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 presswork 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.

Roy L. Moodie

University of Illinois,
Department of Anatomy,
Chicago

## SPECIAL ARTICLES

### INHIBITORY EFFECT OF DERMAL SECRETION OF THE SEA-URCHIN UPON THE FERTILIZABILITY 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.