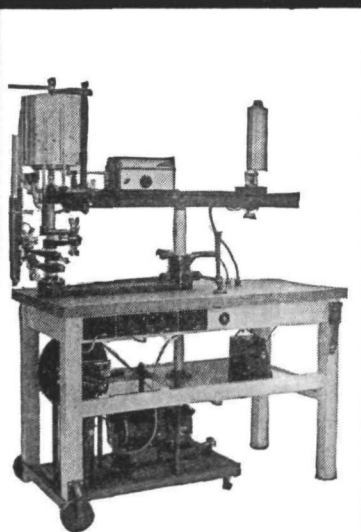


PALMER

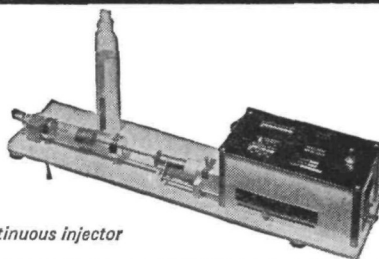
top name for physiology and pharmacology apparatus

Known and used in physiology and pharmacology laboratories all over the world, C. F. Palmer equipment has a long-standing reputation for quality, reliability and precision. New products are continually under development, and as a member of the Baird & Tatlock Group, C. F. Palmer have extensive research and development facilities at their disposal.

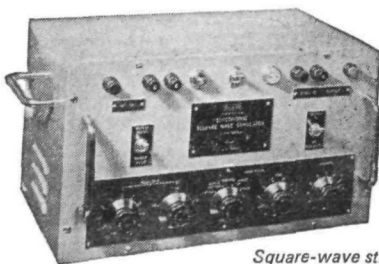
Palmer equipment is now available on improved deliveries. For a revised delivery schedule, or to order your new catalogue, write to the address below.



Kymograph unit



Continuous injector



Square-wave stimulator

Palmer kymographs such as this are in service in laboratories all over the world, providing smoked paper records of muscle and tissue movement, or through a manometer, of blood pressure. A 6-gear motor gives paper speeds from 1mm to 10mm per second. A.C. time-clock and signal markers, and the Starling ventilation pump are fitted.

Continuous injector. This unit, which can be used with all sizes of record-type syringes, automatically controls injection rates. A range of motor speeds is available giving emptying rates of from 10 mins. to 320 mins. per inch. **Square-Wave Stimulator.** Provides a square-wave output of independently variable pulse rate (1/20 – 100 p.p.s.), pulse width (10 microsec. to 100 millisec.) and intensity. Pulse rate is controllable either in steps or continuously.



C. F. Palmer (London) Ltd., Myographic Works, Effra Rd., Brixton, London, S.W.2
Telephone: 01-733 2173/5

A member of the Baird & Tatlock Group of Companies.
CP.1



CAMBRIDGE

Journal of the Marine Biological Association of the U.K.

Edited by J. E. SMITH

Volume 47, Number 3. October 1967

F. S. RUSSELL. On a remarkable new scyphomedusan.

R. H. MILLAR and J. M. SCOTT. The larva of the oyster *Ostrea edulis* during starvation.

H. E. HINTON. Spiracular gills in the marine fly *Aphrosylus* and their relation to the respiratory horns of other dolichopodidae.

G. R. FORSTER. A note on two rays lacking part of the snout.

M. J. DRING. Effects of daylength on growth and reproduction of the conchocelis-phase of *Porphyra tenera*.

D. J. CRISP, JULIE H. BAILEY and E. W. KNIGHT-JONES. The tube-worm *Spirorbis vitreus* and its distribution in Britain.

ANN TREVALLION. An investigation of detritus in Southampton Water.

P. A. EWINS and C. P. SPENCER. The annual cycle of nutrients in the Menai Straits.

Y. K. CHAU, L. CHUECAS and J. P. RILEY. The component combined amino acids of some marine phytoplankton species.

JEAN D. DOYLE and R. H. KAY. Some studies on the bioluminescence of the euphausiids, *Meganyctiphanes norvegica* and *Thysanoessa raschii*.

THOMAS H. CAREFOOT. Growth and nutrition of *Aplysia punctata* feeding on a variety of marine algae.

A. D. BONEY and E. B. WHITE. Observations on *Kyllinia rosulata* from S.W. England.

D. J. HOBDEN. Iron metabolism in *Mytilus edulis*. I. Variation in total content and distribution.

DONALD S. McLUSKY. Some effects of salinity on the survival, moulting and growth of *Corophium volutator* [Amphipoda].

A. E. BRAFIELD and G. CHAPMAN. Gametogenesis and breeding in a natural population of *Nereis virens*.

B. T. HEPPER. On the growth at moulting of lobsters (*Homarus vulgaris*) in Cornwall and Yorkshire.

ALLISON L. BURNETT, WILLIAM SINDELAR and NORMA DIEHL. An examination of polymorphism in the hydroid *Hydractinia echinata*.

CLYDE MANWELL and C. M. ANN BAKER. A study of detergent pollution by molecular methods: starch gel electrophoresis of a variety of enzymes and other proteins.

J. H. S. BLAXTER and M. PATTIE JONES. The development of the retina and retinomotor responses in the herring.

T. H. SIMPSON and C. S. WARDLE. A seasonal cycle in the testis of the spurdog, *Squalus acanthias*, and the sites of 3β -hydroxysteroid dehydrogenase activity.

E. E. BITTAR, P. C. CALDWELL and A. G. LOWE. The efflux of sodium from single crab muscle fibres.

J. McLACHLAN and M. PARKE. *Platymonas impellucida* sp. nov. from Puerto Rico.

ABSTRACTS OF MEMOIRS.

