# GEOLOGICAL MAGAZINE

Edited by

### O. M. B. BULMAN and S. R. NOCKOLDS

assisted by

PROFESSOR W. S. BOULTON
PROFESSOR W. G. FEARNSIDES
PROFESSOR W. J. Pugh
PROFESSOR LEONARD HAWKES
HENRY WOODS

#### CONTENTS

	PAGE
FUCHS, V. E. Pleistocene Events in the Baringo Basin, Kenya Colony	149
KHAN, M. H. Note on the Depth and Temperature of the Gault Sea as	
indicated by Foraminifera	175
DEER, W. A. The Diorites and Associated Rocks of the Glen Tilt	
Complex, Perthshire	181
TROTTER, F. M. The Devolatilization Equation for South Wales Coals	196
ROBBIE, J. A. The Chalk Rock at Winterborne Abbas, Dorset	209
EAMES, F. E. The Position of the Laki Limestone in the Eocene	
Succession of Western Pakistan	214
JENNINGS, J. N. The Origin of the Fenland Meres	217
CORRESPONDENCE	
Hilt's Law and the Volatile Contents of Coal Seams. H. WELLMAN .	225
Coeloteuthis and Synonymous Homonymy at Generic Level. L.	
BAIRSTOW	226
Pre-Cambrian Formations of India. A. Holmes	227
Bathonian Viviparus-like Gastropods. L. R. Cox and Teng-CHIEN YEN	228

#### REVIEWS

p. 232

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

#### 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, 7/6).

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  $6\frac{3}{4} \times 3\frac{3}{4}$  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
	L and C. J. STUBBLEFIELD. A Revision of the Fauna of the Welsh Conocoryphe viola Beds implying a Lower n Age	1
H. WATSON. water Ge		17
W. Sugden. Grains u		26
	An Experimental Synthesis of Quartz, Albite, and Analcite	41
E. M. PATTER	tson. Evidence of Fissure Eruption in the Tertiary Lava of North-East Ireland.	45
F. E. EAMES Baluchist	On the Age of the Fauna of the Bugti Bone Beds, an	53
	and G. P. L. WALKER. A Restudy of the Ingletonian Yorkshire	57
Corresponde Features	ENCE.—Remarks on Dr. Lamont's Interpretation of in the Trilobite <i>Platycalymene</i> , 67; Hilt's Law and the Contents of Coal Seams, 68; The Lizard-Start Problem,	
Reviews.—Pl Mainly 1 Africa, 7	nysical Geology, 71; A Student's Introduction to Geology Physical, 71; Karroo Dolerites of the Union of South 2.	
No. 2	March-April	
Obituary—R	. H. Rastall, 1871–1950	73
L. F. Spath.	The Study of Ammonites in Thin, Median Sections	77
R. W. CHAP	MAN. Contact Metamorphism at Maddocks Hill near on, Shropshire	85
_	d M. ROUBAULT. Metamorphism of the Trias in the Alps	89
	. A Suggested Origin of Continental Slopes and of Sub-	
marine C		102
J. R. F. Joyc	E. Stone Runs of the Falkland Islands	105
M. R. W. Joi	INSON. The Fauna of the Rhaetic Beds in South Notting-	
hamshire		116
	IVAIAH. Olivine-bearing and other Basic Hornfelses ne Insch Igneous Mass, Aberdeenshire	121
E. GREENLY.	The Tectonics of Holland Arms	131
C. D. WATER		
Cromarty	STON. Note on the Sandstone Injections of Eathie Haven,	133
Corresponde Cavern, ' Oceanic		133

No. 3 May-June	
V. E. Fuchs. Pleistocene Events in the Baringo Basin, Kenya Colony 1	49
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 1	96
J. A. ROBBIE. The Chalk Rock at Winterborne Abbas, Dorset 2	209
F. E. EAMES. The Position of the Laki Limestone in the Eocene Succession of Western Pakistan	214
-	217
Correspondence.—Hilt's Law and the Volatile Contents of Coal Seams 225; Coeloteuthis and Synonymous Homonymy at Generic Level, 226; Pre-Cambrian Formations of India, 227; Bathonian Viviparus-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
**	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 2	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 Erzmineralien und ihre verwachsungen, 304.	
Announcement.—International Committee for the Study of Clays, 262.	

Contents	vii
No. 5 September-October	
I. H. WELLMAN. Depth of Burial of South Wales Coals.  I. W. FAIRBRIDGE. Pre-Cambrian Algal Limestone in Western Australia	305 324
Banffshire	331
D. PARKINSON. Some Features of the Lower Carboniferous Reef Limestones of Clitheroe, Lancashire	337
D. M. B. BULMAN. Rejuvenation in a Rhabdosome of Dictyonema flabelliforme.	351
KING. Speculations upon the Outline and the Mode of Disruption of Gondwanaland	353
Region	360
. C. King. Some Large Felspar Augen from near Ilorin Town, Nigeria	369
A. EYLES. The First National Geological Survey	373
No. 6 November–December	
W. TROMP. The Age and Origin of the Red Sea Graben	385 393
7. 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
Kolbuszewski, L. Nadolski, and Z. Dydacki. Porosity of Wind- Deposited Sands	433
E. Prentice. The Genus Gigantella 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.	

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.