permian breccia in situ, and in the exposure the limestone fragments were observed similar to that of the Breccia boulder of Grange Road. This year (1899), in examining a cutting being made in the Breccia at the Hydropathic Establishment, the limestone fragments were observed in it also.

2. *Botanical Notes for the Moffat District.* By Mr J. T. Johnstone, Moffat.

I have not communicated any notes for this district for a few years back owing to the fact that the district has been very well worked up and nothing left but the gleanings to record. None of the plants are new records for the county but are new to this district.

Geranium columbinum, *Lim*, waste ground, Beattock Station, June 11, 1898.

Lamium galeobdolon, *Crantz*, Craiglands, 26th May, 1897.

Salix repens, *L*, Dyke Meadows, 1898.

I am indebted to Mr John B. Duncan, Bevedly, for the following, all gathered in July, 1898:

Carum Verticilatum, *Koch*, Castle Loch, Lochmaben.

Apium inundatum, *Reich*, Earshaig Lakes.

Andromeda polifola, *L*, Callum Moor.

Alisma ranuncloides, *L*, Castle Loch, Lochmaben.

Mr B. N. Peach, H.M. Geol. Survey, informs me that *Trientalis Europea L* occurs on the west side of the road near Mosspaul. This plant in the Dumfriesshire Flora is queried requires confirmation.

3. *Further Notes on the Old Hall of Ecclefechan (otherwise Kirkconnel Hall).* By Mr GEORGE IRVING, Corbridge-on-Tyne.

In my paper on the above sent to the Society in October last, I stated generally that the Irvings of Kirkconnel (Springkell) had lands at one time extending through part of Middlebie to Ecclefechan. Since I wrote that paper evidence has come to hand which I was not aware of at the time. This evidence confirms what I stated, and I think is worth recording. The old parish of Kirkconnell, now part of Kirkpatrick-Fleming, was in the possession of the Bells in the 15th century, but the then owner forfeited his estate for participating in the Douglas Rebellion in 1451. Their tower, called Bell's Tower, stood near the Kirkconnell Churchyard. This tower was demolished in 1734. Soon after the estate was forfeited by the Bells it passed into the hands of the Irvings of Bonshaw. The first William Irving of Kirkconnell, so far as I have been able to ascertain, flourished about the year 1542, and was in possession of Woolcotes, Middlebie, and other lands in Hoddom, and got sasine in 1551. These lands he probably acquired by marriage with the daughter of Richard Bell. The original charter of lands in Woolcotes in favour of William Irving, elder in Kirkconnell, was dated 21st day of 1608. There does not appear to be any record of issue of this marriage. The second William de Kirkconnell, called senior of Kirkconnell, 1555 to 1605 (youngest son of Edward Irving of Bonshaw, who died in 1605), is said to have succeeded in 1619, died 1642, aged 87. I think the second William married in 1631 Janet, daughter of Jardine of Applegarth, and was father of John of Woodhouse, who married Sarah, daughter of Sir William Douglas of Kelhead, and was succeeded by his son William of Bonshaw. The third William (son of William second) married Jean, sister of Lancelot Armstrong of Artine, died 1680. The fourth William (son of William third) obtained sasine in 1681. Married Isobel Irvine 1654. She died 1684. Isobel left six children, viz., Richard (died young), Rosina, Margaret, Sarah, Elspeth, and Isobel. By the second marriage with Margaret, daughter of Carruthers of Holemains, he had one daughter, Jean. William Irving died June, 1706, aged 80 years. (See tombstone in Kirkconnell Churchyard.) Herbert Irving succeeded and died in 1709, aged 60 years. It is not very clear whether Herbert Irving was a son or brother of William (fourth).

According to the above he would be 22½ years younger. William Irving (fourth) left a daughter Sarah, who married William Knox. There is a curious coincidence in the names William and Sarah. Washington Irving's father and mother were William and Sarah. From William Knox and Sarah Irving have descended the Arnotts, present owners of Ecclefechan Hall. We get some interesting information as to the ownership of lands held by the Irvings in Hoddom from an inquiry at Ecclefechan in May, 1743, as to the enclosure of the commons of "Hoddom and Ecclefechan by annexation" before John Goldie of Craigmuir and John Hynd, Commissary Clerk of Dumfries, appointed by the Right Honble. the Lords of Council and Session, whereat "compeared *William Knox* of Kirkconnell, aged fourty-five years or thereby *solutus*, who being solemnly sworn purged and interrogat as above, Depones that the deceased Sarah Irving, the deponent's Spouse, did in the year 1718 with consent of the Deponent dispone to James Douglas of Dornock all and haill the fourty shilling land of Woolcoats and the fourty shilling land of Albielees, all lying in the parish of Hoddom by annexation, and Depones that at the time forsd. the sd. lands were set for the Rents following, viz., Woollcoats, comprehending Burnswork, and Burnsworklees, three hundred merks Scots, and beside the Tenant was bound to relieve the heretor of all publick burthens, inquisition, and cesses Imposed or to be Imposed upon the said lands, and to bring the Grindable corns of the said lands to the Westgill Miln. Also Disponed by the Deponents Spouse and him to Dornock and to pay the multure sequells and all oyr. dutys used and wont to be payed forth of the sd. lands. *Item.*—The lands of Clinthill, one hundred and thirty-fyve pounds Scots, and the Tenant was obliged to pay the cess or supplie, and to bring his corns to the said Westgill Miln and pay multures yrfore. *Itt.*—The lands of Thompsonstown, a pendicle of the lands so Disponed, payed eighty-four pounds Scots yearly rent, and the tenant paid the supplie and was thirled to the Westgill Miln in manner forsd That the heretor was bound to relieve the tenant of the lands of Woolcoats and Burnswork of all Ministers and Schoolmasters stipend, teynds, and oys due to them forth of the sd. lands; but believes that the Tenants of Clinthill and Thompsonstown payed the sd. stipends themselves besides yr. rent, and being further Interrogat Depones that at the date of the forsd. Disposition and for several years afterwards the said Westgill Miln stood upon a part

