

THE  
GEOLOGICAL MAGAZINE.

NEW SERIES.

DECADE V. VOL. IV.

JANUARY—DECEMBER, 1907.

THE  
GEOLOGICAL MAGAZINE

OR  
Monthly Journal of Geology.

WITH WHICH IS INCORPORATED  
THE GEOLOGIST.

NOS. DXI TO DXXII.

EDITED BY

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

LATE OF THE BRITISH MUSEUM OF NATURAL HISTORY; 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 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 NATURALISTS 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., F.G.S., &c.

NEW SERIES. DECADE V. VOL. IV.

JANUARY—DECEMBER, 1907.



LONDON:

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

1907.

HERTFORD :

PRINTED BY STEPHEN AUSTIN AND SONS, LTD.

## LIST OF PLATES.

PLATE	FACING PAGE
I. Portrait of Sir A. Geikie, D.C.L., Sc.D., Sec. R. S., President of the Geological Society of London (1890-2 and 1906-8) . . . . .	1
II. Views of Volcanoes of Nevado de Toluca and Jorullo in Mexico . . . . .	13
III. Portrait of William Whitaker, B.A. Lond., F.R.S. . . . . .	49
IV. Crustacea, etc., from Girvan . . . . .	109
V. Metamorphism of Chalk, Scawt Hill, Co. Antrim . . . . .	148
VI. New Fossils from Haverfordwest . . . . .	210
VII. Upper Cretaceous Fish-remains from Brazil . . . . .	196
VIII. Section showing relations of <i>Ceratopyge</i> Series and underlying Beds, west coast of Öland, Sweden . . . . .	257
IX. Erosion Pockets of 'Korrosionsgrupper,' Ulunda Stenbrot, Varnhems Kloster, Vester Götland . . . . .	267
X. Sketch-map of Southern Scandinavia, showing distribution of Lower Palæozoic Rocks . . . . .	296
XI. Remains and Impressions of Ears of Maize in Basalt, Morelia, Mexico	219
XII. Portrait of Professor H. G. Seeley, F.R.S., F.L.S., F.G.S., etc. . . . .	241
XIII. Two new species of <i>Eurypterus</i> , Coal-measures, Ilkeston, Derbyshire	282
XIV. Plant-remains in Basalt, Bo'ness Coalfield, Linlithgowshire . . . . .	220
XV. Reconstructed Skeleton of <i>Diprotodon australis</i> , Owen . . . . .	337
XVI. John Francis Walker, M.A., F.G.S. . . . .	380
XVII. <i>Lichas melmerbiensis</i> , sp. nov., Dufton Shales, near Melmerby . . . . .	400
XVIII. <i>Pygocephalus Cooperi</i> , Huxley, Coal-measures, Coseley, near Dudley	407
XIX. Labyrinthodont Reptilian Remains, Upper Karroo, Cape Colony . . . . .	436
XX. Fossil Plants from South Africa . . . . .	481
XXI. Fossil Plants from South Africa . . . . .	487
XXII. Eastern end of the Tygerberg Anticline, Cape Colony . . . . .	489
XXIII. Photographs of thin slices of Ice, and reproductions of surface-markings on Glacier Ice in Ice-caves . . . . .	529
XXIV. Reproductions of surface-markings on Glacier Ice in Ice-caves . . . . .	531

## LIST OF ILLUSTRATIONS IN THE TEXT.

	PAGE
Pipe-amygdales from the Drakensberg . . . . .	14
Vesicle cylinders in diabasic lava, Barkly West . . . . .	15
Evolution of <i>Stomatopora dichotomoides</i> (l'Orbigny) . . . . .	22
Section at Griffin's quarry, Rock Hill, Worcestershire . . . . .	30
<i>Prosopeon Richardsoni</i> , H. Woodw., sp. nov. . . . .	80
<i>Geniohyus mirus</i> , Andrews, right ramus of mandible . . . . .	98
<i>Saghatarium magnum</i> , Andrews, left ramus of mandible . . . . .	99
Section of Stonebarrow Cliff, Charmouth . . . . .	151
Zone of <i>Hoplites interruptus</i> on Black Ven and Stonebarrow . . . . .	153
Variation in thickness of <i>Hoplites</i> zone on Black Ven, Stonebarrow, and Golden Cap . . . . .	155
Field of Eyepiece . . . . .	172
Map of area of the Charleston Earthquake of August 31st, 1886 . . . . .	199
Skull of <i>Ophthalmosaurus icenicus</i> , Seeley . . . . .	203, 204
Right fore-limb of <i>Ophthalmosaurus icenicus</i> , Seeley . . . . .	205
Right ischio-pubic bone of <i>Ophthalmosaurus icenicus</i> , Seeley . . . . .	206
Left hind-limb of <i>Ophthalmosaurus icenicus</i> , Seeley . . . . .	207
Map of Blackheath and Greenwich District . . . . .	213
<i>Clathropteris egyptiaca</i> , A. C. Seward, sp. nov. . . . .	253
<i>Weichselia?</i> sp. . . . .	255
Fragments of pinnae of fern from Wadi Araba . . . . .	256
Coracoid of <i>Metriorhynchus superciliosus</i> (Desl.) . . . . .	317
Sketch-map of part of Zululand . . . . .	347
Sketch-map of North-East Anglesey . . . . .	349
<i>Actinocamax Blackmorei</i> , Crick, n.sp. . . . .	391
<i>Actinocamax</i> sp. . . . .	395
Restored figure of <i>Lichas melmerbiensis</i> , sp. nov. . . . .	397
<i>Pygocephalus Cooperi?</i> (Huxley), Coal-measures, Sparth (male individual) . . . . .	405

