

is found that an excellent fuel for steam-purposes is produced by mixing, while the Peat is in a moist condition, 50 per cent. of small coal, before submitting it to the drying operation. This article is free from the objection to ordinary "patent fuel," wherein pitch is usually the cementing medium, and which is apt to run together in warm climates.

The specimens before you exhibit—1st, the Crude Peat; 2nd, Moist Peat after straining; 3rd, Dried Peat from Ireland and various parts of England, moulded into different forms; and 4th, two specimens of Charcoal from ordinary air-dried and Condensed Peat, the heavy, compact nature of the latter contrasting favourably with the light and friable condition of the former.

A model of the machine was exhibited.

A discussion followed, in which the President, Mr. White, Mr. Lawson, Mr. E. Jones, Professor Tennant, Mr. Cumming, Mr. Bott, and other members took part.

The President read to the meeting the list of the names of those gentlemen whom the committee had determined to recommend for election as officers of the Association for 1862.

Mr. Collingwood and Mr. Evans were appointed Auditors to examine the accounts of the Association for 1861.

Annual General Meeting, Monday, January 6th, 1862.

The Rev. Thomas Wiltshire, M.A., F.G.S., President, in the Chair.

The Annual Report of the Committee was read as follows:—

REPORT.

The Committee have great pleasure in again congratulating the members upon the continued success of the Geologists' Association.

The great and increasing interest which the Association has excited is evinced by the fact that no less than fifty-seven new members have been proposed and elected during the past year, as against thirty-one in 1860.

The Association has to regret the loss by death of Professor Henslow, one of its earliest life-members, who always expressed the liveliest interest in its welfare.

The finances of the Association are in an exceedingly satisfactory condition; and, notwithstanding increased expenditure, the balance in the

hands of the Treasurer is £54 1s. 11½d., being an increase of £218s. 8½d., over that which he held at the beginning of the last year.

The plan of conducting occasional excursions to places of geological interest, which was organized in 1860, has proved a complete success.

Excursions have during the past year been made to Reigate, Oxford, and the Isle of Sheppey; and the large number of persons who have availed themselves of the opportunities thus afforded of acquiring geological knowledge bears testimony to the great estimation in which they are held.

It was not found practicable to make more than three excursions in 1861, but during the next summer it is proposed to increase the number to four, and to visit Tunbridge or Hastings, Harwich, Cambridge, and Lewes.

The Committee have laid out a sum of £8 in the purchase of several standard geological works. This expenditure appears to have been judicious, inasmuch as there is a great demand among the members for the works so purchased, and nearly all of them are in constant circulation.

The Committee finding from the Auditors' report that there is a very satisfactory balance in the hands of the Treasurer, and remembering that by the investment of Mr. Brown's legacy they have a fund more than sufficient to cover every possible liability, propose to lay out a further sum of not less than £5 in the purchase of books, believing that in no way could the funds of the Association be applied in a manner more calculated to further the object contemplated by its founders.

They have to acknowledge with thanks several donations both to the library and museum, which have been made by members and others taking an interest in the prosperity of the Association.

The fossils in the possession of the Society have now been nearly all arranged, and, it is thought, will be found to form a good nucleus round which a useful collection may eventually be gathered.

The following papers have been read during the year:—

“On the Geology of the Isle of Sheppey.” By the Rev. R. Bingham, M.A.

“On Discoveries in the Lower London Tertiaries at Dulwich and Peckham, during the excavations for the Effra Branch of the Great South High Level Sewer.” By Charles Rickman, Esq.

“On Casts of the Calcareous Plates, or *Opercula*, of *Ammonites*, in

Flint Pebbles, from the Gravel at Whetstone." By N. T. Wetherell, Esq., M.R.C.S.

"On Oviform Bodies from the London Clay, Chalk, and Greensand Formations." By N. T. Wetherell, Esq., M.R.C.S.

"On a Plant Bed cut into by the Severn Valley Branch of the West Midland Railway." By G. E. Roberts, Esq.

"Observations on the Geology and Superficial Accumulations of the North End of the Penine Chain and Adjacent Depression." By J. Curry, Esq.

"On the Opercula of Recent Gasteropodous Mollusca." By J. Pickering, Esq., Vice-President.

"On the Pitharella Rickmani." By J. Pickering, Esq., Vice-President.

"On the Geology of the Isle of Portland." By W. Gray, Esq.

"On some Anomalous Fossils from the Upper Greensand of Cambridge." By Harry Seeley, Esq.

"On the Geology to be learnt from the Paving Stones of London." By Professor Tennant.

"On the late Excursion made by the Association to Reigate." By J. Cumming, Esq.

"Notes on the Fossils of the Gault, from the Alice Holt Forest, near Alton." By W. Curtis, Esq.

"Hints for Summer Rambles." By Geo. E. Roberts, Esq.

"On the late Excursion made by the Association to Oxford." By P. Badcock, Esq.

"On the Efflorescence which succeeds the Action of Heat on certain Sandstones of Yorkshire." By C. Tomlinson, Esq.

"On Science applied to Practical Agriculture." By L. M. Woodward, Esq.

"On a Deposit of recent Shells and Bones in the Cliff of Monk's Bay, Isle of Wight." By Mark Norman, Esq.

"On Worm-burrowings in some Clays at Bendigo, Australia." By R. J. L. Guppy, Esq.

"On Geological and Mineralogical Hammers." By Samuel Highley, Esq., F.G.S., F.C.S., &c.

"On the Taranaki Iron-sand." By Samuel Highley, Esq.

"On the late Excursion made by the Association to the Isle of Sheppey." By Samuel Highley, Esq.

"On Coal, its Geological and Geographical Position." By Professor Morris, V.P.G.S.