of the sd. lands of Clinthill. But the same has been since removed to a part of the lands of Cleugbrae for the convenience of more water. That the said miln at the time forsd. payed ninety-six pounds Scots of yearly rent and besides the lands a'ment. The lands after specd. were thirled to her, viz., the half Merk Land in Middlebie called Wallacetown and Seedhill, the half Merk Land of Seedhill and Shaw, the half Merk Land of Gaitland, the twenty shilling land of Cleughbrae called Cowthats Croft and Aikrig (*alias* Woodland), and the half Merk Land of the half Merk Land of Blacklands lying contiguous to the sd. lands of Cleugbrae, and wch. all now go under the name of Cleughbrae and Wallacetown. *Itt.*—The ten Merk Land of Kirkconnell comprehending the Deponents Interest in Ecclefechan. *The Hall of Ecclefechan* (*alias* the Hall of Kirkconnell), lands of Myre, part of the lands of Langdyke, Jocks Edge, in the possession of Doctor Irving. *Itt.*—Paulsland and part of the lands of Howdale. *Itt.*—Deponents part of the lands of Crossdales and the Merkland in Ecclefechan acquired from the *Tutor of Bonshaw*, and further Depones that at the time forsd. the said lands of Cleughbrae payed of yearly rent eleven pounds sterling, Wallacetown three pounds six shills. and eightpence money forsd. besides the teynd and supplies, and that the ten Merk Land of Kirkconnell and others above ment. pertaining to the Deponent, and his son then payed the rents following, viz., Imprs. the Mains, eighteen pounds. *Itt.*—The Edge, two pound six shillings. *Itt.*—The Howdales, one pound ten shillings. *Itt.*—The Langdyke, one pound six shillings. *Itt.*—The Myre, two pounds twelve shill. *Itt.*—The Crossdales, one pound and eightpence. *Itt.*—By Wm. Bell in Ecclefechan, six pound fyve shills. and fourpence; Wm. Smeal, yr. one pound eight shills.; James Black there, one pound three shill. and fourpence; Margaret Forsyth there, two pound ten shills.; Simon Little, yr. two pound eleven shills.; Wm. Forsyth, yr. for houses and yards, one pound; John Lindsay, yr. for a house and yard, eleven shillings; Wm. Ker, yr. for a house and yard, one pound four shills.; Dick Irving, yr. for a house, fyve shills.—all ster. money. And Depones that the Tennents of the Mains pay twenty merks Scots. of stipend yearly besides the forsd. rent, and yr. the Minister draws the teynd sheaf yearly out of all afd. oyr. lands mentioned including the Edge, and that the Deponent for severall years payed fyve pounds ster. yearly to the Minister for the

drawn teynd of these lands and for a piece of Glieb land in Ecclefechan less than an acre, and Depones that In his Judgment the teynd he drew out of the said piece of Gleib land was not worth more yn. four shills ster. yearly."

Wm. Knox's evidence was supplemented and confirmed by John Irving of Whitehill, aged 60 years, who was and had been factor for James Douglas of Dornock since 1723. He stated that he knew all the lands that pertained at one time to William Irving of Kirkconnell and then to Wm. Knox, and also proved the rents that had been paid for the various farms, including the Mains of Kirkconnel (*alias "Hall of Ecclefechan"*), &c., &c. Mr John Irving's evidence was supported by George Little in Supplebank, who spoke of the lands formerly pertaining to the Tutor of Bonshaw and the Heirs of Woodhouse, and which "now belongs to the Duke of Queensberry."

William Robison in Dykestown deponed that he had made a "narrow inspection" of that part of "The Hall of Ecclefechan" within the last two days, "but does not think he could give more than twelve pounds rent for Mr Knox's possession and live and have bread upon it." John Wightman, 84 years of age, proved that he has lived all his life in Hoddom and Ecclefechan, and "spoke to having cast feal and divot in "the said sucken ground" on the Common. Remembered that about 70 years ago there were two women, who were supposed to have hanged themselves, buried there on Common ground, and heard Mr Matthew Reid, then minister of the parish, give directions to bury one of the said women, and was present when she was buried.

