

Yorkshire Philosophical Society.

ANNUAL REPORT

FOR

MDCCCXXXV.



S. 403. A. 2.

ANNUAL REPORT

OF THE COUNCIL

OF THE

Workehire Philosophical Society

FOR

S. A. 1836
MDCCCXXXV.

PRESENTED TO THE ANNUAL MEETING

FEBRUARY 3RD, 1836.



Y O R K :

THOMAS WILSON AND SONS, HIGH-OUSEGATE.

1836.

B. M. N. H.
general 2

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FORM OF A
BEQUEST TO THE SOCIETY.

EVERY person desirous of bequeathing to the Society any sum of Money, Specimens, Books, Instruments, or other Property, is requested to make use of the following form :

I give and bequeath to the Trustees, for the time being, of the Society established at York, called "THE YORKSHIRE PHILOSOPHICAL SOCIETY," for the use of the said Society, the sum of _____ to be paid out of such part of my personal estate, as I may legally charge therewith. [Or here enumerate the effects or property intended to be bequeathed.] And I direct that the receipt of the Treasurer of the said Society, for the time being, shall be an effectual discharge to my Executors for the said legacy.

TRUSTEES

OF

THE YORKSHIRE MUSEUM,

APPOINTED BY THE ROYAL GRANT.

HIS GRACE THE ARCHBISHOP OF YORK.

EARL OF CARLISLE.

EARL FITZWILLIAM, F.R.S., F.S.A.

EARL DE GREY.

HON. AND VERY REV. THE DEAN OF LICHFIELD.

FRANCIS CHOLMELEY, ESQ. F.S.A.

ROBERT DENISON, ESQ.

REV. W. VERNON HARCOURT, F.R.S.

WILLIAM HATFEILD, ESQ. F.G.S.

WILLIAM LAWSON, ESQ.

EUSTACHIUS STRICKLAND, ESQ.

RICHARD JOHN THOMPSON, ESQ.

PATRONESSES

OF

The Berkshire Philosophical Society.

HER ROYAL HIGHNESS THE DUCHESS OF KENT.

HER ROYAL HIGHNESS THE PRINCESS VICTORIA.

P A T R O N S.

HIS GRACE THE ARCHBISHOP OF YORK.

EARL OF CARLISLE.

EARL FITZWILLIAM, F.R.S.

EARL OF TYRCONNEL, F.R.S.

VISCOUNT MORPETH.

LORD STOURTON.

LORD WHARNCLIFFE.

OFFICERS OF THE SOCIETY.

PRESIDENT :

THE EARL FITZWILLIAM, F.R.S., F.S.A.

VICE-PRESIDENTS :

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WM. HATFEILD, F.G.S.

EUSTACHIUS STRICKLAND.

JAMES ATKINSON.

PAUL BEILBY THOMPSON, M.P.

BALDWIN WAKE, M.D.

T R E A S U R E R :

JONATHAN GRAY.

C O U N C I L :

- Elected 1834 REV. D. F. MARKHAM.
 JOHN BROOK.
 WILLIAM LEWIN NEWMAN, F.R.A.S.
 GEORGE HICKS SEYMOUR.
- Elected 1835 REV. ROBERT BRYAN COOKE, F.G.S.
 CHARLES HENEAGE ELSLEY.
 FRANCIS CHOLMELEY, F.S.A.
 REV. CHARLES WELLBELOVED.
- Elected 1836 JAMES BARBER.
 H. S. BELCOMBE, M.D.
 WILLIAM BLANSHARD.
 REV. THOMAS EGERTON, F.G.S.
-

S E C R E T A R I E S :

WILLIAM GRAY, JUN.
 JOHN PHILLIPS, F.R.S., G.S.

C U R A T O R S :

REV. JOHN GRAHAM	...	...	GEOLGY.
WILLIAM HATFEILD, F.G.S.	...	...	MINERALOGY.
JAMES ATKINSON	...	...	COMPARATIVE ANATOMY.
THOMAS ALLIS	...	}	ORNITHOLOGY.
REV. J. B. GRAHAM	...		
REV. I. J. D. PRESTON, F.C.P.S.	...	...	ENTOMOLOGY.
REV. W. HINCKS, F.L.S.	...	...	BOTANY.
REV. C. WELLBELOVED	...	...	ANTIQUITIES AND COINS.
HENRY ROBINSON	...	...	LIBRARY.

 KEEPER OF THE MUSEUM:

JOHN PHILLIPS, F.R.S., G.S.

 SUB-CURATOR:

HENRY BAINES.

REPORT
OF
THE COUNCIL.

THE Council of the Yorkshire Philosophical Society has now the duty of offering to the Thirteenth Annual Meeting a concise view of the state and prospects of the Institution. During the past year considerable progress has been made in the enrichment of the Museum, improvements have been accomplished in the garden, the scientific concerns of the Society have been in several points advanced; the finances are improved, and the debt is diminished. In the course of the year the Society has been honoured by a special visit of two members of the Royal Family, and received munificent marks of their interest in its welfare.

While, at a very short distance from this Museum, another public institution is rising to record the growing desire in our country for the improvement of the moral and intellectual condition of all classes of the people,—while, through the whole North of England, new literary and scientific associations are established, it is gratifying to feel that the public favour, and the patronage of Yorkshire, are not withdrawn from this Society. Nor does there appear any ground for anticipating a reverse to the picture of continual prosperity which is found in the Reports of former years;—there has never been but one difficulty pressing on our exertions; but if our funds have long been restricted, it is gratifying to know that our expenses are now controlled, and after a year of extraordinary outlay and liberal grants for various improvements and researches, the Meeting will find that the Balance due to the Treasurer has been diminished £157. 7s. 0d.

During the year, the GEOLOGICAL Collection of the Society has been considerably enriched. The already fine series of Tertiary Organic Remains has been rendered extremely valuable to the general student, by a large donation of Sicilian Fossils ;¹ and still more instructive to the local geologist by the addition of a series of specimens from Bridlington Quay, obtained from a locality where several of our members had previously found indications of a Tertiary deposit, though it is only within the last year that the state of the coast permitted a satisfactory investigation of it.²

A collection of fossils from the mountain limestone of the N. W. of Ireland, received from Lord Cole, has been found of great value for the laborious comparison of Organic forms from different localities on which Professor Phillips has been lately occupied in order to complete his Work on the Geology of Yorkshire. The Second Volume of that Work is now passing through the press, with very numerous drawings of fossils, maps, and sections, and thus labours which have continued through all the period of the existence of this Society will terminate in the fulfilment of one of its earliest recommendations, having for its object the illustration of the interior structure of a county remarkably rich in geological interest.

The ZOOLOGICAL collections have been augmented by several contributions of British and Foreign Birds and Quadrupeds, some of them extremely valuable ; large additions have also been made to the cabinets of shells ; some Foreign Insects have been presented, and many more will be received so soon as suitable cabinets can be prepared. Useful additions have been made to the British Crustacea and other invertebral

¹ Presented by J. Ingham, Esq.

² George Lloyd, Esq. gave permission for excavations to be made in the cliff under the direction of the Rev. J. Graham.

classes, from the shores of the South of England. The Collection of British Birds has been arranged and named upon a plan which allows of the work being gradually completed : but this was found impracticable with respect to Foreign Birds, (now exceeding one thousand in number,) until they should be all completely mounted. The cost of this process for several hundred birds was too great for the Council hastily to incur : the work is however proceeding, and it will be for the next Council to ascertain how far the statement of finances, hereafter appended, will justify a more vigorous prosecution of it. It is proposed to make an alteration in this room, by removing the insects to a cabinet of drawers : thus providing additional space for the complete classification of a larger series of Foreign and British Shells.

The arrangement of the BOTANICAL Collections has been suspended in consequence of the want of a suitable receptacle for them ; this deficiency may perhaps be supplied.

The state of the Garden has been frequently brought under the consideration of the Council ; and a large quantity of soil and peat has been added to particular parts ; a considerable improvement has been effected near the multangular tower, by an alteration of the line of the boundary wall, and permission has been given for the erection of a Conservatory by the Sub-Curator.

The Instruments in the Observatory have been in continual use ; and some improvements have been effected in the arrangement and employment of them ; an interesting addition has been made in the curious equatorial of Mr. Abraham Sharpe, which has been presented by Mr. Newman. The expenses of this useful establishment have been hitherto defrayed by the gentlemen who give their time and skill to the task of observation ; the debt left on the erection of the building has

not been discharged by the Society ; and it appears desirable that these arrangements should be put upon a more satisfactory footing.

The value of such an establishment in fostering and diffusing a taste for astronomical researches, was exemplified in two instructive lectures on Cometary Astronomy delivered to the Society by Mr. Newman ; and the Council confidently anticipates from the zeal and information of several of the Members of the Society, a succession of instructive discourses on this and other branches of science during the next session. It has been the wish, both of the Council and of the gentlemen alluded to, that the admission to these lectures should be gratuitous, at least to Members of the Society ; it has however been suggested that the opportunity should not be lost, of endeavouring by such means to provide funds for the liquidation of the observatory debt, should this Meeting not think it proper to direct the immediate settlement of that account, and to become the rightful and real possessors of the edifice and the valuable instruments which it now contains, and may hereafter receive by private liberality. *

.During the week of the Musical Festival, which took place in September, it was thought advisable to adopt every means of rendering the Museum and gardens accessible to the numerous and respectable strangers then assembled in York ; but as an indiscriminate admission within its gates appeared wholly incompatible with quiet and good order, and inconsistent with the general spirit of the Institution, Tickets were prepared, at a small price, for the use of those persons who failed to provide themselves with the regular introduction of a Member. About one thousand persons testified, by the purchase of these tickets, their sense of the convenience of the arrangement ; and thus without in the smallest degree in-

* It was resolved by the Annual Meeting that the debt on the Observatory should be discharged out of the Society's funds.

fringing on the rights of subscribers, and without endangering the comfort and good order of the establishment, the public were gratified, and the funds of the Institution benefited to the extent of £40. For this proceeding, under the peculiar circumstances of the case, the Council has no doubt that the Meeting will fully accord their approbation, and it appears desirable that, for the future, the discretionary power of the Council in such matters should not be abridged : it is however for this Meeting to decide whether any further directions are required. *

The Musical Festival produced to the Society the honour of a most gratifying visit from THEIR ROYAL HIGHNESSES THE DUCHESS OF KENT AND THE PRINCESS VICTORIA, who, after examining all the collections with attention, inscribed their names as PATRONESSES of the Yorkshire Museum, and contributed a munificent donation for the augmentation of the Library.

In the ANTIQUARIAN department some valuable additions have been made during the last year. Mr. J. R. Mills has presented to the Society a curious Egyptian tablet, obtained from the collections of the late Mr. Salt. From Mr. Swineard have been received some beautiful remains of an altar screen, in stone, found buried in a garden near the western end of the Minster : and from the City Commissioners, the stones of a fine arch nearly entire ; a part, it is probable, of the Hospital of St. Peter. But among the various additions to this department of the Museum, the mortar formerly belonging to the Infirmary of St. Mary's Abbey, must be regarded as of peculiar value. This curious relic, which having been lost from York soon after the days of Drake, appeared again several years ago in a foundry at Birmingham ;

* The Meeting resolved that strangers not introduced by a member or by written order, might be admitted by Tickets, to be provided by the Council, and sold under their direction at one shilling each.

and, having there narrowly escaped the melting pot, had been transferred to the cabinet of a neighbouring antiquary,* has at length through the liberality of Mr. S. Kenrick, of West Bromwich, been safely deposited on the very site, and amidst a great portion of the remains of the Monastery for the use of which it was originally designed.



* J. Blount, Esq., at whose death the mortar, with the rest of his collection of antiquities, being put up to sale by auction, was purchased at a considerable price by Mr. S. Kenrick. It is of bell metal, weighs 76 lb., and measures in height 9 inches, and in width at the top 11½ inches. It bears two inscriptions: the upper,

+ MORTARIÆ. SÆ. JOHIS. EVANGELI. DE.
 I. MARIÆ. B. MARIE. EBOR. the lower, + FR.
 WILLS. DE. TOUCHORP. ME. FECIT. A. D.
 MCCCIII.

In following out the Resolution of the last Annual Meeting relative to the lease of the Manor Shore, the Council has found on the part of the Government every desire to forward the objects of the Society, as far as the law allows; but new circumstances have arisen, which rendered it inexpedient to adopt a definitive arrangement without once more appealing to the general body of the Society. It appears, after full consideration, and especially after examination of the stipulations in the draft of the lease, that it will be more advantageous to the Society to effect the negotiation for obtaining possession of the remainder of the Manor Shore by purchase rather than by lease. A real possession of the ground, the power to turn it to useful purposes in harmony with the situation and with the objects of the Institution, is not to be had by lease from the crown, either for 33 or 99 years; the former is too short a tenure, the latter encumbered with restrictions directly at variance with the clearest objects of the Society. Regarded, moreover, as a question of profitable investment of money, the Council is of opinion that the purchase of more than five acres of ground, with houses, &c. adjoining the Ruin and the Museum Garden, for £2,500. is more advantageous than a lease for 99 years at £70. per annum, with *stipulations to erect permanent edifices* of the value of £2,500.*

But one thing remains to be presented to the Meeting before proceeding to consider this important question—the State of the Society's Finances.

* The Council was authorized by the Annual Meeting to purchase the ground.

RECEIPTS.

			£.	s.	d.
Received Annual Subscriptions from 226 Members at 2 <i>l</i>.	...		452	0	0
Ditto Ditto 6 Members at 1 <i>l</i>.	...		6	0	0
Annual Donations	{	Sir Charles Ibbetson	5	5	0
	}	Mrs. Danby	2	0	0
			7	5	0
From Ladies being Annual Subscribers ... ..	...	..	29	0	0
For Keys of the Garden ... ..	...	...	11	5	0
Rev. W. Gooch, Donation for purchase of Maps for the Library ... ..	...	...	10	10	0
For Gas consumed by Members of the Evening Party ...	...		1	10	0
Balance of Extraordinary Account, viz.					
Received for Tickets of Admission during the Festival	50	12	0		
Paid expenses connected therewith	12	19	6		
				37	12 6
Balance Due to the Treasurer ... ..	...	...	17	13	0

£.572 15 6

Arrears Due to the Society on this Account £64.

PAYMENTS.

Rent and Taxes :				£.	s.	d.	£.	s.	d.
Rent to the Crown	...	...	..	1	0	8			
..... Corporation	..	...	...	6	12	6			
Rates, &c.	...	...	...	14	0	8			
Water Rent	...	...	...	4	4	0			
Insurance	...	...	..	5	0	0			
									30 17 10
Salaries and Wages :									
Keeper of the Museum	...	...	...	100	0	0			
Sub-curator	...	...	...	65	0	0			
Allowance for Labour in Garden and Museum	...	...	...	40	0	0			
Lodge Keeper	...	...	...	10	0	0			
Collector and Messenger	...	...	...	1	11	6			
									216 11 6
Printing and Advertising :									
Report for 1834	...	...	...	15	2	0			
Miscellaneous	...	...	...	8	11	6			
Advertising...	...	...	...	0	10	0			
									24 3 6
Stationery :									
...	...	...	...						2 11 6
Books and Binding :									
Books	...	...	...	38	17	6			
Binding	...	..	...	6	14	3			
									45 11 9
Sundry Improvements :									
Fitting up of Zoological Room	...	...	...	23	1	8			
Antiquarian Collection...	...	...	...	10	9	6			
Iron Rails in Vestibule	...	...	...	4	2	0			
Excavation in St. Mary's Abbey	...	...	...	6	17	6			
Soil for Garden	...	...	...	15	0	0			
									59 10 8
Incidents :									
Incidents, Carriage, &c.	...	...	...	7	9	8			
Repairs	...	...	...	44	5	8			
Garden	...	...	...	9	2	9			
Gas	...	...	...	16	5	0			
Coke and Coal	...	...	...	20	8	6			
									97 11 7
Purchases for Museum	...	..	...						17 15 10
Grant to Antiquarian Committee for sundry expenses	...	...	...						10 0 0
Interest on Debt	...	...	...						68 1 4
									<u>£.572 15 6</u>

GENERAL ACCOUNT.

	£.	s.	d.		£.	s.	d.
Received Arrears of former Years	55	0	0	Balance due to the Treasurer, 1834	1885	19	9
Compositions from three Members	60	0	0	Balance due to him, Annual Account, 1835 ...	17	13	0
Admission of ten Members	30	0	0				
Stamp duty on Grant from the Crown, charged erroneously and repaid by the Treasury	30	0	0				
Balance due to the Treasurer	1728	12	9				
	£.1903	12	9		£.1903	12	9
	£.1903	12	9		£.1903	12	9

The Council having examined the List of Arrears, and struck out such as appear irrecoverable, find Arrears due as follows.

	£.	s.	d.
Annual Subscriptions, 1835	64	0	0
..... of former Years	87	0	0
Subscription to Building	21	0	0
For Copies of St. Mary's Abbey	6	0	0
	£.178	0	0
	£.178	0	0

Final Balance against the Society £1550. 12s. 9d.

JONA. GRAY,

TREASURER.

SCIENTIFIC COMMUNICATIONS

TO THE

GENERAL MEETINGS.

FEBRUARY, 1835.—Summaries of Meteorological Observations for the year 1834; at Brandsby, by F. Cholmeley, Esq.; at Middleton, by the Rev. Mr. Blanchard; at Moat Hall, by Dr. Wasse; at Huggate, by the Rev. Mr. Rankin; at York, by Mr. Ford.

Notice respecting the Ancient Mortar of St. Mary's Abbey, weight 76 lb. date 1308, by the Rev. Charles Wellbeloved.

Notice of a new form of Dew Point Hygrometer, by the Rev. W. V. Harcourt, F.R.S.

MARCH.—On the Structure of Belemnites, by Professor Phillips, F.R.S.

JULY.—On the Sclerotic Bones in the Eyes of Birds and Reptiles, by T. Allis.

Notice of Barometrical Measurements of Mountains in Cumberland and Westmoreland, by Wm. Gray, jun.

Description of the Equatorial used by the eminent calculator, Abraham Sharpe, by W. L. Newman, F.R.A.S.

OCTOBER.—Account of Proceedings at the Dublin Meeting of the British Association for Advancement of Science, by Professor Phillips, F.R.S., and the Rev. J. Kenrick.

NOVEMBER.—On a Monumental Cross at Hackness, by the Rev. W. V. Harcourt, F.R.S.

DECEMBER.—On the Barometric Measurements of Heights, by Wm. Gray, jun.

On the characteristic Phenomena of the Aurora Borealis, in Nov. 1834, by Professor Phillips, F.R.S.

JANUARY, 1836.—On the Magnetical Effects of the Aurora Borealis, Dec. 23, 1835, by Professor Phillips, F.R.S.

DONATIONS

TO

THE SOCIETY'S MUSEUM.

GEOLOGY.

- The Earl of Arran ... Septaria, teredo, &c. from Bognor.
- James Backhouse... ... Large slab of silicised wood, found in contact with basalt, Van Dieman's Land.
- Felix Bedingfeld, Esq. ... Fossil endogenous wood from Antigua.
- F. Cholmeley, Esq. ... Ammonites (New Species) from Brandsby, Yorkshire.
- Viscount Cole, M.P. ... Series of lithodendra, crinoidea and other fossils from the limestone near Florence Court in Fermanagh.
- Rev. J. Graham Shells from the tertiary deposit of Bridlington Quay.
- Jona. Gray, Esq. Turrilites, baculites, &c. from the Rocher des Fiz.
- Joshua Ingham, Esq. ... Very extensive series of zoophyta, and shells, from the tertiary limestone of Sicily.
- J. E. Lee, Esq. Casts of new spongiæ from Bridlington.
- Dr. Mac Michael... ... Silicised wood from Van Dieman's Land.
- R. Moorhouse, Esq. ... Spines of cidaris florigemma.
Astræa favosioides, &c. from Settrington.
- Professor Phillips... ... Casts of vertebræ of ichthyosaurus from Lyme Regis.
- D. Priestman Rocks collected in Zetland.

- Thomas Smyth, Esq. ... Kilkenny and other Irish marbles.
- Earl of Tyrconnel, F.R.S. Specimens of lava from the Red Sea.
- Dr. Wasse Lithodendra, &c. from the diluvium near
Boroughbridge.
- Purchased A series of shells from the tertiary deposit
of Bridlington Quay. The total num-
ber of species in the collection is 36.
-

MINERALOGY.

- The Earl of Arran ... Jaspers and agates from the South of Eng-
land.
- Jona. Gray, Esq. ... Agate from Switzerland.
- Mr. W. Whytehead, jun. Several Cumberland minerals.
-

ZOOLOGY.

- T. Allis Gar, char, perch, roach, a species of pholas
and cardium dentatum, serpula from Al-
giers, Paradise tanager, long tailed rol-
ler, three species of creeper, pelican,
wild goose, three African hawks.
- Mr. H. Baines Red coral, water hen, gold-crowned wren,
redwings (pair).
- J. Bennett, Esq. Horns of the buffalo.
- Mr. J. F. Brown A Guinea fowl.
- Rev. W. Bulmer Large specimen of cancer pagurus from
Norway.

- Mr. H. Chapman... ... A foreign species of cassida.
- E. T. Copley, Esq. ... Series of foreign birds and insects from
New South Wales and Brazil.
- F. J. Copsie, Esq. ... Turbo.
- John Dalton, Esq. ... An albatross.
- R. Denison, Esq. ... Spotted woodpecker.
- Lieut. Dixon, R N. ... Shells from the Isle of France, &c.
- Foljambe, Esq. ... The Koala from New South Wales.
- W. Gray, jun., Sec. Y.P.S. Phaeton æthereus and other foreign birds.
- Lieut. M'Gregor, R. N. ... Musk rat of Van Dieman's Land, echidna
hystrix, white hawk, black cockatoo.
- Rev. L. V. Harcourt ... A series of fishes, crustacea, annulosa, stel-
lerida, polyparia, &c. from the south
coast of England.
- W. Hatfeild, F.G.S. ... The cross bill (pair),
- H. Healey, Esq. ... Pair of plotus anHINGA, shoveller duck.
- W. H. Hearon, Esq. ... Parrot.
- Joshua Ingham, Esq. ... Terebratula vitrea.
- W. Lawson, Esq. ... An eel and lamprey eel from Brough.
- Professor Phillips... ... Rifle bird (*promerops superbus*), m. and f.
and other foreign birds, greenfinch, lark.
- Rev. I. D. J. Preston ... Hoopoe, shot in South of England.
- C. Rawson, Esq., F.G.S. Head of *elephas indicus*, skin of tiger,
various Indian birds, &c.
- W. F. Scott, Esq. ... Young kittiwake, oyster-catcher.
- Earl of Tyrconnel, F.R.S. 200 foreign shells, from the Red Sea and
Persian Gulf; including *rostellaria fu-*
sus, *strombus tricornis*, *trochus Phara-*
onius, *tellina lingua felis*, *murex ficus*,
murex tribulus, &c. &c.
- Dr. Wasse *Fungia limacina*, *isis hippuris*, *gorgonia*
two species.

- Mr. W. Whytehead, jun. British birds, jay, magpie, sparrow hawk, *m.*, songthrush, *m.*, blackbird, *f.*, yellow hammer, *m.*, skylark, redbreast, *m.*, chaffinch, *m.*, sparrow, *m.* and *f.*
Mice, *m. f.* and *y.*
Voluta melo.
- Miss Wickham A series of foreign shells, including phasianella, several species of conus, oliva, ovula, voluta, cassis, cerithium, bulimus, &c.
- Purchased Several British and American birds ; a small number of shells.

BOTANY.

- Rev. L. V. Harcourt ... Series of marine plants from the south coast of England.

ANTIQUITIES, COINS, &c.

- Mr. J. F. Brown Coin found in excavations at the Castle.
- City Commissioners ... Stones of an arch, formerly a part of the Hospital of St. Peter.
- R. Davies, Esq. Various coins, Roman and English, with other remains, found near St. Leonard's Place.
- Mr. Gibson An ancient ring.
- Rev. J. Graham A copper bowl, found in digging a drain in St. Saviourgate.
Fragments of Roman tiles, found in St. Cuthbert's Churchyard.

S. Kenrick, Esq., of West Bromwich, <i>Hon. Mem. Y.P.S.</i>	The ancient mortar of St. Mary's Abbey ; angel of Hen. VIII. ; and double crown of James I.
Mrs. Knapton	Five Roman denarii, ar.
J. R. Mills, Esq.	Ancient Egyptian tablet.
W. Priestley, Esq.	Roman denarii, ar.
H. Robinson, Esq.	18 coins, chiefly Roman, from Aldborough.
J. Smith, Esq.	Stones from the Old Cross in Pavement.
Mr. Swineard	Several beautifully sculptured stones, found in Precentors' Court.
Mr. Tilney	Sculptured stones from the Roman Wall near Bootham Bar.
Dr. Wasse	Fine medal of Charles I.
Rev. C. Wellbeloved	A stone from the part of the Roman Wall crossing Aldwark ; an antique key ; Roman bowl and jar.

DONATIONS TO THE LIBRARY.

M. Agassiz (the Author)	Rapport sur les Poissons Fossiles, d' An- gleterre.
Society of Arts	Transactions for 1833-4.
Astronomical Society	The Greenwich Observations, 1829-33.
F. Baily, Esq. F.R.S.	Life of Flamstead and his Catalogue of Stars, 4to.
Cambridge Phil. Society	Transactions, Vol. V. Part 3.
G. W. Featherstonhaugh, Esq. (<i>New York</i>)	Report on the Geology of the Country between Missouri and Red River, 8vo.
Geological Society	Proceedings of the Society, 1834-5.
Jona. Gray, Esq.	Memoire sur le Pont de fil de fer de Freyberg.

- Hailstone Notices of British Crustacea.
- Dr. Hibbert, F.R.S.E. ... Memoir on the Fresh Water Limestone of
(the Author) Burdie House, 1835, 4to, plates.
- M. Necker (the Author) Le Regne Mineral, 2 vol. 8vo.
- Professor Phillips ... Print of the Organ Screen of York Min-
ster, by Abraham.
- H. Sandwith, Esq. ... Address to the Mechanics' Institute,
Beverley.
- Whitby Lit. and Phil. Soc. Twelfth Annual Report.
- Misses Wickham Turkish Almanac (Roll).
- Dr. Williamson Discourse on the Diffusion of Knowledge
(the Author) among the Middle Classes, 8vo.
- Rev. R. Willis, F.R.S. ... On Gothic Architecture, 8vo.
(the Author)
- Mr. S. Woodward ... Excavations in Wymondham Abbey, 4to
(the Author) (from the Archæologia).
Portrait of himself.
- Worcester Nat. Hist. Soc. Account of the Anniversary Meeting of
the Society.

DONATIONS TO THE SOCIETY'S FUNDS IN 1835.

A donation of £50. for the purchase of scientific works has been received from their Royal Highnesses the Duchess of Kent and the Princess Victoria.

A donation of £10. 10s. has been received from the Rev. W. Gooch, M.A., for the purchase and fitting-up of Maps for the Library.

ANNUAL DONATIONS.

	£.	s.	d.
Sir Charles Ibbotson, Bart.	5	5	0
Mrs. Danby	2	0	0

SUBSCRIBING MEMBERS

ELECTED FROM FEBRUARY, 1835, TO JANUARY, 1836.

Butterfield, James Moore, *York*.
Dodsworth, George, *York*.
Dodsworth, Benjamin, *York*.
Egerton, Rev. Thomas, F.G.S. *Dunnington*.
Fox, George Lane, *Bramham*.
Kemplay, Christopher, *York*.
Leadbitter, John, *York*.
Richardson, Rev. Thomas, *York*.
Russell, David, jun. *York*.
Rymer Matthew, *York*.
Wood, John, *York*.

HONORARY MEMBER.

Kenrick, Samuel, F.S.A. *West Bromwich, Birmingham*.

(Thomas Wilson and Sons, High-Ousegate, York.)

Presented
13 MAR 1886

~~1856~~A

Yorkshire Philosophical Society.

ANNUAL REPORT

FOR

MDCCCXXXVI.



ANNUAL REPORT

OF THE COUNCIL

OF THE

Workshire **P**hilosophical **S**ociety

FOR

MDCCCXXXVI.

PRESENTED TO THE ANNUAL MEETING

FEBRUARY 7TH, 1837.



Y O R K :

THOMAS WILSON AND SONS, HIGH-OUSEGATE.

1837.

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FORM OF A
BEQUEST TO THE SOCIETY.

EVERY person desirous of bequeathing to the Society any sum of Money, Specimens, Books, Instruments, or other Property, is requested to make use of the following form :

I give and bequeath to the Trustees, for the time being, of the Society established at York, called "THE YORKSHIRE PHILOSOPHICAL SOCIETY," for the use of the said Society, the sum of _____ to be paid out of such part of my personal estate, as I may legally charge therewith. [Or here enumerate the effects or property intended to be bequeathed.] And I direct that the receipt of the Treasurer of the said Society, for the time being, shall be an effectual discharge to my Executors for the said legacy.

TRUSTEES
OF
THE YORKSHIRE MUSEUM,
APPOINTED BY THE ROYAL GRANT.

HIS GRACE THE ARCHBISHOP OF YORK.
EARL OF CARLISLE.
EARL FITZWILLIAM, F.R.S., F.S.A.
EARL DE GREY.
HON. AND VERY REV. THE DEAN OF LICHFIELD.
FRANCIS CHOLMELEY, ESQ. F.S.A.
ROBERT DENISON, ESQ.
REV. W. VERNON HARCOURT, F.R.S.
WILLIAM HATFEILD, ESQ. F.G.S.
WILLIAM LAWSON, ESQ.
EUSTACHIUS STRICKLAND, ESQ.
RICHARD JOHN THOMPSON, ESQ.

PATRONESSES

OF

The Yorkshire Philosophical Society.

HER ROYAL HIGHNESS THE DUCHESS OF KENT.
HER ROYAL HIGHNESS THE PRINCESS VICTORIA.

PATRONS.

HIS GRACE THE ARCHBISHOP OF YORK.
EARL OF CARLISLE.
EARL FITZWILLIAM, F.R.S.
EARL OF TYRCONNEL, F.R.S.
VISCOUNT MORPETH.
LORD STOURTON.
LORD WHARNCLIFFE.

OFFICERS OF THE SOCIETY.

PRESIDENT:

THE EARL FITZWILLIAM, F.R.S.

VICE-PRESIDENTS:

REV. WILLIAM VERNON HARCOURT, F.R.S.
WM. HATFEILD, F.G.S.
JAMES ATKINSON.
BALDWIN WAKE, M.D.
GEORGE LANE FOX.
HENRY PRESTON.
REV. S. CREYKE.
THOMAS BARSTOW.

T R E A S U R E R :

JONATHAN GRAY.

C O U N C I L :

Elected 1835 REV. ROBERT BRYAN COOKE, F.G.S.

CHARLES HENEAGE ELSLEY.

FRANCIS CHOLMELEY, F.S.A.

REV. CHARLES WELLBELOVED.

Elected 1836 JAMES BARBER.

H. S. BELCOMBE, M.D.

WILLIAM BLANSHARD.

REV. THOMAS EGERTON, F.G.S.

Elected 1837 EDWARD ELGIN.

REV. JOHN KENRICK.

EUSTACHIUS STRICKLAND.

JOHN WOLSTENHOLME.

S E C R E T A R I E S :

WILLIAM GRAY, JUN., F.G.S.

JOHN PHILLIPS, F.R.S., G.S.

C U R A T O R S :

REV. JOHN GRAHAM	...	...	GEOLGY.
WILLIAM HATFIELD, F.G.S.	...	...	MINERALOGY.
JAMES ATKINSON	...	...	COMPARATIVE ANATOMY.
THOMAS ALLIS	...	}	ORNITHOLOGY.
REV. J. B. GRAHAM	...		
REV. I. J. D. PRESTON, F.C.P.S.	...	...	ENTOMOLOGY.
REV. W. HINCKS, F.L.S.	...	...	BOTANY.
REV. C. WELLBELOVED	...	...	ANTIQUITIES AND COINS.
HENRY ROBINSON	...	...	LIBRARY.

 K E E P E R O F T H E M U S E U M :

JOHN PHILLIPS, F.R.S., G.S.

 S U B - C U R A T O R :

HENRY BAINES.

R E P O R T

OF

T H E C O U N C I L.

IN the Report of the Proceedings of the Yorkshire Philosophical Society which is now offered for the consideration of the Annual Meeting, the Council is desirous of presenting such information on the state and prospects of the Institution, as may enable the Members clearly to comprehend the somewhat new circumstances under which it is placed, and decide on the measures best calculated to advance its progress and augment its usefulness.

In consequence of the recent purchase from the Crown of all that part of the Manor Shore lying between the Water-works and Marygate, and extending from the Museum Garden to the Ouse, the Society is now possessed of nine acres of land, once the property of St. Mary's Abbey, and including, besides the beautiful remains of the Church, the ancient gateway, hospitium, and granary, as well as the round tower against the river.

Thus amply established on the site of a noble monastery, which in other days dispensed the benefits of knowledge, the Society will always be reminded of the conditions on which it enjoys these advantages, and incited to follow out the objects for which it was founded, and to perform

its duty to the Crown and the Public, by earnest and disinterested efforts in the advancement of natural and antiquarian Science in Yorkshire.

To have added some portion of the newly acquired property to the already spacious grounds connected with the Museum, might have opened to the Members some monastic reliques and architectural combinations of great pictorial beauty; but was impracticable in the present condition of the Society's finances. The Council therefore appointed a Committee, by whose judgment they have been much guided in apportioning the ground among some of the old tenants, and various new claimants.

In this duty they were sedulous to accomplish the removal of unsightly walls and tenements, from the Abbey lodge and gateway, the city wall and granary of the Abbey; all modes of occupation which might be likely to injure the pleasing effects thus produced were rejected; and in dividing the land, care has been taken that if, at any future time, the Society shall resolve to augment its botanic garden, those parts likely to be most desirable shall be easily reclaimable at a short notice, and in a state of improved adaptation.

With a desire to aid as far as may be the course of improvements now happily begun in York, the Council entertained proposals from a Company for the erection of a public Swimming Bath, and allotted for their use an acre of ground, under certain necessary conditions, adjoining the Abbey wall and the river; but this negotiation is yet incomplete.

The payment to the Crown for the five acres and a half of ground, and the buildings and other property upon

it, which was fixed at £.2,500, has been effected by the aid of a loan from the Yorkshire Fire and Life Insurance Office, to that extent, at 4 per cent:—in repairs, construction of roads, and legal expenses, a further charge of £.74 has been incurred, and some additional outlay will yet be required.

The rents already agreed for, with those which may reasonably be expected from some yet unappropriated parts, amount to about £.150; and, after the proper allowances for annual and incidental expenses, it is probable that a clear surplus income will remain of about £.40, which will speedily defray the above-named expenses and be afterwards available to the general funds of the Society.

But in executing this important trust the Council has not withdrawn its attention from the grounds which surround the Museum, and contribute to the popularity and utility of the Institution. A ruinous part of the city wall near the Roman tower has been substantially repaired; the boundary has been removed so as to enlarge the cultivable space of the garden; a greenhouse, purchased under favourable circumstances in consequence of a subscription begun among the Members, has been erected, and is already full of plants; a new fence has been constructed to give effect to a terrace walk under the city wall; and the reservoir for water has been reconstructed and enlarged. The ornamental effect of the garden has been further augmented by introducing many new plants. A larger sum of money has thus been disposed of, than the Council would have thought it right to expend, had not the improvements been deemed necessary, and the time for effecting them too favourable to be passed by. For the same reasons, repairs of the roof and interior of the building, which could no longer with safety be delayed, have been executed; some further expenses have been incurred in

adapting some of the furniture to new uses, and in preparing Zoological specimens, and some useful purchases have been made for the Museum.

As, however, the best index of the condition of the Institution is the favour of the public, the Members will learn with pleasure that by far the greatest additions made to the Library and Museums have been received as heretofore from voluntary contributions. Not to dwell on the numerous specimens furnished by Miss Gurney, Mr. Egerton, Mr. Hatfield, Mr. Prestwich, Mr. Wm. Gray, Professor Phillips, and Mr. Harcourt, to the already large collections in the GEOLOGICAL Museum, the Council wishes to call especial attention to the noble monument of the ancient condition of the British Islands, the great extinct Elk of Ireland, presented by G. L. Fox, Esq. from his estate near Waterford. In this magnificent relique of other days the mind recognizes one of those characteristic forms of vanished beings, the study of which has given to the name of Cuvier an imperishable renown, and to the world at large subjects of inquiry and contemplation concerning the natural history of the earth, which must outlast this and many generations; and it may surely be pardoned to the Members of the Yorkshire Philosophical Society, if they feel an honest pride in being the first to place in an English Museum a skeleton of this gigantic animal.

Considerable additions have been made to the ZOOLOGICAL collections, especially to the departments of Ornithology and Entomology. One hundred and thirty-seven birds from Australia, collected by Capt. E. Markham; thirty birds from the Himalaya, the gift of Dr. Wake; besides some valuable species given by other friends of the Institution have enabled the officers to put the collection of foreign birds in a condition more equal to that of other departments of the Museum.

Some valuable epiphytic orchideæ have been given by Mr. S. Stutchbury, of the Bristol Institution, and a tree fern from Van Diemen's Land, by Mr. Backhouse. The contributions in Entomology, by Mr. Meynell and others will, the Council hopes, be soon rendered available in appropriate cabinets: for these, though absolutely required, have not yet been constructed; the cost of preparing several hundred birds, and other expenses connected with the Museum, having compelled the Council to postpone all further disbursements.

The LIBRARY has been chosen as the place to receive one of the most gratifying of all the donations which has ever been made to the Yorkshire Philosophical Society, the bust of its first President and constant benefactor—executed by the hands of Chantrey at the request of a very large proportion of the Members of the Society, who, in a public meeting, resolved by this beautiful work of art, fixed in the Yorkshire Museum, to perpetuate the memory of the services rendered to the Institution by the Rev. W. Vernon Harcourt. The volumes which Mr. Priestley has enriched by his laborious inquiries into the etymology of the obscure dialects of Craven are too closely connected with the ancient history of Yorkshire to be received with indifference; and the copy of Observations made at Paramatta, presented by the Royal Astronomical Society, though of a character far beyond the present power of our useful observatory, may yet, from the peculiar circumstances which gave them birth, encourage a hope that the taste now rising amongst us, for the cultivation of physical science, may in some future day be furnished with greater means of exertion.

The solar eclipse of May, 1836, was observed with care by one party of our Members at home, and by another who proceeded to view its annularity at Durham; some data have thus and by other means been collected for the determination

of the longitude of the Observatory, which is assumed from the position of York Minster, as given in the Trigonometrical Survey of Great Britain, to be nearly 4m. 19s. W. of Greenwich.

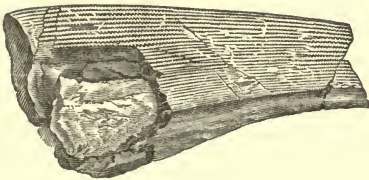
The Council has seen with satisfaction the completion of the Second Volume of the Illustrations of the Geology of Yorkshire, on which Professor Phillips has been so long employed; Mr. William Gray has collected the barometrical and trigonometrical measures of different observers relating to the elevation of ground in Yorkshire into a convenient synopsis; and it is hoped that the Sub-Curator of the Society may speedily be enabled to complete his proposed Guide to the Botanist in Yorkshire. Besides these distinct effects of the progress of natural science amongst us, the success which has attended the Evening Scientific Meetings, during the past year is a gratifying proof that the spirit of mutual improvement is more than ever active in our body, and by its unobtrusive operation preparing the way for a more extended communication of knowledge among the Members.

The Society is thus found to be in a good position in all that relates to its scientific reputation; the statement of the Treasurer, appended to this Report, will shew that but for the taking into the account, by direction of the last Annual Meeting, the deficiency of the subscription for the Observatory (£130.) the amount of the general debt would have been reduced £40.

The Council would however not fulfil the duty it owes to the Society, did it not declare that there yet remain some further expenses to be incurred in the Library for books of reference, and in the Museum for cabinets to hold Insects, Plants, Minerals, and Geological specimens, which can be ill met if

any considerable portion of the annual funds be reserved for the diminution of the debt. It must also be remembered that some of our cases are filled by specimens which are not, but ought to be, the property of the Society, and that a certain annual charge or a considerable present advance will be required for the purchase of them.

But these requirements have been foreseen, and contemplated without alarm, and encouraged by the assistance received this year from the President and Miss Currer—by the proceeds from the tickets of admission—by the advantageous purchase from the Crown,—and above all, by the consciousness that greater difficulties than these have been overcome when the Society was less prepared to meet them than now it is, the Council hopes that this Meeting will be of opinion that the affairs of the Yorkshire Philosophical Society, though demanding every proper attention to economy, should still be conducted with that liberal regard to the dignity of the Institution and the interests of natural science, which offers the greatest attraction to new Members, and lays the surest claim to the patronage of the community.



CTENACANTHUS TENUISTRIATUS,

From the Mountain Limestone of Shropshire,

Presented by the Rev. T. Lewis.

RECEIPTS.

					£.	s.	d.
Received Annual Subscriptions from 220 Members at 2 <i>l.</i>	...			...	440	0	0
Ditto from 5 at 1 <i>l.</i>	...	...	...	...	5	0	0
Annual Donations	{	Sir Charles Ibbetson	...	5	5	0	}
	{	Mrs. Danby	...	2	0	0	
From Ladies, being Annual Subscribers	...	...	...	...	31	0	0
For Keys of Garden	...	...	...	...	10	15	0
For Gas consumed at Evening Meetings	...	...	...	...	1	10	0
For Tickets of Admission, deducting expense of Sale	...	...	...	...	56	3	0
Balance due to the Treasurer	...	...	...	...	65	17	10

£. 617 10 10

Arrears due to the Society on this account ... £. 58 0 0

P A Y M E N T S.

	£.	s.	d.	£.	s.	d.
Rent and Taxes :						
Rent to the Crown	1	0	8			
Rent to the Corporation	6	12	6			
Rates	15	11	0			
Water rent	4	4	0			
Insurance	5	0	0			
	<hr/>				31	18 2
Salaries and Wages :						
Keeper of the Museum	100	0	0			
Sub-curator	65	0	0			
Labour in Garden and Museum	40	0	0			
Lodge-keeper	10	0	0			
Collector and Messenger	1	11	6			
	<hr/>				216	11 6
Printing :						
Report for 1835, including wood engraving	17	0	6			
Miscellaneous	4	6	0			
	<hr/>				21	6 6
Stationery					1	15 4
Books and Binding :						
Books	41	13	6			
Binding	7	13	6			
	<hr/>				49	7 0
Garden and Grounds :						
Buckley, for wall, improvements of entrance, &c.	33	15	6			
Advanced towards greenhouse	20	0	0			
Miscellaneous	29	11	6			
	<hr/>				83	7 0
Repairs and Furniture						
Carriage, postage, and incidents	8	11	8		82	2 4
Gas and candles	7	7	2			
Coke and coal	19	12	0			
	<hr/>				35	10 10
Purchase and preparation of specimens					32	2 2
Interest on debt					63	10 0
	<hr/>				<hr/>	
					£.617	10 10
					<hr/>	

GENERAL ACCOUNT.

	<i>£.</i>	<i>s.</i>	<i>d.</i>		<i>£.</i>	<i>s.</i>	<i>d.</i>
Received Arrears of former years ...	44	0	0	By Balance due to the Treasurer, 1835 ...	1728	12	9
..... Admission of six members ...	18	0	0	By Balance due on the Observatory, 1835 ...	130	2	10
..... Donation from Miss Curren ...	25	0	0	By Balance due on Annual Account, 1836 ...	65	17	10
..... Ditto from Earl Fitzwilliam	21	0	0				
Balance due to the Treasurer	1816	13	5				
	<u>£.1924</u>	<u>13</u>	<u>5</u>		<u>£.1924</u>	<u>13</u>	<u>5</u>
	<u>£.1924</u>	<u>13</u>	<u>5</u>		<u>£.1924</u>	<u>13</u>	<u>5</u>

	<i>£.</i>	<i>s.</i>	<i>d.</i>
Arrears on Annual Account ...	58	0	0
Arrears on General Account ...	110	0	0
	<u>£.168</u>	<u>0</u>	<u>0</u>
	<u>£.168</u>	<u>0</u>	<u>0</u>

PRESENT STATE OF ACCOUNT AS TO THE PURCHASE OF THE MANOR SHORE ESTATE.

	<i>£.</i>	<i>s.</i>	<i>d.</i>		<i>£.</i>	<i>s.</i>	<i>d.</i>
Borrowed on mortgage of the premises purchased at 4 per cent. ...	2500	0	0	Paid the Commissioners of the Woods and Forests for half a year's rent due Lady-day, 1836 ...	34	16	0
Received half a year's rents due to the Crown, Lady-day, 1836 ...	20	10	0	Paid them for purchase of the ground ...	2500	0	0
Received half a year's rents due to the Society, Michaelmas, 1836 ..	68	14	6	Paid them for the expenses of conveyance ...	30	0	0
Present deficit ...	69	7	0	Paid sundry expenses in dividing and inclosing the land, roads, &c. ...	43	15	6
	<u>£.2658</u>	<u>11</u>	<u>6</u>	Paid half a year's interest on the mortgage, due November 4th, 1836 ...	50	0	0
	<u>£.2658</u>	<u>11</u>	<u>6</u>		<u>£.2658</u>	<u>11</u>	<u>6</u>
	<u>£.2658</u>	<u>11</u>	<u>6</u>		<u>£.2658</u>	<u>11</u>	<u>6</u>

JONA. GRAY,
TREASURER.

SCIENTIFIC COMMUNICATIONS
TO THE
GENERAL MEETINGS.

MARCH, 1836.—Summaries of Meteorological Observations for the year 1835, at Brandsby, by F. Cholmeley, Esq. ; at Middleton, by the Rev. Mr. Blanchard ; at Moat Hall, by Dr. Wasse ; at Huggate, by the Rev. Mr. Rankin ; at York, by Mr. Ford.

OCTOBER.—Report of Proceedings at the Bristol Meeting of the British Association, by Mr. Newman and Professor Phillips.

NOVEMBER.—Notices of the Irish Elk, presented to the Museum by G. L. Fox, Esq.

DECEMBER.—Notices of the lower Jaw of Palæotherium, from the Isle of Wight, &c. by the Rev. W. V. Harcourt, F.R.S.

Account of Mr. Biot's Views of the claim of Sir Isaac Newton to the Theory of Atmospheric Refraction, by W. L. Newman, F.R.A.S.

JANUARY, 1837.—Extracts from the Close Rolls relating to the City of York by Wm. Gray, jun. F.G.S.

A Method of ascertaining the Side of an Octagon to be inscribed in a circle of given radius, by W. D. Littledale, Esq.



Ingleborough, from the S. W.
Phillips's Geology of Yorkshire, Vol. II.

DONATIONS

TO

THE SOCIETY'S MUSEUM.

GEOLOGY.

- Bristol Institution ... Fine cast of the head and anterior parts of ichthyosaurus.
- Mr. J. F. Brown ... Specimens of marble, Italy; horns of red deer and part of the head of an ox, from the River Foss, at High Roans.
- Mr. F. J. Copsie ... *Cidaris vagans*, and another fossil like a medusa, from the Yorkshire Coast.
- Messrs. Craven and Co. ... Mass of pyritized wood, from near Castlethorpe, Northamptonshire.
- Rev. T. Dury ... Calamites from millstone grit, Keighley; *spirifera resupinata* from the millstone grit series near Brimham.
- Rev. T. Egerton, F.G.S. A series of fossils from the detached basin of lias in Cheshire.
- G. L. Fox ... Bones of the Irish elk, from near Waterford.
- From this collection a very large skeleton has been mounted, complete except the hind legs and caudal vertebræ. In the size of the bones of the body and extremities, it agrees with the skeletons in the Royal Dublin Museum, and College

Museum, Edinburgh ; but its horns are longer, measuring 12 ft. 8 in. from tip to tip by the sweep. The vertebral column has been intentionally placed 6 inches lower than the Dublin specimen. The animal thus stands 6 feet over the shoulders, and its horns rise 10 feet from the floor. *There is among the specimens the head of a female without horns.*

- Wm. Gray, F.G.S. and Prof. Phillips
Fossils from the Yorkshire coast, including new species of conchifera, hamites, &c. from Speeton ; plants, crustacea, &c. from the oolitic system.
- Wm. Gray, F.G.S. ... New fossils, from Brandsby ; hamites, &c. Speeton ; large shelly masses from the Kelloways rock, Scarborough.
- Miss A. Gurney ... Bones of elephant, deer, &c. from Happisburgh ; ostrea canaliculata, &c. from the chalk of Norfolk.
- Rev. W. V. Harcourt, F.G.S. Series of fossils from the fresh-water and other formations of the Isle of Wight, including a cast of the lower jaw, right side, of palæotherium, with six teeth in the side : large mass of bone supposed to be part of the pelvis of iguanodon, &c.
- W. Hatfield, F.G.S. ... Series of fossils from the mountain limestone of the Isle of Man, including ammonites sphericus ; marsupites, spongia, &c. from Bridlington.
- Rev. T. Lewis, F.G.S. ... Mass of fish bones, &c. from the Ludlow formation (Silurian system).
- Prof. Phillips, F.R.S., G.S. Remains of fishes, from Burdie House ; of the skin and bones of a reptile ? from the limestone of Ardwick, near Manchester ; neuropteris cordata, from Lebotwood ; halonia, from South Shields ; cast of caulopteris Phillipsii from Camerton ; fossils from the mountain limestone of Ireland, Yorkshire, &c.

- J. Prestwich, F.G.S. ... A large series of fossil shells and plants from the limestone and coal measures of Coalbrookdale, with an explanatory section and notices.
- Leonard Simpson, Esq. ... Shells from the London clay, cut through on the Birmingham railway.
- Dr. Wake A bivalve shell, from the Himalaya.
- Mr. J. Yeoman Fore and hind paddles of ichthyosaurus.
-

MINERALOGY.

- Mr. J. F. Brown Mass of crystallized quartz.
- Rev. J. Dunnington ... Pyrites and calc spar from a 'fault' in coal measures near Barnsley.
- Rev. W. Hincks, F.L.S.... Quartz from Trenton Falls, U. S.
- Mr. W. Trueman ... Crystallized sulphate of lime from a colliery in Durham.
-

ZOOLOGY.

- T. Allis Three species of columbadæ ; eighty fishes from the Mediterranean (in spirits).
- Wm. Hatfield, F.G.S. ... Heron, gull, eared grebe, siskin. Achatina zebra.
- Rev. W. Hincks, F.L.S.... Terebra vittata and t. lineolata.
- Miss Jane Hird Phaeton æthereus, *m.* and *f.*

- Capt. E. Markham ... 137 Australian birds, including the lyre tail, *m.* and *f.* (*menura*); rifle bird (*promerops superbus*) *m.* and *f.*; *Columba magnifica*, *c. dilophus*, phaeton, psittacidae, &c.
- T. Meynell, Esq. jun. ... A collection of foreign insects of the order lepidoptera.
- Rev. F. O. Morris, F.L.S. A collection of British insects.
- Miss Phillips Fungia lima and fungia pileus.
- E. Strickland, Esq. ... Faithful jacana; bustard.
- Mr. John Taylor Specimen of cerambyx in wood, from Africa.
- B. Wake, M.D. ... 29 Birds from the Himalaya, including myophonous horsfieldii; bucco grandis; garrulus bispecularis, *g. lanceolatus*; pica erythrorhynchus, &c.
Flying squirrel.

B O T A N Y.

- T. Backhouse Stem of tree fern (*cybodium Billaudierii*).
- S. Stutchbury, A.L.S. ... A series of epiphytic orchideae.

ANTIQUITIES AND COINS.

- Rev. C. Wellbeloved ... Stand for the Abbey Mortar, carved after a knot in the ceiling of York Minster, of the same date as the mortar, from minster oak.
- Mrs. Reeve Medal, struck at Geneva, 1835, to commemorate the centenary of the Reformation.

DONATIONS TO THE LIBRARY.

- | | |
|--|--|
| Society of Arts | Transactions, Vol. L. Part 2. |
| Royal Astronomical Society | Astronomical Observations made at Par-
matta, fol. |
| F. Baily, F.R.S. | On the Aberdeen Standard Scale. |
| British Association for the
Advancement of Science | Fifth Report of Transactions. |
| E. Charlesworth, F.G.S. | Print of fossil chelonia from Harwich. |
| P. Duncan, F.L.S. | Catalogue of the Ashmolean Museum. |
| Mr. G. Edwards | Pamphlet relating to the State of the
British Museum. |
| Geological Society | Proceedings, 1835. |
| Natural History Society of
Manchester | Catalogue of British Birds in the collec-
tion of the Society. |
| Mechanics' Institute, Man-
chester | Report for 1835. |
| Statistical Society of Man-
chester | Report of Results of Inquiries on Educa-
tion. |
| Nat. Hist. Soc. of Shrop-
shire and North Wales | First Report of Proceedings. |
| Wm. Priestley, Esq. | The Craven Glossary, published by the
Rev. W. Carr, interleaved with MS.
Notes, containing the Etymology of the
words, by Mr. Priestley. |
| Hull Lit. and Phil. Soc. ;
Leeds Lit. and Phil. Soc. ;
Scarbro' Lit. and Phil.
Soc. ; Whitby Lit. and
Phil. Soc. | } |
| | Reports of Proceedings for 1835. |
| John Wood, Esq. | Large Maps of the Stars, published by the
Society for the diffusion of Useful Know-
ledge, with an Explanatory Volume. |
| Purchased with the dona-
tion of Her Royal High-
ness the Duchess of Kent | Agassiz, Recherches sur les poissons fos-
siles (in continuation) ; Goldfuss, Die
petrefacten Europas (in continuation) ;
Yarrell's British Fishes. |

M E M B E R S

ELECTED FROM JANUARY, 1836, TO JANUARY, 1837.

Fenton, William, *Fulford, York.*

Fox, George Lane, *Bramham Park, Wetherby.*

Harper, John, *York.*

Honor, Edward, *Fulford Grange, York.*

Kemplay, Christopher, *York.*

Leadbitter, John, *York.*

Lowther, John Henry, M.P. *Swillington, Ferrybridge.*

Munby, Joseph, *York.*

Wilkinson, Bartholomew Thomas, *York.*


Woodall, George, *York.*

HONORARY MEMBER.

Stutchbury, Samuel, F.L.S., &c. *Curator of the Bristol
Museum.*

(Thomas Wilson and Sons, High-Ousegate, York.)

Presented
13 MAR 1888



Yorkshire Philosophical Society.

ANNUAL REPORT

FOR

MDCCCXXXVII.



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OF THE COUNCIL

OF THE

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PRESENTED TO THE ANNUAL MEETING

FEBRUARY 6TH, 1838.



Y O R K :

THOMAS WILSON AND SONS, HIGH-OUSEGATE.

1838.

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FORM OF A
BEQUEST TO THE SOCIETY.

EVERY person desirous of bequeathing to the Society any sum of Money, Specimens, Books, Instruments, or other Property, is requested to make use of the following form :

I give and bequeath to the Trustees, for the time being, of the Society established at York, called "THE YORKSHIRE PHILOSOPHICAL SOCIETY," for the use of the said Society, the sum of _____ to be paid out of such part of my personal estate, as I may legally charge therewith. [Or here enumerate the effects or property intended to be bequeathed.] And I direct that the receipt of the Treasurer of the said Society, for the time being, shall be an effectual discharge to my Executors for the said legacy.

TRUSTEES
OF
THE YORKSHIRE MUSEUM,

APPOINTED BY THE ROYAL GRANT.

HIS GRACE THE ARCHBISHOP OF YORK.
EARL OF CARLISLE.
EARL FITZWILLIAM, F.R.S., F.S.A.
EARL DE GREY.
HON. AND VERY REV. THE DEAN OF LICHFIELD.
FRANCIS CHOLMELEY, ESQ. F.S.A.
ROBERT DENISON, ESQ.
REV. W. VERNON HARCOURT, F.R.S.
WILLIAM HATFIELD, ESQ. F.G.S.
WILLIAM LAWSON, ESQ. F.S.A.
EUSTACHIUS STRICKLAND, ESQ.
RICHARD JOHN THOMPSON, ESQ.

PATRONESSES

OF

The Dorsetshire Philosophical Society.

HER MAJESTY THE QUEEN.

HER ROYAL HIGHNESS THE DUCHESS OF KENT.

PATRONS.

HIS GRACE THE ARCHBISHOP OF YORK.

EARL OF CARLISLE.

EARL FITZWILLIAM, F.R.S.

EARL OF TYRCONNEL, F.R.S.

VISCOUNT MORPETH.

LORD STOURTON.

LORD WHARNCLIFFE.

OFFICERS OF THE SOCIETY.

PRESIDENT :

THE EARL FITZWILLIAM, F.R.S.

VICE-PRESIDENTS :

GEORGE LANE FOX.

HENRY PRESTON.

REV. S. CREYKE.

THOMAS BARSTOW.

C. H. ELSLEY.

WM. GRAY, JUN. F.G.S.

REV. C. WELLBELOVED.

R. J. THOMPSON.

TREASURER:

ROBERT DAVIES.

COUNCIL:

Elected 1836..... JAMES BARBER.

H. S. BELCOMBE, M.D.

WILLIAM BLANSHARD.

REV. THOMAS EGERTON, F.G.S.

Elected 1837..... EDWARD ELGIN.

REV. JOHN KENRICK.

EUSTACHIUS STRICKLAND.

JOHN WOLSTENHOLME.

Elected 1838..... GEORGE GOLDIE, M.D.

WILLIAM HATFIELD, F.G.S.

THOMAS MEYNELL, Jun. F.L.S.

HENRY SMALES.

SECRETARIES:

JOHN PHILLIPS, F.R.S., G.S.

HENRY ROBINSON.

CURATORS:

REV. JOHN GRAHAM	...	...	GEOLOGY.
WILLIAM HATFIELD, F.G.S.	...	...	MINERALOGY.
JAMES ATKINSON	...	...	COMPARATIVE ANATOMY.
THOMAS ALLIS	...	...	} ORNITHOLOGY.
REV. J. B. GRAHAM	...	...
REV. I. J. D. PRESTON, F.C.P.S.	}	}	ENTOMOLOGY.
THOMAS MEYNELL, jun. F.L.S.			
REV. W. HINCKS, F.L.S.	...	...	BOTANY.
REV. C. WELLBELOVED	...	...	ANTIQUITIES AND COINS.
JOSEPH MUNBY	...	...	LIBRARY.

KEEPER OF THE MUSEUM:

JOHN PHILLIPS, F.R.S., G.S.

SUB-CURATOR:

HENRY BAINES.

REPORT

OF

THE COUNCIL.

THE Report of the Proceedings of the Yorkshire Philosophical Society, during the past year, will be as brief as the necessity of clearly explaining the present condition and prospects of the Institution will allow. It is gratifying to state as a general result, that in the number of its members, the state of its finances, and the condition of its museum, the Society has never been more fortunately circumstanced. From the measures now in progress there is reason to conclude that this prosperous condition may be prolonged; and it will depend upon the decision of this meeting whether the facilities of access, already enjoyed by the public, shall be further augmented, and new attempts made to enlarge the power and efficiency of the institution.

The Donations to the Museum and Library have been numerous and valuable; and the Council, encouraged by the admission of many new members, has ventured to add a considerable number of specimens by purchase on favourable terms.

The most remarkable additions to the Geological department are from the fossiliferous (often called transition) strata of Christiania, * and those contemporaneous or more recent strata in Ireland and Devonshire which have for some time furnished matter of discussion between eminent British geologists. † Many contributions have also been received from

* Collected and presented by the Rev. W. Bilton.

† Presented by Mr. Bilton, Mr. Weaver, and Rev. D. Williams.

the strata of the Yorkshire coast, and a few purchases have been authorised, to supply particular desiderata. It is hoped that the Systematic Catalogue of the whole geological collection may be completed in the present year.

The collection of Zoological specimens has been enlarged and improved in almost every department. *Hyrax capensis*, *lycaon tricolor*, and many other interesting quadrupeds from the Cape of Good Hope,* *phalangista vulpina*, the pigmy antelope, *ornithorynchus paradoxus*, and other donations, augment the collection of mammalia to 120 specimens, and require some further provision of cases for their proper exhibition and arrangement.

Great additions have been made to the Ornithological collection of the Society, both by gift and purchase. The most valuable of the former consist in specimens of the splendid Indian birds, *lophophorus impeyanus*, and *tragopan satyrus*, presented by Archdeacon Corbet. Since the last Annual Meeting no less than 257 specimens have been mounted by the Sub-curator, in a very satisfactory style, and the Curators hope soon to commence the formation of a general catalogue of the Foreign Birds for the use of the members.

To furnish a satisfactory basis for a new cabinet of British insects, Professor Phillips has placed his whole collection at the disposal of the Curators of that department; an example followed by Mr. Allis, and Mr. W. Gray, jun. The arrangement of these collected treasures has been commenced by Mr. Meynell and Mr. W. Hewitson, and is now proceeding.

The Curator of the Botanical department has availed himself of the means which have been provided for the preservation of the collections of dried plants; the portion of the herbarium which had been completed is now properly placed; and he is proceeding with the remainder as fast as circumstances will allow.

The Garden has been greatly improved during the past

* Presented by Mrs. R. Markham.

year ; and in addition to the greenhouse, which is already well filled, a valuable present of tropical orchideous plants has led to the construction of a small stove, expressly adapted to the cultivation of that interesting tribe of plants, of which the society possesses about 40 species.

The Antiquarian collections have been increased by some additional Egyptian relics received from Colonel Harcourt, and by several interesting English and Irish coins the gift of S. Kenrick, Esq. To the Directors of the York and North Midland Railway Company, the society is indebted for a curious Roman altar, lately found in the line of the railway, near the Mount. It is sculptured on every side, but the figures are so much effaced by time, that in the absence of every thing like an inscription, it is difficult if not impossible to ascertain what the figures were designed to represent. From Joseph Bonomi, Esq., the Society has received a cast of a large and highly interesting Assyrian monument, sculptured, with several others, three of which are Egyptian, on the rocks in the vicinity of Beyrout ; representing an Assyrian king, holding in his left hand a staff, “ the antique symbol of regal authority ;” and having on his right hand the Assyrian dove, above which are certain astronomical signs and symbols. Nearly the whole of the figure, as well as the arched inclosure in which it stands, is covered with an inscription in the arrow headed character, in many places well preserved. *

The Library has been ornamented by the gift of Piranesi's etchings of the columns of Trajan and Antoninus,† and among the collections of books and transactions of learned societies, it is the pleasing duty of the Council to notice with gratitude the liberal bequest of the late George Hodgson, Esq., of Bridlington. The magnificent work of Audubon is near its termination ; and it remains to be considered what portion of

* See Landseer's Sabæan Researches, Sect. IX.

† Presented by Michael Taylor, Esq.

the annual expenditure thus saved may be applied to the purchase of books of reference, for the assistance of the Curators of natural history and antiquities.

The Monthly Meetings have been less completely supplied with scientific essays than heretofore; a circumstance which is the more to be regretted, when the success which has lately attended the Evening Conversations is considered. Out of the large mass of communications which have thus contributed to the instruction of the members, the Council proposes to select for publication those memoirs which, by their bearing on the natural history and antiquarian monuments of Yorkshire, or their importance in general science, appear worthy of being placed in the hands of the members, and offered to the public. The TRANSACTIONS OF THE YORKSHIRE PHILOSOPHICAL SOCIETY, thus limited in plan, can never offend by their extent; but if frequently published in a modest form, and at a low price, may powerfully direct the inquiries of the members to the scientific objects of local interest for which the institution was originally founded, and by some contributions to the general amount of useful knowledge, deserve the approbation of the public.

It is further proposed that a short DESCRIPTION OF THE CONTENTS OF THE MUSEUM shall be speedily printed, for the assistance of the members, and the numerous strangers who now visit the institution.

The FLORA OF YORKSHIRE, by which title it is proposed to designate the work on the botany of the county some time since commenced by the Sub-curator, is in the press, and will be published before the conclusion of the year.

During the past year, death has removed from us several members, and among them one who has left a vacancy in the ranks of the Yorkshire Philosophical Society, and in the hearts of its members, not easily to be filled. Generous in his benefactions, untiring in useful labour, prodigal of time and various knowledge for the public good, the memory of

Mr. Jonathan Gray will long be dear to a larger circle than our own; the public voice may raise a tribute to a worthy citizen, but all that here surrounds us is a lasting monument of our philosophic friend.

Pressed by the weight of professional business, Mr. Wm. Gray, jun. has found it necessary to withdraw that active assistance which for eleven years he has rendered as Secretary to the Institution.

From causes nearly similar, Professor Phillips, at an earlier period of the year, finding it impossible to give his attention to the Society's affairs for the period, or at the times, stipulated in the arrangement commenced in 1825, replaced in the hands of the Society the trust which had been committed to him;—but the Council, unwilling to break a connexion which has now subsisted for twelve years, proposed to him to continue the general direction of the scientific affairs of the Society, without any limitation as to time.

The Council has requested Mr. Robert Davies to accept the office of Treasurer, and Mr. H. Robinson to act as joint Secretary with Professor Phillips; nominations which, from the high character of those gentlemen, the Council entertains no doubt this meeting will confirm.