"On two Beds of re-deposited Crag Shells in the vicinity of Norfolk." By C. B. Rose, Esq., F.G.S.

"On a newly-discovered Outlier of the Hempstead Strata, on the Osborne Estate, Isle of Wight." By Dr. E. P. Wilkins, F.G.S.

"On the Exchange of Fossils among the Members." By A. Bott, Esq., A.A.

"On Gold Discoveries in Nova Scotia." By Professor Tennant, F.G.S.

"On a New Method of Preparing Peat for the Purposes of Fuel and Gas-making." By W. J. Rickard, Esq., F.C.S.

Nearly all the above Papers have been printed at length, and the Committee are happy in stating that they have been able materially to increase the amount of printed matter circulated among the members, without unduly trenching on the funds of the Association.

In conclusion, the Committee beg to remind members that a great deal of support may be given by them, if they will use their influence in interesting others in the Association, and obtaining new members; and thus enable the Committee, at the end of the year, to congratulate the Association on a still larger accession to its numbers.

It was resolved unanimously that the Report be adopted.

The following were then elected Officers of the Association for the year 1862 :—

PRESIDENT.

Professor Tennant, F.G.S.

VICE-PRESIDENTS.

J. Pickering, Esq.

T. Sopwith, Esq., F.R.S.

Rev. T. Wiltshire, M.A., F.G.S.

C. Woodward, Esq., F.R.S.

TREASURER.

W. Hislop, Esq., F.R.A.S.

GENERAL COMMITTEE.

A. Bott, Esq., A.A.

T. Brain, Esq.

E. Cressy, Esq.

J. Cumming, Esq.

C. Evans, Esq.

J. F. Collingwood, Esq., F.G.S.

S. Highley, Esq., F.G.S.

T. Lovick, Esq.

B. Marriott, Esq.

W. T. Rickard, Esq., F.C.S.

G. E. Roberts, Esq.

C. Tomlinson, Esq.

HONORARY SECRETARY.

W. N. Lawson, Esq., M.A.

HONORARY LIBRARIAN.

J. Cumming, Esq.

The following Balance-sheet was then submitted, signed by the Auditors :—

GEOLOGISTS' ASSOCIATION.

Annual Statement of Receipts and Disbursements for the Year 1861.

	£	s.	d.		£	s.	d.
Balance from 1860	32	13	3	Printing	37	0	6
Annual Subscriptions	95	9	4½	Petty Cash, Advertisements, } ..	17	1	3
Life Subscriptions	22	1	0	Postage, Stationery, &c. }			
Interest of Stock	1	16	2	Attendance, Firing, &c. ..	8	2	1
				Books	8	8	0
				Rent	25	0	0
				Editing, Engraving, &c... ..	2	6	0
					97	17	10
				Balance in Treasurer's hands	54	1	11½
	£151	19	9½		£151	19	9½

We have this day examined the accounts of the Treasurer of this Association, and find a balance of £54 1s. 11½d. in his hands.

(Signed) J. FRED. COLLINGWOOD.
C. EVANS.

Jan. 3rd, 1862.

On the motion of Mr. Tomlinson, seconded by Mr. Collingwood, a vote of thanks to the Rev. Thos. Wiltshire, for his conduct during the two years he had been President of the Association, was carried unanimously.

The Rev. Mr. Wiltshire, in acknowledging the compliment, said it was highly gratifying to him to find that his efforts in the cause of the Association were considered worthy of such hearty recognition. He had been one of its earliest members, and had ever done his utmost to promote its welfare. It could not be disguised that at the beginning there had been a difference of opinion as to what the Association ought to be. Too many wished to make it the rival of the Geological Society. He had endeavoured, during the rather more than two years he had had the honour of presiding, to make it occupy its proper place: to make it not the rival of the Geological Society, but a Society of learners—of those who did not aspire to be classed with the masters of the science, but who were nevertheless desirous of obtaining such a knowledge of Geology as should be at once interesting and useful to them. The feeling of the Association towards him had always been so kind that he was sure, had he desired

it, he would have been re-elected President; but he thought he should not be doing his duty in retaining that position, and preventing others more able and better qualified coming forward. He had, therefore, at the previous council-meeting, with much pleasure, proposed Professor Tennant as his successor, who, he knew, took the greatest interest in the progress and prosperity of the Association.

On the motion of Dr. Richardson, a vote of thanks to those officers of the Association for the year 1861, who had been re-elected, was carried unanimously.

On the motion of Mr. Cresy, seconded by the Rev. Thomas Wiltshire, a vote of thanks to those officers of the Association for the year 1861, who had retired, was carried unanimously.

Ordinary meeting, Monday, Jan. 6, 1862.

Professor Tennant, F.G.S., President, in the Chair.

The following gentlemen were elected members of the Association :—

Rev J. J. C. Valpy, H. J. Lister, Esq., J. S. Phené, Esq., C. Wallace, Esq.

The following donations were announced :—

A Collection of Mountain-limestone Fossils. By J. Roze, Esq.

The Geologist Magazine, No. 49. By the Editor.

A Parliamentary Return on Limestones for Building. By Professor Tennant.

The following papers were read :—

1.—“On Lime and Limestones,” By Professor Tennant, F.G.S., &c., President.

All limestones have for their basis carbonate of lime—a substance which occurs most abundantly in nature, both crystallized and uncrystallized. In the former state it is met with in the crevices of rocks and in the hollows of fossils, &c., and in the latter condition intermingled through the strata.

Carbonate of lime (calcite), when crystallized, is subject to great modification of form. Count Bournon, in the year 1808, figured 650 varieties of its crystals, to which Mr. Levy, in 1837, added 120 that had been previously