James Kinnell gave evidence as to the rents paid by the tenants in Ecclefechan to William Knox, and specified these rents in detail, which covered the whole of the east side of the burn. Alexander Goldie, W.S., proved that he held the disposition made by Sarah Irving of Kirkconnell with consent of her husband, Wm. Knox. Alexander Goldie, Writer to the Signet, "Doer for His Grace the Duke of Queensberry," spoke of the lands belonging to His Grace and new orchard respectively, and which formerly belonged to the *Tutor of Bonshaw* and *heir of Woodhouse*.

John Irving of Bonshaw, fourty-three years of age, deponed that he had been Chamberlain to the Duke of Queensberry for nine years, and confirmed the evidence of George Little in Supplebank, and further spoke to the teynds and supplie paid by tenants; "and

further adds that he has heard his father say that the foresaid lands now belonging to His Grace *formerly* belonged to him as heir of Woodhouse." The above notes illustrate the great hold the Irvings held in Annandale in the 16th and 17th centuries, for it may be said briefly that the Irvings of Kirkconnell and Ecclefechan held the land from the river Sark and the Solway shore to and including Birrenswark Hill, including part lands in Middlebie and the eastern half of the parish of Ecclefechan extending from the east side of Ecclefechan Burn to the Westgill Burn; whilst the Irvings of Gretna, Cove, Woodhouse, and Bonshaw, and their kinsmen held the land from Solway's shore up both sides of the Kirtle to Pennersax, Hoddom, Knockhill, and Ecclefechan; the whole of the ancient parish of Ecclefechan, the ancient parish of Luce, and part of the ancient parish of Hoddom, where Knockhill and the farms belonging thereto extended. In short, the Irvings of Woodhouse owned the west side of Ecclefechan Burn, and the Irvings of Kirkconnell the east, so far as the ancient parish of Ecclefechan appears to have extended.

I referred in my first paper to the irregular marriage of George Arnott with Janet Knox in 1754. I have since been favoured by the following extracts from the minutes of the Kirk-Session of Hoddom dated June 2nd, 1754: "The Session appointed a Committee of yr. number to meet upon Tuesday next in Ecclefechan to call Mr Arnot and Miss Knox before them to own yr. clandestine Marriage, &c. Accordingly upon Tuesday, 4th June, 1754, the Minister and three Elders, viz., William Murray, merchant in Ecclefechan, William Hannah in Cowthat, Andrew Henderson in Mainholm, met in Ecclefechan in said William Murray's House and Rebuked Mr George Arnot and Janet Knox. The Minister took Mr Arnot's Bill for half-a-guinea as a penalty for his irregular Marriage. June 9th, 1754.—The Minister did intimate from the pulpit that Mr Arnot and Janet Knox had been rebuked before the Session for yr. Irregular Marriage, and that they had given a Bill for the penalty. *Nota.*—Andrew Henderson was not appointed to be at the above Committee for he was not in the kirk when it was appointed. *Nota* 2.—Mr Arnot and Miss Knox in March last were fined by Commissary Goldie in Ecclefechan in 100 merks, the Commissary having come out to divide Hoddom Common. *Nota* 3.—This is the first clandestine Marriage that ever I knew

which was rebukt. before a Committee of Session, the most of the Session being against it and myself too." These Nota were by the Minister. It is very difficult in these days to understand how "Commissary Goldie" had any power to "Fine" the offenders, and rather singular how he should combine the offices of adjudicator on irregular marriages whilst acting as inclosure Commissioner, more especially as I believe he was a relative of the parties. I must not omit to say that Helen Irving (otherwise "Fair Helen of Kirkconnell Lea") was a member of this branch of the Irving clan. I am aware that there has been disputes about the name of the fair heroine, but I think that the traditions which have consistently said her name was Irving have been supported by careful investigations over one hundred years ago. These all agree that she was a daughter of Irving, the Laird of Kirkconnell.

FIELD MEETINGS.

First Field Meeting—June 10.

The following Report of the Meeting is taken from the *Dumfries and Galloway Standard* of 17th June, 1899 :—

In Morton, Penpont, Tynron, and Keir.

The first Field Meeting of the Dumfries and Galloway Natural History and Antiquarian Society for the present summer was held on Saturday last ; and it took the form of a circular pleasure drive, covering some 46 miles of road in Mid-Nithsdale. The objective point was Auchenbrack in the Shinnel valley, where the party were the guests of Mr Wallace in the afternoon. They proceeded to it by way of Thornhill, Penpont, and Tynron, and made the return journey through the parishes of Keir and Dunscore. A tourist coach quitted Dumfries with seventeen passengers ; and accessions at Thornhill and Tynron brought up the number to some two dozen. The day was one of brilliant sunshine, and the drive, by hedgerows snowy every here and there with the May and the elder-flower, by banks of golden broom, and lines of trees in the tender freshness of early summer garniture, was a very pleasant experience. There was much, too, of interest to engage attention. The stretch of excellent highway to Thornhill had its peeps of Ellisland and Friars' Carse, and of the graveyard that holds the remains of the notorious "Lagg." When Auldgirth Bridge was crossed, the fact was recalled that Carlyle's father—the grandfather of Miss M. Carlyle Aitken, one of the party—worked at the building of it, as an apprentice with Mr Walter Stewart of Ewanston, grandfather of Mrs Johnstone, of Victoria Terrace, another member of the company, and who also was the contractor for the New Bridge at Dumfries. All readers of Carlyle know with what veneration he regarded this piece of solid masonry