	PAGE
<i>Pygocephalus Parkeri</i> , H. Woodw., sp. nov. . . . .	406
Microphotograph of a collodion film . . . . .	438
Section of Cliff at New-town Head, Co. Waterford . . . . .	502
Edge-view of pile of paper-strips . . . . .	507
Same papers folded, showing displacement of lines . . . . .	507
The same, showing the distortion of minor folds . . . . .	508
<i>Bellinurus Baldwini</i> , H. Woodw., sp. nov., Coal-measures, Sparth, near Rochdale . . . . .	540
<i>B. longicaudatus</i> , H. Woodw., sp. nov., Coal-measures, Sparth, near Rochdale	541
<i>Eoscorpis (Mazonia) Wardingleyi</i> , H. Woodw., sp. nov., Coal-measures, Sparth, near Rochdale . . . . .	543
<i>Geralinura Sutcliffei</i> , H. Woodw., sp. nov., Coal-measures, Sparth, near Rochdale . . . . .	545
<i>Anthracomartus trilobitus</i> , Scudder, Coal-measures, Sparth, near Rochdale	548
Section of Drift at Head of Rathmoylan Cove . . . . .	552

## ERRATA.

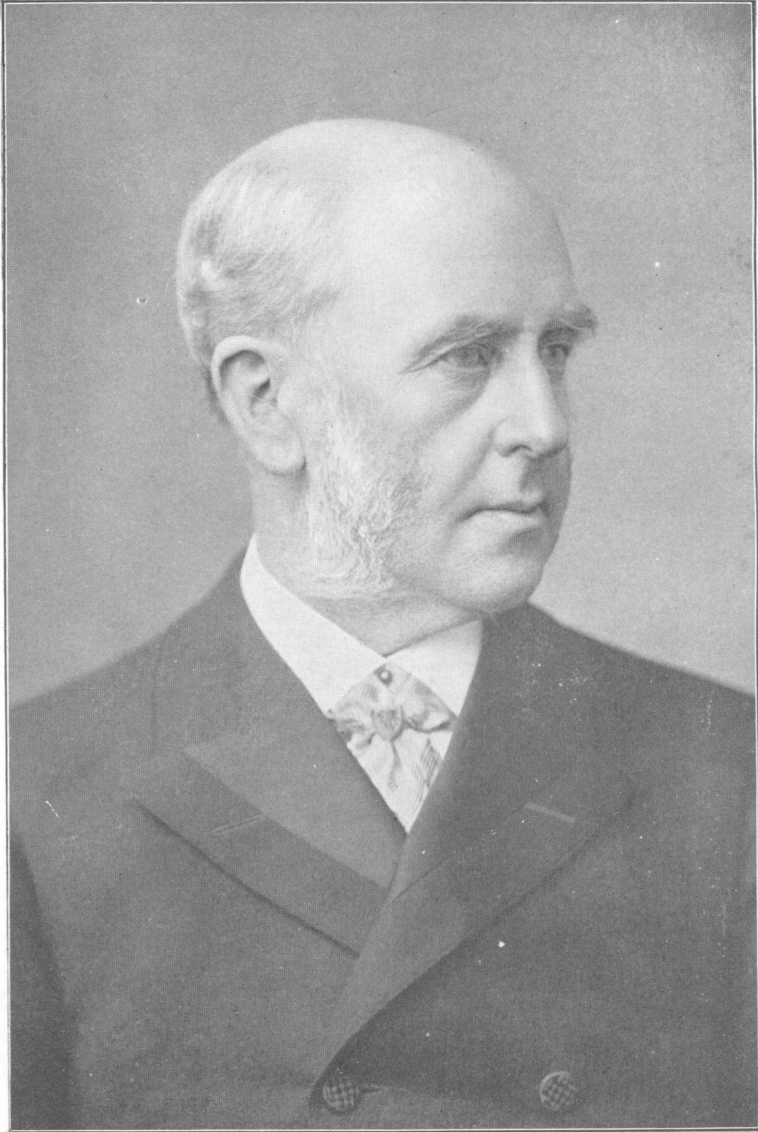
p. 215, last line of right column of No. 3: *0* should be *6* (inches).

p. 308, line 15 from foot: *two last* should be *last two*. You can have but one last.—W. W.

[Mr. Buckman will feel obliged if the readers of the GEOLOGICAL MAGAZINE will kindly substitute the following corrected Memorandum for that in the September Number, p. 432.—EDIT. GEOL. MAG.]

PROCEEDINGS DORSET FIELD CLUB: DATE OF VOLUME IV.—This volume was issued without any date on the title-page; and the question has often arisen as to the correct date. Papers which it contains are dated [1883] in the Royal Society's Catalogue. However, the evidence for the date is to be found in vol. V, p. xv. An obituary notice of the Rev. H. H. Wood says: "He dies just as the 4th volume of the Proceedings . . . is issued to the members." He died (p. xiv) on November 3rd, 1882, so that the end of October or beginning of November, 1882, is the date of the volume in question.

S. S. B.



*Yours truly*  
*Arch. Geikie*