

# 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 and O. M. B. BULMAN

*assisted by*

PROFESSOR W. S. BOULTON

PROFESSOR O. T. JONES

PROFESSOR W. G. FEARNSIDES

PROFESSOR W. J. PUGH

LEONARD HAWKES

PROFESSOR C. E. TILLEY

HENRY WOODS



JULY-AUGUST, 1948



Vol. LXXXV of Whole Series. No. 4

*Published August, 1948*

Subscription

30/- per annum

STEPHEN AUSTIN & SONS, LTD.

1 FORE STREET, HERTFORD, HERTS

LIBRARY

# CONTENTS

|   | PAGE |
|---|------|
| SYLVESTER-BRADLEY, P. C. Bathonian Ostracods from the Boueti Bed of Langton Herring, Dorset . . . . .             | 185  |
| KING, W. B. R., and WILLIAMS, ALWYN. On the Lower Part of the Ashgillian Series in the North of England . . . . . | 205  |
| TILLEY, C. E. Dolomite Contact Skarns of the Broadford Area, Skye : A Preliminary Note . . . . .                  | 213  |
| MCLAREN, D. J., and MILLER, T. G. Notes on the Geology of Killary Harbour . . . . .                               | 217  |
| BULMAN, O. M. B. Some Shropshire Ordovician Graptolites . . . . .   | 222  |
| KENNEDY, W. Q. On the Significance of Thermal Structure in the Scottish Highlands . . . . .                       | 229  |
| ALLEN, P. Petrology of a Wealden Sandstone at Clock House, Capel, Surrey . . . . .                                | 235  |

## CORRESPONDENCE

|   |     |
|---|-----|
| The Charnian System. A. MORLEY DAVIES . . . . .                           | 241 |
| Use of the National Grid. P. EVANS . . . . .                              | 242 |
| Younger Tectonics and Erosion in Western Australia. C. TEICHERT . . . . . | 243 |
| Bathonella and Viviparus. W. ARKELL . . . . .                             | 247 |
| A New Geological Department. GEOFFREY BOND . . . . .                      | 248 |

## REVIEWS

|  |     |
|--|-----|
| Two Problems of Marine Geology : Atolls and Canyons . . . . .        | 248 |
| British Regional Geology : East Yorkshire and Lincolnshire . . . . . | 249 |
| An Outline of the Geological History of Southern Rhodesia . . . . .  | 251 |
| Ore Genesis of Queensland . . . . .                                  | 252 |

## PLATES

|  |                      |
|--|----------------------|
| XII-XV. Bathonian Ostracods . . . . .                  | <i>facing p.</i> 204 |
| XVI. Fossils from the Calymene Beds, Cautley . . . . . | ,, 212               |

# 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, Ph.D. A.R.C.Sc., F.R.S.

*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.  
PROFESSOR W. J. PUGH, O.B.E., D.Sc.  
PROFESSOR G. E. TILLEY, Ph.D., F.R.S.  
HENRY WOODS, M.A., F.R.S.

Vol. LXXXV of Whole Series

JANUARY—DECEMBER, 1948

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

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

# CONTENTS OF VOLUME LXXXV, 1948

| No. 1   | JANUARY-FEBRUARY | PAGE |
|---|------------------|------|
| HSING-YUAN MA. On the Occurrence of Agmatite in the Rogart Migmatite Area, Sutherland : A Study in Granitization  |                  | 1    |
| W. G. AITKEN and W. S. MCKERROW. Rhynchonellids of the Boueti Bed of the Great Oolite Series of Langton Herring, Dorset : A Study in Variation  |                  | 19   |
| ALAN WOOD. An Excavation revealing the junction between Ingletonian and Coniston Limestone at Ingleton.   |                  | 33   |
| GEOFFREY BOND. Outgrowths on Zircon from Southern Rhodesia  |                  | 35   |
| H. B. S. COOKE. The Plio-Pleistocene Boundary and Mammalian Correlation   |                  | 41   |
| JAMES WRIGHT. <i>Scytalocrinus seafieldensis</i> sp. nov. and a rare <i>Ureocrinus</i> from the Carboniferous Limestones of Fife; with Notes on a Blastoid and Two Crinoids from the Carboniferous Limestones of the Clitheroe area   |                  | 48   |
| CORRESPONDENCE.—The Age of the Highland Schists, 53; Query as to the Tempo of Australian Denudation, 54; Tectonic History of the Malverns, 56.  |                  |      |
| REVIEWS.—The Mineral Resources of Tanganyika Territory, 58; The Geology of the Country around Witney, 59; Oxford Stone, 60; Medieval Castles in North Wales, 61; The Formation of the Continents by Convection, 62; Glacial Geology and the Pleistocene Epoch, 63; Geology and Mineral Deposits of the Little Bay Area, 64. |                  |      |
| No. 2   | MARCH-APRIL      |      |
| ALWYN WILLIAMS. The Lower Ordovician Cryptolithids of the Llandeilo District  |                  | 65   |
| J. G. C. ANDERSON. Stratigraphical Nomenclature of Scottish Metamorphic Rocks   |                  | 89   |
| H. C. WANG. Notes on Some Rugose Corals in the Gray Collection, from Girvan, Scotland   |                  | 97   |
| JOHN CHALLINOR. New Evidence Concerning the Original Order of Deposition of the Longmyndian Rocks   |                  | 107  |
| W. DAVID EVANS. The Cambrian-Ordovician Junction, Whitesand Bay, Pembrokeshire  |                  | 110  |
| HARRELL L. STRIMPLE. <i>Perimistocrinus</i> from the Dewey Limestone Formation, Oklahoma  |                  | 113  |
| ANNOUNCEMENT.—X-ray Crystallography Summer School   |                  | 116  |
| REVIEWS.—Organic Evolution, 117; Malayan Union. Report of the Geological Survey Department for the Year 1946, 117; Geology of the Ancient Rocks of Charnwood Forest, 118; Geology of the Highwood-Elbow Area, Alberta, 119; The Birth of Paricutin, 120; The Mineral Key, 120.  |                  |      |
| No. 3   | MAY-JUNE         |      |
| DOROTHY HILL. The Distribution and Sequence of Carboniferous Coral Faunas.  |                  | 121  |
| JANET WATSON. Late Sillimanite in the Migmatites of Kildonan, Sutherland  |                  | 149  |
| J. A. STEERS. Twelve Years' Measurement of Accretion on Norfolk Salt Marshes  |                  | 163  |
| TENG-CHIEN YEN. On Some Bathonian Mollusca from Skye  |                  | 167  |
| CORRESPONDENCE.—Present-day Volcanicity and Climatic Change, 172; <i>Rhynchonella boueti</i> , 176; Causes of Ice Age, 178; Longmyndian Stratigraphy, 181.  |                  |      |
| ANNOUNCEMENT.—The Ordnance Survey 2½-inch Map, 183.   |                  |      |