because it was in part the handiwork of his parent; and it was interesting to learn that on the last occasion when he crossed it, with tottering feet that needed aid, he lingered to draw his hand lovingly along the parapet walls. Closeburn had its reminiscence of Burns in Brownhill farm, which was in his time an inn kept by landlord Bacon of the bard's epigram; and of the Buchanites in the wayside cottage beyond the village, which was for a time the home of the curious sect who persevered, notwithstanding repeated disappointments, in the hope of a bodily translation to heaven. A halt of fully an hour was made at Thornhill, and the excursionists paid a visit to the museum associated with the name of Dr Grierson, a former president of the Society. It continues to grow in bulk and interest, and its contents are arranged in an orderly and systematic manner. Among the latest additions pointed out by Mr Kerr, the curator, were a collection of butterflies and beetles presented by Mr W. Imrie, Auldgirth; a fox sent by Mr Kerr, farmer, Newbridge; a finely-shaped stone axe from Mr Brown, Bennan. The garden was in a state of luxuriance that would have delighted the founder's heart. Resuming the drive, and crossing Nith Bridge, which connects the parishes of Morton and Penpont, Mr J. R. Wilson, Sanquhar, mentioned that the minutes of the road trustees, to whom he is clerk, shew that its original name was Crossford Bridge, derived, no doubt, from the ancient cross that stands in an adjacent field, enclosed by a protecting railing. The sculpture which adorned this monolith has been defaced by the hand of time; but there is no doubt that in pre-Reformation times it stood by the side of the ferry or ford as an invitation to the traveller to engage in an act of devotion before committing himself to the peril of the water, or to offer up the incense of gratitude when the short voyage had been safely accomplished. The erection of the bridge followed upon a melancholy catastrophe, the upsetting of a ferryboat crowded with passengers. A grim tradition has it that as they pushed out from the bank the occupants of the ill-fated boat had their number augmented by a mysterious personage, who came no one knew whence and vanished no one saw whither, but left behind him a strong whiff of brimstone. The foundation stone of the bridge was laid in 1733 by a now defunct Masonic Lodge, St Paul's, of Moniaive. A few yards further Virginhall Free Church recalled the story of Jenny Fraser, the rustic hymn-writer and uncom-

promising non-intrusionist, who gifted her kailyard as a site for a Free Church when the Duke of Buccleuch had refused a rood of his ample possessions for the purpose, and told his Grace's envoy, who came to buy it of her, that she had "gi'en it to the Lord an oor syne." Carlyle, when a visitor to his wife's relations at the adjacent farm of Templand, made these incidents the subject of some pungent observations concerning what he called "this puddle of a dukery." Noting by the way Grovehill, with its maple tree and its hackney farm, the company drove on to Penpont, and there made a short incursion into the churchyard. Surrounding a stylish, modern church, dating from the seventies, there are here some curious memorials of a former age. One imposing piece of sepulchral architecture has been erected to commemorate a pre-Reformation ecclesiastic, but it has proved faithless to its trust, for the elaborate epitaph is no longer decipherable. Arranged along the wall by the gateway are fragments of headstones with more or less grotesque carving upon them. One, which has, no doubt, marked the resting-place of a village blacksmith, is embellished with a hand and hammer, surmounted by a crown, emblematic of the glory to which he has been called, and is inscribed with the motto of his craft—"By hammer in hand all airts do stand." Airts, of course, is a Scotch rendering of arts in the sense of crafts. In this churchyard, also, is the grave of Dr Grierson. Leaving the tidy and thriving-looking village, Capenoch House next claimed attention, on account of its beautiful situation on a little platean, embosomed in wood, no less than from the fact that it is the country seat of Mr Steuart Gladstone, Governor of the Bank of England, and a second cousin of the late illustrious statesman. Looking up Scaur Water, a glimpse is got of Corfardin, now part of the farm of Laight, in which the Ettrick Shepherd sank in a short eighteen months the proceeds of the first edition of "The Queen's Wake" His sheep went down by scores of the "trembling," due it is alleged to putting on the land double the stock which it could carry. But the shepherd bore his losses lightly. His man would come in broken-hearted with the news that another batch were dead, to find the master at the fiddle, and got for answer to his doleful tale the invitation to sit down and hear him play a spring. The late James Shaw tells in one of his pleasant sketches how Hogg sought a reduction of his rent and was asked by the Duke of Queensberry—"If I gave you the land

for nothing, do you think you could make a profit out of it?" The reply was poetically nonchalant—"I might, if your Grace wad stand between me and the sheep-rot and the winter wreaths."

