

THE
GEOLOGICAL MAGAZINE.

VOL. LXXV OF WHOLE SERIES.

JANUARY—DECEMBER, 1938.

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, M.A., Sc.D.

AND
O. M. B. BULMAN, A.R.C.Sc., Sc.D.

ASSISTED BY
PROFESSOR W. S. BOULTON, D.Sc.
PROFESSOR W. G. FEARNSIDES, M.A., F.R.S.
SIR T. H. HOLLAND, K.C.S.I., D.Sc., F.R.S.
PROFESSOR O. T. JONES, M.A., D.Sc., F.R.S.
PROFESSOR C. E. TILLEY, Ph.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. LXXV OF WHOLE SERIES.
JANUARY—DECEMBER, 1938.

LONDON:
DULAU & CO., LTD.,
29 DOVER STREET, W. 1.
1938.

HERTFORD
STEPHEN AUSTIN AND SONS, LTD.

CONTENTS OF VOLUME LXXV, 1938

No. 883.	JANUARY.	PAGE
C. T. TRECHMANN. Quaternary Conditions in Malta (Plates I and II)		1
J. A. STEERS. The Rate of Sedimentation on Salt Marshes on Scolt Head Island, Norfolk		26
L. R. WAGER and W. A. DEER. A Dyke Swarm and Crustal Flexure in East Greenland		39
CORRESPONDENCE.—C. I. Gardiner and S. H. Reynolds, 46; W. Edwards, 46.		
REPORTS AND PROCEEDINGS.—Mineralogical Society, 47.		
ANNOUNCEMENT.—Clough Memorial Research Fund, 48.		
No. 884.	FEBRUARY.	
R. WRIGHT BARKER. On <i>Camerina petri</i> M. G. Rutten and <i>Nummulites striatoreticulatus</i> L. Rutten (Plate III)		49
D. L. REYNOLDS. Transfusion Phenomena in Lamprophyre Dykes and their bearing on Petrogenesis		51
C. E. TILLEY. Cumingtonite-bearing Rocks from the Lewisian		76
C. E. TILLEY. Aluminous Pyroxenes in Metamorphosed Limestones, with Chemical Analyses by H. C. G. VINCENT		81
REVIEWS.—Pioneers in South African Geology and their Work, 86; Geology of South-Western Ecuador, 87; Atomic Structure of Minerals, 88; Evolution of the Continents, 89; Palaeogeography and Tectonics, 89; Heerlen Congress on Carboniferous Stratigraphy, 90; Geology of Egypt, 91.		
CORRESPONDENCE.—E. M. Anderson, 95; W. J. Arkell, 96.		
No. 885.	MARCH.	
S. H. REYNOLDS. A Section of Rhaetic and Associated Strata at Chipping Sodbury, Glos. (Plate IV)		97
J. KEIDEL and H. J. HARRINGTON. On the Discovery of Lower Carboniferous Tillites in the Precordillera of San Juan, Western Argentina (Plates V, VI)		103
F. C. PHILLIPS. Mineral Orientation in some Olivine-rich Rocks from Rum and Skye		130
M. STEWART. Notes on the Geology of Sule Stack, Orkney		135
REVIEWS.—Guide to the Assynt District, 140; Sand Samples from the South Coast of Greenland, 141.		
CORRESPONDENCE.—W. J. Jongmans, 141; S. Melmore, 141; F. W. Cope, 142; G. M. Lees, 143.		
ANNOUNCEMENT.—Petroleum Technologists' Conference, 144.		

No. 886.	APRIL.	PAGE
C. KOOMANS and Ph. H. KUENEN. On the Differentiation of the Glen More Ring-Dyke, Mull		145
F. J. TURNER. Progressive Regional Metamorphism in Southern New Zealand		160
W. A. DEER. The Diorites and Associated Rocks of the Glen Tilt Complex, Perthshire		174
REVIEWS.—Evolution and Modern Critics, 184; Regional Geology, Africa, 185.		
REPORTS AND PROCEEDINGS.—Mineralogical Society, 187.		
CORRESPONDENCE.—E. B. Bailey, 188; A. L. du Toit, 189; K. C. Dunham, 189; J. Weir and D. Leitch, 191.		

No. 887.	MAY.	
G. WILSON. The Evolution of the Granodioritic Rocks of the South-Eastern End of the Kopaonik Batholith, Yugoslavia		193
J. H. TAYLOR. The Contact Zone of Sheep Creek, Little Belt Mountains, Montana		219
F. R. S. HENSON. Stratigraphical Correlation by Small Foraminifera in Palestine and Adjoining Countries		227
L. F. SPATH. Problems of Ammonite Nomenclature, I: On the Type of the Ammonite Genus <i>Mortoniceras</i> , Meek		234
REVIEWS.—Landslides and related Phenomena, 236; Advances in Palaeontology, 236.		
CORRESPONDENCE.—R. G. Carruthers, 237; L. F. Spath, 238; R. B. S. Sewell and J. D. H. Wiseman, 239.		

No. 888.	JUNE.	
Ph. H. KUENEN. Density Currents in connection with the Problem of Submarine Canyons		241
W. V. LEWIS. A Melt-Water Hypothesis of Cirque Formation (Plate VII)		249
J. WRIGHT. Some British <i>Platycrinidae</i> and Descriptions of New Species (Plates VIII–XI)		266
REVIEW.—Ground Water, 288.		
ANNOUNCEMENT.—Association for Study of Snow and Ice, 288.		