The expenditure of the year has been great; but much that was required to be done has been accomplished; and there has been no waste. Independently of an augmentation of the salary of the Sub-curator, which has indeed been fully repaid by the additional duties undertaken and executed by him; the finances have had to bear the cost of a portion of the new insect cabinets, of the fitting up of the shelves for the collections of plants, of mounting the skeletons of the whale and the Irish elk, of repairing the Roman and monastic walls, and constructing a small hothouse for plants of considerable value. These things were necessary; but the Council has gone further, and for the first time during many years, has expended in the purchase and preparation of specimens on

less a sum than £84. The justification of this step will be best given by reference to the collection of birds, now containing 1200 prepared specimens,—to the geological museum,—and the list of new members; for it was from *this* source that the Council derived encouragement to do this year what it is to be hoped may often be repeated.

Notwithstanding these large expenses, the balance against the Society on the general account is reduced by nearly £86.; but on the other hand the deficiency on the account of the Manor Shore has been augmented £32. This arises from causes which there is no rashness in saying will not be repeated.

In relinquishing to the members whom you may choose for the following year, the further governance of the Society's affairs, the Council wishes to point out how far the proceedings of the past year or existing circumstances are likely to influence the adoption of particular measures.

There is no reason to expect that larger pecuniary means will be at the disposal of the new Council, than those which have been expended in 1837; and they will probably have to bear some considerable charges: it will be requisite, therefore, to avoid all unnecessary outlay.

An arrangement has been made for the purchase of Mr. Allis's whole collection of skeletons and other preparations of birds, &c., on terms more advantageous than would have been accorded to any other purchaser.

Anatomical preparations of animals have always been found of the highest importance in zoology. Upon this solid foundation Cuvier rested his knowledge and secured his fame. Of such preparations none are more popularly attractive, or philosophically valuable, than the skeletons of vertebral animals. In lectures before the Society, their utility has been abundantly manifest, both in illustrating the habits of living races, and decyphering the monuments of ancient nature. Mr. Allis's extensive and beautiful series of skeletons has been declared by competent judges to be one of the most con-

spicuous ornaments of the museum ; and in determining to give effect to the recommendation in the last year's Report, the only hesitation felt by the Council regarded the prudence of pledging the Society's resources to the extent of £350.

In this difficulty the liberal offer of Earl Fitzwilliam to head a subscription in aid of the Society's funds was gratefully accepted, and the Council, not doubting that the members would gladly second the example of their President, authorised a committee to conclude the purchase. The meeting will learn with satisfaction that the sum of £230. has been already subscribed for this object, and there is reason to hope the supply is not yet exhausted.

Among the subjects requiring attention during the ensuing year, the construction of new cases to hold the collection of quadrupeds is prominent. The Council obtained estimates for fitting up the walls of the mineral room, which is the most appropriate situation ; but they resolved to refer to the Annual Meeting the question when the work should be undertaken. If furnished with cases on three sides, that room would afford for many years abundant space for the augmentations which may reasonably be expected in the zoological collections. There is no immediate need for further disbursements in new cases, except to complete the insect cabinets ; little need be spent in repairs or purchases ; £20. a-year may be deducted from the purchase of books ; the Manor Shore will eventually become a source of profit ; and many new candidates have announced their desire to join the Society. All these circumstances are favourable to the determination of fitting up the mineral room, to the extent proposed, immediately ; and though an expense of £200. is not to be rashly incurred, the meeting will recollect that the expenditure cannot be long delayed, if the donations which the Society continually receives are to be exhibited in an order acceptable to the student, satisfactory to the donor, and gratifying to the public.

RECEIPTS.

	£.	s.	d.
Annual Subscriptions from 223 Members at 2 <i>l.</i> each	446	0	0
Ditto from 6 at 1 <i>l.</i>	6	0	0
Annual Donations—Mrs. Danby	2	0	0
Sir C. Ibbetson	5	5	0
	<hr/>		
	7	5	0
From Ladies, being Annual Subscribers	31	0	0
For Keys of Garden	12	15	0
For Gas consumed at Evening Meeting	1	10	0
For Tickets of Admission, deducting expense of Sale	43	7	0
Balance due to the Treasurer	97	4	9

£. 645 1 9

PAYMENTS.

	£.	s.	d.	£.	s.	d.
Rent and Taxes :						
Crown	1	0	8			
Corporation	6	12	6			
Water	4	4	0			
Poor, &c.	14	18	9			
Insurance	5	0	0			
	<hr/>				31	15 11
Salaries and Wages :						
Keeper of the Museum	100	0	0			
Sub-curator	70	0	0			
Servant and Cleaning	20	0	0			
Lodge-keeper	10	0	0			
Labourer	36	18	0			
Collector	1	1	0			
	<hr/>				237	19 0
Printing					25	1 0
Stationery					1	9 0
Books and Binding :						
Books	34	11	6			
Binding	7	18	0			
	<hr/>				42	9 6
Gardens and Grounds (including repairs of Multangular Tower) ...					38	7 3
Repairs of Furniture (including Glass for the Entomological Cabinets)					66	16 0
Incidents :						
Coals and Coke	22	11	0			
Gas	7	15	0			
Miscellaneous	16	7	7			
	<hr/>				46	13 7
Purchase and preparation of Specimens					84	4 0
Interest on debt, including the floating debt on the Manor Shore ...					70	6 6
	<hr/>					
					£.645	1 9
	<hr/>					

GENERAL ACCOUNT.

	<i>£.</i>	<i>s.</i>	<i>d.</i>		<i>£.</i>	<i>s.</i>	<i>d.</i>
Received Arrears of former years ...	49	0	0	Balance due to the Treasurer, 1836 ...	1816	13	5
..... Admission of 18 members ...	54	0	0	Ditto on Annual Account of 1837 ...	97	4	9
..... Compositions of 4 members ...	80	0	0	Balance due to the Treasurer ...	1730	18	2
	<u>£. 1913</u>	<u>18</u>	<u>2</u>		<u>£. 1913</u>	<u>18</u>	<u>2</u>

£.
s.
d.
 Arrears on this Account ... 103 0 0

PRESENT STATE OF THE ACCOUNT RELATIVE TO ...

THE PURCHASE OF THE MANOR SHORE ESTATE.

	<i>£.</i>	<i>s.</i>	<i>d.</i>		<i>£.</i>	<i>s.</i>	<i>d.</i>
Received a year's rents, due Michaelmas, 1837 ...	144	10	0	Paid a year's interest on 2,500 <i>l.</i> borrowed on mortgage ...	100	0	0
Debt in January, 1838 ...	101	7	6	Paid expense of the mortgage ...	15	0	0
	<u>£. 245</u>	<u>17</u>	<u>6</u>	Paid for repairs of houses, formation of roads, and fencing of allotments ...	61	10	6
	<u>£. 245</u>	<u>17</u>	<u>6</u>	Debt in January, 1837 ...	69	7	0
	<u>£. 245</u>	<u>17</u>	<u>6</u>		<u>£. 245</u>	<u>17</u>	<u>6</u>

RESOLUTIONS

ADOPTED BY THE ANNUAL MEETING

In consequence of Notices given according to the Laws of the Society.

1. To permit the holding of Horticultural Meetings, during the year 1838, in the Gardens of the Society.

2. To continue for the year 1838 the regulation whereby strangers are admitted to the Museum and Gardens of the Society, on presenting a ticket, price 1s.

3. To authorise the Council to give free admission to the Museum and Gardens of the Society to all persons, on such days, and under such regulations, as the Council may appoint.

RESOLUTION

ADOPTED BY THE ANNUAL MEETING,

Grounded on a Recommendation in the Report of the Council.

To authorise the Council to expend a sum not exceeding £200. in fitting up the Mineral Room with cases for the reception of zoological specimens.

SCIENTIFIC COMMUNICATIONS

TO THE

GENERAL MEETINGS.

MARCH 7, 1837.—On the Geological Structure of the country near Ingleton, Kirby Lonsdale, and Lancaster, by Professor Phillips, F.R.S., G.S.

APRIL 4.—Notice of some Fossil Fishes from the marl slate of Ferryhill, Durham, in reference to the discoveries of M. Agassiz, by W. Gray, jun. F.G.S.

OCT. 3.—Reports of the Proceedings of the British Association at Liverpool, by Mr. Allis, Mr. W. Gray, Rev. W. Hincks, Professor Phillips, and Rev. W. Taylor.

DEC. 5.—Notices of New Electrical Experiments, by the Rev. W. Taylor.

JAN. 2, 1838.—On some peculiarities in the Skeleton of the Albatross, by T. Allis.

Catalogue of Molluscos Animals observed near York, by the Rev. W. Hincks, F.L.S.

DONATIONS

TO

THE SOCIETY'S MUSEUM.

GEOLOGY.

- Miss Best Pentacrinus caput medusæ (Leppington).
- Rev. W. Bilton, F.G.S. ... Series of specimens from the culmiferous and paint beds of Bideford (N. Devon); series of rock specimens and organic remains illustrative of the geology of Christiania.
- Sir George Cayley, Bart. ... Cast of a gigantic ammonite from Cayton Bay (diameter 23½ inches).
- Lieut. Carter, R.N. ... Teredo antenautæ, Aldborough, Suffolk.
- H. P. Cholmeley, Esq. ... Large ammonite from the coralline oolite of Stonegrave.
- Mr. I. Deck Casts of encrinites moniliformis and of hamites articulatus.
- L. W. Dillwyn, Esq. F.R.S. Masses of sinuous concretionary coal from Swansea.
- Rev. T. Egerton, F.G.S. ... Coniferous wood from the lias of Whitby; cololites from Solenhofen and the green sand of Kent; copper ore in red sandstone on the line of an anticlinal axis in Shropshire; ochre from Shotover.
- Mr. Ellison Producta conoides, and other fossils from the mountain limestone of South Wales.

- Earl Fitzwilliam Fossil shells (pinna pectunculus, &c.)
from Bognor.
- G. L. Fox, Esq., M. P. ... Lepidodendra and other fossil plants from
Kippax and Bardsey.
- Mr. Gibbs Dendritical slate from Ingleton, and other
specimens.
Mass of flexible limestone from Marsden
rocks, near Sunderland.
- Mr. John Gowland ... Fishes from the marl slate of Ferryhill,
Durham, including platysomus striat-
us, palæoniscus magnus, &c.
- Wm. Gray, jun., F.G.S. ... Crustacea, &c. from the strata of the
Yorkshire coast; zamia and several
shells from the Dogger Beds.
Large bones of saurians from Speeton.
- Col. H. V. Harcourt ... Fossils from Northamptonshire.
- Professor Phillips ... Large geode from the magnesian con-
glomerate near Mendip; several species
of ammonites from the oolite of Dun-
dry, &c.
- Miss Phillips Three specimens of ophiura from the
marlstone of Robin Hood's Bay.
- S. Powell, Esq. Crystallized carbonate of lime from Farn-
ham.
- R. Ripley, Esq. Nodule of lias with fish-scales; fossil
plants from near Whitby; ammonites.
- J. Thompson, Esq. ... Pecten cinctus, from near Nettleton,
Lincolnshire.
- T. Weaver, Esq., F.G.S.... Series of specimens of rocks and organic
remains from the transition and carbo-
niferous tracts of the South of Ireland.
- Rev. D. Williams, F.G.S. Series of fossils from N. Devon.

ZOOLOGY.

- T. Allis Hyæna, phalangista vulpina, racoon, three coatimondis, rattel, jackal, seal, eight monkeys, mandrill, pigmy antelope, panther, ocelot, two civet cats, one-eyed pig, bat, agouti, &c.
 Moor buzzard, golden-eye, teal, female sooter, golden plover, and ring dottrel.
 Selections from his British insects.
- Miss Best Pinna ; esculent snail from Nice ; several insects from Nice.
- John Bleckly A decoy duck.
- Lieut. Carter, R. N. ... Recent teredines, from the Suffolk coast.
- Sir George Cayley, Bart. ... Rostrum of saw-fish and skin of boa.
- Ven. Archdeacon Corbet, D.D. Trogon satyrus ; lophophorus impeyanus ; scoter.
- Earl of Derby A black swan.
- G. L. Fox, Esq. Haw-finch.
- Wm. Gray, jun. Selections from his British insects.
- Mr. Hill Six British birds.
- Rev. W. Hincks, F.L.S. ... Echinus from New Holland.
- Mr. Jackson A stuffed ram.
- Wm. Kirby Austrian pratincole, crane, and crested titmouse.
- Mrs. R. Markham ... Many quadrupeds from the Cape of Good Hope, including lycaon tricolor, hyrax capensis (the hind feet tri-dactyle), caracal, the gemse bok, the striped antelope, skulls of the hart beest, &c. ; also several birds.

- T. Meynell, Esq. jun. F.L.S. Selected British insects.
- Mr. Peters Tympanum of whale's ear.
- Professor Phillips, F.R.S. His whole collection of British Insects,
chiefly collected near York, from 1825
to 1835.
- R. Ripley, Esq. Several birds from Lancaster Sound.
- Scott, Esq. (*Norwich*) Ornithorhynchus paradoxus.
- T. C. Wood, Esq. Several British birds.

B O T A N Y.

- Miss Best Cotton plant from Nice (*Asclepias Syria-*
cus.)
- Mr. Cameron, *Birmingham* 70 Greenhouse and hardy plants.
Botanical Garden
- Mr. Lowe, *Nurseryman,* 12 Epiphytic orchideæ.
Clapton.
- Francis Maude, Esq. *Nepenthes distillatoria.*
- Dr. Wake Seeds from the East Indies.

* * Donations of soil, &c. for the Garden, have been received from Mr. J. F. Brown and Mr. Oldfield, and part of the cost of the new Hothouse was defrayed by Mr. Eust. Strickland.

COINS AND ANTIQUITIES.

- Joseph Bonomi, Esq. ... Cast of a Chaldæan figure, sculptured in relief on the rock near the mouth of the river Lycus, (Nahr el Kelb) near Beyrout in Syria.
- Col. H. V. Harcourt ... Antiquities from the Catacombs of Egypt.
- Samuel Kenrick, Esq. F.A.S. ... Coin of Sithric, king of Dublin; four Irish groats of Ph. and Mary; Irish penny of John; groat of Edw. III., struck at York, and thirty-two other coins.
- Mr. G. Milner, jun. ... Ancient seal of the 'Companie of Merchant Adventurers of Kingston-on-Hull.'
- Rev. Wm. Parker, *Riccall* ... Various implements found near Thorne, in making a new cut for the river Went.
- Professor Phillips Coin of Tetricus, found on the Manor Shore.
- Eust. Strickland, Esq. ... Three coins found on the Manor Shore.
- Rev. C. Wellbeloved ... A Saxon sceattor and various other coins.
- York and North Midland Railway Company ... A Roman altar, found near Holdgate Lane.

MISCELLANEOUS.

- Mr. Bradwell Ancient gunlock from Sheriff Hutton Castle.
- Mr. Hartop Specimens of the effects of an experiment in the iron furnaces at Elsecar. Fragments of vitrified forts, Scotland.
- Mrs. R. Markham ... Chain armour, and ancient implements. Tomahawk and arrow heads from Pennsylvania.

DONATIONS TO THE LIBRARY.

- | | | |
|---|--|--|
| Professor Bache | | Proceedings of the Franklin Institute, in reference to Explosion of Steam Boilers. |
| Cambridge Phil. Society ... | | Transactions of the Society, Vol. VI.
Catalogue of the Museum. |
| S. Duncan, Esq. | | Catalogue of the Ashmolean Museum. |
| Rev. T. Exley (the Author) | | Facts in Chemistry explained mathematically. |
| Prof. Forbes (the Author) | | Researches on Heat. |
| Geological Society | | Proceedings of the Society, 48, 49, 50. |
| H. Heuland, Esq. | | Description d'une Collection de Mineraux, &c., &c., par A. Levy, 3 tomes 8vo, et Planches, 4to. |
| J. Hogg, Esq. (the Author) | | His Work on two Roman Inscriptions relative to the Conquest of Britain by Claudius Cæsar. |
| La Societé d'Histoire Naturelle de Genève | | Memoires de la Societé, Tome VII. |
| Leeds Lit. & Phil. Society | | Transactions of the Society, Vol. I. Part I. |
| Rev. F. O. Morris... .. | | Report of the Doncaster Lyceum. |
| Professor Phillips (the Author) | | Geology, Vol. I., (Lardner's Cyclopædia.)
Print of the Irish Elk in the Museum. |
| H. Robinson, Esq. | | Ptolemy's Ancient Geography, Amsterdam, 1730.
History of York, 2 vols. 8vo, 1788.
Yorkshire Freeholders' Poll Book, 1741, and 1807.
Marshall's Rural Economy of Yorkshire, containing North and East-Riding Glossary, 2 vols. 8vo.
Yorkshire Directory, 1828.
Marshall's Review of the Reports of the Board of Agriculture, 5 vols. 8vo, York, 1808.
Views of Churches in York, 4to, 1830.
Evelyn's Architecture. |

Prickett, Rev. Marmaduke, F.S.A. *Bridlington.*
 Dawnay, Hon. William Henry, *Beningbrough,*
York.
 Hewitson, William Chapman.
 Gamlen, Rev. S., *Bossal, York.*
 Barlow, Edmund, *York.*

MEMBERS ELECTED JAN. AND FEB. 1838.

Blyth, Edwin Verden, *York.*
 Allen, William, *York.*
 Wilkinson, Rev. William John, *York.*
 Fletcher, Caleb, *York.*
 Hey, Rev. William, *York.*
 Dundas, Hon. John Charles, M.P., *Aske, Richmond.*
 Anderson, Edward Robert, *York.*
 Watson, Robert, *York.*
 Williams, Caleb, *York.*

(*Thomas Wilson and Sons, High-Ousegate, York.*)

Presented
 13 MAR 1886



YORKSHIRE PHILOSOPHICAL SOCIETY.

ANNUAL REPORT

FOR

MDCCCXXXVIII.

PRESENTED FEBRUARY 5TH, 1839.



A N N U A L R E P O R T
OF THE COUNCIL
OF THE
YORKSHIRE
PHILOSOPHICAL SOCIETY

FOR

MDCCCXXXVIII.

PRESENTED TO THE ANNUAL MEETING

FEBRUARY 5TH, 1839.



Y O R K :

THOMAS WILSON AND SONS, HIGH-OUSEGATE.

1839.

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FORM OF A
BEQUEST TO THE SOCIETY.

EVERY person desirous of bequeathing to the Society any sum of Money, Specimens, Books, Instruments, or other Property, is requested to make use of the following form :

I give and bequeath to the Trustees, for the time being, of the Society established at York, called "THE YORKSHIRE PHILOSOPHICAL SOCIETY," for the use of the said Society, the sum of _____ to be paid out of such part of my personal estate, as I may legally charge therewith. [Or here enumerate the effects or property intended to be bequeathed.] And I direct that the receipt of the Treasurer of the said Society, for the time being, shall be an effectual discharge to my Executors for the said legacy.

TRUSTEES

OF

THE YORKSHIRE MUSEUM,

APPOINTED BY THE ROYAL GRANT.

HIS GRACE, EDWARD, LORD ARCHBISHOP OF
YORK.

GEORGE, EARL OF CARLISLE, K.G.

CHARLES WILLIAM, EARL FITZWILLIAM,
F.R.S., F.S.A.

THOMAS PHILIP, EARL DE GREY.

HON. AND VERY REV. HENRY HOWARD, D.D.
DEAN OF LICHFIELD.

FRANCIS CHOLMELEY, ESQ. F.S.A.

ROBERT DENISON, ESQ.

REV. WILLIAM VERNON HARCOURT, F.R.S.

WILLIAM HATFIELD, ESQ. F.G.S.

WILLIAM LAWSON, ESQ. F.S.A.

EUSTACHIUS STRICKLAND, ESQ.

RICHARD JOHN THOMPSON, ESQ.

P A T R O N E S S E S

OF

The Dorsetshire Philosophical Society.

HER MAJESTY THE QUEEN.

HER ROYAL HIGHNESS THE DUCHESS OF KENT.

P A T R O N S.

HIS GRACE THE ARCHBISHOP OF YORK.

EARL OF CARLISLE, K.G.

EARL FITZWILLIAM, F.R.S.

EARL OF TYRCONNEL, F.R.S.

THE VISCOUNT MORPETH.

THE LORD STOURTON.

THE LORD WHARNCLIFFE.

OFFICERS OF THE SOCIETY, 1838.

PRESIDENT:

EARL FITZWILLIAM, F.R.S.

VICE-PRESIDENTS:

CHARLES HENEAGE ELSLEY,

WILLIAM GRAY, JUN. F.G.S.

REV. CHARLES WELLBELOVED,

RICHARD JOHN THOMPSON,

JAMES ATKINSON,

HON. WILLIAM HENRY DAWNAY.

REV. THOMAS EGERTON, F.G.S.

REV. WILLIAM VERNON HARCOURT, F.R.S.

TREASURER:

ROBERT DAVIES.

 COUNCIL:

Elected 1837..... EDWARD ELGIN,
 REV. JOHN KENRICK,
 EUSTACHIUS STRICKLAND,
 JOHN WOLSTENHOLME.

Elected 1838..... GEORGE GOLDIE, M.D.
 WILLIAM HATFEILD, F.G.S.
 THOMAS MEYNELL, JUN., F.L.S.
 HENRY SMALES.

Elected 1839..... EDWIN VERDEN BLYTH,
 HENRY PHILIP CHOLMELEY,
 REV. STEPHEN CREYKE,
 REV. W. H. DIXON, F.S.A.

 SECRETARIES:

PROFESSOR PHILLIPS, F.R.S.
 HENRY ROBINSON.

CURATORS:

REV. JOHN GRAHAM ...	...	...	GEOLOGY.
WILLIAM HATFEILD, F.G.S.			MINERALOGY.
JAMES ATKINSON ...	...	...	COMPARATIVE ANATOMY.
THOMAS MEYNELL, JUN. F.L.S.	}		ENTOMOLOGY.
REV. J. J. D. PRESTON, F.C.P.S.			
REV. WILLIAM HINCKS, F.L.S.			BOTANY.
REV. CHARLES WELLBELOVED			ANTIQUITIES AND COINS.
JOSEPH MUNBY...	...	...	LIBRARY.
JOHN HARWOOD	...	...	LABORATORY.

KEEPER OF THE MUSEUM:

JOHN PHILLIPS, F.R.S., G.S., &c.

Professor of Geology in King's College, London.

SUB-CURATOR:

MR. HENRY BAINES.

YORKSHIRE PHILOSOPHICAL SOCIETY.

REPORT OF THE COUNCIL,

PRESENTED TO THE ANNUAL MEETING, FEB. 5, 1839.

THE Council of the Yorkshire Philosophical Society are happy in assuring the Annual Meeting that the past year has been productive of circumstances very favourable to the enlargement of scientific tastes and popular gratification, among the members and friends of the Institution. The improvements of the Museum have been materially advanced; the Library and Antiquarian departments have received considerable additions; the Garden is enriched with many new plants, and has been selected for the establishment of an exhibition of fruits and flowers under the best auspices and with the fullest success.

Nor will the spirit of improvement be suffered to languish for want of new objects. Plans are in progress by which it is hoped some of the remaining fragments of our monastic edifices may not only be preserved from entire decay, but restored in a substantial form, for purposes of acknowledged utility. For the execution of these plans,—for the continuation of certain regulations regarding the admission of visitors,—and for some useful modifications of particular laws, the sanction of this Annual Meeting will be asked, after the members shall have heard a faithful statement of the present condition of the Society's affairs.

MUSEUM.

In all its departments the Museum has been stored with new acquisitions, and generally the cases already provided have been found sufficient to receive them. The large collection of FOSSIL ORGANIC REMAINS has been improved in a part where it was the least complete, by donations of much value from the 'Transition' strata of Christiania, collected on the spot and presented by the Rev. W. Bilton; and the Council have reason to expect ere long some further additions to the contemporaneous fossils of the 'Silurian region,' which may now be advantageously studied in Mr. Murchison's splendid volumes. In this department of natural science it has not been judged necessary to incur any but the most trifling expenses.

In ZOOLOGY, the additions to the collection have been considerable, and the Council record with pleasure the completion of measures of great importance for the advancement of this popular and instructive part of the Museum.

The new cases for the reception of the Mammalia have been erected; the specimens are in their places, and, as far as time has allowed, their classification and nomenclature have been completed. The interior fitting of these cases has not been expensive, and the arrangement adopted is such as to allow of considerable augmentation with little trouble and no confusion; while it appears equally suited for studious contemplation and popular enjoyment, to combine which objects appears to the Council the true end and aim of a public collection.

No better proof that these objects are rightly appreciated by the members can be required than the large and general

subscription for the purchase of Mr. Allis's unrivalled collection of Comparative Osteology. That unique collection is now the property of the Institution, at the cost of £350., of which sum the principal part was raised by voluntary contribution. Considerable additions to the department of Indian Ornithology have been received, * including *Lophophorus Impeyanus*, and *Tragopan Hastingsii*; and the group of gallinaceous birds is in consequence well worthy of inspection. The cases already in the Museum for the reception of Birds have not required additions on this occasion, but the time appears rapidly approaching when the whole of the space surrounding the large central room will be filled with the ranks of the feathered creation. A specimen of the mode in which this collection will be described for reference is laid upon the table by Mr. Allis; but before prosecuting this useful work, or adding by purchase to the ornithological series, it has been judged proper to prepare and place in the cases the large arrear of birds which had been presented at different times. This necessary work is now accomplished, principally by the exertions of Mr. Baines, who has also properly prepared all the Reptilia and Fishes; and thus, for the first time during many years, all the specimens of vertebrated animals belonging to the Society may be seen in the Museum, though not all as yet in their right places.

Nor has another interesting part of the Zoological collection been neglected. One of the new cabinets for British Insects has been completed, and Mr. T. Meynell has with much patience scrutinized a considerable portion of the minute and beautiful objects of his care, and arranged them most perfectly for

* A valuable series from Dr. Wake; another from Capt. Spencer, 39th Regt., (through Capt. Straubenzee.) Among the beautiful specimens presented by Dr. Wake, is an aged female of *Lophophorus Impeyanus* in the plumage of the male.

study and reference.* To provide additional cases for British and Foreign Entomology will be the duty of the next Council.

COINS AND ANTIQUITIES.

Besides some Greek and Roman Coins of interest, † the most remarkable donations to the Antiquarian department are the Roman Votive Stone, presented to the Society by the City Council, inscribed

GENIO · LOCI
FELICITER

and two Roman stone coffins, found in the Castle Yard during the alterations made there in November, 1835, and lately transferred by the liberality of the County Magistrates from the Castle to the Museum. On one of these coffins is the following inscription :—

AVR · SVPERO · CENT
LEG · VI · QVI · VIXIT · ANIS
XXXVIII M IIII D XIII · AVRE
LIA · CENSORINA · CONIVNX
MEMORIAM · POSVIT

Encouraged by the interest which has thus been manifested in the prosperity of the Society, by the public authorities of the city and the county, the Council have made application for some other architectural and sepulchral monuments which might be fitly preserved in the Yorkshire Museum. In consequence the statue of a knight templar has been saved from further injury in a wall near Walmgate, to take its station among the coeval sculptures of St. Mary's Abbey, and the Council have not despaired of exciting attention to their reasonable requests in other quarters. To complete the collection of sepulchral relics in the multangular tower. one or

* Mr. W. C. Hewitson, (author of *British Oology*) during the time of his stay in York, gave able assistance as joint curator with Mr. Meynell.

† Presented by C. H. Elsley, Esq., Rev. Dr. Barnes, Rev. C. Wellbeloved, &c.

two more stone coffins of Roman date, found near the line of the railway, have been purchased; one of these bears the following inscription:—

D M SIMPLICIAE · FLORENTINE
 ANIME · INNOCENTISSIME
 QVE · VIXIT MENSES DECEM
 FELICIVS · SIMPLEX · PATER · FECIT
 LEG · VI · V

LIBRARY.

The cost of providing works illustrative of the several departments of Natural History and Antiquities, has prevented the growth of the Library in a manner commensurate with the other parts of the Institution; yet, by the aid of the gift of Her Royal Highness the Duchess of Kent, some valuable additions have been made, and the Society still receives with gratitude copies of many original works from their authors, and the Transactions of Scientific Institutions. Of the numerous volumes which became the property of the Society by the bequest of the late George Hodgson, Esq., of Bridlington, such as appeared especially suited to the objects of the Institution are placed in the Library, and the others have been exchanged for works which were much needed, and which will be registered as a part of Mr. Hodgson's liberal donation. Some augmentation of book-cases may soon be required; and as the great work of Audubon is now ended, the time is perhaps arrived for devoting some part of the very moderate sum annually spent on books, to complete the costly works of Humboldt, Buffon, &c. which are now imperfect, and consequently almost useless.

BOTANIC GARDEN.

To establish a Botanical Garden was one of the objects of the Society in taking possession of the Manor Shore. To the

already respectable collection of hardy plants, the last three years have added STOVES, which are now full of beautiful productions; and in particular a further supply of above sixty species of Epiphytic Orchideæ, from the President, Earl Fitzwilliam, has fully justified the expenditure which comes into the amount of this year, (though partly executed previously,) for the hot-house in which these singular vegetables flourish. * To provide additional facilities for the cultivation of choice and rare plants, the Council were not only encouraged, but compelled, by a sense of what was due to the promoters of the HORTICULTURAL FETE which took place with such distinguished splendour and success in the Museum Gardens during the month of August, 1838. The clear profits from that admired exhibition amounted to £94.; and the thanks of the Society are justly due to the gentlemen who took the trouble of the management, and who, it may be hoped, will at the request of the new Council repeat their valuable services.

The other botanical riches of the Society, the British and Foreign HERBARIA, have been the subject of the incessant labour of the Curator, Mr. Hincks, who has now succeeded in placing a large part of the collection in a state which, to say the least, is creditable to the Institution, and valuable to the student. The Council have learned with pleasure that the work of Mr. Baines on the Native Plants of Yorkshire is already advanced nearly to completion, and they regard the publication of this 'Botanist's Guide' as entirely in the spirit of the Founders of the Yorkshire Philosophical Society, who, in their first statement of objects, earnestly called for the production of such works.

* Wm. Oldfield, Esq. (already a liberal benefactor to the Museum and Garden, contributed to the cost of these erections, and has otherwise aided improvements in the grounds. Mr. Oldfield and Mr. J. F. Brown have also rendered essential service by contributing supplies of excellent soil.

ANTIQUARIAN MONUMENTS.

Of mixed interest, as contributing partly to the beauty of the Gardens, and partly to the preservation of a noble monument of antiquity, the securing of the ROMAN TOWER from ruin by a complete repair, may be mentioned as a proof that the wishes of every class of members have been attended to by the Council, as far as the finances of the Society would allow; and it remains to call attention to some plans by which it is hoped other antiquarian relics may be saved from desolation, and employed not only to awaken the solemn memory of days gone by, but to minister to the progress of modern arts and the gratification of cultivated taste.

The HOSPITIUM of St. Mary's Abbey, adjoining the River Ouse, has experienced since the dissolution of the monastery every variety of destination; once it received the Lord President of the North in great Council, now it is but the receptacle of its own ruins, and unless quickly renovated its very ruins will be lost. Antiquarians and men of taste have seen with regret the rapid progress of its decay, and lamented that the Yorkshire Philosophical Society possessed no sufficient funds to prolong by timely repairs the duration of this picturesque memorial of other times.

At the request of the Council, Mr. John Harper inspected the building with a view to its reparation; and an Artist, in whose celebrity York claims the highest interest,* has recently pronounced that, if restored almost precisely to its

* WM. ETTY, Esq., R. A., who, in his elegant discourse on the Cultivation of the Fine Arts, delivered in the Theatre of the Yorkshire Museum, on the 5th of November, 1838, strongly urged the restoration of the Hospitium, as a first step towards the Promotion of the Fine Arts in his NATIVE CITY.

original appearance, it would be singularly well adapted for EXHIBITIONS of PICTURES and SCULPTURE, one of the few sources of intellectual enjoyment and instruction in which York is still deficient. It may easily be rendered available for a SCHOOL OF DESIGN; and would be further useful on occasions of HORTICULTURAL and other important MEETINGS, connected with Science.

These considerations have led to the commencement of a SUBSCRIPTION, to enable the Yorkshire Philosophical Society to defray the cost of renovating the building and rendering it useful to the Public in the manner stated. The proceeds of the Annual County Ball have been devoted to the same object; and at this moment the Sum accumulated for this purpose is above £480.

Different opinions are entertained as to the best manner of restoring or reconstructing this building, so as to fit it for the purposes contemplated in the Subscription, and yet retain its architectural character, and its pictorial effect in the grounds of the Institution. In a matter so important and delicate, the Council determined to take no step which should deprive any Member or Subscriber of the opportunity of expressing his views on a subject where many are fully competent to offer useful opinions, and all are deeply interested; where a single false step may be irretrievable, and the error of an hour may become the regret of an age. They intend, therefore, to propose to this Meeting a Resolution, empowering the Council to call together the Subscribers to the Restoration, and to concert with them on the best means of proceeding further in this most desirable work.

In connexion with this subject, the Council have the satisfaction of stating that an opportunity has arisen for restoring to its perfection another valued monument of the former

beauty of St. Mary's Abbey. Professor Phillips,—in proposing to reconstruct the roof and interior of the ancient Gateway House, and thus to exonerate the Society from the trouble and expense of irregular tenancy,—has assured the Council that, in the restoration of this building for his future residence, its original architectural character shall be scrupulously respected. It is for this Meeting to sanction the granting of a lease, on terms which may justify him in defraying the very considerable expense of this restoration.

A great part of the other possessions of the Society on the Manor Shore is now usefully appropriated, but the management of this property will always be a source of some anxiety to the Council, so long as any part of it remains in almost accidental occupation. Eventually, it may be hoped, a part at least of this beautiful site, in connexion with the Hospitium, may be reclaimed for the enlargement of the gardens; and in anticipation of such a measure the opinion of this Meeting will be requested on the propriety of at once changing the line of road into Marygate, so as to allow the including the Hospitium and Ancient Gateway within the precincts of the Museum Gardens, whenever the funds of the Society may be adequate to bear the cost. If the Meeting shall judge the time favourable for this preliminary measure, there is no obstacle in regard to the purchase of property, for some zealous officers of the Institution have already obtained possession of several houses on the line of the proposed new road.

It remains then only to state correctly the condition of the SOCIETY'S FINANCES. During the past year, several *Extraordinary* disbursements have been made, mostly under the direction

of previous Annual Meetings, to a considerable extent; viz. for the purchase of Mr. Allis's Collection £350.; for new Zoological Cases £236.; for Hothouses, &c. £40.; for repairs of the Roman Tower £15.; making in all about £640.

To meet this great but necessary expenditure, the Treasurer has received Subscriptions towards the purchase of Mr. Allis's Collection, to the extent of £227. 8s. *; from the Horticultural Exhibition £94. 7s.; Admission and Composition from one member £25.; Admissions of twenty other members £100.; and a Donation of £10. from Miss Willoughby; in all about £456. The difference is about £180.; but the debt of the Society, when some arrears shall have been collected, will not be found augmented by even one hundred pounds.

The Ordinary Annual Income has in no respect fallen off, but on the contrary has been augmented by the addition of twenty-two New Members, more than doubling the loss by death and removal. The receipts from Ladies' Annual Subscriptions, from payments for keys of the Gardens, and Strangers' Tickets of Admission, have been nearly as in preceding year.

No pecuniary loss, therefore, has resulted to the Society from opening the Museum and Gardens, during certain days, to the free access of the public. This privilege was embraced by many thousand persons, and the meeting will learn with pleasure that neither accident nor misbehaviour occurred to mar the general satisfaction.

On the whole, the resources of the Society have been this year severely tried, but not found wanting; and the Council,

* The subscriptions altogether amount to £276. 16s. of which £41. 5s. are still unpaid.

assured by ample proof that the public favour will fully support this Institution, so long as it pursues steadily the path of public usefulness, and embraces every proper occasion of improving taste, augmenting science, and diffusing popular information, deem the increase of the general debt of small importance, compared to the objects sought for and gained.

The Council lay down the trust which has been committed to them, in full hope and confidence that the members at large will approve their exertions, and give such commands to their successors as, without encouraging lavish expenditure in any department, shall empower them to remedy defects in some, advance them all nearer to perfection, and prosecute with vigour and success every well-considered measure for extending the field of human knowledge, or enlarging the sum of rational and scientific enjoyment.

THE TREASURER OF THE

Dr.

1838.		£.	s.	d.
Annual Subscriptions of 210 Members at £2. each	... ..	420	0	0
Ditto of 4 ditto at £1. each	... ..	4	0	0
Arrears of former years	... ..	41	0	0
Sir Charles Ibbetson's Annual Donation	... ..	5	5	0
From Ladies, being Annual Subscribers	... ..	37	0	0
For Keys of the Gardens	... ..	12	0	0
For Tickets of Admission at 1s. each	... ..	48	4	0
For Admission of 20 New Members	... ..	100	0	0
For Admission and Composition of one Member	... ..	25	0	0
Miss Willoughby, a Donation	... ..	10	0	0
Rents of the Manor Shore Estate for one Year, ending Michaelmas	...	136	8	0
Balance of the Proceeds of the Horticultural Exhibition	...	94	7	0
Balance of H. R. H. the Duchess of Kent's Donation	...	37	2	0
Subscriptions received for purchase of Mr. Allis's Collection	...	235	11	0

Dec. 31, 1838.

£. s. d.

To principal money owing on Mortgage of the Manor				
Shore Estate	... ..	2500	0	0
To Ditto owing to Wm. Gray, Esq.	... ..	1000	0	0
To Ditto owing to 8 Members	... ..	400	0	0
To Balance overdrawn Messrs. Swann & Co.	... ..	606	13	8

 4506 13 8

5th Feb. 1839.

 £.5712 10 8

*This Account has been audited
and allowed by us,*

JAMES BARBER,
JOSH. MUNBY.

ROBT. DAVIES,
Treasurer.

YORKSHIRE PHILOSOPHICAL SOCIETY, IN ACCOUNT.

	Cr.					
Dec. 31, 1837.	£.	s.	d.	£.	s.	d.
By principal money borrowed on Mortgage of the Manor Shore Estate, at 4 per cent. Interest ...	2500	0	0			
By principal money borrowed of Wm. Gray, Esq. at 4 per cent. Interest	1000	0	0			
By eight principal sums of £50. each, borrowed of 8 Members of the Society, the Interest whereof pays their Annual Subscriptions	400	0	0			
By Balance due to Messrs. Swann & Co. this day ...	432	5	8			
				<hr/>	4332	5 8
1838.						
Crown Rent for one Year ending Michaelmas 1838 ..				1	0	8
Corporation Rent, ditto				6	12	6
Water Rent, ditto				6	6	0
Insurance for one Year				5	0	0
Keeper of the Museum, one Year's Salary				100	0	0
Lodge-Keeper, ditto				10	0	0
Sub-Curator, on account of Salary, Labourers, &c.				195	0	0
One Year's Interest of £2500. owing on Mortgage of the Manor Shore Estate, due 1838				100	0	0
Ditto of £1000. owing to Wm. Gray, Esq., due 31st Dec. 1838 ...				40	0	0
Interest to Messrs. Swann & Co. for being overdrawn ...				9	18	0
Paid Mr. Allis for his Collection				350	0	0
Tradesmen's Bills	553	0	7			
Sundries	3	7	3			
				<hr/>	556	7 10
				<hr/>	£.5712	10 8
				<hr/> <hr/>		

ANALYSIS OF THE TREASURER'S RECEIPTS AND

RECEIPTS.

	£.	s.	d.	£.	s.	d.
Annual Subscriptions of 210 Members at 2 <i>l.</i> each	420	0	0			
Ditto of 4 non-resident Members at 1 <i>l.</i> ...	4	0	0			
Arrears of former years ...	41	0	0			
Sir Charles Ibbetson's Annual Donation ...	5	5	0			
Annual Subscriptions from Ladies ...	37	0	0			
For use of Keys of the Garden ...	12	0	0			
Strangers' Tickets of Admission ...	48	4	0			
Admission of 20 New Members at 5 <i>l.</i> each ...	100	0	0			
Admission and Composition of one Member ...	25	0	0			
Donation from Miss Willoughby ...	10	0	0			
Rents of Manor Shore (one Year's) ...	136	8	0			
Balance of the Proceeds of the Horticultural Exhibition	94	7	0			
Balance of H. R. H. the Duchess of Kent's Donation	37	2	0			
Subscriptions towards the Purchase of Mr. Allis's Collection (of which Subscription there is still unpaid 41 <i>l.</i> 5 <i>s.</i> ...)	235	11	0			
				1205	17	0
Balance for which the Banker's Account is over- drawn for Expenses of the Year 1838				174	8	1

£.1380 5 1

PAYMENTS DURING THE YEAR 1838.

PAYMENTS.

	<i>£.</i>	<i>s.</i>	<i>d.</i>	<i>£.</i>	<i>s.</i>	<i>d.</i>
Rent, Taxes, &c. :						
Rent to the Crown	1	0	8			
Rent to the Corporation	6	12	6			
Water Rent	6	6	0			
Poor Rates	14	0	0			
Insurance	5	0	0			
				32	19	2
Salaries and Wages :						
Keeper of the Museum	100	0	0			
Sub-curator	70	0	0			
Servant and Cleaning Rooms	20	0	0			
Lodge-keeper	10	0	0			
Labourer	33	0	0			
				233	0	0
Interest on Debt, &c. :						
Mortgage Debt on Manor Shore	100	0	0			
Interest on £1000. at 4 per cent.	40	0	0			
Interest to Bankers for being overdrawn	9	18	0			
				149	18	0
Museum :						
Purchase of Mr. Allis's Collection	350	0	0			
New Cases for Mammalia	216	12	0			
New Cabinet for Insects	20	0	0			
Miscellaneous, including Furniture and Repairs	72	0	8			
Purchases of Specimens	27	6	9			
				685	19	5
Garden, Grounds, &c. :						
Garden and Grounds (1838)	92	2	3			
Bill for Stove (unpaid 1837)	7	8	11			
Manor Shore Roads, &c.	2	12	0			
Multangular Tower (repairs of)	15	0	10			
				117	4	0
Library :						
Books and Binding				46	17	9
Printing, &c.						
Printing	22	2	6			
Stationery	4	8	0			
Advertising	0	16	0			
				27	6	6
Incidents, including Coals, Coke and Gas, Postage, Carriage, &c.				56	8	3
Money left in Sub-curator's hands for contingencies				31	12	0
				£. 1380	5	1

RESOLUTIONS

PASSED AT THE ANNUAL MEETING, FEB. 5th, 1839,

WILLIAM GRAY, Jun., Esq., V. P., IN THE CHAIR.

1. That the REPORT of the Council be adopted and printed.
2. That the LAWS, as revised by the Council, be adopted and printed for the use of the Members.
3. That the Regulations adopted by the Annual Meetings in 1836, 1837, and 1838, for the ADMISSION OF STRANGERS by the purchase of Tickets, be continued for the present year.
4. That the Council be again empowered, on certain days to be selected by them during the present year, to permit FREE ADMISSION to the Museum and Gardens TO ALL PERSONS ; the mode of admission to be regulated by the Council.
5. That the Resolutions of the last Annual Meeting, empowering the Council to authorise the holding of one or more HORTICULTURAL MEETINGS in the Society's Gardens, be continued in force during the present year.
6. That the best Thanks of the Society be given to the Committee of Management of the Horticultural Fete held in August last ; and that they be respectfully requested to continue their valuable services for the year 1839.
7. That the cordial Thanks of the Society be given to the Subscribers to the Fund for the RESTORATION OF THE HOSPITIUM of St. Mary's Abbey ; and particularly to the Managers of the late County Ball, the surplus proceeds of which were applied to that Fund.
8. That the Council be empowered to arrange with the Subscribers to the Restoration of the Hospitium, the best means of effecting that object.
9. That the Trustees of the Society be authorised to execute a Lease of the GATEWAY HOUSE and adjoining ground to Professor Phillips, for such time and upon such terms as shall be approved by the Council.
10. That the Council be empowered to take steps for diverting the Road leading from the Manor Shore into Marygate, so as to admit of including the Hospitium and ancient Gateway within the Society's grounds ; provided the expense thereof do not exceed £150.
11. That the Thanks of the Society be given to the Vice-Presidents and Members of the Council retiring from office, and to the Treasurer and Secretaries, for their valuable services.

RESTORATION
OF THE
HOSPITIUM OF ST. MARY'S ABBEY,
AND
PROMOTION OF THE FINE ARTS IN YORK.

WE whose names are undersigned, being desirous of promoting the Fine Arts in York, by providing a suitable building for the Exhibition of Pictures and Sculpture; and being satisfied that the Hospitium of St. Mary's Abbey, now in great disrepair, would, if restored, afford ample accommodation for this and other useful public objects;—do engage to subscribe the sums placed opposite our respective names, for the purpose of enabling the Yorkshire Philosophical Society to restore that building; on the understanding that, for Public Exhibitions of Pictures and Sculpture, under the direction of a body of Subscribers in Yorkshire, the use of the rooms shall be freely granted, without charge, except during any Meeting in York of the British Association for the Advancement of Science.

Nov. 5, 1838.

Subscriptions already received:—

	£.	s.	d.		£.	s.	d.
Earl Fitzwilliam, President of the Yorkshire Philo- sophical Society ...	20	0	0	Misses Crompton ...	10	0	0
Earl de Grey ...	5	0	0	Miss Currer, Eshton Hall ...	5	0	0
The Lord Mayor ...	5	0	0	Robert Davies ...	5	0	0
The Lady Mayoress ...	5	0	0	Hon. W. H. Dawnay ...	5	0	0
Wm. Allen ..	5	0	0	Rev. W. H. Dixon ...	5	0	0
G. Townsend Andrews ...	5	0	0	Hon. W. Duncombe, M.P. ...	5	0	0
James Atkinson ...	5	0	0	Rev. Thomas Egerton ...	5	0	0
James Barber ...	5	0	0	C. H. Elsley ...	5	0	0
Thomas Barstow ...	5	0	0	Wm. Etty, R.A. ...	5	0	0
John Bayldon ...	5	0	0	Rev. W. Flower, Jun. ...	5	0	0
John Blanchard ...	5	0	0	James Robert Fryer ...	2	0	0
John Brook ...	5	0	0	William Garforth ...	5	0	0
George Brown ...	5	0	0	Robert Gilbert ...	5	0	0
John F. Brown ...	5	0	0	George Goldie, M.D. ...	5	0	0
Joseph Buckle ...	5	0	0	Wm. Gray, Jun. ...	5	0	0
John Bulmer ...	2	0	0	C. J. Hanson ...	2	0	0
Noel A. Carter ...	2	0	0	John Harper ...	5	0	0
Sir G. Cayley, Bart. ...	5	0	0	Edward Harper ...	5	0	0
Francis Cholmeley ...	5	0	0	John Hutton, Marske ...	5	0	0
Rev. E. Churton ...	5	0	0	Hon. C. Langdale, M.P. ...	5	0	0
F. J. Copsie ...	5	0	0	Thomas Laycock ...	5	0	0
Rev. Stephen Creyke ...	5	0	0	Geo. Lloyd, Cowsby ...	5	0	0
				Miss Lloyd, Peasholme House ...	5	0	0

	£.	s.	d.		£.	s.	d.
Amount brought over	233	0	0	Edward Taylor ...	5	0	0
Mr. Alderman Meek ...	5	0	0	Mr. Terry ...	5	0	0
Robert Menzies ...	5	0	0	G. Lowther Thompson ...	5	5	0
George Meynell ...	5	0	0	Mrs. Ann Thompson, Monk			
Joseph Munby ...	5	0	0	Bar ...	1	0	0
Rev. T. Myers ...	2	0	0	John Tweedy ...	5	0	0
C. J. Newstead ...	2	0	0	Baldwin Wake, M.D. ...	5	0	0
John Phillips, F.R.S. ...	5	0	0	Robert Watson ...	1	0	0
Wm. Richardson, jun. ...	1	0	0	Rev. C. Wellbeloved ...	5	0	0
Henry Robinson ...	5	0	0	J. T. Wharton ...	2	10	0
E. H. Roper (Sheriff of York)	5	0	0	Henry Willoughby ...	5	0	0
John Roper ...	5	0	0	Sir F. L. Wood, Bart. ...	5	0	0
Sir R. F. Russell, Bart. ...	5	0	0	Sir W. Worsley, Bart. ...	5	0	0
Louis Sandier ...	1	0	0	Marcus Worsley ...	5	0	0
Thomas Simpson, M.D. ...	5	0	0	Major Yarburgh ...	5	0	0
Edwin Smith ...	5	0	0	Proceeds of County Ball ...	91	1	9
Thomas Smith, Huntington	5	0	0				
Rev. Isaac Spencer ...	5	0	0				
W. R. C. Stansfield, M.P.	5	0	0				
Eustachius Strickland ...	5	0	0				
Swann, Clough, and Co. ...	25	0	0				
					£.489	16	9

Subscriptions continue to be received by the LORD MAYOR, the Treasurer; and at all the YORK BANKS.

A PUBLIC MEETING of the SUBSCRIBERS to the Fund was held in the Theatre of the Museum, on Tuesday, the 26th of Feb. 1839, at One o'clock, to receive the Report of the Provisional Committee, and to take such further steps as might be considered necessary.

The Lord Mayor having been called to the Chair, stated the amount of Subscriptions received; and the Rev. T. Myers, as Secretary to the Provisional Committee, having given a short account of the previous proceedings, it was

RESOLVED,—That to the following COMMITTEE (chosen out of the Council of the Philosophical Society, and the Subscribers at large to the Restoration Fund) the further prosecution of the undertaking be entrusted, viz.—

The LORD MAYOR, *Treasurer.*

REV. STEPHEN CREYKE,

C. H. ELSLEY, Esq.

Professor PHILLIPS,

REV. C. WELLBELOVED,

THOMAS BARSTOW, Esq.

REV. W. FLOWER, JUN.

REV. ISAAC SPENCER,

DR. WAKE.

HENRY ROBINSON, Esq. }
 REV. THOMAS MYERS, } *Honorary Secretaries.*

SUBSCRIBING MEMBERS

OF THE

YORKSHIRE PHILOSOPHICAL SOCIETY,

ELECTED IN 1838.

- Allen, William, *York*.
Anderson, Edward Richard, *York*.
Blyth, Edwin Verden, *York*.
Chapman, Henry, *York*.
Constable, Rev. Charles, *Wassand, Hornsea*.
Dawson, Pudsey, *Sinnington Manor, Pickering*.
Dundas, Hon. John Charles, M.P., *Aske, Richmond*.
Fletcher, Caleb, *York*.
Hewson, Rev. William, *York*.
Hey, Rev. William, *York*.
King, Joseph, *York*.
Labron, William, *York*.
Maltby, Henry Donkin, *York*.
Maxwell, Henry Constable, *Boston, Wetherby*.
Myers, Rev. Thomas, *York*.
Ransome, Henry, *York*.
Russell, Sir Robert Frankland, Bart., *Thirkleby Hall,
Thirsk*.
Walker, John, *York*.
Waller, Robert, *Holdgate, York*.
Wallis, Edward, *Burton Grange, York*.
Watson, Robert, *York*.
Wilkinson, Rev. William John, *York*.
Williams, Caleb, *York*.

HONORARY MEMBER,

ELECTED AT THE ANNUAL MEETING, 1839.

Hewitson, William Chapman, F.L.S., *Bristol*.

SCIENTIFIC COMMUNICATIONS

TO THE

GENERAL MEETINGS,

1838.

APRIL.—Catalogue of Fishes taken upon the Yorkshire Coast, and found in the Streams and Rivers of the County, by T. MEYNELL, Jun., F.L.S.

OCT.—Notices of the Proceedings of the Newcastle Meeting of the British Association, by PROFESSOR PHILLIPS, F.R.S., and W. L. NEWMAN, F.R.A.S.

NOV.—On the peculiar construction of the Wing and Foot of the Penguin, by T. ALLIS.

DEC.—An Essay on the Structure of some remarkable Seed-Vessels from Africa, belonging to the 'Cannon-ball Tree' and other species of the family of Lecythidaceæ, by the Rev. W. HINCKS, F.L.S.

DONATIONS

TO

THE SOCIETY'S MUSEUM.

GEOLOGY.

- | | | | |
|----------------------------|-----|-----|--|
| Rev. W. Bilton | ... | ... | Series of specimens of trilobites, orthocerata, graptolithi, &c. from the transition strata of Christiania. |
| Mr. J. Bleckly | ... | ... | Mass of siliceous millstone, from the basin of Paris. |
| Earl of Carlisle | ... | ... | Femur of <i>Megalosaurus Bucklandi</i> , from the coralline oolite of Slingsby. |
| Mr. Gray (<i>Dudley</i>) | ... | ... | Cast of the Barr Trilobite. |
| S. Hailstone, F.G.S. | ... | ... | A Saurian Vertebra, from the Himalaya Mountains.
Fossil Plants from the Coal Measures near Bradford. |
| S. Kenrick, Esq. | ... | ... | Stem of a Fossil Plant, from the Coal formation of Staffordshire. |
| Rev. D. F. Markham | ... | ... | Specimens of mud of the Nile; one taken from the shore near Mansoura, in the land of Goshen, on the Damietta branch; the other from the shore of Gornou, part of Thebes. |
| Professor Phillips, F.R.S. | ... | ... | Fossil Corals, from the coralline oolite near Cambridge. |
| S. Powell, Esq. | ... | ... | Fossil Shells, (<i>spirifera</i> , <i>producta</i> ,) from the millstone grit series, near Brimham. |

- R. Ripley, Esq. Several Ammonites, from the lias of the Whitby coast.
 Several specimens of Phenopteris, from the sandstone beds near Whitby.
- Rev. S. Sharp Fossil Plants from the coal formation near Wakefield.
- Dr. Wake Ammonites, belemnites, terebratulæ, &c. from the Himalaya Mountains.
-

M I N E R A L O G Y.

- Rev. J. Graham Specimens of Wavellite, from Tracton near Cork.
- Professor Phillips, F.R.S. Supposed 'Miemite,' from the vicinity of Bristol.
- Mr. Walker Smith, Stalactitical carbonate of lime.
 (*Ferrybridge*)
-

Z O O L O G Y.

- John Agar, Esq. Several Reptiles from the East Indies.
- T. Allis, Esq. Red-throated Diver.
 Cast of the foot of the Dodo.
- Mr. H. Chapman Pinna, from the East Indies.
- Sunderland Cooke, Esq. Scad, or Horse Mackerel (*Yarrell, Brit. Fishes, i. 154.*)
- Mr. H. Doubleday (*Epping*) A Willow Grouse, from Norway.
- G. L. Fox, Esq. M.P. Several British and Foreign Birds, including the Thick-knee, (*cinclus aquaticus*) Eagle Owl, &c.
- Rev. J. Graham Specimen of *Agaricia explanulata*.
- Wm. Hatfeild, Esq. F.G.S. A Wild Swan.
- John Henderson, Esq. A Wild Swan.
 (*Castle Howard*)

Mr. G. Holmes (<i>Veterinary Surgeon, Thirsk</i>)	A beautifully injected preparation of the Leg of the Horse.
Mr. Wm. Labron ...	... Modiola and other shells.
— Lambert, Esq. ...	... Rana esculenta.
Miss Lloyd... ..	... Petrel, from the Cape of Good Hope.
Rev. T. M'Gill (<i>Isle of Man</i>)	Tooth of Cachalot.
T. Meynell, Esq. F.L.S. ...	Eight species of Oriole.
Miss Norcliffe ... ..	... Cut-throat Sparrow.
Miss Phillips ... ..	... A case of Humming Birds.
Rev J. J. D. Preston ...	A remarkable hybrid Duck, shot near Pickering, 27th Jan. 1838.
W. R. Read, Esq.... ..	... Four Foreign Birds. Four specimens of Crustacea.
— Scott, Esq. (<i>Norwich</i>)	Ornithorhynchus paradoxus.
Capt. Spencer, 39th Regt. (by Capt. Straubenzie)	Eighty-three skins of Birds, from Madras; Skins of the vulpine phalanger; two species of pteromys; four squirrels, &c.
W. Whythead, Esq. ...	A white Sparrow.

COINS AND ANTIQUITIES.

Rev. T. Barnes ... ..	... A coin of Constans? and a Cuthic coin.
— Cayley, Esq. (<i>Sowerby</i>)	... Arabic coins, one said to be found near his country house in Russia; one on shore of the Baltic sea.
The City Council ... ..	... A Roman Votive Stone.
The Magistrates of the three Ridings	Two Roman Stone Coffins, found in York Castle.
C. H. Elsley, Esq. ... ..	... A gold coin of Arcadius, found at New-Building, near Thirsk; an antique brass spear head, found at Whitston-cliffe.
Mr. Harrison ... ..	... A sixpence of Elizabeth.
Mr. Peckitt, (<i>Egton</i>) ...	... A Stone Hammer, found at the ancient British village near Egton.

E. Prest, Esq.	... ..	Coin of Claudius Gothicus, found in Campishaw Field, near York, with a skull.
Mr. E. Weddell (<i>Thirsk</i>)		Roman family coin ; penny of William I.
Rev. C. Wellbeloved	... ..	A Greek coin (of Eubœa).
— Whytehead, Esq. (<i>Easingwold</i>)		A Grecian head, supposed to be of Bacchus ; an Egyptian head.

MISCELLANEOUS.

F. Beckwith, Esq....	... ..	Cobalt, from the burning of bank notes.
P. Maxwell, Esq. ...	... ..	A curious Chinese Chair Bed.

DONATIONS TO THE GARDEN

AND BOTANICAL COLLECTIONS.

Mr. Bradwell	... ..	An ornamental Fountain for the Gardens.
Joseph Bonomi, Esq.	... ..	Fruit of an African tree called 'Tebeldi.'
Earl Fitzwilliam	... ..	Sixty epiphytic Orchideous Plants for the stove.
J. Tweedy, Esq.	... ..	Specimen of the Pine-apple Potato.
Dr. Wake	... ..	Sixty different seeds from India.
Mr. Walker	... ..	An ornamental Fountain.

DONATIONS TO THE LIBRARY.

- J. Alston, Esq. (*Glasgow*) The Gospels, printed in raised characters
for the use of the Blind.
- W. H. Alexander, Esq. ... Chronology of the Ancient World.
(*the Author*)
- Francis Baily, Esq. F.R.S. Supplement to the Life of Flamstead,
(*the Author*) 4to.
- Cambridge Philosophical Transactions of the Society, Vol. VI.
Society Part III.
- Council of the British Asso- Seventh Report of the Association, 1837.
ciation
- Geological Society... ... Proceedings of the Society, to No. 58.
- Rev. E. Hincks, D.D. ... A Work on Egyptian Hieroglyphics.
(*the Author*)
- Leeds Lit. and Phil. Society Annual Report, for 1837-8.
- Manchester 'Mechanics' Annual Report, and Catalogue of Library.
Institute.
- J. S. Menteith, Esq. ... "Farmers *versus* Rooks," 8vo, 1838.
(*the Author*)
- T. Meynell, Esq. F.L.S. ... Three Parts of the Linnæan Transactions.
- Rev. T. Myers Essay on the Chinese Language, by the
Rev. T. Myers; Kant's Philosophy;
Professor Christie's Work on the Mag-
netic Influence of Iron.
- Scarborough [Philosophical Annual Report, for 1837-8.
Society
- J. Thurnam, Esq.... ... "On Aneurisms of the Heart," from the
(*the Author*) Medico-Chirurgical Transactions.
- Dr. Wake Addresses of the President and Treas-
urer of the Hull Botanic Garden.
- Whitby Lit. and Phil. Soc. Annual Report, for 1837-8.
- E. Weddell, Esq., (*Thirsk*) Guthrie's (Mrs.) Tour through the Crimea,
4to, 1802.
Akerman on British Coins, 8vo.
- T. Wicksteed, Esq. A Work on the Water Companies of
(*the Author*) London.

MAPS, PRINTS, &c.

F. Beckwith, Esq.	...	Four Plates of the Rosetta Stone, published by the Society of Antiquaries, 1802—10.
		Engraving of Cæsar's Camp, at Holwood in Kent, published by the Society of Antiquaries, 1806.
Professor Chevallier (<i>the Author</i>)	...	A Table for Barometrical Computation.
Professor Phillips, F.R.S. (<i>the Author</i>)		Index Geological Map of the British Isles, 1838.
Shropshire and North Wales Natural History and Antiquarian Society	...	Annual Report, for 1836.

DONATION TO THE FUNDS OF THE SOCIETY.

Miss Willoughby £10 0 0

ANNUAL DONATION.

Sir Charles Ibbetson, Bart. £5 5 0

Presented
13 MAR 1888

Yorkshire Philosophical Society.

ANNUAL REPORT

1919

MCCCXXIX



ANNUAL REPORT
OF THE COUNCIL
OF THE
YORKSHIRE
PHILOSOPHICAL SOCIETY

FOR

MDCCCXXXIX.

PRESENTED TO THE ANNUAL MEETING

FEBRUARY 4TH, 1840.



YORK:

THOMAS WILSON AND SONS, HIGH-OUSEGATE.

1840.

TRUSTEES
OF
THE YORKSHIRE MUSEUM,
APPOINTED BY THE ROYAL GRANT.

HIS GRACE, EDWARD, LORD ARCHBISHOP OF
YORK.

GEORGE, EARL OF CARLISLE, K.G.

CHARLES WILLIAM, EARL FITZWILLIAM,
F.R.S., F.S.A.

THOMAS PHILIP, EARL DE GREY.

HON. AND VERY REV. HENRY HOWARD, D.D.
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WILLIAM HATFEILD, ESQ. F.G.S.

WILLIAM LAWSON, ESQ. F.S.A.

EUSTACHIUS STRICKLAND, ESQ.

RICHARD JOHN THOMPSON, ESQ.

PATRONESSES

OF

The Berkshire Philosophical Society.

HER MAJESTY THE QUEEN.

HER ROYAL HIGHNESS THE DUCHESS OF KENT.

PATRONS.

HIS GRACE THE ARCHBISHOP OF YORK.

EARL OF CARLISLE, K.G.

EARL FITZWILLIAM, F.R.S.

EARL OF TYRCONNEL, F.R.S.

THE VISCOUNT MORPETH.

THE LORD STOURTON.

THE LORD WHARNCLIFFE.

THE LORD WENLOCK. •

OFFICERS OF THE SOCIETY, 1840.

PRESIDENT:

EARL FITZWILLIAM, F.R.S.

VICE-PRESIDENTS:

HON. WILLIAM HENRY DAWNAY.
REV. THOMAS EGERTON, F.G.S.
REV. WILLIAM VERNON HARCOURT, F.R.S.
BALDWIN WAKE, M.D.
FRANCIS CHOLMELEY, F.S.A.
REV. ROBERT BRYAN COOKE, F.G.S.
WILLIAM GARFORTH.
EUSTACHIUS STRICKLAND.

TREASURER:

ROBERT DAVIES.

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Elected 1838 GEORGE GOLDIE, M.D.
WILLIAM HATFIELD, F.G.S.
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Elected 1839 HENRY PHILIP CHOLMELEY,
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REV. CHARLES WELLBELOVED	ANTIQUITIES AND COINS.
JOSEPH MUNBY... ..	LIBRARY.
THOMAS HANLEY BARKER } JOHN HARWOOD	LABORATORY.

KEEPER OF THE MUSEUM:

JOHN PHILLIPS, F.R.S., G.S., &c.

SUB-CURATOR:

MR. HENRY BAINES.

YORKSHIRE PHILOSOPHICAL SOCIETY.

REPORT OF THE COUNCIL,

PRESENTED TO THE ANNUAL MEETING, FEB. 4, 1840.

THE Council of the Yorkshire Philosophical Society, on presenting the Report of their Proceedings since the last Annual Meeting, are desirous of directing the attention of the Members to those circumstances which mark the actual state or indicate the future progress of the Institution.

The Society includes at this moment three hundred and twenty-nine subscribing Members; a greater number than was ever before registered on the books. During the past year twenty-seven new Members have been elected, but we have lost by death or removal nine. We have to record in our list of departed friends and fellow-labourers two of the founders of the Society, whose names stand first on our roll of Members, and whose rich collections from Kirkdale Cave, were conspicuous among the earliest donations to the infant Museum. Mr. Atkinson and Mr. Salmond lived to see an almost private Society expand into a Yorkshire Institution, and a few specimens from one locality become surrounded by many thousand objects, the various productions of distant lands and seas. Yet amidst that large assemblage of the diversified treasures of nature, the series of Kirkdale bones, though filling but one of a hundred cases, is still the centre of strongest attraction, a cherished memorial of the men and the motives which originated our Institution.

Besides supplying other public Establishments with duplicate specimens from Kirkdale, Mr. Salmond retained a few for his own examination. At his death, these were purchased for the Society, and such of them as appeared requisite to complete its collection, have been placed in the Museum; the remainder have been presented by the Council to the Literary and Philosophical Society of Leeds. When the Yorkshire Museum was built, the Council marked their respect for Mr. Atkinson by appropriating one of the upper rooms to receive his anatomical collections. These have now become the property of the York Medical School, and the large room which they filled is at the disposal of the Curators for augmenting the public exhibitions.

This is an important consideration; for in consequence of the increase of the collections in several departments enlarged space is absolutely required for their proper classification. The geological cases are full, and it is impossible to defer much longer the execution of a plan which has been for some time under consideration, by which the Foreign specimens may be separated from the British series, and perhaps a foundation laid for an arrangement of Organic Remains, in the order of their natural affinities.

The principal additions made to the zoological collections are in the departments of Ornithology and Conchology. There is not any want of new cases for these collections, yet it appears desirable to take advantage of the additional room now placed at the disposal of the Council, and to provide larger means for the distribution of Birds, and a separate place for the collection of Comparative Osteology.