At Shinnel Forge the excursionists turned off the road that leads by the Clone Pass to Moniaive, and entered the narrow valley of the Shinnel. At this point the glen presents features of great beauty, with its cover of natural wood and its hill-line of picturesque and curiously contrasted form—the conical slopes of Tynron Doon neighboured by the rugged and precipitous Craigturrah. The Doon has its wealth of legend, associated with the Romans, who had a camp on its top, and with Robert Bruce, who is said to have found a retreat here from his enemies. There is also a tale of a lady who lived in the castle on the hill-top, who is said to have required an ox's tongue every morning for breakfast. One morning she was aroused by an extraordinary lowing of cattle, and looking out on a hill-side covered by a herd of 365, she appealed to her husband to know what was the cause of this parade. She was informed that she saw there her year's breakfasts. This, according to one form of the legend, was a device to cure her of an extravagant caprice. A prettier version has it that the matutinal tongue was a contrivance of a compassionate lady to secure the daily killing of an ox, so that a miser lord might be compelled to share the perishable contents of his larder with the poor.

At the village of Tynron Kirk the party were joined by Mr James Laurie, merchant, and Mr John Laurie, schoolmaster. In the house of the former gentleman they were privileged to see a curious work of art in the form of an elegant, high-backed arm-chair made entirely of buffalo horns, except the seat, which had been sent as a gift from Kansas city; and also books connected with his business extending far back into last century. For the business which Mr Laurie now conducts, and which is known far and near in connection with the special blend of spirit known as "Tynron Kirk," is one of ancient origin. Generations ago Tynron was a centre for distribution to a wide area of wines and spirits, of palm oil and tar for sheep smearing in the days before patent dips, and of such things as Swedish iron for horse shoes. The books throw some curious light on the fluctuations of prices. Tea, for example, we find as dear as seven and eight shillings a pound last century; sugar and soap correspondingly high priced; then

in "the dry summer" of 1862 whisky could be got for 5s 6d and 6s 6d per gallon. Many well-known names occur in the list of customers. Among others we note, under date 1785 and 1786, that of Mrs Carlyle's grandfather, designated in the book "John Welch, Craingputock." Besides being laird of the moorland farm which his grand-daughter's husband has rendered classic ground, John Welsh farmed as tenant Penfillan, in Keir. The visitors enjoyed also the hospitality of Mr and Mrs Laurie, and saw a silver kettle which was presented to the former in acknowledgment of lengthened service as secretary to the Tynron Curling Club. Betaking themselves to the churchyard, they viewed the grave of Mr Shaw, the naturalist, poet, and humorist of the glen; and neighbouring it the slab commemorating William Smith, a young Covenanting martyr, only nineteen years of age, and son as the inscription tells us "to William Smith in Hill" (now Crawfordton), who was shot "at Moniaive Moss." The customary verse represents the martyred youth as saying

> "Douglas of Stonehouse, Laurie of Maxwelton,
> Caused Cornet Bailie give me martyrdom."

The first of this trio will sleep in the same churchyard with their victim, for we read on a table-stone in a walled enclosure: "This is the burial-place of John Douglas of Stonehouse. 1683." The arch-persecutor, Grierson of Lagg, was also a Tynron laird, and the place names, Aird Linn and Aird Wood, perpetuate the title of the barony which belonged to his family. The church is a neat but unpretentious building, erected in 1838, and its interior is enriched with two handsome figured windows, to the memory of Mr John Kennedy of Kirkland and Mr Adam Brown of Bennan.

Turning sharp to the right on passing Stonehouse, and before reaching the steep Dunreggan Hill road to Moniaive, we enter the most contracted part of the Shinnel glen, and the journey proceeds through a pastoral country, for great part of the way under the shade of umbrageous woods, dotted with chestnuts in splendid bloom. Down by the bank of the stream a broad patch of intense blue indicates a luxuriant growth of the wild hyacinth, and other flowers stud the fields. The road is a rapidly ascending one; and starting from Tynron bridge at 359 feet above sea level, we find ourselves at Auchenbrack at an altitude of some 620 feet. Here a hospitable welcome awaits us from Mr J. R. W. Wallace. A substantial tea is set out in the open, and when it has been

discussed—Rev. Mr Andson taking the chairman's seat and Dr Maxwell Ross, secretary of the society, that of croupier—the visitors enjoy a ramble about the grounds, noting among other objects of interest a beehive of peculiar construction brought by Mr Wallace from Egypt when on a visit to his brother while he was agricultural adviser to the Khedive. It is a hollow cylinder of baked clay, having the ends stopped by a perforated plate of the same material. Mr Wallace is himself known for his skill as an apiarist, as well as for the rearing of high-class dairy stock of the Ayrshire breed and of mountain sheep; but his Eastern observation has not led him to discard the wood for the clay. A section of the party walked up the glen to see Appin Linn, where there is a waterfall in a pretty bosky setting. Here the yellow globe flower *(Trollins Æuropeas)* was found growing in great clumps in the meadows; and the moonwort fern was obtained.

