

THE  
GEOLOGICAL MAGAZINE.

NEW SERIES.

DECADE II. VOL. III.

JANUARY—DECEMBER, 1876.

GEOLOGY DEPARTMENT,  
BIRKBECK COLLEGE, E.C  
THE  
GEOLOGICAL MAGAZINE:

OR,

*Monthly Journal of Geology :*

WITH WHICH IS INCORPORATED

“THE GEOLOGIST.”

NOS. CXXXIX. TO CL.

EDITED BY

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

VICE-PRESIDENT OF THE GEOLOGISTS ASSOCIATION;

MEMBER OF THE AMERICAN PHILOSOPHICAL SOCIETY, PHILADELPHIA;  
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 ETHERIDGE, F.R.S., L. & E., F.G.S., &c.

NEW SERIES. DECADE II. VOL. III.

JANUARY—DECEMBER, 1876.

LONDON:

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

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

1876.

**HERTFORD:**

**PRINTED BY STEPHEN AUSTIN AND SONS.**

## LIST OF PLATES.

PLATES.	PAGE
I. Lake Balaton .....	5
II. Birds with Teeth, <i>Ichthyornis dispar</i> , Marsh; <i>Hesperornis regalis</i> , Marsh .....	49
III. Cretaceous <i>Scalidæ</i> .....	104
IV. Gault <i>Scalidæ</i> , etc., from Folkestone .....	105
V. Weapons of Bone, etc., Kesslerloch Cave .....	163
VI. Carboniferous Fossils .....	150
VII. <i>Septaria</i> in Kimmeridge Clay, Swindon .....	193
VIII. <i>Omosaurus armatus</i> , Owen .....	193
IX. Lower Silurian Graptolites .....	245
X. Scottish <i>Monograptidæ</i> .....	321
XI.     "          " .....	321
XII.   "          " .....	352
XIII.   "          " .....	352
XIV. <i>Eubrochus clausus</i> , Sollas; "Coprolite Bed" .....	400
XV. <i>Auliscope sumatranus</i> , <i>Pseudeutropius verbeekii</i> , <i>Chirocentrus polyodon</i> , <i>Amblypharyngodon</i> .....	433
XVI. <i>Bagarius gigas</i> , <i>Hexapsephus</i> .....	433
XVII. <i>Thynnichthys amblyostoma</i> .....	433
XVIII. <i>Barbus megacephalus</i> .....	433
XIX. <i>Notopterus primævus</i> .....	433
XX. Scottish <i>Monograptidæ</i> .....	499
XXI. Glauconitic granules from the Cambridge Greensand .....	539
XXII. Fossiliferous Clays resting on Basalt, Lough Neagh .....	556

## LIST OF WOODCUTS.

	PAGE
Ideal Section of Spitzbergen from east to west .....	16
Profile of the Western Shore of Klaas Billen Bay on both sides of Skans Bay	21
Section of Strata on the North-east side of Klaas Billen Bay, close to the great glacier (according to Dr. Nathorst) .....	23
The Kammerbühl or Kammerberg, Bohemia, as seen from the South-west .....	55
Section seen in the side of the Zwergeloch .....	56
Section of the Kammerbühl in Bohemia .....	59
Profile of the North Shore of Van Mijen Bay, East of Frithiof's Glacier .....	67
Profile of the strata on the high ridge between Green Harbour and the sea, by von Drasche .....	67
Profile of strata at Safe Haven .....	68
Profile of strata on the east side of Ekman Bay .....	68
Profile of strata at the bottom of Klaas Billen Bay (according to von Drasche)	68
Profile of Gip's-hook (according to Nathorst) .....	68
Tree bent and growing in the direction of the prevailing wind .....	84
Knee-shaped 'invers' at mouth of river, showing the set of the prevailing current .....	84
Diagram to illustrate the formation of a limestone 'scar' .....	98
Generalized Section illustrating the effects of Glacial Erosion .....	104
Shore rocks on the southern side of the entrance to Ice-Sound .....	119
Section of Jurassic strata at Cape Boheman .....	121
Profile of strata between Cape Thordsen and Skansviken .....	126
Profile of Tschermak's Berg, in Ice Sound, by von Drasche .....	127
Mouth of <i>Rissoina Sowerbii</i> .....	162
Section across the so-called "Crater" of Predazzo, illustrating the dip of the stratified rocks towards the centre of eruption .....	211
Two Diagram figures illustrating apparent and true dip .....	236
One ditto ditto ditto .....	237
Section of the Taxodium strata at Cape Staratschin .....	258
Profile of strata at Cape Heer .....	260
Section of the Tertiary strata on the North Shore of Van Mijen Bay .....	261
Section of the Miocene strata at Cape Lyell .....	262

	PAGE
Cross-section of the Shore-terraces at Cape Lyell .....	263
Ideal section showing the disturbances in the position of the Tertiary strata on Spitzbergen .....	265
<i>Palæocis cuneata</i> , Meek and Worthen .....	268
Map of Helgelandt at three different periods reduced from one said to have been "copied from an old map in the possession of the Governor of Helgelandt" .....	283
Ideal iceberg .....	307
Two figures illustrating apparent and true dip .....	378
Diagram-plan of the fibres in <i>Eubrochus clausus</i> .....	400
Arctic scenery .....	404
Diagram to illustrate the Formation of Rock-Basins .....	451
<i>Membranipora Etheridgii</i> , Busk, Post-Tertiary Beds, River Forth, above Stirling .....	523
Fan-shaped ramifying tubuli observed in shells of <i>Cyprina Islandica</i> .....	555
Chalk-pit at Whitlingham, Norwich .....	566
Section at Snowdown, Chard.....	567
Cutting near Uphill (Bristol and Exeter Railway) .....	568