Of this valuable series of skeletons and other preparations of vertebrated animals, Mr. Allis presents this day the first part of an arranged catalogue; and the Council think that if

transferred to the upper floor they may be more conveniently placed for exhibition and study, and much better seen, while their place being gradually supplied by Birds, Reptiles, and Fishes, according to the original plan of the Zoological room, all the classes of vertebrated animals may be amply illustrated in a continuous methodical series, which is at present impracticable.

The Members will hear with satisfaction that the difficult and laborious task of arranging the collection of British Insects so as not only to display to advantage what we now possess but to render it comparatively easy to dispose of new acquisitions, has been faithfully performed by Mr. Meynell in a most perfect and admirable manner. The Cabinets in which the British and Foreign Insects are preserved will remain in the Council room, with the Coins and Antiquarian Relics, which require to be placed in drawers or glass cases.

Equal labour and care have been bestowed on the Botanical Collections by Mr. Hincks, who, previously to his removal from York, completed the classification of a considerable part of the British Herbaria, and has left a perfect model to guide those who may be competent to carry on the work which he has been compelled to leave unfinished.

The additions to the Antiquarian Collections are of a very interesting nature, and from an interesting locality. The excavations on the line of the York and North Midland Railway have lately been prosecuted within the City walls, and the Railway Company promptly and liberally placed all the treasures of ancient art which might be there discovered at the disposal of the Society. To give effect to these friendly intentions, the Council found it necessary to place money in the hands of the Sub-Curator for the purpose of rewarding the workmen. It has been found, indeed, that neither the

influence of the Company nor the rewards of the Society have prevented the unwarranted sale of many curious objects to private collectors ; yet the specimens which have been acquired of Roman art, coarse, fine, figured, and glazed pottery, lamps, rings, keys, and coins, found lying near baths and spacious apartments, are neither few nor unimportant.

The Library has been augmented ; yet not so much nor in such a manner as the importance of this branch of our establishment deserves. In arranging both the Zoological and Botanical departments of the Museum, the want of modern works of reference is severely felt, and an extraordinary difficulty is consequently to be surmounted before these collections can be perfectly arranged and named. Some of the works alluded to might be obtained at a small cost, but the Council have been unable to devote any funds to this object.

The Grounds of the Society have this year witnessed a second splendid exhibition of fruits and flowers, which took place in the month of August, and was attended by three thousand five hundred persons. On this occasion the Museum was thrown open, and the Committee to whom the arrangements were entrusted, recommended that instead of borrowing, the Society should purchase a large tent. It was thought, that by this means, the expenses attending any future Horticultural Exhibitions would be lessened, and that a tent sufficient for these large meetings would be serviceable and perhaps productive of profit to the Society on many other occasions. The Council adopted these views and authorized the purchase. The cost of the tent was £70.; the profits arising from the exhibition were £67.; and as the Treasurer has since received £10. for the loan of the tent, the purchase may not be considered disadvantageous in a financial point of view.

A desire has been often expressed by individual Members for the enlargement of the Garden, by including a portion of the land purchased from the Crown; and at the last Annual Meeting the Council were directed to alter the line of road into Marygate, so as to render it *possible*, at some future period, to secure the hospitium within the general boundary of the pleasure ground. This has been done, a new road has been made, nearly in a direct line from Lendal to the lower end of Marygate, between the Hospitium and the river, at a cost, including some contingent expenses, of £110.

The property on the Manor Shore has in consequence been relet, subject to this new arrangement. The grounds of the Swimming Bath Company have been thus diminished, and their rental is reduced accordingly. The portion of ground allotted to the Gateway House has been in a corresponding degree augmented; and the Council have fixed the ground rent to be paid by Professor Phillips on a term of thirty years, at £10; and they have the pleasure to report that the house is completely finished. There still remain unlet some portions of ground on the Manor Shore, and the income derived from that property is for this year less than usual, owing to the changes of occupation, allowances to tenants, and total loss of rent from the Hospitium.

Unfortunately the plans in agitation at the beginning of 1839 for restoring the Hospitium have not taken effect; the prospect of founding therein a School of Art has been abandoned; and as only a very small part of the subscriptions offered for the *restoration* of the Edifice, has been placed at the disposal of the Society for the purpose of repairing it, and saving it from farther decay, the Council have suspended all further proceedings until the pleasure of this meeting should be known.

The meeting will recollect that in 1838 some Members of the Society purchased three houses in Marygate, on the line of the ancient boundary wall of St. Mary's Abbey; during the past year an opportunity unexpectedly presented itself of obtaining possession of seven other houses adjoining the former, and with them reaching from the gateway to nearly the lower end of the street. Impressed with the importance of preventing on this line any change which might be detrimental to the Society's property, the Members of the Council undertook individually the responsibility of the purchase, and summoned a Special General Meeting of the Members in the month of June to determine whether the Society should take on itself the contracts for the whole or any portion of these ten houses. At that meeting it was resolved that the Council should be authorized to purchase such of the houses on the boundary line, as they might think useful for the improvement of the grounds; in consequence the Council have caused the ten houses to be regularly transferred to the Trustees of the Society. The cost of the purchase is £720. 8s. 9d., the annual rent receivable is £38.

Charged with the execution of an expensive alteration of roads and tenures, the Income of the Society has been inadequate to allow of purchases for the augmentation of any department of the Museum. It was, however, impossible to avoid some other considerable expenses. Some parts of the buildings belonging to St. Mary's Abbey have been repaired; the houses purchased in Marygate have been put in tenantable condition; the injurious effects of the great storm of last winter on the Museum building have been remedied; and the Council have felt it right to recommend that the expenses of printing and advertising the Subscription Lists for restoring the Hospitium (£30.) should be defrayed by the Society. The Treasurer's General Account and the Analysis of Disbursements during the past year,

will shew the present state of the Society's Finances. The Council invite attention to these documents, and to the statement which has been made regarding the need of new cases for the Geological Collection, and a new appropriation of the upper rooms of the Museum—in order that the Members may clearly understand the position in which the Society is placed. This position, though not such as to create anxiety, certainly demands a severe and detailed economy, the retrenchment of all expenditure except what is really unavoidable, and the postponement of even useful and much desired improvements till a more favourable occasion.

It would be possible, at a very moderate expense, to augment the interest of the grounds and to improve the pictorial effect of the beautiful West Front of St. Mary's Abbey, by slightly altering the position of the boundary wall toward Marygate; but the Council have been careful to leave their successors entirely free from every pledge regarding future operations which involve expense. They do not venture to recommend the enlargement of the Pleasure Ground so as to include the Hospitium, and having no adequate funds at their disposal for even the reparation of this edifice, they leave entirely to the Meeting to determine whether any further effort shall be made to save the whole or any part thereof from inevitable decay, and thus render a building of historical and antiquarian interest, of some real and definite use to the Society and the Public.

The Zoological and Geological Collections of the Yorkshire Museum were illustrated by Professor Phillips in a Course of Six Lectures in the Winter of 1839 and 1840, which were largely attended. It is confidently expected that the Antiquarian treasures of the Institution will shortly become, in a similar manner, the basis of a Series of Discourses by the Curator, The Rev. C. Wellbeloved.

THE

TREASURER OF THE YORKSHIRE PHILOSOPHICAL SOCIETY,
IN ACCOUNT.

Dr.		Cr.
1839,	£. s. d.	1838, December 31,
Annual Subscriptions of 194 Mem- bers at 2l. each - - - -	388 0 0	By principal money owing to the Yorkshire In- surance Company - 2500 0 0
Ditto of 4 Members at 1l. each - -	4 0 0	By principal money owing to Wm. Gray, Esq. - - - - 1000 0 0
Arrears of former years - - - -	24 0 0	By eight principal sums of 50l. owing to eight Members of the So- ciety - - - - 400 0 0
Annual Subscriptions of Ladies for keys of the gardens - - - -	43 10 0	By balance due to Messrs. Swann & Co. this day 606 13 8
For tickets of admission at 1s. each	46 13 0	4506 13 8
For Admission of 19 new Members	95 0 0	1839.
For Admission and Composition of 5 Members - - - -	125 0 0	Crown Rent, one year - - - 1 0 8
For Composition of 1 Member - - - -	20 0 0	Corporation Rent, ditto - - - 6 12 6
Rents of the Manor Shore Estate and of the Marygate Houses re- ceived in 1839 - - - -	94 3 9	Water Rent, five quarters - - - 6 18 0
Balance of the proceeds of the Horti- cultural Exhibition - - - -	67 7 1	Insurance, one year - - - 5 0 0
Lord Wenlock for the use of Tent	10 0 0	Keeper of the Museum, one year's Salary - - - - - 100 0 0
Arrears of Subscriptions for the purchase of Mr. Allis's collection	21 1 0	Lodge Keeper, ditto - - - 10 0 0
Evening Meetings for Gas Light - -	1 10 0	Sub-Curator, on account of Salary, Labour in Garden, Incidents, &c. 250 0 0
December 31.		One year's Interest of 2500l. to the Yorkshire Insurance Company - 100 0 0
Yorkshire Insurance Company - - - - 2500 0 0		Ditto of 1000l. to Wm. Gray, Esq. 40 0 0
William Gray, Esq. - 1000 0 0		Purchase money of Houses in Mary- gate, and expenses of conveyance 720 8 9
Seven members 50l. each 350 0 0*		Sundry annual bills, viz.
Balance due to Messrs. Swann & Co. - - - - 1457 3 1	5307 3 1	per checks on Swann & Co. 283 17 0
		per Mr. H. Robinson - 100 17 10
		per ditto - - - - 11 13 0
		per Treasurer - - - 1 17 6
		398 5 4
		Purchase of Tent - - - - 70 0 0
		Interest to Messrs, Swann & Co. 32 9 0
	£.6247 7 11	£.6247 7 11

The arrears of subscriptions amount to about 200l.
The Sub-Curator has in hand for contingences £.61 17 0

* One sum of £50. being repaid to the Executors of the late Dr. Wasse.

ANALYSIS OF DISBURSEMENTS

DURING THE YEAR 1839.

Ordinary Expenses.

Rent, Taxes, &c. :	£.	s.	d.	£.	s.	d.
Rent to the Crown	1	0	8			
Rent to the Corporation	6	12	6			
Water Rent	6	18	0			
Poor Rates	19	18	6			
Insurance	5	0	0			
				39	9	8
Salaries and Wages :						
Keeper of the Museum	100	0	0			
Sub-Curator	70	0	0			
Servant and Cleaning Rooms	20	0	0			
Lodge-Keeper	10	0	0			
Labourer	33	0	0			
Boy, for 6 months... ..	9	12	0			
Collector	5	0	0			
				247	12	0
Interest on Debt, &c. :						
Mortgage Debt on Manor Shore	100	0	0			
Interest on £1000., at 4 per cent.	40	0	0			
Interest to Bankers for being overdrawn	32	9	0			
				172	9	0
Museum :						
New Cabinet for Insects	20	0	0			
Miscellaneous, including Furniture and Repairs	76	9	8			
Purchase and preparation of Specimens	15	18	8			
Expenses on antiquities from Railway	19	5	9			
				131	14	1
Garden, Grounds, &c. :						
Garden and Grounds	25	19	6			
St. Mary's Abbey, Repairs of	10	7	0			
				36	6	6
Library :						
Books and Binding				11	7	3
Printing, &c. :						
Printing	42	13	0			
Stationery	1	18	6			
Advertising Subscription to Hospitium	24	12	1			
				69	3	7
Incidents, including Coals, Coke, Gas, Postage, Carriage, &c.				51	12	1
				£759	14	2

Extraordinary Expenses.

Executors of the late Dr. Wasse, Principal Money advanced by him to the Society				50	0	0
Purchase of Ten Houses in Marygate	720	8	9			
Repairs and alterations in ditto	34	18	9			
				755	7	6
Purchase of new Tent and Cord for ditto				71	1	7
Making New Road, fixing new and altering old Fences, preparing Ground, &c. on the Manor Shore						
				123	12	1
				£1000	1	2

RESOLUTIONS

PASSED AT THE ANNUAL MEETING, FEB. 4th, 1840,

The Rev. STEPHEN CREYKE, M. A. IN THE CHAIR.

1. That the Right Hon. Lord Wenlock be requested to become a Patron of the Society.

2. That the Rev. Wm. Hincks, F.L.S., late Curator of Botany, be elected an Honorary Member.

3. That the REPORT of the Council be adopted and printed for the use of the Members.

4. That the Regulations adopted by the Annual Meetings in 1836, 1837, 1838, and 1839, for the ADMISSION OF STRANGERS by the purchase of Tickets, be continued for the present year.

5. That the Council be again empowered on certain days to be selected by them during the present year, to permit FREE ADMISSION to the Museum and Gardens TO ALL PERSONS; the mode of admission to be regulated by the Council.

6. That the Resolutions of the last Annual Meeting, empowering the Council to authorise the holding of one or more HORTICULTURAL MEETINGS in the Society's Gardens, be continued in force during the present year.

7. That the best Thanks of the Society be given to the Committee of Management of the Horticultural Fete held in August last; and that they be respectfully requested to continue their valuable services for the year 1840.

8. That the Council be authorized to make immediate application for Subscriptions for the Preservation of the Hospitium, and for putting it into a condition to be available for the objects of the Society.

9. That the Council be empowered to repay to the Executors of the late James Atkinson, Esq., the sum of £50., which he had by mistake paid to the account of the Society.

10. That the Thanks of the Society be given to the Vice-Presidents and Members of the Council retiring from office, and to the Treasurer and Secretaries, for their valuable services.

SUBSCRIBING MEMBERS

OF THE

YORKSHIRE PHILOSOPHICAL SOCIETY,

ELECTED IN 1839-40.

1839.

- Bosville, Alexander, *Thorpe, near Bridlington.*
Bebb, George, *York.*
Bradwell, Joseph, *York.*
Brearey, Christopher Spencer, *York.*
Barker, Thomas Hanley, *York.*
Constable, Marmaduke, *Walcot, near Brigg, Lincolnshire.*
Constable, Rev. Charles, *Wassand.*
Catton, William, *York.*
Carr, Matthew, *York.*
Duncombe, Hon. William, M.P., *Waresley Park, Carlton, Huntingdonshire.*
Drake, Rev. James Ashton, *Mowbray Hill, near Masham.*
Gaskell, William, *York.*
Grayston, James, *York.*
Harris, Charles, *Fulford Grange, near York.*
Husband, William Dalla, *York.*
Harrison, Rev. William Estcourt, *York.*
Hardman, William, *York.*
Hood, Wells, *York.*
Keyworth, Henry, *York.*
Matterson, William, jun., *York.*
North, William Graves, *York.*
Russell, Henry, *York.*
Smith, Edwin, *Acomb, York.*
Simpson, Green, *York.*
Spence, Joseph, *York.*
Swale, Joseph, *York.*
Wilson, Edward, *Clifton, near York.*

1840.

- Barnes, Robert, *York.*
Carruthers, W. J., *Arthington Hall, Leeds.*
Dobson, Rev. John, *York.*
Howard, Charles, *York.*
Kay, Sir John Lister Lister, Bart., *York.*
Markham, Rev. Henry Spencer, *Residence, York, and Clifton, Notts.*
Thurnam, John, *York.*

SCIENTIFIC COMMUNICATIONS

TO THE

GENERAL MEETINGS.

FEB. 5, 1839.—Letter accompanying a donation of several beautiful Encaustic Tiles, from H. BOWER, Esq., F.A.S.

MAY 7, 1839.—On Symbols, with reference especially to Numismatics, by the Rev. CHARLES WELLBELOVED, Curator of Antiquities.

OCT. 1, 1839.—Letter from W. HATFIELD, Esq., F.G.S., containing Observations made during his Travels in Egypt and Nubia.

Meteorological Registers for the year 1839, were received from F. Cholmeley, Esq., Rev. C. Sykes, Mr. John Ford, Rev. W. Blanchard, &c.

DONATIONS

TO

THE SOCIETY'S MUSEUM.

GEOLOGY.

- Thomas Allis Fossils from the lias of Gloucestershire, including *Trochus anglicus*, *Hippodium ponderosum*, &c.
- Thomas Barstow, Esq. ... Masses of gypsum (variously crystallized), from the line of the York and North Midland Railway, near Fairburn.
- H. P. Cholmeley, Esq. ... Fruit and investing leaves of *Zamia gigantea*, from Kettleless.
- Sir P. Egerton, Bart., F.G.S. Cast of the foot of Cheirotherium Hercules, from the red sandstone of Cheshire.
- James Hamerton, Esq. ... Fossil fruits (fir-cones, &c.), wood, and shells, all pyritized, from Herne Bay.
- Lady Frances Harcourt ... A collection of corals and shells, from the upper silurian rocks of Herefordshire.
- Rev. C. V. Harcourt ... Trilobites (*Isotelus*, *Calymene*,) orthoceratites, and nucula, from the limestone of Trenton Fall, New York.
- Wm. Hatfield, F.G.S. ... Series of echinida and fossil shells, from the tertiary rock of the Mokattam range, Egypt.
- George Pollard, Esq. ... *Lepidodendra* and other fossil plants from near Bradford.
- J. Spence, Esq. Bones of horse, deer, &c., from near Well in Yorkshire.
- H. T. M. Witham, F.G.S. Cast of a jaw, from Burdie House, near Edinburgh.

ZOOLOGY.

- | | | | |
|--|----------|-----|--|
| Thomas Allis | ... | ... | Skin of the tapir Mexicanus. |
| Wm. Allen, Esq. | ... | ... | A large species of pinna, taken round Cape Horn. |
| Rev. C. Constable | ... | ... | A red-throated diver. |
| Rev. Archdeacon
by T. Walker | Corbett, | | Eighty birds, from the Himalaya mountains, &c. |
| Miss E. Dalton | ... | ... | Eggs of the cut-throat sparrow. |
| Rev. J. Dalton | ... | ... | The porbeagle shark. |
| Lieut. Edward Dixon, R.N.
by Dr. Wake | | | A species of diodon and the devil-fish, from the West Indies. |
| Frank Føljambe, Esq. | ... | ... | Grey cat, shot in Rossshire. |
| Mr. Mawson | ... | ... | A black and white rook, shot at Buttercrambe. |
| T. Meynell, jun. F.L.S. | ... | ... | A series of British Insects to supply desiderata in the Cabinets of the Society. |
| Natural History Society of
Newcastle, Durham, and
Northumberland | ... | ... | Dendropyllia ramosa, and other corals selected from the collection of the Society. |
| R. Parnell, M.D. | ... | ... | Twelve British fishes prepared by himself in a manner described in his work on the Fishes of the Forth. |
| R. R. Pearce, Esq. | ... | ... | Cocoon and perfect insect of the puss moth. |
| James Richardson, Esq. | ... | ... | A fine specimen of Scarabæus Hercules. |
| Joseph Clarke, (<i>Cincinnati</i>) | | | Land and fresh-water shells, (including many unionidæ) from the United States of America. |
| Lieut. Baldwin Arden Wake,
R.N. | | | Meandrina, nullipora, and other corals, from the West Indies. |
| — Warren, (<i>Dublin</i>) | .. | .. | Forty species, including isocardia cor, patella clealandi, &c. (in all 250 specimens) collected in Ireland, chiefly on the Eastern coast, near Dublin. |

BOTANY.

- | | | | |
|---|-----|-----|--|
| Mrs. G. Brown | ... | ... | A collection of sea-weeds. |
| Miss Cattley | ... | ... | Collection of 70 seeds, from the Cape of Good Hope. |
| Mr. William Hardman | ... | ... | Sixty-five sorts of tulips (named). |
| J. Pemberton, Esq. (<i>Sherburn Hall</i>) | ... | ... | A collection of seeds, from the East and West Indies, including hedysarum gy-rans. |
| Wake | ... | ... | |
| Captain Porter | ... | ... | Collection of 70 seeds, some of them new, from Panama and other parts of America. |
| Mr. Rivers | ... | ... | Twenty-four roses. |
| Edwin Smith, Esq. | ... | ... | Portion of one of the cedars, of Libanus (cut from the tree by himself). |
| Rev. Isaac Spencer | ... | ... | Twenty species of seeds, from Brazil. |
-

ANTIQUITIES, &c.

- | | | | |
|--------------------|-----|-----|---|
| Oswald Allen, Esq. | ... | ... | Ancient inscribed stone, from St. Saviour-gate. |
| Mr. Baker | ... | ... | Ornamented brass box. |
| H. Bower, Esq. | ... | ... | Nine square glazed tiles. |
| T. Hodgson | ... | ... | An arquebuss. |
| Mr. Hands | ... | ... | Cast of the Venus de' Medici. |
| — Keld, Esq. | ... | ... | Stycas, from Hexham. |
| J. Mushin, Esq. | ... | ... | Casts of Greek and other coins. |

- | | | |
|--|--------|--|
| Mr. Pitcairn | ... .. | A glazed Roman vessel, from the railway excavations. |
| Edmund Horsfall Roper,
Esq. Sheriff of York for
1838 and 1839, and W.
North, Esq., the present
Sheriff | | The ancient brass horn, anciently used by the Sheriffs of York as a symbol of office. |
| York and North Midland
Railway Company | | Roman votive stone, portions of a bath, fragments of sculpture, many lamps, fragments of pottery, rings, pins, coins, &c., dug up in the excavations on the line of the railroad.

An iron cross, found near the terminus of the railroad. |

DONATIONS TO THE LIBRARY.

- | | | |
|---|--|---|
| Birmingham Philosophical
Institution | | Report for 1838. |
| British Association for the
Advancement of Science | | Reports of the Association, for 1838. |
| Cambridge Philosophical
Society | | Transactions of the Society, Vol. VII.
Part I. |
| C. H. Elsley, Esq. | | Ogilby's Roads of England, 1698, folio. |
| W. H. Fitton, M.D., F.R.S.,
G.S. (<i>the Author</i>) | | Review of Lyell's Geology, 8vo, 1839. |
| Professor Forbes, F.R.S.
(<i>the Author</i>) | | Memoir on the Colours of Steam, 4to. |
| Geological Society of London | | Proceedings of the Society. |
| W. H. Hearon, Esq. ... | | Three old York Newspapers, viz. Courant, No. 66, Tuesday, Dec. 20, 1726, 4to; Ditto, No. 159, Tuesday, Aug. 27, 1728, 4to.; Ditto, No. 582, Tuesday, Nov. 2, 1736, folio. |

- E. Hebden, Esq., jun. ... Print of Orthagoriscus Mola.
- Mr. William Ick... ... Catalogue of Remarkable Plants growing near Birmingham.
- Professor Johnston, F.R.S. Account of the Newcastle Meeting of
(*one of the Authors*) the British Association.
- Profes. Kaup and Profes. Description du Dinotherium Giganteum.
Klipstein (*the Authors*)
- C. Lambert, Esq. (*the Magazine for the Blind, No. 1 and 2.*
Author)
- R. Parnell, M. D. (*the On the Natural History of the Fishes of*
Author) the Forth and its Tributaries, 8vo.
- Professor Phillips, F.R.S. Treatise on Geology in Lardner's Cyclo-
(*the Author*) pædia, vol. II.
- The Polytechnic Society of Report of the Society, for 1838.
Cornwall
- W. Priestley, Esq. (*the A MS. volume entitled Etymologicon*
Author) Eboracense, Pars Occidentalis, tom. 1,
1839, 4to.
- Rev. J. Pye Smith, L.L.D. Scripture and Geology, 8vo, 1839.
(*the Author*)
- Scarborough Literary and Report for 1837-8.
Philosophical Society
- Rev. W. Taylor, F.R.S. ... A Prussian Thaler Courant.
- R. J. Thompson, Esq. ... Home's Essays on Comparative Anatomy,
Kirby Hall 4to.
- Ensign Charles Wake, 24th A Delhi Gazette, in the Persian lan-
Native Infantry guage.
- Whitby Literary and Phi- Report for 1837-8.
losophical Society
- Rev. George Young, L.L.D. Scriptural Geology, 1839, 8vo.
(*the Author*)


Dorchester

Dorchester Philosophical Society.

A N N U A L R E P O R T

FOR

MDCCCXI.



A N N U A L R E P O R T
OF THE COUNCIL
OF THE
YORKSHIRE
PHILOSOPHICAL SOCIETY

FOR

MDCCCXL.

PRESENTED TO THE ANNUAL MEETING

FEBRUARY 2ND, 1841.



YORK:

THOMAS WILSON AND SONS, HIGH-OUSEGATE.

1841.

TRUSTEES
OF
THE YORKSHIRE MUSEUM,
APPOINTED BY THE ROYAL GRANT.

HIS GRACE, EDWARD, LORD ARCHBISHOP OF
YORK.

GEORGE, EARL OF CARLISLE, K.G.

CHARLES WILLIAM, EARL FITZWILLIAM,
F.R.S., F.S.A.

THOMAS PHILIP, EARL DE GREY.

HON. AND VERY REV. HENRY HOWARD, D.D.
DEAN OF LICHFIELD.

FRANCIS CHOLMELEY, ESQ. F.S.A.

ROBERT DENISON, ESQ.

REV. WILLIAM VERNON HARCOURT, F.R.S.

WILLIAM HATFEILD, ESQ. F.G.S.

WILLIAM LAWSON, ESQ. F.S.A.

RICHARD JOHN THOMPSON, ESQ.

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OF

The Yorkshire Philosophical Society.

HER MAJESTY THE QUEEN.

HER ROYAL HIGHNESS THE DUCHESS OF KENT.

PATRONS.

HIS GRACE THE ARCHBISHOP OF YORK.

EARL OF CARLISLE, K.G.

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THE VISCOUNT MORPETH.

THE LORD STOURTON.

THE LORD WHARNCLIFFE.

THE LORD WENLOCK.

OFFICERS OF THE SOCIETY, 1841.

PRESIDENT:

EARL FITZWILLIAM, F.R.S.

VICE-PRESIDENTS:

REV. ROBERT BRYAN COOKE, F.G.S.

WILLIAM GARFORTH.

REV. JOHN GRAHAM.

WILLIAM HATFIELD, F.G.S.

REV. JOHN KENRICK.

THOMAS MEYNELL, JUN., F.L.S.

HENRY STEPHENS THOMPSON.

BALDWIN WAKE, M.D.

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ROBERT DAVIES.

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Elected 1839 HENRY PHILIP CHOLMELEY,

REV. STEPHEN CREYKE,

REV. WILLIAM HENRY DIXON, F.S.A.

Elected 1840 THOMAS ALLIS,

FAVEL JAMES COPSIE,

WILLIAM GRAY, JUN., F.G.S.

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Elected 1841 REV. T. EGERTON, F.G.S.

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HENRY ROBINSON.

CURATORS:

NATURAL HISTORY DEPARTMENT.

GEOLOGY	J. PHILLIPS, F.R.S., G.S.
MINERALOGY	...	...	W. HATFIELD, F.G.S.
ZOOLOGY—VERTEBRATA	...	...	*
ANNULOSA	...	...	T. MEYNELL, JUN. F.L.S.
MOLLUSCA AND ZOOPHYTA	...	...	}*
COMPARATIVE ANATOMY	...	...	THOMAS ALLIS.
BOTANY—GENERAL	...	...	WM. D. HUSBAND.
BRITISH	...	...	O. A. MOORE.

ANTIQUITIES	...	...	REV. C. WELLBELOVED.
LIBRARY and MSS.	...	...	JOSEPH MUNBY.
LABORATORY	...	...	T. H. BARKER.
OBSERVATORY	...	...	W. L. NEWMAN.
METEOROLOGICAL INSTRUMENTS	...	...	JOHN FORD.

SUB-CURATOR OF THE MUSEUM:

HENRY BAINES.

* These departments for which no Curators are specially named, are considered to be under the direction of the Secretaries and the Sub-Curator.

YORKSHIRE PHILOSOPHICAL SOCIETY.

REPORT OF THE COUNCIL,

PRESENTED TO THE ANNUAL MEETING FEB. 2, 1841.

IN the Report which the Council have the honour to present to the Eighteenth Annual Meeting of the Yorkshire Philosophical Society, the Members will receive a concise account of the progress which has been made in the past year ; of the actual state in which the Institution is placed in each of its departments ; and of the method by which it may proceed farther in its career of usefulness.

It is gratifying to the Council to deliver on this occasion a statement that much which the members desired to see undertaken has been performed, without placing the finances in an unfavourable position ; to record an ample addition of Members elected, a continual *accession* of donations to the Museum, and an undiminished attendance of visitors.

From these circumstances and the valuable aid which has been afforded by individual exertion, in literary efforts and the management of business, there is reason to hope the Institution has lost none of its power of influencing the progress of knowledge, and administering to the intellectual tastes and enjoyments of the public.

The activity with which the resources of the community are now directed to the practical applications of knowledge,

ought to be favourable to every institution which can aid, in any degree, the acquisition of its fundamental principles. It is, moreover, the opinion of the Council that in addition to the acknowledged advantages of consulting the various Collections, the Laboratory and Observatory may be rendered a means of valuable instruction, and that it is in the power of the Society, at a moderate cost, to give very effectual assistance toward the solution of new problems of the highest interest in Meteorology, such as the registration of the velocity as well as the direction of the wind, the direction and inclination as well as the quantity of rain, and the temperature of the air at different heights above the ground. For observations of this kind York is favourably situated, and by comparing the indications of a standard set of instruments here with others placed in different parts of the county, much information interesting in science, if not immediately valuable in practical applications, might result.

The donations to the Geological museum have been numerous, and the Council wish particularly to notice the tertiary fossils from the Mokattam range in Egypt, collected by Wm. Hatfeild, Esq.; a series of fossil plants from Bradford, presented by G. Pollard, Esq.; and several productæ and other shells from the limestone of Bredon hills in Leicestershire, the gift of the lamented Lady Flora Hastings. Dr. Wake has added some splendid specimens from Lyme Regis; and Mr. Bower a magnificent tusk of the fossil elephant, curved through three-fourths of a spiral, from Cheveley near Newmarket. An exchange with the Earl of Enniskillen has enabled us nearly to complete the fine skeleton of the Elk.

Among a few specimens which have been added to the Mineralogical Cabinet, is one the gift of Captain Ivanitzky, Vivianite in a bivalve shell, from the Crimea.

In the list of the Zoological donations will be found a number of Reptiles, and Eggs of the Ostrich, one of several fruits of Mr. Hatfeild's travels in Egypt.

The most remarkable donation to the collection of Comparative Anatomy is a very elegant and admirable injected preparation of a Horse's head, by Mr. W. F. Lockwood, Veterinary Surgeon.

It will be seen that the collection of Coins has received from the Curator and others some interesting additions, especially a portion of the many objects of this nature belonging to the latter days of Rome, which have been discovered in the railway excavations.

Considerable additions have been made to the Antiquarian department during the last year, especially of the remains of Roman York. For the possession of these the Society is indebted to the forethought of the Directors of the two Railway Companies* whose lines are now united in our City. Every application which has been addressed by the Council to these Boards has met with the most prompt attention, and there are yet several benefits which the Society may reasonably count upon receiving through their friendly cooperation. An ancient British Canoe made of an oak tree, which was found at Stanley Ferry, near Wakefield, has been consigned to our collection by George Banks, Esq., and Mr. Hatfeild has enriched the Museum with the Mummy of a Female which he personally obtained from the tombs at Thebes during his travels in Egypt in 1839. †

* The Directors of each of these Companies previous to the excavations being made from which such discoveries have resulted, informed the Council that whatever was curious or interesting to the Antiquarian should be at the disposal of the Society.

† The accompanying male mummy, which was procured at the same time and place, by Lord Claud Hamilton, has been presented to the Museum at Coburg.

The value of such collections of the early monuments of art has been demonstrated in a most interesting manner by the use made of them in the instructive series of discourses which, according to the intimation in the last Report, has been delivered in the Theatre of the Museum by the Curator of Antiquities, the Rev. Charles Wellbeloved. The Society is indebted to the generosity of Mr. Wellbeloved for the donation of the whole proceeds arising from these able and delightful lectures, which have brought before our eyes a vivid picture of 'ancient York' in its relation to the arts and arms of Rome, and which will be followed, we hope, by a similar effort to elucidate the history of the Abbey of St. Mary, and the other noble monastic edifices which still remain to add a peculiar charm to some of the fairest scenes in Yorkshire.

The labours of one valued friend long and earnestly devoted to English antiquities are ended; we have lost from our ranks one of our earliest and most esteemed associates: yet, mindful to the last of those studies which he cherished, and that Institution which he so zealously supported, Mr. Strickland has bequeathed to us the records which he had collected for the history of St. Mary's Abbey; and in addition to this literary treasure the sum of £100, which the Society will doubtless devote to some object which would have been approved by the donor, and which may long preserve the memory of his taste and generosity.

Some donations have been received for the garden, but the principal advantage to Botanical Science which is to be mentioned on this occasion, is the completion of the volume in which their intelligent Sub-curator, Mr. Baines, has been so long engaged.

The Flora of Yorkshire is now published, and has been pronounced by a competent judge to be a successful and pleasing addition to the Botanical Library, and creditable to

the worthy author in whose diligence, accuracy, and fidelity, all who know him will confide. It has been very favourably received by the Botanical World, and the Society may be expected to take much interest in this successful effort of their Officer, since a large part of the accurate information which it contains, regarding the localities of plants, has been derived from the rich Herbarium belonging to the Society, and both the late Curator of Botany and other members of the Society have taken the liveliest interest in contributing to its completeness. Mr. Baines has also been fortunate in obtaining the co-operation of many skilful Botanists, resident in Yorkshire, and the result is a faithful Catalogue of Yorkshire Plants to the number of 1002, besides ferns and mosses.

Among the donations to the Library, the Greenwich Observations for 1835-8, and the Edinburgh Observations Vols. I. and II., presented by the Royal Astronomical Society, should be specially mentioned as an encouragement to a regular and systematic use of the Observatory.

Thus by the continued favour of the public all our principal collections have been increased, and in some departments these augmentations have now become so great as to render a new disposition of the specimens and the addition of some cases desirable. It has been found possible, without any special provision of new cases, to place in security a great part of these various contributions; but the library shelves are full; the time is come for a new disposition of the collections in Zoology and Antiquities; and for the geological museum additional space of drawers and cases is greatly needed, to allow of some further classifications, and the exhibition of many specimens which would be found of great interest could they be rendered accessible. The estimated cost of new cases and a complete set of drawers for the

geological room was found too considerable to allow of this great improvement being undertaken, but the Council earnestly recommend its execution on the earliest favourable occasion. By a very simple method one of the upper rooms has been fitted to receive the preparations in Comparative Osteology *, and thus space is gained for an improved classification of the foreign birds, the reptiles, fishes, and invertebrata. The repairs of the Hospitium have given the means of saving from injury some of the larger antiquarian remains, which are now conveniently placed in the basement, and may be more advantageously arranged hereafter, when the flooring and fitting up of this building shall have been effected.

To this account of the increase of the Museum, the Council add with regret the announcement that the Officer under whose care it has grown to its present extent is compelled, by the pressure of other engagements, to resign the charge which he has exercised for fifteen years, though he still hopes to give to the Society proofs of his unaltered regard for its interests, and some aid in carrying out its scientific objects. The necessity of this measure was explained to the Council in the commencement of the last year, and some consideration has since been devoted to the arrangement of a plan for the economical and effective administration of the Museum, which has been duly weighed, first by a special Committee and finally by the Council; and this plan, which offers but slight alterations of the general system, and yet provides for vigilant economy, as well as a due performance of requisite duties, is now submitted for the approbation of the Meeting.

It is well known that many provincial Philosophical Societies have derived great benefit from the services of members to

* Mr. Brown has presented the painting of these rooms, as well as of the boundary gates, the new fountain, and other objects.

whom the care and direction of certain portions of their Museum are entrusted ; and for assistance of this kind in many portions of its collections the Yorkshire Philosophical Society is deeply indebted. The members are aware that several of the most conspicuous departments of the Museum have been under the superintendence of Curators singularly fitted by taste and knowledge to do them justice. It is proposed to carry out this principle, to call for additional exertions of like nature, and to nominate a sufficient number of members as Curators to take charge of all the different parts of the collections, and with little personal trouble to maintain their efficiency. For this purpose it is proposed to constitute the following distinct Curatorships : viz.

Natural History Department :

1. Geology.
2. Mineralogy.
3. 4. 5. Zoology in three parts : viz. 3. Vertebrata.
4. Annulosa.
5. Mollusca and Zoophyta.
6. 7. Botany in two parts : viz. 6. General Botany.
7. British Botany.
8. Comparative Anatomy.
9. Antiquarian Department.
10. Library and Manuscripts.
11. Laboratory.
12. Observatory.
13. Meteorological Instruments.

To make this plan effective, and its operation regular, and to render as light as possible the labours of each Curator, it is proposed that the duties of the Sub-Curator shall be so far modified as to allow of his attendance every day, between certain hours, to aid in the classification and due conservation of the collections, and that an exact statement of what is entrusted to and expected from them be furnished to each Curator and to the Sub-Curator.

To compensate for these important duties, it is proposed to augment in a slight degree the stipend now paid to Mr. Baines, which will then become £100. per annum.

Into the details of this scheme it appears not necessary or useful to enter in this place, but the Council are aware that the principal recommendation of such a plan will be found in its efficiency; and that it may not be easy to find in a busy community members who can devote sufficient time to execute, or even to direct, the arrangements in even one department of an increasing Museum; yet they entertain at present a full hope of success, not only because several of the Curatorships will still be administered by members of tried zeal and knowledge, but because substantial assistance is expected from young and active officers.

Moreover, what difficulty there may be in the arrangement is rendered less formidable by the consent which Mr. Phillips has given to retain for this year the direction of the Geological Collection, which is the largest of all, and from its continual growth, demands perhaps the greatest attention, and which has, in fact, been lately re-arranged so as to include the most modern geological classifications.

In anticipation of this new arrangement, the whole Zoological Collection is undergoing a complete examination as to the condition of the specimens, which has been found satisfactory, and in the course of the next month it is confidently expected that advantage will be taken of the space now gained in the Museum of Zoology, to carry into effect the plan of an entirely new arrangement of Birds, Reptiles, Fishes, and Crustacea.

Of the ability of Mr. Baines to perform the duties which will now devolve upon him, the Council have had sufficient

proof. During the past year he has completed the arrangement of the excellent Foreign Herbarium,* which was begun by Mr. Hincks, he has rendered very effectual aid in the Museum, and has superintended to the satisfaction of the Council, the various improvements which have been *effected* in the pleasure ground.

The Garden is now enlarged toward the ancient Gateway on the North, † and the Hospitium on the West; this additional ground has been laid out with care, and the elegant fountain presented by Mr. Walker has been placed within it in an advantageous situation; the space round the Hospitium has been cleared to give effect to the architecture of this building and the ancient Water Gate which adjoins it. The expense of these and many minor details, has very much exceeded the estimates for the more simple changes originally contemplated, but the Council have had the satisfaction of finishing this work, and may now be permitted to state that, in their judgment, this is the last effort towards enlarging the grounds which a prudent regard to the general prosperity of the Institution can permit for many years, though in regard to the appropriation and embellishment of the ample space now included within our boundaries, it is probable that more useful improvements may be suggested.

The value to the health of York of so large and cheerful an area, close to the City, and accessible on terms so easy, is proved by the extraordinary efforts which private benevolence has recently made to secure advantages of this description to the population of some of our large manufacturing towns.

* Presented by the Rev. J. Graham.

† The boundary gates on this side have been presented by Mr. J. Cluderay.

The Council have to congratulate the Meeting on the reparation of the Hospitium by means of a Subscription raised among the Members, and augmented by the proceeds of a County Ball, very handsomely devoted to this object. The sum thus raised has been found nearly sufficient (after deducting various collateral expenses) under the direction of Mr. J. Harper, to reconstruct the roof and the walls, but not to complete the building for general purposes, which requires the introduction of floors, doors, and windows. It might be easily and effectually warmed by stoves, and would then become in many respects a most desirable and valuable acquisition, as an Antiquarian Museum, and a place for public meetings. The tiles which now cover the building were the gift of the York and North Midland Railway Company.

The effect of this reparation of an interesting part of the buildings of St. Mary's Abbey, combined with the enlargement of the pleasure ground in front of it, has been generally acceptable to the members as well as peculiarly gratifying to artists, and has already yielded valuable fruits.

The Horticultural Exhibition in August experienced the advantage of increased accommodation afforded by the ample rooms in the Hospitium, and the scene presented in the Museum grounds on that occasion was in every respect most gratifying. These exhibitions being now considered as an established part of the proceedings of the Institution, the directing Committee, for whose prudent arrangements and zealous exertions the Society cannot be too grateful, found it desirable to make purchases of some articles indispensable to the exhibition.* If it should be found advisable also to purchase rather than to borrow the requisite tables, the So-

* The Committee is much indebted to James Barber, Esq. for arranging these purchases satisfactorily.

ciety will be in possession of all the means of arranging these interesting and useful exhibitions, with comparatively small expense except in the prizes, which may thus be made even more worthy of the gratifying competition already excited by these meetings.

Such are the principal facts, from which and the Treasurer's accounts appended, the members will earn the state and prospects of the Institution. On a review of their proceedings, the Council see no reason to fear that the Annual Meeting will impute to them either neglect of their interests, or a needless extravagance in performing their commands. It has not been in the power of the Council to appropriate any funds to the purchase of Books or specimens of Natural History: the extension of the Garden, the Reparation of the Hospitium, the repairs and new constructions in the Museum, have left only the means of securing some of the rich remains of Eburacum which have been excavated in our sight, and which but for this timely effort might have been wholly lost to the City which ought to feel a more than common interest in every fragment of the arts of its once imperial owners.

If however the members shall now deem these spacious grounds sufficiently extended, and shall again turn their principal attention to that which should ever be the characteristic *feature* of the Yorkshire Philosophical Society, the Museum of Natural History and Antiquities, and direct to this one channel the slender stream which is at our command, the blank spaces in our cabinets may be speedily filled, and these rooms become in every respect what they were intended to be, entirely worthy of the great patronage to which we owe the Edifice and the Grounds which belong to us, worthy of our own reputation, and the objects for which we were associated together.

THE
TREASURER OF THE YORKSHIRE PHILOSOPHICAL SOCIETY,
IN ACCOUNT.

Dr.		Cr.
1840,	£. s. d.	1839, December 31,
Annual Subscriptions and Arrears		£. s. d.
of former years - - - -	478 0 0	By principal money owing
Annual Subscriptions of Ladies		to the Yorkshire In-
and keys of the gardens - -	51 0 0	urance Company - 2500 0 0
For tickets of admission at 1s. each	50 0 0	By principal money
For Admission of 13 new Members	65 0 0	owing to Wm. Gray,
Rents of the Manor Shore Estate		Esq. - - - - 1000 0 0
and of the Marygate Houses -	97 9 6	By seven principal sums
Balance of the proceeds of the Hor-		of 50l. owing to seven
ticultural Exhibition - - -	48 2 6	Members of the So-
For the use of the Tent - - -	15 0 0	cietiy - - - - 350 0 0
Arrears of Subscriptions for the		By balance due to Messrs.
purchase of skeletons - - -	10 0 0	Swann & Co. this day 1457 2 3
Subscriptions to the Reparation of		5307 2 3
the Hospitium - - - -	177 0 0	1840.
Donation of the Proceeds of Six		Crown Rent, one year - - - 1 0 8
Lectures, by the Rev. C. Well-		Corporation Rent, ditto - - - 6 12 6
beloved - - - - -	54 7 6	Water Rent - - - - - 5 0 0
Dec. 31.		Poor Rates, Highway, Church, and
Yorkshire Insurance		other Rates- - - - - 33 15 11
Company - - - - 2500 0 0		Insurance, one year - - - - 5 0 0
William Gray, Esq. - 1000 0 0		Executors of the late James At-
Seven members 50l. each 350 0 0		kinson, Esq. - - - - 50 0 0
Balance due to Messrs.		Keeper of the Museum, one year's
Swann & Co. - - 1551 1 11		Salary - - - - - 100 0 0
	5401 1 11	Lodge Keeper, ditto - - - - 10 0 0
		Collector - - - - - 5 0 0
		Sub-Curator, on account of Salary,
		Labour in Garden, Incidents, &c. 215 4 1
		One year's Interest of 2500l. to the
		Yorkshire Insurance Company - 100 0 0
		Ditto of 1000l. to Wm. Gray, Esq. 40 0 0
		Interest to Messrs, Swann & Co. 63 19 6
		Paid Bills, viz.
		G. Hodgson, Leading - 28 19 0
		J. F. Brown, Painter - 33 17 0
		J. Clderay, Joiner - 48 1 5
		W. Taylor, Mason - 20 11 11
		W. Hill, Coalmerchant 19 2 6
		J. Bowes, Bricklayer - 14 12 11
		Noton & Son, Glaziers 13 12 5
		Gas-lights - - - - 10 3 0
		Wilson & Co. Printers 14 0 0
		Ward, Ironmonger - 7 1 0
		Turner, Plasterer - 8 2 11
		J. Hill, Printer - - 7 16 0
		Sundry small bills - 77 16 11
		303 17 0
		Hospitium Contracts - - - 200 9 6
		£.6447 1 5
		£.6447 1 5

Audited Feb. 1841.

ANALYSIS OF DISBURSEMENTS
DURING THE YEAR 1840.

Ordinary Expenses.

Rent, Rates, &c. :

	£.	s.	d.	£.	s.	d.
Rent to the Crown	1	0	8			
Rent to the Corporation	6	12	6			
Land Tax	0	11	6			
Water Rate	5	0	0			
City Commissioners' Rate	0	12	6			
Poor Rates	26	12	0			
Highway Rates	4	8	8			
Church Rate, £1. 10s. 3d. ; Easter Dues, 1s.	1	11	3			
Insurance	5	0	0			
				51	9	1

Salaries and Wages :

Keeper of the Museum	100	0	0			
Sub-Curator	85	0	0			
Servant and Cleaning Rooms	20	0	0			
Lodge-Keeper	10	0	0			
Labourer	33	0	0			
Collector	5	0	0			
				253	0	0

Interest on Debt :

Interest on Mortgage Debt on Manor Shore	100	0	0			
Interest on £1000.	40	0	0			
Interest to Bankers for being overdrawn	63	19	6			
				203	19	6

Museum :

New Cases for Skeleton Room	12	10	0			
Furniture, Painting, and Repairs to Museum and Marygate Cottages	111	14	9			
Purchase and Preparation of Specimens	14	3	11			
Expenses attending the procuring and removal of Antiquities	36	11	3			
Opening the Museum to the Public on Whit-Monday and Whit-Tuesday	3	3	3			
				178	3	2

Garden, Grounds, &c. :

Fifty New Keys to Garden Gate	6	5	0			
Cultivation of Garden, Enlargement of Ditto, and removal of, and rebuilding Walls to Ditto, near the Hospitium and towards Marygate	113	9	2			
				119	14	2

Library :

Books and Binding				8	19	3
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Printing, &c. :

Printing	27	14	6			
Stationery	1	18	5			
Advertising	0	15	0			
				30	7	11

Incidents, including Coals, Coke, Gas, Postage, and Carriage...

				43	15	7
--	--	--	--	----	----	---

£889 8 8

Extraordinary Expenses.

Money repaid to James Atkinson's Executors, by Order of Annual Meeting, 1840	50	0	0			
Expenses attending the Reparation of Hospitium, so far done	200	9	6			
				250	10	6

£1139 19 2

RESOLUTIONS

PASSED AT THE ANNUAL MEETING, FEB. 2nd, 1841,

WM. HATFIELD, Esq., F.G.S. IN THE CHAIR.

1. That the REPORT of the Council be adopted and printed for the use of the Members.
2. That the Thanks of the Society be given to John Phillips, Esq. F.R.S. for his eminent services rendered to the Society, during the 15 years that he has been charged with the care of the Society's Museum.
3. That the Thanks of the Society be given to the Rev. Charles Wellbeloved, for the excellent discourses which he has delivered on the Antiquities of the Museum, and for the liberal donation of the proceeds thereof to the funds of the Institution.
4. That as it appears to this Meeting that the arrears due to the Yorkshire Philosophical Society now amount to the sum of £200, the Council are requested under the sanction and authority of this Meeting, immediately to take the necessary steps at their discretion enabling them, if possible, to collect such arrears, and to report the result of their applications to a future Meeting.
5. That Charles Hamilton Wake, Esq. 34th Native Infantry, East India Company's Service, be elected an Honorary Member.
6. That the Thanks of the Society be given to the Vice-Presidents and Members of the Council retiring from office.
7. That the Thanks of the Society be given to the Treasurer and Secretaries, for their valuable services.
8. That the Thanks of the Society be given to the Curators of the several departments of the Museum, for their services during the past year.
9. That the Council be again empowered on certain days to be selected by them during the present year, to permit FREE ADMISSION to the Museum and Gardens TO ALL PERSONS; the mode of admission to be regulated by the Council.
10. That the Regulations adopted by the Annual Meetings in 1836, 1837, 1838, 1839, and 1840, for the ADMISSION OF STRANGERS by the purchase of Tickets, be continued for the present year.
11. That the Resolutions of the last Annual Meeting, empowering the Council to authorize the holding of one or more HORTICULTURAL MEETINGS in the Society's Gardens, be continued in force during the present year.
12. That the best Thanks of the Society be given to the Chairman and Committee of Management of the Horticultural Fête held in August last; and that they be respectfully requested to continue their valuable services for the year 1841.

MEMBERS
OF THE
YORKSHIRE PHILOSOPHICAL SOCIETY,
ELECTED IN 1840-41.

1840.

- Barnes, Robert, *York*.
Carruthers, William John Arthington, *Arthington Hall*.
Dobson, Rev. John, *York*.
Duesbery, William Duesbery Thornton, *Beverley*.
Hobson, George, *York*.
Howard, Charles, *York*.
Kaye, Sir John Lister Lister, Bart., *Denton Park, Huddersfield, and York*.
Markham, Rev. Henry Spencer, *Clifton, Notts. and York*.
Moore, Oswald Allen, *York*.
Simpson, George, *York*.
Thiselton, Charles Arthur, *York*.
Thurnam, John, *York*.

1841.

- Lascelles, Hon. Edwin, *Harewood House*.
Laycock, Thomas, M.D. *York*.
Lloyd, George, Jun. *Eastfield House*.
Ridsdale, George, *Old Hall, Wakefield*.

HONORARY MEMBERS ELECTED IN 1840-41.

- Hincks, Rev. William, F.L.S.

1841.

- Charles Hamilton Wake, *34th Native Infantry, East India Company's Service*.

SCIENTIFIC COMMUNICATIONS

TO THE

GENERAL MEETINGS.

MARCH 3, 1840.—Notice of Meteorological Observations in Yorkshire and Westmorland, in 1839, by JOHN PHILLIPS, F.R.S. and JOHN FORD.

APRIL 7.—Notice of Meteorological Observations at Brandsby, in 1839, by F. CHOLMELEY, Esq. F.H.S.

JUNE 2.—Drawing and Description of Parhelia seen at Thirkleby, near Thirsk, on the 19th April, 1839, by a Lady.

DEC. 1.—Remarks on Two Springs in Herefordshire, by the Rev. W. TAYLOR, F.R.S.

JAN. 5, 1841.—A Demonstration of Euclid III. 31, proposed by the Rev. W. TAYLOR, F.R.S.

A Statement of Thermometrical and Hygrometrical Observations, made during a voyage on the Nile, in 1839, by W. HATFIELD, F.G.S.

DONATIONS

TO

THE SOCIETY'S MUSEUM.

GEOLOGY.

- H. Bower, Esq. F.S.A. ... Tusk of *elephas giganteus*, from Cheveley, near Newmarket, with molar teeth.
- C. Greaves, Esq. ... Plants from the sandstone near Harrogate; vermicular impressions on sandstone.
Several fossil shells, from the strata of the Yorkshire coast.
- James Hamerton, Esq. ... Fossil fruits, from Herne Bay.
- Lady Flora Hastings ... Fossil shells, from Bredon, in Leicestershire.
- W. Hatfeild, Esq. ... A series of fossil shells and echinida, from the tertiary rock of the Mokattam range in Egypt, collected by himself in 1839.
- Rev. F. O Morris ... A specimen of *clypeus sinuatus*.
- Payton, Esq. (*Dudley*) Specimen of *Calymene Blumenbachii*; cast of the largest specimen of *Calymene Blumenbachii* yet found at Dudley.
- George Pollard, Esq. .. A series of fossil plants, from Bradford.
- Rev. C. Sykes, F.G.S. ... Horn and bones of red deer, found at Owthorn, in Holderness.
- Dr. Wake ... Fine tetragonolepis, and remarkable fossil plant, from Lyme Regis.
- Baldwin Wake, Jun. Esq. Fossil plants, from Low Moor, near Bradford.

MINERALOGY.

- John Bleckly Sulphate of lime, from the Yorksh. Wolds.
Capt. Ivanitzky Vivianite in a bivalve shell, from the
Crimea.
Samuel Powell, jun. Esq. Carbonate of lime, from the Gibbet Hill,
Knaresborough.
-

ZOOLOGY.

VERTEBRATA.

- R. H. Anderson, Esq. ... Xiphius gladius.
The Archbishop of York... A ptarmigan.
G. L. Fox, Esq. Reeve.
Rev. W. V. Harcourt, F.R.S. Several in spirits.
W. Hatfeild, Esq. F.G.S.... Egyptian reptiles in spirits; eggs of the
ostrich; fishes' heads.
Mr. H. Newcombe ... A common buzzard.
John Swann, Esq. ... A pied grouse.
A dormouse.
C. H. Wake, Esq., 34th An Indian coot.
Native Infantry

ANNULOSA.

- T. Meynell, Esq. jun. F.L.S. Several British Insects not previously in
the Collection.

MOLLUSCA AND ZOOPHYTA.

- F. J. Copsie, Esq. ... Two corals.
Miss Hobson Cyprina, argonauta, and other recent
shells.
Rev. F. O. Morris ... Several shells.

COMPARATIVE ANATOMY.

- Earl of Enniskillen, F.R.S. Long bones of the hind legs of Irish elk.
J. F. Lockwood Injected preparation of a horse's head.

ANTIQUITIES.

- | | | | |
|---|-----|-----|--|
| George Banks, Esq. | ... | | An ancient canoe made out of an oak tree, found at Stanley Ferry, near Wakefield. |
| H. P. Cholmeley, Esq. | ... | | A trifurcate Roman lamp, from the railway excavations at Toft Green. |
| Churchwardens of St. Martin's, Coney-street, York | | | Piece of embroidered velvet, formerly the pulpit cloth of the church. |
| W. Hatfeild, Esq. | ... | | Mummy of a female, obtained by the donor at Thebes, in 1839. |
| Rev. F. O. Morris... | ... | | 185 impressions of seals and antique gems. |
| North of England Railway Company | | | Jet pins, &c., stone coffins, a small leaden coffin. |
| H. Robinson, Esq. | ... | | Impression of seal of Merchant Adventurers' Company of the City of York, found among the ruins of Shap abbey, in Westmoreland. |
| — Rutter, Esq. | ... | ... | Bulla of Pope Nicholas. |
| Rev. C. Wellbeloved | ... | | Copper Roman pin, found in railway excavations. |
| York and North Midland Railway Company | | | Roman remains, from the excavation at the terminus, viz. a lead coffin, containing a skeleton; Roman glass, pottery, &c. |

COINS.

- | | | | |
|----------------------|-----|-----|---|
| — Kell, Esq. | ... | ... | Sticas from Hexham. |
| Samuel Kenrick, Esq. | ... | | Twenty Roman and English coins. |
| Rev. J. Kenrick | ... | ... | Three coins, found in the York and North Midland Railway excavations. |

- John Phillips, Esq. F.R.S. Twenty-five Roman brass coins, found in the railway excavations.
- Rev. C. Wellbeloved ... Gold coin of Carinus, with thirty silver sticas, found in the railway excavations.

THE GARDEN.

- Mr. J. F. Brown ... Six loads of manure.
- W. Oldfield, Esq. ... Eight loads of manure.
- J. Roper, Esq. ... Six loads of peat.
- Major Yarburgh ... One load of peat.
- Mr. Clarkson ... 50 Roses.
- Mr. Bearpark ... 50 Roses.

MISCELLANEOUS.

- H. Baines ... Model of Roman bath discovered in the railway excations at York.
- Mr. J. Bleckly ... Specimen of burnt wheat, found after the fire at Appleton mill.
- Mr. J. F. Brown ... The painting of the boundary gates ; the painting of a fountain and two of the exhibition rooms.
- Mr. J. Cluderay ... Fragments of wood and masses of bell metal, from the ruins of York Minster. A pair of handsome boundary gates for the garden.
- F. J. Copsie, Esq. ... Bust of Flaxman.
- The York Glass Company Specimens of glass, and the materials used in its composition at the York Works.
- S. Hailstone, Esq. F.L.S. Mass of silicated substance, the residuum of burnt hay.

W. Hatfeild, Esq. F.G.S.	The dress of a Nubian female.
G. Hobson, Esq.	A garden chair.
Mr. Alderman Hotham ...	A curious old carving in wood, representing the coopers' arms.
Teachers of the York Medical School	Their medal in bronze.
R. R. Pearce, Esq. ...	Carved image taken from a church at Trun.
Miss Preston	Beads, cloth, comb, &c., from Aheita.
Rev. C. Wellbeloved ...	Model of part of Hadrian's vallum and camp, at the station supposed to be Alione.

THE LIBRARY.

Society of Arts	Vol. of the Transactions of the Society.
Royal Astronomical Society	Greenwich Observations, for 1835—8. Edinburgh Observations, Vol. I. II.
Professor Bache, (<i>the Author</i>)	Report on Education in Europe, presented to Girrd College, in Philadelphia, in 1839.
H. Baines	Flora of Yorkshire, 8vo, 1840.
J. Bleckly	Introductory Discourse delivered to the Literary and Philosophical Society of New York, 1814. Also some Papers relating to the Literary and Philosophical Society of York, a Society in existence previous to the formation of the Yorkshire Philosophical Society.
A body of Subscribers, through Mr. Bleckly	A Portrait of the Queen, engraved after the Picture, by
Birmingham Institution ...	Report for 1838-9.
Botanical Society of Edinb.	Report for 1840.
British Association, for the Advancement of Science	Report for 1839.
Churchwardens of St. Martin's, Coney-street	Black Letter Bible.

- Royal Cornwall Polytechnic Society Report for 1837.
- John Dunn, Esq. (*the Author*) On the Vital Statistics of Scarborough.
- Dr. Fitton Review of Lyell's Geology.
- Professor Forbes, (*the Author*) On the Diminution of Temperature, with Height in the Atmosphere, at different seasons of the year, 1840.
- Experiments on Terrestrial Magnetism, 1840.
- Remarks on Heat, 4th Series, 1840.
- Geological Society, London Proceedings of the Session 1839-40.
- Mr. W. Hobson A Drawing of an Egyptian Mummy, in the Museum of the Literary and Philosophical Society, at Leeds.
- John Hogg, Esq. F.L.S. (*the Author*) On Spongilla.
- Leeds Literary and Philosophical Society Report for 1839-40.
- Executors of John Maude, Esq. Addition to the Work of John Maude, Esq. on North America.
- Rev. F. O. Morris... .. His Work, entitled Guide to the Arrangement of British Birds.
- Several Numbers of the 'Naturalist.'
- G. Poulson, Esq. (*the Author*) History and Antiquities of Holderness.
- Rev. W. Taylor, F.R.S. ... Catalogus Stirpium et Fossilium Silesiæ.
- J. Thurnham, Esq. (*the Author*) On Aneurisms.
- Whitby Literary and Philosophical Society Report for .
- Rev. Dr. Young His Work, entitled 'Scriptural Geology.'

MONTHLY MEETINGS IN 1841—1842.

1841. MARCH 2	1841. OCTOBER 5
— APRIL 6	— NOVEMBER 2
— MAY 4	— DECEMBER 2
— JUNE 1	1842. JANUARY 4

ANNUAL MEETING, FEBRUARY 1, 1842.

RULES OF ADMISSION

TO THE MUSEUM AND GARDENS.

I. Members of the Society (and Contributors of £15. and upwards to the Building Fund,) have the privilege of personal admission, and of PERSONALLY INTRODUCING Visitors to the Museum and Gardens, at all times when they are open.

II. Members (and Contributors of £50.) have the further privilege of giving to Visitors WRITTEN ORDERS of admission, which must be signed with the name of the Member or Contributor, and bear the name of the Person to be admitted. Such written orders are received at the Lodge every day (Sunday excepted) between the hours of Ten A. M. and Four P. M. in Winter; and Ten A. M. and Eight P. M. in Summer; and must be left with the Lodge-keeper. N. B. *He is forbidden to accept money from Visitors.*

III. LADIES who are admitted by the Council as Annual Subscribers of £1., (or who have contributed £10. or upwards to the Building Fund,) have the privilege of personal admission, and of PERSONALLY introducing LADIES as occasional Visitors.

IV. STRANGERS may obtain (at Mr. Chapman's, Concy-street, and at Mrs. Wilson's, Lendal, near the Museum Gate) ADMISSION TICKETS, price One Shilling for each person; which will entitle them to admittance at all times when the Museum and Gardens are respectively open (Sundays excepted). The tickets must be left at the Lodge.

V. The adult inmates of the FAMILY of a Member (or of a Contributor of £50.) have the privilege of personal admission whenever the Museum and Gardens are open.

VI. Members, and others entitled to personal admission, may obtain a KEY of the Private Entrances to the Garden, on application to Mr. Baines at the Museum, and payment of Five Shillings for the current year; such payment to be due annually in advance on the 1st of January, while the key is retained.

VII. CHILDREN are not to be admitted to the Museum except in the company of a Member or Lady Subscriber, nor to be left in the Garden, except under the care of their Parents, or other responsible person.

VIII. The GARDENS are open daily till dusk. On Sundays there is no admission between the hours of Ten and Twelve. The MUSEUM is open daily (except Sunday) between the hours of Ten and Four.

IX. The Sub-Curator, Mr. Baines, is fully empowered and required by the Council to see these regulations enforced, and to prevent injury to the Garden, Abbey Walls, and other antiquarian monuments.

Dorchester Philosophical Society.

A N N U A L R E P O R T

FOR

MDCCCXLI.



A N N U A L R E P O R T
OF THE COUNCIL
OF THE
YORKSHIRE
PHILOSOPHICAL SOCIETY

FOR

MDCCCXLI.

PRESENTED TO THE ANNUAL MEETING,

FEBRUARY 1, 1842.



YORK:

THOMAS WILSON AND SONS, HIGH-OUSEGATE.

1842.

TRUSTEES
OF
THE YORKSHIRE MUSEUM,
APPOINTED BY THE ROYAL GRANT.

HIS GRACE, EDWARD, LORD ARCHBISHOP OF
YORK.

GEORGE, EARL OF CARLISLE, K.G.

CHARLES WILLIAM, EARL FITZWILLIAM,
F.R.S., F.S.A.

THOMAS PHILIP, EARL DE GREY.

HON. AND VERY REV. HENRY HOWARD, D.D.
DEAN OF LICHFIELD.

SIR WILLIAM LAWSON, BART. F.S.A.

FRANCIS CHOLMELEY, ESQ. F.S.A.

ROBERT DENISON, ESQ.

REV. WILLIAM VERNON HARCOURT, F.R.S.

WILLIAM HATFEILD, ESQ. F.G.S.

RICHARD JOHN THOMPSON, ESQ.

PATRONESSES

OF

The Berkshire Philosophical Society.

HER MAJESTY THE QUEEN.

HER ROYAL HIGHNESS THE DUCHESS OF KENT.

PATRONS.

HIS GRACE THE ARCHBISHOP OF YORK.

EARL OF CARLISLE, K.G.

EARL FITZWILLIAM, F.R.S.

EARL OF TYRCONNEL, F.R.S.

THE VISCOUNT MORPETH.

THE LORD STOURTON.

THE LORD WHARNCLIFFE.

THE LORD FEVERSHAM.

THE LORD WENLOCK.

OFFICERS OF THE SOCIETY, 1842.

PRESIDENT :

EARL FITZWILLIAM, F.R.S.

VICE-PRESIDENTS :

STEPHEN BECKWITH, M.D.
REV. STEPHEN CREYKE.
GEORGE GOLDIE, M.D.
REV. JOHN GRAHAM.
REV. WM. VERNON HARCOURT.
WILLIAM HATFEILD, F.G.S.
REV. JOHN KENRICK.
BALDWIN WAKE, M.D.

TREASURER :

ROBERT DAVIES.

COUNCIL :

Elected 1840 THOMAS ALLIS,
FAVIL JAMES COPSIE,
WILLIAM GRAY, JUN., F.G.S.
REV. CHARLES WELLBELOVED,
Elected 1841 REV. T. EGERTON, F.G.S.
REV. W. HEY,
W. D. LITTLEDALE,
W. F. RAWDON, M.D.
Elected 1842 JAMES ALLEN,
JOHN PHILLIPS, F.R.S., G.S.
HENRY ROBINSON,
WM. WHYTEHEAD.

SECRETARY :

THOMAS MEYNELL, JUN. F.L.S.

CURATORS :

NATURAL HISTORY DEPARTMENT.

GEOLOGY	....	....	J. PHILLIPS, F.R.S., G.S.
MINERALOGY	....	....	W. HATFIELD, F.G.S.
ZOOLOGY—VERTEBRATA*		
ANNULOSA	....		T. MEYNELL, JUN. F.L.S.
MOLLUSCA AND ZOOPHYTA	}*		
COMPARATIVE ANATOMY	....		THOMAS ALLIS.
BOTANY—GENERAL	....		WM. D. HUSBAND.
BRITISH	....		O. A. MOORE.

ANTIQUITIES	....	....	REV. C. WELLBELOVED:
LIBRARY and MSS.	....	....	JOSEPH MUNBY.
LABORATORY	....	....	T. H. BARKER.
OBSERVATORY	....	....	W. L. NEWMAN, F.R.Ast.S.
METEOROLOGICAL INSTRUM.			JOHN FORD.

