

# GEOLOGICAL MAGAZINE

Edited by  
R. H. RASTALL and O. M. B. BULMAN

assisted by

PROFESSOR W. S. BOULTON      PROFESSOR O. T. JONES  
PROFESSOR W. G. FEARNSIDES      PROFESSOR W. J. PUGH  
PROFESSOR LEONARD HAWKES      PROFESSOR C. E. TILLEY  
HENRY WOODS

---

## CONTENTS

	PAGE
HOWELL, B. F., and STUBBLEFIELD, C. J. A Revision of the Fauna of the North Welsh <i>Conocoryphe viola</i> Beds implying a Lower Cambrian Age	1
WATSON, HUGH. A Note on Bathonian Gastropods Assigned to Freshwater Genera	17
SUGDEN, W. The Influence of Water Films adsorbed by Mineral Grains upon the Compaction of Natural Sediments and Notes on Allied Phenomena	26
WILSON, GILBERT. An Experimental Synthesis of Quartz, Albite, and Analcite	41
PATTERSON, E. M. Evidence of Fissure Eruption in the Tertiary Lava Plateau of North-East Ireland	45
EAMES, F. E. On the Age of the Fauna of the Bugti Bone Beds, Baluchistan	53
LEEDAL, G. P., and WALKER, G. P. L. A Restudy of the Ingletonian Series of Yorkshire	57

### CORRESPONDENCE

Remarks on Dr. Lamont's Interpretation of Features in the Trilobite *Platycalymene*, C. J. Stubblefield, 67; Hilt's Law and the Volatile Contents of Coal Seams, F. M. Trotter, 68, O. T. Jones, 69; The Lizard-Start Problem, F. C. Phillips, 71.

### REVIEWS

pages 71-2

STEPHEN AUSTIN & SONS, LTD.  
1 FORE STREET, HERTFORD, HERTS

SUBSCRIPTION 30/- PER ANNUM

# GEOLOGICAL MAGAZINE

founded in 1864

by the late Dr. H. Woodward, F.R.S., with which  
is incorporated

## THE GEOLOGIST

(founded 1858)

---

Published every two months, price 30/- per annum  
(single numbers, 6/-).

---

Subscriptions for 1950, inquiries relating to back  
stock, advertising, etc., should be sent to Stephen  
Austin & Sons, Ltd., Fore Street, Hertford, Herts.

---

### Instructions to Contributors.

Articles submitted for publication in the *Geological Magazine* should be addressed to the Editors at the *Sedgwick Museum, Cambridge*, not to the Publishers.

Manuscripts should be typewritten, double-spaced, and preferably with a wide margin, and should be carefully revised; they should be as concise as possible, and in no case should an article exceed 10,000 words. MS. must be accompanied by a short abstract, 50–100 words. References should not be given in footnotes, but arranged in alphabetic order of author's names at the end of the article; the author's name should be followed by date of publication, and the title of each paper should be given in addition to volume and page numbers of the Journal, thus:—

LAPWORTH, C. 1878. The Moffat Series. *Quart. Journ. Geol. Soc.*, xxxiv, 240–343.

References should be cited in the text by author's name and date, with page reference if necessary, in brackets:—(Lapworth, 1878, p. 339).

Illustrations should be so drawn as to allow reduction to a maximum size of  $6\frac{1}{2} \times 3\frac{3}{4}$  inches (the type-area of the Magazine) and originals must not exceed  $40 \times 22$  inches. Map lettering should be such as to be clearly legible after reduction (equivalent to 5-point as a *minimum* on reduction), while lettering on text-figures should in general be left in pencil for printing.

Authors will receive 25 reprints free of cost.

THE  
GEOLOGICAL MAGAZINE

VOL. LXXXVII OF WHOLE SERIES

JANUARY-DECEMBER, 1950

# GEOLOGICAL MAGAZINE

with which is incorporated

## THE GEOLOGIST

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

Edited by

O. M. B. BULMAN, Ph.D. A.R.C.Sc., F.R.S.

and

S. R. NOCKOLDS, Ph.D.

*assisted by*

PROFESSOR W. S. BOULTON, D.Sc.  
PROFESSOR W. G. FEARNSIDES, M.A., F.R.S.  
PROFESSOR LEONARD HAWKES, D.Sc.  
PROFESSOR O. T. JONES, M.A., D.Sc., F.R.S.  
W. J. PUGH, O.B.E., D.Sc.  
PROFESSOR C. E. TILLEY, Ph.D., F.R.S.  
HENRY WOODS, M.A., F.R.S.