No. 889.	JULY.	
L. HAWKES. The Age of the Rocks and Topography of Middle Northern Iceland		289
E. S. HILLS. Andalusite and Sillimanite in Uncontaminated Igneous Rocks		296
J. B. SCRIVENOR. Notes on the Geology of the Lizard Peninsula, I: Some Mullion Rocks		304

	PAGE
J. A. MOY-THOMAS. Carboniferous Palaeoniscids from Northumberland and Berwickshire (Plate XII)	308
ERRATUM. F. R. S. Henson	318
REVIEWS.—Our Wandering Continents, 319; Geological History of the East Indies, 323; Pacific Magma Types of the Soenda Mountain System, 323; Petrology of the Sedimentary Rocks, revised, 324; Scenery of England and Wales, 325; Federated Malay States Report, 326; Geology of Santa Catharina (Brazil), 327; Genesis of the Jotnian Sediments, 328.	
REPORTS AND PROCEEDINGS.—Mineralogical Society, 329.	
CORRESPONDENCE.—S. E. Hollingworth, 330; W. J. Arkell, 333, 334; L. F. Spath, 335; G. W. Tyrell, 336.	

No. 890. AUGUST.

J. WRIGHT. <i>Anemetocrinus</i> N.G. A Five-armed Poteriocrinid from the Lower Carboniferous Limestones of Scotland (Plates XIII and XIV)	337
R. CROOKALL. On Floral Subdivisions in the Yorkian Stage in South Wales	346
J. SHIRLEY. Some Aspects of the Siluro-Devonian Boundary Problem	353
L. F. SPATH. Problems of Ammonite Nomenclature, II: Schlotheim's Types of <i>Ammonites capricornus</i>	362
A. W. WOODLAND. Petrological Studies in the Harlech Grit Series of Merionethshire, I: Metamorphic Changes in the Mudstones of the Manganese Shale Group	366
REVIEW.—Geology of the Oilfield Belt of Iran and Iraq, 382.	
CORRESPONDENCE.—W. J. Arkell, 384.	

No. 891. SEPTEMBER.

J. B. SCRIVENOR. Notes on the Geology of the Lizard Peninsula, II: The Primary Hornblende-schists and Gneisses (The Lizard Hornblende-schists) (Plate XV)	385
D. F. W. BADEN-POWELL. On the Glacial and Interglacial Marine Beds of Northern Lewis	395
W. A. MACFADYEN. Post-glacial Foraminifera from the English Fenlands	409
A. K. WELLS. The Grain-size Factor in Classification of Igneous Rocks	417
G. M. STOCKLEY. The Ifume Conglomerate, Tanganyika Territory	422
C. G. DIXON. The Geology of the Fintry, Gargunnoch, and Touch Hills	425
CORRESPONDENCE.—R. G. Lewis, 432.	

No. 892. OCTOBER.

R. H. RASTALL. On Brookite Crystals in the Dogger	433
A. W. WOODLAND. Petrological Studies in the Harlech Grit Series of Merionethshire, II: The Petrography and Petrology of some of the Grits	440

	PAGE
M. I. PLATT. A New Species of <i>Temnocheilus</i> McCoy from Holy Island, Northumberland (Plate XVI)	454
A. E. TRUMAN. On certain <i>Anthracomyas</i> from the Similis-Pulchra Zone of the Coal Measures	459
S. R. NOCKOLDS. Contributions to the Petrology of Barnavave, Carlingford, I.F.S., III: On some Hybrids from the E. and S.E. Slopes of Barnavave Mountain	469
REVIEW.—Descriptive Petrography of the Igneous Rocks, 479.	

No. 893. NOVEMBER.

M. MACGREGOR. The Evolution of the Criffell-Dalbeattie Quartz-diorite: A Study of Granitization	481
C. E. TILLEY. The Status of Hornblende in Low Grade Metamorphic Zones of Green Schists	497
R. G. S. HUDSON. An Exploratory Boring in the Lower Carboniferous of the Skipton Anticline	512
J. B. SCRIVENOR. Notes on the Geology of the Lizard Peninsula, III: The Epidote Bands, Lenticles, and Veins	515
REVIEWS.—Introduction to Geology, 526; Geological Map of the Alps, 527; Glaciation of Karakorum, 527; Granites of São Paulo, 527.	
ANNOUNCEMENT.—International Union of Geodesy and Geophysics, 528.	
CORRESPONDENCE.—W. Campbell Smith, 528.	

No. 894. DECEMBER.

A. W. WOODLAND. Some Petrological Studies in the Harlech Grit Series of Merionethshire. III. The Development of Pyrite in the Grits and Mudstones	529
O. M. B. BULMAN. The Proximal End of <i>Cryptograptus</i>	539
L. F. SPATH. Problems of Ammonite Nomenclature, 3. On <i>Ammonites varians</i> J. Sowerby	543
T. DEANS. Igneous Rocks from the Abercorn and Kasama Districts, Northern Rhodesia	547
REVIEW.—Geological Survey Memoir, Shrewsbury, 559.	
CORRESPONDENCE.—P. Allen, 560.	
REPORTS AND PROCEEDINGS.—Mineralogical Society, 561.	

INDEX.—563.