SUB-CURATOR OF THE MUSEUM :

HENRY BAINES.

* Those departments, for which no Curators are specially named, are considered to be under the direction of the Secretary and the Sub-Curator.

YORKSHIRE PHILOSOPHICAL SOCIETY.

REPORT OF THE COUNCIL

TO THE

ANNUAL MEETING OF THE SOCIETY ON THE 1st OF FEBRUARY, 1842.

TWELVE years have passed since the Yorkshire Philosophical Society emerged from a confined locality, to take possession of this ample edifice, and to act the part which had been prescribed for it—the part of a SCIENTIFIC INSTITUTION FOR THE COUNTY OF YORK: to urge and to aid its members in their philosophical pursuits; to cooperate with zeal and good faith in the exertions of other Societies; to feel and be stimulated by the spirit of our age and country; to share in all enterprizes for the advancement of knowledge; and always to welcome with sympathy and encouragement every attempt, from every quarter, to unfold the Natural History and Antiquities of Yorkshire.

Within those years how many important circumstances have occurred of a nature to test the sincerity of these views, and to affect the power of performing them! Burdened at the commencement with a debt of £1500. how was this Institution to contend with the cost of furnishing large apartments, laying out extensive grounds, providing laboratories and observatories, and restoring monuments of ancient art? The answer contained in this building, and in these grounds, is both encouraging and warning; it is the public sympathy with our objects, the public confidence in our proceedings, which have enriched our Museum, enlarged and beautified

our Grounds, and saved from ruin some of the fairest architecture of which ancient York can boast ; and that sympathy and confidence will never be withdrawn so long as we can honestly demand them.

Influenced by this conviction, the Society has continued and even extended in the present year the facilities of access to its Museum and Grounds ; these have been visited by a greater than the usual number of strangers ; twice opened for Horticultural Exhibitions, and twice for unreserved admission of thousands of gratified visitors. But the most important occasion when the usual Rules of Admission were relaxed or suspended, was that of the assembling, in August, of the Provincial Medical Association of England, to whose use this edifice and its contents were freely yielded for the days of their meeting in York. The collections of the Society then inspected at leisure drew forth expressions of high approbation, and the friendly interest which the Society manifested in the success of the Medical Association was fully appreciated and acknowledged by that distinguished body.

In the same spirit, and encouraged by this success, the Council would wish to welcome the Agricultural Association of Yorkshire, which has appointed its meeting, for 1842, to be held in this City in the month of August. The lapse of years has also brought within probability of fulfilment the expectation and desire of this Society to receive a meeting of that great British Association for the Advancement of Science, which, beginning within these walls in 1831, has held a prosperous and useful course through the large Cities and Towns of the Empire, and may now be induced by suitable invitations to re-assemble its numerous and distinguished members in Yorkshire.

A proposition that this meeting should authorize an invitation, in the name of the Society, to the British Association

to appoint a meeting in Yorkshire for 1843, and to make choice of the City of York for the place of assembly, has been adopted by the Council, and will be brought regularly before it at the close of this address ; and the Council have already taken steps to ascertain what degree of cooperation for the attainment of this object may be expected from the other Philosophical Institutions of the County. It ought by no means to be the desire of the Society that the Association should be welcomed to York with unnecessary parade or lavish expenditure, but the members will naturally demand for this national scientific assembly such preparations as its scientific objects require.

They will also inquire whether the state of our Museum, and the general conduct of our establishment, are such as to fit them for a second inspection by such a body of Naturalists and Philosophers, and, if any deficiencies are observed in any department, what are the measures proposed by the Council to remedy them.

By the attention of the Curators the Museum is placed in a condition to deserve more than a cursory examination ; it is rich in the treasures of nature and the monuments of art ; but it still labours under deficiency of means for proper display and orderly arrangement of the valuable donations which continue to be received from near and distant friends. The duties connected with the classification and conservation of the numerous specimens of Natural History and Antiquities have been performed, in many respects, to the satisfaction of the Society ; and if some part of these collections remains in an incomplete or unarranged state, this is not owing to any remissness of the several gentlemen to whose care they are entrusted, but to the actual want of space for suitable distribution of the objects.

The collection of Organic Remains has been entirely re-

arranged, and thus space is gained for exhibiting the fossils of the Silurian System which Mr. Murchison's labours have rendered so interesting, and of which a large donation from the Tortworth district, presented by Thomas Weaver, Esq. has furnished a valuable and characteristic illustration. *

The collection of Vertebrated Animals has received some excellent additions ; chiefly of birds, from Australia, presented by the Rev. Robert Affleck, Bart. and from Africa and Europe by Giles Munby, Esq. which are undergoing the process of preparation for the cases. The British Birds have been entirely rearranged ; but the now large and valuable collections of Foreign Birds and Reptiles require the scrupulous attention of a naturalist well versed in this branch of knowledge.

The collections of Comparative Osteology have been augmented by the purchase of sixteen skeletons prepared by Mr. Allis, who at the same time presented the bones of an elephant and some other gifts to the Society. From Philip Davies Cooke, Esq. we have received the skeleton of a Quagga, the head of a Zebu, and the body of an Alpaca. These additions are such as, when mounted, to render necessary some further cases for this branch of the collection.

Few additions have been made to the Invertebral Animals in the Museum ; but the Council have reason to think that an important accession to this department is prepared for us by Mr. James Backhouse, who, while engaged in long and zealous missionary labours, found leisure to exercise his love of natural history, and to remember this Museum, on the shores of Australia and Van Dieman's Land.

Adequately to display our collection of foreign Mollusca

* Mr. Weaver's valuable memoir on the district of Tortworth may be seen in the Geological Transactions.

and Zoophyta, augmented by this new supply, will require new cases.

The arrangement of the British Herbaria, begun in so excellent a manner by Mr. Hincks, has been extended, and the Curator reports, in addition to this satisfactory progress, in matters so essential to the credit of the Institution, that much activity prevails in the cultivation of British Botany in Yorkshire, and that several new localities of rare plants, important in reasoning on their geographical distribution, have been detected near York. Among these the Iceland Moss, (*Cetraria islandica*) believed to be new to England, was exhibited at one of the monthly meetings with the so called Reindeer Moss (*Gladonia rangiferina*), *Dicranum bryoides*, and a species of *Leskea* * new to Britain.

The Garden has been provided with a considerable number of rare plants; and the new fountain, presented by Mr. Walker, has been erected in an appropriate situation; but the completion of the grounds near the Hospitium, and the making of a drain there, have been postponed until further steps can be taken for the reparation of that building. During the past year, as on a former occasion, the Hospitium has been found of great service in giving full effect to the elegant exhibitions of fruits and flowers, which may now be viewed as an established part of the annual gratifications provided by the Society for the public.

It is recommended by the Committee which undertook the laborious direction of these beautiful exhibitions in the past year, that the time to be selected for the Horticultural Fete in 1842 be fixed with reference to the meeting of the Agricultural Association in August.

* Discovered by Mr. Spruce of the York Collegiate School.

Of Coins, the most interesting donation is one presented to the Society, by command of Her Majesty the Queen, through Lord Granville Somerset, Chancellor of the Duchy of Lancaster, consisting of a selection from the coins found at Cuerdale near Preston. The other Antiquarian Accumulations, mostly from localities in York, and illustrative of circumstances important in the history of our country, have now become so abundant as to defy all attempt at arrangement without some entirely new adaptation, not only of the cases but even of the rooms, an object for which the proceeds of the valuable Discourses delivered last year by the Curator were placed at the Society's disposal.

These large collections will, it is hoped, acquire a new interest from the publication (now speedily expected) of a work long contemplated by the Curator, and containing the result of his diligent studies into the ancient history of 'EBURACUM.' In the progress of this work the Council takes a lively interest, not only because the execution of it will fulfil a part of the most cherished objects of the Institution, but because much of the material evidence on which it rests will be found within our walls.

Among the donations to the Library are the continuations of the valuable Transactions of several learned Societies, and a gift of much interest, viz. the 'Annales des Mines de Russie,' presented by Gen. Tscheffkine.

The Laboratory is in an effective state; and the Curator, to whom the Society is indebted for this improvement, has found it serviceable in his lectures to the York School of Medicine.

The Observatory has been in regular operation, as far as the state of the weather and the condition of the instruments would permit. The Curator reports that some considerable improvement is desirable in respect of the mounting of the

telescope, and that a larger transit instrument ought to be placed on the excellent foundations which have been laid.

Besides the register of the Meteorological Phenomena at York, of which the subjoined table gives the mean monthly and annual results, * the Curator of this branch of the Society's pursuits has undertaken some researches on the distribution of temperature in the parts of the atmosphere near the ground, of which on a future occasion the result may be presented to the members. The Council, desirous of encouraging in York the prosecution of the interesting class of inquiries which respect climate and weather, regret that hitherto no sufficient means have been established here for registering the force and direction of the wind. The instruments of Whewell and Osler which are at this moment recording every momentary variation of the aerial movements over many and distant points of the globe, might, if placed

* METEOROLOGICAL REGISTER—YORK, 1841.

Months.	Barometer.			Rain.			Thermometer.			Nights at or below 32° Fahrenheit.	Rainy days, more or less.
	Mean height.	Highest range.	Lowest range.	Inches.	Mean maximum.	Mean minimum.	Mean temperature.	Highest range.	Lowest range.		
Jan.	29.79	30.36	29.00	1.70	36.8	27.9	32.4	49°	4°	22	8
Feb.	29.89	30.54	29.16	1.36	40.5	31.7	36.1	51	24	16	10
March	29.88	30.53	29.23	1.45	54.3	37.3	45.9	67	30	10	12
April	29.88	30.37	29.47	1.02	54.8	37.8	46.3	70	29	10	14
May	29.90	30.43	29.10	2.88	64.6	45.2	58.8	77	35	0	14
June	29.96	30.33	29.63	1.20	63.2	47.2	55.2	72	42	...	10
July	29.89	30.30	29.32	3.47	64.1	50.1	57.4	73	45	...	18
Aug.	29.89	30.32	29.50	2.72	67.0	51.5	59.3	75	44	...	13
Sept.	29.81	30.26	29.00	2.81	63.5	44.2	53.9	79	35	...	11
Oct.	29.53	30.10	28.78	3.56	52.1	41.2	46.7	59	32	2	23
Nov.	29.74	30.50	28.70	2.59	44.7	34.4	39.5	56	23	17	10
Dec.	29.63	30.20	29.03	1.60	42.3	34.0	38.2	51	22	16	15
Average of the Year.			29.81	26.36 Inches in the Year		47.5 Mean temp.				93	153

on this Museum, contribute much to the general amount of information on this important subject, and add a fund of gratification to the reasonable curiosity of our members.

The Council would wish to point out to meteorological observers in Yorkshire, the propriety of their taking part in the great system of combined periodical observations proposed by Sir John Herschel in 1835, and continued at his request, and by the exertions of M. Quetelet, by most eminent observers in various parts of Europe*.

It appears from this survey that our collections have again outgrown the means of orderly and appropriate exhibition. The time is come for desiring to occupy with ranges of new cases the few walls and limited area of floors still vacant. We require drawers for a numerous suite of geological specimens, ranges of vertical cases for the skeletons of birds, and the objects of antiquarian curiosity, and tables to display the Foreign Mollusca and Zoophyta. These are our wants in the Museum; it is the opinion of the Council, that some change should be made in the system of warming the building, and that some steps should be taken towards providing the meteorological and astronomical observers with additional instruments.

* The observations requested by Sir John Herschel are fixed for the solstices and equinoxes; that is to say, on the 21st December, 21st March, 21st June, 21st September, *every hour* from six in the morning of the 21st, to six in the morning of the following day. M. Quetelet desires thirty-six hours observations, viz. from six a.m. of the 21st, to 6 p.m. of the 22nd. In both sets of observations, if the 21st be Sunday, the observations are to commence on the 22nd, and in M. Quetelet's Series, if the 22nd fall on a Sunday, the observations take place on the 20th and 21st. M. Quetelet has recently given conveniently digested tables of the results communicated to him for 1841; but though his list includes twenty-four stations in Europe, there is no contribution from England. *Bulletin de l'Acad. Royale de Bruxelles Tom. VIII. Report of the Committee of the Royal Society, 1840.*

The alterations required for the most immediately pressing of all these wants, the appropriation of larger space for the collection of antiquities, are fortunately inexpensive, and may be entered upon without hesitation; but before this meeting can be called upon to consider the propriety of authorizing the expenditure of any considerable sum for other objects, it is necessary to advert to the state of the Society's finances.

On the 31st December, 1840, the Society was indebted for money borrowed to purchase land and houses, and for the several objects of the Institution, the sum of £5401. 1s. 11d., of which £1551. 1s. 11d. was a floating balance borrowed of the bank at 5 per cent., the remainder being at 4 per cent. The floating balance now due to the bank is £1321. 11s. 8d.

The sum of £63. 14s. 6d. has been received for admission tickets; but this sum, though larger than the payments in any previous year, affords but a very inadequate estimate of the total number of strangers who have visited the Museum.

The executors of the late Eustachius Strickland, Esq. have paid to the Society's account the legacy bequeathed to it by that early and lamented friend of our Institution. This generous gift is unconditional; but the Council presume that the meeting will follow out the recommendation contained in the last Report, and authorize them to appropriate this money to some object which would have been approved by the donor, and which may long preserve the memory of his taste and generosity.

The Council have had to regret that the Curator of Antiquities was prevented by illness from performing his intention of favouring the Society with a second series of his admirable discourses on the Antiquities of Yorkshire, embracing the

Monastic Remains of the County ; but they are in expectation that this desirable object will be accomplished in the ensuing autumn. The only public lectures delivered in the Museum since the last Report, were on the Phenomena of Sound by Mr. Robert Addams. This gentleman will probably be able to present some popular illustrations of the ELECTRIC TELEGRAPH of Wheatstone, and some other modern discoveries in the month of April ; the Council are moreover glad to announce that Professor Phillips has proposed to give four lectures on some of the fundamental truths of MODERN GEOLOGY with theoretical inferences, and practical applications, in the month of March ; and that Mr. Newman and Mr. Barker have expressed their willingness to oblige the Society by similar explanations of some points of ASTRONOMICAL and CHEMICAL science.

On this occasion the Council announce with regret the final withdrawal from office of the present Secretaries (Prof. Phillips, and Mr. Henry Robinson,) who, animated by earnest and sustained devotion to the objects for which we are united, have harmoniously performed the duties intrusted to them through many years.* The Council have unwillingly been compelled to yield to the reasons which induced these gentlemen to demand a release from what must ever prove an anxious labour ; satisfied that this Society will always receive in another form the benefit of their knowledge and experience, and well pleased to be able to recommend for the approbation of the meeting, as their successor, one so well qualified as Mr. Thomas Meynell to conduct the scientific and ordinary business of the Institution.

* Professor Phillips was elected in 1830, Mr. Robinson in 1837.

THE

TREASURER OF THE YORKSHIRE PHILOSOPHICAL SOCIETY,

IN ACCOUNT FOR THE YEAR 1841.

Dr.	£. s. d.	1841,	£. s. d.	Cr.
1841,		Permanent Debt, viz.		
Annual Subscriptions and Arrears		Yorkshire Insurance		
and Admission of new Members	579 0 0	Company - - -	2500 0 0	
Ladies' subscriptions, and keys of		Wm. Gray, Esq. - -	1000 0 0	
garden - - - - -	36 15 0	Seven Members 50l. each	350 0 0	
Tickets at 1s. each - - - -	63 14 6			
Rents - - - - -	110 7 6			
Use of the Tent - - - - -	17 5 0			3850 0 0
Legacy, late E. Strickland, Esq. -	89 0 0	Balance overdrawn Messrs. Swann		
Subscriptions to the Hospitium -	57 10 0	and Co. Dec. 31st, 1840 - -	1551 1 11	
Ditto, boundary wall - - - -	3 10 0	Crown Rents - - -	1 0 8	
Mr. Addams's Lectures - - - -	16 8 6	Corporation Rent - -	6 12 6	
Gas Light for Evening Meetings -	1 10 0	Insurance - - - -	5 0 0	
Dec. 31.		Interest - - - -	204 13 0	
Permanent Debt, viz.		Gate Keeper - - -	10 0 0	
Yorkshire Insurance		Collector - - - -	5 0 0	
Company - - - - -	2500 0 0	Sub-Curator, on account 200 0 0		
William Gray, Esq. - 1000 0 0				432 6 2
Seven members 50l. each 350 0 0		Sundry Bills, viz.		
	3850 0 0	Earthen Ware - - -	22 3 0	
Balance overdrawn		Mr. Allis - - - -	50 19 3	
Messrs. Swann & Co.		Mr. Robinson - - -	19 13 0	
31st Dec. 1841 - - - -	1321 11 8	Mr. Phillips - - -	3 14 9	
		Mr. Bailliere - - -	6 13 0	
		Mr. Hill - - - -	21 0 0	
		J. Cluderay - - -	27 15 0	
		Wilson & Sons - - -	14 1 0	
		Noton & Son - - -	14 0 0	
		Gas-light Co. - - -	15 5 6	
		J. F. Brown - - -	9 9 10	
		Gravel - - - -	7 14 0	
		Mr. Addams - - -	24 0 0	
		H. Chapman - - -	8 13 0	
		Sundry small bills - -	68 2 3	
				313 3 7
				£.6146 11 8
	£.6146 11 8			

Audited 31st Jan. 1842.
T. ALLIS.

ANALYSIS OF DISBURSEMENTS

DURING THE YEAR 1841.

Ordinary Expenses.

	<i>£.</i>	<i>s.</i>	<i>d.</i>	<i>£.</i>	<i>s.</i>	<i>d.</i>
Rent, Rates, &c. :						
Rent to the Crown	1	0	8			
Rent to the Corporation	6	12	6			
Poor Rates, Highway Rates, and Land Tax ...	30	18	4			
Insurance and Water Rent... ..	10	5	0			
				48	16	6
Salaries and Wages :						
Sub-Curator	100	0	0			
Servant	20	0	0			
Lodgekeeper	10	0	0			
Labourer	36	8	0			
Collector	5	0	0			
Occasional Labourers	13	0	0			
				184	8	0
Interest on Debt :						
Interest on Mortgage Debt... ..	100	0	0			
Interest on £1000	40	0	0			
Interest to Bankers for being overdrawn ...	64	13	0			
				204	13	0
Museum, Garden, Grounds, &c. :						
Painting and General Repairs	68	14	2			
Purchase and Preparation of Specimens ...	51	6	6			
Fountain	21	0	0			
Observatory	4	10	6			
Gravel and Leading	9	16	9			
				155	7	11
Library :						
Books and Binding				21	9	0
Incidentals :						
Printing, Advertising, and Stationery ...	24	11	6			
Coals, Gas Light, and Coke... ..	36	5	10			
Postages, Carriage, and Sundries	27	15	0			
				88	12	4
				703	6	9
<i>Extraordinary Expenses.</i>						
China Service for Horticultural Fetes ...				22	3	0
Mr. Addams's Lectures				24	0	0
				4749	9	9

RESOLUTIONS

PASSED AT THE ANNUAL MEETING, FEB. 1, 1842.

1. That the Report of the Council be adopted and printed for the use of the Members.

2. That the cordial Thanks of the Society are due, and are hereby rendered to John Phillips, Esq. F. R. S., and Henry Robinson, Esq. for their long, zealous, and most effective services in the laborious discharge of the important office of Secretaries to the Institution.

3. That the Thanks of the Society be given to the Vice-Presidents and Members of the Council retiring from office ; and to the Treasurer, and also to the Curators of the several departments of the Museum, for their invaluable services.

4. That Lord Feversham be requested to become a Patron of the Society.

5. That this Meeting authorize the Council to present an invitation to the British Association for the Advancement of Science, at its approaching meeting at Manchester, to appoint its meeting for 1843 to be held in York, at any time after the middle of August in that year, provided the Council see reason to believe that subscriptions can be raised, sufficient to justify the Society in guaranteeing the necessary expense.

6. That the Council be authorized to make application to the public authorities in York for their concurrence in the invitation to the British Association for the Advancement of Science.

7. That the Council be empowered, on certain days, to be selected by them, during the present year, to permit free admission to the Museum and Gardens to all persons ; the mode of admission to be regulated by the Council.

8. That the Regulations adopted by the Annual Meetings in 1836, 1837, 1838, 1839, 1840, and 1841, for the Admission of Strangers by the purchase of Tickets, be continued for the present year.

9. That the Resolution of the last Annual Meeting, empowering the Council to authorize the holding one or more Horticultural Meetings in the Society's Gardens, be continued in force during the present year.

10. That the best Thanks of the Society be given to the Chairman and Committee of Management of the Horticultural Fetes held last year ; and that they be respectfully requested to continue their valuable services for the year 1842.

SUBSCRIBING MEMBERS

OF THE

YORKSHIRE PHILOSOPHICAL SOCIETY,

ELECTED IN 1841—42.

1841.

- The Hon. Edwin Lascelles, *Harewood House*.
George Lloyd, Jun. *Eastfield House, York*.
Thomas Laycock, M.D. *York*.
George Ridsdale, *Old Hall, Wakefield*.
Capt. John Bentham, *York*.
William Hartley, *York*.
Joseph Clarke, *York*.
Richard Monckton Milnes, M.P. *Fryston Hall, Ferrybridge*.
William Noton, *York*.

HONORARY MEMBER, ELECTED FEB. 2, 1841.

- Charles Hamilton Wake, *34th Native Infantry East India Company's Service*.

1842.

- Henry Claridge, *York*.
Capt. Graves, *Clifton, York*.
William Gott, *Leeds*.
Alexander Browne, *Beilby Grange, Wetherby*.
Mark Holman Shephard, *York*.

SCIENTIFIC COMMUNICATIONS

TO THE

GENERAL MEETINGS.

MARCH 2, 1841.—JAMES HAMERTON, Esq. of Hellifield Peel, read a Paper on the best methods of planting and procuring Forest Trees, which he illustrated by specimens of different varieties of Timber in their several states of perfection and decay.

APRIL 6.—Observations on a Roman Sepulchral Monument, in the Museum of Newcastle-upon-Tyne, by O'CALLAGHAN, Esq. Assistant-Surgeon, 4th Royal Irish Dragoon Guards.

MAY 4.—Meteorological Observations made at York, by JOHN FORD.

JAN. 4, 1842.—The Rev. JOHN GRAHAM, V. P., read a Paper, containing his own Observations on the Geology of Boulogne-sur-Mer, and the opposite coast of Sussex.

DONATIONS

TO

THE SOCIETY'S MUSEUM.

GEOLOGY.

- Thomas Allis Shells, from the lias of Gloucestershire ;
gervillia and hippopodium ponderosum,
from Tewkesbury.
- Rev. John Graham ... Ammonites, from Boulogne-sur-Mer.
Fragments of large ammonites, from Spee-
ton, Yorkshire.
Specimens of retepore, millepore, and en-
crinites, from a sandstone quarry, near
Harrogate.
- Mr. Hands, (*Micklegate,*
York) Several plants, from the coal formation.
- William C. Hewitson, Esq. Geological specimens, from Madeira.
- Dr. Lee, Hartwell ... Fossils, from the Portland oolite, vale of
Aylesbury.
- William Oldfield, Esq. ... The paddle of a Saurian in lias, from the
Yorkshire coast.
Fossilized wood, from Whitby.
- Mr. Penrice, (*Elmbridge,*
Worcester) Fossils, from Dudley.
- John Phillips, F.R.S., G.S. Geological specimens, from the "Corn-
stone" and "Ludlow rocks," near Usk
and Caerleon.
- Mr. R. Ripley, (*Whitby*)... Belemnites elongatus.
Cast of a Saurian.
- T. Weaver, F.R.S., G.S. 250 minerals and fossils, illustrative of
(*London*) the Silurian Strata of Tortworth, in
Gloucestershire.

MINERALOGY.

- George V. Drury, Esq. A specimen of yellow ochre, from a quarry at Shotover Hill, Oxfordshire.
- Wm. Hobson, Esq. (*York*) Pyrites, in slate.
- Rev. Francis O. Morris, Marbles and minerals, 107 in number. (*Ordsall, Doncaster*)
-

ZOOLOGY.

VERTEBRATA.

- Rev. Sir Robert Affleck, Bart. 56 skins of birds, from New Holland, including twelve parrots, three cockatoos, male rifle bird, bronze-winged pigeon, &c.
(*Dalham Hall, Newmarket, Prebendary of York*)
- Thomas Allis ... Two rose-coloured grosbeaks.
The bones of the elephant; ditto of the tapir; ditto of the nylghau.
A large collection of prepared specimens of the intestines of birds and quadrupeds.
20 bottles or cases, containing reptiles and preparations of other animals, in spirits; skeleton of the woodpecker.
- Mrs. Carter, (*New Brunswick*) *Bombycilla Carolinensis*.
- Philip Davies Cooke, Esq. The alpaca, recently dead.
F.G.S. (*Owston, Doncaster*)
The skeleton of the quagga.
The head of the zebu.
- Charles Jas. Hanson, Esq. 9 British birds.
(*York*)
The skins of a stoat and squirrel.

- Mr. W. Hardman... .. The head of a porpoise.
 W. C. Harland, Esq. M.P. Egg of a goose, containing another smaller
 one, an egg within an egg.
 Thos. Meynell, jun. Esq... Curlew.
 Giles Munby, Esq. ... The following birds : gypaeter, capercail-
 zie, coracias, grouse, creeper, and two
 musk rats.
 Flamingo, glossy ibis, and partridge, from
 Africa.
 Joshua Oldfield, Esq. ... Opossum.
 Mrs. Short, (*York*) ... The skin of a large boa constrictor .

ANNULOSA.

- Thomas Allis Several specimens of British moths.
 Rev. Francis O. Morris ... Several foreign insects.

MOLLUSCA AND ZOOPHYTA.

- Thomas Allis Primnoa lepadifera, from the North Sea.
 Miss Hobson, (*Petergate,* Two cases of Foreign and British shells.
York)
 Dr. Maclagan, Regt. Cavalry Four specimens, three species of Starfish.
 Dépôt, York
 Thomas Meynell, Jun. Esq. Oysters attached to the shell and claw of
 F.L.S. a crab.

 BOTANY.

- Dr. Morris, (*York*) ... A specimen of *Lobelia Urens*.

ANTIQUITIES.

- Matthew Carr, Esq. York An antique head, Roman, in jet, found at York.
- Mr. Danby, York... ... An old carved knife.
- Mr. Etches, York An old ring, found in the garden of the Blue Coat School, York.
- Rev. John Graham, York A Roman urn, from the Railway Station, York.
- Lord Claud Hamilton, M.P. A mummy of an Ibis from Saccara.
- Mr. Hands, Micklegate, York An old carving in wood, date 1666.
- Henry Robinson, Esq. York Four Roman urns found at Clifton, near York, 1841.
A sepulchral urn, supposed to be Roman, found in St. Leonard's Place.
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COINS.

- Rev. Sir Robt. Affleck, Bart. An image of Mercury.
8 Roman coins, consisting of two of Commodus, æ. 1, and æ. 2, and six others.
- John Bayldon, Esq. York Coin of Hadrian, middle brass.
- Mr. Etches, York... ... 1 Roman and several modern coins.
- By command of Her Majesty, the Queen, through Lord Granville Somerset, Chancellor of the Duchy of Lancaster. A collection of coins, found at Cuerdale, near Preston, Lancashire, consisting of coins of Alfred, St. Edmund of E. Ang., Charles le Chauve, Eudes, and Cunnetti.
- Rev. Wm. Taylor, F.R.S. 1 modern coin.
- Rev. C. Wellbeloved ... 16 Roman coins, consisting of two Consular, and various imperial coins.

THE GARDEN.

- John Ronald, Esq. ... 200 plants and shrubs, chiefly American.
Birmingham Botanic Garden 60 herbaceous plants.
Hull Botanic Garden ... 50 herbaceous plants.
Mr. Lowe, (*Clapton*) ... 80 herbaceous plants.
-

MISCELLANEOUS DONATIONS.

- Mr. John Bleckly, York... A fire pipe for striking light.
Godfrey De Burgh, Esq... An inlaid crucifix, from Jerusalem.
William Gray, jun., Esq... A Chinese umbrella.
R. R. Pearce, Esq. ... A carved image, from an old church in Spain.
Mrs. Christopher Wilson, Oxtou Hall, Tadcaster A box containing a number of curious articles from Mexico.
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THE LIBRARY.

- The Society of Arts ... The Transactions of the Society, Part 1, Vol. 53.
The Royal Astronomical Society The Greenwich Observations for 1839.
The Botanical Society of London Report of Society's Proceedings for 1839

- The British Association for the Advancement of Science Report of Association for 1840.
- The Cambridge Philosophical Society Transactions of that Society, Vol. 7, Part 2.
- L. W. Dillwyn, Esq. Swansea His work, "Contributions towards a History of Swansea."
- The Editor The Railroad Quarterly Journal.
- The Geological Society ... Vol. 3, Part 2, of the Society's Transactions.
- William Hobson, Esq. ... Travels in Asia Minor. (Paul Lucas.)
- Charles Howard, Esq. ... Clegg's Book on Gas Lights.
- Dr. Laycock, His Treatise on the Nervous Diseases of Women.
- The Leeds Literary and Philosophical Society Transactions, 1840 and 1841.
- Thomas Meynell, jun. Esq. A beautiful Burmese Manuscript, on papyrus.
- R. I. Murchison, Esq. Pres. Geol. Soc. The Geology of Northern and Central Russia, in Europe, by R. I. Murchison, F.R.S., F.G.S., and E. De. Verneuil, Vice-President de la Société Géologique de France.
The Geology of Kemaon, India, by Dr. M'Clelland.
- The Rev. Thomas Myers, York Experiments on Telescopes, by Peter Barlow, Esq.
- The Royal Society of Edinburgh Transactions of the Society, Vol. 14, Part 2, and Vol. 15, Part 1.
Also, the Proceedings of that Society, 1840-41.
- General Tcheffkine ... Annuaire du Journal des Mines en Russie, 5 vols. 8vo.
- Thos. Weaver, Esq. F.R.S., F.G.S. the author On the Composition of Chalk Rocks, by invisible inorganic bodies.
- The Zoological Society of London The Annual Report for 1841. Also an Account of the Proceedings of that Society, 1840.

THE FOLLOWING ARTICLES WERE PURCHASED
BY THE SOCIETY.

52 Specimens of British Birds, of Mr. Allis.

31 Specimens of British Birds, of Mr. Chapman.

The Skins of the Spider Monkey, the Rough Lemur, the Australasian Opossum and Rat, of Mr. Allis.

93 Species, 391 Specimens of Eggs of Birds, of Mr. Allis.

Also Skeletons of the under-mentioned Animals :—

The Skate, Chameleon, Vampyre Bat, the Jerboa, Red-Crested Parrot, Francolin Partridge, Barn Owl, Sandwich Island Goose, Pomerin Gull, Vulture, Black Swan, Curassow, Nuthatch, Foreign Grosbeak.

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MARCH, 1842.

(Those marked * have compounded for their Annual Subscriptions.)

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Alexander, Lewis, *Halifax.*

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Allen, Oswald, *York.*

Allen, William, *York.*

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Anderson, Robert Henry, *York.*

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* Barber, James Silburn, *Tang Hall, York.*

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- Camidge, John, Mus. D. *York*.
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 * Catton, William, *York*.

- Cattle, Robert, *Grove House, York.*
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 * Cholmeley, Henry Philip, *Brandsby, York.*
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 * Dodsworth, George, *Fulford, York.*
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- * Egerton, Rev. Thomas, F.G.S. *Dunnington, York.*
 * Ellis, Rev. Robert, *Birdsal, Malton.*
 * Ellis, William Joseph, *Harrogate.*
 Ellison, Richard, *Sudbrooke Holme, Lincoln.*
 Elsley, Charles Heneage, *York.*
 Empson, Amaziah, *Spellow Hill, Boroughbridge.*
 Evers, Richard, *York.*
 Eyre, Rev. Charles Wasteneys, *Carlton, Notts.*
- * Feversham, Lord, *Duncombe Park.*
 Fawkes, Francis Hawkesworth, *Farnley, Otley.*
 Fitzwilliam, Earl, F.R.S. F.S.A. *Wentworth House.*
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 Flower, Rev. William, jun. *York.*
 Ford, John, *York.*
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 Fox, George Lane, *Bramham Park, Tadcaster.*
- * Gamlen, Rev. Samuel, *Bossal, York.*
 Garforth, William, *Wiganthorpe, Whitwell.*
 * Gaskell, William, *York.*
 Gastaldi, Charles.
 Gilbert Robert, *York.*

Gilby, Rev. William Robinson, *Beverley*.

Goldie, George, M.D. *York*.

Gooch, Rev. William, *Stainton, Stokesley*.

Gossip, J. Hatfeild, *Hatfield, Doncaster*.

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* Hearon, William Hutchinson, *Fulford, York*.

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Hey, Richard, *York*.

Hey, Rev. William, *Heworth, York*.

Higgins, Godfrey, *Skellow Grange, Doncaster.*

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- Markham, Rev. Henry Spencer, *Clifton, Notts; and Residence, York*.
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- * Mason, Thomas, *York*.
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- Meynell, Thomas, jun. F.L.S., *Clarence Cottage, York*.
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North, William, *York.*

Noton, William, *York.*

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Robinson, Henry, *Clifton, York.*

Roper, Edmund Horsfall, *York*.
 Roper, John, *Clifton, York*.
 Roundell, Richard Henry, *Gledstone Hall, Skipton*.
 Rowntree, Joseph, *York*.
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 Russell, James, *York*.
 * Russell, Henry, *York*.
 Russell, Sir Robert Frankland, Bart. *Thirkleby Park, Thirsk*.
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 Seymour, John, *York*.
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 Shephard, Mark Holman, *York*.
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 Simpson, Green, *York*.
 Simpson, Sir John, *York*.
 Simpson, Thomas, M.D. *York*.
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 * Stapylton, Martin, *Myton Hall, Boroughbridge*.
 Stead, Henry, *The Grange, New Laiths, Leeds*.
 * Stillingfleet, Rev. Edward William, *Hotham, Cave*.
 Stourton, Lord, *Allerton Park, Knaresborough*.
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 Tweedy, John, *York.*
 Tyrconnel, Earl of, F.R.S. F.G.S. *Kiplin, Catterick.*
- Vansittart, Henry, *Kirkleatham, Guisbrough.*
 Vernon, Granville Harcourt, M.P. *Grove, Retford, Notts.*
 Volans, William, *York.*
- Wake, Baldwin, M.D. *York.*
 * Waller, Robert, *Holgate, York.*
 Walker, John, *York.*
 Walker, Thomas, *York.*
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- Wilkinson, Rev. William John, *York*.
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Wilson, Edward, *Clifton, York*.
Wilson, Richard Fountayne, *Melton, Doncaster*.
Wilson, Thomas Wood, *Fulford, York*.
Winn, Thomas, *York*.
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Wood, John, *York*.
Wood, Richard, *York*.
Woodall, George, *Clifton, York*.
Wormald, Richard, *Scarborough*.
Worsley, Sir William, Bart., *Hovingham Hall, Whitwell*.

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- Bean, William, *Scarborough.*
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ROYAL

NAVY

OF GREAT BRITAIN

AND IRELAND

FROM THE

EARLIEST PERIODS

TO THE PRESENT

BY

ADMIRAL LORD BRADSHAW

OF GREAT BRITAIN

AND IRELAND

IN TWO VOLUMES

THE FIRST

AND SECOND

VOLUMES

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IN TWO VOLUMES

THE FIRST

MONTHLY MEETINGS IN 1842—1843.

TUESDAYS.

1842	MARCH	1	1842.	OCTOBER	4
—	APRIL	5	—	NOVEMBER	1
—	MAY	3	—	DECEMBER	6
—	JUNE	7	1843.	JANUARY	3

ANNUAL MEETING, FEBRUARY 7, 1843.

RULES OF ADMISSION

TO THE MUSEUM AND GARDENS.

I. Members of the Society (and Contributors of £15. and upwards to the Building Fund,) have the privilege of personal admission, and of PERSONALLY INTRODUCING Visitors to the Museum and Gardens, at all times when they are open.

II. Members (and Contributors of £50.) have the further privilege of giving to Visitors WRITTEN ORDERS of admission, which must be signed with the name of the Member or Contributor, and bear the name of the Person to be admitted. Such written orders are received at the Lodge every day (Sunday excepted) between the hours of Ten A. M. and Four P. M. in Winter; and Ten A. M. and Eight P. M. in Summer; and must be left with the Lodge-keeper, N. B. *He is forbidden to accept money from Visitors.*

III. LADIES who are admitted by the Council as Annual Subscribers of £1., (or who have contributed £10. or upwards to the Building Fund) have the privilege of personal admission, and of PERSONALLY INTRODUCING LADIES as occasional Visitors.

IV. STRANGERS may obtain (at Mr. Chapman's, Coney-street, and at Mrs. Wilson's, Lendal, near the Museum Gate) ADMISSION TICKETS, price One Shilling for each person; which will entitle them to admittance at all times when the Museum and Gardens are respectively open (Sundays excepted). The tickets must be left at the Lodge.

V. The adult inmates of the FAMILY of a Member (or of a Contributor of £50.) have the privilege of personal admission whenever the Museum and Gardens are open.

VI. Members, and others entitled to personal admission, may obtain a KEY of the Private Entrances to the Garden, on application to Mr. Baines at the Museum, and payment of Five Shillings for the current year; such payment to be due annually in advance on the 1st of January, while the key is retained.

VII. CHILDREN are not to be admitted to the Museum except in the company of a Member or Lady Subscriber, nor to be left in the Garden, except under the care of their Parents, or other responsible person.

VIII. The GARDENS are open daily till dusk. On Sundays there is no admission between the hours of Ten and Twelve. The MUSEUM is open every day (except Sunday) till Dusk.


IX. The Sub-Curator, Mr. Baines, is fully empowered and required by the Council to see these regulations enforced, and to prevent injury to the Garden, Abbey Walls, and other antiquarian monuments.

Workeſhire Philoſophical Society.

ANNUAL REPORT

FOR

MDCCCXLII.



ANNUAL REPORT
OF THE COUNCIL
OF THE
YORKSHIRE
PHILOSOPHICAL SOCIETY,

FOR

MDCCCXLII.

PRESENTED TO THE ANNUAL MEETING,

FEBRUARY 7, 1843.



YORK:

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—
1843.

THE UNIVERSITY OF CHICAGO

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1951

PHYSICS 551

PHYSICS 551 - QUANTUM MECHANICS

LECTURE NOTES

BY ROBERT S. MULLIKEN

LECTURED BY ROBERT S. MULLIKEN

1951

PHYSICS 551 - QUANTUM MECHANICS

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YORKSHIRE PHILOSOPHICAL SOCIETY.

REPORT OF THE COUNCIL

TO THE

ANNUAL MEETING OF THE SOCIETY ON THE 7th OF FEBRUARY, 18 3.

IN presenting their Annual Report, the Council cannot refrain from congratulating the Society on its increasing prosperity.

From the large amount of debt with which it has hitherto had to contend, it has barely been able to devote any portion of its funds to the attainment of those objects for which the Society was originally established, viz. : "the promotion of science in the District for which it has been instituted." The Council are, however, willing to hope that brighter days are in store; and judging from the experience of the two last years, confidently look forward to the time when they will be relieved from those embarrassments which have hitherto beset them.

Former Reports have made the Society acquainted with the manner in which the debt has been incurred: it will only be necessary at the present time to draw the attention of the Meeting to the present state of the Society's finances.

The Balance due to Messrs. Swann & Co., on the 31st of December, 1841, was £1321. 11s. 8d. That balance has been reduced during the last twelve months to £1093. 10s. 11d., being a reduction of £228. 0s. 9d. In addition to this the Society has been called upon to repay to the Executors of the late Mr. Wolstenholme the

sum of £50., lent to it by that gentleman, so that the total debt of the Society has been reduced to the extent of £278. 0s. 9d., or from £5171. 11s. 8d., the amount on the 31st of December, 1841. to £4893. 10s. 11d., the present debt.

Notwithstanding the large reduction in the liabilities of the Society, which the Council have been enabled to effect, amounting, during the last two years, to above £500, they have, owing to several fortuitous circumstances, had it in their power to expend a considerable sum in general repairs, as well as in the construction of New Cases for the Mineralogical Collection, which Collection will forthwith be removed into the Geological room.

A sum of £41. 1s. 9d. has been paid to the Treasurer, by the Managers of the County Ball, held in 1839, the proceeds of which were to be applied to the repairs of the Hospitium. The Council deeming it incumbent upon them to appropriate this sum to the object for which it was intended, entered into contracts for the repairing and laying new joists to support the floor of the upper room, and likewise for glazing the upper windows of the building. When the work, however, came to be entered upon, several other repairs to the walls, &c., were found necessary, which compelled them rather to exceed the amount which was paid to them for the purpose.

As a proof of the increasing interest the public take in the Museum and Grounds, may be mentioned the fact, that nearly two thousand Strangers have during the past year paid for admissions to the Gardens, the proceeds from which, after deducting the attendant expenses, amount to the sum of £86. 1s. 6d. In 1841 the amount received was £63. 14s. 6d. and in the previous year 1840 only £50.

Gratuitous admission was granted to the Public on Whit Monday and Tuesday, when the Gardens and Museum were as usual crowded with visitors; and the Council have the satisfaction of stating that the utmost order and regularity prevailed, and that the Collections were in no wise injured, notwithstanding the crowded state of the rooms.

In accordance with the recommendation of the last Annual Meeting, the Council welcomed the Yorkshire Agricultural Society, by granting to its Members the free use of the Theatre, for the delivery of a lecture by the Curator of the Laboratory, upon Agricultural Chemistry.

The Annual Horticultural Fête, under the judicious Management of a Committee of the Members of the Society, took place on the third of August, and afforded the highest gratification to the inhabitants of the City, as well as to the numerous Country families, who were drawn hither by the Meeting of the Agricultural Society. Favoured by a propitious day, the attendance was more numerous than on any former occasion, and the receipts, after deducting the necessary expenses, amounted to about £115. This casual accession of income has enabled the Council to complete the laying out of the grounds near the Hospitium, and to form the drain there; a work which had long been considered almost absolutely necessary.

In addition to this, the Gardens have been generally improved, and the stock of Plants greatly increased. An improvement has been effected in the Hothouse, by which that building has been made more available to the healthy growth of the valuable Collection of Orchideous Plants, now possessed by the Society, and which has been considerably increased by donations during the past year. Encouraged by the general prospect of the Society's finances, and looking to the continued success of future Horticultural exhibitions, the Council hope to be enabled to render the Gardens still more attractive.

The Geological Collection has been enriched by the donation of several hundred examples of Organic Remains, and the Council have more pleasure in announcing this fact, because these additions are exactly in those parts of the series of Palæozoic organization, which are at this moment of special Geological interest, and which were imperfectly represented in the Cabinets. The contributions to the Silurian series from North America, through the continued kindness of Mr. Jos. Clarke of Cincinnati, are extremely important, and contain many very interesting forms of Polypiaria, Crinoidea, Conchifera, Cephalopoda, and Crustacea. Mr. Hatfield, whose travels into remote parts of the world have always been the means of enriching the Museum, in which he has laboured when at home, has sent a choice selection of Organic Remains from the Silurian, Carboniferous, and Cretaceous groups of the United States, exhibiting on the whole a marked general analogy with the contemporaneous forms imbedded in European Strata, and, at the same time, those lesser differences and variations of structure which are

often observed between both the extinct and the living creations of America and Europe. Taken in connexion with prior contributions from the same regions, by Mr. Wortley, Mr. Stapylton, and the Rev. C. V. Harcourt, with the Norwegian Specimens gathered by Mr. Bilton and Mr. Hatfeild, the student will find in the Yorkshire Museum the means of investigating some of the most general questions at present under discussion, regarding the nature and distribution of the most ancient forms of animal life.

For the same purpose, the large series of Fishes from the Old Red Sandstone of Morayshire, presented by Mr. Stephenson, may be consulted with advantage. Placed only one step higher in the scale of stratification, only one Geological period later, this group of extinct fishes,—Pterichthys, Coccosteus, Cheirolepis, &c.,—has no representative in the older Silurian, nor yet in the more recent Carboniferous rocks; nor, except by distant and faint analogies with existing fishes, can their obscure and mysterious structures be reduced to modern laws of organization, explained by the knowledge acquired through the study of existing animals.

Mr. Weaver has conferred on the Society an additional obligation, by extending the series of specimens from the Tortworth district, so as to make it include the Liassic and Oolitic Strata, as far upward as the Portland Stone. The New Cases just completed will permit an improvement in the exhibition of the Minerals, which has been long desirable, and of expanding to double its present extent the collection of recent Invertebrata.

The Collection of Vertebrated Animals has likewise been enriched by some valuable donations: amongst which may be enumerated collections of the Skins of Birds, from North America by Mr. Hatfeild, from Australia by Mr. James Backhouse, and from South America by the Rev. W. V. Harcourt.

The Collections of Comparative Osteology have been entirely rearranged; the Ornithological Specimens have been placed in the Gallery of the Zoological Room, where they are better displayed and rendered more available to the student, than in the room they previously occupied. The Mammalia and Reptiles have likewise been removed from their former locality, and placed in a more commodious room, where they are exhibited to greater advantage than heretofore. The Council hear with satisfaction that it is the intention of the

Curator of this department, to present the Society with some valuable additions during the ensuing year.

Some additions have likewise been made to the Annulosa, by the presentation of several rare Foreign Insects, by the Rev. Francis Orpen Morris, and to the British Coleoptera, by the Rev. Wm. Hincks. The Collection of Foreign Insects has been entirely rearranged, and named, as far as the Books to which the Curator has had access, have enabled him; and the Collections generally are in a good state of preservation.

But that which specially claims the notice of the Society, is the donation of a valuable Collection of British Crustacea, from S. Hailstone, Esq. This Collection was formed by his son, the late Samuel Hailstone, Jun., Esq., and, at the particular request of the donor, is to be preserved as a distinct Cabinet, under the denomination of the "Hailstone Collection," as a just tribute the memory of the Collector. To the Collection of Mollusca and Zoophyta, several donations have also been received.

In the Botanical department, the diligent Curator of British Botany has been engaged in completing the arrangement of the British Herbarium. This is in a good state of preservation, and he confidently hopes to be enabled during the present year, to render this portion of the Museum available to the instruction of those who are practical admirers of our indigenous Flora.

In speaking of this department, your Council are painfully reminded that, within the last few weeks, the Botanists of this country have lost from amongst their number one of the most indefatigable and distinguished private Naturalists of the last half century;—the friend of the late Sir James Edward Smith and of Professor Hooker, and one of the founders of the Society's Botanical Collection. The large and valuable Herbarium, containing many Specimens from the Authors of the English and British Floras, is a sufficient monument to the merits, as a naturalist, of the late Rev. James Dalton, of Croft: and the Council have the pleasure of stating, that through the liberality of his son, J. Dalton, Esq., the Collection of Lichens of his late lamented Father, is now presented to the Society's Museum. The Society has likewise to regret the loss of W. Middleton, Esq., one of the earliest contributors to the Botanical Collection.

The additions to the Antiquarian Collections have consiste

chiefly of coins; distinguished indeed by their number, but not in general by any great intrinsic value or rarity. Some however are undoubted remains of Eboracum. The most interesting are a very small portion of a vast hoard of Northumbrian Stycas, accidentally discovered in the month of April last, by some workmen employed in the erection of the De Grey Rooms, in St. Leonard's Place. They had probably been enclosed in a wooden box and buried near the foot of the rampart of the Roman Wall; but the wood had perished, and the coins were at first scarcely to be distinguished from the surrounding earth. As usual in such cases they quickly became the prey of the workmen, and were dispersed. Several hundreds have happily been recovered and rendered legible by the persevering zeal of Mr. John Browne. Of these an accurate descriptive Catalogue, will, it is hoped soon be completed, containing some very curious matter relating to this peculiar ancient coinage of the North, to which in consequence of recent discoveries, especially that at Hexham, the attention of Numismatists is now earnestly directed. It is much to be wished that arrangements could be made by which this portion of the hoard might be retained in York, and deposited in the Museum, amongst the few relics of "Eoferwic," where probably many of these coins were minted. The original deposit is supposed to have contained more than 5000 Stycas, and appears to have been made later than that at Hexham, as the series of kings extends lower, probably to the middle of the ninth century. It is with sincere pleasure the Council have to notice the publication by the Curator of this department, of the result of his diligent researches into the history of Roman York,—a work which was undertaken at the special request of the Council, and which not only embodies, in lucid order, all the authentic information now attainable, regarding the traces of Roman sway in "Eburacum," but sheds over many previously unconnected facts, the light of extensive learning and philosophical reasoning.

The different learned Societies continue to supply the Library with their valuable Transactions; and several other interesting works have been presented to it. The Council cannot however but regret the absence of many scientific Works, the want of which is severely felt by the Curators of the several departments, during their labours.

The Laboratory has been greatly improved under the manage-

ment of its Curator, who, with the permission of the Council, has continued his Lectures therein to the York School of Medicine, He has likewise delivered a series of highly interesting Lectures on Chemistry, in the Theatre of the Museum, to which the Members of the Society were almost gratuitously admitted;* and the Council feel assured that had they been able to give sufficient publicity to this fact, previous to the commencement of the course, the interesting nature of the subject, and Mr. Barker's well known talents as a lecturer, would have ensured a more numerous audience. Mr. Addams was likewise engaged by the Council, and delivered three most interesting lectures on the Electric Telegraph of Professor Wheatstone and on the Solidification of Carbonic-Acid Gas.

The Observatory has undergone several repairs during the past year; the usual Observations have been persevered in with diligence, and several interesting phenomena noted. A new Barometer and Thermometer have been placed therein by the liberality of the Curator, who contemplates the delivery of a few Lectures in the course of the present year, the proceeds to be applied in improving the instrumental power of the Observatory.

Following out the suggestions of the Council, as contained in the last Report, the Curator of Meteorological Instruments has made thirty-six Horary Observations, during the Vernal and Autumnal Equinoxes, and the Summer and Winter Solstices; and M. Quetelet, of Brussels, has confessed the importance of them, in a letter addressed to the Council, in acknowledgement of the receipt of those for the Vernal Equinox. From these observations the following results have been deduced, viz.:

Vernal Equinox, Mean of 24 Obs,	36.°79	occurring bet. 8 and 9 A.M. and 7 & 8 P.M.
Summer Solstice 24	61.°87	7 and 8 A.M. and 6 and 7 P.M.
Autumnal Equinox 24	48.°00	at 10 A.M. and at 7 P.M.
Winter Solstice. 24	49.°33	between 10 and 11 A.M. and not again.

The Curator has likewise continued his register of the Meteorological Phenomena at York, of which the subjoined Table gives the annual results:—

* 2s. 6d. only being charged by the Council for a ticket of admission to the twelve lectures, to defray the cost of lighting, attendance, &c.

METEOROLOGICAL REGISTER—YORK, 1842.

	Barometer.			Rain. Inches.	Thermometer.						Nights at or below 32°.	Rainy days, more or less.
	Mean.	Highest.	Lowest.		Mean Maximum.	Mean Minimum.	Mean Temperature.	Highest Range.	Lowest.			
Jan.	30.04	30.57	28.76	2.20	34.5	27	30.7	40	6	29	7	
Feb.	29.94	30.55	29.16	.64	42.7	30.9	36.8	53	25	20	8	
March	29.85	30.34	29.22	2.15	48.9	35	41.9	55	30	12	16	
April	30.18	30.46	29.24	.39	55.7	33	44.5	66	23	17	2	
May	29.94	30.56	29.19	2.39	61.4	42	51.7	69	35	0	16	
June	30.07	30.41	29.50	1.91	68.6	48.9	58.8	76	40	0	8	
July	29.98	30.43	29.60	3.32	66	49	57.5	74	40	0	9	
Aug.	30.09	30.68	29.68	1.86	71	53.3	62	82	41	0	10	
Sept.	29.86	30.34	29.32	2.73	62.6	47	54.8	69	38	0	15	
Oct.	29.92	30.47	28.95	.93	50.2	36.5	43.3	62	27	10	6	
Nov.	29.65	30.50	28.80	2.83	44.9	35.2	40	56	30	10	17	
Dec.	30.00	30.47	29.30	.42	48.6	38.1	43.4	58	27	9	11	
	29.96			21.77			47.1			107	125	
	Mean height for the Year.			Total Rain.								

At the last Annual Meeting, the Council were authorized to present an invitation to the British Association for the advancement of Science, to hold their Meeting for 1843, in this City, provided they saw reason to believe sufficient money could be raised for defraying the attendant expenses. In compliance with this resolution, the Council lost no time in making application to the Members of this Society and to the Friends of Science connected with the County, for their support, and finding that ample funds might be depended upon, they appointed a deputation of their body to attend, and present the invitation to the Meeting at Manchester. The invitation was presented, but owing to urgent solicitations on the part of the inhabitants of Cork, the Association determined that its next Annual Meeting should be held in that City. The Council, however, have strong reason to hope, that should the present Meeting authorize them to renew their invitation, for the Association to meet in York in 1844, that body will be induced to accept it; and we shall once more have the high honor and gratification of welcoming within our walls, a Society which had its origin amongst us, and which may now be justly considered as the first and most influential body of Naturalists and Philosophers the world can boast.

THE

TREASURER OF THE YORKSHIRE PHILOSOPHICAL SOCIETY,

IN ACCOUNT FOR THE YEAR 1842.

Dr.		Cr.
1842.	£. s. d.	1842.
Annual Subscriptions and Arrears	580 0 0	Permanent Debt, viz. £. s. d.
Admission of New Members	85 0 0	Yorkshire Insurance
Donation from Miss Lloyd	20 0 0	Company
Ladies' Subscriptions, and Keys of the Garden	50 10 0	Wm. Gray, Esq.
Tickets at 1s. each	86 1 6	Seven Members at 50l.
Rents	107 9 6	
Use of Tent	15 0 0	Balance overdrawn
Proceeds of the County Ball, 1839, for the repairs of the Hospitium	41 1 9	Messrs. Swann & Co.
Horticultural Exhibition	117 5 11	Dec. 34, 1841.
Mr. Addams's Lectures	13 9 0	Crown Rents
Mr. Baker's Lectures	3 5 0	Corporation Rents
Ninety copies of "Guide to the Museum"	1 17 6	Insurance
Gas for Evening Meetings	1 10 0	Gate Keeper
Dec. 31st		Collector
Permanent Debt, viz. £. s. d.		Interest
Yorkshire Insurance		Sub-Curator, on account
Company	2500 0 0	
William Gray, Esq.	1000 0 0	
Six* Members at 50l.		
each	300 0 0	
Balance overdrawn	3800 0 0	Sundry Bills, viz.
Messrs. Swann & Co.		New Cases
31 Dec., 1842.	1093 10 11	Tables for Tent
		Maclean
		Mr. Addams
		Wilson & Son
		Cluderay
		J. Bowes
		R. Hartley
		W. Hill
		York Gas Company
		Turner
		Akeroyd
		T. Noton
		Brown
		Sundry small Bills
	£6016 1 1	
		424 15 6
		£6016 1 1

* £50. having been paid to the
Executors of the late Mr. Wol-
stenholme.

Audited 7th Feb., 1843.

T. ALLIS.

ANALYSIS OF DISBURSEMENTS

DURING THE YEAR 1842.

ORDINARY EXPENSES.

	£.	s.	d.	
Rent, Rates, &c. :				
Rent to the Crown	1	0	5	
Rent to the Corporation	6	12	6	
Poor Rates, Highway Rates, and Land Tax	29	12	7½	
Insurance and Water Rent	11	0	0	
				48 5 6½
Salaries and Wages :				
Sub-Curator	100	0	0	
Servant	20	0	0	
Lodgekeeper	11	0	0	
Labourer	36	8	0	
Collector	5	0	0	
Occasional Labourers	17	1	0	
				189 9 0
Interest on Debt :				
Interest on Mortgage Debt	100	0	0	
Interest on £100	40	0	0	
Interest to Bankers for being overdrawn	46	1	0	
				186 1 0
Museum, Gardens, Grounds, &c :				
Painting and General Repairs	97	14	10½	
Purchase and Preparation of Specimens	16	10	0	
Observatory	8	5	0	
				122 9 10½
Library :				
Books and Binding				7 10 6
Incidentals :				
Printing, Advertising, and Stationery	34	12	0	
Coals, Gas Light, and Coke	33	15	6	
Postages, Carriage, and Sundries	14	19	11	
				83 7 5
				637 3 4

EXTRAORDINARY EXPENSES.

Mr. Addams's Lectures	17	15	4	
New Cases in the Geological Room	65	0	0	
Tables for the Tent	45	0	0	
Cupboards in the Council Room	4	3	10	
Cases for the Antiquarian Collection	12	12	0	
Hospitium Repairs	62	14	11	
				207 6 1
				£844 9 5

RESOLUTIONS

PASSED AT THE ANNUAL MEETING, FEB. 7, 1843.

Resolved, that Joseph Clarke, Esq., of Cincinnati, and Thomas Weaver, Esq., F.G.S., of London, be elected Honorary Members of the Society.

1. That the Report of the Council be adopted and printed for the use of the Members.

2. That the Council be authorized to present an invitation to the British Association for the Advancement of Science, at its next Meeting, to appoint its meeting for 1844 to be held in York.

3. That the Thanks of the Society be given to the Vice-Presidents and Members of the Council retiring from office.

4. That the Thanks of the Society be given to the Treasurer and Secretary for their valuable services.

5. That the Thanks of the Society be given to the Curators for their diligent and useful services in the several departments of the Museum.

6. That the Council be empowered, on certain days, to be selected by them, during the present year, to permit free admission to the Museum and Gardens to all persons; the mode of admission to be regulated by the Council.

7. That the Regulations adopted at the last seven Annual Meetings, for the admission of Strangers by the purchase of Tickets, be continued for the present year.

8. That the Resolution of the last Annual Meeting, empowering the Council to authorize the holding one or more Horticultural Meetings in the Society's Gardens, be continued in force during the present year.

9. That the best Thanks of the Society be given to the Chairman and Committee of Management of the Horticultural Fête held in August last; and that they be respectfully requested to continue their valuable services for the year 1844.

SUBSCRIBING MEMBERS

OF THE

YORKSHIRE PHILOSOPHICAL SOCIETY,

ELECTED IN 1842—3.

1842.

Thomas Henry Travis, *York.*
Arthur Symonds, *York.*
James Hack Tuke, *York.*
Thomas Winn, *York.*
Charles Wilkinson, *York.*
Hon. William Stourton, *Holdgate Lodge, York.*
Captain R. M. Darnell, *Clifton Grove, York.*
Francis Whaley Harper, *York.*
Abraham Braithwaite, *York,*
J. Walker, *Mountville, York.*

1843.

Rev. Thomas Billington, *York.*
Abraham Bower, *Middlethorp Hall, York.*
Edward Harper, *York.*
Joseph King, *York.*
Joshua Oldfield, *York.*
Rev. Charles Payton, *York.*
Henry Sotheran, *York.*
Robert Sunter, *York.*
Thomas K. L. Walker, *York.*

SCIENTIFIC COMMUNICATIONS

TO THE

GENERAL MEETINGS.

APRIL 5th, 1842.—Horary Observations of the state of the Barometer, Thermometer, direction of the Wind, and state of the Weather on the 21st and 22nd of March, 1842; with a diagram of the Barometrical and Thermometrical Curves during the period of the Observations. Also, a General Meteorological Report for York, for the year 1841; and some general remarks on the mode of recording Meteorological Observations, by JOHN FORD.

OCTOBER 4th.—A Communication from Professor PHILLIPS, containing an account, of 24 Meteors or Shooting Stars observed by him at Malvern, on the 9th of August last.

JAN. 3rd, 1843.—Meteorological Observations made at Huggate, in 1841, by the Rev. T. RANKIN.

DONATIONS
TO
 THE SOCIETY'S MUSEUM.

GEOLOGY.

- Jos. Clark, Esq., (*Cincinnati*) Crinoidea, corals, shells, and crustacea, from the Silurian Strata of Cincinnati, including *isotelus gigas*, *actinocrinus simplex*, *triarthrus bechei*, *orthis callactis*, *strophomena alternata*, &c.
- Thomas Weaver, Esq., F.G.S. Second large series of specimens from the Tortworth district; including specimens of rocks and fossils from the lias and oolitic series to the Portland rock.
- Samuel Hailstone, Esq., F.L.S. Scales of *megalichthys* in cannel coal from Wigan.
- Henry Philip Cholmely, Esq. Fossil wood (coniferous) from the sandstone associated with oolite, at Bransby.
- William Hatfeild, Esq., F.G.S. Crustacea, shells, corals, &c., from the Silurian carboniferous and more recent strata of the United States, including *euripterus*, *homalotus*, &c.
- Rev. Francis Orpen Morris .. Series of specimens from the lias and oolites of the south of England, including *pentacrinites*, *pleurotomaria*, *astarte*, *modiola*, *terebratula*, *ammonites*, &c., from Dundry, and fishes from Lyme Regis (73 specimens).
- Roland Stephenson, Esq. Series of (62) specimens of fossil fishes from the old red-sandstone of Morayshire, including *cocosteï*, *cheirolepidæ*, *pterichthys*, &c.
- T. Meynell, Jun., Esq., F.L.S. *Spatangus hemisphæricus* from Sussex.
- D. Priestman, Esq. Fine specimen of fossil wood from the lias.
- Mr. Henry Baines Fossils from the tertiary bed of Bridlington.
- J. Phillips, Esq., F.R.S., G.S. Specimens of wood and marl from the bog near which some of the sulphuretted springs of Harrogate rise.

MINERALOGY.

- James Backhouse, Esq. Various minerals from Australia.
T. Meynell, Jun., Esq. F.L.S. Elastic bitumen from Derbyshire; iron pyrites
from Sussex.
Thomas Backhouse, Esq. Carbonate of iron.

ZOOLOGY.

VERTEBRATA.

- James Backhouse, Esq. Wombat and 4 other quadrupeds, 4 reptiles,
23 birds, 1 flying fish, part of a saw-fish, from
Australia.
Rev. W. V. Harcourt, F.R.S. Skins of birds, from South America.
Lieut. C. Rudston Read, R.N. Skins of birds, from Australia, China, &c.
Mr. Thomas Allis The guan, from Australia.
Mr. William Holder (*Hull*) Skull of the polar bear.
Rev. F. Orpen Morris 190 eggs of British birds
Thomas Sutton, Esq. Solitary snipe, shot at Fulford, 1842.
R. Denison, Esq. Dotterell.
John Henderson, Esq. Large specimen of the pike (*esox lucius*), from
Castle Howard.
Silburn Barber, Esq. Hooded crow.
Samuel Hailstone, Esq. Specimens of several British fishes, jaws of
sharks, and eggs of sharks and skates.
William Hatfeild, Esq., F.G.S. 82 skins of birds from North America.

ANNULOSA.

- Rev. F. Orpen Morris 80 Foreign insects.
Rev. James Wake (*Hedon*) 2 specimens of locust (*L. migratoria*), taken in
Holderness, in 1842.
Rev. William Hey 18 species of British Coleoptera.
Samuel Hailstone, Esq., F.L.S. Fine and extensive collection of British crus-
tacea, formed by the late S. Hailstone, Jun.,
Esq. (*The Hailstone Collection.*)

MOLLUSCA AND ZOOPHYTA.

- James Backhouse, Esq. 5 starfish and Crustacea, from Australia.
Mrs. Davies Echinus and ophiura.

- T. Meynell, Jun. Esq., F.L.S. Echinus miliaris and chiton, from Seaton.
 Lieut. C. Rudston Read, R.N. Spondylus varius (very rare), and cypræa argus
 (rare), from China.
 Rev. F. Orpen Morris A lizard in spirits.
 R. A. Tudor, Esq. (*Liverpool*) 80 species of zoophytes.
 Green Simpson, Esq. Asterias.

BOTANY.

- Sarah & Isaac Bass (*Brighton*) A volume, containing a collection of algæ, from
 the coast of Sussex.
 Oswald Allen Moore, Esq. *Barbaræa stricta* (Clifton Beck), *rumex aqua-*
ticus (Clifton Ings), *potamogeton planta-*
gineus (Ditch near Heslington.).

ANTIQUITIES.

- Rev. Charles Wellbeloved . . A celt, from Ireland.
 John Bayldon, Esq. Impression of an ancient seal of the Merchants'
 Company of York, found in the ruins of
 Shap Abbey.
 G. Brown, Esq. 2 cannon balls, from a bastion in Walmgate
 Bar Walls.
 Mr. Cooper A horse-shoe and pair of shears, dug up from
 a drain in Coppergate.

COINS.

- Rev. F. Orpen Morris †. 250 various coins.
 Rev. Charles Wellbeloved. 3 Roman and 1 Saxon coin, 70 stycas recently
 found in St. Leonard's Place, a forty-shilling
 piece of William iii, and 1 shilling of Eliza-
 beth, medal found in the Asylum Garden.
 J. Prest, Esq. 2 Roman coins.
 G. Hobson, Esq. A large number of coins, chiefly Roman. Se-
 veral provincial pence and half-pence.
 Mr. John Bleckley Styca of Ethelred.
 Robert Davies, Esq. Denarius of Commodus, medal in bronze of
 Mr. Carrington, chairman of the Aylesbury
 railway company.

GARDEN.

Mr. Lowe (<i>Clapham</i>).....	78 orchideous, stove, and hardy plants.
Mr. Barratt, (<i>St. John's, Wakefield</i>)	30 plants.
Miss Tweedy	Several plants.
Mr. John Bleckley	Standard rose trees.
Wm. Oldfield, Esq.	4 loads of manure.
J. F. Browne, Esq.....	5 loads of manure.

