sides are of thin wood, similarly hinged to the back, but on the outside the back and the hinges are covered with roan. Attached to the inner side of the tail end of the back is a loop of tape or roan, by which the box can be pulled out from the shelf. The outside measurements of the size adopted in my library for ordinary pamphlets are, height, 11½ inches; depth, 9 inches; thickness, 3¾ inches. The thickness of the material is from ⅛ to ¼ inch according to its position.

The merits of this type of case are extreme simplicity, readiness of access to pamphlets, freedom from dog-earing the corners or folding the wrappers as pamphlets are taken in and out. To refer to a pamphlet one simply places the back of the case on the table, lets fall the two sides on to the table and turns over the pamphlets until the desired one is found. Without

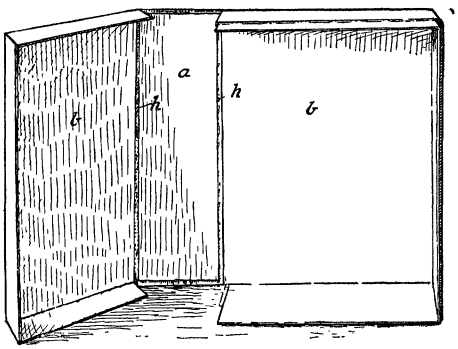

FIG. 1. The pamphlet-case open and seen from the inside.

removing the pamphlet one can turn over the pages, note the passage required and then without further ado close the sides of the pamphlet-box just as one would close a bound book, and replace it on the shelf. The cases are light, dust-proof and durable; and the lighter ones cost me 2s. 9d. (66 cents) apiece when ordered by the half gross.

As for arrangement, each worker will follow the method that suits him best. I sort the pamphlets first into subjects, and within each subject arrange them alphabetically under authors' names; those of each author are placed chronologically. Any number of boxes may go to one subject. Each is labelled on the back with a white paper label on which the subject is stencilled in black, while the letters contained in that particular box are marked in broad soft pencil, easily changed as required (see Fig. 2).

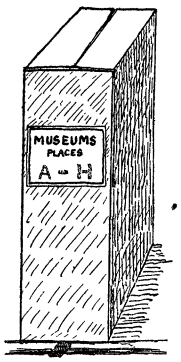

FIG. 2. The pamphlet-case closed as it stands on the shelf.

In this way the boxes devoted to Crinoidea have grown from 1 to 14 and the position of no pamphlet has ever been in doubt.

Of course a card-catalogue is a necessary adjunct to a collection of any size, as it enables one to assign a doubtful pamphlet to any subject, and to find it again by a symbol pencilled on the catalogue slip.

It may be paternal prejudice, but I certainly consider this form of case simpler and more effective than any I have seen or read about. I do not say that it is cheaper.

F. A. BATHER.

THE MARINE BIOLOGICAL LABORATORY AT WOOD'S HOLL.

'THE ANNUAL ANNOUNCEMENT OF THE MARINE BIOLOGICAL LABORATORY.'*

THE Twelfth Session of the Marine Biological Laboratory will begin on June 1st, and will continue for four months. This session promises to be the most successful in the history of the Laboratory. While the courses of instruction heretofore offered will be maintained by an exceptionally strong staff, three entirely new courses have been added, these courses in

* Copies of the Announcement may be had on application to the Director, Professor C. O. Whitman, University of Chicago, or to the Assistant Director, Professor Ulric Dahlgren, Princeton University.

(Cytology, Physiology and Psychology) being under the immediate supervision of men eminently fitted for their work.

The course in Cytological Research will be conducted by Professor Watasé, with the assistance of Mr. W. H. Packard. The course is designed for a limited number of students who are prepared to begin investigation. A special problem will be assigned to each member of the class, and methods of dealing with it will be suggested. The laboratory work will be accompanied by a series of lectures on general cytological subjects, designed to give a view of the field of cellular biology as a whole, and at the same time to indicate the bearings of the problems under investigation.

The course in General and Comparative Physiology will be conducted by Dr. Loeb, assisted by Drs. Norman, Lyon and Mathews, and will consist of laboratory work and lectures. The following is a brief outline of the work:

I. The Tropisms of Animals. Galvanotropism, Heliotropism, Geotropism and Compensatory Motions, Chemotropism, Heterotropism in sessile and free forms.

II. Effects of External Influences upon Living Matter (lack of oxygen, acids and alkalies, temperature, etc.).

III. Physiological Morphology. Experiments on Growth and Development, Regeneration and Heteromorphosis.

IV. Comparative Physiology of the Central Nervous System and Comparative Psychology.

V. Comparative Physiology of Digestion.

VI. Comparative Physiology of Secretion.

VII. Micro-chemistry.

In Comparative Psychology, Dr. Edward Thorndike will give a course of lectures on the Sense-powers, Instincts, Habits and Intelligence of Animals, and will direct the work of a few students in this department.

Opportunities for work in Botany are especially inviting. Drs. Davis and Moore, as heads of the department, will have general charge of the laboratory.

The course of lectures in Plant Morphology and Physiology is supplied by such a strong corps, and the subjects are of such scientific importance, that we copy the program in full:

A COURSE OF LECTURES ON PLANT MORPHOLOGY AND PHYSIOLOGY.

First Week, July 5–12.—Erwin F. Smith, 'Bacteria'; D. T. MacDougal, 'Physiological Subjects'; Douglas H. Campbell, 'The Evolution of the Sporophyte in the Archegoniates and Flowering Plants.'

Second Week, July 12–19.—Miss Clara E. Cummings, 'Lichens'; L. M. Underwood, 'The Evolution of the Hepaticæ'; Rodney H. True, 'Plants and Poisons.'

Third Week, July 19–26.—H. J. Webber, 'Spermatogenesis, Development of Embryo Sac, and Fecundation in Gymnosperms'; C. O. Townsend, 'Physiology of the Plant Cell.'

Fourth Week, July 26–August 2.—J. M. Macfarlane, 'Plant Irritability'; G. F. Atkinson, 'Higher Fungi.'

Fifth Week, August 2–9.—J. M. Macfarlane, 'Physio-morphology of a Few Angiospermic Orders'; Henry Kraemer, 'The Unorganized Contents of the Cells of Plants.'

Sixth Week, August 9–16.—D. M. Mottier, 'Cytological Studies on the Pollen and Embryo-sac of Angiosperms'; D. P. Penhallow, 'Paleobotany.'

Within the last few years workers at Wood's Holl have derived great profit from the free discussion of various biological methods, facts and theories. During the coming summer there will be three seminars: The Neurological, Biological and Botanical—a series of lectures on Zoological Technique, and the customary course of 'Evening Lectures.' The latter are designed to present the results of research in different lines and departments, in so far as these are of general interest.

There are thirty names on the list of officers of instruction, and fifty-four names on the list of lecturers. In these two lists fully thirty-five educational institutions are represented.

GEOLOGICAL EXPEDITION OF DR. BECKER TO THE PHILIPPINES.

Dr. Geo. F. Becker, the expert economic geologist, who, early last summer, was sent by the Director of the U. S. Geological Survey, under a cooperative arrangement with the War Department, to Manila to make a reconnaissance of the geologic structure and mineral re-