Before quitting Auchenbrack they were again invited to partake of refreshments, and the Rev. Mr Andson conveyed to Mr Wallace the thanks of the company for the very generous reception which they had experienced. A business meeting was also held, when Mr Wallace, Mr Brown, Bennan; the Messrs Laurie, Tynron; and Mr M'Gookan (Mr Shaw's successor at the schoolhouse in the glen), all of whom had joined the party, were proposed and elected as members of the society. On the motion of Mr Andson, it was resolved to record an expression of regret at the death of Mr Peter Gray, who was long an active member of the society. It was arranged that the next field meeting should be to Moffat district.

The homeward drive in the cool of the evening was greatly enjoyed, and the play of the rays of the westering sun and the cloud shadows on the hill-sides presented panoramic effects. Leaving the former route at Penpont, the coach bowled smartly down the valley of the Scaur until the Barjarg limeworks were reached, passing on the way Courthill smithy, with its mural tablet telling that this was the home and workshop of Kirkpatrick M'Millan, the inventor of the bicycle, and also Keir Church and village. A halt was made at Barjarg, and under the guidance of one of Messrs Houston & Robison's staff (who are the lessees) the party entered the lime quarries and proceeded to explore them as far as the working face. The rock is not quarried from the open

face, but tunnelled, large stone pillars being left, as in coal mines, for the support of the roof. Resuming the journey, the party breasted the Barndennoch hill, and commanded as they looked backward a magnificent prospect bounded by the massive Lowther hills, and with the stream in mid-distance shewing here and there like links of liquid silver. Joining the Dumfries and Moniaive Road at Dunscore Free Church, a smart run brought them once more to the streets of Dumfries at half-past ten.

It may be mentioned as illustrative of the ecclesiasticism of the Scottish character, that no fewer than fourteen churches were passed in course of the journey outside of Dumfries. On the way to Thornhill there were, first, Holywood Parish Church; then the Free Church and the Established Church of Closeburn; and at Thornhill itself, the Parish Church of Morton, the Evangelical Union Church (now allied with the Congregational Union), and the United Presbyterian Church; and on its outskirts, the Free Church at Virginhall and the United Presbyterian Church at Burnhead. In Penpont village we have the Established Church and the Reformed Presbyterian. The latter is one of twelve congregations in Scotland of the "auld licht" branch of the Cameronians (five of which are without ministers), who still maintain a strict protest against "the Erastian Revolution Settlement" by refusing to take any oath of allegiance to Government or to vote in parliamentary elections. A little distance further on is Scarbridge Church, a congregation of the larger body of Reformed Presbyterians, who have merged their identity in the Free Church. Then we have the Parish Church of Tynron; and on the homeward drive, Keir Parish Church and the Free Church of Dunscore.

Second Field Meeting—July 1.

The following Report of the Meeting is taken from the *Dumfries and Galloway Standard* of 5th July, 1899:

The second Field Meeting of the Dumfries Natural History and Antiquarian Society for the session was arranged for Saturday last, and the program was to go to Moffat by train and thence drive to Birkhill in order to visit Loch Skene and the Grey Mare's Tail. The excursion was a peculiarly attractive one, both for the

scientist interested in geology or botany and for the sight-seer; but unfortunately it was spoiled by persistent rain. Despite the elements, a party of over a dozen travelled to Moffat, only to find that weather conditions were even worse than those which they had left; and Mr J. T. Johnstone, who met them on arrival, advised that on such a day the tramp to Loch Skene was out of the question. A visit was paid to the Proudfoot Institute, and the party were shewn over this well equipped and well kept establishment by the courteous clubmaster. It includes an excellent library, a large reading-room, draughts room, baths, a hall in which carpet bowls are ordinarily played and in which also lectures are delivered and concerts given; and a temperance refreshment bar. The Institute is the most visible embodiment of the philanthropy of the late Mr Proudfoot of Craigieburn, who left a fortune of £22,000 made in South Africa to the magistrates of Moffat in trust for the working men of the place. They purchased the Working Men's Institute, a building which had previously been raised by subscription for the general good—and of which the foundation stone was laid by the novelist, Dr George Macdonald—added the hall in the rear, and altered the building to adapt it to its wider purpose. A bust of the founder (the work of Mr J. G. M'Lellan Arnott, Dumfries) is placed over the entrance. After a leisurely inspection of the Institute, the party broke up into several groups. Half-a-dozen determined to drive as far as the Grey Mare's Tail, and had the pleasure of seeing the famous fall in its strength after the rains. Others proceeded to see a dyke of greenstone rock in the neighbourhood of Moffat; and some returned by an early train.

LIST OF MEMBERS,

As at 1st October, 1899.

Honorary Members.