REPORT OF THE COUNCIL FOR 1966-67.

£5 Net (\$16.75). Annual Subscription (3 issues) £14 net (\$47.00).

Published for the Marine Biological Association

CAMBRIDGE UNIVERSITY PRESS



CAMBRIDGE

SYMPOSIA OF THE SOCIETY FOR EXPERIMENTAL BIOLOGY

20. Nervous and Hormonal Mechanisms of Integration

Edited by GEORGE M. HUGHES

This symposium brings together authorities from all over the world for a critical discussion of the ways in which nervous and hormonal mechanisms integrate the behaviour of whole organisms. The range of studies, which include discussions on vertebrates, invertebrates and plants, makes the symposium of interest to a wide variety of experimental biologists.

75s. net

21. Aspects of the Biology of Ageing

Edited by H. W. WOOLHOUSE

A symposium presenting current thought and experimental work on the fundamental biology of ageing processes at different levels of organization. It is concerned with ageing in micro-organisms and plants as well as in animals. The papers cover the fundamental genetic theory of ageing; problems of macromolecular structure and regeneration; radiation and ageing; cellular age-changes; and ageing processes in isolated organs and in intact organisms.

85s. net

Other Recent Symposia of the Society for Experimental Biology:

18. Homeostasis and Feedback Mechanisms, edited by G. M. HUGHES
(1964)

19. The State and Movement of Water in Living Organisms, edited by
G. E. FOGG (1965)

CAMBRIDGE UNIVERSITY PRESS



UREA AS A PROTEIN

Edited by M. H. Briggs, Head of Laboratories, Pharmethicals Ltd.

This detailed multi-author work covers all aspects of the use of urea as a supplementary diet for animals. Methods for the industrial preparation of urea are given and the possible uses of urea in alleviating world protein shortages are discussed.

Contents: The History, Manufacture and Role of Urea Feeding in World Food Problems; The Effects of Urea on Ruminant Physiology; Urea as a Supplement for Ruminants; Urea in Diets for non-ruminants. **480 pages £7/\$18.00**

ADVANCES IN THE BIOLOGY OF SKIN, Volume 8

The Pigmentary System

Proceedings of a Symposium on the Biology of skin, held at the University of Oregon Medical School, 1966.

Edited by W. Montagna and F. Hu, University of Oregon Medical School, Portland, Oregon, and Oregon Regional Primate Research Center, Beaverton, Oregon

Partial Contents: The Evolution of Concepts of Melanin Biology—T. B. FITZPATRICK, M. MIYAMOTO and K. ISHIKAWA; Connections between Nerve Fibers and Dendritic Cells in the Skin of the Fetus—F. SERRU and D. CERIMELE; The Distribution of Melanotic Melanocytes in the Skin of Subhuman Primates—H. MACHIDA and E. M. PERKINS, Jr.; Observations on the Melanocytes of Selected Primates—W. MONTAGNA; The Effect of Wounding upon the Uptake of ³H Thymidine by Guinea-Pig Epidermal Melanocytes—L. GIACOMETTI and F. ALLEGRA; Ultrastructure of Melanin Granules—P. DROCHMANS. **678 pages £10. 10s./\$27.00**

THE ULTRASTRUCTURE OF THE ANIMAL CELL

L. T. Threadgold, Zoology Department, Queen's University, Belfast, Northern Ireland

A text-book mainly dealing with the ultrastructure of the animal cell, as revealed by electron-microscopy. The book is divided into two parts dealing with the interphase cell and the dividing cell respectively.

Contents: Part 1—*The Interphase Cell*; Introduction to the animal cell; Ultrastructure of the nucleus; Ultrastructure of the cytosome; (I) The plasma membrane and associated structure; (II) The hyaloplasm, endoplasmic reticulum and cell inclusions; (III) The Golgi complex and the mitochondrion; Ultrastructural changes in cells during embryogenesis; Differentiation and secretion; Part 2—*The Dividing Cell*; Introduction to cell division; The ultrastructure of the cell in division; Summary. **336 pages £5/\$13.00**

STRUCTURE AND FUNCTION OF INHIBITORY NEURONAL MECHANISMS

Proceedings of the International Symposium held in Stockholm, September 1966

Edited by C. Von Euler, S. Skoglund and U. Soderberg

Partial Contents: *Part One: Morphological correlates of pre- and postsynaptic inhibitory processes:* Synaptic structure and the concepts of presynaptic inhibition—J. SZENTAGOTHAÏ; Ultrastructural observations on the spinal cord after dorsal root section—S. CONRADI and S. SKOGLUND; *Part Two: The Mechanisms of centrifugal inhibition of sense organs:* Transmission of information about brightness and retinal inhibition—W. M. H. KOZAK, B. KOZAK-HARUTIANIAN and B. DREHER; *Part Three: Physiological Significance of pre- and postsynaptic inhibition:* Aspects on the relative significance of pre- and postsynaptic inhibition on the spinal cord—J. O. KELLERTH; *Part Four: Pharmacology and neurochemistry of inhibitory processes:* Gamma-aminobutyric acid in the lobster nervous system; *Part Five: Role and importance of inhibitory mechanisms as links in neural circuits:* Modeling studies of neural inhibition—L. D. HARMON.

Wenner-Gren Center International Symposium Series, Volume 10. **552 pages £9. 5s./\$24.00**

PERGAMON PRESS

Headington Hill Hall, Oxford 44-01 21st Street, Long Island City, New York, N.Y. 11101, U.S.A.