MISCELLANEOUS DONATIONS.

James Backhouse, Esq.	Skull of a native of Australia, various barks and gums from Australia.
Rev. Wm. Taylor	Model of the new roof of the choir of York Minster, scale $\frac{1}{4}$ inch to a foot.
Wm. Gray, Jun., Esq.	Several articles of chemical and pneumatic apparatus.
Mrs. Wilson (<i>Oxton Hall</i>) ..	Ornamented wooden bowl and two cups, 2 basins and teapot of alabaster, belt, pouch, and beads, of the North American Indians.
Rev. F. O. Morris	Various curiosities from North America.
G. Hobson, Esq.....	Sulphur casts.

LIBRARY.

The Society of Arts	The Transactions of the Society, vol. 53, part 2.
The Royal Astronomical Society	The Greenwich Observations for 1840.
The British Association for the Advancement of Science ..	Report of the Association for 1841.
The Cambridge Philosophical Society	Transactions of the Society, vol 6, part 1 and 2. vol. 7, part 1, 2, 3.
Geological Society	Proceedings of the Society.
Manchester Philosophical Society	Memoirs of the Society, vol. 6, N. S.
Natural History Society of Northumberland	Annual Reports for 1834, 1835, 1836, 1838, 1840, 1841. Catalogue of the Generic Types of the Class Aves, with list of Desiderata.
Royal Society of Edinburgh ..	Transactions of the Society, vol. 15, part 2. Proceedings of the Society.
Royal Cornwall Polytechnic Society	Ninth Annual Report.

- Scarbro' Philosophical Society Twelfth Annual Report.
- Sheffield Literary and Philosophical Society Nineteenth Annual Report.
- Shropshire Natural History Society Annual Report.
- Zoological Society of London Report and Proceedings of the Society for 1842.
- R. I. Murchison, Esq., Pres. Address delivered at the Anniversary Meeting of the Geological Society. Address delivered at the first Meeting of the Dudley and Midland Geological Society.
- R. Kilvington, Esq. (*Philadelphia*) Transactions of the Pennsylvania Horticultural Society, with its Constitution and Bye-laws.
- Wm. Hatfield, Esq., F.G.S. .. 2 Reports to the State Assembly of New York.
- Mrs. Maude Additional Notes to Maude's Visit to the Falls of Niagara in 1800, with Portraits of the Author, and View of Moor House, his residence.
- S. Hailstone, Esq. Malacostraca Podopthalma of Leach. Paper on some species of Crustacea, by S. Hailstone, Jun., Esq., with Notes, by Westwood. From the Mag. Nat. Hist.
- Dr. Mantell, F.G.S. (*the Author*) Memoir on Fossil Reptiles of the South of England.
- Rev. D. Williams (*the Author*) Memoir on the Devonshire Strata.
- J. Phillips, Esq., F.R.S., &c. (*the Author*) On the Palæozoic Fossils of Devonshire and Cornwall. On the occurrence of Shells and Corals, &c., in conglomerate at Malvern.
- J. Hogg, Esq. (*the Author*) .. Remarks on the Horny Sponges, &c., from the Mag. Nat. Hist.
- W. D. Fitton, Esq., M.D. (*the Author*) Review of the Silurian System.
- M. Jobert (*joint Author*) Recherches sur les Ossements Fossils du Puy de Dôme, par Croizet et Jobert.

THE FOLLOWING WORKS AND ARTICLES

HAVE BEEN PURCHASED BY THE SOCIETY.

- "Eburacum," by the Rev. C. Wellbeloved.
- "Monographia Anoplurorum Britanniaë, by H. Denny, Esq.
- Shells, Dresses, and Warlike Instruments from the South Sea Islands.
- 20 Boxes of Foreign Lepidoptera.
- 2 Swords found in digging the foundations of York Castle. Curious set of ancient Weights and Scales.

21 MAY 1954

Yorkshire Philosophical Society.

ANNUAL REPORT

FOR

MDCCLXIII.



ANNUAL REPORT
OF THE COUNCIL
OF THE
YORKSHIRE
PHILOSOPHICAL SOCIETY

FOR

MDCCCXLIII.

PRESENTED TO THE ANNUAL MEETING

FEBRUARY 6, 1844.

YORK:

RICHARD BURDEKIN, 16, HIGH-OUSEGATE.

1844.

TRUSTEES
OF
THE YORKSHIRE MUSEUM,
APPOINTED BY THE ROYAL GRANT.

HIS GRACE, EDWARD, LORD ARCHBISHOP OF
YORK.

GEORGE, EARL OF CARLISLE, K.G.

CHARLES WILLIAM, EARL FITZWILLIAM, F.R.S.,
F.S.A.

THOMAS PHILIP, EARL DE GREY.

HON. AND VERY REV. HENRY HOWARD, D.D.,
DEAN OF LICHFIELD.

SIR WILLIAM LAWSON, BART., F.S.A.

FRANCIS CHOLMELEY, ESQ., F.S.A.

ROBERT DENISON, ESQ.

REV. WILLIAM VERNON HARCOURT, F.R.S.

WILLIAM HATFEILD, ESQ., F.G.S.

RICHARD JOHN THOMPSON, ESQ.

PATRONESSES

OF

The Yorkshire Philosophical Society.

HER MAJESTY THE QUEEN.

HER ROYAL HIGHNESS THE DUCHESS OF KENT.

PATRONS.

HIS GRACE THE ARCHBISHOP OF YORK.

EARL OF CARLISLE, K.G.

EARL FITZWILLIAM, F.R.S.

EARL OF TYRCONNEL, F.R.S.

THE VISCOUNT MORPETH.

THE LORD STOURTON.

THE LORD WHARNCLIFFE.

THE LORD FEVERSHAM.

THE LORD WENLOCK.

OFFICERS OF THE SOCIETY, 1844.

PRESIDENT:

EARL FITZWILLIAM, F.R.S.

VICE-PRESIDENTS:

REV. STEPHEN CREYKE.

REV. THOMAS EGERTON, F.G.S.

CHARLES HENEAGE ELSLEY.

REV. WM. VERNON HARCOURT, F.R.S.

WILLIAM HATFEILD, F.G.S.

SIR J. V. B. JOHNSTONE, BART, M.P.

JOHN HENRY LOWTHER, M.P.

REV. CHARLES WELLBELOVED.

TREASURER:

ROBERT DAVIES, F.S.A.

COUNCIL:

Elected 1841....REV. WILLIAM HEY.

Elected 1842....JAMES ALLEN,

JOHN PHILLIPS, F.R.S., F.G.S.

HENRY ROBINSON,

WILLIAM WHYTEHEAD.

Elected 1843....JAMES BARBER,

CAPTAIN BENTHAM,

REV. JOHN KENRICK.

Elected 1844....REV. W. B. COOKE,

GEORGE GOLDIE, M.D.

WILLIAM GRAY, JUN.

THOMAS HENRY TRAVIS.

SECRETARY:

THOMAS MEYNELL, JUN, F.L.S.

C U R A T O R S .

NATURAL HISTORY DEPARTMENT:

GEOLOGY	..	..	J. PHILLIPS, F.R.S., F.G.S.
MINERALOGY	..	..	W. HATFIELD, F.G.S.
ZOOLOGY—VERTEBRATA	..	..	REV. WILLIAM HEY.
		..	T. MEYNELL, JUN. F.L.S.
		..	T. MEYNELL, JUN. F.L.S.
MOLLUSCA AND		}	*
ZOOPHYTA			
COMPARATIVE ANATOMY	..	..	THOMAS ALLIS.
BOTANY	..	..	OSWALD ALLEN MOORE.

ANTIQUITIES	..	..	REV. C. WELLBELOVED.
LIBRARY and MSS.	..	..
LABORATORY	..	..	T. H. BARKER.
OBSERVATORY	..	..	W. L. NEWMAN, F.R.Ast.S.
METEOROLOGICAL INSTRUM.	..	..	JOHN FORD.

SUB-CURATOR OF THE MUSEUM:

HENRY BAINES.

* Those departments for which no Curators are specially named, are considered to be under the direction of the Secretary and the Curator.

YORKSHIRE PHILOSOPHICAL SOCIETY.

REPORT OF THE COUNCIL

TO THE

ANNUAL MEETING OF THE SOCIETY, ON THE 6th OF FEBRUARY, 1844.

THE Council, acting under the direction of the last Annual Meeting, repeated the invitation from the Yorkshire Philosophical Society to the British Association for the Advancement of Science, when assembled at Cork, to hold its next Meeting in this City; and they have great pleasure in announcing that the invitation was accepted, and that the Society will, in September next, again have the honour of witnessing, within the City of York, the assembling of that learned body. This event, so earnestly desired by the Council, must necessarily have a most beneficial influence on this Society, by stimulating its members to renewed exertion, and thus raising it to a still more elevated position in the scale of science and utility.

To render the Museum as attractive as possible, and interesting to the numerous scientific visitors who may be expected to attend the meeting, the Council have considered it highly important to complete, as far as possible, the arrangement of the different Collections previous to the month of September. For this purpose, several alterations in the interior of the Museum have become necessary, more particularly the re-opening the communication between the Library and the late Mineralogical Room, and the completing the side cases in that Room, for the reception of the splendid Collection of Comparative Osteology, which is at present so imperfectly exhibited. It has also been determined to place drawers underneath the new centre cases in the Geological Room, for the arrangement of the Foreign and British Rock Specimens, which will thus be easily referred to; and to fit up the spare Room

in the upper part of the building, for displaying to more advantage the numerous Roman Antiquities connected with the ancient history of the City of York,

These alterations, however, could not be undertaken without incurring considerable expense, but the Council did not hesitate to enter upon them. The most rigid economy having been exercised for the last few years, a great reduction has taken place in the amount of the Society's debt, and there is now a considerable surplus in the ordinary annual receipts over the expenditure, which may be applied to the purpose of these improvements.

It will likewise be advisable for the Council to purchase a certain number of Specimens, in order to complete some of the most interesting groups, and supply several vacancies, which it is not probable the Society can otherwise fill up.

It could not be expected that, with the limited funds at its disposal, the Society could undertake to defray the heavy expenses which will be incurred in receiving the British Association. The Council, therefore, prepared a circular letter, which they addressed to the principal gentlemen in the county, soliciting contributions for that purpose; and they are happy to state that the amount already received renders it certain that no loss will be sustained by the Society. The appeal which the Council has made to the County of York, has indeed been every where most favourably received, and they cannot allow this opportunity to pass without returning their thanks to their numerous friends, who have so generously come forward to their support, at a time when so many calls of a more pressing nature are being made upon them.

An Act was passed during the last Session of Parliament, to exempt Scientific Societies from the payment of all local rates. This Act came into operation in October last, and the Council lost no time in taking the necessary steps to enable the Society to avail itself of this exemption. The Society will therefore in future be relieved from the payment of a tax which has pressed very heavily upon it, amounting to a sum little short of £30. per annum, or nearly 5 per cent. upon its ordinary annual income.

In presenting a statement of the accounts of the Society for the past year, the Council have little to remark. The receipts are almost entirely confined to the usual sources of income, and the

ordinary expenditure has been somewhat increased by certain repairs which it has been found necessary to effect. Seventy-five pounds have been expended in extra works; and a donation of £10. has been made towards presenting a testimonial to Mr. A. Ryland, of Birmingham, for his services in obtaining the Act of Parliament before mentioned. Notwithstanding this extra expense, the balance against the Society at its bankers has been further reduced to a small extent, and now amounts to the sum of £1064. 16s. 2d.

Whilst on the subject of finance, the Council cannot refrain from adverting to the splendid bequest which has been made to the Society by their late esteemed Vice-President, Dr. Beckwith. This Princely Legacy, which in conjunction with his other liberal bequests will render the name of Dr. Beckwith revered as the greatest benefactor to the charities and public institutions of the City of York, will go far towards relieving the Society from those difficulties under which it has laboured ever since its first formation; although in accordance with a stipulation in the will, the legacy is not to be applied to the payment of any part of the heavy debt of the Society. At the special request of Dr. Beckwith, the income arising from this legacy is, in the first place, to be expended in building a house upon the Society's property, as a residence for the Sub-Curator. This outlay is very desirable, as the rooms at present occupied by him are from their situation extremely damp and unhealthy; and the Council have only been deterred from undertaking it hitherto, by the expense which a suitable building would entail. It will be hereafter the duty of the Council, in the appropriation of this increase of income, to render the Museum and Gardens as interesting as possible to the members and the public.

The money received for tickets of admission to the Gardens and Museum during the past twelve months, has not been quite equal to the amount of the previous year; but the small deficiency is less than might have been expected, considering the unprecedented depression under which the trade of the country has of late laboured.

On Whit-Monday and Tuesday, the Gardens and Museum were as usual, thrown open to the Public, and visited by a large concourse of persons. The Officers and Privates of the Yorkshire Hussars were likewise permitted to have free access to the Museum, during the period of their service in York.

Much inconvenience has at times been experienced by the Council from not having the power to admit persons during their temporary residence in the City, to the Garden and Museum, on the payment of a reasonable sum for the privilege thus granted. The Council have therefore agreed to submit a resolution to the meeting, to authorize them to admit such residents as temporary subscribers.

The Horticultural Fête was held on the 26th of August, on which occasion the display of Fruit and Flowers was superior to that of any former exhibition.

The Council have deemed it expedient to add to the Gardens the ground lying immediately below the Observatory; and they hope that thus a suitable situation may be found for a scientific arrangement of Plants, which has long been wanted.

In the Geological department, the Collections have been increased by a few purchases, and some interesting donations; but the attention of the Council has been called by Professor Phillips, to the advantage which would arise from enlarging this part of the Museum, by the addition of *one* complete series of all the species of Invertebral Fossil remains, yet discovered in Yorkshire. For the purpose of this new arrangement, the long table-case in which the Minerals have recently been placed, has been surmounted by stages under glass. To furnish any great proportion of the large number of select specimens proper for the systematic arrangement of the Invertebral Fossils, the present Collections are inadequate, as they contain but few choice duplicates; but by application to several friends of the Society, resident on the coast, and by purchases to a moderate extent, upon a regular plan, the Council hope to make good progress in this undertaking, previous to the meeting of the British Association.

The Collection of Minerals has been entirely re-arranged in the new cases in the Geological Room, and enriched by a splendid donation from the late Dr. Beckwith, including not only many specimens not previously possessed by the Society, but also a Collection of Gems, of such intrinsic value, as has seldom been received at one time by any similar public Institution.

To the Collection of Vertebrated Animals, fifty-three birds from Trinidad, in beautiful condition, have been added by Wm. Hatfield, Esq.; and Mr. James Backhouse has presented several Lizards and

Snakes, from Australia. A competent person has been employed to set up the numerous skins of Foreign Birds in the possession of the Society, previous to a complete new arrangement of the whole.

The additions to the collection of Comparative Osteology consist of twenty-nine skeletons of Foreign Mammalia, presented by Mr. Allis, the Curator; which, added to the valuable series previously in the possession of the Society, will make this collection, under the new arrangement, one of the most interesting in the Museum.

The Curator of British Botany has completed the Classification of the Herbarium, commenced by his predecessor, the Rev. W. Hincks, so far as regards the flowering Plants, and is proceeding with the Ferns. This collection is now in admirable order, and from the mode of its arrangement may be at any time conveniently referred to.

In return for some assistance in his enquiries relating to the Saxon Coinage, obtained from the cabinet of the Society by Mr. D. H. Haigh, of Leeds, that gentleman has presented to the Society upwards of one hundred and twenty Silver Coins, comprising several of the Visigoth Kings, some of the Saxon period, and many belonging to the English Series. More than one hundred and fifty English Coins, chiefly modern, in Gold, Silver, and Copper, were likewise presented by the late Dr. Beckwith, not long before his death; and some beautiful impressions of Foreign Seals have been received from Edward Hailstone, Esq., of Bradford. Mr. R. Ready, of Leeds, having been allowed the use of the Matrices of the Ancient Seals in the possession of the Society, has in return presented a considerable number of casts of other Seals, principally connected with religious and other institutions of Yorkshire.

The Northumbrian Stycas mentioned in the last Report as part of a hoard recently discovered in York, have been purchased, partly by the proceeds of three Lectures on the state of York under the Anglo-Saxons, delivered by the Curator of Antiquities in the Theatre of the Museum, and partly by voluntary Subscriptions; and they now form an interesting and very instructive portion of the Cabinet of Coins belonging to the Society.

The Roman and other Antiquities have been for the most part removed to the room now appropriated for them, and are at present under arrangement by the Curator.

Among the Donations to the Library, the Council have to notice with peculiar satisfaction, a valuable work, by the Society's highly respected Treasurer, Robert Davies, Esq., whose "*Extracts from the Municipal Records of the City of York*," to which his official connection with the Corporation afforded him a ready access, accompanied with many curious "*illustrative and explanatory notes*," have thrown much light on the history of York during that portion of the 15th Century which comprised the reigns of the three last kings of the Plantagenet race. The valuable Transactions of the various Scientific Societies continue to be received as usual. The Council hope that, by some changes which they propose to make during the present year, the Library will be rendered more available to the purposes for which it was intended.

The Laboratory continues in the same active service as usual. The regular course of Lectures to the Pupils of the York School of Medicine is in course of delivery; and the Laboratory is well stocked with the requisites for general purposes. Some slight alterations will however be necessary previous to the meeting of the British Association.

Though the usual Astronomical Observations have been continued at the Observatory, the great want of proper instruments has prevented the Curator from remarking many interesting celestial phenomena, which have occurred during the past year. He has recently commenced a course of Lectures on Astronomy, by the proceeds of which he hopes, in part, to supply this deficiency; and the Council trust, ere long, to be able to make a grant for the same object.

The Curator of Meteorological Instruments has continued the Horary Observations at the Equinoxes and Solstices, which were commenced in 1842; and they have been regularly forwarded to the zealous and indefatigable M. Quetelet, of the Royal Academy of Brussels, and acknowledged by him.

The following are the results of these observations for the past year.

Vernal Equinox, Mean of 24 Obs,	49°	occurring bet. 8 and 9 A.M. and 7 & 8 P.M.
Summer Solstice	..... 24 56.8°	..... 7 and 8 A.M. and 7 & 8 P.M.
Autumnal Equinox	.... 24 57.9°	..... 7 and 8 A.M. and 7 & 8 P.M.
Winter Solstice	..... 24 42.8°	..... 10 and 11 A.M. and 3 & 4 P.M.

Period of Maximum and Minimum Mercurial Column.

Vernal Equinox maximum 11 A.M. minimum 3 P.M.
 Summer Solstice 6 A.M. 4 P.M.
 Autumnal Equinox steadily ascending through the 24 hours.
 Winter Solstice 8 P.M. 6 A.M.

The Register of Meteorological Phenomena at York is given in the subjoined Table.

METEOROLOGICAL REGISTER—YORK, 1843.

	Barometer.			Thermometer.					Rain. Inches.	Days of Rain or Snow, more or less	Nights below 32°	Winds.
	Mean.	Highest.	Lowest.	Mean Maximum.	Mean Minimum.	Mean Temperature.	Highest.	Lowest.				
Jan.	29.600	30.40	27.99	41.5	32.7	37.1	53	20	15	14	Westerly.	
Feb.	29.648	30.18	29.16	37.8	30.0	33.9	49	12	18	14	Northerly.	
March	29.929	30.40	29.38	47.2	33.6	40.4	60	25	12	11	Southerly and Easterly.	
April	29.746	30.23	29.40	2.23	54.5	37.5	46	26	6	20	Southerly.	
May	29.890	30.40	29.48	57.2	40.7	49	64	32	1	17	Easterly.	
June	29.937	30.25	29.19	62.2	46.2	54.2	72	41	0	11	N. Easterly.	
July	29.950	30.30	29.42	67	50.4	58.7	78	41	0	16	Westerly.	
Aug.	30.015	30.37	29.48	4.09	67.8	50	58.9	77	0	10	South and West.	
Sept.	30.268	30.671	29.80	0.42	66.5	48.3	57.4	39	0	8	Various.	
Oct.	29.730	30.415	28.80	4.59	51.7	39.0	45.3	26	10	20	N. and Westerly.	
Nov.	29.849	30.40	29.15	2.21	46.7	35.7	41.2	29	12	21	S. and Westerly.	
Dec.	30.353	30.60	29.60	0.22	48.3	38.1	43.3	28	8	7	South Westerly.	
	29.909					47. $\frac{1}{8}$			82	169		
	Mean height for the Year.			Mean annual Temperature.					Total Rain.			
									25.66			

COMPARATIVE PREVALENCE OF WINDS.

N. 37 S. 46 E. 25 W. 76 N.E. 42 N.W. 38 S.E. 29 S.W. 72 ... 365

The Temperature of the Year 1843 was, within a small fraction, the same as that of 1842, and $\frac{1}{8}$ of a degree below the average of the preceding ten years. The mean height of the mercurial column

was equal to the annual average. The quantity of rain was above the mean. One-third of the rain, viz., 8.68 inches, fell in August and October. Only .22 inch of rain fell during the month of December, being less than has been registered for that month during the last 14 years.

The Curator of this department has likewise paid some attention to the coincidence of Barometrical and Lunar Phenomena. The following table will exhibit a few results of these observations; they seem to point to a field of labour not altogether unpromising.

Observations made at the Apogee and Perigee of the Moon, 1843.

APOGEE.				
		Wind.	Bar.	
Jan. 7	4 afternoon	S.	29.24	Much rain .... .21 in.
Feb. 3	11 evening	N.	29.21	Snow and rain .51 in.
March 3	11 morning	N.W.	30.10	Snow ..... .08 in.
— 30	2 afternoon	S.E.	29.48	Rain ..... .11 in.
April 26	9 evening	S.W.	29.64	Much rain .. .47 in.
May 24	10 morning	E.to S.W.	29.76	Much rain .... .62 in.*
June 21	4 morning	W.	30.11	Fair
July 18	10 evening	W.	29.83	Much rain
Aug. 15	5 evening	W.	30.07	Thunder storm 2.01 in.
Sept. 12	7 morning	N.E.	30.40	Very fair
Oct. 9	4 afternoon	N.W.	29.80	.....
Nov. 5	7 evening	N.	30.07	..... .29 in.
Dec. 3	3 morning	N.E.	30.37	Fair.
— 30	8 evening	S.W.	30.14	Rain ..... .12 in.
PERIGEE.				
		Wind.	Bar.	
Jan. 18	9 evening	S.W.	30.40	
Feb. 16	1 afternoon	N.W.	29.63	Minimum temp. 12°
Mar. 16	noon	N.E.	30.01	Wind changed to S.W.
April 13	11 evening	N.W.	30.00	Snow storm .... .24 in.
May 12	6 morning	S.W.	30.20	Fair.
June 9	5 morning	W.	29.19	{ Thunder storm .31 in. } High wind.
July 5	2 afternoon	W.	29.83	Tremendous thund. storm.
— 30	11 evening	W.	29.60	Fair.
Aug. 27	3 afternoon	S.W.	30.20	Thunder storm 26th .19 in.
Sept. 24	9 evening	N.W.	30.49	Very high tide 25th.
Oct. 23	8 morning	W.	30.00	Much wind .... .17 in.
Nov. 20	8 evening	W.	29.15	Much rain .... .29 in.
Dec. 19	2 morning	S.W.	30.50	Fair.

* On the 4th of May, exactly midway between the Apogee and Perigee, a thunder storm occurred between noon and 3 P.M. With this, and one more

Meteorological Observations have been received from a few Correspondents, and from these it appears that the quantity of rain which fell

At Huggate, was	28.316 in.
At Middleton, near Beverley ..	24.140
At Ackworth	26.250
At Settle	45.920

The Council cannot conclude their Report without again congratulating the Society on the bright prospect which is opening before it. The exertions of its members in the promotion of scientific research, stimulated by the approaching meeting of the British Association, and aided by the great increase of income which will be derived from the investment of the whole or greater part of the Legacy bequeathed to it, by Dr. Beckwith, and the extension and improvement of the Museum and Gardens, which the ampler means at its disposal will enable the Council to effect, will, they are persuaded, at no distant day elevate this Society to a rank seldom attained by any similar Provincial Institution, and render it worthy the great County in which it is established.

similar exception in August, every thunder storm observed at York during the year, was either exactly coincident with these positions of the Moon, or within 24 hours of their occurrence. Of these, the most remarkable for its violence happened on the 5th of July, and extended from Scarborough in the N.E. to Bristol in the S.W. Out of 27 recurrences of Apogee and Perigee, 19 were marked by change or crisis.

THE

TREASURER OF THE YORKSHIRE PHILOSOPHICAL SOCIETY,

IN ACCOUNT FOR THE YEAR 1843.

Dr.		Cr.
1843.	£. s. d.	1843.
Annual Subscriptions and Arrears	448 0 0	Permanent Debt, viz. £. s. d. £. s. d.
Admission of New Members.....	60 0 0	Yorkshire Insurance
Ladies' Subscriptions, and Keys of the Gardens	56 15 0	Company
Tickets at 1s. each	82 7 9	Wm. Gray Esq.
Rents	90 2 0	Six Members at 50l ..
Horticultural Exhibition	13 10 0	3800 0 0
Hospitium Repairs	6 0 0	Balance overdrawn
For copies of "Guide to the Mu- seum."	0 4 2	Messrs. Swann & Co.
Gas for Evening Meetings.....	1 10 0	Dec. 31, 1842
Dec. 31st.		Crown Rents
Permanent Debt, viz. £. s. d.		Corporation Rents
Yorkshire Insurance		Insurance
Company	2500 0 0	Gate Keeper.....
William Gray, Esq. ..	1000 0 0	Collector
Six Members at 50l.		Interest.....
each	300 0 0	Sub-Curator on account
		439 19 7
		Sundry Bills:
Balance overdrawn	3800 0 0	New Cases
Messrs. Swann & Co.		Cluderay, Joiner.....
31st Dec., 1843.....	1064 16 2	York Gas Company ..
		Hartley, Glazier.....
		Hill, Coals
		J. F. Brown, Painter..
		A. Ryland, Esq.
		Property Tax
		Sundry Small Bills ..
		289 14 7
	£5623 5 1	£5623 5 1

Audited.
W. HATFIELD,
J. BENTHAM.

ANALYSIS OF DISBURSEMENTS

DURING THE YEAR 1843.

ORDINARY EXPENSES.

	£.	s.	d.	£.	s.	d.
Rents, Rates, &c. :						
Rent to the Crown	1	0	1			
Rent to the Corporation	6	8	8			
Poor Rates, Highway Rates, Land and Property Tax	34	13	11½			
Insurance and Water Rent	11	0	0			
				53	2	8½
Salaries and Wages :						
Sub-Curator	100	0	0			
Servant	20	0	0			
Lodgekeeper	11	13	6			
Labourer	36	8	0			
Collector	10	0	0			
Occasional Labourers	19	13	0			
				197	14	6
Interest on Debt :						
Interest on Mortgage Debt	97	1	8			
Interest on £1000	38	16	8			
Interest to Bankers for being overdrawn	40	19	0			
				176	17	4
Museum, Gardens, Grounds, &c. :						
Painting and General Repairs	111	6	3			
Purchase and Preparation of Specimens	14	6	1			
Observatory	3	5	0			
				128	17	4
Library :						
Books and Binding	16	18	2			
				16	18	2
Incidentals :						
Printing, Advertising, and Stationery	22	17	1			
Coals, Gas Light, and Coke	35	2	6			
Postages, Carriage, and Sundries	14	19	6½			
				72	19	1½
				646	9	2

EXTRAORDINARY EXPENSES.

Mr. Arthur Ryland	10	0	0			
New Cases	65	5	0			
Fitting up the Antiquarian Room	8	0	0			
				83	5	0
				729	14	2

SUBSCRIBING MEMBERS

OF THE

YORKSHIRE PHILOSOPHICAL SOCIETY,

ELECTED IN 1843—4.

1843.

Major Brown, *York*.
Edward Hailstone, *Horton Hall*.
Rev. John Robinson, *Clifton*.

1844.

James Anderton, *York*.
John Bownas Atkinson, *York*.
Joseph Hick, *York*.
John Holtby, *York*.
George Leeman, *York*.
William Taylor, *York*.

HONORARY MEMBERS ELECTED IN 1843.

Joseph Clarke, *Cincinnati, U. S.*
Thomas Weaver, *F.G.S. London*.

RESOLUTIONS

PASSED AT THE ANNUAL MEETING, FEBRUARY 6, 1844.

1. That the Report of the Council be adopted and printed for the use of the Members.

2. That the Thanks of the Society be given to the Vice-Presidents and Members of the Council retiring from office.

3. That the Thanks of the Society be given to the Treasurer and Secretary for their valuable services.

4. That the Thanks of the Society be given to the Curators for their diligent and useful services in the several departments of the Museum.

5. That the Council be empowered, on certain days, to be selected by them, during the present year, to permit free admission to the Museum and Gardens to all persons; the mode of admission to be regulated by the Council.

6. That the Regulations adopted at the last eight Annual Meetings, for the admission of Strangers by the purchase of Tickets, be continued for the present year.

7. That the Council be authorized to admit to the Museum and Gardens, as temporary subscribers, any occasional visitors to York, not residing in the County, at the rate of *one* Pound for *four* months for themselves and their families; but that in no case shall such privilege be granted for a longer period than twelve months.

8. That the Resolution of the last Annual Meeting, empowering the Council to authorize the holding one or more Horticultural Meetings in the Society's Gardens, be continued in force during the present year.

9. That the best Thanks of the Society be given to the Chairman and Committee of Management of the Horticultural Fête held in August last.

DONATIONS

TO

THE SOCIETY'S MUSEUM.

GEOLOGY.

Mr. James Backhouse.....	Miscellaneous specimens from Van Dieman's Land
Rev. D. R. Curren	Specimens of <i>Zamia</i> , found nine miles to the north of Whitby.
J. Dalton, Esq.	Various specimens of fossils.
Mr R. Dalton	A large specimen of Ammonite.
W. Hatfeild, Esq.	Fossils from Barbadoes.
	Fossils from Ferriters Cove, County of Kerry.
Mr. Maclauchlan, (<i>Ordnance Survey</i>)	Fossils from the millstone grit near Brimham Crags.
Rev. F. O. Morris	Polished scales of <i>Tetragonolepis</i> (Agassiz). Fossil horn of a stag. Lamina of tusk of a fossil elephant. Fossil tooth of a shark. 9 specimens of Ammonites.
Professor Phillips	Posidonia from Devonshire. Trilobite (<i>Asaphus Buchii</i>) from Llandeilo, South Wales.
Purchased	Fossil head of <i>Lepidotus</i> .

MINERALOGY.

Dr. Beckwith	Large and valuable Collection of Minerals, late the property of Francis Beckwith, Esq., including 442 specimens of gems, and a fine specimen of <i>Lumachelli</i> .
F. J. Copsie, Esq.	Carbonate of copper.
J. Dalton, Esq.	Various specimens of minerals.

W. Hatfeild, Esq.	Bitumen from the Pitch Lake of Trinidad. Ditto from near the Havanna.
Miss Norcliffe	Specimen of the ashes which overwhelmed Pompeii.

ZOOLOGY.

VERTEBRATA.

S. Barber, Esq.	A variety of the fieldfare.
James Backhouse, Esq.	Brown Snake from Sidney. The Rough Lizard from ditto. Native cats, taken from the pouch of their dam, from Port Jackson. Eggs of the beaded lizard, from ditto. Flat-tailed or rock lizard, from ditto. Iguana, just hatched from the egg, from ditto. Tree frog of New South Wales, with numerous lizards, &c.
Dr. Beckwith	2 specimens of Tortoise.
W. J. Farrer, Esq. (<i>Dromonby Hill</i>)	A variety of the chaffinch.
W. Hatfeild, Esq.	53 skins of birds, from Trinidad. The bull frog, from Dominica.
Mr. W. Hardman	Australian stork, from the collection of Mrs. Colonel Dumaresq.

ANNULOSA.

James Backhouse, Esq.	Catterpillars, from Sidney. Green centipede, ditto.
Mrs. W. V. Harcourt.....	A beetle, from the Brazils.

MOLLUSCA AND ZOOPHYTA.

W. Hatfeild, Esq.	2 shells, from the Bermudas. Fine specimen of Brain stone.
R. Ward Jackson, Esq.	<i>Loligo sagittalis</i> , from the mouth of the Tees.
S. Dalton, Esq.	Various specimens of shells.
T. Rudd, Esq.	Specimens of <i>Auricula myosotis</i> and <i>Turbo ulva</i> , from Redcar.

B O T A N Y .

James Backhouse, Esq.	Fruit of the Barringtonia.
Mr. Baines (<i>Sub-Curator</i>)	Fruit of the <i>Phytelephas macrocarpa</i> (vegetable ivory).
Dr. Beckwith	Specimens of various kinds of woods.
J. Dalton, Esq.	Splendid collection of lichens, collected by the late Rev. J. Dalton, of Croft.
Rev. F. O. Morris	Various dried plants.

A N T I Q U I T I E S .

W. L. Palmes, Esq.	An ancient Egyptian brick, found Feb. 1843, about 6 miles S.E. of Luxor.
A. Strickland, Esq.	Two Roman bricks.

C O I N S , & c .

Dr. Beckwith	74 gold and silver, and 26 copper coins. 148 copper tokens, 24 engraved gems. 11 casts in porcelain of ancient coins.
J. Dalton, Esq.	Various coins and medals.
E. Hailstone, Esq.	Impressions of eight foreign seals.
D. H. Haigh, Esq. (<i>Leeds</i>) ...	121 Saxon, English, and foreign coins.
Rev. F. O. Morris	26 sulphur and plaster casts.
Miss Rachel Oldfield	Various coins, 7 in number.
Mr. R. Ready, (<i>Leeds</i>)	50 sulphur casts of seals and coins.
Rev. C. Wellbeloved	9 Roman family coins.

G A R D E N .

Mr. Barrett, (<i>Wakefield</i>)	80 species and varieties of Fuchsia. 60 varieties of <i>Chrysanthemum</i> . 1 peck of <i>Crocus</i> roots.
Mr. Borrer	Several rare British plants.
R. Gilbert, Esq.	12 <i>Kalmia latifolia</i> . 12 <i>Rhododendron</i> .
J. Roper, Esq.	40 <i>Geraniums</i> .

MISCELLANEOUS DONATIONS.

Dr. Beckwith	Specimens of spun glass. A Hindostanee breast-plate.
Mr. Knaggs	2 pair of Esquimeaux boots.
Mrs. Charles Metcalf	A Chinese hair cap.
Rev. F. O. Morris	Various artificial curiosities.
W. Oldfield, Esq.	One of the windows taken out of the S.W. tower of York Minster.
Mr. Schwerer (<i>Stonegate</i>)	A wooden watch, made at Lenskirch, near Neustadt, in the Black Forest, about 8 stadia from Frieburgh, sent to Hull in 1819.

LIBRARY.

Academie Royale de Bruxelles...	Bulletins de l'Académie, Année 1842, tom. ix. No. 7, & 1843, pt. 2. 6 Nos. Instructions pour l'Observation des Phénomènes periodiques de l'Homme, par M. Schwann. Extr. des Bulletins. Instructions pour l'Observation des Phénomènes periodiques. Extr. des Bulletins. Nouveaux Memoirs de l'Academie Royale, tom. ix —1842, & tom. xvi. Annuaire de l'Academie, 1842. Resumé des Observations Magnetiques, &c.
Botanical Society of London ...	Prospectus of the Society for 1843.
H. Breary, Esq.	Tables of Mortality for 1842.
— Burrows, Esq.	Description of the Fossil Deer of Ireland.
Council of British Association...	Report for 1842.
Rev. D. R. Currer	Monograph of the Ammonites of the Yorkshire Lias, described from Nature, by M. Simpson, Curator to the Geol. and Polytec. Society of the West Riding.
Issachar Cozzens, Jun. (<i>the Author</i>)	Geological history of Manhattan, or New York Island; with Maps, &c.
R. Davies, Esq. (<i>the Author</i>) ...	Records of York during the xv Century.
Geological Society	Proceedings of the Society for 1842—3.
Cavalier Giuseppe Gené	Memoria par servire alla Storia Naturale, &c.
J. Hogg, Esq., M.A., F.L.S. (<i>the Author</i>)	Catalogue of Sicilian Plants, with some Remarks, on the Geography, Geology, and Vegetation of Sicily. (From Mag. Nat. Hist.)

- James Hamerton, Esq. (*the Author*) Arboriculture. A Paper read before the Geol. and Polytec. Society of the West Riding.
- Rev. J. Kenrick Address of the Committee, and list of Works of the Society for the Diffusion of Useful Knowledge.
- Leeds Literary and Phil. Society. Report for 1841—2.
- J. M. Morgan, Esq. Religion and Crime, or Distresses of the People and their Remedies, 1842.
- Professor Phillips Notes on the Commerce of France, in 1840.
- By order of Government..... Observations on Days of unusual Magnetic disturbance.
- Edward Hailstone, Esq. Geometry Improved, by Abraham Sharpe, 1712.
- Royal Cornwall Polytechnic Society..... Tenth Annual Report.
- Professor Sedgwick and R. I. Murchison, Esq. (*the Authors*) On the Distribution and Classification of the Older or Palæozoic Deposits of the North of Germany and Belgium, and on their comparison with Formations of the same age in the British Islands.
- On the Fossils of the Older Deposits in the Rhenish Provinces, with Plates, by the Viscount D'Archiac and M. E. de Verneuil.
- Royal Society of Edinburgh ... Proceedings of the Society, Nos. 21 & 22. Transactions of the Society, vol. xv. part 3.
- The Lords Commissioners of the Admiralty Groombridge's Catalogue of Circumpolar Stars, edited by G. Biddell Airy, Esq. A.M., Astronomer Royal.
- W. Oldfield, Esq. An exact list of the Voluntary Subscribers, with the sums each subscribed and paid, for the security of his Majesties person and Government, and for the defence of the County of York. Dated 1747.
- Rev. J. Montgomery Traherne, M.A. &c. (*the Author*) Historical notices of Sir Matthew Cradock.
- Zoological Society Proceedings for 1842.



MONTHLY MEETINGS IN 1844—1845.

1844	MARCH	3	1844.	OCTOBER	1
—	APRIL	2	—	NOVEMBER	2
—	MAY	7	—	DECEMBER	3
—	JUNE	4	1845.	JANUARY	7

ANNUAL MEETING, FEBRUARY 4, 1845.

RULES OF ADMISSION

TO THE MUSEUM AND GARDENS.

I. MEMBERS of the Society (and Contributors of £15. and upwards to the Building Fund,) have the privilege of personal admission, and of PERSONALLY INTRODUCING VISITORS to the Museum and Gardens, at all times when they are open.

II. MEMBERS (and Contributors of £5.) have the further privilege of giving to VISITORS WRITTEN ORDERS of admission, which must be signed with the name of the Member or Contributor, and bear the name of each Person to be admitted. Such written orders are received in the Lodge every day (Sunday excepted) from the hour of Ten A. M. till Four P. M., and must be paid with the Lodge-keeper. N. B. *He is furnished throughout except money from Visitors.*

III. LADIES who are admitted by the Council as Annual Subscribers of £1., (or who have contributed £10. or upwards to the Building Fund,) have the privilege of personal admission, and of PERSONALLY INTRODUCING VISITORS as Personal Visitors.

IV. STRANGERS may obtain of Mr. Chapman's, Lomb-Street, or Mr. Wilson's, Ludgate, near the Museum Gate, at Mr. Burdick's, High-Overgate, and at Mr. Linnæus's, Low-Overgate, Admission Tickets, price One Shilling for each person; which will entitle them to admittance, at all times when the Museum and Gardens are respectively open (Sunday's excepted). The Ticket must be left at the Lodge.

V. The adult members of the FAMILY of a Member (or of a Contributor of £5.) have the privilege of personal admission whenever the Museum and Gardens are open.

VI. MEMBERS, and others entitled to personal admission, may receive a KEY of the Private Entrances to the Garden, on application to Mr. Baines at the Museum, and payment of Five Shillings for the current year; such payment to be due annually in advance on the 1st of January, while the key is retained.

VII. CHILDREN are not to be left in the Gardens, except under the care of their Parents, or other responsible persons.

VIII. The GARDENS are open daily till dusk. On Sundays there is no admission between the hours of Ten and Twelve. The MUSEUM is open daily (except Sunday) from Ten o'clock A. M. till Four P. M.

IX. The Sub-Curator, Mr. Baines, is fully empowered by the Council to see these regulations enforced, and to prevent injury to the Museum, Gardens, Glass Walls, and other appropriate arrangements.




Dorkshire Philosophical Society.

A N N U A L R E P O R T

FOR

MDCCCXLIV.



ANNUAL REPORT
OF THE COUNCIL
OF THE
YORKSHIRE
PHILOSOPHICAL SOCIETY

FOR

MDCCCXLIV

PRESENTED TO THE ANNUAL MEETING

FEBRUARY 4, 1845.



YORK

ROBERT SUNTER, 23, STONEGATE.

1845.

TRUSTEES
OF
THE YORKSHIRE MUSEUM,

APPOINTED BY THE ROYAL GRANT.

EDWARD, LORD ARCHBISHOP OF YORK.
GEORGE, EARL OF CARLISLE, K.G.
CHARLES WILLIAM, EARL FITZWILLIAM.
THOMAS PHILIP, EARL DE GREY.
HON. AND VERY REV. HENRY HOWARD, D.D.
SIR WILLIAM LAWSON, BART., F.S.A.
FRANCIS CHOLMELEY, ESQ., F.S.A.
ROBERT DENISON, ESQ.
REV. WILLIAM VERNON HARCOURT, F.R.S.
RICHARD JOHN THOMPSON, ESQ.

PATRONESSES

OF THE

Yorkshire Philosophical Society.

HER MAJESTY THE QUEEN.

H. R. H. THE DUCHESS OF KENT.

PATRONS.

HIS GRACE THE ARCHBISHOP OF YORK.

EARL OF CARLISLE, K.G.

EARL FITZWILLIAM, F.R.S.

EARL OF TYRCONNEL, F.R.S.

THE VISCOUNT MORPETH.

THE LORD STOURTON.

THE LORD WHARNCLIFFE.

THE LORD FEVERSHAM.

THE LORD WENLOCK.

OFFICERS OF THE SOCIETY, 1845.

PRESIDENT:

EARL FITZWILLIAM, F.R.S.

VICE-PRESIDENTS:

THE LORD MAYOR OF YORK, F.G.S.

CHARLES HENEAGE ELSLEY.

REV. WM. VERNON HARCOURT, F.R.S.

SIR J. V. B. JOHNSTONE, BART., M.P.

SIR J. H. LOWTHER, BART., M.P.

PROFESSOR PHILLIPS, F.R.S.

REV. CHARLES WELLBELOVED.

TREASURER:

ROBERT DAVIES, F.S.A.

COUNCIL:

Elected 1842..... HENRY ROBINSON,
WILLIAM WHYTEHEAD.

Elected 1843..... JAMES BARBER,
CAPTAIN BENTHAM,
REV. JOHN KENRICK.

Elected 1844..... REV. R. B. COOKE,
GEORGE GOLDIE, M. D.
THOMAS HENRY TRAVIS.

Elected 1845..... THOMAS ALLIS,
FAVIL JAMES COPSIE,
GEORGE HUDSON,
W. L. NEWMAN, F.R.A.S.

SECRETARY:

THOMAS MEYNELL, JUN., F.L.S.

KEEPER OF THE MUSEUM:

EDWARD CHARLESWORTH, F.G.S.

HONORARY CURATORS:

ANTIQUITIES	...	...	...	REV. C. WELLBELOVED.
BOTANY	...	...	...	OSWALD ALLEN MOORE.
COMPARATIVE ANATOMY	...			THOMAS ALLIS.
LABORATORY	...	...	...	T. H. BARKER.
LIBRARY	...	...	...	GEORGE GOLDIE, M.D.
METEOROLOGY	..	...	..	JOHN FORD.
OBSERVATORY	...	...	...	W. L. NEWMAN, F.R.A.S.

SUB-CURATOR:

HENRY BAINES.

YORKSHIRE PHILOSOPHICAL SOCIETY.

REPORT OF THE COUNCIL

TO THE

ANNUAL MEETING OF THE SOCIETY, ON THE 4th OF FEBRUARY, 1845.

THE proceedings which the Council, in presenting their Report for the past year, are called upon to record, have in great measure taken their shape and colour from an event in which this Society could not but feel the liveliest interest; namely, the reception in York of the British Association for the Advancement of Science.

A strong and general desire was entertained amongst us, that a body which, since it was called into existence within the walls of our Museum, has enrolled in its list of Members almost every name of eminence in the United Kingdom, in every department of science, should be received on its return hither with a becoming welcome; and that our distinguished visitors, domestic and foreign, in this stage of the Association's honourable and useful course, should experience no lack of any service which it was in the power of the Society to render.

The Council rejoice in considering themselves entitled to add that the desire thus cordially felt, has been entirely fulfilled. The Second Meeting of the British Association at York is allowed to have been not less satisfactory as regards the success of the arrangements made for its reception, than in relation to the scientific interest which attended its proceedings. This gratifying result is to be attributed, in the first place, to

the liberal manner in which the call of the Council was responded to, when application was made to the Members of the Society, and to other gentlemen residing within the county, for contributions to the Reception Fund; the sum raised in consequence having amounted to nearly £1100.

Secondly, this result was owing to the generous co-operation of the Authorities of the City, who, under the guidance of those enlightened views by which they are distinguished, placed the Guildhall and its numerous apartments at the service of the Association; and to a similar feeling on the part of other public bodies, who, almost without exception, granted the gratuitous use of the rooms under their charge.

Lastly, the success of the arrangements was due to the indefatigable exertions of the Local Committee, a body which, whilst it included members of several other scientific institutions belonging to this county, was so constituted that the Council were enabled with perfect confidence to intrust the interests and credit of the Society to its hands, and to devolve upon it the whole charge of those preparations which proved so highly satisfactory.

One of the most important preliminary measures, in a scientific view, which the Council adopted, was to request several Members of the Society, and others competent for the task, to draw up reports on the several branches of the Natural History of Yorkshire, especially with regard to the geographical distribution of its plants and animals, and the mineral productions of its mining districts.

The report on the last-mentioned subject was zealously undertaken by a Member of the Society, who had long devoted his energies and talents to the promotion of its interests; and whose untimely loss it had to deplore at a moment when his exertions in its behalf were of the greatest value. Mr. Hatfield had expressly undertaken a tour through the mining districts of the North of England, for the purpose of collecting mineral specimens, and obtaining mineralogical information, with a view to the report which, had he lived,

he would have presented to the Association. The collection of specimens, which is extensive and valuable, has been by his Executor liberally presented to the Museum. A catalogue of the Birds of Yorkshire, more complete than any which naturalists possessed, was contributed by Mr. Allis, and the compilation of a list of the Yorkshire Fishes was entrusted to Mr. Meynell. Mr. Moore and Mr. Baines supplied a catalogue of the Plants of the county, supplemental to the excellent Flora printed by the latter in 1840. These researches into the Natural History of Yorkshire, it is hoped, will be further prosecuted; and, together with the collections of Meteorological Observations due to the industry of the Curator of that department, may hereafter constitute a publication which will go far to realize the expectations held out in the original prospectus of the designs of the Society. Two of the members of the Local Committee who, though residing at a distance from York, assisted assiduously in all the preparations for the meeting, contributed also to the same scientific object; Mr. West by furnishing a chemical analysis of the Mineral Waters, and Mr. Lucas of the Limestones of Yorkshire.

Another measure, preparatory to the Meeting of the Association, but essentially serviceable to the objects of this Society, consisted in a general revision of the arrangements of the Museum, and of the various collections which it comprises.

When the Council came to consider the uses to which it was most material to apply the munificent legacy lately bequeathed to the Society, they had no difficulty in determining that the object of the greatest importance to the scientific character of the Institution was to attach to it an officer who might not only be qualified by a competent knowledge of the various branches of Natural History to take the collections under his charge, but might also be endowed with zeal and ability to improve them, and render them subservient to the promotion of science. Such an officer the Society formerly possessed in Professor Phillips, and such an of-

ficer the Council conceive that they have again found in Mr. Edward Charlesworth. This gentleman, since he entered upon the office of Keeper of the Museum in July last, has fulfilled its duties in a manner which leaves nothing to be desired. His statement to the Council, containing a full account of the improvements which have since been made in the Museum, and of its present condition, is subjoined to the Report. (*See page 14.*)

At the same time that the Council expended on the Museum and Library such sums as they deemed necessary to supply some of their most prominent deficiencies, they thought it right to attend to the application of the Astronomical Curator for an improvement of the apparatus under his care. In furtherance of this object, Mr. Newman undertook, in the early part of the year, to deliver a Course of Lectures on Astronomy; the proceeds of which after the payment of the expenses, he liberally placed at the disposal of the Council. And they are happy to state that he has reported very favourably on the merits of the new Transit Instrument which has in consequence been mounted in the Observatory, executed by an ingenious artist of this city (Mr. Cooke), with a peculiarity in the construction of the object-glass, which is worthy of attention.

For the employment of this instrument the Observatory may perhaps suffice, even in its present state; but the Council cannot but express a hope that the building, which as yet is unadapted to any but the simplest observations, may hereafter be enlarged and improved, so as to become at once more available for astronomical use, and more ornamental to the gardens in which it stands.

One of the buildings within the grounds, which possesses no little interest, as being a remnant of the Monastery of St. Mary, has been put into a state of effective repair, and has afforded two spacious rooms, the upper of which was prepared for the Geological Section of the Association. The lower

apartment the Council have appropriated to the architectural fragments of the Abbey, and other antiquarian specimens, for which it is well fitted from its character and size.

The business incident to the reception of the Association being concluded, the Council proceeded to carry into execution a wish known to have been expressed by that great benefactor of the Society, the late Dr. Beckwith, by erecting a distinct dwelling house for the Sub-curator. This long-contemplated improvement has been so successfully executed, that while the desired accommodation has been obtained at a moderate cost, the style of the building, harmonizing with the architecture of the adjoining ancient palace, will, it is hoped, be considered as adding an appropriate embellishment to the site.

The Grounds attached to the Museum, even in their former limited extent, have been acknowledged by all persons of competent taste, to possess almost unrivalled capabilities for picturesque beauty. But when called upon by a generally expressed wish, to add to the public enjoyment by the enlargement of the Gardens, the Council felt that it would require the skill of an accomplished artist to surmount the peculiar difficulties presented by the site, so as to produce the most pleasing effects by the harmony or contrast of its varied architectural features, and to open out the most interesting views of more distant objects, while excluding as much as possible such as are unsightly or incongruous.

The Council, therefore, having first removed the principal impediments to the enlargement of the Museum Gardens by an agreement with the Commissioners of the Ouse Navigation, alike beneficial to the Society and the public; and having taken into their hands all the Society's demesne, excepting the small portion of it which is let on long leases, had recourse to the professional aid of a gentleman of high reputation in the art of Landscape Gardening, to assist them in the task of laying out the grounds in such a manner as to satisfy all the requirements of a refined taste; and they have the gratifica-

tion of finding that the design planned by Sir John Nasmyth, and now far advanced towards completion under the superintendence of the Garden Committee, has met with very general acceptance.

Amongst the happiest incidents of these improvements may be enumerated the addition of an architectural platform which has long been desired to give full effect to the façade of the Museum, the exposure of the moulded base of the Hospitium with the adjoining archway, and the opening out a better view of the beautiful remnants of mixed Norman and Pointed architecture connected with the Abbey.

That which still remains to be wished, for the perfection of the alterations on which so much care has been bestowed, is to include, if possible, within the Society's precincts those remains of monastic antiquity contiguous to the principal entrance, which the public spirit of the Corporation has recently relieved from the mean sheds and walls by which they were defaced and concealed.

On the subject of these remains the Council purpose to present the following memorial :

“ To the Lord Mayor and Corporation of the City of York,

THE MEMORIAL OF THE YORKSHIRE PHILOSOPHICAL SOCIETY

Sheweth,

That the Hospital of St. Leonard's was one of the most ancient and most richly endowed of the Religious Houses established in York. Only one small portion of this Hospital, which formerly occupied a considerable space, is now remaining, supposed to be a part of a covered cloister or ambulatory, and exhibiting an interesting specimen of the architecture of the age to which it belongs. In the changes which York is undergoing, it is not improbable that it may share the fate of St. William's Chapel and other relics of past ages recently swept away, unless it shall be placed under the protection of some public institution, interested in the preservation of the antiquities by which the

City of York is so eminently distinguished. That if the Corporation of the City can make such arrangements, as that this valuable relic may be enclosed within the grounds of the Yorkshire Philosophical Society, and cleared of the modern structures by which it is now almost entirely concealed, it will be safe from further injury, and add another object of picturesque beauty and of antiquarian and historical interest to those which now render the Gardens of the Society so attractive to the eye of taste, so gratifying and instructive to the lover of ancient art, and so great an ornament to the City of York. That in executing this public improvement, and in consequence diverting the entrance into the stables now occupied by one of its tenants, the Corporation would further enable the Society to restore the fragment of the Roman Wall, detached by that entrance, to its connection with the portion preserved in the Society's grounds, and thus materially improve the effect of one of the most remarkable remains of remote antiquity existing in England."

Should this application happily be complied with, and the interesting relics described in the memorial be thus added with those already in the care of the Society, this will constitute one of the most striking improvements that has yet been effected, and will leave the Council no cause to regret the large expenditure employed upon the Museum Gardens, whereby, within so limited a space, so unusual a variety of interesting objects are displayed to so great advantage.

As might have been expected, the alterations in the Museum and grounds have entailed upon the Society a heavy expense. The Council, however, have the satisfaction of stating that a large portion of this outlay has been incurred in repairing and painting the Museum, which is now placed in such a state of repair as it will require but little annual expense to maintain. A further cost will, indeed, have to be incurred in providing the means of warming the rooms; the present

apparatus having been found insufficient for the purpose, and not perfectly secure.

The Council have had much pleasure in observing the steadily increasing attraction which the Museum and Gardens have presented to the public. This increase has manifested itself in a largely augmented income from the sale of tickets, notwithstanding the great additional facilities of admission granted by the Council to thousands of visitors, who have been attracted to the city through the accommodation afforded to them by the Railway Companies.

Extracts from the Report of the Keeper of the Museum.

GEOLOGY.

Reference was made in the Report of last year to the desirableness of displaying in the Museum a duplicate series of Yorkshire Fossils, arranged in the order of their natural affinities. This plan, which originated with Professor Phillips, has within the last six months been partly carried into execution. Several hundred species of fossils, principally obtained from the coast, and from the Oolite quarries of Malton and Pickering, are now exhibited in the raised central case of the Geological Room, which has been found admirably adapted for the purpose. The classification adopted is the same as that followed by Professor Phillips in his synoptical table of the organic remains of Yorkshire. Great care has been taken in the selection of the most perfect fossils that could be procured, and, whenever practicable, the specimens are mounted on tablets labelled with the name under which each species is described, its locality and stratigraphical position, and a reference to the work in which a figure or description is to be found. It is hoped that this series may ultimately include characteristic specimens of all the procurable published and unpublished vertebral fossils of Yorkshire.

Considered as objects of scientific investigation, Fossils should always be regarded in two points of view: first, in relation to the particular rocks in which they occur; secondly, in their structural relations to one another, and to the entire range of species throughout the animal kingdom.

Undoubtedly the identification of strata through the evidence of their included fossils, should be the first consideration in a Museum contemplating the objects embraced by the Yorkshire Philosophical Society. But as the critical investigation of organic remains by which these identifications are arrived at, is a purely *zoological* process, it is not enough to display fossils only in a *stratigraphical* arrangement. Moreover, the unequal duration of certain forms in the ancient Fauna of the Globe, or the marked changes which certain others present when continued through several geological periods, and which together constitute one of the most curious phenomena that the science of Geology has made known, can only be advantageously studied when the several species of a genus are exhibited together; it being of course understood that each species is accompanied by an indication of the formation in which it occurs. The duplicate invertebral fossils contained in the British Museum are now being arranged by the side of the most nearly allied forms in the collection of living species. This important step was accomplished by a representation to the Trustees in 1840, from the Members of the British Association. Henceforth, therefore, in our national collection, the student in Zoology will find the past and existing Fauna presented to his notice as one common object of contemplation, and the unphilosophical distinction which to a great extent has made them separate branches of scientific enquiry, will gradually be abandoned.

One source from which the Council anticipate a large augmentation to the geological collection, is in the exchange of duplicate fossils with other museums and private collections. The position of York on the Red Marl, and the consequent barrenness of the immediate neighbourhood, has hitherto rendered

the Museum almost entirely dependant upon donations, and the occasional purchase of such fossils as its funds would permit. But the railway now in progress to Scarborough, with its branches to Whitby and Bridlington, besides passing through the well known Oolite districts of Malton and Pickering, will greatly facilitate the means of communication with the three richest spots on the coast; and in anticipation of the facility likely to be thus afforded for obtaining the fossils of the Yorkshire Oolites and Lias, a correspondence has already been opened with the collectors of Mountain Limestone fossils, a department in which, taking into consideration the number of species known to occur in the county, the Museum has been greatly deficient.

Although the whole district of Yorkshire, from its numerous fossiliferous rocks and varied physical phenomena, every where offers materials for further research, yet there are two subjects connected with its geology, upon which more information is particularly wanted. These are the relations of the Tertiary strata superimposed upon the Chalk at Bridlington, to similar deposits, but more largely developed, in Norfolk and Suffolk, and a better acquaintance with the fossils of that extremely interesting bed on the coast, known as the Speeton Clay.

Great accessions have been made to the Geological department of the Museum during the past year. Several opportunities have occurred, enabling the Council to enrich the collection of Yorkshire fossils, in both the vertebrate and invertebrate series, at a moderate cost; whilst the additions received through donations have been unusually numerous and valuable.

On the list of contributions which call for particular notice, is the episternal bone of the gigantic species of land-tortoise found by Captain Cautley and Dr. Falconer in the Tertiary Siwallic Hills of Northern India, and which, from its enormous dimensions, has been described by its discoverers under the name of *Colossochelys Atlas*. It is to Dr. Falconer that the Society is indebted for this acquisition, not less valuable

for its extreme rarity, than for the instructive evidence it affords to the most casual observer, of the almost incredible size attained, during a comparatively recent epoch in the geological history of the Globe, by some species in the Chelonian group. The most prominent place that could be fixed upon in the Geological room has been selected for the exhibition of this valuable donation.

Along with a collection of Silurian fossils from the neighbourhood of Cincinnati, our zealous corresponding member Mr. Joseph Clarke has presented a fine tooth of the *Mastodon giganteus*, a donation particularly acceptable, as the Museum, although so rich in the remains of the fossil elephant, had previously nothing to illustrate the remarkable dentition of this nearly allied but extinct genus of proboscidean Pachydermata. Another tooth but from the celebrated locality in Kentucky termed Big-bone Lick, and to the very small size of which, Mr. Clarke in his letters directs particular attention, will probably be found to be the third milk-tooth of the same species. Passing from foreign accessions to those we have received in Home Geology, a large series of Silurian fossils, collected by herself in the neighbourhood of Great Malvern, has been presented by Miss Phillips. The collection of fossil fishes has been enriched by some beautiful specimens of the genera *Platysomus* and *Palæoniscus* from the magnesian limestone near Ferryhill, presented by George Hudson, Esq. The Lord Mayor has presented a very choice collection of fossils from the Cornbrash and inferior Oolite in the neighbourhood of Scarborough; and a few valuable specimens from the Coral-line Oolite have been given by Mr. Pickering and Mr. Barton, of Malton.

From Lord Prudhoe the Museum has received a very instructive series of specimens of *Stigmaria ficoides*, from the sandstone of the Coal Measures near Darlington; and a portion of a large fossil stem found in the coal at Wigan has been kindly forwarded to the Museum by S. Hailstone, Esq.

The extensive series of Tertiary Fossils, which has long formed one of the most instructive features in the general collection, has been increased by the donation of some choice fossils of the Coralline Crag from Mr. Start, of Mettingham.

Amongst the fossils obtained by purchase, and deserving of particular notice, is a large ammonite from the Calcareous Grit of the Yorkshire Coast, in which a fortunate blow near the base of the outer chamber has beautifully displayed an included Aptychus or Trigonellite, a fossil body, the natural relations of which have proved a most fruitful subject of speculation among naturalists. It is believed that no similar example is to be found in any other collection of Yorkshire fossils. A small specimen of the Crocodile (*Teleosaurus*) from the Lias of Whitby, in which the under surface of the lower jaw is beautifully shown, and some fine examples of fishes from the same formation, including the genera *Pachycormis*, *Ptycholepis*, and *Lepidotus*, have likewise been added to the collection. A purchase has also been made of a few very choice fossils from the neighbourhood of Lyme-Regis, and various mammalian remains and miscellaneous fossils from Bacton in Norfolk.

ZOOLOGY.

During the first six months of the year, an experienced bird-stuffer was employed upon the premises in setting up a selection from the numerous skins of foreign birds which had long been accumulating in the Society's stores; so that more than 300 additional specimens are now exhibited in the room appropriated to the ornithological collection. A recent donation of 80 skins of birds from Van Dieman's Land, presented by Sir John Franklin, and another from Mr. Gould of 100 Australian Species, have rendered it desirable to re-engage the services of the same person. The Council having determined upon adding to the Library a copy of the splendid work on the Birds of Australia, now in course of publication by Mr. Gould, this gentleman has undertaken to furnish free of cost to the Society, a complete scientific catalogue of the *entire* ornitho-

logical collection in the Museum. Attractive as the foreign birds are, regarded only as objects of popular interest, it is hardly necessary to remark how greatly the value of the collection will be increased, when every specimen shall have been critically examined, and its species determined, by so competent an authority as Mr. Gould. In connection with this branch of Natural History, Mr. Meynell has presented the Museum with his entire collection of Eggs of British Birds, amounting to more than 400 specimens, and embracing upwards of 200 species. Lieut. Rhodes has presented the Museum with a collection of West Indian Fishes, valuable for the unusual perfection in which their characters have been preserved, as well as for their intrinsic interest; the collection containing many of the more remarkable tropical genera, as *Platax*, *Balistes*, *Monacanthus*, &c.

The sum of £.50 has been laid out in the purchase of Shells, to improve the general conchological collection, which now contains examples of nearly all the well-marked generic forms, and is sufficiently complete to be consulted with advantage. Mr. Joseph Clarke has likewise presented the Museum with a fine series of North-American Uniones.

The British marine shells have been remounted on tablets and arranged in the raised case above that containing the foreign collection. Although this series includes most of the larger British species, yet, as a whole, it is but a very imperfect illustration of our native Testaceous Fauna, embracing not more than 250 out of above 600 species known to inhabit the British Seas. It is probable, however, that many present desiderata will be obtained, when railway communication shall have rendered the Coast more easily accessible.

Extract from the Report of the Curator of Comparative Anatomy.

During the past year valuable additions have been made to our osteological collections. The bones of the Polar Bear have been presented to the Society by Mr. Hammond, of Hull, and the bones of several mammalia by the Curator of this department. Most of these have been mounted, and are exhibited in the cases of the Museum, as well as the skeletons of the Tapir and Nyl-Ghau, which were previously in the Society's possession. These additions have, it is believed, placed the collection of the skeletons of the Mammalia at the head of all the provincial collections in this country; a position which the Society already occupied with respect to its collection of the skeletons of Birds. This extensive collection is now placed in what was lately the Mineralogical Room, where it is well displayed and of easy access.

Extract from the Report of the Curator of Antiquities.

The donations to the Collection of Antiquities have this year been unusually few. The Society is however much indebted to the Dean and Chapter of the Cathedral for having allowed the Mithraic Tablet in their possession to be deposited amongst the Antiquities of the Museum. This is one of the most interesting remains of Eboracum. Of the very few monuments relating to the worship of Mithras by the Romans which have been found in Britain, it is the most perfect; and though rude in workmanship, in its characteristic emblems it is allied to some of the most curious and remarkable of similar monuments known to exist in Europe.

Extract from the Report of the Curator of Meteorology.

The temperature of the year 1844 was .3 of a degree below the average of the preceding 13 years, and .2 above that of the year 1843. The mean height of the mercury was above the average. The rain of 1844 has been less than that of any

year since 1835, amounting only to 19.65 inches, and being $4\frac{1}{2}$ inches below the mean. In the four summer months thunder and lightning were of frequent occurrence, but these storms were not distinguished by violence or duration. The times of the moon's apogee and perigee have again been carefully observed. They have not borne the *critical* character which was noticed last year. Two storms of extreme violence, and more destructive at sea than any others during the year, coincided with the moon's apogee. The first of these occurred on the 24th of February. About that period the mercury rose and fell to an extent and with a rapidity unprecedented during the year. On the morning of the 24th it stood at 29.05; in the evening it had risen .6, and again fell rapidly to 28.75, the lowest point in the year. The second storm, nearly coincident with the apogee, commenced on the 13th of June; on the 14th it blew a hurricane from the N. W.

Hourly observations have again been made at the Vernal and Autumnal Equinoxes, and at the Summer Solstice. They were not carried on at the Winter Solstice. The following are some of the results:—

Vernal Equinox, Mean of 23 Obs, 39°	between ...	9 and 10 A. M. and 6 P. M.
Autumnal Equinox..... 53°	7 and 8 A. M. and 6 P. M.
Summer Solstice..... 61°	at 8 A. M. and 8 P. M.

Period of Maximum and Minimum Mercurial Column :

Vernal Eq. Max. 10 A. M., then steadily descending till the end of Observations.
 Autumnal ditto, Max. Noon : Minimum, 7 P. M.
 Summer Solstice, Max. 8 A. M., steadily descending throughout.