E. G. Baker, F.L.S., British Museum.
J. G. Baker, F.R.S., Royal Herbarium, Kew.
Arthur Bennett, F.L.S., Croydon.
J. Harvie Brown, F.L.S., Larbert.
William Carruthers, F.R.S., British Museum.
E. J. Chinnock, LL.D., London (former Secretary).
Frederick R. Coles, Edinburgh.
Dr Anstruther Davidson, Los Angeles.
Peter Gray, Dumfries.
James Macdonald, LL.D., Edinburgh.
Alexander M'Millan, Castle-Douglas.
Sir Herbert E. Maxwell, Bart., M.P., F.S.A.
Alexander D. Murray (former Secretary), Newcastle.
Dr David Sharp, F.R.S., Cambridge.
Robert Hibbert Taylor, M.D., Liverpool.
William Thomson, Kirkcudbright.
Joseph Wilson (former Secretary), Liverpool.

Life Members.

Duke of Buccleuch and Queensberry, K.G., K.T.
Earl of Mansfield, Scone Palace, Perth.
Colonel Edward Blackett, Arbigland.
F. R. Coles, 1 Oxford Terrace, Edinburgh.
Thos. Fraser, 94 High Street, Dalbeattie.
Alexander Young Herries, Spottes.
J. J. Hope-Johnstone, Raehills.
Miss M'Kie, Moat House.
Wellwood Herries Maxwell, F.S.A., Munches.

William J. Maxwell, M.A., Terraughtie.
William D. Robinson-Douglas, F.L.S., Orchardton.
Sir Mark J. M'Taggart-Stewart, Bart., M.P., Southwick.
Samuel Smith, M.P., Liverpool.
Capt. William Stewart, Shambellie.

Ordinary Members.

John Adair, Rotchell Park.
Sir Andrew N. Agnew, Bart., M.A., Lochnaw, Stranraer.
Miss Margaret Carlyle Aitken, Maxwelltown.
Rev. William Andson, Newall Terrace.
Joseph J. Armistead, Newabbey.
Samuel Arnott, Carsethorn.
James Barbour, F.S.A., St. Christopher's.
Mrs James Barbour, St. Christopher's.
Robert Barbour, Belmont.
Robert Barbour, Solicitor, Rosemount Terrace
Thomas Beattie, Davington, Langholm.
Richard Bell, Castle O'er, Langholm.
Thomas Hope Bell, Morrington.
James Biggar, Grange, Dalbeattie.
James Blacklock, Solicitor, Irish Street.
Jonathan E. Blacklock, Solicitor, Irish Street.
John Borland, Auchencairn, Closeburn.
Stephen Brown, Benman, Tynron.
Thomas M. Brown, Closeburn Castle.
Sir James Crichton-Browne, M.D., LL.D., F.R.S., Crindau
Alexander Bryson, Irish Street.
Rev. John Cairns, M.A., Ivy Lodge.
George Campion, B.A., Sheriff-Substitute.
James Carmont, Bank Agent, Dumfries.
Frank J. C. Carruthers, Architect, Lockerbie.
James Clark, M.A., Rector of Academy, Dumfries.
Dr Frederick H. Clarke, Buccleuch Street.
W. A. Coats, Dalscairth.
Robert Connor, Stationer.
Miss Copland, Newabbey.
John F. Cormack, Solicitor, Lockerbie.

Adam J. Corrie, 13 Brook Green, London, W.
John Corrie, Moniaive.
John Cumming, Albany Lodge.
James Davidson, F.I.C., Summerville.
John Davidson, Crichton Cottages.
Rev. J. C. Dick, Eskdalemuir.
William Dickie, Laurieknowe.
William A. Dinwiddie, Buccleuch Street.
John W. Dods, St. Mary's Place.
Bernard Drummond, Moffat.
Charles R. Dubs, Cargen.
John Bryce Duncan, Newlands, Kirkmahoe.
John H. Edmondson, Riddingwood.
George F. Scott-Elliot, F.R.G.S., F.L.S., Newton.
Mrs Scott-Elliot, Newton.
Captain Robert Cutlar-Fergusson, Craigdarroch.
Joseph Gillon Fergusson, Isle.
James Fingland, Thornhill.
Rev. James Fraser, D.D., Colvend.
Mrs Gilchrist, Linwood.
William Gillespie, Solicitor, Castle-Douglas.
Provost Glover, Dumfries.
Robert Gordon, London.
John Grierson, Town Clerk.
Robert Grierson, Castle-Douglas.
John Gunning, Victoria Road.
Miss Hamilton, Victoria Road.
Miss Hannay, Langlands.
Miss Jane Hannay, Langlands.
Miss Hardy, Moat House.
John Henderson, Claremont.
Lord Herries, Lord-Lieutenant of the Stewartry.
James Herries, Loreburn Park.
James Hiddleston, Nithbank.
James Hobkirk, Netherwood.
Rev. Joseph Hunter, M.A., F.S.A., Cockburnspath, Dunbar.
George Irving, Newcastle.
Matthew Jamieson, Hazeldean, Greystone, Dumfries.
Mrs Matthew Jamieson, Hazeldean, Greystone, Dumfries.
David Jardine Jardine, Applegarth.

