

THE  
GEOLOGICAL MAGAZINE.

NEW SERIES.

DECADE V. VOL. III.

JANUARY—DECEMBER, 1906.

THE  
GEOLOGICAL MAGAZINE

OR,

Monthly Journal of Geology:

WITH WHICH IS INCORPORATED

“THE GEOLOGIST.”

NOS. CCCCXCIX TO DX.

EDITED BY

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

LATE OF THE BRITISH MUSEUM OF NATURAL HISTORY;  
PRESIDENT OF THE PALÆONTOGRAPHICAL SOCIETY, PAST PRESIDENT  
OF THE MALACOLOGICAL 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 INSTITUTION OF MINING AND  
METALLURGY, LONDON; OF THE GEOLOGICAL SOCIETIES OF EDINBURGH,  
GLASGOW, HALIFAX, LIVERPOOL, AND SOUTH AFRICA; 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

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

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

AND

HORACE BOLINGBROKE WOODWARD, F.R.S., V.P.G.S., &c.

NEW SERIES. DECADE V. VOL. III.

JANUARY—DECEMBER, 1906.

LONDON:

MESSRS. DULAU & CO., 37, SOHO SQUARE, W.

1906,  
GEOLOGY DEPARTMENT,

BIRKBECK COLLEGE, E.C.4

**HERTFORD :**

**PRINTED BY STEPHEN AUSTIN AND SONS, LTD.**

## LIST OF PLATES.

PLATE	FACING PAGE
I. Portrait of T. McKenny Hughes, M.A., F.R.S., F.G.S., F.S.A. . . . .	1
II. Chalk Bluffs at Trimmingham, Norfolk . . . . .	17
III. Chalk Bluffs at Trimmingham, Norfolk . . . . .	22
IV. Chalk Bluffs at Trimmingham, Norfolk . . . . .	73
V. Chalk Bluffs at Trimmingham, Norfolk . . . . .	78
VI. Corals from Eastern Egypt . . . . .	56
VII. Corals from Eastern Egypt . . . . .	110
VIII. Chalk Bluffs at Trimmingham, Norfolk . . . . .	128
IX. Chalk Bluffs at Trimmingham, Norfolk . . . . .	130
X. Fossil Echinoidea from Sinai and Egypt . . . . .	218
XI. Fossil Echinoidea from Sinai and Egypt . . . . .	246
XII. Skulls of two species of a Horned Tortoise . . . . .	138
XIII. Corries in the Comeragh Mountains . . . . .	160
XIV. Geological Sketch-map of the district bordering the Helford Basin . . . . .	216
XV. Pigmy Hippopotamus from Cyprus . . . . .	241
XVI. Bokkeveld Fossils, South Africa . . . . .	304
XVII. Bokkeveld Fossils, South Africa . . . . .	310
XVIII. Mollusca, Bryozoa, and Foraminifera from Crete . . . . .	357
XIX. Foraminifera from Crete . . . . .	358
XX. Ordovician Gasteropoda from Haverfordwest . . . . .	368
XXIA. Permian Breccias and Conglomerate . . . . .	312
XXIB. Trelogan Quarry, Halkyn Mountain . . . . .	394
XXII. Waenbrodilas Quarry, Halkyn Mountain . . . . .	396
XXIII. Portrait of Joseph Frederick Whiteaves, LL.D., F.R.S., F.G.S. . . . .	433
XXIV. <i>Ichthyosaurus</i> showing contained Embryos . . . . .	444
XXV. Mesozoic Fossils from Singapore . . . . .	496
XXVI. <i>Rhizophyllum robustum</i> , Shearsby, etc. . . . .	552
XXVII. Chalk Arch, Trimmingham, Norfolk . . . . .	525