Result of Observations made throughout the year on the Oscillations of the Mercurial Column.

Mean height at nine, A. M.	29.9677
three, P. M.	29.9566
Mean daily depression at three, P. M. ....	.0121
Mean height for the whole year, the result of 2000 observations	29.9599.

Communications of the amount of Rain in different localities in Yorkshire, have been received as follows :—

	Inches.
York ...	19·65
Ackworth ...	18·82
Middleton ...	19·05
Kirby Moorside	23·86
Settle	27·44
Huggate ...	17·15 (reported as a deficiency of nearly 10 inches.)
Doncaster ..	18·18
Marr, Doncaster	18 75

METEOROLOGICAL REGISTER—YORK, 1844.

Barometer. Rain. Thermometer.

	Barometer.			Rain.						Thermometer.			Nights at or below 32° or less.		Prevalent Winds.
	Mean Height.	Highest Range.	Lowest.	Rain Inches.	Average Max.	Average Min.	Mean Temp.	Highest.	Lowest.	Nights at or below 32°	Days rain more or less.				
Jan.	30·01	30·51	29·15	1·34	43·1	32·9	38	52	21	14	16	Westerly			
Feb.	29·62	30·18	28·75	2·37	39·8	27·7	33·8	47	15	24	13	Westerly			
Mar.	29·85	30·58	29·15	2·03	46·9	33·9	40·4	60	27	12	17	Southerly			
April	30·18	30·55	29·68	0·56	60·4	39 1	49·7	66	31	3	6	Westerly			
May	30·24	30·62	29·92	0·39	62·4	41·1	51·8	72	33	0	9	Northerly			
June	29·97	30·26	29·68	2·21	67·2	48·5	57·8	81	42	0	13	S Westerly			
July	29·93	30·28	29·32	2·86	69	48·6	58·8	81	41	0	16	Westerly			
Aug.	29·82	30·42	29·33	2·03	66·3	48·0	57·0	74	40	0	16	From NW to SW			
Sept.	30·11	30·45	29·70	1·88	64·4	46·3	55·3	79	35	0	10	N Easterly			
Oct.	29·71	30·40	28·95	1·22	55·6	39·7	47·6	66	31	2	15	Variable, N, S, W			
Nov.	29·86	30·43	29·00	2·37	48·6	39·3	43·9	57	28	2	16	Southerly			
Dec.	30·16	30·59	29·49	0·39	38·7	30·7	34·7	44	22	23	6	S East			

Mean height } 29·95 Total Rain } 19·65 Mean An. Temp. } 47·4 80 153

COMPARATIVE PREVALENCE OF WINDS.

N	S	E	W	NE	NW	SE	SW
53	42	16	72	32	34	50	67 = 366

THE
TREASURER OF THE YORKSHIRE PHILOSOPHICAL SOCIETY,
 IN ACCOUNT FOR THE YEAR 1844.

Dr.		Cr.
1844.		1844.
	£. s. d.	£. s. d. £. s. d.
Annual Subscriptions and Arrears	426 0 0	Permanent Debt, viz.:
Admission of New Members	55 0 0	Yorkshire Insu-
Compositions in lieu of Annual		rance Company
Subscriptions	40 0 0	W. Gray, Esq. . .
Ladies' Subscriptions and Keys		Six Members at
of the Gardens	59 7 0	£50 each
Tickets at 1s. each	124 18 9	300 0 0
Rents	69 15 6	3800 0 0
Use of the Tent	10 0 0	Balance overdrawn
Mr. Newman's Lectures	19 18 6	Messrs. Swann and
Gas for Evening Meetings	1 10 0	Co. Dec. 31st, 1843
Dr. Beckwith's Legacy (less duty)	9000 0 0	1064 16 2
Permanent Debt, viz.:		Crown Rent
Mortgage on the		Corporation Rents..
Manor Shore ..	2500 0 0	Insurance
Wm. Gray, Esq.	1000 0 0	Gate Keepers
Six Members at		Keeper of Museum
£50 each	300 0 0	Collector
	3800 0 0	Interest
		Sub-Curator, on Ac-
		count of Salary,
		Labour, &c.
		559 0 0
	13,606 9 9	832 13 1
Balance overdrawn		Sundry Bills:
Messrs. Swann and		New Cases
Co., Dec. 31st, 1844	1221 14 1	Repairs of the Hos-
		pitiun
		Instruments for the
		Observatory.
		Executors of Dr.
		Beckwith
		Mr. Cluderay, Joiner
		„ Noton, Glazier. . .
		„ Brown, Painter. . .
		„ Bowes, Bricklayer
		„ Buckley, Mason
		„ Turner, Plasterer
		„ Walker, Iron-
		monger
		Purchase of Books. . .
		Purchase of Spec-
		imens
		Sundry Small Bills ..
		Property Tax
		Garden Alterations
		1504 5 7
		Yorkshire Insurance Company
		Purchase of £5000 New 3¼ per
		Cent. Annuities, and expenses
		5126 9 0
	£14,828 3 10	£14,828 3 10

Audited, Feb. 3rd, 1845,
 JAS. BARBER,
 T. H. TRAVIS.

ANALYSIS OF DISBURSEMENTS

DURING THE YEAR 1844.

ORDINARY EXPENSES.

	£.	s.	d.	£.	s.	d.
Rents, Rates, &c. :						
Rent to the Crown	1	0	1			
Rent to the Corporation	6	8	8			
Poor Rates, Highway Rates, Land & Property Tax	10	1	7			
Insurance and Water Rent	11	0	0			
				28	10	4
Salaries and Wages :						
Keeper of the Museum	74	10	0			
Sub-Curator (including petty Expenses) ...	100	0	0			
Servant	20	0	0			
Lodge-keeper and Gate-keeper	14	5	0			
Labourer	36	8	0			
Collector	10	0	0			
Occasional Labourers	106	15	6			
				361	18	6
Interest on Debt :						
Interest on Mortgage Debt	97	1	8			
Interest on £1000	38	16	8			
Interest to Bankers for being overdrawn ...	26	11	0			
				162	9	4
Museum, Gardens, Grounds, &c. :						
Painting and General Repairs	262	16	9½			
Purchase and Preparation of Specimens ...	219	7	8			
Observatory	21	17	1			
				504	1	6½
Library :						
Books and Binding				60	4	6
Incidentals :						
Printing, Advertising, and Stationery ...	14	1	5			
Coals, Gas-light, and Coke	30	12	10½			
Postages, Carriage, and Sundries	39	14	2			
				84	8	5½

EXTRAORDINARY EXPENSES.

Subscription to Dr. Beckwith's Monument	60	0	0			
New Cases	305	10	11½			
Repairs of the Hospitium	172	9	9			
Instruments for the Observatory	103	18	6			
Alterations in the Gardens, Removal of Greenhouse, &c.	470	6	4			
				£1112	5	6½

SUBSCRIBING MEMBERS

ELECTED SINCE THE LAST ANNUAL REPORT.

1844.

James Chadwick, *York*.
Randall Hatfield, *Thorp-Arch*.
Henry J. Lesley, *Sinnington, Pickering*.
Joseph Rider, *Thirsk*.
William Scawin, *York*.
Thomas Wright, *York*.

JANUARY AND FEBRUARY, 1845.

Benjamin Burnell, *York*.
Henry Nelson Champney, *York*.
Henry Cobb, *Heworth Place, York*.
George Fowler Jones, *York*.
Robert Hudson, *York*.
John Meek, *York*.
Thomas Norcliffe, *Langton Hall, Malton*.
George Palmes, *Naburn Hall, York*.
William Short, *York*.
Nathan Turner, *York*.
John Westland, *York*.
Henry Redhead Yorke, *M. P. Eaton Square, London*.

HONORARY MEMBERS

ELECTED AT THE ANNUAL MEETING, 1845.

William Lucas, *The Mills, Sheffield*.
Very Rev. George Peacock, Dean of Ely, F.R.S., F.G.S., *President of the British Association*.
The Earl of Rosse, F.R.S., M.R.I.A., *Birr Castle, Ireland*.
Lieut. Colonel Edward Sabine, R. A., F.R.S., *Woolwich*.

FOREIGN HONORARY MEMBERS.

Justus Liebig, M. D., *Professor of Chemistry in the University of Giessen*.
Carlo Matteucci, *Professor of Natural Philosophy in the University of Pisa*.

RESOLUTIONS

PASSED AT THE ANNUAL MEETING, FEBRUARY 4, 1845.

1. That the Report of the Council be adopted, and printed for the use of the Members.
2. That the Thanks of the Society be given to the Vice-Presidents and Members of the Council retiring from office.
3. That the Thanks of the Society be given to the Treasurer and Secretary for their valuable services.
4. That the Thanks of the Society be given to the Curators, for their diligent and useful services in the several departments of the Museum.
5. That the Council be empowered, on certain days to be selected by them, during the present year, to permit free admission to the Museum and Gardens to all persons ; the mode of admission to be regulated by the Council.
6. That the Council be empowered to admit Strangers by the purchase of Tickets during the present year.
7. That the Council be authorized to admit to the Museum and Gardens, as Temporary Subscribers, any occasional visitors to York, not residing in the County, at the rate of One Pound for four months for themselves and their families ; but that in no case shall such privilege be granted for a longer period than twelve months.
8. That the Resolution of the last Annual Meeting, empowering the Council to authorize the holding one or more Horticultural Meetings in the Society's Gardens, be continued in force during the present year.

DONATIONS

TO

THE SOCIETY'S MUSEUM.

GEOLOGY.

- G. C. Atkinson, Esq. Piece of Skiddaw Slate, containing a curious organic impression.
- Edward Barton, Esq. A remarkably beautiful example of *Psammobia lævigata*, and *Pecten inæquicostatus*, from the Malton Oolite.
- Rev. J. Blackburn Fossils and specimens of rocks, from the Holy Land.
- Joseph Clarke, Esq. (*Cincinnati*) Two teeth of *Mastodon giganteus*, and a collection of Silurian fossils, from the neighbourhood of Cincinnati.
- Dr. Edward Clark *Voluta Lamberti*, from the Suffolk coast.
- F. J. Copsie, Esq. *Astacus scabrosus* from Malton, *Septaria* from Norfolk, and various other fossils.
- Mr. Isaiah Deck Fossils from the Coralline Crag of Suffolk, and casts of unique or rare fossils.
- Dr. Falconer Episternum of the Gigantic fossil Tortoise (*Colossochelys Atlas*) from the Siwallic Hills in Northern India.
- Wm. Gray, jun. Esq. A valuable series of fossils from the Cornbrash and inferior Oolite of the Yorkshire coast.
- George Hudson, Esq. Specimens of fossil Fishes of the genera *Palæoniscus* and *Platysomus*, from the Magnesian Limestone near Ferrybridge.
- Samuel Hailstone, Esq. ... A large fossil stem from the Coal at Wigan.
- Thos. Meynell, jun. Esq. *Pachyodon lanceolatus*, and various other fossils from the coast.
- Rev. F. O. Morris Specimens of ores, and miscellaneous fossils.

- Late Rev. C. Payton Several interesting fossils from the Dudley Limestone.
- Miss Phillips A large series of Silurian Fossils from the neighbourhood of Great Malvern.
- Henry Pickering, Esq. ... Several choice fossils from the Oolite of Malton.
- Lord Prudhoe A very interesting series of specimens of *Stigmaria ficoides*, from the Coal-measure Sandstone, between Richmond and Barnard Castle.
- B. S. Sawden, Esq. Sponges and other fossils from the Chalk at Bridlington.
- Joseph Spence, Esq. Two specimens of *Stigmaria ficoides*.
- William Start, Esq. Some choice fossils from the Coralline Crag.
- Mrs. Thackeray Fossil tree in sandstone, found near Harrogate.
- Chas. Thiselton, jun. Esq. A new fossil *Astarte* from the Bridlington Tertiary deposit.

MINERALOGY.

- Executor of the late Wm. Hatfeild, Esq. } An extensive and valuable series of Minerals, collected by Mr. Hatfeild, in Yorkshire, Cumberland and Durham.

ZOOLOGY.

VERTEBRATA.

- His Grace the Archbishop of York } White variety of the common partridge.
- Thomas Allis, Esq. 29 Skeletons of Foreign Mammalia.
- S. Barber, Esq. Specimen of the water rail.
- Henry Anderson, Esq. ... Ditto.
- Mr. H. Baines Yellow-Hammer with deformed beak, and Tree Sparrow.
- Rev. Thos. Egerton Skeleton of the common fox ; and young alligator, stuffed.

Sir John Franklin	80 Bird skins, from Van Dieman's Land.
John Gould, Esq.....	100 ditto, from Australia.
Lieut. Col. Hildyard	Curious variety of the common grouse.
Mr. Hammond, <i>Hull</i>	Skeleton of the polar bear.
Richard Ingram, Esq. ...	9 Bird skins, from Van Dieman's Land.
T. Meynell, jun. Esq.	His collection of Eggs of British Birde, including 210 species, and 460 specimens.
W. Rudston Read, Esq. ...	11 Bird skins, from the Eastern Islands of Australia; a large shrike, and pied variety of the common reed-bunting.
Lieut. Rhodes, (<i>68th Light Infantry</i>)	A collection of Fishes from the West Indies, in a very unusual state of preservation, including the genera ostracion, platax, monocanthus, balistes, and many others, with several interesting crustacea.
T. Rudd, Esq.	Specimen of the Argentine, (<i>Scopelus Humboldtii</i>) and of the Tadpole-fish (<i>Raniceps trifurcatus</i>) one of the rarest British species.
Messrs. J. H. & W. Tuke	Lesser black-backed gull (<i>larus fuscus</i>) in winter plumage; black-headed gull (<i>larus ridibundus</i>) ditto; and stormy petrel (<i>thalassidroma pelagica.</i>)
John Wilson, Esq.	Flying-fish.

MOLLUSCA AND ZOOPHYTA.

Rev. J. Blackburn	Specimens shewing the shell of the paper nautilus, (<i>argonauta argo</i>) in various stages of growth.
Joseph Clarke, Esq.	A collection of uniones, from the United States.
Mr. Chas. Peach	Cornish Zoophytes, to fill up desiderata in the collection of British species.
Mr. H. Stutchbury	3 Specimens of <i>melo indica</i> .
William Reed, Esq.	Specimen of <i>Spondylus regius</i> .

B O T A N Y.

- Joseph Clarke, Esq. Dried Plants from Cincinnati.
 Mrs. Davies Gilbert..... Plant of wheat from her own garden,
 bearing 145 stems.
 Earl Fitzwilliam 36 Specimens of different kinds of woods.
 Miss Wickham Specimens of Swiss Plants.

FOR THE GARDEN.

- James Yates, Esq. Collection of Abyssinian Seeds.
 Lieut. Wake Collection of East Indian Seeds.

A N T I Q U I T I E S.

- Deposited in the Museum } Mithraic Tablet, found in Micklegate,
 by the Dean and Chap- } York, 1747. (See Wellbeloved's Ebu-
 ter of York } racum, plate ix, and pages 79—85.)
 Her Grace the Dowager } A Celt.
 Duchess of Leeds }
 Miss Norcliffe..... Ancient Marbles from Rome, and Anti-
 quities from Herculaneum.
 H. Robinson, Esq. .. Roman Pottery, and Red Samian Ware,
 dug up at Burton Stone, Clifton.
 John Wilson, Esq. An ancient Spur.

COINS AND MEDALS.

- Rev. A. Cumby Denarius of Hadrian, found near Cat-
 terick.
 F. J. Copsie, Esq. 16 Stycas, found in St. Leonard's Place.
 Hon. Wm. Stourton A Jewish Medal, and 4 Brass Coins.

MISCELLANEOUS.

- John Camidge, jun., Esq. Model of a Cromlech.
 Wm. Earl, Esq. An Indian Hammock.
 Executors of Dr. Beckwith A Florentine Mosaic.
 Rev. Wm. Taylor An instrument invented by the late Sir J.
 Robison, to increase the brilliancy and
 perfect combustion of Coal gas.
 Messrs. J. H. & W. Tuke Systematic Catalogue of British land and
 (*the compilers*) freshwater shells, for labelling collec-
 tions.
 Thomas Wilkinson, Esq. Pair of richly ornamented foreign slippers.
-

DONATIONS TO THE LIBRARY.

- J. Allies, Esq. (*the Author*) Two Papers published in the *Archæologia*,
 on some Antiquities discovered near
 Scarborough.
 British Association for the } Report for 1843.
 Advancement of Science }
 Birmingham Phil. Society Report for 1843.
 Executors of Dr. Beckwith Annals of Philosophy, 10 vols.
 Jameson's System of Mineralogy, 3 vols.
 Kirwan's Mineralogy, 2 vols.
 Accum's Mineralogy, 2 vols.
 Jameson's Geognosy.
 Jeffries on Diamonds and Pearls, &c. &c.
 Cambridge Phil. Society... Transactions, Vol. viii, Part 1.
 E. Charlesworth, Esq. ... Yarrell on the growth of Salmon in fresh
 water (with coloured illustrations.)
 Magazine of Zoology and Botany, con-
 ducted by Sir Wm. Jardine and others,
 2 vols.
 Magazine of Natural History, conducted
 by J. C. Loudon, 9 vols.
 Magazine of Natural History, (New
 Series) conducted by E. Charlesworth,
 4 vols.

- Dr. Cullen (*the Author*) .. Tables of the Climate of Sidmouth.
- Dr. Daubeny (*the Author*) A Lecture on Institutions for the better education of the farming classes.
Supplement to the Introduction to the Atomic Theory.
Sketch of the writings and character of Decandolle.
- Geological Society, London Proceedings, Part xxviii.
- Richard Griffith, Esq. (*the Author*) Synopsis of the Carboniferous Fossils of Ireland, (with numerous plates.)
- Dr. R. King (*the Author*) Address to the Ethnological Society of London.
- Dr. Laycock Report of the Health of Towns Commission, 2 vols.
- Leeds Phil. and Lit. Society Report for 1843.
- Dr. Morris (*the Author*) On the Construction of Hospitals for the Insane.
- Prof. Phillips (*the Author*) Memoir of William Smith, L.L.D.
- Royal Society, Edinburgh Transactions, Vol. xv. part iv.
- Society of Arts Transactions, Vol. liv.
- J. Yates, Esq. (*the Author*) Textrinum Antiquorum, an Account of the Art of Weaving among the Ancients.
- Zoological Society, London Proceedings for 1843.

WORKS PURCHASED FOR THE LIBRARY.

- Agassiz, Poissons Fossiles, completion of the Work ; and Supplement, (in continuation.)
- Gould's Birds of Australia, 17 numbers, (in continuation.)
- Gray's Genera of Birds, with Illustrations by Mitchell, (in continuation.)
- Sowerby's (G. B.) Thesaurus Conchyliorum, (in continuation.)
- Sowerby's (J. E.) Mineral Conchology of Great Britain, (in continuation.)
- Thorpe and Handley's Manual of British Marine Shells.

MONTHLY MEETINGS IN 1845—1846.

1845. MARCH 4 ——— APRIL 1 ——— MAY 6 ——— JUNE 3		1845. OCTOBER 7 ——— NOVEMBER..... 4 ——— DECEMBER 2 1846. JANUARY 6
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ANNUAL MEETING, FEBRUARY 5, 1846.

RULES OF ADMISSION

TO THE MUSEUM AND GARDENS.

I. Members of the Society, and (Contributors of £15. and upwards to the Building Fund,) have the privilege of personal admission, and of PERSONALLY INTRODUCING VISITORS to the Museum and Gardens, at all times when they are open.

II. Members (and Contributors of £50.) have the further privilege of giving to VISITORS WRITTEN ORDERS of admission, which must be signed with the name of the Member or Contributor, and bear the name of each Person to be admitted. Such written orders are received at the Lodge every day (Sunday excepted) between the hours of Ten A. M. and Four P. M. and must be left with the Lodge-Keeper. N. B. *He is forbidden to accept money from Visitors.*

III. LADIES who are admitted by the Council as Annual Subscribers of £1. (or who have contributed £10. or upwards to the Building Fund,) have the privilege of personal admission, and of PERSONALLY introducing LADIES as occasional Visitors.

IV. STRANGERS may obtain (at Mr. Chapman's Coney-Street, at Mrs. Wilson's Lendal, near the Museum Gate, at Mr. Burdekin's High-Ousegate, and at Mr. Linney's, Low-Ousegate,) ADMISSION TICKETS, price One Shilling for each person; which will entitle them to admittance at all times when the Museum and Gardens are respectively open (Sundays excepted). The Tickets must be left at the Lodge.

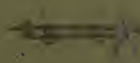
V. The adult inmates of the FAMILY of a Member (or a Contributor of £50.) have the privilege of personal admission whenever the Museum and Gardens are open.

VI. Members and others entitled to personal admission, may obtain a KEY of the Private Entrance to the Garden, on application to Mr. Baines at the Museum, and payment of Five Shillings for the Current year; such payment to be due annually in advance on the 1st of January, while the key is retained.

VII. CHILDREN are not to be left in the Garden, except under the care of their Parents, or other responsible person.

VIII. The Gardens are open daily till dusk. On Sundays there is no admission between the hours of Ten and Twelve. The MUSEUM is open daily (except Sunday) from Ten A. M. till Four P. M.

IX. The Sub-Curator, Mr. Baines, is fully empowered by the Council to see these regulations enforced, and to prevent injury to the Museum, Gardens, Abbey Walls, and antiquarian monuments.




Yorkshire Philosophical Society.

A N N U A L R E P O R T

FOR

M D C C C X L V .



ANNUAL REPORT
OF THE COUNCIL
OF THE
YORKSHIRE
PHILOSOPHICAL SOCIETY

FOR

MDCCCXLV

PRESENTED TO THE ANNUAL MEETING

FEBRUARY 3, 1846.



YORK:

R. BURDEKIN, 16, HIGH-OUSEGATE.

1846.

TRUSTEES
OF
THE YORKSHIRE MUSEUM,

APPOINTED BY THE ROYAL GRANT.

EDWARD, LORD ARCHBISHOP OF YORK.
GEORGE, EARL OF CARLISLE, K.G.
CHARLES WILLIAM, EARL FITZWILLIAM.
THOMAS PHILIP, EARL DE GREY.
HON. AND VERY REV. HENRY HOWARD, D.D.
SIR WILLIAM LAWSON, BART., F.S.A.
FRANCIS CHOLMELEY, ESQ., F.S.A.
ROBERT DENISON, ESQ.
REV. WILLIAM VERNON HARCOURT, F.R.S.
RICHARD JOHN THOMPSON, ESQ.

PATRONESSES

OF THE

Yorkshire Philosophical Society.

HER MAJESTY THE QUEEN.

H. R. H. THE DUCHESS OF KENT.

PATRONS.

HIS GRACE THE ARCHBISHOP OF YORK.

EARL OF CARLISLE, K.G.

EARL FITZWILLIAM, F.R.S.

EARL OF TYRCONNEL, F.R.S.

THE VISCOUNT MORPETH.

THE LORD STOURTON.

THE LORD FEVERSHAM.

THE LORD WENLOCK.

OFFICERS OF THE SOCIETY, 1846.

PRESIDENT:

EARL FITZWILLIAM, F.R.S.

VICE-PRESIDENTS:

WILLIAM GRAY, F.G.S.

REV. WM. VERNON HARCOURT, F.R.S.

GEORGE HUDSON, M.P.

SIR J. V. B. JOHNSTONE, BART., M.P., F.G.S.

SIR. J. H. LOWTHER, BART., M.P.

PROFESSOR PHILLIPS, F.R.S.

REV. CHARLES WELLBELOVED.

TREASURER:

ROBERT DAVIES, F.S.A.

COUNCIL:

*Elected 1843....*REV. JOHN KENRICK.

*Elected 1844....*REV. R. B. COOKE,

GEORGE GOLDIE, M.D.

THOMAS HENRY TRAVIS.

*Elected 1845....*THOMAS ALLIS,

FAVIL JAMES COPSIE,

W. L. NEWMAN, F.R.A.S.

*Elected 1846....*HENRY NELSON CHAMPNEY,

JOHN FORD,

JOSHUA OLDFIELD,

JOHN PREST,

EDWIN SMITH.

SECRETARY:

THOMAS MEYNELL, JUN., F.L.S.

KEEPER OF THE MUSEUM:

EDWARD CHARLESWORTH, F.G.S.

HONORARY CURATORS:

ANTIQUITIES	REV. C. WELLBELOVED.
BOTANY	OSWALD ALLEN MOORE.
COMPARATIVE ANATOMY..	THOMAS ALLIS.
LABORATORY	T. H. BARKER.
LIBRARY	GEORGE GOLDIE, M.D.
METEOROLOGY	JOHN FORD.
OBSERVATORY	W. L. NEWMAN, F.R.A.S.

SUB-CURATOR:

HENRY BAINES.

YORKSHIRE PHILOSOPHICAL SOCIETY.

REPORT OF THE COUNCIL

TO THE

ANNUAL MEETING OF THE SOCIETY, ON THE 3rd OF FEBRUARY, 1846.

The Members of the Yorkshire Philosophical Society will expect to hear, on the present occasion, a Report of the completion of considerable works undertaken for the benefit of the Institution; they will ask at what cost the improvements so long desired in the Museum Grounds have been at last accomplished; they will enquire what has been gained by providing additional scientific assistance in the Museum, and whether any further plans are in progress which may raise yet higher the Character of the Institution, and place it in its right and permanent position.

It is the duty of the Council to meet these expectations. They do so with great satisfaction; believing that the large expenditure, for which they have to account, has been well laid out and will be well repaid; that the Society's finances, far from being crippled by this great outlay, are adequate to bear the charge of a further effort for enlarging the Grounds and augmenting the Antiquarian Treasures; and that while the Museum, which is the centre and mainspring of our efforts, has received its due share of attention, the officers of the establishment have been placed in a state of greater comfort and efficiency.

The Museum Gardens now occupy the most considerable portion of the space included between the City Rampart, and the defensive walls of St. Mary's Abbey; a space full of incentives to piety and learning,—rich in the monuments of art and time,—no longer exposed to ravage and neglect, but permanently secured for useful studies and rational gratifications. To adorn this ground, to arrange in it walks and plantations suitable to the noble and thought-inspiring edifices which it supports, was the task which the Council entrusted to Sir John Nasmyth, and they have the satisfaction to report that it has been well and carefully executed. The grounds as

now laid out, not only relieve and harmonize in pictorial effect with the antique walls and buildings immediately around, but offer pleasing views of more distant objects, and minister in a high degree to the gratification of the Members.

As guardians of St. Mary's Abbey we may regret that portions of the demesne, and even parts of the church, are still beyond the boundaries of the Society, and inaccessible to its thousands of Visitors; but as Citizens of York we must rejoice that so much has been saved which once appeared destined to destruction, and avail ourselves of every occasion for appealing to that public spirit which now happily animates our Municipal Authorities, in favour of the monuments of ancient York.

That such appeals in suitable cases will not be fruitless, the Council have a most gratifying proof in the consent of the Corporation to place in the possession of the Society what remains of the Hospital of St. Leonard, with so much of the area surrounding this building and adjoining the Roman wall, as will allow of their being freed from many incumbrances and examined with convenience and advantage. In considering this question, the Lord Mayor and the Members of the City Council evinced the most earnest desire to forward a measure so acceptable to the lovers of Antiquity. And the Society will be enabled by their friendly co-operation to offer to the Members of the Archaeological Institute, when they assemble in York, a most characteristic welcome, amidst Roman Towers and Mediæval Abbeys, the preservation of which is the pledge of our own duration.

For this important addition to the possessions of the Society, the small rent now paid to the Corporation is to be augmented to £20: the expenses of the requisite alterations to be defrayed by the Society. The objects which now deform the remains of St. Leonard's Hospital must be removed, a new fence-wall constructed, the ground excavated and planted, the Lodge rebuilt in a more convenient site. The expense of these alterations cannot now be estimated minutely: they will not however be too great for the important object in view, and not too great for the Society to appropriate. In employing for this purpose a portion of the Beckwith Legacy, the Council confidently believe the Society will be acting in the spirit and in conformity with the intention of the donor: they believe the addition of the Arches of St. Leonard's to the attractions of the Museum grounds

will advance the objects, and not be injurious to the finances of the Institution, which, supported by the force of enlightened public favour, may count upon an increase of contributors commensurate with the augmented advantages which it offers. The payment of rent to the Corporation is fully justified by these considerations. The Council are prepared to advise that no delay should be allowed in the execution of this work; the preliminary steps, so far as they depend on the Corporation have been taken, the greater part of the premises are unoccupied, and it is desirable to have the new Lodge and the new Boundary completed before the summer, when, besides the usual great influx of visitors, we may expect the arrival of the numerous Members of the Archæological Institute.

Before passing from the subjects connected with the improvement of the grounds, the Council must report to the Society an arrangement of considerable importance which they have been enabled to effect, whereby the controul of a portion of the Manor Shore property which was let on a long lease, has been recovered. They have repurchased for the Society, the lease of the Swimming Bath, with all its constructions, at the cost of £1475. By this arrangement the plans of Sir John Nasmyth, for the ornamental works in the Garden have been much facilitated; an objectionable entrance to the Museum Grounds has been closed; while the Baths have been rendered more accessible, and capable of receiving any further extension which may be deemed advisable hereafter. This has been moreover far from an unprofitable investment. After paying all regular expenses of the Bath and the cost of some indispensable repairs, there remains, for the credit of the Society, on the Annual Account, the sum of £60. 10s. 11d. being equal to 4 per cent on the purchase money.

Serious apprehensions having been for sometime felt as to the safety of some parts of the ruins of St. Mary's Abbey—which the Society is bound to keep in as good a state as possible, the Curator of Antiquities received authority from the Council to take such steps as might appear necessary to repair and sustain them. He was fortunate in obtaining the advice of Mr. Smirke, and it is hoped that these venerable remains are not only improved in their appearance, but strengthened to resist the attacks of time for a long series of years. It may deserve attention whether something further may not be attempted toward securing, and in part replacing, the beautiful Norman piers and arches at the entrance of the Chapter House.

The House designed for the Sub-curator, is finished, lighted with Gas, and occupied by that valuable officer. The whole of the lower floor of the Museum thus becomes available for the Laboratory and collections, and the Council recommend that immediate steps be taken for rendering these extensive rooms practically useful.

The condition of the Museum is satisfactory, the principal rooms, now extremely well warmed by Hot Water-pipes, are suitable for study at all seasons of the year. The collections are increased and, what is of more consequence, the progress of order is observable amongst them,

Under the direction of the Secretary, the foreign Birds have been remounted by Mr. Baines, after having been carefully examined, discriminated, and catalogued by a highly competent authority—Mr. Gould. The Society is thus put in possession of a nearly perfect catalogue of the Ornithological collection, embracing more than a thousand species. A duplicate copy of the catalogue has been prepared, and the labelling of the Specimens will be proceeded with forthwith.

The collection of British Shells has been revised by the Keeper of the Museum, who has commenced the enlargement of this at present very limited series.

The Society is indebted to Edward Hailstone, Esq. for a very choice collection of Sponges and Corallines* and to the Rev. John Blackburn for two excellent examples of the Animal which inhabits the Paper Nautilus Shell.

The Stormy Petrel, has been added to the Allis collection of Bird's Skeletons, and the bones of the Polar Bear, Civet Cat and Serval have been mounted and placed with the other osteological treasures. Thus the Zoological collections, taken in general, are undergoing improvement in completeness and in classification.

No very important addition has been made to the Minerals, but the Geological department of the Museum, by donation and purchase, has been considerable increased. The Rev. A. Griesbach's collection, purchased by the Council, has yielded some unique and many very valuable specimens from Malton and Westow; interesting Fishes, a rare Pentacrinite, and a remarkable series of Ophiuridæ, have been obtained by purchase from the Lias and

* Collected by his late brother Samuel Hailstone, Esq., to whose labours the Society owes its beautiful series of British Crustacea.

Marlstone of the Yorkshire Coast. The Council have requested the Keeper of the Museum, to watch the progress of the Railway excavation near Bridlington, with a view to complete the History of the interesting Tertiary deposit there, the fossils of which may now be seen in the same case with the congenerous remains of the Suffolk Crag. From beyond the limits of Yorkshire we have received a specimen of part of the head of an undescribed genus of quadrupeds, (allied to *Hyracotherium*,) from Herne Bay, presented by Wm. Richardson, Esq., and a great number of contributions from the Mountain Limestone, Kimmeridge Clay, Chalk, London Clay, and the Tertiary beds of the Isle of Wight. These contributions, filling fifty drawers, have been obtained by a system of exchanges, which Mr. Charlesworth has brought into action, and which he has supported chiefly by the liberal appropriation of his own large series of duplicate Crag fossils, for the Society's collection yields in fact very few duplicates even from Malton, Whitby, Speeton, or Flamborough. Another service which Mr. Charlesworth has rendered to the Society, and to Geologists in general, is the compilation of an extensive catalogue of British fossils and the preparation of it for the press in a form adapted to the labelling of collections. The first part of this catalogue, embracing the fossils of the tertiary formations, is nearly ready for publication.

During the past year some interesting additions have been made to the Flora of Yorkshire,* and the zealous Curator of Botany expresses his expectation of seeing the Herbarium (now conveniently arranged for study,) much enlarged in respect of the rarer species. He has drawn the attention of the Council to the insufficiency of the Botanical part of the library, a defect certainly not confined to that department of Natural History. Nor is the Antiquarian part of the Library more complete. The Society has indeed received many donations of valuable books; it has purchased some of a beautiful and costly character; it subscribes annually for a few periodical works; its shelves are full, but not so *well* filled as to attract many readers to the Library. The Council are satisfied that these evils may be remedied: they have resolved to render the Library more conveniently accessible, by stationing in the room for certain hours daily, a person to act as clerk, and register the issue and replacement of books, and they will direct immediate attention to the completion of the catalogue.

*See List of Papers read to the Society.

Through the liberality of R. Nicholson, Esq., a valuable painting by Van Hurpe, has been presented to the Society, and placed in the Library.

In the early part of the year, the workmen employed in taking down the house at the corner of Jubbergate and Coney-Street, discovered below the floor of the cellar, a large deposit of silver coins, which were however unfortunately very widely dispersed before the discovery was made known to the Curator of that department. Owing to this speedy dispersion, the extent of the hoard has not been ascertained; there appears however reason to conclude from subsequent inquiries, that the number of coins could not have been less than five or six hundred. All that have since been collected and examined, have proved to be pennies of William the first, with one or two of Edward the Confessor, and all of the same type; the reverse of the Conqueror's coins, agreeing with that of Edward. A small number was, soon after the discovery, presented by the Curator to the Museum, and more have since been received from Robert Davies Esq., the Treasurer. It is remarkable that the first great discovery of coins of William the first was made about a century ago, in York, and not far from the spot in which this last hoard was found.

The Society is much indebted to Richard Jennings Esq., of Driffield, for several interesting articles recently found in a tumulus situated in a field belonging to that gentleman, and which seems to have formed the grave of several ancient warriors, either Roman—British, or Anglo-Saxon. The articles are chiefly fragments of armour, fibulæ and clasps of various patterns, and other ornaments of dress.

A large and curious collection of Celts, accidentally discovered a little below the surface of the ground adjoining the church Yard at Westow, has been added by purchase to the Museum. The peculiar interest of this collection arises partly from its extent, the number of Celts amounting to more than fifty, but still more from the variety of size and shape in these not uncommon relics of ancient times; and from the occurrence of googes and chisels amongst them, formed of the same material, and justifying the opinion which Antiquaries of late have adopted.—that Celts were not, as was formerly supposed, exclusively instruments of war, but implements of the artisan or the husbandman, perhaps of both.

Several additions have been likewise made to the coins in the Roman series.

The Laboratory is in the usual working condition, and the Council have still continued to the School of Medicine the use of it for their regular courses of Chemical Lectures. The Curator desires an enlargement of the space allotted to the preparations, on the ground that further classification is necessary, and that injury is sustained for the want of it.

The Observatory is in work, and the Curator has employed the new instruments which the Society has provided, as much as their yet incomplete state allows. This imperfection should be remedied without delay.

The Meteorological observations made by Mr. Ford, the Curator of that department, appear in the following tables.

METEOROLOGICAL REGISTER—YORK, 1845.

	Mean Height.			Rain.	Average Max.	Average Min.	Mean Temp.	Highest.		Nights at or below 32°	Days of Rain, more or less.	Prevalent Winds.
	Highest.	Lowest.	Highest.					Lowest.				
1mo.	29·84	30·32	29·02	·87	43·2	33·7	38·5	53	14	12	16	Southerly
2nd	29·99	30·45	29·48	1·04	38·8	26·3	32·5	48	18	25	5	N. West
3rd	30·50	30·50	29·46	1·44	43·5	28·6	36·1	59	15	22	13	Northern
4th	29·91	30·54	29·07	1·68	56·9	36·0	46·5	67	24	7	11	Northern
5th	29·93	30·44	29·54	1·88	56·5	42·0	49·2	66	35	0	19	Northern
6th	29·94	30·45	29·25	3·79	69·4	49·5	59·4	83	42	0	15	Western
7th	29·94	30·30	29·36	3·84	65·7	50·0	57·8	75	43	0	13	Western
8th	29·89	30·47	29·25	6·21	63·6	49·7	56·6	72	46	0	18	N. West
9th	29·95	30·44	29·10	1·51	60·2	43·9	52·0	70	30	1	10	N. East
10th	30·00	30·55	29·32	3·51	55·6	41·6	48·6	62	28	3	16	Western
11th	29·71	30·44	28·79	1·17	50·3	37·5	44·0	57	28	9	15	Southern
12th	29·73	30·54	28·65	2·73	44·6	32·2	38·4	55	23	21	17	Western
Mean height	29·90			Total Rain	29·67			Mean An Temp.	46·6		100	168
COMPARATIVE PREVALENCE OF WINDS.												
N S E W NE SE NE NW												
37 43 9 80 46 53 39 58												

OSCILLATION OF THE MERCURIAL COLUMN.

Mean height at nine, A.M.	29.9140
-----three, P.M.	29.9037
	<hr/>
Mean daily depression at three, P.M. ....	.0103
	<hr/>
	.9100
	<hr/>
Mean height for the year	29.

The temperature of the Year 1845 was 1.1 degree below the mean temperature of York, on an average of 13 years, and .8 degree below that of 1844. The rain of 1845 amounted to 29.67 inches being $5\frac{1}{5}$ inches above the annual average, and 10 inches above the amount of 1844. More than $\frac{1}{3}$ of this fell in the 8th month.

We have received information of the rain fallen in 1845 from the following localities.—

Ackworth.....	27.08 in.
Huggate on the Wolds ..	34.75
Doncaster.....	59.00
Leeds	25.58
Kirby-Moorside	38.14

Numerous applications having been made in a previous year for a relaxation of the terms of admission to the Gardens and Museum, to large parties who visit York during the Summer by excursion trains on the Railways, the Council thought they would be meeting the wishes of those parties, as well as acting with that liberal spirit which has always characterised the Society, by adopting a regulation which enables persons so situated to have access to the Gardens and Museum on very moderate terms. They are happy to state that the course taken by the Council has given general satisfaction, and that between two or three thousand persons have availed themselves of the privilege thus afforded them of examining the numerous objects of interest now under your care, whilst it has at the same time tended to swell the amount received for admissions to a larger sum than has been received in any one previous year.

The Council have likewise thought it advisable to make an alteration in the mode of payment for admission, and instead of issuing tickets as heretofore, to receive the money at the gates, whereby much inconvenience to strangers is obviated.

In accordance with the resolution of the last Annual Meeting, the Council appointed a committee of the Society to make the necessary arrangements for the Horticultural Exhibition to be held in the Society's grounds. The Exhibition took place in August, and it is a subject of regret, that whilst the display was more splendid than on any former occasion, the receipts, owing to the very unfavourable state of the weather, were insufficient to meet the necessary expences thereof. The Council however are in nowise intimidated at the large amount of the deficiency, and feel assured that the Meeting will sanction a similar course to be pursued in the present year, satisfied that the great encouragement given to Horticulture thereby, and the increasing interest shown in the Exhibition, will, under ordinary circumstances, amply repay the Society for any loss they may have sustained.

In looking at the Treasurer's account which is appended, the Members will perceive how advantageous in all respects are the arrangements which the munificent Beckwith Legacy has rendered possible. It has relieved our Mortgages, repurchased our Land, built our Subcurator's house, ornamented our grounds, and allowed of the addition of an able officer to our Museum Establishment, and is yet capable of supplying means for the last great operation which the Council recommend, viz.; the enclosure of St. Leonard's Hospital. May this work be happily completed, and be followed by many strenuous efforts to preserve for the future the memorials of the past; efforts nowhere more likely to be supported, nowhere more likely to yield valuable fruits, than in the City and County of York.

THE
TREASURER OF THE YORKSHIRE PHILOSOPHICAL SOCIETY,
IN ACCOUNT FOR THE YEAR 1845.

Dr.		£. s. d.		£. s. d.	Cr.
1845.			1845.		
Annual Subscriptions and Arrears		524 16 2	Permanent Debt, viz.:		
Admission of New Members	....	110 0 0	Executors of the late		
Composition in lieu of Annual			William Gray Esq. 1000 0 0		
Subscriptions	.....	20 0 0	Six Members @ £50		
Ladies' Subscriptions and Keys of			each	300 0 0	
the Gates	.....	69 2 0	Balance overdrawn on		1300 0 0
Tickets	.....	152 6 0	Messrs Swann and		
Rents	.....	49 3 6	Co. Dec. 31st, 1844..		1221 14 1
Use of Tent	.....	10 0 0	Crown Rent	.....	1 0 1
Gas for Evening Meetings	.....	1 10 0	Corporation Rents	..	6 8 8
Swimming Bath	.....	85 13 9	Insurance	.....	5 0 0
Dividends on Stock	.....	126 4 3	Keeper of the Swim-		
Sale of £2000. Stock	.....	2032 6 0	ming Bath	.....	15 0 0
Permanent Debt, viz.:			Gate Keeper	.....	13 10 0
Executors of the late			Keeper of the Museum	.....	150 0 0
W. Gray, Esq.	1000 0 0		Collector	.....	10 0 0
Six Members @ £50			Interest	.....	94 15 8
each	300 0 0		Sub-Curator, on Ac-		
	.....	1300 0 0	count of Salary,		
		7575 1 8	Labour, &c.	548 8 3	
		4481 1 8		.....	844 2 8
Balance overdrawn			Sundry Bills:		
Messrs. Swann &			Cluderay	.....	34 5 6
Co. Dec. 31st, 1845	1843 10 3		Backhouse	.....	37 15 6
			Allen, Repairs to Abbey	.....	59 2 3
			Coal Bill	.....	21 12 6
			Sunter	.....	20 5 0
			Burdekin	.....	14 3 0
			J. E. Brown	.....	12 16 0
			J. Pritchett	.....	12 13 0
			Gas, Coke, &c.	22 13 6	
			Dalton	.....	12 11 0
			Hartley	.....	16 1 6
			Chapman	.....	10 0 6
			J. Walker	.....	10 12 0
			Sundry Small Bills ..	122 5 0	
			Garden Alterations ..	357 18 0	
			Sub-Curator's House	346 6 0	
			Ratcliffe on Account		
			of Hot water Ap-		
			paratus	130 0 0	
			Purchase of Swim-		
			ming Bath	1476 3 0	
			Purchase of Specimens	50 0 0	
			Purchase of Books ..	54 18 6	
			Horticultural Exhibition	106 9 0	
			Mr. Charlesworth's		
			petty Disbursements	20 0 0	
			Taxes	.....	10 4 6
					2968 15 2
		£6324 11 10			£6,324 11 11

Audited by us,
JOHN PHILLIPS,
THOMAS ALLIS.

ANALYSIS OF DISBURSMENTS.
ORDINARY EXPENSES.

Rents, Rates, &c. :	£. s. d.	£. s. d.
Rent to the Crown	1 0 1	
Rent to the Corporation	6 8 8	
Rates and Taxes	13 16 7	
Insurance and Water Rent	14 15 0	
	<hr/>	36 0 4
Salaries and Wages:		
Keeper of the Museum	150 0 0	
Sub-Curator	100 0 0	
Servant	20 0 0	
Lodge Keeper	13 10 0	
Keeper of the Swimming Bath	15 0 0	
Labourers	60 8 0	
Collector	10 0 0	
Occasional Labourers	22 14 0	
	<hr/>	391 12 0
Interest on Debt:		
Interest on £1000	38 16 4	
Interest to Bankers for being overdrawn	55 19 0	
	<hr/>	94 15 9
Museum, Gardens, Grounds, &c. :		
Painting and general repairs	76 14 6½	
Purchase and preparation of Specimens	97 11 1½	
Observatory	10 13 10	
	<hr/>	184 13 6
Library:		
Books and Binding:		73 5 0
Incidentals:		
Printing, Advertising, and Stationery	37 11 1	
Coals, Gas, Coke	42 0 8	
Postages, Carriages, and Sundries	28 15 2	
	<hr/>	108 6 11
EXTRAORDINARY EXPENSES.		
Alterations in Gardens &c.	793 10 0½	
Repairs of the Abbey	59 2 3	
Sub-Curator's House	350 12 3	
Hot Water Apparatus	137 19 0	
Loss by Horticultural Exhibition	106 2 0	
Purchase of the Swimming Bath	1476 3 0	
	<hr/>	2923 6 6
		<hr/>
		£3739 0 1
		<hr/>

RESOLUTIONS

PASSED AT THE ANNUAL MEETING OF THE

YORKSHIRE PHILOSOPHICAL SOCIETY.

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1. That the Report of the Council be adopted and printed for the use of the Members.
 2. That the Thanks of the Society be given to the Vice-Presidents and Members of the Council retiring from office.
 3. That the Thanks of the Society be given to the Treasurer, Secretary, and Curators of the different departments of the Museum, for their valuable services.
 4. That the Council be empowered, on certain days to be selected by them during the present year, to permit free admission to the Museum and Gardens to all persons; the mode of admission to be regulated by the Council.
 5. That the Council be empowered to admit Strangers during the present year, at the usual rates of payment.
 6. That the Council be authorized to admit to the Museum and Gardens, as temporary subscribers, any occasional visitors to York, not residing in the County, at the rate of One Pound for four months for themselves and their families; but that in no case shall such privilege be granted for a longer period than twelve months.
 7. That the Resolution of the last Annual Meeting, empowering the Council to authorize the holding one or more Horticultural Meetings in the Society's Gardens, be continued in force during the present year.
 8. That the best Thanks of the Society be given to the Chairman and Committee of Management of the Horticultural Fête held in August last; and that they be respectfully requested to continue their valuable services for the year 1846.

SCIENTIFIC COMMUNICATIONS

TO THE

GENERAL MEETINGS,

1845.

MAY 6.—PROF. PHILLIPS—On some Phenomena noticed during the Solar Eclipse of that Morning.

OCT. 7.—MR. CHARLESWORTH—On a Fossil from Herne Bay, indicating the existence of a new and very remarkable genus of Quadrupeds during the deposition of the London Clay.

“ “ On the relation existing between the Paper Nautilus Shell, and the Octopus, hitherto found occupying it, principally in reference to some details of the habits of the animal; communicated by the Rev. JOHN BLACKBURN, of Attercliffe, Sheffield.

NOV. 4.—REV. C. WELLBELOVED—On the contents of a Tumulus near Driffild, opened by Richard Jennings, Esq.

“ “ On a very curious Collection of Celts and other tools, found near the church at Westow.

DEC. 2.—MR. O. A. MOORE—On some additions to the Flora of Yorkshire.

DEC. 2.—MR. CHARLESWORTH—On a rare and probably undescribed Pentacrinite from the Marlstone of Staithes.

DONATIONS

TO THE MUSEUM.

GEOLOGY.

- Capt. H. Alexander, (*Twickenham*)... .. Some of the rarer fossils of the Suffolk Crag.
- Mr. H. Baines A *Cidaris* in flint, and a Shell of the Genus *Conus*? from the Brandsby Slate.
- Mr. Bleckley Piece of Amber containing Insects.
- J. Brown, Esq. (*Stanway, Colchester*) Casts of fossil jaws of *Rhinoceros* from the Coast of Essex.
- Dr. Champney Tooth of the fossil Elephant, from the gravel of Middlethorpe.
- E. Charlesworth, Esq. Series of tertiary, chalk, and mountain lime-stone fossils, including about 1000 specimens.
- Rev. T. Egerton Specimen of *Ammonites giganteus*, and petrified wood from the Isle of Portland.
- F. T. Fletcher, Esq. A *Nautilus*, from the magnesian lime-stone at Garforth, Leeds.
- Dr. Forrest, (*Stirling*) Tooth of the *Megalichthys Hibberti* in Coal.
- Rev. J. Kenrick Specimen of *Lepidodendron obovatum*, from the Coal-shale.
- Dr. Lee, (*Hartwell, Aylesbury*) Fossils from the Kimmeridge clay at Hartwell.
- John Lister, Esq. (*Doncaster*) Fossils from the neighbourhood of Bridlington, including an undescribed species of *Scaphites* from the chalk.
- Thos. Meynell, Jun., Esq. Radiated Zeolite, from Perthshire.
Specimen of Cannel Coal, displaying a very singularly fractured surface.
- John Prest, Esq. Polished section of an *Ammonite*.
- W. Richardson, Esq. (*Bedford Row, London.*) Fossils from the London clay of Herne Bay, including part of the head of an undescribed quadruped.
- Mr. Swinbank... .. A mountain-limestone *productus*.
- N. Wetherell. Esq. (*Highgate*) Fossils from the London clay.

ZOOLOGY.

T. Allis, Esq.	Skeleton of the stormy Petrel.
Rev. J. Blackburn, (<i>Attercliffe</i> ,)	Two animals of the Paper Nautilus from Messina. Specimen of <i>Pinna muricata</i> .
Hon., P. Dawnay	A fine specimen of the Peregrine Falcon, shot at Benningborough.
E. Hailstone, Esq. (<i>Horton Hall, Bradford</i> .)... ..	A valuable collection of British Sponges and Corallines, formed by the late E. Hailstone, Esq.
D. Russell, Esq.	Specimen of the Tawny Owl.
Chas. Thiselton, jun. Esq. ...	Two fœtal Sharks.
Lieut. Walker	Two skins of the Scarlet Ibis.

ANTIQUITIES.

Mr. Baines	5 Northumberland Stycas.
James Barber, Esq.	2 Roman coins, found in the excavations of the York and Scarborough Railway.
James Barstow, Esq.	A coin of Caracalla, 2nd brass.
Rev. J. Blackburn	Figure of Osiris, from a Tomb at Saccara. Mummy of a young Crocodile, from Egypt.
W. B. Cooke, Esq.... ..	A small piece of the Tribune at Athens.
Robert Davies, Esq.	12 Pennies of William I. found in the excavation for a house at the corner of Jubbergate; a York halfpenny, 1666; 25 Roman and other coins, in brass, various sizes.
Directors of the York and North Midland Railway.	4 Roman Urns and a Roman Bottle, from the excavations on the Scarbro' line.
Rev. W. Hey	Fragment of a supposed Roman Altar, from Derbyshire.
R. Jennings, Esq.	The Boss of an Ancient Shield and various other articles, from a tumulus near Driffeld.
Robert Kinder, Esq.	Silver Medal of Charles I.
Francis Rhodes, Esq	3 Roman Silver coins, found in a barrow near Andover, Wilts.
Rev. C. Wellbeloved	A Howden halfpenny, of 1668; one of York, 1666; a Shilling of George 1st, made from the silver of the South Sea Company; 10 pennies of William 1st; one of Edward the Confessor, found in Jubbergate.

MISCELLANEOUS.

- Rev. John Blackburn Two Cuirasses from the Field of Waterloo ;
a Tomahawk from New Zealand ; Fibre of
the Cotton Tree, from Egypt ; Reeds employed
in the construction of the gigantic mounds of
Ancient Sais.
- Mr. Bleckley A Relic from the Field of Waterloo.
- F. J. Copsie, Esq. Manna, from Nineveh.
- Charles Etty, Esq., (*Java.*) Impression of the sole of the foot of a native of
the Island of Java, presenting a singular
instance of Monstrosity.
- Mr. Jackson 3 Medals of the late Princess Charlotte, of Wales.
- Mr. J. Mc Kenna, A silver Temperance Ticket, bearing date 1718,
found at Cambridge.
- R. Nicholson Esq. A valuable Painting by Van Hurrp.
- C. R. Smith, Esq. Medal struck in commemoration of the Second
Annual Congress of the British Archæological
Association.

DONATIONS TO THE LIBRARY.

- J. S. Bowerbank, Esq., (*the Author*) Observations on the structure of the shells
of Molluscous and Conchiferous Animals.
- W. Gray, Esq. A Geological Work by Dr. Forchammer, in Danish ;
and a Guide to the curious who visit the
Waters of Spa.
- John Hogg, Esq., (*the Author*) A Catalogue of Birds, observed in S. Eastern
Durham, and in N. Western Cleveland.
- W. J. Henwood, Esq. (*the Author.*) On the Metalliferous deposits of Cornwall, and
Devon, forming Vol. 5th of the Transactions
of the Geological Society of Cornwall.
- M. Quetelet Summary of Magnetic and Meteorological Ob-
servations, made at fixed periods ; (from the
18th Vol. of the Memoirs of the Academy of
Brussels.
- Dr. Laycock, (*the Author.*) On the Reflex function of the Brain.
• Second Report of the Commissioners for in-
quiring into the state of large towns and
populous districts.
- J. E. Lee, Esq., (*the Author*) Delineations of Roman Antiquities found at
Caerleon and the Neighbourhood.

- Mr. J. Mc Kenna Enquiries touching the diversity of Languages and Religions, through the chief parts of the World, published 1635.
- E. Newman, Esq., (*the Author*) The System of Nature.
- Duke of Northumberland. ... Account of the Northumberland Equatorial and Dome attached to the Cambridge Observatory, by G. B. Airy, Esq., Astronomer Royal.
- Mr. W. Armstrong, (*the Author*) An account of tapping and closing a hot spring at Bath.
- John Phillips, Esq.... .. Sundry Pamphlets.
- Madame Power, (*the Authoress*) A General Guide through Sicily, embracing its Natural History. (*Guida della Sicilia.*)
- Rev. W. Walker, (*the Author*) An account of the village of Slingsby.

FROM PUBLIC BODIES.

- The Admiralty Astronomical Observations made in the year 1834 at the Cape of Good Hope.
- Arts, Society of Transactions, Vol. 55.
- British Association Report of the Meeting of the British Association for the Advancement of Science, 1844.
- British Museum Trustees ... Scientific Catalogues of the various departments in the Natural History Collection of the British Museum.
- Brussels Academy Bulletin of the Royal Academy of Brussels, 1843—4; Instructions for the Registry of Periodic Phenomena.
- Cornwall Polytechnic Society... Annual Report for 1843.
- Edinburgh Royal Society ... Transactions, Vol. 16, Part 1; Vol. 17, Part 1.
- Paris Academy of Science ... Weekly Journal from Jan. to July, 1844.
- Geological Society Proceedings of, for 1844—5.
- Royal Society Proceedings.

WORKS PURCHASED.

- Conchologist's Nomenclator, by Agnes Catlow and Lovell Reeve.
 Gould's Birds of Australia, (in continuation.)
 Gray's Genera of Birds, with Illustrations, by Mitchell, (in continuation.)
 Browne's History of the Metropolitan Church of St. Peter, York, (in continuation.)
 Monastic Ruins of Yorkshire, by the Rev. Edward Churton, (in continuation.)
 Ray Society—Publications of, by Annual Subscription.
 Selby's British Birds, two Vols. folio, with Coloured Illustrations.
 Sowerby's (G. B.) Thesaurus Conchyliorum, (in continuation.)


PERIODICALS,

- London and Edinburgh Philosophical Magazine,
 Annals and Magazine of Natural History.
 The Phytologist.

R. BURDEKIN, HIGH-OUSEGATE, YORK.

Presented
 13 MAR 1886

Wiltshire



Wiltshire Philosophical Society.

ANNUAL REPORT

FOR

MDCCCXLVI.



ANNUAL REPORT
OF THE COUNCIL
OF THE
YORKSHIRE
PHILOSOPHICAL SOCIETY

FOR

MDCCCXLVI.

PRESENTED TO THE ANNUAL MEETING

FEBRUARY 2, 1847.



YORK:

H. SOTHERAN, CONEYSTREET.

1847.

TRUSTEES
OF
THE YORKSHIRE MUSEUM,

APPOINTED BY THE ROYAL GRANT.

EDWARD, LORD ARCHBISHOP OF YORK.

GEORGE, EARL OF CARLISLE, K. G.

CHARLES WILLIAM, EARL FITZWILLIAM.

THOMAS PHILIP, EARL DE GREY.

HON. AND VERY REV. HENRY HOWARD, D. D.

SIR WILLIAM LAWSON, BART., F. S. A.

FRANCIS CHOLMELEY, ESQ., F. S. A.

ROBERT DENISON, ESQ.

REV. WILLIAM VERNON HARCOURT, F. R. S.

RICHARD JOHN THOMPSON, ESQ.

PATRONESSES

OF THE

Yorkshire Philosophical Society.

HER MAJESTY THE QUEEN.

H. R. H. THE DUCHESS OF KENT.

PATRONS.

HIS GRACE THE ARCHBISHOP OF YORK.

EARL OF CARLISLE, K. G.

EARL FITZWILLIAM, F. R. S.

EARL OF TYRCONNEL, F. R. S.

THE VISCOUNT MORPETH.

THE LORD FEVERSHAM.

THE LORD WENLOCK.

OFFICERS OF THE SOCIETY, 1847.

PRESIDENT :

EARL FITZWILLIAM, F.R.S.

VICE-PRESIDENTS :

HIS GRACE THE DUKE OF NORTHUMBERLAND, F.R.S.

THE LORD MAYOR OF YORK, M.P.

SIR WILLIAM LAWSON, BART., F.S.A.

REV. WILLIAM VERNON HARCOURT, F.R.S.

GEORGE GOLDIE, M.D.

REV. JOHN KENRICK.

THOMAS HENRY TRAVIS.

REV. CHARLES WELLBELOVED.

TREASURER :

ROBERT DAVIES, F.S.A.

COUNCIL :

Elected 1845. . . . THOMAS ALLIS.

FAVIL JAMES COPSIE.

W. L. NEWMAN, F.R.A.S.

Elected 1846. . . . HENRY NELSON CHAMPNEY.

JOHN FORD.

JOSHUA OLDFIELD.

JOHN PREST.

EDWIN SMITH.

Elected 1847. . . . GEORGE DODSWORTH.

WILLIAM GRAY, F.G.S.

REV. WILLIAM HEY.

PROFESSOR PHILLIPS, F.R.S.

SECRETARY :

THOMAS MEYNELL, JUN., F.L.S.

KEEPER OF THE MUSEUM :

EDWARD CHARLESWORTH, F.G.S.

HONORARY CURATORS :

ANTIQUITIES	REV. C. WELLBELOVED.
BOTANY	OSWALD ALLEN MOORE.
COMPARATIVE ANATOMY	THOMAS ALLIS.
LABORATORY	T. H. BARKER.
LIBRARY.....	GEORGE GOLDIE, M.D.
METEOROLOGY	JOHN FORD.
OBSERVATORY.....	W. L. NEWMAN, F.R.A.S.

SUB-CURATOR OF THE MUSEUM & GARDENS ;

HENRY BAINES.

YORKSHIRE PHILOSOPHICAL SOCIETY.

REPORT OF THE COUNCIL

TO THE

ANNUAL MEETING OF THE SOCIETY, ON THE 2ND OF FEBRUARY, 1847.

At the last Annual Meeting, the Council reported the completion of several important and long-desired improvements, which Dr. Beckwith's munificent bequest had enabled the Society to effect; including the extension and embellishment of the Gardens, the repairs of St. Mary's Abbey, the erection of the Sub-Curator's House, the purchase of the Swimming Bath, and the warming of the Museum. It was also announced that the Corporation of the City of York had consented to place in the possession of the Society the remains of the Hospital of St. Leonard, with so much of the area surrounding them, and adjoining the Roman Wall, as would allow of their being freed from many incumbrances, and examined with convenience and advantage. The Council have great satisfaction in stating that those incumbrances have, to a considerable extent, been removed, and thus the character of these interesting remains more clearly displayed. The clearing out of what have usually been called the "Cloisters" of St. Leonard's, and a partial excavation of the ground immediately adjoining them, have shown, that besides the passage to which the Archway belongs, these supposed Cloisters consisted originally of five, or perhaps six aisles, one of them furnished with a fire-place. The removal of the modern erections above them has opened a large space

which must originally have been a chamber or chambers of some description. But the most interesting discovery has resulted from taking down the house lately occupied by Mr. Hood. Two sides of this house had been formed of what were evidently external portions of an elegant ecclesiastical building; the removal of the house has brought to light a relic of great beauty,—the eastern gable of that building, the interior of which clearly shows that it was a chapel connected with the room or rooms above the cloisters. “Here then,” the Curator of Antiquities concludes, “we have the remains of the Infirmary of St. Leonard’s Hospital, with its chapel open to the wards, and its ambulatory capable of being warmed for the benefit of the infirm and sick. This is the place of which Sir Thomas Widdrington speaks, as cited by Drake,* ‘where the Master of St. Leonard’s Hospital used to keep diseased people before they were in some measure healed of their infirmities, for fear of infection.’ It was probably the general Infirmary of the Hospital, and referred to in the following ancient grant:—‘William the Physician, son of Martyn of York, granted to St. Leonard’s Hospital, for the augmentation of one chaplain to celebrate divine service in the New Infirmary, &c.’”

“Interesting remains of another building, apparently much larger and of earlier date, have been discovered, extending from the Infirmary to the foundations of a wall belonging to the Roman Multangular Tower. They consist of three rows of pillars, (those of one row being of larger dimensions, and Norman), forming with the Roman Wall four aisles, at right angles to those of the ambulatory of the Infirmary. It is to be hoped that not many years will pass before an opportunity will be afforded of tracing these remains in another direction, so that the Curator of Antiquities may have more ample means of forming an opinion of the character and purpose of the edifice, to which these remains belonged.”

These important discoveries added greatly to the interest and admiration with which the Antiquarian remains within the Society’s grounds were viewed by the Members of the Archæo-

* Hist. of York, p. 334, 337.

logical Institute, during their recent visit to York. It has, however, been found advisable to postpone the completion of the alterations connected with St. Leonard's Hospital, and the entrance to the grounds, until the plans of the Corporation for the splendid improvements contemplated in the adjoining streets shall be finally and accurately defined.

The improvements on which the Corporation have resolved, and which now await the sanction of an Act of Parliament, will prove in an especial manner advantageous to the Society, by rendering the approach to the Gardens more handsome and commodious, and the Museum more easily accessible to strangers.

The Donations to the Collection of Antiquities during the past year have not been numerous. For the most important of these, a small Roman Altar, dedicated to the local deity Veterinus or Veterineus, and found in a farm-house near the Roman Station *Magna*, on the wall of Hadrian, the Society is indebted to Edwin Smith, Esq.

But if the Antiquarian department of the Museum has not been enriched by many donations, it has received by purchase a large addition of peculiar interest,—the Collection of the remains of Roman York, formed during the course of more than twenty years, with great industry and at considerable expense, by Mr. W. Hargrove. This extensive collection consists chiefly of an interesting portion of a tessellated pavement, of inscribed monumental stones, earthen vessels, urns, and lachrymatories, of various shapes and sizes, of fragments of Samian ware, of vessels of glass, and of Roman coins, all found in York. In addition to these, bronzes and fragments of enamel, partly, perhaps, Roman, and partly Saxon or Mediæval; and more than 2000 Northumbrian coins or Stycas, which being added to the 1000 already in the cabinet of the Museum, it may be safely affirmed that the Society is in possession of more than half the hoard found in St. Leonard's Place in 1842; the fourth of the great hoards of these coins (of which so much is yet to be learned) discovered in this kingdom.

The Yorkshire Philosophical Society already possessed a most interesting collection of the remains of Eburacum; and when these

two collections shall have been combined and properly arranged, the Society will have cause to boast of a Museum of LOCAL Antiquities, superior, the Curator thinks he may venture to assert, to anything that even the metropolis itself contains. Most ardently is it to be wished that all the remains of ancient times which have been found in York,—Roman, Saxon, and Mediæval,—and are now in the hands of private individuals, could be restored to this city, and deposited in the Museum, where they would be in security, and contribute to the public gratification; and that distant collectors would not tempt those who are so frequently discovering the hidden relics of past times in this neighbourhood, to separate them from their proper locality, where they naturally possess the highest interest.

This great increase in the Society's Collection renders it necessary to provide a large additional space for this department. The Council have therefore determined to remove to the upper room of the Hospitium of St. Mary's Abbey the whole of the Antiquities at present dispersed in different parts of the Museum. That building was a few years ago, to a considerable extent, placed in a state of repair, and its lower story has since been appropriated to the reception of the sculptured fragments of the Abbey and other ancient edifices in York. The upper room has more recently received additional repairs; and, with some further outlay, the Council and the Curator of Antiquities consider it will afford the most suitable repository for a great Yorkshire Collection of Roman and Mediæval Art.

