

THE  
GEOLOGICAL MAGAZINE:

OR,

*Monthly Journal of Geology:*

WITH WHICH IS INCORPORATED

“THE GEOLOGIST.”  
GEOLOGY DEPARTMENT,  
NOS. CCLXXXIII. TO CXCIV.

BIRKBECK COLLEGE, E.C.4

EDITED BY

HENRY WOODWARD, LL.D., F.R.S., V.P.G.S., F.Z.S., F.R.M.S..

OF THE BRITISH MUSEUM OF NATURAL HISTORY;

VICE-PRESIDENT OF THE PALÆONTOGRAPHICAL SOCIETY,

MEMBER OF THE LYCEUM OF NATURAL HISTORY, NEW YORK; AND OF THE AMERICAN PHILOSOPHICAL SOCIETY, PHILADELPHIA; HONORARY MEMBER OF THE YORKSHIRE PHILOSOPHICAL

SOCIETY; OF THE GEOLOGISTS' ASSOCIATION, LONDON: OF THE GEOLOGICAL

SOCIETIES OF EDINBURGH, GLASGOW, HALIFAX, LIVERPOOL, AND NOR-

WICH; CORRESPONDING MEMBER OF THE GEOLOGICAL SOCIETY

OF BELGIUM; OF THE IMPERIAL SOCIETY OF NATURAL

HISTORY OF MOSCOW; OF THE NATURAL HISTORY

SOCIETY OF MONTREAL; AND OF THE

MALACOLOGICAL SOCIETY

OF BELGIUM.

ASSISTED BY

ROBERT ETHERIDGE, F.R.S. L. & E., F.G.S., F.C.S., &c.,

OF THE BRITISH MUSEUM OF NATURAL HISTORY.

WILFRID H. HUDLESTON, M.A., F.R.S., Sec.G.S.

AND

GEORGE J. HINDE, PH.D., F.G.S., &c.

NEW SERIES. DECADE III. VOL. V.

JANUARY—DECEMBER, 1888.

LONDON:

TRÜBNER & Co., 57 AND 59, LUDGATE HILL.

F. SAVY, 77, BOULEVART ST.-GERMAIN, PARIS.

1888.

**HERTFORD:**  
**PRINTED BY STEPHEN AUSTIN AND SONS.**

## LIST OF PLATES.

PLATE	PAGE
I. Skull of <i>Stegosaurus stenops</i> , Marsh . . . . .	11
II. Spines of <i>Stegosaurus unguatus</i> and <i>S. sulcatus</i> , Marsh . . . . .	11
III. Spines, vertebræ and plate of <i>Diracodon laticeps</i> , Marsh . . . . .	11
IV. Specimens of <i>Eozoön Canadense</i> , Dawson . . . . .	49
V. Scandinavian Phyllocarida . . . . .	97
VI.        "        "        " . . . . .	146
VII. <i>Heterastræa</i> from the Lower Lias . . . . .	207
VIII. Spitzbergen Fossil Sponges . . . . .	241
IX. <i>Calamites undulatus</i> , Sternb. . . . .	289
X. <i>Cyclopteris</i> , Brong., Upper Coal Measures, Yorkshire . . . . .	344
XI. <i>Æger Brodiei</i> , H. Woodw., L. Lias, Wilmcote . . . . .	385
XII. <i>Eryon antiquus</i> , Broderip sp., L. Lias, Lyme Regis . . . . .	433
XIII. Silurian <i>Lagenæ</i> . . . . .	481
XIV. Orbitoidal Limestone of North Devon . . . . .	529

## LIST OF WOODCUTS.

	PAGE
Gular plate of <i>Stegosaurus unguatus</i> , Marsh . . . . .	13
Caudal plate of " " " . . . . .	13
Dorsal plate of " " " . . . . .	13
<i>Mitcheleania gregaria</i> , Nich. . . . .	17
" " " . . . . .	18
<i>Solenopora compacta</i> , Billings . . . . .	20
<i>Solenopora ? filiformis</i> , Nich. . . . .	22
<i>Girvanella problematica</i> , Nich. and Eth. jun. . . . .	23
<i>Eozoon Canadense</i> , Dawson . . . . .	50
Six Sections of Favositoid Corals . . . . .	107
Prism of Glaucophane . . . . .	127
Teeth of Phyllopod Crustaceans . . . . .	146
" " " . . . . .	148
Small portion of telson of <i>Ceratiocaris Angelini</i> . . . . .	150
<i>Cleistopora geometrica</i> , Edw. and Haime sp. . . . .	151
Thoracic buckler of <i>Actinodon Frossardi</i> . . . . .	165
Vertebra of <i>Euchirosaurus Rochei</i> . . . . .	166
<i>Protriton petrolei</i> , Gaudry . . . . .	167
Humerus of <i>Stereorhachis dominans</i> . . . . .	167
Section of Pleistocene Gravel at Barnwell . . . . .	194
" " " " . . . . .	195
" " South of Grantchester . . . . .	196
" " at Barrington . . . . .	197
Seven figures illustrating the effects of Pressure in Distorting Rocks . . . . .	219
Foldings of Quartz Veins from Pressure . . . . .	220
Sketch-map of Mynydd Mawr District . . . . .	223
Siliceous sponge spicules occurring in <i>Archæocyathus Minganensis</i> . . . . .	227
Section of a concentric mass, probably of organic origin, from Kulu . . . . .	256
Humerus of <i>Chelydra</i> . . . . .	266
" " <i>Euclastes Gosseleti</i> . . . . .	266
" " <i>Chelone</i> . . . . .	266
Section of Ightham Stone . . . . .	299
Section of Cave, after Mr. Trimmer . . . . .	302
Apparatus for use in the observation of Flame Reactions . . . . .	314
Four Sections of Schistose Rocks . . . . .	321

	PAGE
Cervical vertebra of <i>Plesiosaurus plicatus</i> . . . . .	351
Humerus of <i>P. trochanterius</i> . . . . .	354
Two Diagrams to illustrate "Outcrops" . . . . .	357
Four Figures to illustrate "Faults" . . . . .	355
<i>Hindeastræ discoidea</i> , White . . . . .	363
Section of Middle Bagshot Beds . . . . .	411
Body-segments of <i>Eurypterus Wilsoni</i> , H. Woodw. . . . .	420
Restoration of <i>Pleuracanthus Gaudryi</i> , Brong. . . . .	423
<i>Polycheles crucifera</i> . . . . .	438
<i>Pentacheles euthrix</i> . . . . .	439
Sketch-section of a cone truncated by a Crater formed around an axis eccentric to the Original Cone . . . . .	448
<i>Salterella pholadiformis</i> . . . . .	454
Two sections of <i>Actinoceras Bigsbyi</i> . . . . .	487
Three figures of   ,,   ,, showing foramen . . . . .	489
Dentition of <i>Synechodus dubrisiensis</i> . . . . .	494
Intermandibular Arch of <i>Onychodus anglicus</i> , A. S. Woodw. . . . .	500
Three figures of porphyritic quartz, which has undergone corrosion . . . . .	505
Figure of <i>Ascoceras</i> , Barrande . . . . .	533
<i>Cypris cornigera</i> and <i>Candona Mantelli</i> . . . . .	536
Prism for Testing the Double-Refraction of Minerals . . . . .	549