

THE
GEOLOGICAL MAGAZINE

VOL. LXXVII OF WHOLE SERIES
JANUARY-DECEMBER, 1940

GEOLOGICAL MAGAZINE

with which is incorporated

THE GEOLOGIST

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

Edited by

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

and

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

assisted by

PROFESSOR W. S. BOULTON, D.Sc. PROFESSOR C. E. TILLEY, Ph.D., F.R.S.

PROFESSOR W. G. FEARN SIDES, M.A., PROFESSOR W. W. WATTS, Sc.D., LL.D.,
F.R.S. M.Sc., F.R.S.

SIR THOMAS H. HOLLAND, K.C.S.I., HENRY WOODS, M.A., F.R.S.
D.Sc., F.R.S.

PROFESSOR O. T. JONES, M.A., D.Sc., SIR A. SMITH WOODWARD, LL.D.,
F.R.S. F.R.S.

Vol. LXXVII of Whole Series

JANUARY—DECEMBER, 1940

STEPHEN AUSTIN & SONS, LTD

1 FORE STREET, HERTFORD, HERTS

HERTFORD
STEPHEN AUSTIN AND SONS, LTD.

CONTENTS OF VOLUME LXXVII, 1940

No. 1.	JANUARY—FEBRUARY	PAGE
Guy E. PILGRIM.	The application of the European Time Scale to the Upper Tertiary of North America	1
A. E. TRUEMAN.	The Lamellibranch Zones of the South Staffordshire Coalfield	28
W. J. ARKELL.	Fossils from the Fuller's Earth of the Weymouth Anticline	42
E. GREENLY.	Studies in the Mona Complex	50
S. I. TOMKEIEFF.	Dolerite Plugs in Antrim	54
T. STANLEY WESTOLL.	New Scottish Material of Eusthenopteron	65
J. C. GRIFFITHS and ALAN STUART.	An Occurrence of Detrital Diaspore in South Wales	74
REVIEW.—Internal Constitution of the Earth, 77.		
ANNOUNCEMENT, 79.		
REPORTS AND PROCEEDINGS, 79.		

No. 2.	MARCH—APRIL	PAGE
Editorial		81
K. HARRISON and A. D. THACKERAY.	On the Direction of Certain Valleys	82
ARTHUR HOLMES.	Basaltic Lavas of South Kivu, Belgian Congo	89
A. BRAMMALL and J. G. C. LEECH, in collaboration with W. J. DUNSTALL.	Montmorillonite in Fuller's Earth, Nutfield, Surrey	102
N. L. SHARMA.	The Petrology of the Government Reserve Forest, Kodarma, Bihar (India)	113
R. W. JOHNSTON and C. E. TILLEY.	On Fluoborite from Selibin, Malaya	141
H. G. HIGGINS and DOROTHY CARROLL.	Mineralogy of Some Permian Sediments from Western Australia	145
MURIEL A. ARBER.	The Relation of the Valves to the Pedicle in the Strophomenid Brachiopods	161
REVIEWS.—Report upon the Mining Industry of Malaya, 175 ; Earthquakes and other Earth Movements, 176.		

No. 3.

MAY-JUNE

	PAGE
R. H. RASTALL and J. E. HEMINGWAY. The Yorkshire Dogger. I. The Coastal Region	177
H. G. DINES, S. E. HOLLINGWORTH, WILFRID EDWARDS, S. BUCHAN, and F. B. A. WELCH. The Mapping of Head Deposits	198
G. M. LEES and F. D. S. RICHARDSON. The Geology of the Oil-field Belt of S.W. Iran and Iraq	227
CORRESPONDENCE.—L. M. Davies, 252 ; F. A. H. W. De Marez Oyens, 253.	
REVIEWS.—The Birth and Development of the Geological Sciences, 254 ; The Petrology of the Skaergaard Intrusion, 255.	

No. 4

JULY-AUGUST

R. H. RASTALL and J. E. HEMINGWAY. The Yorkshire Dogger. I. The Coastal Region (<i>concl'd.</i>)	257
W. A. MACFADYEN. Foraminifera in Boulder Clays from the Wexford Coast of Ireland (with a note on the generic name <i>Streblus</i> Fischer)	276
G. L. ELLES. Graptogonophores	283
K. P. OAKLEY. The Organic Content of Recent Rhyolitic Ashes in Malaya	289
J. L. BEGG. A Note on the Genera <i>Staurocephalus</i> and <i>Sphaerocoryphe</i> , with the Description of a New Species of <i>Sphaerocoryphe</i>	295
D. W. BISHOPP. Some problems of Geomorphology and Continental Relationships in British Guiana	305
J. A. DOUGLAS. The Genus <i>Mentzelia</i> Quenstedt, and its affinities to other members of the Subfamily Martiniinae Waagen	330

CORRESPONDENCE.—H. G. Dines, 334.

REVIEWS.—Contributions to the Geography of Egypt, 334 ; Geomorphology : An Introduction to the Study of Landscapes, 335.

No. 5.

SEPTEMBER-OCTOBER

H. M. SALE and P. EVANS. The Geology of British Oil-fields. I. The Geology of the Assam-Arakan Oil Region (India and Burma)	337
REX T. PRIDER. Cordierite-Anthophyllite Rocks Associated with Spinel-Hypersthenites from Toodyay, Western Australia	364

	PAGE
W. H. BARRETT. The Composition and Properties of Shore and Dune Sands.	383
ALEX. L. DU TOIT. An Hypothesis of Submarine Canyons	395
O. T. JONES. Some Lower Palaeozoic Contacts in Pem- brokeshire	405
L. M. DAVIES. Note on Three Himalayan Rivers	410

CORRESPONDENCE.—H. G. Busk, 413.

REVIEWS.—The Principles of Economic Geology, 415 ; Geology for South African Students, 415.

No. 6. NOVEMBER—DECEMBER

Editorial	417
DOROTHEA M. A. BATE. The Fossil Antelopes of Palestine in Natufian (Mesolithic) Times, with Descriptions of New Species	418
G. M. STOCKLEY. The Geology of Basutoland	444
DORIS L. REYNOLDS. Contact Metamorphism by a Tertiary Dyke at Waterfoot, Co. Antrim	461
J. G. C. ANDERSON. Glacial Drifts near Roslin, Midlothian	470
F. R. COWPER REED. Notes on a large Spiriferoid from the Southern Shan States	474
W. F. WHITTARD and J. E. SISSON. Phenol Formaldehyde Resin as a Casting Material	478

CORRESPONDENCE.—E. S. Pinfold, 481.

REVIEW.—British Hills and Mountains, 484.

INDEX.—485