The Archæological Institute of Great Britain and Ireland, under the presidency of Earl Fitzwilliam, assembled in York in July last, when the Council, with the approbation of the last Annual Meeting, were happy to afford a hospitable reception to that learned body. The Museum and Gardens were thrown open to the Members of the Institute, and the use of the Theatre and Hospitium given for its sectional and general meetings. The Society was amply repaid by the gratification of welcoming within its walls many individuals distinguished both in archæological and general Science, and by the interesting communications brought forward at the Meeting. The forthcoming

volume of the Institute may be expected to contain much valuable information respecting Yorkshire Antiquities ; and in particular a Map of " Roman Yorkshire," in which Mr. Newton hopes, with the assistance of gentlemen resident in various districts of the county, to be able to lay down a fuller and more correct delineation of the Roman Roads and Stations than has yet been given to the public. The exhibition of Antiquities constituted a very interesting and gratifying feature of the Meeting ; and some very curious casts of Yorkshire Antiquities, which formed a portion of it, have since been presented to the Society, amongst the rest the cast of an ancient Rood from Sherburn Church, and of Norman Sculptures from Adel ; the gifts of Mr. Fowler Jones, a member of this Society, and the Rev. G. Lewthwaite, Rector of Adel.

Altogether it may be permitted to hope, that one permanent result of the visit of the Institute to York will be a fresh impulse given to the cultivation of one of the original and leading objects of this Society, the investigation of the Antiquities and Topography of Yorkshire.

The Donations to the Geological Department have, during the last year, been less numerous than usual. They include a very interesting series of Sharks' Teeth from the Red Crag of Suffolk, contributed by Mr. Whincopp, of Woodbridge ; and a Cast of *Plesiosaurus Hawkinsii*, from the original specimen in the British Museum, presented by Mr. Charlesworth.

Owing to the amount of expenditure in other departments, the Council have refrained from making any large additions by purchase to the Geological Collection ; but they have considered it expedient to devote a sum of £25 towards the publication of Lithographic Illustrations of rare and interesting Yorkshire Fossils, the originals of which are mostly contained in the Museum. The first number of the " London Geological Journal," in which some of these plates are contained, is already published, and the second is nearly ready for publication. The Lithographs, executed by pupils in the York School of Design, are highly creditable as works of art, and geologists of eminence have borne testimony to their scientific accuracy. As the pub-

lication of these plates, together with the descriptive memoirs to be contributed by the editor, Mr. Charlesworth, must tend to promote that interest which the pen and pencil of Professor Phillips have excited in the extinct fauna of our district, the Council have thought the design well worthy of encouragement.

The Keeper of the Museum has devoted a considerable portion of his time to increasing and perfecting the collection of British Conchology, which has, during the past year, been more than doubled in extent, and the original collection mostly replaced by better specimens. The whole is distinctly labelled, and advantageously displayed.

The additions which this collection has received have involved no expense to the Society, having been obtained almost entirely by Mr. Charlesworth in exchange for specimens of Tertiary fossils from his private collection, which he liberally appropriated to this purpose. The most valuable shell contained in the collection (*Pleurotoma teres*, Forbes) was found by the Secretary on the coast near Redcar, during the last summer, and presented by him to the Museum. Mr. Charlesworth hopes, through his extensive correspondence with the principal cultivators of British Conchology, ultimately to make this collection one of the most complete extant.

Through the liberality of Mr. Woodward, Professor of Natural History in the Cirencester Royal Agricultural College, the Foreign Conchological Collection has been enriched by a specimen of very remarkable interest, namely, an Argonaut-shell exhibiting a very peculiar formation. This Mr. Charlesworth explains on the supposition that the spire of the shell, having been broken off during the life of the animal, has been replaced by a small shell of the same species, which the Argonaut has fixed in a reversed position, and united to the broken edges of its habitation by the secretion of shelly matter.

In Ornithology, an interesting addition has been made to the General Collection by the purchase of a large series of Birds, sent direct to this city from Malacca; but by far the most important accession which this department of the Museum

has EVER received, has been the munificent donation by Mr. William Rudston Read, of his extensive Collection of British Birds, on the formation of which he has during several years spared neither pains nor cost. The only condition annexed to this liberal gift was, that it should be kept separate from the general ornithological collection of the Society, and distinguished as "The Rudston Collection of British Birds;" but the Council felt it no less an imperative duty, than a gratification to their own feelings, to recommend to the general monthly meeting at which the donation was announced, the election of Mr. Read as a Life Member of the Society. The Council propose, as soon as the necessary arrangements can be effected, to place "the Rudston Collection" in one of the upper rooms of the Museum, at present occupied by a part of the Collection of Antiquities about to be removed to the Hospitium. It will thus be kept conspicuously distinct, and will permit the more effectual and instructive display of the general collection of Birds in the centre room of the Museum.

These alterations in the arrangement of the Ornithological and Antiquarian Departments will necessarily entail a considerable expenditure, beyond what the annual income of the Society can fairly be expected to bear. The Council therefore have recently appealed to the liberality of the Members to assist in carrying these arrangements into effect. Several of the Members have already responded to this appeal, and the Subscription at present amounts to about £110, which the Council hope will still be increased.

The chief addition to the Botanical department has been the purchase of a Herbarium of Pyrenæan Plants, collected by Mr. Spruce, formerly of this city. The Curator of Botany delivered during the summer a course of Botanical demonstrations, to which the Members of the Society and their families were gratuitously admitted.

The Library has continued to receive the publications of learned Societies at home and abroad; in other respects the donations have not been numerous or important. But the Society has had the good fortune to obtain by purchase, at a

very moderate cost, several highly useful and important works on Natural History, part of a collection submitted to public auction in this city during last summer, a list of which will be found in the appendix to this report. The Council continue to subscribe for, amongst others, the valuable publications of the Ray Society; for the splendid work of Mr. Gould on the Birds of Australia, and Mr. Gray's no less beautiful publication on the Genera of Birds; and in the antiquarian branch of the Library, for the works of Archdeacon Churton on the Monastic Ruins of Yorkshire, and of Mr. Browne on the History of York Minster (the latter within one part of its completion). The Curator of Meteorology has presented to the Council his observations on the weather at York, the results of which are contained in the following Table:—

METEOROLOGICAL REGISTER—YORK, 1846.

	Barometer.			Thermometer.								Prevalent Wind.	
	Mean Height.	Highest.	Lowest.	Rain.	Average Max.	Average Min.	Mean temp.	Mean temp. of York, for 13 years.	Highest.	Lowest.	Nights at or below 32°		Days of rain more or less.
Jan.	29·907	30·65	28·75	2·55	46·4	36·8	41·5	35·2	52	26	9	14	Westerly.
Feb.	29·935	30·47	29·34	·28	48·8	37·2	43·	38·	58	26	7	3	Westerly.
Mar.	22·740	30·72	29·05	1·01	50·1	35·1	42·6	41·	55	21	7	11	S. West.
April	29·778	30·36	29·05	4·24	52·8	38·6	45·7	45·	63	31	4	20	N. W. & N. E.
May	29·964	30·36	29·00	1·17	64·3	46·	55·	52·	72	41	—	11	Westerly.
June	30·045	30·44	29·44	1·64	75·6	54·4	64·9	58·	86	43	—	6	S. E.
July	29·884	30·23	29·17	3·56	71·9	54·	63·	60·	85	48	—	11	Westerly.
Aug.	29·996	30·37	29·59	1·75	71·3	54·6	63·	59·6	80	42	—	14	North & South.
Sept.	30·026	30·60	29·37	0·79	67·2	49·3	58·3	54·6	74	41	—	10	Various.
Oct.	29·632	30·30	28·82	4·59	54·1	41·4	47·8	48·	62	29	5	23	Southerly.
Nov.	29·969	30·60	28·99	2·29	47·1	39·4	43·3	41·3	57	26	5	13	S. E.
Dec.	29·834	30·55	28·85	1·79	36·1	25·4	31·7	39·6	47	12	26	8	N. W.
	298·92			25·66			50°	47·7			63	144	

COMPARATIVE PREVALENCE OF WINDS.

	N.	S.	E.	W.	N.E.	N.W.	S.E.	S.W.
Days :	11.	39.	21.	79.	34.	49.	68.	64.
Mean height of the mercury at 9 morning							29.9268.	
Ditto					3	afternoon.	29.9157.	
Mean daily depression at					3	afternoon.	.0111.	
Mean height for the year							29.8929.	
Mean temperature for the year 1846						50° .		
„ for a series of 13 years						47.7.		
Excess above the mean						2.3.		

Notwithstanding the extreme cold of December, (8° below the mean temperature of that month at York,) it will be seen that the extraordinary heat of the summer months more than compensated for the deficiency. This increase of temperature commenced in May, and continued till September, those months averaging 4 degrees above the usual mean. The highest temperature of the year was 86°, on the 19th of June, and the lowest, 12°, on the 14th of December. The mean temperature of December, viz. 31.7, was lower than the temperature of that month at any time during the last 17 years. The nearest approach to it was in the year 1840, viz. 33.3. On the other hand, the temperature of June was 64°·9. During the last 17 years, the nearest approach to that temperature was in July, 1834, viz. 62.9. The rain of the year has been about 1½ inch above a mean quantity; it was distributed over the twelve months in about its usual proportions, except that in October 4.59 inches fell, being 2 inches more than a mean quantity.

The following notices of the depth of rain have been received,
viz. :—

	INCHES.
Doncaster	27.682
Ackworth	25.900
Settle	37.880
Huggate	35.870

The Sub-Curator has continued his diligent care of the Garden and Hot-houses. The donation of a large Conservatory by Mrs. William Taylor, has enabled the Council at a moderate expense to erect a range of Hot-houses suitable both to the growth of Orchidaceous plants, and to the cultivation of specimens of the economical as well as ornamental tribes. Amongst these will be found examples of the sugar cane, coffee, tea, ginger, cotton plant, &c. Of the 303 natural orders enumerated in Dr. Lind-

ley's recently published work on "The Vegetable Kingdom," the Society possesses representatives of no less than 200. The Sub-Curator has been enabled by his extensive correspondence to effect many valuable exchanges with the Curators of the Royal Gardens at Kew, the Royal Botanical Society's Gardens in the Regent's Park, and the Botanical Garden at Hull, as well as with several private individuals.

The Council regret to have again to report the want of success which attended the Horticultural Exhibition, held in the Society's Gardens in June last, arising from no want of zeal or efficient management on the part of the Committee, but from an unfortunate concurrence of circumstances over which they had no controul.

For a statement of the Society's finances, the Council refer the Meeting to the balance-sheet which accompanies this report. They have much pleasure in congratulating the Society upon the increasing interest taken by the public in the Museum and Gardens, as evinced by the sum received at the gate for the admission of strangers, amounting during the year to £174. In addition to this the public have, as customary, been admitted gratuitously on Whit-Monday and Tuesday. Another important item in the receipts is the money received at the Swimming Bath. The unusual heat of the summer may in part account for the large increase in this branch of the Society's income, which, after deducting all expenses incident thereto, leaves a balance in favour of the Society of £112. 10s. 10d.

The Council have been called upon to repay to the Executors of the late William Gray, Esq., the sum of £1000. lent to the Society some years since by that gentleman; and a further sum of £379. has been required for the purchase of Mr. Hargrove's Collection of Antiquities, as awarded by reference to competent arbitrators. In the present state of its finances, the regular income of the Society is fully adequate to defray all the ordinary expenses which it can be called upon to bear,—but it must be recollected that little can be done in the furtherance of those scientific objects for which the Society was originally established; without the revival of that general interest which the origin of

the Society and the foundation of the Museum elicited throughout the county of York. The Council see with pleasure a gradual increase in the total number of Members, but a much larger accession of strength will be required, to enable the Society to extend in any material degree its usefulness to science.

The Council trust that the Annual Meeting will be satisfied with the statements that have been made as to the general condition of the Society, the vigorous growth of its collections, and the great public interest felt in its Museum and Gardens. They cannot however report so favourably of the share taken by the Members at large in the scientific proceedings of the Society. The Monthly Meetings for scientific communications, which formerly were well attended, have for some years past fallen into comparative neglect: the scanty attendance of Members discourages the preparation of communications, and thus one main object of the Institution is permitted to languish. Shall we change the hour and modify the arrangements of these meetings, with the hope of augmenting the attendance of Members? Shall we circulate through our Society some printed Reports of our Proceedings, for the purpose of reviving the interest once felt in our progress, not only in the immediate neighbourhood of York, but even to the extremities of the County? It must be left to those who shall be entrusted with the administration of your affairs in the ensuing year to answer these questions: the retiring Council have, however, left on record the elements of a plan which may perhaps be realized under other auspices, for the occasional publication of such communications presented at the Meetings as relate to the Natural History and Antiquities of Yorkshire, and may deserve to be generally known.

With such objects in view, and with such a plan of expansive usefulness in operation, in addition to the instruction and gratification already provided for the Members and the Public by its well-stored Museum, its beautiful and instructive Garden, and the attention bestowed on the preservation of the venerable relics of Antiquity entrusted to its care, the Society may be justified

in asserting its claim to a continuance and increase of public patronage. During the lapse of four and twenty years since its first commencement, the Society has had to deplore the loss of a very great number of its early supporters and friends. But it is to be hoped that its ranks may continue to be recruited by a large accession of younger and no less zealous fellow-labourers, who, both by their pecuniary subscriptions and scientific communications, will uphold the efficiency and character of an Institution, in which the City and the County of York may justly feel a lively interest and an honest pride.

THE

TREASURER OF THE YORKSHIRE PHILOSOPHICAL SOCIETY,

IN ACCOUNT FOR THE YEAR 1846.

Dr.			Cr.	
1846.			1846.	
	£.	s. d.	£. s. d. £. s. d.	
Annual Subscriptions and Arrears	545	0 0	Permanent Debt, viz.:	
Admission of New Members	55	0 0	Six Members at £50 each	300 0 0
Composition in lieu of Annual Subscriptions	20	0 0	Balance overdrawn Messrs. Swann and Co., December 31st, 1845	1843 10 3
Ladies' Subscriptions and Keys of the Gates	75	15 0	Crown Rent.....	1 0 1
Money received at the Gates	174	4 6	Corporation Rent (half- a-year)	3 4 4
Rents	32	9 7	Insurance	5 0 0
Use of Tent	20	0 0	Gate Keeper	12 8 0
Gas for Evening Meetings.....	1	10 0	Keeper of the Museum.....	150 0 0
Swimming Bath (deducting Ex- penses).....	112	11 10	Clerk and Collector....	15 0 0
Dividends on Stock	47	6 7	Interest	31 15 0
Sale of £3000 Stock.....	2884	7 0	Sub-Curator, on Account of Salary, Disburse- ments, Labour, &c.	305 0 0
Permanent Debt, viz.:			<hr/>	523 7 5
Six Members at £50 each.....	300	0 0	Executors of W. Gray, Esq., debt and interest	1010 0 0
	<hr/>	4268 4 6	Sundry Bills, viz.:	
Balance overdrawn Messrs. Swann and Co., December 31st, 1846	265	13 2	Purchase of Specimens	54 9 0
			Purchase of Books	14 8 6
			Grant towards the Pub- lication of Yorkshire Fossils	25 0 0
			Edward Newman	10 0 0
			W. L. Rider	12 3 6
			Mrs. Buckley.....	27 8 3
			C. S. Brearey, for Tent	9 0 0
			Horticultural Exhibition	23 17 9
			T. Green	12 3 0
			Coal Bill	22 7 0
			J Walker.....	17 3 6
			W. Noton, Plumber and Glazier	26 3 0
			J. Bowes, Bricklayer ..	18 11 0
			H. Sotheran, Stationer	10 12 0
			J. F. Brown, Painter....	25 13 0
			R. Burdekin, Printer ..	17 0 0
			J. Cluderay, Joiner	54 8 6
			Sundry Small Bills	97 2 0
			Purchase of Mr. Har- grove's Collection	379 10 0
			<hr/>	857 0 0
	<hr/>	£4533 17 8	<hr/>	£4533 17 8

Audited by us, January 25th, 1847,

JOHN KENRICK,
JOHN PHILLIPS.

ANALYSIS OF DISBURSEMENTS.

ORDINARY EXPENSES.

	£.	s.	d.	£.	s.	d.
Rents, Rates, &c.:						
Rent to the Crown	1	0	1			
Rent to the Corporation	3	4	4			
Rates and Taxes	8	8	4			
Insurance and Water Rent	11	0	0			
					23	12 9
Salaries and Wages:						
Keeper of the Museum	150	0	0			
Sub-Curator	100	0	0			
Servant	20	0	0			
Lodge Keeper	12	8	0			
Labourers	128	9	0			
Clerk and Collector	15	0	0			
					425	17 0
Interest on Debt:						
Interest on £1000	10	0	0			
Interest to Bankers for being overdrawn.....	31	15	0			
					41	15 0
Museum, Gardens, Grounds, &c.:						
Painting and General Repairs	137	9	0			
Purchase and Preparation of Specimens	95	14	0			
Observatory	1	13	6			
					234	16 6
Library:						
Books and Binding					20	7 0
Incidentals:						
Grant towards Publication of Yorkshire Fossils	25	0	0			
Printing, Advertising, and Stationery	39	11	6			
Coals and Gas	30	15	6			
Postages, Carriages, and Sundries	33	11	11			
					128	18 11

EXTRAORDINARY EXPENSES.

New Hot Houses	58	15	2			
Purchase of Mr. Hargrove's Collection of Antiquities	379	10	0			
On Account of Repairs of St. Leonard's Hospital.....	27	8	3			
Loss by Horticultural Exhibition	23	17	9			
Purchase of Tent	9	0	0			
W. Gray, Esq. (Repayment of Loan)	1000	0	0			
					1498	11 2
					£2373	18 4

RESOLUTIONS

PASSED AT THE ANNUAL MEETING OF THE

YORKSHIRE PHILOSOPHICAL SOCIETY.

1. That the Report of the Council be adopted and printed for the use of the Members.

2. That the alterations in the laws of the Society, as now read, and a copy of which alterations have, after being signed by five subscribing Members, been put up in the entrance hall of the Museum for one month previous to this Meeting, be adopted and printed with the Report.

3. That the Thanks of the Society be given to the Vice-Presidents and Members of the Council retiring from office.

4. That the Thanks of the Society be given to the Treasurer, Secretary, and Curators of the different departments of the Museum, for their valuable services.

5. That the Council be empowered, on certain days to be selected by them during the present year, to permit free admission to the Museum and Gardens to all persons; the mode of admission to be regulated by the Council.

6. That the Council be empowered to admit Strangers during the present year, at the usual rates of payment.

7. That the Council be authorized to admit to the Museum and Gardens, as temporary subscribers, any occasional visitors to York, not residing in the County, at the rate of One Pound for four months for themselves and their families; but that in no case shall such privilege be granted for a longer period than twelve months.

8. That the best Thanks of the Society be given to the Chairman and Committee of Management of the Horticultural Fête held in June last.

ALTERATIONS IN THE LAWS
OF THE
YORKSHIRE PHILOSOPHICAL SOCIETY.

SECTION III.—*Page 8.*

BALLOT FOR MEMBERS.

III. The ballot for a Candidate shall take place at a General Meeting, and if three-fourths of the Subscribing Members present vote in the affirmative, he shall, after payment of his admission fee of Five Pounds as hereafter mentioned, be admitted into the Society.

SECTION IV.—*Page 9.*

IV. If any Member do not pay his Arrears within three months after notice thereof has been sent to him, his Privileges shall be suspended until the same be paid; and should his Subscription remain unpaid for three consecutive years, the Council shall be empowered, after one month's notice has been given to him, to erase his name from the list of Members.

SUBSCRIBING MEMBERS
OF THE
YORKSHIRE PHILOSOPHICAL SOCIETY,
ELECTED SINCE FEBRUARY, 1845.

1845.

Rev. Francis Orpen Morris, *Nafferton, Driffield.*
 Rev. Edward J. Raines, *York.*
 Rev. Robert Daniel, *York.*
 Rev. A. W. Dorset Fellowes, *York.*
 Thomas Simpson, *York.*
 William F. Lockwood, *York.*
 Seth Agar, *York.*
 Francis W. Calvert, *York.*
 James Backhouse, *York.*
 John Wilson, *New-street, York.*
 George Cooke Yarborough, *Camps Mount, Doncaster.*
 Leonard Thompson, *Sheriff Hutton Park.*

1846.

Rev. Josiah Crofts, *York.*
 Charles Gregory Fairfax, *Gilling Castle.*
 Daniel Seaton, *York.*
 William Spencer Campion, *York.*
 Rev. William H. Oldfield, *York.*
 Edward White, *York.*
 James Guy, *York.*
 John Thompson, *York.*
 William Murray Tuke, *York.*
 Jonathan Pulleyne, *York.*
 William Hargrove, *York.*
 William Rudston Read, *Hayton Hall.*

JANUARY AND FEBRUARY, 1847.

Edwin Wade, *York*.
 George Oldfield, *York*.
 Beverley Robinson Morris, M. D., *York*.
 Thomas Ellis, *York*.
 William Danby, *York*.
 William Gray, jun., *York*.
 Capt. William Hotham, R. N., *York*.
 Robert Dempsey, *York*.
 William Procter, *York*.
 Henry Brown, *York*.
 The Duke of Northumberland, F. R. S.

 HONORARY MEMBER

ELECTED AT THE ANNUAL MEETING, 1847.

The Marquis of Northampton, P. R. S., &c.

Number of Subscribing Members, Feb. 3, 1847.	294
Ditto Compounding Members	37
	<hr/>
Total Number of Members	331
	<hr/>
Elected since last Report	23
Deceased	9
Withdrawn ...	8
	<hr/>
	17
	<hr/>
Increase	6

DONATIONS
TO
THE SOCIETY'S MUSEUM.

GEOLOGY.

- | | |
|----------------------------|--|
| Archdeacon Wilberforce ... | Fossil Wood from Bridlington Quay,
perforated by <i>Saxicava</i> . |
| S. V. Wood, Esq..... | Tertiary Fossils from the United States. |
| E. Charlesworth, Esq. | Cast of the specimen of <i>Plesiosaurus Hawkinsii</i> in the British Museum. |
| Marquis of Northampton ... | A Collection of Tertiary Fossils from Palermo. |
| J. S. Rudd, Esq. | <i>Pleurotomaria Anglica</i> , from the Lias at Redcar. |
| Rev. J. Holroyd | Fine example of <i>Spongia radiformis</i> (Phillips) from the Chalk at Flambro'. |
| William Whincopp, Esq.... | An interesting series of Sharks' Teeth, from the Red Crag of Suffolk. |
| Mr. D. Graham..... | Examples of Lavas, &c., from Iceland. |
-

ZOOLOGY.

- | | |
|--------------------------|---|
| W. H. R. Read, Esq. | The RUDSTON COLLECTION of British Birds. |
| W. J. Salmond, Esq. | Skins of various Quadrupeds, from Malacca. |
| Capt. R. R. Curren | Fourteen Skins of Birds, from Australia. |
| T. W. Flower, Esq. | A Collection of Land and Fresh Water Shells, from Upper Canada. |
| M. Lambe, Esq. | Skin of the Black Squirrel (<i>Sciurus niger</i>) from the United States. |
| Samuel Woodward, Esq.... | Remarkable Shell of an Argonaut. |

- Thomas Meynell, jun., Esq. A fine example of *Pleurotoma teres* (Forbes), from Redcar.
- T. S. Rudd, Esq. A specimen of *Mytilus subsaxatilis*, from Redcar.
- Mr. D. Graham *Motacilla alba* (male and female), from Iceland.
- Mr. Robt. Anderson (*South Stockton*) } Wood perforated by a large species of *Teredo*.
- R. Nicholson, Esq. Specimen of the Goosander.
- Capt. T. W. Oldfield Sections of Tooth of the Asiatic Elephant.
- W. H. R. Read, Esq. Fine preparation of the Cranial Bones, in a detached state.

ANTIQUITIES.

- Archæological Institute Cast of a Roman Pig of Lead, inscribed IMP. CAES. DOMITIANO. AVG. COS. VII. found at Hogshaw Moor, near Pately Bridge.
- G. F. Jones, Esq. Cast of an ancient Rood from Sherburn Church.
- Rev. G. Lewthwaite Casts of a Roman Altar, inscribed DEAE BRIGANTIAE, and of a tablet inscribed PRIMINVS MENTLA, from Adel. Casts of two Norman Capitals, from Adel Church.
- P. C. Maxwell, Esq. Antique Silver Ring and Spur.
- Miss R. Oldfield Fifteen Coins of various descriptions.
- Edwin Smith, Esq. Roman Altar from Northumberland.

MISCELLANEOUS.

- Capt. T. W. Oldfield A Goorkah Koorkoory or knife, with Scabbard and Appendages.
- W. H. R. Read, Esq. Collection of Indian Weapons.

LIBRARY.

BOOKS, &c. PRESENTED.

- O. Allen, Esq. (*the Author*) History of York Dispensary, 8vo. 1845.
- Geological Society Quarterly Journal of the Society, Nos. v—viii.
- Royal Academy of Bruxelles Bulletin de l'Academie, 1844.
- Representatives of the late } Penn's Comparative Estimate of the
J. W. Field, Esq..... } Mineral and Mosaical Geologies, 2
vols. 8vo.
- John Lee, L.L.D., F.R.S. Catalogue of Oriental MSS. in the Library at Hartwell.
A Pamphlet on the Arrangement of an Observatory; and Observations on the placing of Thermometers, both by Henry Lawson, Esq.
- Edwin Smith, Esq. Thornton's British Flora, 5 vols. 8vo.
- Joseph Clarke, Esq..... Abridged Catalogue of the Saffron-Walden Museum.
- Council of the Zoological } Proceedings of the Society for 1845.
Society }
- E. Charlesworth, Esq..... London Geological Journal, No. i. (*duplicats.*)
- Geological and Polytechnic } Proceedings of the Society.
Society of the West }
Riding }
- Leeds Phil. and Lit. Society Report for 1845.
- Sir R. I. Murchison, President of the British Association } Address to the British Association assembled at Southampton, September, 1846.
A Paper on the Detritus of Sweden, &c.
- Professor Phillips..... Tract on the Fossil Infusoria and Foraminifera of Yorkshire.
- W. C. Williamson, Esq., } Tract on some Microscopical Objects
(*the Author*)..... } found in the mud of the Levant.
- Rev. J. L. Petit Original Drawings, illustrative of the architecture of Beverley Minster.

BOOKS PURCHASED.

- Bingley's British Quadrupeds, 8vo. (plates) 1809.
- Brisson Ornithologie, 6 tom. 4to., and Atlas of Plates, (original impressions) Paris, 1760.
- Da Costa's Elements of Conchology, 8vo. 1776.
- Dillwyn's British Confervæ, 4to. (numerous col. plates) Lond., 1809.
- Entomological Magazine, 5 vols. 8vo. (col. plates) London, 1833-38.
- Forbes' (Edw.) Malacologia Monensis, Edin. 1838.
- Gray's (M. E.) Figures of Molluscous Animals, 8vo. London, 1842.
- Guérin et Perchon—Genera des Insectes, 4to. (col. plates), Paris, 1835-38.
- Gualtieri Index Testarum Conchyliorum, royal folio, Florentiæ, 1742.
- Martin's Derbyshire Petrifications, 4to. (col. plates), Wigan, 1793.
- Montagu's Testacea Britannica, *with the Supplement*, (plates), 3 vols. 4to., 1803-8.
- Pennant's British Zoology, 4 vols. 4to., Warrington, 1776.
- Pichet Recherches sur les Phryganides, 4to. Geneve, 1834.
- Pulteney's Catalogue of the Birds, Shells, and Plants of Dorsetshire, fol., London, 1813.
- Rosmässler Iconographie der Land-und Susswässer Mollusken ; Parts i. to xi. 4to. (very numerous plates.) Dresden and Leipzig, 1835-42.
- Sparman's Voyage to the Cape, 2 vols. in 1, 4to. London, 1786.
- Schröten Geschichte der Flussconchylien, (col. plates) 4to. Halle, 1779.
- Shaw's Naturalist's Miscellany, 8vo.
- Townson's Tracts on Natural History, 8vo. London, 1799.
- Walker's Testacea Minuta rariora, 4to.
- Watson's Botanist's Guide. London, 1835.
- Willughby's Ornithology, by Ray, fol., London, 1678.
- Lindley's Vegetable Kingdom, 8vo., London, 1846.

SERIAL WORKS SUBSCRIBED FOR.

- Gould's Birds of Australia, fol., col. plates, 25 parts published.
- Gray's Genera of Birds, fol., col. plates, 34 parts published.
- Doubleday's Genera of Diurnal Lepidoptera, fol., col. plates, 4 parts published.

Sowerby's *Thesaurus Conchyliorum*, 8vo., col. plates, 7 parts published.
 Waterhouse's *Natural History of Mammalia*, 8vo., col. plates, 13 parts published.

Browne's *York Minster*, 4to., 31 parts published.

Churton's *Monastic Ruins of Yorkshire*, 4 parts published.

Publications of the Ray Society, viz.

Alder and Hancock on *British Nudibranchiate Mollusca*, 4to., col. plates, 1845.

Steenstrup on the *Alternation of Generations*, 8vo., 1845.

Memorials of John Ray, 8vo., 1846.

Reports on Zoology and Botany, 8vo., 1846.

Meyen's *Outlines of Geography of Plants*, 8vo., 1846.

PERIODICALS.

London and Edinburgh Philosophical Magazine, monthly.

Annals and Magazine of Natural History, monthly.

Phytologist, monthly.

London Geological Journal.

DONATIONS TO THE GARDEN.

Mrs. W. Taylor, <i>Westbourne Terrace, London</i>	} A large Conservatory.
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F. B. Hacket, Esq.	Collection of Seeds from Norfolk Island.
	Collection of 75 bulbs, and 126 papers of Seeds, from the Cape.
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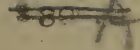
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Wiltshire



Wiltshire Philosophical Society.

ANNUAL REPORT

FOR

MDCCCXLVII.



ANNUAL REPORT

OF THE COUNCIL

OF THE

YORKSHIRE

PHILOSOPHICAL SOCIETY

FOR

MDCCCXLVII.

PRESENTED TO THE ANNUAL MEETING

FEBRUARY 1, 1848.



YORK:

H. SOTHERAN, CONEYSTREET.

1848.

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OF
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APPOINTED BY THE ROYAL GRANT.

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HENRY BAINES.

YORKSHIRE PHILOSOPHICAL SOCIETY.

REPORT OF THE COUNCIL

TO THE

ANNUAL MEETING OF THE SOCIETY, ON THE 1st OF FEBRUARY, 1848.

Few events of peculiar importance have occurred during the past year to require prominent notice in the report of the Council to the present Annual Meeting.

The completion of the alterations connected with the enclosure of the remains of St. Leonard's Hospital within the Society's grounds and the entrance to the Gardens, has been again deferred, in consequence of the plans of the Corporation with regard to the improvements in the adjoining streets not being definitively fixed, so as to admit of the proper levels and boundary line being determined.

In the Report presented to the last Annual Meeting, the Council intimated that it would be the duty of their successors to devise some plan for reviving the interest formerly taken by the members of the Society in its scientific proceedings. As this suggestion was favourably received by the Annual Meeting, the present Council determined on making a trial of certain changes regarding the Monthly Meetings. The hour at which they are fixed by the Society's laws (One P. M.), appearing to be an inconvenient one for a numerous attendance of Members, it was resolved to try the experiment whether, by adjourning these Meetings to an evening hour, a fuller attendance could be obtained, by which means it was hoped that more encouragement

would be held out for the production of scientific communications. With a similar object, the Council determined to adopt the example of other Societies, by printing, for distribution amongst the members, the scientific Proceedings of each Meeting, containing, in abstract or at full length, such papers or notices as specially related to the Natural History, Topography, and Antiquities of Yorkshire. Although several circumstances have combined to render the experiment hitherto only partially successful, the Council have reason, upon the whole, to be satisfied with its result ; and although they have not proposed at present any alteration in the Society's existing laws regarding the Monthly Meetings, they would recommend the continuance of this experiment.

Three numbers of the ' Proceedings ' have been printed, and delivered to the Members. They comprise several communications of great interest and value ; and it is to be hoped that their circulation may operate as a stimulus to those who have the ability and the leisure to contribute information in the same manner to future Meetings, and thus not only to keep alive the interest of both the resident and more distant Members in the Society's pursuits, but eventually to treasure up a store of facts and researches, which may furnish valuable materials for an accurate and complete Natural and Topographical History of this great County.

The Council now proceed to give some account of what has been effected during the past year, in the several departments of the Institution.

To the Collection of Antiquities an addition has been made of a highly interesting character, and reflecting great credit on the liberality of the donor. By the kindness of Joseph Dent, Esq., the High Sheriff of the county, the wish expressed by the historian of York a century ago, and repeated by the author of " Eburacum,"* has been accomplished, and the monumental stone in commemoration of Lucius Duccius, a standard-bearer of the ninth legion, found about the year 1686, in Trinity Gardens, and afterwards removed to Ribston Hall, has been

* See Drake's York, p. 58. Wellbeloved's Eburacum, p. 114.

“restored to York,” and is now deposited in the Hospitium of St. Mary’s Abbey, under the guardianship of this Society, amongst other similar valuable relics of Roman York.

The cabinet of Coins has received an interesting addition by a donation from Lord Wenlock, consisting of 57 pieces, a portion of a hoard of groats of Philip and Mary, and Elizabeth, and of shillings and sixpences of Elizabeth, and James I. The hoard was discovered in a farm at Deighton, on his Lordship’s estate, and immediately conveyed to him by his tenant.

Early in the spring of last year, a large hoard of Northumbrian Stycas was accidentally discovered in a field on the banks of the Wharfe, in the parish of Bolton Percy. Having been secretly dispersed, it has not been found possible to ascertain the number of coins which it contained; but it is probable that it amounted to between seven and eight thousand, more than three thousand of which have, partly by donation, but chiefly by purchase, come into possession of the Society, forming an important addition to those previously obtained by the discovery at York. The hoard of Bolton Percy is the fifth that has been discovered, all in the north of England, and during the present century.* This peculiar coinage is now engaging the attention of numismatists; and the Curator of Antiquities believes that no cabinet in any Museum contains so large and interesting a collection of Stycas, as that belonging to this Society.

The Subscription entered into in 1846 for fitting up the Hospitium of St. Mary’s Abbey for the reception of the general collection of Antiquities, though falling short of the expected amount, has enabled the Council to complete the restoration of the upper room, and to fit it up, by the adaptation of cases already in the Society’s possession, for the reception of the smaller objects requiring such protection. The lower story has for some years been occupied by the sculptured fragments of

* The first occurred in 1808, in the parish of Kirk Oswald, in Cumberland. In 1813, a few Stycas of Egfrid were found in the chapel-yard of Heworth, in the county of Durham; in 1832, about 8000 Stycas were discovered in the church-yard of Hexham; and in 1842 a hoard of nearly the same number was turned up in St. Leonard’s Place, York.

St. Mary's Abbey and other mediæval edifices in York, and, with an addition now in progress, will further afford an appropriate depository for the more bulky Roman remains (altars, sarcophagi, inscribed stones, &c.), mostly discovered in and around York; so that the entire building will comprise a Museum of Local Antiquities, adding greatly to the stores of instruction and interest which the Society is enabled to present to its Members and Visitors. The whole collection, however, will require complete and careful arrangement, to render it as instructive as it is intrinsically valuable; and the Council have reason to hope for very efficient assistance in this necessary work. The addition to the accommodations in the Hospitium, to which reference has just been made, the Council have been enabled to accomplish by the liberal benefaction of a deceased Member and zealous friend of the Society, the late Mr. Copsie, who bequeathed to the Society the sum of £100., accompanied by the expression of his desire that it should be applied to some object connected with the department of Antiquities; a condition with which the Council could not hesitate in complying. Concurring cordially in the opinion of the Curator of Antiquities, that the legacy could not be devoted to a better purpose, or one more in accordance with the wishes of the testator, the Council at once decided to apply it to the substantial restoration of that part of the lower story of the Hospitium which still lay in ruins. This work is now proceeding, and will be completed as soon as the season permits, at a cost little exceeding the amount of the proceeds of the legacy.

In the department of Natural History, the report of the Keeper of the Museum shews the continued exertion of his zealous care of the collections committed to his superintendence, and records many valuable additions to their contents. Those to the Geological collection include the valuable purchase effected by Mr. Charlesworth, of two Saurian heads from the Lias of Whitby, the one a *Teleosaurus*, the other an undetermined species of *Ichthyosaurus*. "These specimens," observes Mr. C., "form a great addition to our collection of extinct Reptilia, and I believe they may, in some respects, be respectively

considered unique, the cranium of the Ichthyosaurus exhibiting neither displacement nor compression, while the lower jaw of the Teleosaurus is detached, so as to allow of the superior surface being seen through its whole extent, to the termination of the condyloid processes." A very beautiful specimen of *Asterias arenicola* (figured in pl. 17 of the London Geological Journal) has also been obtained by purchase. The most remarkable donations to the Geological collection have been the remains of *Gyrosteus mirabilis Agassiz*, (a gigantic osseous fish) from the Lias of Whitby, presented by Dr. Murray, of Scarborough,—a unique Ichthyolite, (*Pleuracanthus lævissimus Agassiz*) presented by the widow of a late lamented member of the Society, the Rev. T. Egerton,—a series of fossils from the Gloucestershire Lias, by Mr. Allis,—and some interesting remains of fishes from the Caithness slate at Thurso, by Mr. David Graham.

Mr. Charlesworth has made considerable progress in labelling the general collection of fossils, and mounting the specimens on tablets, a mode of arrangement which displays them to great advantage. The fossils of the green sand, chalk, London clay, and newer tertiary beds, are now exhibited after this method, which he proposes gradually to extend to other parts of the collection.

The first part of the list of British fossils, referred to in the report for 1845, embracing the whole of the known Tertiary species, is now ready, and copies are laid on the table for the inspection of members.

The Council would also invite the attention of the Members to the specimens of fossil zoophytes from the Flamborough Chalk, which Mr. Charlesworth has happily succeeded in clearing from the matrix by the application of dilute muriatic acid, so as strikingly to exhibit not only the external aspect of these organic remains in their original perfection and beauty, but also to shew their internal structure.

No donations of particular moment have been received for the general collection of Ornithology; but a portion of the Malacca collection, formerly purchased by the Society, has been mounted at a considerable cost. The appropriation of one of the

upper rooms of the Museum (recently devoted to antiquities) to the reception of the Rudston collection of British Birds, has admitted of the display of this fine collection in a manner which shews the Society's appreciation of the gift, while it affords greater facilities for study to those who cultivate British ornithology. The smaller insectorial species have been removed from the separate cases which they occupied, and arranged in one large and light glazed case, which exhibits them to the greatest advantage,—a mode of arrangement for the suggestion and execution of which the Society is indebted to the Secretary.*

A specimen of Brain coral, (*Mæandrina cerebriformis*,) presented by R. Hatfield, Esq., has proved the source of an extremely valuable addition to the foreign Conchological cabinet, its interior being found, on examination, to be occupied by a colony of perforating bivalve molluscs, including examples of at least five distinct genera. Mr. James Backhouse has liberally permitted the Keeper of the Museum to select from his extensive Australian collection several recent sponges, which help to illustrate in a most instructive manner the nature of the fossil zoophytes of the Flamborough chalk.

The Curator of Botany has arranged the collection of Pyrenæan plants formed by Mr. Spruce, and purchased by the Society; and he has enriched the British herbarium by the liberal donation, from his own private collection, of about fifty species, which were not already in the Museum. The collection of living plants in the Conservatory has received several additions; but the only one which calls for particular notice is the contribution of several additional species of *Orchidaceæ*, and selected seeds, presented by the Hon. East India Company, through Dr. Forbes Royle.

The Library has continued to be enriched by the transmission, by several of the learned Societies of Britain, of their Transactions. Among these the Council have much pleasure in mentioning the first part of the volume containing the Memoirs communicated to the Archæological Institute at its meeting in York, and the elaborate Map of Roman Yorkshire, by Charles

* The value of this splendid acquisition to the Museum has been greatly enhanced by Mr. Read's subsequent presentation of his cabinet of British eggs.

Newton, Esq.; both presented by the central Committee of the Institute. The Meteorological and Magnetical Observations of Lieut.-Col. Sabine at St. Helena, and of Sir T. M. Brisbane at Makerstoun, and the Astronomical Results obtained at the Cape of Good Hope by Sir J. W. Herschel, and at Edinburgh by the late T. Henderson, Esq., have also been received. Mr. Hatfield has presented to the Library a splendid Atlas of Plates on Human Anatomy, published at Venice, by the brothers Caldani, in 1801—13, in 4 vols, folio, with accompanying letterpress. Several works on Geology and Natural History, of great value and utility, (including Sir R. I. Murchison's "Silurian System," Professor Owen's "Odontography," and two costly and valuable works of M. Agassiz,) have been purchased by the Council, an opportunity having presented itself of obtaining them on very advantageous terms.

The Council have great satisfaction in alluding to the completion of Mr. Browne's valuable and beautiful work on York Minster. The approaching completion of Mr. Gould's splendid work on the Birds of Australia, as well as Mr. Gray's on the Genera of Birds, will relieve the Society from a heavy annual expenditure in this department.

The Laboratory has been exclusively employed, as of late years, in the instruction of the pupils of the York School of Medicine. It is reported by the Curator to be in good working order. In the Observatory, Mr. Newman has continued his observations of the sun's transit for the purpose of keeping the correct time, and the clock's error has been, as usual, carefully noted for the information of the public.

The Curator of Meteorology has furnished the following table and remarks, containing his observations on the weather at York during the past year:—

METEOROLOGICAL REGISTER FOR 1847—YORK.

BAROMETER.				THERMOMETER.										Prevalent Wind.
Mean Height.	Highest.	Lowest.	Rain.	Average Max.	Average Min.	Mean temp.	Mean for 13 years.	Highest.	Lowest.	Nights at 32° or lower.	Days of Rain more or less.			
Jan.	29·88	30·45	28·80	1·48	38	31·5	34·7	35·2	47	19	19	14	S. E.	
Feb.	29·91	30·41	29·25	1·39	41·4	29·1	35·2	38	53	18	20	15	Westerly.	
Mar.	30·03	30·65	29·47	1·35	48·4	33·7	41·0	41	60	18	10	16	S. E. & N. W.	
April	29·78	30·15	29·32	1·82	52·3	35·0	43·6	45·1	61	25	10	16	Westerly.	
May	29·90	30·60	29·40	3·09	62·8	45·1	53·9	52·	80	33	0	19	S. W.	
June	29·98	30·61	29·50	2·47	66·2	49·4	57·8	58·1	80	41	0	20	N. W.	
July	30·12	30·49	29·80	·77	74·6	54·7	64·7	60	84	47	0	6	N. & W.	
Aug.	30·07	30·52	29·58	1·14	68·7	50·9	59·8	59·6	84	36	0	11	Westerly.	
Sept.	29·98	30·47	29·13	1·14	59·5	42·9	51·2	54·6	68	31	2	15	Westerly.	
Oct.	29·97	30·39	29·33	1·95	54·5	41·9	48·2	47·9	61	34	0	16	Southerly.	
Nov.	29·93	30·48	29·00	1·90	49·6	38·4	44·0	41·3	61	29	5	16	Southerly.	
Dec.	29·80	30·38	28·29	3·54	43·5	36·2	40·0	39·6	54	29	10	16	S. E.	
	29·94			22·04			47·8	47·7			76	180		

COMPARATIVE PREVALENCE OF WINDS.

N.	S.	E.	W.	N.E.	N.W.	S.E.	S.W.
Days .. 24.	22.	21.	68	40	56	71	63 = 365.

Mean height of the mercury at 9 morning 29·9560.

Ditto 3 afternoon 29·9440.

Mean daily depression at.... 3 afternoon ·0111.

Mean height for the year 29·9504.

Mean temperature for the year 1847 47·8.

Ditto for 13 years 47·7.

It will be seen that the year 1847 has presented almost an exact mean of temperature. A few anomalies of excess and deficiency in some of the months appear to have balanced each other.

The temperature of April was 1·5 below the mean, and has not been so low since the year 1838. That of May was on the other hand 1·8 above the mean. September was 3·4 below the mean, and colder than it has been since 1836. The temperature

of July, however, more than compensated for this deficiency, having been 4·6 above the mean, and warmer than it has been in the last 17 years.

The rain of the year has been 2·1 inches below the mean. July, August, and September were remarkably dry. The total for the three months was only 3·05 inches, the mean amount being 7·36. May and December, on the contrary, had an excess of 2·4 inches above their usual mean.

A remarkable depression of the mercurial column occurred at 11 P. M. on the 6th of December, the height being only 28·293, thermometer attached 54°. This depression was also noticed coincidentally as follows, viz. :—

Dublin.....	28·20
Cockermouth	28·07
Ackworth	28·15
Wigton ..,.....	28·27
York	28·29
Kendal.....	28·35
Chiswick	28·55
Cork.....	28·72
Falmouth	28·88

A splendid display of Aurora occurred on the 24th of October, an accurate account of which, by Professor Phillips, may be found in the "Athenæum" for the 30th of that month.

Communications have been received of the amount of rain fallen in the year at

Doncaster	23·190 inches.
Ackworth	20·502 "

At Kendal the amount was 52·19 inches, and at Keswick 58·28.

The Gardens continue to afford increased attraction to strangers, and enjoyment to the Members and their families, as each year's vigorous growth of the trees and shrubs renders more manifest the skill and taste with which the general plan of the grounds, and the laying out of the plantations, were conceived and executed by Sir J. Nasmyth.

The want of success which, from various causes, has attended the Horticultural Exhibitions in the Museum Gardens for some years past, induced the Council, with the full concurrence of the Horticultural Committee, to suspend for the present such exhibitions; being of opinion that in the existing state of the Society's finances, and with the claims still pressing upon them, they were not justified in risking so large a portion of its revenue.

Since the last Annual Meeting, the Society has had to deplore the loss by death of several of its oldest and most valued Members. To the memory of one of them, Mr. Copsie, the Council have already had occasion to pay a passing tribute, when acknowledging the last of his many acts of zealous and effective benevolence to the Society. The Society has lost also its early, steadfast, and ever liberal Patron, the late venerable Archbishop of this Province, by whose hands was laid the foundation stone of this Museum, and who was permitted by Divine Providence to witness the prosperity and usefulness of this and many other valuable Institutions, over which he had extended his powerful protection.

The erection of the bust of Dr. Beckwith in the Hall of the Museum, has afforded the Council an opportunity of commemorating his very liberal bequest to the Society by an inscription on the pedestal. They have recorded in the same manner their sense of the valuable and long continued services of their first President, the Rev. W. Vernon Harcourt.*

The Treasurer's account for the past year, which accompanies this Report, exhibits in a clear and distinct manner the present state of the Society's finances. The debtor side of the balance sheet shows an increase of income over that of the preceding year (1846) under several heads; although two items of ordinary income, viz., the admissions at the gates, and receipts from the swimming bath, have not equalled the corresponding amounts in the account for 1846. The total amount of income is increased by two items which must be considered as *extraordinary* revenue, viz., Mr. Copsie's legacy, producing (after payment of duty) £90; and the subscription of £100. 10s. 6d., received towards fitting up the Hospitium.

* The following are the inscriptions:—

GVLIELMO · VERNON · HARCOVRT · S · R · S ·
OB · ASSIDVA · IN · SE · MERITA
SOC · PHIL · EBOR · POS · A · D · MDCCCXXXIII ·

STEPHANO · BECKWITH · M · D ·
OB · EGREGIAM · ERGA · SE · MVNIFICENTIAM
SOC · PHIL · EBOR · POS · A · D · MDCCCXLV ·

It is satisfactory to observe that the *ordinary* expenditure of the Society is more than covered by the *ordinary* income. But, on the General Account for the year, the balance against the Society has been increased by £207. 11s. 10d., being, on the 1st of January, 1848, £473. 5s. This increase of debt, however, has not been incurred during the past year. Several tradesmen's bills, relating to the alterations in the Mint Yard in 1846, and two accounts connected with the erection of the new hot-houses during the same year, not having been received in proper time, were not included in the account presented at the last Annual Meeting. Had these bills, amounting together to £327. 19s., been paid when due, they would have swelled the balance against the Society in the account for 1846, to £593. 12s. 2d. They are now paid, and included in the balance-sheet now presented; and are the cause of the apparent increase of the Society's debt. There are also several bills included in the ordinary expenditure of 1847, which ought to have been presented and paid in 1846. Looking to the liabilities of the Institution, it must be borne in mind that the Society is under engagement to pay £350. for the purchase of the house adjoining the gateway of St. Leonard's, the site of which will be required for the projected alterations, for completing which a considerable further outlay will be called for. About £100. will also be required for the further restoration of the Hospitium, now in progress. It is therefore probable that the Society is, or will be ere long, under liabilities to the amount of about £1000. Nevertheless, the Council confidently hope that, by strict economy, a considerable surplus revenue may be insured for the gradual liquidation of this debt, and the Society be still retained in a position to employ itself with energy and perseverance in accomplishing the purposes for which it was constituted.

THE

TREASURER OF THE YORKSHIRE PHILOSOPHICAL SOCIETY,

IN ACCOUNT FOR THE YEAR 1847.

Dr.				Cr.
1847.				1847.
	£.	s.	d.	£.
				£.
				s.
				d.
Annual Subscriptions and Arrears	550	0	0	Permanent Debt, viz.:
Admission of New Members	90	0	0	Six Members at £50 each.....
Composition in lieu of Annual				Balance overdrawn Messrs.
Subscriptions	60	0	0	Swann, Clough and Co., De-
Ladies' Subscriptions and Keys of				cember 31st, 1846
the Gates	82	6	0	Crown Rent.....
Money received at the Gate.....	148	7	9	Corporation Rent (one
Rents	40	14	2	and a half-years)
Gas for Evening Meetings	1	10	0	Insurances
Swimming Bath (deducting Ex-				Gate Keeper.....
penses	81	18	5	Keeper of the Museum..
Legacy.....	90	0	0	Clerk and Collector
Subscriptions towards fitting up				Interest.....
the Hospitium	100	10	6	Sub-Curator, on Account
Permanent Debt, viz.:				of Salary, Wages, &c.....
Six Members at £50 each.....	300	0	0	
				591
				0
				6
Balance overdrawn Messrs.	1545	6	10	Sundry Bills, viz.:
Swann, Clough and Co., De-				Purchase of Specimens..
cember 31st, 1847	473	5	0	Purchase of Books
				Coals and Gas
				Mrs. Buckley, Mason ..
				J. Cluderay, Joiner
				W. Hartley, Glazier
				H. Sotheran, Printer and
				Stationer
				J. Brown, Painter
				J. Walker and Mrs. Ward,
				Ironmongers
				N. Turner, Plasterer
				J. Thompson, Joiner....
				Sundry Small Accounts
				861
				18
				2
				£2018
				11
				10
				10

Audited by us, January 31st, 1847,

W. GRAY,
JOHN FORD.

£2018 11 10

£2018 11 10

ANALYSIS OF DISBURSEMENTS.

ORDINARY EXPENSES.

Rents, Rates, &c.:	£. s. d.	£. s. d.
Rent to the Crown	1 0 1	
Rent to the Corporation, one and a half years	43 13 9	
Rates and Taxes	8 9 3	
Insurance and Water Rent	11 0 0	
	<hr/>	64 3 1
Salaries and Wages:		
Keeper of the Museum	150 0 0	
Sub-Curator	100 0 0	
Servant	20 0 0	
Lodge Keeper	20 0 0	
Labourers	145 14 0	
Occasional Labourers	2 3 3	
Clerk and Collector	20 0 0	
Attendant in Hospitium	1 12 6	
	<hr/>	459 9 9
Interest to Bankers for being overdrawn		15 14 0
Museum, Gardens, Grounds, &c.:		
Painting and General Repairs	95 16 3	
Purchase and Preparation of Specimens	114 4 10	
Observatory	7 3 5	
	<hr/>	217 4 6
Library:		
Books and Binding		105 7 0
Incidentals:		
Printing, Advertising, and Stationery	53 11 6	
Coals, Gas, Coke	31 14 4	
Postages, Carriage, and Sundries	21 12 6	
	<hr/>	106 18 4
		<hr/>
		968 16 8

EXTRAORDINARY EXPENSES.

Alterations in the Mint Yard, 1846	262 18 1	
On Account of New Hot-houses, 1846	65 0 11	
Fitting up the Hospitium	128 19 1	
New Cases.....	21 11 0	
	<hr/>	478 9 1
		<hr/>
		£1447 5 9
		<hr/>

RESOLUTIONS

PASSED AT THE ANNUAL MEETING, FEB. 1, 1848.

1. That the Report of the Council be adopted, and printed for the use of the Members.

2. That the thanks of the Society be given to the Vice-Presidents and Members of the Council retiring from office, and to the Treasurer, Secretary, and Curators, for their valuable services.

3. That the Council be empowered, on certain days to be selected by them during the the present year, to permit free admission to all persons to the Museum and Gardens; the mode of admission to be regulated by the Council.

4. That the Council be empowered to admit Strangers during the present year, at the usual rates of payment.

5. That the Council be authorised to admit to the Museum and Gardens, as temporary subscribers, any occasional Visitors to York, not residing in the County, at the rate of One Pound for four months for themselves and their families; but that in no case shall such privilege be granted for a longer period than twelve months

MEMBERS

ELECTED SINCE FEBRUARY, 1847.

 1847.

Thomas Gibson Hartley, *York*.
 John Bell, M. P., *Thirsk*.
 Rev. Charles Hawkins, *Canon Residentiary, York*.
 John Wilson, *Clifton, York*.
 William Webster, *Heworth Moor, York*.
 William Sotheran, *York*.
 John Meek, jun., *York*.
 Joseph Waddington Graves, *York*.

JANUARY AND FEBRUARY, 1848.

Henry Brown, *High Ousegate, York*.
 Charles Potter, *York*.
 William Cooper, *York*.
 John Harland Fox, *York*.
 William Monkhouse, *York*.

COMMUNICATIONS
TO THE
MONTHLY MEETINGS,
1847.

MARCH 2.—ROBERT DAVIES, F. S. A.—On the Statistics of York in the 13th and 14th Centuries.

APRIL 6.—CHARLES NEWTON, M. A.—Letter to John Phillips, F. R. S., on the British and Roman Antiquities of Yorkshire, and on a Map of Roman Yorkshire.

EDW. CHARLESWORTH, F. G. S.—Notice of the occurrence, near Tadcaster, of *Larus Rossii*.

JAMES YATES, F. R. S., &c.—Notice of *Zamia Gigas*, a fossil plant occurring on the N.E. coast of Yorkshire.

MAY 4.—W. C. WILLIAMSON, M. R. C. S.—On the Fossil Vegetable Heads from Runswick Bay, supposed to belong to *Zamia Gigas*.

JUNE 1.—REV. J. KENRICK, M. A.—On the Sarcophagus of M. Verecundus Diogenes, and the Civil Administration of Roman York.

REV. C. WELLBELOVED—On the hoard of *Stycas* discovered in March last, in the parish of Bolton Percy.

NOV. 2.—JOHN PHILLIPS, F. R. S.—On the *Aurora Borealis* of the night of October 25th, 1847, as observed at York.

W. L. NEWMAN, F. R. A. S.—On the Solar Eclipse of the 9th of October, 1847, principally in reference to the determination of the longitude of York.

DEC. 7.—EDW. CHARLESWORTH, F. G. S.—On the Mineral Condition and Affinities of the Zoophytes of the Flamborough Chalk.

DONATIONS TO THE MUSEUM,

1847.

GEOLOGY.

Thos. Allis, Esq.	A series of choice Fossils from the Lias of Gloucestershire.
E. T. Artis, Esq.	Natica from the Oolite.
James Backhouse, Esq. ...	Fossils from Van Dieman's Land.
Thos. Barstow, Esq.	Fine crystal of Selenite, from the Lias near Oakham, Rutlandshire.
Captain James Cole	Humerus of Ichthyosaurus, with other fossils, from the Lias of Whitby.
Mrs. Thos. Egerton	Pleuracanthus lævissimus <i>Agassiz</i> , and other fossils.
Mr. David Graham	Fishes from the Caithness Slate, Thurso.
Randall Hatfeild, Esq.	Fine piece of double refracting spar.
E. T. Higgins, Esq.	Seventy casts in plaster of the jaws of <i>Ceratodus</i> , from originals in the cabinet of the donor.
Henry Milner, Esq.	Siliceous and Volcanic products from Iceland.
J. R. Pease, Esq., (<i>Hessle Wood</i>)	} Teeth of <i>Ptychodus</i> , from the Chalk near Hull.
Wm. Moberly, Esq., (<i>Sandsend</i>)	
Dr. Murray, (<i>Scarbro'</i>) ...	} Fossil Wood from the Lias near Whitby.
	Fine example of the remains of <i>Gyrosteus mirabilis Agassiz</i> , from the Lias at Whitby.
Wm. Procter, Esq.	An Ammonite with a produced lip, from the Oxford Clay of Wiltshire.

- Richard Ripley, Esq. Avicula cygnipes, from the Lias, Whitby.
 J. F. Whittell, Esq. Specimen of Plagiostoma, from the Lias
 near Upper Helmsley.

PURCHASED.

- Very perfect head of Ichthyosaurus, and head of a Teleosaurus, from
 the Lias near Whitby. (See Report, pp. 10, 11.)
 Fine specimen of Asterias, from the Oolite near Pickering.

ZOOLOGY.

- Thomas Allis, Esq. Skull of an adult Mandrill, and eleven
 Birds.
 James Backhouse, Esq. ... Some very interesting Sponges, with
 other objects of Natural History,
 from Van Dieman's Land.
 Dr. Battersby, (*Torquay*) Balanus Cranchii, and other British
 Shells (in exchange.)
 Mrs. Barker Specimen of the little Woodpecker.
 John W. Clough, Esq. Specimen of Locustella migratoria, taken
 alive on the Wolds.
 J. S. Duncan, Esq. (*Oxford*) Cast in wax of the bones of the foot,
 and one in plaster of the head, of the
 Dodo, from the originals in the Ash-
 molean Museum.
 Randall Hatfeild, Esq. Two fine specimens of Brain Coral.
 John Leckenby, Esq., } A large variety of Donax anatinum,
 (*Scarbro'*) } and specimen of Nucula Polii (in ex-
 change.)
 John Lee, Esq., L. L. D., } Two Birds, new to the Collection.
 (*Hartwell, Aylesbury*) }
 T. Meynell, jun., Esq. Specimen of Bulla hyalina and other
 rare British Shells (in exchange.)
 Peter Middleton, Esq. A Hornet's Nest, built in his garden at
 Stockeld Park.
 Rev. J. K. Miller, } An adult specimen of the Black-throat-
 (*Walkeringham*) } ed Diver (*Colymbus Arcticus Pen-*
nant), shot on the Trent.

- Mr. Edward Mortimer, } A live Frog, presenting the remarkable
(Birdsall) } monstrosity of having six legs.
- Rev. George Rudston Read } Specimen of the little Woodpecker, shot
 at Howsham.
- Two remarkable Sponges from the West
 Indies, and specimens of Fan Coral.
- Wm. Rudston Read, Esq... } Collection of British Birds' Eggs, with
 the cabinet.
- Specimen of the Glaucous Gull from
 Iceland.
- Wm. Reed, Esq. } Curious small Fishes and Crustacea from
 China, with a very singular bone from
 the throat of the Howling Monkey.
- Scarborough Philosophical } Bulla Cranchii, and other British Shells
 Society } (in exchange.)
- Mr. Tessyman, (*Scarbro'*) } Eggs of the Penguin, found in guano at
 Ichaboe.
- Mrs. Thos. Walker, } British specimens of *Ianthina* com-
(Doncaster) } munis.
- Edw. Wilson, Esq. (*Tenby*) } Six Birds, new to the Collection.

PURCHASED.

- Fine specimen of *Cleidotherus*, from Swan River.
 Black Swan, from Australia.

BOTANY.

TO THE HERBARIUM.

- O. A. Moore, Esq. } About fifty species of British Plants, not
 previously in the Society's collection.

TO THE GARDEN AND CONSERVATORY.

- Hon. East India Company, } Collection of Orchidaceous Plants.
(by Dr. Forbes Royle) }
- Mr. D. Smith, } 46 Species of Plants.
(Botanic Garden, Hull) }
- John Wood, Esq., } Collection of Seeds, distributed by the
(London) } Horticultural Society.

ANTIQUITIES AND COINS.

- Joseph Dent, Esq., High } The Monumental Stone inscribed to
 Sheriff } Lucius Duccius Ruffinus. (See Re-
 port, page 8.)
- Mr. Henry Brown, } Spur, Stirrup, &c., of early mediæval
 (*High Ousegate*) } date, found in the excavations in
 Parliament Street, York.
- Mr. H. Chapman Small Roman fictile Vase.
- Dr. Goldie..... A Saxon Sceatta of Eadbert, king of
 Northumbria, A.D. 737—758.
- F. B. Hacket, Esq. Coin of Gallienus, 3rd brass, found in
 his garden in Bootham, York.
- H. Tuke Holmes, Esq. Large fragment of a Roman Bowl of
 Samian ware, found some years since
 in York.
- Mr. Joseph Mawson..... Sceatta of Archbishop Albert.
- R. Nicholson, Esq. Roman Mortar, found in the railway
 cutting near Ulleskelf.
- Fred. Oates, Esq., (*Lincoln*) Coin of Vespasian, 2d brass.
- John Prest, Esq. Mediæval Seal, found in his garden
 without Micklegate Bar, York; de-
 vice a Pelican "in its piety," with
 the legend SVM. PELICANVS. DEI.
- W. Rudston Read, Esq. ... Small Brass Coin, probably British.
- Rev. Christopher Sykes ... Northumbrian Styca of Ethelred, one of
 the hoard lately discovered at Bolton
 Percy.
- Colonel G. H. Thompson... Forty Stycas from the same hoard.
- Rev. C. Wellbeloved Ancient British Silver Coin.
- Lord Wenlock Fifty-seven English Coins, being a por-
 tion of a hoard lately found at Deigh-
 ton, (see Report, page 9.)
- William Whincopp, Esq., } Egyptian lamp; figures of Egyptian
 (*Woodbridge, Suffolk*) } deities in glazed porcelain; Etruscan
 vessels; celts; stone and flint adzes;
 Roman lamp, found at Colchester;
 &c., &c., (in exchange.)

John Wood, Esq., (*London*) Roman or Roman-British Vase, found about four feet below the surface at Scoreby, near Stamford Bridge.

PURCHASED.

About 3000 Stycas, part of the hoard lately discovered at Bolton Percy. (See Report, page 9.)

Curious mediæval Key, found near Stamford Bridge.

 MISCELLANEOUS.

Mrs. Jackson, (*Scarbro'*) Specimens of a pellicle presenting beautiful iridescent colours, formed on the surface of molten lead at some works in Cumberland.

J. E. Wilkinson, Esq.,
 (*Potterton Lodge*) } A long-barrelled Pistol, apparently of very early date, found in the roof of Kiddel Hall, near Aberford.

LIBRARY.

BOOKS, &c. PRESENTED.

- Presented by direction of } Observations made at the Magnetical
the British Government } and Meteorological Observatory at
St. Helena, by Lieut.-Colonel Sabine,
vol. i, for 1840—43.
- Royal Astronomical Society } Greenwich Astronomical Observations
for 1845, 4to.
- Duke of Northumberland } Astronomical Observations made at the
(*by the Author*) } Cape of Good Hope by Sir J. W.
Herschel, in 1834—38.
- Royal Society of Edinburgh } Transactions of the Society, vol. xvi,
parts 1, 2, and 3; and vol. xvii, parts
1 and 2, containing the Makerstoun
Magnetical and Meteorological Ob-
servations for 1841, 2, and 3.—4to.,
Edin. 1845—7.
Proceedings of the Society, 1846—7,
Nos. 28, 29, 8vo.
- Royal Observatory, Edin- } Edinburgh Astronomical Observations,
burgh } vol. vi, for the year 1840.
- British Association for the } Report of the Association for 1846.
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- Archæological Institute of } Memoirs illustrative of the History and
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- Royal Cornwall Polytechnic } The Society's Fourteenth Annual Re-
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- Zoological Society of London } Proceedings of the Society for 1846—7.
Report of the Society for 1846.
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- John Brown, Esq.,
(*Stanway, Colchester*) } Lithograph of a Vertebra dentata of the
Fossil Elephant in the collection of
the donor.
- Edward Charlesworth, Esq. } London Geological Journal, Nos. 2 & 3,
(duplicate copy.)
- Mr. D. Graham } Hekla og dens sidste Udbrud (an account
of the eruption of Hecla, 2d Sept.,
1845) by J. C. Schythe. 8vo., Copen-
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- Wm. Gray, Esq. } Woodward's Catalogue of Fossils, 12mo.
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- Captain W. Hotham, R.N., } Account of the Volcanic Island which
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- Luke Howard, Esq., } Barometrographia, or the Variation of the
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 3 vols. and supplement, 8vo. London, 1843.
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- Account of the Scientific Societies and Publishing Clubs of Great
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- Gray and Mitchell's Genera of Birds, fol. col. plates, parts 35 to 43.
- Doubleday and Hewitson's Genera of Diurnal Lepidoptera, fol. col. plates, parts 5 to 16.
- Sowerby's Thesaurus Conchyliorum, 8vo. col. plates, part 8.
- Waterhouse's Natural History of Mammalia, 8vo. col. plates, parts 14 to 19.
- Browne's History of York Minster, 4to., parts 31 & 32. (*completed*)
- Churton's Monastic Ruins of Yorkshire.
- Fauna Antiqua Sivalensis, or Geology of the Sewalik Hills in the North of India, by Dr. Falconer and Major Cautley. Parts 1 to 6 of Illustrations, large folio, and part 1 of Letterpress, 8vo.
- Forbes and Hanley's British Mollusca, 8vo. col. plates.
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- Alder and Hancock on British Nudibranchiate Mollusca, parts 2 and 3, 4to.
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- Reports on Zoology, for 1843—4; 1 vol. 8vo., 1847.

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- London and Edinburgh Philosophical Magazine, monthly.
- Annals and Magazine of Natural History, monthly.
- The Phytologist, monthly.
- London Geological Journal.

