

THE
GEOLOGICAL MAGAZINE.

NEW SERIES.

DECADE II. VOL. I.

JANUARY--DECEMBER, 1874.

THE
GEOLOGICAL MAGAZINE:

OR,

Monthly Journal of Geology:

WITH WHICH IS INCORPORATED

“THE GEOLOGIST.”

NOS. CXV. TO CXXVI.

EDITED BY

HENRY WOODWARD, F.R.S., F.G.S., F.Z.S.,

PRESIDENT OF THE GEOLOGISTS ASSOCIATION.

HONORARY MEMBER OF THE GEOLOGICAL SOCIETIES OF EDINBURGH, GLASGOW, AND NORWICH;
CORRESPONDING MEMBER OF THE GEOLOGICAL SOCIETY OF BELGIUM; OF THE NATURAL
HISTORY SOCIETY OF MONTREAL; AND OF THE LYCEUM OF
NATURAL HISTORY, NEW YORK.

ASSISTED BY

PROFESSOR JOHN MORRIS, F.G.S., &c., &c.,

AND

ROBERT ÉTHERIDGE, F.R.S., L. & E., F.G.S., &c.

NEW SERIES. DECADE II. VOL. I.

JANUARY—DECEMBER, 1874.

LONDON:

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

F. SAVY, 24, RUE HAUTEFEUILLE, PARIS.

1874.

HERTFORD :

PRINTED BY STEPHEN AUSTIN AND SONS.

LIST OF PLATES.

PLATES.	PAGE.
I. Microscopic Structure of Irish Granites	1
II. <i>Callopora inerassata</i> , Nich. ; <i>Alveolites frondosa</i> , Nich.	11
III. To Illustrate Mr. Davidson's Paper on <i>Porambonites</i> , Pander	51
IV. To Illustrate Prof. H. A. Nicholson's Paper on New Devonian Fossils	54
V. Four New Species of <i>Dithyrocaris</i> from Lanarkshire... ..	107
VI. To Illustrate Prof. H. A. Nicholson's Paper on New Devonian Fossils	117
VII. Tertiary Brachiopoda of Belgium	150
VIII. Tertiary Brachiopoda of Belgium. West Indian Miocene Brachiopoda	151
IX. To Illustrate Prof. H. A. Nicholson's Paper on New Devonian Fossils	197
X. To Illustrate the Volcanic History of Ireland, by Prof. Hull	209
XI. To Illustrate Mr. E. T. Hardman's Paper	215
XII. <i>Cycloptychius carbonarius</i> , Huxley, Coal-measures, North Stafford- shire	241
XIII. To Illustrate Paper by Mr. R. Etheridge, jun., on Scottish Mollusca	300
XIV. Fossil Orthoptera	337
XV. <i>Rhinoceros leptorhinus</i> , Owen, Pleistocene, Ilford	398
XVIII. West Indian Tertiary Fossils	433
XIX. <i>Paleontina Oolitica</i> , etc.	446
XX. To Illustrate Mr. James Thomson's Paper on <i>Rhodophyllum</i>	556

MAPS.

The Leinster Coal-field	99
Geological Map of the District around Ilford, whence the great Collection of Pleistocene Mammalian Remains was obtained by Sir Antonio Brady	397

LIST OF WOODCUTS.

	PAGE.
<i>Helianthaster filiciformis</i> , H. Woodward, Devonian, Harbertonford	8
A Fragment of the Upper Surface of <i>Alveolites Schwynii</i> , from the Corniferous Limestone	16
Outline of Isle of Thanet, showing Distribution of Ammonites along the Coast	17
Cliff-sections from Kingsgate to Pegwell	18
Diagrammatic Sketch of part of Wexford Coast	49
Sketch-Map of the Bay and Shoals between Cahore and Greenore Points, Co. Wexford	50
<i>Alveolites distans</i> , from the Corniferous Limestone	54
Diagram to Illustrate the Formation of Mountains	60
<i>Clathropora intertexta</i> , Nich., from the Corniferous Limestone... ..	125
Teeth of <i>Hybodus</i> compared with Teeth of <i>Cladodus</i>	166
Diagrammatic Section, showing the relations between an ancient Cliff of Glacial Drift, and the re-arranged or Glacialoid Drift with the associated Shelly Drifts	168
A few of the Calices of <i>Columnopora cribriformis</i>	254
Section across Antarctic Ice-cap	307
Diagram of the Longitudinal Framework of the under-side of the left elytron of <i>Gryllaecris Ungerii</i> , Heer	339
Diagrams to Explain the Physical Cause of the Submergence and Emergence of the Land during the Glacial Epoch... ..	346
Sketch-Map of the Neighbourhood of Cairo	354
An Approximate Section along the line A—B on Map of Cairo	356
Plan of the Great Moccattam Quarries behind the Citadel, Cairo	356
Section seen near Givendale Church, Ripon... ..	363
General Section to show the Position of the Thames Valley Beds relatively to the Glacial Beds of the Middlesex and Essex Heights	394
Section exhibited by the Uphall Brickfield	394
Section from Crayford Hill, Kent, to Hangman's Wood, near Grays, Essex ...	396
Cell in Porphyry lined with Chlorite and filled with Calcite	451
Group of Orthoclase Crystals imbedded in the Felspathic matrix, darkened by grains of Magnetite... ..	452
Cavity filled with Chlorite showing Cellular Structure	452
Portion of Polished Surface of the Porphyry, showing the arrangement of the Orthose Crystals	453
Section showing the average thickness of the Metamorphic Rocks on the N. and S. of the Anticlinal Curve, Iarconnaught	456
Sections of Upper Silurian Rocks at Salrock, Gowlaun, and Bundoragh... ..	456
Section of Stromboli (showing relative heights)	530
Page-woodcut of Stromboli Viewed from the North (after Abich)	532
Plan of the Island of Stromboli	539