

THE  
GEOLOGICAL MAGAZINE.

VOL. LXIV OF WHOLE SERIES.

JANUARY—DECEMBER, 1927.

THE  
GEOLOGICAL MAGAZINE

OR

Monthly Journal of Geology.

WITH WHICH IS INCORPORATED

THE GEOLOGIST.

FOUNDED IN 1864 BY THE LATE DR. HENRY WOODWARD, F.R.S.

EDITED BY

R. H. RASTALL, Sc.D., M.Inst.M.M.,

UNIVERSITY LECTURER IN ECONOMIC GEOLOGY, CAMBRIDGE.



ASSISTED BY

PROFESSOR W. S. BOULTON, D.Sc.

PROFESSOR J. W. GREGORY, D.Sc., F.R.S.

F. H. HATCH, Ph.D., M.Inst.M.M.

SIR T. H. HOLLAND, K.C.S.I., D.Sc., F.R.S.

PROFESSOR J. E. MARR, Sc.D., F.R.S.

PROFESSOR W. W. WATTS, Sc.D., LL.D., M.Sc., F.R.S.

HENRY WOODS, M.A., F.R.S.

SIR ARTHUR SMITH WOODWARD, LL.D., F.R.S.

VOL. LXIV OF WHOLE SERIES.

JANUARY—DECEMBER, 1927.

LONDON:

DULAU & CO., LTD., 32 OLD BOND STREET, W.1.

1927.

**HERTFORD**  
**STEPHEN AUSTIN AND SONS, LTD.**

## LIST OF PLATES.

PLATE	FACING PAGE
I. Cretaceous Shale Fossils, Jamaica . . . . .	40
II.       "       "       "       "       "       " . . . . .	40
III.       "       "       "       "       "       " . . . . .	40
IV.       "       "       "       "       "       " . . . . .	40
V. Australian Graptolites . . . . .	105
VI. Quartzite Pebble from a Coal-seam, Swannington Colliery . . . . .	124
VII. Cretaceous Crab ( <i>Ranina</i> ) . . . . .	180
VIII. Illustrations to Glacial Drifts of Cardiganshire . . . . .	215
IX.       "       "       "       "       "       " . . . . .	217
X. Vesuvianite-Grossular-Diopside Rock. Vesuvianite-Diopside Zoisite Rock . . . . .	376
XI. Geological Map, Northern Fayum Desert . . . . .	410
XII. A New Genus of Tabulate Corals . . . . .	440
XIII. Cretaceous Corals from Venezuela . . . . .	444
XIV. Bedded Ash Platform, Fifeshire . . . . .	488
XV. Ultra-Basic Zenolith; Biotite Syenite; Calc-Sinter; Ultra- Basic Zenolith . . . . .	488
XVI. Ammonoidea from the Chalk Rock . . . . .	518

# LIST OF ILLUSTRATIONS IN THE TEXT.

	PAGE
Bands of ferric oxide in silicified tuff, Mt. Popa, Upper Burma . . . . .	8
Locality sketch-map of Jamaica . . . . .	28
Section of Cretaceous beds between Cambridge and Catadupa, Jamaica . . . . .	29
"    N. and S. from Port Antonio to beyond Providence, N.E. Jamaica . . . . .	32
Faults in limestone at Walu Bay . . . . .	66
Section at Kalabu Cave . . . . .	68
<i>Nodularia vitiensis</i> sp. nov. . . . .	74
Diagrams of sutural development of <i>A. promicroceras</i> cf. <i>pyritosum</i> , etc. . . . .	77
Transverse sections taken through the protoconch of a <i>Promicroceras</i> <i>capricornoides</i> , etc. . . . .	79
Section along Kitchen Gill . . . . .	81
Diagrammatic illustration of the Dent Fault . . . . .	82
Map of district S. and S.E. of Kirkby Stephen . . . . .	84
Lake Geneva, etc. . . . .	98
<i>Brachythyris pinguis</i> . . . . .	107
" <i>sulcata</i> sp. nov. . . . .	109
Casts of ventral and dorsal valves of <i>Martinia</i> aff. <i>glabra</i> . . . . .	112
<i>Martinia multicostata</i> sp. nov. . . . .	114
Map of the Port Eynon District . . . . .	117
Sections illustrating Developmental Stages and Internal Structures of <i>Holocystis elegans</i> . . . . .	121
Rough Sections across Clapton Coalfield, Somerset . . . . .	126
<i>Cyamocephalus loganensis</i> sp. nov. . . . .	155
Map of earthquake area, 15th August, 1926 . . . . .	163
<i>Ranina trechmanni</i> . . . . .	179
Serial sections through the shell of <i>Camarophoria</i> cf. <i>crumena</i> . . . . .	195
Reconstruction of the internal structure of <i>Camarophoria</i> cf. <i>crumena</i> . . . . .	195
Casts of ventral valves of <i>Camarophoria</i> cf. <i>crumena</i> . . . . .	197
Cast of the spondylium of the ventral valve of <i>Camarophoria</i> cf. <i>crumena</i> . . . . .	197
Diagram of vascular sinuses in ventral and dorsal valves . . . . .	197
Umbonal views of species of <i>Camarophoria</i> . . . . .	197
<i>Camarophoria schlotheimi</i> . . . . .	197
" <i>humbletonensis</i> . . . . .	197
Generalized map of the Solway Basin . . . . .	203
Sketch-map of Western Cardiganshire . . . . .	206
Sketch of cliff-section of the Afon Llethi . . . . .	211
Diagrammatic sketch of cliff-section north of Aber-Arth . . . . .	214
Map of the hills of sands and gravels N.E. of Cardigan . . . . .	217
Sections penetrated by boreholes . . . . .	233
Some typical grains drawn to scale, clinzoisite, fluor, sphene, etc. . . . .	249
Area near Kelston Farm, N. Flintshire . . . . .	254
Sketch-map of area north of Top Nant Farm, near Prestatyn . . . . .	258
Diagrams illustrating stratigraphy of Carboniferous rocks below Coal Measures, N. Flintshire . . . . .	262
Map illustrating Geology of District around Baxter's Bank . . . . .	291
A series of horizontal sections across the area indicated on map . . . . .	295
Coastal cliff at Ancon Point . . . . .	301
Cross-section of concretion, showing decomposition with formation of selenite veins . . . . .	303
Type selenite vein . . . . .	304
Shale slab traversed by fine cracks . . . . .	307
<i>Bernicia praeursor</i> gen. et sp. nov. . . . .	327