Vol. LXXXVII of Whole Series

JANUARY—DECEMBER, 1950

STEPHEN AUSTIN & SONS, LTD  
1 FORE STREET, HERTFORD, HERTS

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

# CONTENTS OF VOLUME LXXXVII, 1950

No. 1	JANUARY—FEBRUARY	PAGE
B. F. HOWELL and C. J. STUBBLEFIELD.	A Revision of the Fauna of the North Welsh <i>Conocoryphe viola</i> Beds implying a Lower Cambrian Age	1
H. WATSON.	A Note on Bathonian Gastropods Assigned to Fresh-water Genera	17
W. SUGDEN.	The Influence of Water Films adsorbed by Mineral Grains upon the Compaction of Natural Sediments and Notes on Allied Phenomena	26
G. WILSON.	An Experimental Synthesis of Quartz, Albite, and Analcite	41
E. M. PATTERSON.	Evidence of Fissure Eruption in the Tertiary Lava Plateau of North-East Ireland	45
F. E. EAMES.	On the Age of the Fauna of the Bugti Bone Beds, Baluchistan	53
G. P. LEEDAL and G. P. L. WALKER.	A Restudy of the Ingletonian Series of Yorkshire	57
CORRESPONDENCE.—Remarks on Dr. Lamont's Interpretation of Features in the Trilobite <i>Platycalymene</i> , 67; Hilt's Law and the Volatile Contents of Coal Seams, 68; The Lizard-Start Problem, 71.		
REVIEWS.—Physical Geology, 71; A Student's Introduction to Geology Mainly Physical, 71; Karroo Dolerites of the Union of South Africa, 72.		
No. 2	MARCH—APRIL	
OBITUARY—R. H. Rastall, 1871–1950		
L. F. SPATH.	The Study of Ammonites in Thin, Median Sections	73
R. W. CHAPMAN.	Contact Metamorphism at Maddocks Hill near Wellington, Shropshire	77
R. PERRIN and M. ROUBAULT.	Metamorphism of the Trias in the Alps	85
K. O. EMERY.	A Suggested Origin of Continental Slopes and of Submarine Canyons	89
J. R. F. JOYCE.	Stone Runs of the Falkland Islands	102
M. R. W. JOHNSON.	The Fauna of the Rhaetic Beds in South Nottinghamshire	105
M. S. SADASHIVAIAH.	Olivine-bearing and other Basic Hornfelses around the Insch Igneous Mass, Aberdeenshire	116
E. GREENLY.	The Tectonics of Holland Arms	121
C. D. WATERSTON.	Note on the Sandstone Injections of Eathie Haven, Cromarty	131
CORRESPONDENCE.—Investigation of the Torridonian, 139; Kent's Cavern, Torquay, 139; Pre-Cambrian Formations of India, 140; Oceanic Meanderings, 144.		
REVIEWS.—Introduction to College Geology, 146; Historical Geology 146; Outline of Historical Geology, 146; Geology for Engineers, 146; Probleme der Naturwissenschaften erläutert am Begriff der Mineralart, 147; Ore Genesis: A Metallurgical Interpretation, 147.		

No. 3	MAY-JUNE	
V. E. FUCHS. Pleistocene Events in the Baringo Basin, Kenya Colony		149
M. H. KHAN. Note on the Depth and Temperature of the Gault Sea as indicated by Foraminifera . . . . .		175
W. A. DEER. The Diorites and Associated Rocks of the Glen Tilt Complex, Perthshire. II. Diorites and Appinites. . . . .		181
F. M. TROTTER. The Devolatilization Equation for South Wales Coals		196
J. A. ROBBIE. The Chalk Rock at Winterborne Abbas, Dorset . . . . .		209
F. E. EAMES. The Position of the Laki Limestone in the Eocene Succession of Western Pakistan . . . . .		214
J. N. JENNINGS. The Origin of the Fenland Meres : Fenland Homologues of the Norfolk Broads . . . . .		217
CORRESPONDENCE.—Hilt's Law and the Volatile Contents of Coal Seams 225; <i>Coeloteuthis</i> and Synonymous Homonymy at Generic Level, 226; Pre-Cambrian Formations of India, 227; Bathonian <i>Viviparus</i> -like Gastropods, 228.		
REVIEWS.—Principles of Structural Geology, 232; International Geological Congress Report, 232.		

