

Proceedings of the
CAMBRIDGE PHILOSOPHICAL
SOCIETY

VOLUME 49

PART 1

CAMBRIDGE UNIVERSITY PRESS

LONDON: BENTLEY HOUSE, N.W.1

NEW YORK: 32 EAST 57TH STREET, 22

Price Thirty Shillings Net

Subscription price per volume £5 net post free (\$16.75 in U.S.A.)

January 1953

CAMBRIDGE PHILOSOPHICAL SOCIETY

FOUNDED 1819; ROYAL CHARTER 1832

Session 1952-1953

President: H. J. EMELÉUS

Vice-Presidents: F. L. ENGLDOW, W. B. R. KING, H. W. PHEAR

Treasurer: M. V. WILKES

Secretaries: (Mathematical) D. R. TAUNT

(Physical) A. B. PIPPARD

(Biological) S. SMITH

The publications of the Society consist of the *Proceedings* and of the *Biological Reviews*. The publication of *Transactions* was suspended at the end of Volume XXII.

Orders should be sent to: THE MANAGER, CAMBRIDGE UNIVERSITY PRESS, BENTLEY HOUSE, 200 EUSTON ROAD, LONDON, N.W. 1. Enquiries from the U.S.A. should be addressed to the Cambridge University Press, American Branch, 32 East 57th Street, New York 22, U.S.A.

For the purchase of early parts of the *Transactions* and *Proceedings* application should be made to the Secretaries. The current price for these early parts is the original selling price, plus 50%.

Fellows and Associates of the Society are particularly requested to inform the Secretaries of any change of postal address, and to send their subscriptions to the Treasurer, CAMBRIDGE PHILOSOPHICAL SOCIETY, FREE SCHOOL LANE, CAMBRIDGE.

PROCEEDINGS of the CAMBRIDGE PHILOSOPHICAL SOCIETY

edited by

F. J. ANSCOMBE

C. B. HASELGROVE

D. R. TAUNT

in consultation with

D. R. HARTREE

W. V. D. HODGE

N. KEMMER

A. B. PIPPARD

F. SMITHIES

D. H. WILKINSON

1. Four parts of the *Proceedings* are issued each year.
2. Communications for the *Proceedings* should be sent to *The Librarian, Cambridge Philosophical Society, Free School Lane, Cambridge*. Papers by Fellows and Associates of the Society should be communicated directly by the author. Other papers must be communicated by a Fellow, who in doing so should give his opinion on the suitability of the paper for publication.
3. Papers occupying more than twenty pages of print can only very rarely be accepted.
4. It is recommended that each paper be prefaced by a short abstract. Copies of a *Guide for the Preparation of Synopses*, prepared by the Abstracting Services Consultative Committee and issued by the Royal Society, may be obtained from the Librarian.
5. Drawings for illustrations and diagrams should be on a large scale and on smooth white Bristol board in Indian ink.
6. References should be listed at the end of each paper, in alphabetical order of authors. World List abbreviations for titles of journals should be used.
7. Authors are particularly requested to prepare their manuscripts in a form suitable for printing. A pamphlet on the preparation of papers may be obtained from the Librarian. If a large number of corrections are required in the proofs, the Council reserves the right to make a charge towards the cost.
8. Authors may receive, on request, fifty offprints of a paper in the *Proceedings* without charge.