| No. 4   | JULY—AUGUST       | PAGE |
|---|-------------------|------|
| P. C. SYLVESTER-BRADLEY. Bathonian Ostracods from the Boueti Bed of Langton Herring, Dorset   |                   | 185  |
| W. B. R. KING and ALWYN WILLIAMS. On the Lower Part of the Ashgillian Series in the North of England.   |                   | 205  |
| C. E. TILLEY. Dolomite Contact Skarns of the Broadford Area, Skye   |                   | 213  |
| D. J. McLAREN and T. G. MILLER. Notes on the Geology of Killary Harbour   |                   | 217  |
| O. M. B. BULMAN. Some Shropshire Ordovician Graptolites   |                   | 222  |
| W. Q. KENNEDY. On the Significance of Thermal Structure in the Scottish Highlands   |                   | 229  |
| P. ALLEN. Petrology of a Wealden Sandstone at Clock House, Capel, Surrey  |                   | 235  |
| CORRESPONDENCE.—The Charnian System, 241; Use of the National Grid, 242; Younger Tectonics and Erosion in Western Australia, 243; <i>Bathonella</i> and <i>Viviparus</i> , 247; A New Geological Department, 248.                 |                   |      |
| REVIEWS.—Two Problems of Marine Geology: Atolls and Canyons, 248; British Regional Geology. East Yorkshire and Lincolnshire, 249; An Outline of the Geological History of Southern Rhodesia, 251; Ore Genesis of Queensland, 252. |                   |      |
| No. 5   | SEPTEMBER—OCTOBER |      |
| P. E. KENT. A Deep Borehole at Formby, Lancashire   |                   | 253  |
| A. G. MACGREGOR. Resemblance between Moine and "Sub-Moine" Metamorphic Sediments in the Western Highlands of Scotland   |                   | 265  |
| ISLES STRACHAN, JOHN TEMPLE, and ALWYN WILLIAMS. The Age of the Neptunian Dyke at Hazler Hill   |                   | 276  |
| D. F. W. BADEN-POWELL. The Chalky Boulder Clays of Norfolk and Suffolk  |                   | 279  |
| C. T. TRECHMANN. Some Puzzling Features of Alpine and West Indian Metamorphic Rocks   |                   | 297  |
| GEOFFREY BOND. The Direction of Origin of the Kalahari Sand of Southern Rhodesia  |                   | 305  |
| CORRESPONDENCE.— <i>Bathonella</i> and <i>Viviparus</i> , 313; The Variation of <i>Rhynchonella boueti</i> , 316; The Range of <i>Thysanophyllum pseudo-vermiculare</i> (M'Coy), 316.   |                   |      |
| No. 6   | NOVEMBER—DECEMBER |      |
| J. B. SCRIVENOR. The New Red Sandstone of South Devonshire  |                   | 317  |
| O. T. JONES. On the so-called Metamorphism of the Trias in the Alps   |                   | 333  |
| JURIJ A. JELETZKY. Sowerby's and Sharpe's <i>Belemnites lanceolatus</i> and their relation to <i>Belemnites lanceolatus</i> Schlotheim, 1813  |                   | 338  |
| M. K. WELLS and A. K. WELLS. On Magma-Types and their Nomenclature  |                   | 349  |
| R. M. SHACKLETON. Overturned Rhythmic Banding in the Huntly Gabbro of Aberdeenshire   |                   | 358  |
| A. J. BUTLER. The Eighteenth Session of the International Geological Congress, Great Britain, 1948  |                   | 361  |
| CORRESPONDENCE.—A Geological 2½-inch Map, 366; Glacial Sections in the Welsh Borderland, 366; <i>Bathonella</i> and <i>Viviparus</i> , 367; Bathonian Ammonites, 367; East Anglian Drifts, 367.                                   |                   |      |
| REVIEWS.—Igneous Rocks and Minerals, 369; Report on the Geology of Basutoland, 369; The Permo-Triassic Formations, a World-Review, 370; Rocks and Rock Minerals, 370.   |                   |      |
| INDEX.—371.   |                   |      |