Presented
13 MAR 1886

~~1848~~
Yorkshire Philosophical Society.

ANNUAL REPORT

FOR

MDCCCXLVIII.



ANNUAL REPORT
OF THE COUNCIL
OF THE
YORKSHIRE
PHILOSOPHICAL SOCIETY

FOR

MDCCLXVIII.

PRESENTED TO THE ANNUAL MEETING

FEBRUARY 6, 1849.



YORK:
H. SOTHERAN, CONEY STREET.

1849.

TRUSTEES
OF
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APPOINTED BY THE ROYAL GRANT.

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LIBRARY	GEORGE GOLDIE, M. D.
METEOROLOGY	JOHN FORD.
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REPORT OF THE COUNCIL

TO THE

Annual Meeting.

A prominent place has been occupied in the Reports of the Council for the last two years, by the progress of the improvements consequent on the Society's acquisition of the remains of St. Leonard's Hospital. It was stated in the last Report that owing to the undetermined state of the plans of the City Council with regard to the adjoining streets, these improvements had not been completed. During the past year, however, the boundary and levels having been decided upon, and the unsightly buildings which encumbered the ruins of St. Leonard's Hospital cleared away, a substantial iron fence and gate have been erected along the line of Museum Street, which, by the liberality of the Corporation, now forms the boundary of the Society's grounds.

This change of boundary involved the necessity of the removal of the Porter's Lodge; and the Council were anxiously employed in consulting with the Architect on the difficult question of the site and design of a new lodge, when the adjoining freehold house, the property of E. S. Cayley, Esq., and lately tenanted by Miss Yorke, was offered for sale. It had long been the opinion of several members and zealous friends of the Society, that should an opportunity occur of purchasing this house, it ought not to be lost, from a conviction of the importance of its possession to the Society, both with reference to present convenience and future possible improvements. After much negotiation, the Council resolved to effect the purchase,

the Yorkshire Insurance Company agreeing to advance the required amount on mortgage at five per cent.

Having obtained possession, the Council proceeded to convert a portion of the ground floor of the building into a lodge for the gatekeeper. This was effected at a very trifling cost; and having placed the remainder of the house in tenantable repair, they let it at a rent more than adequate to meet the interest which the Society will be called upon to pay. By obtaining possession of this property, the Society became the tenants, under the Corporation, of the garden attached to the house, and also of the portion of the City Ramparts and Walls extending towards the Water Tower. This will enable the Society to throw open its grounds very advantageously in that direction, and to extend them to what naturally appears their proper boundary. This improvement it is the intention of the Council to carry out without delay; and as the greater portion of the work will be performed by labourers usually in the employment of the Society the cost will not be great. The Council, therefore, conceive that they may justly congratulate the Society on having obtained by this transaction—though paying the full market value of the house—advantages far more than equivalent to the outlay, especially when the saving of the costly erection of a lodge is taken into consideration. The whole of the expenses incurred will be found stated in the Treasurer's report.

The only other object on which the Society has been called to expend any large sum of money in building, during the past year, is the restoration of the lower portion of the Hospitium, which was stated in the last report to be in progress. The work is now completed: the lately ruined portion of the building has been repaired, roofed-in, and glazed, and by the removal of a brick partition, this noble apartment is shown in its original dimensions.

Within this space the large and interesting collection of Roman Altars, Tombs, Monumental Stones, and other relics belonging to the Society, has been duly arranged. The fragments of Saxon, Norman, and English Sculpture likewise, which had long occupied the building in a very confused state, have been disposed in chronological order, chiefly by the aid of

Mr. George Goldie, Jun., thus furnishing an interesting series of specimens of the successive periods of mediæval art. Since its completion, the Hospitium has been visited by several of our most distinguished Antiquaries, who have unanimously pronounced the collection of local Antiquities which it contains, to be the most curious and valuable in the kingdom. The Curator of Antiquities, owing to the state of his health, has not yet completed the arrangement of the collection in the upper apartment. It has not, however, been altogether neglected, and he is looking forward to the time, which he hopes is not far distant, when he shall obtain the aid which Mr. Edward Hailstone, a member of the Council, and an experienced and accurate antiquary, has promised, but which has hitherto been delayed by his professional and other engagements. But he regrets to say that when the articles, now in the cases in the upper room, shall have been properly arranged, many others of great interest, and which ought to be accessible to the members of the Society and visitors, will yet remain locked up, in consequence of the want of cases, in which they may be exhibited in due security.

The Donations to this department have not been numerous during the past year; there have been some, however, of an interesting character, which call for special notice.

The Roman Tomb found near the City Walls, and presented to the Society by the Directors of the York, Newcastle, and Berwick Railway, is, the Curator believes, perfectly unique. Rude as it is, and having nothing to indicate its date, the name, or rank of the person whose body was so carefully deposited within it, it possesses considerable value as exhibiting a remarkable variety in the modes of Roman sepulture. To Mr. Allis the Society is indebted for the curious little relic of Gnostic superstition, discovered some time ago near the present railway station. It was slightly noticed by the Curator in his work on Roman York; but it will now be contemplated with greater interest, in consequence of the light that has been thrown upon it by Mr. Kenrick in his remarks published in the Proceedings of the Society. From Mr. Henry Sotheran, the Society has received a curious and valuable document:—the *Compotus* of the Abbey of St. Mary, for the year beginning with the first

Sunday after the feast of St. Michael, A.D. 1528, and ending with the same Sunday, A.D. 1529. The Curator hopes to be able to present a transcript of this document, or at least, such an abstract of it, as may exhibit the information it conveys concerning the domestic state of the Abbey, at a period so near to the time of its suppression. To Robert Davies, Esq., the Society is indebted for a valuable addition to the Cabinet of Coins; consisting of 40 silver pennies, groats, &c., of various kings, beginning with Canute, in excellent condition, and of which 20 were struck at York. A valuable present of Roman and mediæval remains, found at Lincoln, has also been received from Mrs. Hutton, of Beverley.

Several members of the Society having expressed a wish to subscribe towards the purchase of a Roman Altar and other interesting relics found during the restoration of the church of St. Dennis in this city, the Council became responsible for the purchase, and they were finally secured at a cost to the Society of £5. 8s. 0d. An account of this very curious Altar, by the Curator of Antiquities, will be found in the Proceedings before alluded to. The Society is in possession of the largest collection of Northumbrian Stycas probably in existence, amounting to about 5000, formed from the two great hoards of St. Leonard's Place, York, and Bolton Percy. The Curator has employed much of his time in arranging these, and in drawing up a rough catalogue of them, a fair transcript of which he hopes, ere long, to lay before the Society.

By means of donations and exchanges, several valuable additions have been made to the Geological Collection. A fine example of the Ichthyosaurus, from Lyme Regis, has been presented by Mr. E. Higgins. This specimen, which is about eight feet in length, has the spinal column complete to the terminal caudal vertebra: it also exhibits the four paddles and the bones of the head in a very instructive manner. Before receiving this donation, the Society possessed only a few detached bones and casts of portions of the skeleton to illustrate this remarkable extinct reptilian type. The Trustees of the British Museum have presented to the Society some of the reptilian and mammalian Fossils, collected by Capt. Cautley and Dr. Falconer in

the Tertiary Siwalic range. A selection of these is temporarily displayed in the room appropriated to British Ornithology. In exchange for some duplicates from this collection, Mr. Brown, of Stanway, near Colchester, has given a specimen of the *Nautilus imperialis*, from the London Clay of Essex, and the branch of a tree, perforated by *Teredo*, from the same formation at Bognor. To the liberality of the Royal College of Surgeons, the Society is indebted for a series of casts of the bones of gigantic birds, which, though now totally extinct, appear to have inhabited, in immense numbers, at no very remote epoch, the Islands of New Zealand. They have been placed in the case containing the recent skeletons of Struthious Birds. The Rev. William Vernon Harcourt has presented an interesting selection of Tertiary Fossils, and specimens of igneous rocks, illustrative of the geology of Madeira, and a large series of rock specimens has also been received through the same gentleman, from Signor Pastor, of Santa Cruz, Teneriffe, to whom a collection of duplicate British Minerals and Fossils has been sent in return. Mr. Pease, of Hessele, has presented to the Society a series of teeth of the "*Ptychodus decurrens*" of Agassiz, found in the chalk quarries of that district, being the first recorded occurrence of this remarkable fossil fish in the chalk of Yorkshire.

The Ornithological department has received an important acquisition in a specimen of the *Apteryx*, brought from New Zealand by Major Wilmot, and purchased from Mr. Graham for the Society by a subscription amongst the Members. Mr. Meynell has undertaken the re-arrangement of the general Ornithological Collection. The labels for this collection are printed from the carefully digested catalogue prepared by Mr. Gould, and the Secretary has introduced all the known habitats of the birds which this catalogue includes. When the arrangement is completed, the Ornithological collection will combine beauty of display with facility of reference for scientific purposes.*

Miss E. Backhouse, of York, has permitted the Keeper of the Museum to select from the extensive series of Shells, brought

* The Secretary has pleasure in acknowledging the effective assistance which he has received from the Sub-curator, Mr. Baines, in the performance of this duty.

home by her brother, Mr. James Backhouse, from Australia and New Zealand, a large number of duplicates which were desiderata to the Society's Collection. A specimen of the Orange Cowrie, a rare and costly shell, has also been presented to the Society by Miss Wheeler, of Bristol. The foreign Collection has been further augmented, by exchange with the Rev. William Thornton, of Kimbolton, and Mrs. Davies, of St. Leonard's Place, York. An instructive example of the genus *Magilus* from the Red Sea, imbedded in coral, was purchased in London during the spring, at a trifling cost. The Society has received from Mr. Joseph Clarke, of Cincinnati, another series of North American land and fresh-water shells. It contains many duplicates which are useful in carrying out the system of exchanges, from which considerable benefits have already been derived. The British Marine Collection has also received several useful additions during the year.

The Collection of Comparative Osteology has been augmented by a specimen of a well developed head of the Blue-faced Mandrill, presented by the Curator of that department. The preparations of the sclerotic bones of birds in this Collection have enabled the Curator, Mr. Allis, to confirm, by additional evidence, the propriety of placing the Dodo amongst the Columbidae, in accordance with the recent investigations of Mr. H. Strickland and Dr. Melville, in their work on that extinct bird. Out of seventy species whose sclerotic rings are separately exhibited, three species of Columbidae are the only birds which have but eleven separate bones to form the sclerotic ring, this being the precise number met with in the Dodo, and being the smallest number Mr. Allis has ever met with in any bird, with the single exception of the Australian Podargus, in which bird the ring is composed of only one bone.

The Library has continued to receive, by donation, the Transactions of several learned Societies, and some original works have been presented by their authors. In addition to the various periodical publications for which the Society subscribes, three works have been purchased during the year, viz: Mr. H. Strickland and Dr. Melville's important work on the Dodo, Mr. Cumming's History of the Isle of Man, and Swainson's

Treatise on Shells and Shellfish. Mr. Gould's splendid work on the Birds of Australia is now completed.

No additions of more than ordinary interest have been made to the Botanical department of the Museum. In the Garden and Hothouse, the Sub-curator has continued his watchful care, and introduced several important improvements, which will render the hothouses of increased interest to the members and visitors.

The following is the Meteorological Table for the year 1848, as annually furnished to the Society by the Curator of Meteorology, together with his observations thereon.

METEOROLOGICAL REGISTER FOR 1848—YORK.

	BAROMETER.			RAIN.									
	Highest.	Lowest.	Mean.	Inches.	Days.	Average Max.	Average Min.	Mean Temp.	Highest.	Lowest.	Night, at or below 32°		
Jan.	30.59	29.18	29.973	1.77	10	36.5	28.1	32.3	52	15	25	S.E.	
Feb.	30.46	28.70	29.553	4.22	19	45.4	34.7	40.0	53	23	9	W.	
Mar.	30.21	28.66	29.615	3.34	23	46.6	35.8	41.2	61	29	7	N.W.	
April	30.19	29.34	29.805	1.42	20	53.1	38.1	45.6	66	27	7	N.	
May.	30.44	29.34	30.068	1.12	7	68.3	46.1	57.2	79.5	34	—	S.E.	
June.	30.24	29.30	29.798	7.35	21	64.7	49.6	57.1	77	41	—	S.W.	
July.	30.56	29.15	29.861	1.72	15	68.5	53.2	60.8	84	40	—	W.	
Aug.	30.17	29.20	29.926	3.20	19	64.1	47.5	55.8	73	37	—	W.	
Sept.	30.46	29.27	30.015	4.11	11	61.8	46.1	53.9	75	35	—	S.	
Oct.	30.30	29.39	29.773	4.62	23	52.3	41.5	46.8	70	30	3	S.	
Nov.	30.62	29.13	29.881	1.13	10	45.7	34.9	40.3	54	23	12	W.	
Dec.	38.50	28.70	29.894	2.02	14	43.5	35.2	39.4	55	22	12	S.E.	
			29.8468	36.02	192			47.5			75		

COMPARATIVE PREVALENCE OF WINDS.

N.	S.	E.	W.	N.E.	N.W.	S.E.	S.W.
22	23	20	63	35	46	82	75 = 366.

Mean height of the mercury at	9 morning	29·8564
Ditto	3 afternoon	29·8380
Mean daily depression at	.. 3 afternoon	·0184
Mean height for the year	.. .. .	29·8468
Mean temperature for the year 1848	.. ..	47·5°

“ The temperature of 1848 has been almost exactly a mean of 18 years. January was, as usual, the coldest month, and July the hottest. The former month was three degrees below a mean, the latter an exact mean. August was also nearly four degrees below a mean. The rain of 1848 has exceeded the mean by 12 inches. The quantity fallen is 36·02 inches, being more than that of any year since 1832, and probably more than that of any recorded year. The rain of February, March, June, and September, taken collectively, was 240 per cent. above the annual mean of those months. The rain of June (7·35 inches) was more than that of the same month in any one of the last eighteen years: on the contrary, that of November was only 1·13 inches, being less than had fallen in that month in any one year of the above named series. The 17th of October was marked by a heavy fall of snow. The same phenomenon occurred on the same day of October, 1843. A magnificent display of auroral light occurred on the 17th of November. This was remarkable for the rapidity of the coruscations and the magnificence and depth of colour of the red arch, which, at half-past 9, spanned the heavens from N. E. to S. W.”

The following accounts of the amount of rain fallen in the year have been received : viz.,

Doncaster	33·85 inches.
Kirby Moorside	36·56 ..
Ackworth	32·08 ..
Settle	57·49 ..

At the Monthly Meetings of the Society, which have been held as usual, several valuable papers have been read. A selection from those relating to the Natural History and Antiquities of Yorkshire has been printed, and will be found in the first part of the Proceedings of the Society, which the Council have the pleasure of laying upon the table.

During the meeting of the Royal Agricultural Society in York, the Museum was honoured by a visit from His Royal Highness Prince Albert, who minutely inspected the Cabinets of Natural History and the Collection of Antiquities, and who was pleased to express his approbation of the condition in which he found them.

The great influx of visitors on that occasion, and the number of excursion trains during the summer, have caused the Museum and Grounds to be visited by a larger number of Strangers during the past than in any former year, and augmented the receipts at the gate beyond any previous experience. The state of the Society's finances will show how important it is to preserve, undiminished, this source of its income.

The Council have received, with regret, a letter from Robert Davies, Esq., announcing his desire to resign the office of Treasurer, which he has held during a period of eleven years, to the great benefit of the Society. As a mark of the high respect with which the valuable services of Mr. Davies are universally regarded, the Meeting will no doubt gladly accept the proposal of the Council to elect him a Vice-President of the Society for the ensuing year.

The attention of the Council having frequently been called to an abuse which existed, in the unlimited distribution of Orders for the gratuitous admission of strangers to the Museum, a Special Meeting of the Society was summoned to consider the best means of remedying the evil. The result of this appeal was the unanimous resolution of a very numerous meeting, that Members shall be allowed to issue twenty-five orders annually, each order not admitting more than four persons; and it is gratifying to the Council to find, that as far as the system has been tried, it promises in its results to be highly beneficial to the Society. The resolutions passed at that meeting will be found appended to this report.

The proceeds of the Swimming Bath have not quite equalled those of the two previous years, a circumstance entirely attributable to the unfavourable weather during the summer months. A small expense has been found necessary in the dwelling-house appropriated to the bath keeper.

The unavoidably increased ordinary expenditure consequent upon an extension of the grounds, has demanded the strictest economy in the management of the Society's finances. The Council have therefore steadily refused to sanction any expenditure for the increase of its collections, beyond that for which it was already pledged; preferring to direct attention to the effective arrangement and display of the various departments of the Museum, so as to enable the Members and Visitors to draw from them the full amount of pleasure and instruction which they are calculated to afford.

The receipts have thus fully equalled the current expenditure of the Society, though they have fallen very far short of the extraordinary expenses of the year. This deficiency was, however, in a great measure anticipated in the report of the Council to the last Annual Meeting, with the exception of the outlay in the purchase of Mr. Cayley's house.

This excess of expenditure has been met by the loan of £1000 from the Yorkshire Insurance Company, before alluded to, and by the bankers having allowed the Society to overdraw its account during the year to the extent of about £700.

Though the debt of the Society is thus increased, the Council see no reason to be discouraged. They anticipate that the growing taste for Natural History and Antiquities within the county will attract Members to a Society established with a view of encouraging such pursuits, and which has not permitted the quarter of a century of its existence to pass away without leaving some durable monuments of its utility.

TREASURER OF THE YORKSHIRE PHILOSOPHICAL SOCIETY,

IN ACCOUNT FOR THE YEAR 1848.

Dr.	INCOME.		Cr.	EXPENDITURE.	
1848.		£. s. d.	1848.		£. s. d.
Annual Subscriptions and Arrears	476	11 0	Permanent Debt, viz ;		
Admission of New Members	105	0 0	Six Members at £50 each	300	0 0
Composition in lieu of Annual			Balance overdrawn Messrs Swann,		
Subscription	20	0 0	Clough and Co., December		
Ladies' Subscriptions and Keys of			31st, 1847	473	5 0
the Gates	79	15 0	Crown Rent	£1	0 1
Money received at the Gate.....	237	3 6	Corporation Rent.....	41	5 3
Rents	39	1 0	Insurance	5	0 0
Gas for Evening Meetings	1	10 0	Gatekeeper	20	0 0
Swimming Bath (deducting ex-			Keeper of the Museum	150	0 0
penses)	67	2 2	Clerk and Collector....	23	15 0
Subscriptions towards the pur-			Interest	35	10 0
chase of Roman Antiquities..	19	12 0	Police	31	7 6
Permanent Debt, viz :			Sub-Curator on Account		
Yorkshire Insurance			of Salary, Wages, &c.	317	3 6
Company	£1000	0 0			
Six Members at £50					
each	300	0 0	Sundry Payments :		
			Purchase of Specimens	51	16 6
		1300 0 0	Purchase of Books	51	18 8
			Coals and Gas	43	17 8
			J. Thompson, Joiner ..	67	4 0
		2345 14 8	N. Ackroyd, Mason	73	7 3
Balance overdrawn Messrs Swann			Weatherby, Mason	215	4 11
and Co., December 31st, 1848..	1190	13 6	J. Pulleyn, Bricklayer	81	19 7
			J. Graves, Joiner	68	4 6
		£3536 8 2	N. Turner, Plasterer ..	10	12 0
			J. F. Brown, Painter ..	40	0 0
			Noton, Glazier	30	2 0
			G Hope	22	17 9
			G. Sedgwick, Cabinet		
			Maker	12	15 0
			Sanderson and Gausson	12	19 0
			J. Wood, Slater.....	11	8 0
			Ward, Ironmonger	13	3 0
			Jas. Backhouse, Seeds-		
			man	5	11 9
			H. Sotheran, Stationer.	21	4 0
			Baynes and Duffield ..	7	2 0
			J. Thackray	7	0 0
			Small Bills.....	69	6 1
					917 13 8
			Purchase of Mr. Cayley's House,		
			and Expenses	828	15 8
			Purchase of Mrs. Wilson's House		
			and Interest	391	12 6
					£3536 8 2

1849, Jan. 20.

Audited by us,

JOHN PREST,
GEORGE DODSWORTH.

RESOLUTIONS

PASSED AT THE ANNUAL MEETING, FEB. 6TH, 1849.

1. That His Grace the Archbishop of York be requested to become one of the Patrons of the Society.
2. That the Report of the Council be adopted and printed for the use of the Members.
3. That the thanks of the Society be given to the Vice-Presidents and Members of the Council retiring from office, and to the Secretary and Curators for their valuable services.
4. That the special thanks of the Society be given to Robert Davies, Esq., the Treasurer of the Society, on his retirement from office.
5. That the Council be empowered on certain days to be selected by them during the present year, to permit free admission to all persons to the Museum and Gardens, the mode of admission to be regulated by the Council.
6. That the Council be empowered to admit Strangers during the present year, at the usual rates of payment.
7. That the Council be authorized to admit to the Museum and Gardens, as temporary subscribers, any occasional Visitors to York, not residing in the County, at the rate of one pound for four months for themselves and families, but that in no case shall such privilege be granted for a longer period than twelve months.
8. That the Council be empowered to authorize the holding one or more Horticultural Meetings in the Society's grounds during the present year.

RESOLUTIONS

PASSED AT A SPECIAL GENERAL MEETING, DEC. 5TH, 1848.

1. That in future, no Member of the Society shall be allowed to give more than *twenty-five written Orders* for the Admission of Strangers to the Gardens and Museum of the Society, during the course of any one year; that no Order shall admit more than *four* persons; and that the Council be directed to see this Resolution carried into effect from and after the first of January, 1849.
2. That in order to give greater encouragement to the Public to visit the Museum and Gardens, the Fee for the Admission of Strangers be reduced from One Shilling to Sixpence, each person, on every Saturday during the year 1849.

SUBSCRIBING MEMBERS

ELECTED SINCE FEB. 1848.

Jethro Heseltine, *York*.
 Thomas Cabrey, *York*.
 John Jackson, *York*.
 John Wilson, *York*.
 George Hutchinson, *York*.
 Rev. Robert Whytehead, *York*.
 John Close, *York*.
 His Grace the Archbishop of York.
 William Mordaunt Edward Milner, M.P., *Nun Appleton*.
 Charles Woollons, *York*.
 George Danby, *York*.
 Henry Milner, *Retford, Notts*.
 Edmund T. Higgins, *York*.
 Hon. and Rev. Stephen Willoughby Lawley, *Escrick, York*.
 Edward Smallwood, *York*.
 The Venerable Archdeacon Musgrave, *Halifax*.

1849.

Colonel G. H. Thompson, *Bolton Hall, Tadcaster*.
 Rev. Gilbert Henderson Philips, *Dring-Houses, York*.
 George Beale, *York*.
 John Underwood, *York*.
 Francis Taylor, *York*.
 Rev. Geo. Rudston Read, *Sutton-upon-Derwent*.
 William Dove, *York*.
 Wm. Fox Clark, *York*.
 Joseph Braddock, *York*.
 John Bower, *York*.
 William Hudson, *York*.
 Robert Farrer, *York*.
 Robert Bollans, *York*.
 William Banks, *York*.

COMMUNICATIONS
TO THE
MONTHLY MEETINGS,
1848.

JANUARY 4.—REV. C. WELLBELOVED.—On a Discovery of Silver Coins at Deighton.

MARCH 7.—PROF. PHILLIPS, F. R. S., G. S.—Thoughts on Antient Metallurgy and Mining in Brigantia and other parts of Britain, suggested by a page of Pliny's Natural History.

ARTHUR STRICKLAND—On the occurrence of *Larus minutus* in perfect plumage at Bridlington.

MAY 9.—EDWARD CHARLESWORTH, F. G. S.—On the Remains of extinct Gigantic Birds discovered in New Zealand.

JUNE 6.—JNO. GOULD, F. R. S.—On the occurrence of *Otis McQueenii*, Gray, in England.

REV. C. WELLBELOVED—On some recent additions to the Museum of Antiquities.

JOHN THURNAM, M. D.—Description of an Ancient Tumular Cemetery, at Lamel Hill, near York.

OCTOBER 3.—REV. W. V. HARCOURT, F. R. S.—Observations upon the Tertiary and Igneous rocks of Madeira.

DEC. 5.—HENRY BAINES—On the *Musa Cavendishii*, in flower in the Society's Stoves.

JOHN FORD—On the process employed by Mr. Fred. Ransome, of Ipswich, in the Manufacture of Artificial Stone, with General Observations upon the Building Stones of Yorkshire.

DONATIONS TO THE MUSEUM,

1848.

GEOLOGY.

- Capt. Henry Aylmer, R.N. Specimens from Gibraltar.
- Mr. Henry Brown,
(*High Ousegate*) } Fossils found at Easingwold.
- Jno. Brown, Esq., *Stanway*. Nautilus imperialis, from the London Clay near Walton, Essex, and a remarkably fine example of the Teredo, in fossil wood from the London Clay of Bognor, (in exchange.)
- British Museum, Trustees of. Fossil Remains of Mammalia and Reptilia, from the Tertiary beds of the Siwalic Mountains, being duplicates from the Collection presented to the British Museum by Capt. Cautley and Dr. Falconer.
- Edward Charlesworth, Esq. Cranium of the extinct Irish Deer, (*Cervus megaceros*).
- Lieut. T. C. Cholmeley..... Specimen of Coal from Vancouver's Island.
- Joseph Clarke, Esq.,
(*Saffron Walden*) } A Cast of a very remarkable Fossil body from the Weald of Dorsetshire, supposed to be a dermal spine of the Iguanodon.
- Saml. Hailstone, Esq. Specimen of Lead ore from above the Coal at Bradford.
- Rev. W. V. Harcourt Geological specimen from Madeira.
- E. T. Higgins, Esq. Beautiful specimen of an Ichthyosaurus, discovered at Lyme Regis by the Donor.

- Dr. Mantell A large Ammonite of an undescribed species, from the Oxford Clay near Trowbridge, Wilts.
- C. Oxley, Esq. Fish Bones in Lias, from Staithes, exhibiting a very peculiar structure.
- Sig. Lorenzo Pastori A Collection of Rocks illustrative of the Geology of Teneriffe and the Canary Isles, (in exchange.)
- J. R. Pease, Esq. Fourteen Teeth of *Ptychodus decurrens*, Agassiz, from the Chalk at Hessele.
- Mr. Henry Stutchbury Cast of a Pterodactyle.
- Rev. Wm. Walker Specimen of *Astacus rostratus* Phillips, and other fossils from the Coralline Oolite at Slingsby.

ZOOLOGY.

- Presented by 40 Members, } Specimen of the *Apteryx Australis*,
Subscribers of 2s. 6d. each } from New Zealand.
- Miss Backhouse..... A Collection of Foreign Shells, (in exchange.)
- Council of the College of } Casts of Bones of *Dinornis* and other
Surgeons } extinct genera of Birds, found in the alluvial deposits of New Zealand.
- Joseph Clarke, Esq., } A collection of North American Land
(*Cincinnati*). } and Fresh-water Shells.
- Mrs. Robt. Davies Two examples of a rare British Crustacean.
- Two fine specimens of *Voluta Scapha*,
(in exchange)
- Mr. Wm. Dean, (*Clapham*) Soft parts of *Haliotis*, from Jersey.
- Rev. Mr. Franklin, (*Malton*) Two specimens of the Cock of the Rock.
- Jno. Gould, Esq. Several interesting species of *Echinus*, from Australia.
- Specimen of the Map Cowrie.
- Rev. W. V. Harcourt Series of fine Corals from Madeira.
- Mr. Knowlson Specimen of *Gorgonia*.

- George Lloyd, Esq. Two specimens of the Mealy Redpole.
 Thos. Meynell, Jun., Esq... Fine example of *Trichotropis borealis*
 and various other British Shells.
- O. A. Moore, Esq. Specimen of *Conus betulinus*.
 Lieut. W. Rudston Read ... Specimen of the vegetable Caterpillar,*
 from New Zealand.
- W. Rudston Read, Esq. ... Tufted Duck, Female Scaup and young
 Slavonian Grebe.
 Variety of Teal.
- Mr G. B. Sowerby Specimens of the edible Cockle, from
 Devonshire, exhibiting a curious mal-
 formation of growth.
- Rev. William Thornton, } A collection of Foreign Shells, (in ex-
 (*Kimbolton*) } change.)
- Miss Sarah Wheeler, } An Orange Cowrie, (*Cypræa aurantia*).
 (*Bristol.*) }
- Major Eardley Wilmot, R.A. Vegetable Caterpillar from New Zea-
 land.

GARDEN.

- S. Wood, Esq. Collection of Seeds.
 J. Oldfield, Esq. Manure.
 Mr. Henry Brown Manure.
-

ANTIQUITIES.

- Directors of the York and } Roman Tomb, discovered near the en-
 Newcastle Railway } trance to the York Railway Station.
- Thos. Allis, Esq. Gnostic Egyptian Amulet, of gold ;
 Four Roman Coins, 1st and 2nd
 brass. A Small Gold Ring, probably
 Roman. A small Brass Ring, medi-
 æval, all found near the rampart
 when the first breach was made in
 the city wall for the entrance to the
 York Railway Station.

* *Spheria Robertsii*, growing from the Larva of *Hepialus virescens*.

- Miss M. A. Kenrick Impression of the Common Seal of the Monastery of Holyrood, Edinburgh.
- Mrs. Hutton, Beverley..... Valuable Collection of Roman and Mediæval pottery, and other Antiquarian objects found at Lincoln.
- Robt. Davies, Esq..... Forty Silver Coins, including Pennies of Canute, Edward Conf., William I., Edward IV., Henry VII. and VIII., Elizabeth; Groats, &c., twenty of which were struck at York.
- Denarius of Emp. M. Aur. Sev. Alexander.

LIBRARY.

BOOKS, &c., PRESENTED.

- Archæological Institute ... The York Volume of its Transactions, consisting of Memoirs Illustrative of the History and Antiquities of the County of York, &c., part 2, 8vo.
 Proceedings of the Institute at the ordinary Monthly Meetings, 1848.
- Royal Astronomical Society The Greenwich Astronomical Observations for 1845 and 1846, 2 vols. 4to.
 Greenwich Magnetical and Meteorological Observations for 1846, 4to.
 Reduction of the Greenwich Lunar Observations, 1750 to 1830, vol. 2.
- British Association for the advancement of Science... } Report of the Association for 1847.
 } Lalande's Catalogue of Stars.
 } Lacaille's Do.
- Royal Cornwall Polytechnic Society } The Society's Fifteenth Annual Report for 1847.
- Geological Society of London. Quarterly Journal of the Society for 1848.
- Liverpool Literary and Philosophical Society } Proceedings of the Society during the 36th Session, 1848.
- Manchester Literary and Philosophical Society. ... } Memoirs of the Society, vol. 8, 2nd series.
- Royal Observatory, Edinburgh } Edinburgh Astronomical Observations, vol. vii. 1848.
- Tyneside Naturalist's Field Club } Transactions of the Club, vol 1, part 3, 1848.
-
- Oswald Allen, Esq.
 (the Author) } Appendix to the History of the York Dispensary.

- Edward Charlesworth, Esq. Catalogue of the Shells contained in the Collection of J. C. Jay, M.D., of New York, 4to., (plates).
- Dr. W. H. Fitton, } Stratigraphical Section from Atherfield
(*the Author*) } Point to Black-Gang-Chine, in the Isle of Wight.
- G. A. Mantell, L.L.D., } On the structure of the Maxillary and
(*the Author*) } Dental Organs of the Iguanodon, (from the Philos. Transactions, 1848.)
Observations on Belemnites and other Fossil Remains of Cephalopoda, (from the Philos. Trans., 1848.)
- Wm. D. Saull, Esq., } Observations on the Aboriginal Tribes
(*the Author*) } of Britain, 8vo. 1848.
- C. R. Smith, Esq. Proceedings of the Society of Antiquaries, for the year 1843-48.
- J. T. Smith, Esq., } The Ventriculidæ of the Chalk, (from
(*the Author*) } the Annals of Nat. History.)
- Dr. Thurnam, (*the Author*) Case of imperfect Development of the Skin, &c.
- James Wardell, Esq., } The Municipal History of the Borough
(*the Author*) } of Leeds, with plates, 8vo.

BOOKS PURCHASED.

- The Dodo and its Kindred, by H. E. Strickland, M.A., F.G.S. and A. G. Melville, M.D., 4to.
- History of the Isle of Man, by the Rev. J. G. Cumming, M.A., F.G.S.
- A Treatise on Malacology, by Wm. Swainson, F.R. and F.L.S., &c.

SERIAL WORKS SUBSCRIBED FOR.

- Gould's Birds of Australia, fol. col. plates, (completed.)
- Gray and Mitchell's Genera of Birds, fol. col. plates, (46 parts published).
- Doubleday and Hewitson's Genera of Diurnal Lepidoptera, fol. col. plates, (24 parts published).
- Sowerby's Thesaurus Conchyliorum, 8vo. col. plates, (9 parts published).
- Waterhouse's Natural History of Mammalia, 8vo. col. plates, (21 parts published).

- Churton's Monastic Ruins of Yorkshire, fol. (6 parts published).
- Fauna Antiqua Sivalensis, or Geology of the Sewalik Hills in the North of India, by Dr. Falconer and Major Cautley. (Part 1 to 6 of Illustrations, large folio, and part 1 of Letterpress, 8vo.)
- Forbes and Hanley's British Mollusca, 8vo. col. plates, (13 parts published).
- Scientific Memoirs, edited by Richard Taylor, F. S. A., (18 parts published.)
- Ray Society's Publications, received in 1848 :—
- Monograph of the British Naked-eyed Medusæ, folio, by Prof. Edward Forbes.
- Correspondence of John Ray, 8vo.
- Bibliographia Zoologiæ et Geologiæ, vol. 1. By L. Agassiz and H. E. Strickland.

PERIODICALS.

- London and Edinburgh Philosophical Magazine, monthly.
- Annals and Magazine of Natural History, monthly.
- The Phytologist, monthly.
- London Geological Journal, (3 parts published).

Presented
13 MAR 1888



Yorkshire Philosophical Society.

ANNUAL REPORT

FOR

MDCCCXLIX.



ANNUAL REPORT
OF THE COUNCIL
OF THE
YORKSHIRE
PHILOSOPHICAL SOCIETY

FOR

MDCCCXLIX.

PRESENTED TO THE ANNUAL MEETING

FEBRUARY 5, 1850.



YORK:
H. SOTHERAN, CONEYSTREET.
1850.

THE UNIVERSITY OF CHICAGO

PHILOSOPHY

PHILOSOPHY

PHILOSOPHICAL

PHILOSOPHY

PHILOSOPHY

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PHILOSOPHY

TRUSTEES
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THE YORKSHIRE MUSEUM,
APPOINTED BY THE ROYAL GRANT.

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- LIBRARY DR. GOLDIE.
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- OBSERVATORY W. L. NEWMAN, F. R. Ast. S.

SUB-CURATOR OF THE MUSEUM & GARDENS :

HENRY BAINES.

REPORT OF THE COUNCIL

TO THE

Annual Meeting.

IN reviewing the occurrences of the past year, that are calculated to affect this Society, the Council are glad to be able to notice many of a very gratifying nature; gratifying, because, while they shew a steady progress in carrying out the objects of the Institution, they exhibit likewise a zeal and munificence on the part of some of our members, that not only indicate how deeply and justly those objects are appreciated *now*, but also afford us the best assurance of the permanence of our prosperity.

In the last Report, the Council alluded to certain contemplated alterations near the entrance of the Museum Gardens, consequent upon the acquisition by the Society of the house adjoining the Museum Gates, and their having become the tenants of the garden formerly occupied by Miss Yorke. These alterations were completed during the spring of the past year, but from the difficulty that attended the taking down and removal of the gateway and other buildings, and the great variation in the levels of the different portions of ground, an amount of labour, exceeding what had been anticipated, was necessarily expended. The total cost of these alterations, including sods, shrubs, gravel, labour and mason's work, was £133. 4s. 11d., but from this must hereafter be deducted the value of the stones, (which formed the Propylæum and Lodge,) which still remain in the Society's hands, no eligible opportunity of disposing of them having occurred.

This expense, though heavy, the Council feel assured will not be thought too great for the completion of, what they conceive to have been justly estimated as, a most desirable and effective improvement.

The only other item of extraordinary expense the Council have to notice, is one of £128 17s. 2d. for cases required in fitting up the room in the Museum dedicated to "*The Rudstone Collection of British Birds,*" towards which the Society are indebted to William Rudston Read, Esq., for a very liberal contribution of 50 guineas, thus enhancing the value of his former munificent donation of the collection itself.

Three associations of a scientific character, which have been formed in York during the past year, call for especial notice on the part of the Council, aiming, as they do, at co-operation with this Society, though wholly supported by independent funds. One of these, the "Yorkshire Naturalists' Club," originated in the wish to bring into more general communication with one another the working naturalists of the whole County of York. This Club holds periodical meetings for the exhibition of specimens, and for the discussion of subjects relating to the Natural-History of the county, and the funds at the disposal of the Committee are in part applied to the purchase of desiderata for the different Museums of Yorkshire, that of York taking precedence as the County Museum.

A second association has been established in York, under the denomination of the "Yorkshire Antiquarian Club," which binds itself by its first rule to have no private collection, but to deposit the specimens, given to or discovered by it, in the Museum of the Yorkshire Philosophical Society; it being the principal object of the Club to make researches by opening barrows and other earth-works, and examining any of the remains of antiquity so abundantly spread over various parts of the County.

The third, under the denomination of the "British Natural-History Society," though not confining its investigations to this County, still, from its having originated with The Keeper of this Society's Museum, and from the benefits which it is likely to confer not only on the Yorkshire Philosophical Society, but on

Natural-History generally, claims, in a high degree, the support of this Society. One object of the above Society is to employ competent collectors in such districts as are known to be rich in natural productions, either recent or fossil, and to distribute the Collections, thus accumulated, amongst individuals or public institutions, who have promoted the undertaking; it being a part of the plan, that one specimen, at least, of each species, shall be the property of this Society, and be deposited in our Museum, thereby securing the preservation of one complete series of all the objects which may be discovered. The Natural-History Society has commenced its labours by collecting Tertiary Fossils of the Isle of Wight and adjacent Cliffs of Hordwell and Barton. From these sources a vast number of valuable specimens has been obtained, more than 20,000 of which have already been distributed amongst its members.

To this Society the Museum is indebted for an interesting series of Tertiary Fossils, which forms the most valuable addition to the Geological Collection during the past year. It includes more than 50 species, either quite new or unfigured in any British Work; many of these are accompanied by beautiful and accurate drawings, executed, under Mr. Charlesworth's direction, by Mr. Smith, an artist, whose merits as a delineator of objects of Natural-History, are well known to the Members of this Society.

Another valuable acquisition in this department is a tooth of the Megalosaurus from the Malton Oolite, presented by Dr. Murray, of Scarborough. This tooth is not only unique as a Yorkshire Fossil, but in regard to size and the extent of fang preserved, is the most characteristic specimen known. Another Reptilian Tooth, less rare than the foregoing, but equally fine of its kind, belonging to the genus *Polyptichodon*, also from the Malton Oolite, has been presented by the Rev. William Walker, of Slingsby, who liberally allowed The Keeper of the Museum to select, from his cabinet of Malton Fossils, all such specimens as were considered likely to be of value to the Geological Collection, including much finer examples of several species than were previously in the possession of the Society. From the Yorkshire Naturalists' Club has been received a Starfish from

the Calcareous Grit, near Pickering, remarkable for having one less than the usual number of rays. From the same source several interesting additions have also been made to the Bridlington Fossils.

In the Ornithological department, the Council are glad to notice the near completion of the re-arrangement of the general collection, commenced during the year 1848, according to the plan noticed in the last report. The following donations to the collection of British Birds are worthy of particular remark. A beautiful Bustard, (*Otis Mc Queenii*, Gray,) shot in Lincolnshire, and the only instance of the occurrence of the species in Europe, has been presented to the Society by a joint subscription of several of its members, who purchased it for £25, and thus secured to the Museum this unique British specimen. Likewise a Yorkshire killed specimen of Buffon's Skua, a rare visitant of the British coasts, presented by Mr. W. R. Read.

To Henry Telford, Esq., the Society is indebted for a very extraordinary bird, killed in Ayrshire, and supposed to be a hybrid between the Black and the Red Grouse.

The arrangement of "The Rudstone collection of British Birds" will shortly be completed in a manner worthy of the Society's appreciation of so valuable a donation.

In the Conchological Collection may be noticed the addition of another series of American Land and Fresh-water Shells, presented by Mr. Joseph Clarke, of Cincinnati, to whose warm interest in the Society the Council have, on former occasions, had to allude.

F. N. Glossop, Esq., of Isleworth, has forwarded two beautiful examples of the rare *Carinaria Mediterranea*, commonly known as the Glassy Nautilus, and Capt. Edward Dixon, R.N., has presented specimens of *Ianthina*, from the Coast of Africa, accompanied with the Ova and soft parts. An extensive series of shells from the Pacific Coasts, containing many valuable species, has been likewise received from Adam Crawford, Esq., of Rhodes, North Berwick.

The donations to the Antiquarian department have not been very numerous, but some of them are worthy of particular remark. For the most valuable additions the Society is

indebted to the Yorkshire Antiquarian Club, some of the members of that club having obtained permission from Richard Jennings, Esq., to complete the examination of a large tumulus in his possession at Driffield, partially explored by him four or five years ago; on which former occasion he found some very curious Anglo-Saxon remains, and presented them to the Museum.

The result of further excavations by the Antiquarian Club has been the discovery of several similar but still more curious articles of the Anglo-Saxon period, which, added to those previously received from the owner of the tumulus, form a highly interesting and instructive portion of the collections of the Society.

A relic of a period not so remote, but of a very interesting character, has been presented to the Society by the Rev. J. Thompson, Vicar of Easeby: an Epitaph, or rather four Epitaphs on a Mr. J. Swale, in four different Languages, Hebrew, Greek, Latin, and English, written (as it is with great probability conjectured,) by that eminent reformer and translator of the Bible, Miles Coverdale, in the year 1538. The epitaphs are written on a folio sheet of paper, framed in oak, and guarded by a sliding panel of the same material, by which they had been long and effectually concealed. It had been deposited in the Church of Easeby, by whom or when it is not known; and, there, had served as a trencher, on which the Sacramental bread was cut. A copy of the epitaphs is given by Dr. Whitaker in his history of Richmondshire.

The Council have the satisfaction to state that the many valuable services, which have been rendered to the Antiquarian departments of the Museum, by their Curator, will soon be crowned by the completion of an arranged description of the principal remains of Roman and Mediæval art, which are in the possession of the Society. The publication of such a work will be at once honourable to the Society and gratifying to the public.

It will be found, from an examination of the list of donations, that several additions of unusual interest have been made to the collection of stove and bardy plants, in the Society's Hot-

house and Gardens since the last report. Amongst the most valuable of these, the donations of Sir William Jackson Hooker the superintendent, and Mr. Smith the Curator, of the Royal Gardens at Kew, are particularly worthy of notice, as well as those obtained through R. Marnock, Esq., the Curator, from the Royal Botanical-Society's Gardens, Regent's Park.

The Museum Gardens have been recently visited by Dr. Lindley, who expressed himself highly interested in the Society's collection of plants, and has since forwarded to the Sub-Curator 60 valuable additions, with a promise of further co-operation.

The Library has received valuable donations from various learned Societies and private individuals, and some original works have been presented by the authors.

The following is a Meteorological Table for the year 1849, as annually furnished to the Society by the Curator of Meteorology, with his observations thereon.

METEOROLOGICAL REGISTER FOR 1849—YORK.

	Highest.	Lowest.	Mean.	Inches Rain.	Days of more or less rain.	Average Max.	Average Min.	Mean Temp.	Highest Temp.	Lowest Temp.	Nights, at or below 32°	Prevailing Wind.
Jan.	30·35	28·76	29·789	1·61	18	42·8	32·4	37·6	54	18	16	W & N.W
Feb.	30·90	29·27	30·098	0·50	5	47·3	34·4	40·7	53	23	11	W.
Mar.	30·57	29·32	30·037	1·14	11	47·7	34·8	41·2	59	26	11	W.
April	30·41	29·27	29·657	1·95	18	49·4	36·6	43·0	64	27	8	S.E.
May	30·32	29·21	29·907	1·99	14	60·8	44·0	52·4	71	32	1	N.E.
June	30·34	29·66	29·956	1·06	8	64·1	46·6	55·4	73	32	1	SE & NE
July.	30·48	29·34	29·843	3·29	15	67·8	50·7	59·3	82	44	0	W.
Aug.	30·35	29·43	29·898	2·25	11	66·2	51·7	58·9	74	43	0	S.
Sept.	30·58	29·10	29·942	2·68	11	60·4	49·0	54·7	72	38	0	N.E.&E.
Oct.	30·72	29·35	29·848	2·43	16	51·8	39·2	45·5	63	31	6	N.W.
Nov.	30·36	28·87	29·802	1·95	13	45·5	35·3	40·4	56	20	12	S E.
Dec.	30·80	29·35	29·953	2·78	20	40·0	31·2	35·6	49	22	20	N.E.
			29·894	23·63	160	Mean 47·05						

COMPARATIVE PREVALENCE OF WINDS.

N.	S.	E.	W.	N.E.	N.W.	S.E.	S.W.
28	51	18	62	58	48	54	46 = 365.

The temperature of the year 1849, (47°·05,) was nearly a mean of 18 years, being $\frac{7}{10}$ of a degree below that amount. The mean height of the mercurial column was 29·894 inches, being also nearly the mean for York. On the 11th of February the mercury attained the unusual height of 30·829 corrected for temperature and for capillary attraction.

The rain of the year, 23·63 inches, is almost exactly an average quantity.

The following accounts of the amount of rain fallen in the year have been received: viz.,

Settle	..	..	..	..	36·88
Ackworth	..	..	..	..	23·33
Middleton, near Beverley	..	..	..	..	29·61
Huggate	..	..	..	..	29·77
Leeds	..	..	..	..	24·419

Various interesting papers have been read at the usual Monthly Meetings of the Society during the past year, some of which, relating to the Natural History and Antiquities of Yorkshire, may hereafter appear in the Proceedings of the Society.

The money received at the Gate during the year 1849 amounts to £189. 11s. 2d., a sum less than in the previous year by £47. 11s. 9d. When, however, it is recollected, that in the return for 1848 is included the sum of £62. 9s. 6d. paid by visitors during the exhibition in York of the Royal Agricultural Society, and that during the past year, the almost total absence of railway excursion trains, and some other unfavourable circumstances, have combined to lessen this source of the Society's income, the Council cannot but feel convinced that the new regulations adopted respecting the admission of strangers at the beginning of 1849 have been attended with success.

The Swimming Baths have not been quite so productive during the past year, as usual, but after deducting all expenses, (including several which are not of annual occurrence,) the net profit of

the year will nevertheless be found nearly equal to £4 per cent. upon the sum invested in their purchase. It is also satisfactory to state, that although the receipts from this source have been somewhat diminished, owing to the unfavourable weather during the two past seasons, the total receipts, during the five years the baths have been in the possession of the Society, have been equal to an average interest exceeding £5 per cent. upon this investment.

The Council have great pleasure in noticing the success of a Floricultural Exhibition in the Museum Gardens, in the month of July last. For this the Society was indebted chiefly to the friendly feeling and spirited exertions of two of its members, Mr. Roper, and Mr. Backhouse. The Council are induced to hope, that arrangements may, at a future time, be made for similar beautiful and interesting displays.

The ordinary income of the Society, during 1849, has exceeded its ordinary expenditure by £141. 3s. 2d. The *extraordinary* expenses of the year have, however, (after deducting Mr. Read's liberal donation, already noticed), amounted to the sum of £211. 12s. 1d., so that the total expenditure of the Society has exceeded its total receipts this year by £70. 8s. 11d., which sum has been added to the balance due to the Society's bankers at the close of 1848.

Under these circumstances it has been a matter of necessity to exercise the strictest and most watchful economy in every department of the institution; and on this account the Council have, with regret, postponed to a future, but (they trust) not distant day, some very desirable improvements connected with the Observatory, and the addition of instruments to the Meteorological Department, of which the Society has heretofore obtained the use chiefly through the zeal and kindness of the Meteorological Curator.

With a view to offer increased facilities to persons desirous of enjoying the advantages afforded by the Society, the Council have been induced to recommend to this Meeting the adoption of a new Rule, under which parties may hereafter, under the title of "Associates," at the cost of £1 annually, obtain for themselves (only) admission to the Museum and Gardens.

In consequence of friendly overtures the Council have entered upon negotiations with the Corporation, with a view to the absolute purchase of certain portions of the Society's grounds, which are held from year to year under that body, and also of other Corporation property, closely adjacent to the Museum Gardens. Believing that it would be for the interests of the Society to carry out the negotiations which have been commenced, the Council will be prepared, under the sanction of this meeting, to make such arrangements as may be necessary for the purpose.

The Council have now finished their detailed review of the principal events of the year 1849. They repeat their conviction that the retrospect is cheering and gives assurance for the future. On the one hand, great and permanent improvements have been satisfactorily effected, to the completion of which obstacles of no ordinary character had long presented themselves; and on the other, in the formation of the Antiquarian, and Naturalists' Clubs, and the British Natural-History Society, (and their friendly and beneficial alliance with the Yorkshire Philosophical Society,) in the splendid donations received during the past year, and in the increased zeal and activity of many valued members, they feel that an unusual stimulus has been given towards promoting the objects of the Society, which, they trust, leaves no doubt as to the success of its future career.

THE
TREASURER OF THE YORKSHIRE PHILOSOPHICAL SOCIETY,
IN ACCOUNT FOR THE YEAR 1849.

Cr.	INCOME.		EXPENDITURE.	Dr.
1849	£. s. d.		1849.	£. s. d.
Annual Subscriptions and Arrears	562 0 0		Rent to the Crown	£1 0 1
Admission of New Members	90 0 0		Rent to the Corporation	53 8 0
Ladies' Subscriptions and Keys of the Gates	76 15 0		Rates and Taxes	8 13 9
Money received at the Gate.....	189 11 2		Insurance & Water Rates	12 15 0
Rents	117 10 10		<u>75 16 10</u>	
Swimming Bath (deducting expenses)	55 7 8		Salaries and Wages:	
Floricultural Exhibition (deducting expenses)	23 18 6		Keeper of the Museum	150 0 0
Donation from William Rudston Read, Esq., towards fitting up the Rudston Collection of British Birds.....	52 10 0		Sub-Curator	100 0 0
			Servants	20 0 0
			Lodgekeeper	20 0 0
			Labourers	152 8 0
			Clerk and Collector....	25 0 0
			Attendant in Hospitium	6 0 0
			<u>473 8 0</u>	
			Interest on Debt:	
			Yorkshire Insurance Company	48 10 10
			To Bankers	50 17 0
			<u>99 7 10</u>	
			Museum, Gardens, &c.:	
			Painting and General Repairs	127 13 11½
			Purchase and prepara- tion of Specimens	44 8 8½
			Observatory.....	0 10 6
			<u>172 13 2</u>	
			Library Books and Binding.....	18 12 0
			Incidental Expenses:	
			Printing, Advertising, and Stationery	59 3 0
			Coals and Gas	41 7 11
			Postage, Carriage and Sundries.....	35 11 3
			<u>136 2 2</u>	
			Total Ordinary Expenditure	976 8 0
			Extraordinary Expenses:	
			New Cases	128 17 2
			Garden Alterations	133 4 11
			<u>262 2 1</u>	
			Total Expenditure	1238 2 1
			Permanent Debt, viz:	
			Yorkshire Insurance Company ....£1000	
			Six Member at £50 each	300
			<u>1300 0 0</u>	
			Balance overdrawn Messrs. Swann, Clough, & Co. December 31st, 1849..	1261 2 5
			Total debt December 31st, 1849	2561 2 5
			<u>£3728 15 7</u>	
			Permanent Debt, viz:	
			Yorkshire Insurance Company ....£1000	
			Six Member at £50 each	300
			<u>1300 0 0</u>	
			Balance overdrawn Messrs. Swann, Clough, & Co. Dec. 31st, 1848.....	1190 13 6
			Total debt, Dec. 31st, 1848	2490 13 6
			<u>£3728 15 7</u>	

Audited by me,
Jan. 8th, 1850,

HENRY ROBINSON.

THOMAS MEYNELL, JUNR.,
Treasurer.

MEMBERS

ELECTED SINCE FEB. 1849.

1849.

Joseph Dent, *Ribstone Hall.*John Glaisby, *York.*J. F. Taylor, *York.*Robert Greaves Walker, *York.*T. Basil Woodd, *Thorpe Green, Borobridge.*

1850.

The Hon. P. Dawney, *Beningbrough Hall, York.*William Lawson, *York.*William Kimber, *York.*John Shaftoe, *York.*John Sampson, *York.*Christopher Harker, *York.*John Noble, *York.*Christopher Annakin, *York.*John Watson, *York.*Henry Hope, *York.*John March, *York.*Samuel Lucas, *York.*Ralph Weatherley, *York.*John Kitching, *Retreat, York.*

RESOLUTIONS

PASSED AT THE ANNUAL MEETING, FEB. 6TH, 1849.

1. That His Grace the Duke of Northumberland be requested to become one of the Patrons of the Society.

2. That the Report of the Council be adopted and printed for the use of the Members.

3. That the thanks of the Society be given to the Vice-Presidents and Members of the Council retiring from office, and to the Secretary and Curators for their valuable services.

4. That the Council of the Yorkshire Philosophical Society be empowered to proceed with the negotiations with the Corporation, which have been commenced.

5. That the Vice-Presidents to be appointed at future Meetings be limited to eight.

6. That there be constituted a Class of Associates of the Yorkshire Philosophical Society, with no other privilege than that of Admission for themselves only, to the Museum and Gardens; each such Associate paying in advance a subscription of One Pound, due January the 1st in each year: the mode of election of such Associates to be the same as that of ordinary Members.

7. That the Council be empowered on certain days to be selected by them during the present year, to permit free admission to all persons to the Museum and Gardens, the mode of admission to be regulated by the Council.

8. That the Council be empowered to admit Strangers during the present year, at the usual rates of payment.

9. That the Council be authorized to admit to the Museum and Gardens, as temporary subscribers, any occasional Visitors to York, not residing in the County, at the rate of one pound for four months for themselves and families, but that in no case shall such privilege be granted for a longer period than twelve months.

10. That the Council be empowered to authorize the holding one or more Horticultural Meetings in the Society's grounds during the present year.

COMMUNICATIONS
 TO THE
 MONTHLY MEETINGS,
 1849.

JANUARY.—**REV. JOHN KENRICK, M. A.**—Observations on the Egyptian Gnostic Amulet, described by Mr. Wellbeloved in a former communication. Vid. Proc. Y. P. S., page 95.

APRIL.—**THOMAS ALLIS.**—On some Peculiarities in the Sclerotic rings of Birds and Reptiles.

JUNE.—**REV. JOHN KENRICK.**—On the use of Artesian Wells among the Ancients.

NOVEMBER.—**JOHN THURNAM, M. D.**—An Account of the Examination by the Antiquarian Club, of some Anglo-Saxon Tumuli on the Wolds.

DECEMBER.—**JOHN FORD.**—Observations on the Meteorology of York.

DONATIONS TO THE MUSEUM.

1849.

GEOLOGY.

- Club, Yorkshire Naturalists' Fossil Starfish, (*Asterias arenicola*) with only four Rays, from near Pickering, and various Fossils from the Crag of Bridlington.
- Society, British Natural-History } Large Collection of Tertiary Fossils from the Isle of Wight and adjacent Hampshire Cliffs.
- Charlesworth, Edward, Esq. *Pecten cancellatus*, *Bean*, from the Malton Oolite.
- Cholmeley, H. P., Esq.... .. Fossils in Brandsby Slate.
- Clarke, Joseph, Esq., }
(*Cincinnati*) } Silurian Fossils from North America.
- Crompton, the Misses Fine specimen of Cut Agate.
- Davies, Mrs. Robert Two specimens of *Avicula longicostata*.
- Harcourt, Rev. W. V. Specimen of *Euomphalus rugosus*.
- Harcourt, Rev. Chas. V. ... Fossils from North America.
- Higgins, E. T., Esq..... Fossil Fishes from Lyme Regis, (in exchange.)
- Meynell, Thos., junr., Esq. Singular nodule (Beetle-stone) from Tenby.
- Murray, Dr. P. Tooth of *Megalosaurus* from the Malton Oolite (see page 9).
- Pugard, C. (*Copenhagen*)... Series of Fossils from the Faxoe Limestone of Denmark.
- Thornton, Geo., Esq., }
(*Gargraves*) } Fossils from the Carboniferous Limestone of Skipton.
- Thurnam, Dr. R. Fossil Sponge, coated with Sulphuret of Iron.
- Wilkinson, H. J., Esq. Remarkable Fossil of the genus *Cyrtoceras* (?) from a Railway Cutting near Harrogate.

Walker, Rev. William, (<i>Slingsby</i>)	} Tooth of <i>Polyptichodon</i> , and other Fossils of the Malton Oolite (see p. 9).
Wilson, John, Esq., (<i>De Grey Street, York</i>)	
	} Wood from the Petrified Forest, near Cairo.

 ZOOLOGY.

Club, Yorkshire Naturalists'	Fine mounted specimen of the Pike, taken near York.
Purchased by subscription for presentation to the Museum	} New British Bustard, shot in Lincolnshire, (Otis Mc. Queenii, <i>Gray</i>).
Benson, H. Esq., (<i>Falmouth</i>)	
Bulmer, Mrs. William	Specimen of <i>Helix revelata</i> , discovered near Falmouth, (in exchange).
Chapman, Mr. Henry	Specimen of the Alice Shad, taken in the Ouse.
Clarke, Joseph, Esq.	Specimen of the Whistling Swan.
	Collection of North American Land and Freshwater Shells.
Cooke, Rev. R. B.	Specimen of the Little Tern (in exchange).
Crawford, Adam, Esq., (<i>Rhodes, North Berwick</i>)	} Collection of Shells from the Pacific Coast.
Crompton, the Misses	
Dixon, Capt. Edw., R. N...	Fine specimen of <i>Conus striatus</i> .
	Specimens of <i>Ianthina</i> , with the ova and soft parts.
Glossop, F. N. H., Esq., (<i>Isleworth</i>)	} Two Specimens of the Glassy Nautilus, (<i>Carinaria</i>).
Grigg, Miss	
Higgins, E. T., Esq.	Skin of a Boa.
	Preparation of a Species of the genus <i>Monacanthus</i> , shewing the insertion of the Dorsal Spine.
Jukes, Miss, (<i>Birmingham</i>)	Specimens of <i>Anatina</i> and <i>Amphidesma</i> from Australia.
Meynell, Thos., junr., Esq...	Group of <i>Saxicava</i> , in Limestone, from Tenby; several British Shells, new to the Collection, and a large series of Duplicates, including examples of <i>Helix Pisana</i> , <i>Solen vagina</i> , and other local species.

- Northampton, Marquis of ... Fine specimens of British Uniones.
 Read, W. R., Esq. A Yorkshire Specimen of *Lestris Buffonii*.
 Telford, H. Esq. Supposed Hybrid, between the Black
 and the Red Grouse.
 Westminster, the Very Rev. } Mass of Chalk, having upon its surface
 the Dean of } perforations made by the common
 Limpet.
 Wilson, John, Esq., }
 (*De Grey Street*) } Skin of the Blue Mountain Parrot.
-

BOTANY.

- Higgins, E. T., Esq. Turnip presenting a singular monstro-
 sity of form.
 Yates, James, Esq. Models of the Flower-bud, and of a scale
 with fruit of the *Encephalartus Caffer*,
 which bore fruit at Chatsworth, 1848.
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ANTIQUITIES.

- Club, Yorkshire Antiquarian. Various Weapons, Implements, and
 Ornaments from an Anglo-Saxon Tu-
 mulus, at Driffield, belonging to
 Richard Jennings, Esq.
 Bayldon, John, Esq. Five Guinea Piece, Jas. II.
 Copper Piece, Irish, Geo. I.
 Bebb, George, Esq. Jetton of Venice.
 Boyne, Mr. O., *Leeds* Ten Romano-Ægyptian Coins, Egyptian
 Necklace and six small Egyptian
 Figures.
 Hay, Rev. Edwd. Antique Silver Ring.
 Robinson, Henry, Esq. Medal in Bronze, of Pope Gregory XIII.
 (slaughter of the Huges, 1572).
 Two ancient English Jettons; a York
 Halfpenny, W. Wood.
 Thompson, Rev. John, } Epitaphs on J. Swale, (see Report,
 (*Easeby*) } p. 11).

Travis, T. H., Esq.	Coin of Carausius, 2nd brass.
Walker, Rev. William	Four Roman Coins, 3rd brass, from Conisthorpe.
Walker, T. K. L., Esq.....	Penny of Edward, found in Lord Mayor's Walk.
Wellbeloved, Rev. Charles...	Coin of Vespasianus, 2nd brass ; antient English Jetton.
Wood, Mr. W. R. (<i>Man-</i> <i>chester.</i>)	Silver Florin, Victoria.

MISCELLANEOUS.

Dixon, Capt. Edw. R. N....	Some Native African Weapons.
Mayer, Joseph, Esq., (<i>Liverpool</i>).	} Medallions in Old Wedgwood Ware.
Morris, Miss C.	Thames-Tunnel Medal and Copper Token.
Walker, T. K. L., Esq.....	An Old Rapier.

GARDEN.

Gardens, Kew	A Collection of Plants through Sir Wm. Jackson Hooker, and Mr. Smith the Curator.
Gardens, Royal Botanic, Regent's Park	} Forty Plants and Shrubs, through R. Marnock, Esq., the Curator.
Hague, Mrs. B.	A valuable Collection of Seeds, from the Botanic Gardens at Ceylon.
Lindley, Dr.	Sixty Plants.

LIBRARY.

- Association, British, for the }
 advancement of Science... } Report for 1848.
- College, Trinity, Dublin ... } Report of the Museum of the College for
 1848.
- Library, Calcutta Public ... } Catalogue of the Library.
- Society, Geological of London. } Quarterly Journal for 1849.
- Society, Geological and Poly- }
 technic of West Riding } Reports and Proceedings for 1847-8.
 of Yorkshire
- Society, Historic, of Lanca- }
 shire and Cheshire
- Society, Literary and Philo- }
 sophical of Liverpool
- Society, Literary and Philo- }
 sophical of Leeds
- Society, of the Friends of }
 Natural Science at Vienna. } Abstracts of Communications made to
 the Society, 4 vols., 8vo, edited by
 Wm. Haidenger.
 Collection of Memoirs relating to Geology
 and other branches of Natural Science,
 2 vols., 4to., with numerous plates,
 ed. Wm. Haidenger.
- Society, Numismatic
- Society, Royal of Edinburgh. }
 Proceedings for 1848-9.
 Proceedings and Transactions for 1847-9.
 The Makerstown, Magnetical and Meteoro-
 logical Observations for 1844-6.
 Edingburgh Astronomical Observations,
 vol. 8, 1842.
- Society, Royal, Cornwall, }
 Polytechnic
- Brady Mr. Joseph, }
 (the Author.) } Coloured Section of a Railway Cutting
 near Settle.

- Charlesworth, Ed., Esq..... Plates to Schlegel's Work on Serpents.
- Delabeche, Sir H. } Address to the Geological Society of
(the Author.) } London, February, 1849.
- Denny, Henry, Esq. } A Glance at the Fossil Flora of the
(the Author.) } Carboniferous Epoch, with especial
 referēce to the Yorkshire Coal-Field.
- Halliwell, J. O. Esq. M. S. Rarities of the University of Cam-
 bridge.
 Rara Mathematica.
 Connection of Wales with early Science
 of England.
 Introduction to Midsummer Night's
 Dream.
- Phillips, Rev. G. H. Fine copy of Gerard's Herbal.
- Priestley, Wm., Esq..... A Glossary of North Country Words
 with their Etymology and Affinity to
 other Languages ; and occasional
 Notices of Local Customs and Popu-
 lar Superstitions.—By I. I. Buckett,
 F. S. A. 4 vols.
- Smith, C. R., Esq. Proceedings of the Society of Antiquaries.
- Spence, Wm. Esq. } Anniversary Address to the Entomo-
(the Author.) } logical Society of London, 1848.
- Watson, Mr. Wm., } Plan of the Town of Market-Weighton.
(the Author.) }
- Wood, John, Esq. Vols. 1, 2, and 3, of the Journal of the
 Horticultural Society of London.

SERIAL WORKS SUBSCRIBED FOR.

- Gray and Mitchell's Genera of Birds, fol., col. plates, completed.
- Doubleday and Hewitson's Genera of Diurnal Lepidoptera, fol., col.
 plates.
- Sowerby's Thesaurus Conchyliorum, 8vo. col. plates, (10 parts pub-
 lished)
- Waterhouse's Natural History of Mammalia, 8vo., col. plates, (2 vols.
 published).
- Churton's Monastic Ruins of Yorkshire, fol. (6 parts published).
- Fauna Antiqua Sivalensis, or Geology of the Sewalik Hills in the
 North of India, by Dr. Falconer and Major Cautley. (Part 1 to
 9 of Illustrations, large folio, and part 1 of Letterpress, 8vo.)

Forbes and Hanley's British Mollusca, 8vo. col. plates, (24 parts published).

Scientific Memoirs, edited by Richard Taylor, F. S. A., (19 parts published).

PERIODICALS.

London and Edinburgh Philosophical Magazine, monthly.

Annals and Magazine of Natural History, monthly.

The Phytologist, monthly.

London Geological Journal, (3 parts published).

2 vol. See order

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13 MAR 1888

