VOL. 15 (SERIES II), PART 4

PROCEEDINGS

OF THE

EDINBURGH MATHEMATICAL SOCIETY

CONTENTS

s. MC DONAGH: An estimate for trigonometrical sums over square-free integers with a constant number of prime factors	page 249
D. B. HUNTER: On a result in Young's quantitative substitutional analysis	page 257
P. CHADWICK AND G. E. TUPHOLME: Generation of an acoustic pulse by a baffled circular piston	page 263
R. M. SHARMA: On the absolute summability by Borel's integral method of the derived Fourier series and its conjugate series	page 279
E. F. HARDING: The number of partitions of a set of N points in k dimensions induced by hyperplanes	page 285
P. HOLGATE: Jordan algebras arising in population genetics	page 291
SUNDAY O. IYAHEN: Some remarks on countably barrelled and countably quasibarrelled spaces	page 295
R. J. M. CROZIER AND S. C. HUNTER: The normal vibrations of a rigid spherical punch on the surface of an elastic half-space	page 297
BRUCE C. BERNDT: Generalised Dirichlet series and Hecke's functional equation	page 309
J. K. KNOWLES: The Dirichlet problem for a thin rectangle	page 315
BOOK REVIEWS	page 321

OLIVER AND BOYD EDINBURGH: TWEEDDALE COURT LONDON: 39A WELBECK STREET, W.1

THE EDINBURGH MATHEMATICAL SOCIETY

The Edinburgh Mathematical Society was instituted in 1883 for the promotion and extension of Mathematical Science—Pure and Applied.

Candidates for membership are nominated at one Ordinary Meeting of the Society and the candidature is voted upon at the next, a majority of at least two-thirds of the members present being necessary for election. Ordinary Members pay subscriptions to the funds of the Society at the times and of the amounts specified in the Rules. Members whose subscriptions are not in arrears receive free of charge one copy of each of the Society's publications. Additional copies and back numbers—as far as these are in print—are charged at a discount on the published price. Further information regarding membership may be obtained from the Secretary.

PROCEEDINGS OF THE EDINBURGH MATHEMATICAL SOCIETY AND THE EDINBURGH MATHEMATICAL NOTES

The Society publishes the Proceedings of the Edinburgh Mathematical Society which contains papers embodying the results of research that is original in matter or manner. Members of the Society may submit papers for consideration with regard to publication; papers from non-members can be communicated by a member. Manuscripts of papers received cannot be accepted if not in a form suitable for submitting to the printer. Authors are advised to retain a copy of anything they may send for publication as the Society cannot accept responsibility for any loss. Manuscripts of papers for publication should be sent in the first instance to the Secretary.

Series I of the Proceedings consists of forty-four volumes published from 1886 to 1926. Series II consists of fifteen complete volumes to date.

The Proceedings are published in parts and issued twice yearly. Four parts complete a volume of approximately 200 pages, and the Title Pages and Index are published in part 4 of each volume.

The prepaid subscription per volume is 90s. (U.S.A. and Canada \$15.00) post free. Single parts 22s. 6d. (U.S.A. and Canada \$3.75) net. Orders, and requests for prices and availability lists of in-print back numbers, should be addressed to the publishers,

> Oliver and Boyd Tweeddale Court 14 High Street Edinburgh 1

The Secretary will be pleased to receive gifts of back numbers of the Proceedings as certain of these are scarce and there is a demand from libraries for them.

All communications concerning the Library should be addressed to

The Librarian The Edinburgh Mathematical Society 20 Chambers Street Edinburgh 1

All other communications should be addressed to The Secretary The Edinburgh Mathematical Society 20 Chambers Street Edinburgh 1