## LIST OF ILLUSTRATIONS IN THE TEXT.

	PAGE
Diagram of Chalk Bluff at Trimmingham, Norfolk . . . . .	22
Wing of <i>Lithomantis carbonarius</i> . . . . .	26
Wing of <i>Lithomantis (Corydalis) Brongniarti</i> . . . . .	27
Wing of <i>Lithomantis carbonarius</i> . . . . .	27
Wing of <i>Homoioptera (Lithomantis) Woodwardi</i> . . . . .	28
Wing of <i>Fouquea cambrensis</i> . . . . .	29
Tooth of a <i>Mastodon</i> , South Africa . . . . .	50
Left valve of <i>Aviculopecten semicostatus</i> . . . . .	59
Diagrammatic representations of the apertures of Elcids . . . . .	62
<i>Seminulteela Dixoni</i> , sp. nov., a Bryozoan from the Chalk, Surrey . . . . .	64
Diagram of north-west face of Bluff at Trimmingham, Norfolk . . . . .	76
Folding Table of sixteen Rock-groups . . . . .	134
Contour-map of the Comeragh Mountains . . . . .	156
Sketch-map of Coumgorra . . . . .	158
Sketch-map of Crotty's Lough, Corrie . . . . .	158
Vertical Section of Coumgorra . . . . .	159
Vertical Section of Crotty's Lough . . . . .	159
Isoseismal lines of Pendleton Earth-shake . . . . .	172
Isoseismal lines of Etnean Earthquake . . . . .	175
Sketch-map of Coumshingaun and Lake . . . . .	228
Skulls of <i>Hippopotamus minutus</i> and <i>ibericensis</i> . . . . .	244
Sketch-plan of Hillside Granite Mass, Bulawayo . . . . .	259
Sketch-map of part of River Cefni, Anglesey . . . . .	264
<i>Membranipora Griffithi</i> , sp. nov., Chalk, Trimmingham . . . . .	293
<i>M. Trimminghamensis</i> , sp. nov.     ,,     ,, . . . . .	294
<i>M. Britannica</i> , sp. nov.     ,,     ,, . . . . .	294
<i>Semieschara Mundesleiensis</i> , sp. nov.     ,,     ,, . . . . .	295
<i>S. Canui</i> , sp. nov.     ,,     ,, . . . . .	295
<i>Eschara Rowei</i> , sp. nov.     ,,     ,, . . . . .	296
<i>Cribrilina Sherborni</i> , sp. nov.     ,,     ,, . . . . .	296
<i>C. Dibleyi</i> , sp. nov.     ,,     ,, . . . . .	297
<i>C. Jukes-Brownei</i> , sp. nov.     ,,     ,, . . . . .	298
<i>Mucronella Batheri</i> , sp. nov.     ,,     ,, . . . . .	298

	PAGE
<i>Semieschara Woodsi</i> , sp. nov., Chalk, Trimmingham . . . . .	299
<i>S. Pergensi</i> , sp. nov.                   "           " . . . . .	299
<i>Cribrilina Gregoryi</i> , sp. nov.       "           " . . . . .	300
<i>Brachylepas (Mitella) lithotryoides</i> , ,       "       " . . . . .	339
<i>Scalpellum fossula</i> . (Nomenclature of the valves.) . . . . .	340
<i>Pollicipes mitella</i> .                   "           " . . . . .	340
<i>Brachylepas (Pollicipes) fallax</i> , Chalk, Trimmingham . . . . .	341, 342, 343, 344
<i>Pollicipes Angelini</i> , Chalk, Norwich and Trimmingham . . . . .	346
<i>P. Hausmanni</i> , <i>P. concinna</i> , and <i>P. striatus</i> , Chalk, Norwich and Trimmingham . . . . .	347
<i>Scalpellum maximum</i> , Chalk, Norwich . . . . .	350
<i>S. fossula</i> and <i>S. attenuatum</i> , Chalk, Norwich, and <i>Brachylepas</i> sp., Trimmingham . . . . .	352
Diagram-section Eastern flank of Halkyn Mountain . . . . .	394
"Westerly Chalk Bluff," Trimmingham, Norfolk . . . . .	401
Remnant of Bluff near Trimmingham, Norfolk . . . . .	403
Contour Map of Haystacks Mountain . . . . .	407
Roche moutonnée, Blackbeck Tarn . . . . .	407
Outlet of Blackbeck Tarn . . . . .	408, 409
Tarn formed by wind-erosion of peat, Haystacks Mountain . . . . .	411
Zones of the Lower Chalk . . . . .	414, 415
Stratigraphical Distribution of Fossils . . . . .	458
Plan of part of the hill behind Keisley . . . . .	483
Section across west end of Dufton Inlier . . . . .	484
Carboniferous Succession in the Bristol District and in N. Wales . . . . .	499
Section at Grange Quarry, Holloway . . . . .	502
Section of Lower Williams Creek, Cariboo, B.C. . . . .	514
Natural Arch on the Sea-shore, Trimmingham, Norfolk . . . . .	525
Section of Cliff, Trimmingham, Norfolk . . . . .	526

## ERRATA.

- p. 144, l. 21 from foot: after *from* insert *Eoliths*.  
 p. 159, l. 2 from foot: for "two lower" read "lower two."  
 p. 400, note 2, l. 5: for "Weymouth" read "Weybourne."  
 p. 513, l. 22: for "are" read "is."



Yours very truly  
J M Kenny Hughes