J. E. Johnson-Ferguson, M.P., Springkell.
John Thorburn Johnstone, Moffat.
Mrs Johnstone, Victoria Terrace.
Walter S. Johnstone, Victoria Terrace.
Duncan James Kay, Drumpark.
John Kerr, Blountfield, Ruthwell.
Rev. Thomas Kidd, M.A., Moniaive.
Rev. Roger S. Kirkpatrick, M.A., B.D., Govan.
Thomas Laing, Noblehill.
John Laurie, Schoolhouse, Tynronkirk.
James Laurie, Merchant, Tynron.
Rev. Sir Emilius Laurie, Bart., M.A., Maxwelton House.
William Leighton, Sedbergh House.
James Lennox, F.S.A., Edenbank.
Miss Lennox, Edenbank.
James M'Andrew, New-Galloway.
James M'Call, Caitloch.
James M'Cargo, Kirkpatrick-Durham.
William M'Clure, Banker, Lockerbie.
James C. R. Macdonald, M.A., W.S., Maryville.
Mr M'Gookin, Schoolhouse, Tynron.
Thomas M'Gowan, Solicitor, Buccleuch Street.
Dr A. D. MacDonald, Castle Street.
Colonel Edward Mackenzie, Auchenskeoch.
William D. Mackenzie, Fawley Court, Henley-on-Thames.
Matthew S. M'Kerrow, Boreland of Southwick.
John M'Kie, Anchorlea, Kirkcudbright.
Thomas M'Kie, F.S.A., Advocate, Edinburgh.
David M'Jerrow, Town Clerk, Lockerbie.
Rev. John D. M'Kinnon, Newall Terrace.
Dr James MacLachlan, Lockerbie.
John M'Naught, Royal Bank, Sanquhar.
Alexander Malcolm, Laurieknowe House.
William E. Malcolm, Burnfoot.
Mrs M'Tier, Ladyfield.
Dr J. W. Martin, Holywood.
Wellwood Maxwell, F.S.A., Kirkennan.
William J. Maxwell, Terregles Banks.
Frank Miller, Annan.
Miss Milligan, Irish Street.

James Moffat, Banker, Annan.
John A. Moodie, Solicitor, Irish Street.
Miss Agnes Mounsey, Thornhill.
Benjamin Rigby Murray, Parton.
Robert Murray, George Street.
Mrs Robert Murray, George Street.
William Murray, M.A., Advocate, Murraythwaite.
George Neilson, Writer, Glasgow.
John Neilson, M.A., Catherine Street.
John Neilson, Mollance, Castle-Douglas.
Walter Ovens, Torr, Auchencairn.
Charles S. Phyn, Procurator-Fiscal.
John Primrose, Arundel House.
John Proudfoot, Moffat.
David W. Rannie, M.A., Conheath.
Frank Reid, St. Catherine's.
Rev. H. M. B. Reid, B.D., Balmaghie.
Sir Robert Threshie Reid, M.A., Q.C., M.P., Mouswald.
Richard Rimmer, M.A., F.L.S., Dalawoodie.
George H. Robb, M.A., Nithmount.
Dr J. M. Robertson, Penpont.
John Robson, Clerk to the Dumfries County Council.
Dr James Maxwell Ross, M.A., Victoria Road.
James Rutherford, M.D., Crichton House.
John Rutherford, Jardington.
William Sanders, Rosebank, Lockerbie.
Colonel Patrick Sanderson, Glenlaggan, Parton.
Alexander Scott, Solicitor, Annan.
Alexander Scott, Erkinholm, Langholm.
Rev. James Hay Scott, M.A., Sanquhar.
Robert A. Scott, Fairfield.
Walter Henry Scott Nunfield.
Walter S. Scott, Redcastle, Dalbeattie.
Rev. Richard Simpson, B.D., Dunscore.
Adam Skirving, Croys, Dalbeattie.
J. M'Gavin Sloan, Editor, *Dumfries Courier & Herald.*
Earl of Stair, K.T., Lord-Lieutenant of Wigtownshire.
James G. Hamilton Starke, M.A., Advocate, Troqueer Holm.
Peter Stobie, Queen's Place.
John Symons, Solicitor, Irish Street.

John Symons, Royal Bank.
Miss Tennant, Aberdour House.
Mrs Thompson, Buccleuch Street.
William Thomson, Solicitor, Buccleuch Street.
James S. Thomson, Jeweller, High Street.
Rev. John H. Thomson, Hightae, Lockerbie.
Rev. George W. Ure, Cornwall Mount.
J. R. W. Wallace, Auchenbrack, Thornhill.
Matthew G. Wallace, Terreglestown.
Miss Wallace, Lochmaben.
Robert Wallace Industrial School.
Thomas Watson, Editor, *Dumfries Standard.*
James Watt, Noblehill.
Rev. Robert W. Weir, M.A., Castle Street.
David Welsh, Waterloo Place.
James W. Whitelaw, Troqueer Moat.
James R. Wilson, Sanquhar.
Colonel James Maxwell Witham, Kirkconnell.
Mrs Maxwell Witham, Kirkconnell.
Miss Maud Maxwell Witham, Kirkconnell.
Edward C. Wrigley, Gelston Castle, Castle-Douglas.
William M. Wright, Charnwood.
Robert A. Yerburgh, M.P., Chester.