

From the viewpoint of a morphologist: Dr. R. A. Harper.

From the viewpoint of a bacteriologist and physiologist: Dr. Guilford B. Reed.

From the viewpoint of a pathologist: Dr. E. C. Stakman.

The address of the retiring vice-president will be thirty minutes in length, and each speaker in the symposium has agreed to limit his paper to fifteen minutes. This should allow considerable time for discussion.

ROBERT B. WYLIE,
Secretary

THE TWENTIETH INTERNATIONAL CONGRESS OF AMERICANISTS

THE Twentieth International Congress of Americanists, which was to be held in Rio de Janeiro in 1921 but had to be postponed, will be held definitely from August 20 to 30, 1922, in connection with the celebration by Brazil of its first century of independence.

The organizing committee of the congress announces a rich and attractive program, and in view of the importance of Brazil to American Anthropology it is hoped that a special effort will be made by Americanists in this country to attend the congress, or at least to become members. Application for membership, with the dues of \$5, may be sent directly to the Secretary of the coming Congress, Sr. Domingos Sergio de Carvalho, Praça 15 de Novembro N. 101, Rio de Janeiro, Brazil; or to the writer.

ALEŠ HRDLIČKA
Sec. Gen. XIXth I. C. A.

U. S. NATIONAL MUSEUM,
December 3, 1921

FOSSIL MAN FROM RHODESIA

THE British press has just announced the discovery of a fossil human skull from northern Rhodesia that may prove to be epoch-making. It was found in the "Bone Cave" at Broken Hill mine, and bids fair to be of the first importance in its bearing on the physical characters of fossil man. The cranium is practically complete and in a perfect state of preservation; the lower jaw

was not recovered. Judging from the newspaper half-tones, the cranium is of a more lowly type than any Neandertal cranium yet discovered; it remains to be seen after a full report has been published whether we may not have here a new species of *Homo* about midway between *Pithecanthropus erectus* and the *Homo neandertalensis*.

The face is intact; the prognathism of the upper jaw is extremely accentuated, this being possible partly because of the unusual maxillary height between the anterior nasal spine and the alveolar margin. The nasal bridge is fairly prominent, a character which has recently come to be recognized as belonging to the Neandertal race.

The brow ridges are more pronounced than in any other known fossil human skull. The cranial height and breadth are correspondingly small, pointing to a comparatively low cranial capacity.

This precious relic is at the British Museum, South Kensington. It will be examined by Dr. A. Smith Woodward and Professors Arthur Keith and Elliott Smith, to whom science is so much indebted for their reports on the Piltdown remains; the result of their study of the cranium from the cave at Broken Hill mine will be awaited with intense interest. If the efforts to find the lower jaw should be rewarded, they may result in throwing new light on the Piltdown paradox.

GEORGE GRANT MACCUDRY
DIRECTOR, AMERICAN SCHOOL IN FRANCE
FOR PREHISTORIC STUDIES

SCIENTIFIC BOOKS

Physiology and Biochemistry in Modern Medicine. By J. J. R. MACLEOD. 3d edition. St. Louis, C. V. Mosby Co., 1920. Price \$10.

The third edition of this interesting textbook has been largely revised and partly rewritten. The changes are uniformly improvements, and the whole book is well written and filled with important methods and facts which are interestingly discussed. Dr. Macleod describes the advances in the

medical sciences, particularly in their bearing upon clinical medicine and human physiology. This point of view is most important and far too often neglected in our American schools of medicine, where the medical sciences and clinics are so thoroughly dissociated. The book should continue to be of general interest to the medical profession as it is of nearly equal value to medical students and to our practising physicians.

It is somewhat unfortunate that the publishing has been made so elaborate. If there were fewer colored illustrations and fewer plates the price of the book could probably have been markedly reduced without a corresponding reduction of its instructive value.

J. C. AUB

HARVARD MEDICAL SCHOOL

Triassic Fishes from Spitzbergen. By ERIK A:SON STENSIÖ. Upsala, 1921.

This is one of the most important paleontological memoirs which has appeared in recent years. It represents an attempt to distinguish fossil fishes as organisms, rather than as horizon markers. The geological aspects of the question are, however, thoroughly discussed.

Stensiö is a student of Professor C. Wiman of Upsala, whose contributions during the last few years have interested paleontologists in the fauna of ancient Spitzbergen. Wiman has sent or led expeditions into Spitzbergen since 1908, and on the basis of the material thus assembled the present writer Stensiö has based his account.

The quarto, representing Part I. of Stensiö's studies, consists of 307 pages of printed matter, 35 plates and 90 figures in the text. The press-work coming from Vienna is excellent. The plates represent photographic reproductions of the fossils, with Stensiö's interpretations of the anatomy lettered in white ink in the photographs. The results are especially pleasing and easy of reference.

Elasmobranchs, dipnoans, crossopterygians and three families of Actinopterygii constitute the fauna and Stensiö has described and interpreted his findings in a very excellent manner. Especially interesting are his accounts of the

sensory canals of the head; the relationship of the crossopterygians and the tetrapods and the correlations of the primordial ossifications of the head of these primitive forms. It is a grateful relief to find taxonomy in the background. Nomenclature often absorbs more space than is needful.

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SPECIAL ARTICLES

INHIBITORY EFFECT OF DERMAL SECRETION OF THE SEA-URCHIN UPON THE FERTILITY OF THE EGG

IN the early part of September of this year (1921), while working in the Marine Biological Laboratory at Woods Hole, Mass.,¹ I happened to find a striking fact that the eggs of *Arbacia punctulata* obtained through the genital pores, as most commonly practised,² did not develop at all, whereas those taken out from inside the shell developed normally. The results of a few but repeated experiments carried out with regard to this peculiar phenomenon may be given summarily as follows:

The eggs which escaped through the genital pores of opened sea-urchins, and were then transferred to clean sea-water in finger bowls, but subjected to no subsequent washing, were seen attracting spermatozoa but no fertilization occurred. These eggs were later washed repeatedly with clean sea-water at various intervals. If simply washed they never developed. But at a fresh insemination these washed eggs began to develop; thus, for example, the eggs washed and inseminated after standing for 50 hours in room temperature were found still capable of developing into normal and healthy

¹ My hearty thanks are due to Professor E. B. Wilson for the privilege of the use of a Columbia University table in the Marine Biological Laboratory, and to Professor F. R. Lillie, director, and other members of the staff of the said laboratory for every facility for my work. Further, to Professor E. G. Conklin, who has kindly criticized and corrected the manuscript, I express my sincere thanks.

² See F. R. Lillie, *Biol. Bull.*, XXVIII., 4, 1915, p. 231.