Waal's equation is used, the truth is only approximated. In these various experiments we shall (granting the validity of the objection) be "doing harm to young experimenters" unless we stress the slight systematic departures from the laws which are being studied.

As Professor Thompson points out, the instruction sheet which is doing the harm is in good company. It can even boast of companionship with classic works such as Poynting and Thomson's "Properties of Matter" and with the "Dictionary of Applied Physics." The question can therefore in all fairness be asked whether we should not be doing greater harm by diverting the student's attention from the fundamentally important law than we are doing in ignoring departures from the law which have no practical significance.

PAUL E. KLOPSTEG
DEVELOPMENT LABORATORY,
CENTRAL SCIENTIFIC COMPANY

A HERMAPHRODITIC VIVIPAROUS OYSTER OF THE ATLANTIC COAST OF NORTH AMERICA

WHILE engaged in scallop studies at the U. S. Bureau of Fisheries Laboratory, Beaufort, N. C., in 1925, my attention was drawn to a small oyster which became so numerous on the scallops of one particular shoal as to be a scallop pest, if not a scallop enemy. Its general external appearance was not sufficiently different from that of the common oyster of commerce [*Ostrea virginica* Gmelin (= *elongata* Solander)] to suggest specific distinctions and it was at first assumed to be that form. Therefore, my surprise may be imagined when on October 6 I saw an individual throwing out large numbers of minute, active specks which were shell-bearing bivalves suggestive of oyster larvæ. Soon others were found to be doing the same. Numerous individuals were then secured and placed in separate dishes for observation. In the course of a few days nearly all these threw out shelled larvæ, some of which were kept alive for many days and made moderate growth for a time. The larvæ bore considerable resemblance to those of the oviparous *Ostrea virginica* but were larger for a corresponding stage of development, as judged by shell shape.

That these small oysters were not *Ostrea virginica*, having been thus demonstrated, an effort was made to identify them. The range limits as given by Dall (U. S. National Museum, Bulletin 37) eliminated all but the common oyster and *Ostrea equestris* Say and thus indicated the latter species to be the one under observation.

The specimens were found to correspond well with Say's description and in one important respect with his figure. Later specimens were identified by W. H. Dall as *Ostrea equestris* Say.

Specimens, generally fixed in picro-aceto-formal, were secured at intervals through the fall, winter and spring and were imbedded, sectioned, stained and studied. The study is being continued.

In the meantime a few words as to conditions found and indications arising therefrom may not be out of place. Notes from examinations of sectioned specimens are as follows: October 6, embryos in the mantle cavity, in the gonad a few mature or nearly mature eggs and vast numbers of sperms; January 12, well-developed "ovarian" eggs and a few sperms; February 12, a narrow zone of germ cells, the sex of which has not been made out; February 16, sperms fully developed (spermatozoa) and very abundant small eggs fairly numerous; April 2 (two specimens), eggs immature and not very numerous; April 13, small eggs and larger eggs fairly numerous; April 29 (two specimens), large eggs fairly numerous, small ones not numerous, vacated areas present, sperms in various stages fairly numerous. On June 5 a specimen was found with objects in the mantle cavity which appeared to be eggs surrounded by sperms. On June 9 two apparently uninjured oysters cast out great numbers of larvæ, apparently till empty of them. One of these and the individual examined June 5 have been preserved for future study. The other is being kept in the hope that its condition may be determined at a later date.

I take these data to indicate an alternating hermaphroditism with overlapping similar to that described for the European *Ostrea edulis*, another viviparous oyster. Because summer specimens have not been examined, it is impossible to say whether spawning, for the species or "colony," is long drawn out or occurs at clearly separated intervals but more than once a year. A multiple cycle of eggs and sperm production per year per individual does not seem out of the question.

J. S. GUTSELL
BUREAU OF FISHERIES,
WASHINGTON, D. C.

SCABLAND MOUNDS OF EASTERN WASHINGTON

ON the channeled scablands of eastern Washington are found thousands of nearly circular mounds composed of different material than would be formed from the weathering of the basalt that is the chief bedrock of this region. The mounds only occur on top of the bare basaltic rock of the Columbia Plateau. They never occur on granite, schists or quartzite that occasionally outcrops. Neither do they occur on the