

THE
GEOLOGICAL MAGAZINE.

NEW SERIES.

DECADE IV. VOL. I.

JANUARY—DECEMBER 1894.

WITH WHICH IS INCORPORATED

“THE GEOLOGIST.”

NOS. CCCLV. TO CCCLXVI.

EDITED BY

HENRY WOODWARD, LL.D., F.R.S., PRES.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 NORWICH; 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.,

WILFRID H. HUDLESTON, M.A., F.R.S., F.G.S., F.L.S., F.C.S.

AND

GEORGE J. HINDE, PH.D., V.P.G.S., &c.

NEW SERIES. DECADE IV. VOL. I.

JANUARY—DECEMBER, 1894.

LONDON:

KEGAN PAUL, TRENCH, TRÜBNER & Co., LIMITED,
PATERNOSTER HOUSE, CHARING CROSS ROAD, W.C.

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

1894.

LIST OF PLATES.

PLATE	TO FACE PAGE
I. <i>Prolecanites compressus</i> , J. Sby., sp.	11
II. Diagrams illustrating the structure of the Dolomites	49
III. Map of a portion of the Dolomite Area	49
IV. Lower Palæozoic Fossils from Yorkshire	108
V. Sections of <i>Lithothamnion</i> and <i>Solenopora</i>	145
VI. Restoration of <i>Camptosaurus dispar</i> , Marsh	193
VII. New Bala Trilobites	241
VIII. Appendages of <i>Triarthrus Becki</i> , etc.	246
IX. Fossil Phyllopora	289
X. Restoration of <i>Elotherium crassum</i> , Marsh	294
XI. Footprints from Kansas Coal-measures	337
XII. Western Australian Cephalopoda	385
XIII. " " "	433
XIV. Carboniferous Trilobites	481
XV. <i>Cyclus</i> : Carboniferous	530
XVI. Portrait of William Topley, F.R.S.	570

LIST OF WOODCUTS.

	PAGE
Six Figures illustrating the Glaciation of Switzerland	35
Overthrust plane at Sasso Pitschi, Dolomites	53
Jurassic Bryozoa	62
Tooth of <i>Oxyrhina crassa</i> , Ag.	75
Old Delta near Eidfjord	94
Diagrammatic Reconstruction of Dartmoor	98
Figures of Crystals containing Inclusions of Water and Gas	102
" " " " " " "	103
Augen-gneiss, sections along the "dip-plane"	115
Remains of Crystals in crushed Augen-gneiss	115
Gneiss with "rucking"	117
Vein of streaky and banded granite intrusion in green-schist	119
Slab with <i>Bryograptus ramosus</i> , Brögger	130
First chamber of <i>Orthoceras</i> , with protoconch attached	142
Longitudinal section of <i>Solenopora compacta</i> , Billings, sp.	147
Tangential " " " " " "	147
" " " " <i>nigra</i> , Brown, sp.	149
Longitudinal " " " <i>jurassica</i> , Nich.	150
Tangential " " " " "	151
Section through a part of St. Gothard Tunnel	154
Micaceous gneiss with Sand-grains from St. Gothard Tunnel	155
Quartz-grains in Micaceous gneiss	156
Felspar-grains in Micaceous gneiss	158
Section of Cordierite Crystal in metamorphosed Skiddaw Slates	169
Longitudinal Section of <i>Solenopora filiformis</i> , Nich.	195
Tangential Section of <i>Solenopora dendriiformis</i> , Brown	196
Longitudinal Section of <i>Lithothamnion fecundum</i>	197
Part of roof of conceptacle of <i>Lithothamnion fecundum</i> decalcified.	198
Longitudinal Section of apical shoot of <i>Corallina Mediterranea</i>	198
Longitudinal Section of thallus of <i>Amphiroa exilis</i>	199
Surface view of the thallus of <i>Melobesia deformans</i>	199

	PAGE
Cells of <i>Lithothamnion</i> , etc.	201
A Specimen of Pigotite from Cornwall	224
Section of the Eastern side of the Platberg	290
Ornament on the valve of <i>Elymocarid Hindei</i>	292
<i>Temnocheilus coronatus</i> , M'Coy	296
Coast Section at Saltern Cove	367
Railway Section at Kimberley, Notts	367
Map of the North-West Territories of Canada	396
Section of Rubble-drift, Portland	432
<i>Aptychus</i> in <i>Ammonites</i>	455
Section of <i>Aptychus levis</i> , von Meyer	457
" " " "	458
Vertical Section on the Banks of the Hodder	484
Pygidium of <i>Phillipsia Derbiensis</i> , Martin	488
" " <i>gemmulifera</i> , Phillips, sp.	488
Map of Church Beck, Coniston	490
Map of the Yumuri Valley	500
Longitudinal Section through the Cañon of the Yumuri	501
Section across the end of the Yumuri Valley	501
Erect Stem of <i>Sigillaria</i> , Coal-measures, Rochdale	528
<i>Cyclus Woodwardi</i> , Reed	531
,, <i>testudo</i> , Peach	534
,, <i>Scotti</i> , H. Woodw.	537
Diagram of the River Lowther	540
,, Map of Mosedale and Wet Sleddale	541
Sand-blast Apparatus for developing fossils	554
Enlarged section of part of Sand-blast Apparatus	555