tissues of the body. The amounts of oxygen consumed and carbon dioxide produced determine the volume of the circulation needed to transport these gases between the tissues and the lungs, as well as the volume of respiration needed to exchange them with the atmosphere.

We can now see that muscle tonus, itself controlled from the central nervous system and considerably influenced by the respiratory center, is the basic factor determining both the amount of metabolism and the correlated volumes of the circulation and respiration.

In particular, we conclude that muscle tonus is a factor of prime importance in the venopressor mechanism.

Yandell Henderson
A. W. Oughterson
L. A. Greenberg
C. P. Searle

Yale University

A SPECIES AND GENUS OF FRESH-WATER BRYOOZON NEW TO NORTH AMERICA

Four years ago while collecting fresh-water bryozoa for class purposes in the Delaware and Raritan Canal at Princeton, New Jersey, the writer found on the leaves of water plants small colonies, of from four to thirty polyps each, which were at first taken for very young colonies of Pectinatella or possibly colonies of this form which remain flat without forming the prominent globular mass of jelly that usually characterizes this species. It was noticed, however, that the colonies were not round but roughly triangular in shape, with the polyps mostly on one side and the opposite angle well drawn out. It was then seen that the colonies were freely motile, moving up to as much as three or four inches per day. They were then surmised to be the genus Lophopus until an examination of the statoblast showed the swim-ring (Fig. 1) to be an elongate oval over a millimeter in length with a group of rod-like projections at each end, each rod bearing from two to eight strongly curved hooks. This was so remarkably different from any of the other hook-bearing statoblasts of the Phylactolaemata that it was realized that the species was new to America at least.

The phylactolaematus bryozoa of eastern North America had been so faithfully collected and studied by Leidy, Hyatt, Potts, Davenport and a host of others that it seemed impossible that this very abundant form could have been overlooked.

It was found that the genus had been recorded by H. J. Carter in Bombay, India, from a single statoblast in 1859. He called it a species of Lophopus. In 1881 Hyatt recognized that it was not a Lophopus and made it a new genus Lophodella carterii, naming it after its first discoverer. Annandale has found it abundantly and widespread in India in 1911. Kraepelin in 1906 and Vorstman in 1927 describe it from the East Indies and Siam, etc. Oka in 1906 describes it from Japan and Ulman in 1907 from equatorial Africa. Wherever it grows, it is very abundant, literally covering the leaves of plants as well as sticks and stones in favorable seasons. How then did it escape Leidy and his followers only forty miles from Philadelphia?

The writer concludes that it is a recent introduction, from India probably. He has collected extensively in the fresh waters around Princeton since 1890 and had never seen it until four years ago when it was abundant in the canal, but not in the lake or other Princeton streams or ponds. Last season, 1933, it appeared in the lake and Millstone River in abundance. It will be interesting to trace its further spread. The statoblasts are very resistant and could have been easily transported from India and introduced into the canal on many kinds of cargo. It resists the winter, although it comes from a warm source. It is a beautiful form, splendid for class work, easily kept in aquaria and easily expanded for study. The body is clean, not dirty, like Plumatella.

Princeton University

Ulric Dahlgren

BOOKS RECEIVED


CAMBRIDGE UNIVERSITY PRESS

BOOKS FOR DOCTORS AND BIOLOGISTS

The Digestive Tract
By A. E. BARCLAY
A radiological study of the anatomy, physiology and pathology of the digestive tract. The author, one of the earliest workers in the subject, has produced a comprehensive monograph which is "destined to become a classic." "No scientific book could be more completely informative and at the same time more delightful to read." Nature. "Enthusiastically recommended." Radiological Review. $12.00

Chemical Embryology
By JOSEPH NEEDHAM
This is the first complete book in any language on chemical embryology. It has almost by itself vindicated the claims of this branch of science to independent existence. "One of the most remarkable among recent works of biological scholarship." Science. "One of the great scientific contributions of the present generation." Journal of Obstetrics and Gynaecology. Three volumes, $26.50

The Brain and Its Mechanism
By SIR CHARLES SHErrINGTON
The Rede Lecture delivered by the Waynfleet Professor of Physiology in the University of Oxford. "An amazing compendium of conclusions covering the whole range of scientific inquiry in that field of Nature which has excited man's intensest curiosity." Nature, 50¢

CAMBRIDGE COMPARATIVE PHYSIOLOGY
Two New Volumes
Elements of Experimental Embryology
By JULIAN HUXLEY and G. R. DeBEER
An account of the results of the experimental attack on the problems of the biology of differentiation. "There is a real need for this book, and its success is assured; it will be the standard book on the subject for many years to come." Medical Press. $7.00

Features in the Architecture of Physiological Function
By JOSEPH BARCROFT
This book exhibits an approach to physiology from an unusual angle; not from that of mere structure, whether the structure of organs or of chemical formulae, but from the principles of function. This book is based on the Dunham Lectures given at Harvard in 1929. $5.50

Psychoanalysis and Medicine
By KARIN STEPHEN
An admirable introduction to the study of psychoanalysis. "More nearly a textbook in psychoanalysis than we have yet produced in English." William A. White. "One of the soundest and clearest books yet written on the subject." New England Journal of Medicine. $2.50

The Evolution of the Vertebral Column
By H. F. GADOW
A contribution to the study of vertebral phylogeny, arranged and edited by J. F. Gaskell and H. L. H. H. Green. The book presents the evidence of the various lines of development of the vertebrae as a guide to the general morphological scheme of vertebral evolution. $6.75

Manometric Methods as Applied to the Measurement of Cell Respiration
By MALCOLM DIXON
This small handbook gives the complete theory and full practical details of the method and is intelligible to workers without special physico-chemical knowledge. The book contains a foreword by Sir F. G. Hopkins. $1.75

Further information on any of these books, or a detailed descriptive prospectus, may be obtained by sending a post card to The Cambridge University Press Department, The Macmillan Company, 60 Fifth Ave., New York.

THE MACMILLAN COMPANY
THE Camera is mounted on a heavy base which provides place for the microscope on one side and on the other side carries the illuminating apparatus. The latter includes an aspheric lens condenser with field of view iris diaphragm and a liquid filter cell. The source of light is a 400 Watt gas filled incandescent lamp, operating on a 110 volt circuit.

Complete with two double plate holders, resistance for dimming the lamp, focusing magnifier, sleeve for connecting the microscope.

$185.10 f. o. b. N. Y.

CARL ZEISS, INC.
485 Fifth Avenue
NEW YORK

728 So. Hill Street
LOS ANGELES