

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