No. 4	JULY-AUGUST	
F. E. EAMES. On the Ages of Certain Upper Tertiary Beds of Peninsular India and Ceylon . . . . .		233
H. BARTENSTEIN. Micropalaeontological Research in European Upper Carboniferous Stratigraphy . . . . .		253
C. J. STUBBLEFIELD and W. EDWARDS. Marine Bands in the Coal Measures of Britain and Germany . . . . .		261
J. MYERS. Note on the Age of the Rocks on the East Side of Newport Bay, Pembrokeshire . . . . .		263
W. J. ARKELL. Two Early-named Valid Species of English Upper Jurassic Ammonites . . . . .		265
G. BOND. The Nomenclature of Lower Carboniferous " Reef " Limestones in the North of England . . . . .		267
H. G. MIDGLEY. An Upper Eocene Outlier at St. Ann's Hill, Chertsey		279
J. L. BEGG. New Trilobites from Girvan . . . . .		285
P. TASCH. Darwin and the forgotten Mr. Lonsdale . . . . .		292
W. T. HARRY. Basement Carboniferous in Upper Teesdale, N. Yorks		297
CORRESPONDENCE.—Cephalic Segmentation and Sutures in Trilobites, 300; <i>Platyharpes</i> Whittington, 1950, a Synonym of <i>Hibbertia</i> Jones and Woodward, 1898, 302; Chalk Rock of Dorset—More Evidence of Salt? 302; Synonymous Homonymy at Generic Level, 303.		
REVIEWS.—Stratigraphy and Paleontology of the Brownsport Formation (Silurian) of Western Tennessee, 303; Petrography of the Island of Hawaii, 304; An Index of Mineral Species and Varieties arranged Chemically, 304; Volcanological Observations, 304; Die Erzminerale und ihre verwachsungen, 304.		
ANNOUNCEMENT.—International Committee for the Study of Clays, 262.		

No. 5 SEPTEMBER—OCTOBER

H. H. WELLMAN. Depth of Burial of South Wales Coals . . . . .	305
R. W. FAIRBRIDGE. Pre-Cambrian Algal Limestone in Western Australia . . . . .	324
D. B. MCINTYRE. Note on Two Lineated Tectonites from Strathavon, Banffshire . . . . .	331
D. PARKINSON. Some Features of the Lower Carboniferous Reef Limestones of Clitheroe, Lancashire . . . . .	337
O. M. B. BULMAN. Rejuvenation in a Rhabdosome of <i>Dictyonema flabelliforme</i> . . . . .	351
L. KING. Speculations upon the Outline and the Mode of Disruption of Gondwanaland . . . . .	353
C. A. COTTON. Axes of Active Warping in the New Zealand Seismic Region . . . . .	360
B. C. KING. Some Large Felspar Augen from near Ilorin Town, Nigeria . . . . .	369
V. A. EYLES. The First National Geological Survey . . . . .	373
CORRESPONDENCE.—Floor of the English Channel, 383 ; Diorites and Appinites, 384.	

No. 6 NOVEMBER—DECEMBER

S. W. TROMP. The Age and Origin of the Red Sea Graben. . . . .	385
W. K. SPENCER. Asterozoa and the Study of Palaeozoic Faunas . . . . .	393
W. A. MACFADYEN. Sandy Gypsum Crystals from Berbera, British Somaliland . . . . .	409
G. M. PART. Occurrence of Nepheline-Monzonite and Allied Types in the Cape Verde Archipelago . . . . .	421
D. B. MCINTYRE. Note on Lineation, Boudinage, and Recumbent folds in the Struan Flags (Moine), near Dalnacardoch, Perthshire . . . . .	427
J. KOLBUSZEWSKI, L. NADOLSKI, and Z. DYDAKCI. Porosity of Wind-Deposited Sands . . . . .	433
J. E. PRENTICE. The Genus <i>Gigantella</i> Sarycheva . . . . .	436
CORRESPONDENCE.—Carboniferous Reef Limestones, 438 ; New "Species", 439 ; Supposed Fossil from the Charnian, 441 ; Zoological Nomenclature : Article 25, 442 ; Depth of Burial of S. Wales Coals, 444.	
REVIEWS.—Das Klima der Vorzeit : Ein Einführung in die Paläoklimatologie, 445 ; Applied Sedimentation, 446.	
INDEX.—447.	



As we go to press we regret to announce the death of Dr. R. H. RASTALL. An appreciation of his long service to the *Geological Magazine* will appear in the next issue.