physics and some geology; but we don't expect him to be a first-class proficient in all three sciences. We judge him finally as an engineer. So it must be in biometry. No one can get on without some mathematics, some biology and some field work in this new science; but its workers must be ultimately judged as *biometricians,* and not as mathematicians or biologists. Don't allow, however great their reputation or authority, the pure mathematician or the descriptive biologist, who may never have done a stroke of biometric work, to override biometric workers' claims to recognition. Remember that we have here a new branch of science, which has its own methods and its own disciples. Like all young things, it has its future before it, and no amount of step-motherly treatment will, in the long run, profit the reputation of the scientific community which practices it. In the matter of biometry, America has not yet adopted a hostile attitude. I write in the hope that it may never do so.

Karl Pearson.

University College, London, England.

THE DESTRUCTION OF FROGS.

Apropos to the note of Mr. Albert M. Reese, relative to the destruction of frogs, I will say that I once witnessed the same thing in Columbus, Ohio, along the Neil Avenue Street Railway. It was in spring, and the frogs had evidently migrated from the Olentangy River, a short distance away and running parallel with the avenue. I did not count them, but there were very many that had been crushed under the car wheels within a distance of perhaps one fourth of a mile. As I recall, the frogs were crushed across the middle. My observations were made in the morning and I inferred that the migration had taken place either in evening or early morning.

H. A. Weber.

A RARE SCIENTIFIC BOOK.

To the Editor of Science: There is a copy of Purkinje's 'Commentatio de examine physiologico,' etc. (concerning which Professor Wilder inquires in the issue of Science for April 3) in the Library of the Surgeon General of the War Department at Washington.

F. W. Hodge.

Washington, D. C.,
April 4, 1903.

THE IMPROVEMENT OF THE MEETINGS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

To the Editor of Science: The changes in the arrangements for the meetings of the American Association, proposed by Professor Davis in Science, pages 428–430, and of which I heartily approve, lead me to make the following suggestion that can be carried out easily by the secretaries of the sections.

At the entrance to each sectional meeting-place, let a doorkeeper write upon a blackboard the paper then being read or discussed, and also the paper that will be called next. It is usually impossible for a section to follow the daily program, as printed, or even to restrict the papers to the time allotted to each; therefore, the expedient suggested will obviate the embarrassment to the speaker, as well as the distraction of his audience, caused by the frequent entrance and exit of persons who merely desire to ascertain what paper is being read, and, by showing this at a glance, it will aid such people as wish to hear certain papers in several sections meeting simultaneously.

These bulletins of the current communications are commonly employed at the meetings of the British Association for the Advancement of Science, where they are regarded as so useful that there has been general complaint whenever they have been inadvertently omitted. If tried at the St. Louis meeting of the American Association, I am convinced that we also shall adopt this custom permanently.

A. Lawrence Rotch.

Blue Hill Observatory,
March 18, 1903.

SHORTER ARTICLES.

THE OCCURRENCE OF THREE INTERESTING FISHES ON THE NEW JERSEY COAST.

MANTIDÆ.

1. Manta manatia (Schneider).

1792. *Raja, birostris, rostro bifido* Walbaum, Pet. Arted. Gen. Pisc., III., p. 535 (based

on Zee duiivel, Diabolus marinus Willughby, Hist. Pisc., App., 1686, p. 5, plate 9, fig. 3; no locality; pre-linnæan). [Nonbinomial.]

1801. (*Raja.*) *Manatia* Schneider, Syst. Ichth., p. 364 (based on La Raie Manatia, Lacépède, Hist. Nat. Poiss., I., 1798, p. 160; les rivages de l'Amérique voisins de l'equateur; nonbinomial).

1824. *C.(ephalopterus) Vampyrus* Mitchell, Ann. Lyc. Nat. Hist. New York, I., p. 23, plate 2, fig. 1; "near the entrance of Delaware bay, by the crew of a smack. They had heard that creatures of extraordinary form and size, were frequent in the tract situated off Capes May and Henlopen, during the warm season."

1824. *C.(ephaloptera) gigantea* Le Sueur Journ. Acad. Nat. Sci. Phila., IV., p. 115, plate 6, figs. 1–4; taken near the entrance of the Delaware (Coll. Philadelphia Museum).

A large example of this species was taken in the sea, about a mile from shore, at Stone Harbor, N. J., September 1, 1902. It was taken in a pound net with the harpoon by some fishermen, and then dragged ashore behind a whaleboat. When in the net it behaved very quietly until harpooned, after which it created a great disturbance. It soon died, however, when brought on the beach. Nothing was preserved except one of the eyes and a small piece of the skin. The former measures about two and one eighth inches in diameter, and its pupil about eleven sixteenths of an inch. These are contained in the collections of the Academy.

As Walbaum is nonbinomial, the next available name is that proposed by Schneider. The name in current use, *Manta birostris,* will thus be superseded by *Manta manatia.*

SCOMBRIDÆ.

2. THUNNIS THYNNUS (Linnæus).

1758. (*Scomber.*) *Thynnus* Linnæus, Syst. Nat., Ed. X., p. 297; inter Tropicos, in Pelago (based on *Scomber pinnulis,* etc., Artedi, Ichth., 1738, p. 31; no locality, evidently the great tunny of Europe).

I examined a large example, a little over eight feet in length, which was said to have weighed 700 pounds. It was brought to the Philadelphia market November 4, 1898, from near Brighton, N. J., where it was taken in the ocean. No attempt was made to use the flesh, and it remained on exhibition for several days.

CEPHALACANTHIDÆ.

3. CEPHALACANTHUS VOLITANS (Linnæus).

1758. (*Trigla.*) *volitans* Linnæus, Syst. Nat. Ed. X., p. 302; in Mari Mediterraneo, Oceano, Pelago inter tropicos, in Asia, imprimis ad Cap. b. spei, sape agitata evolans ex aqua (part; based in *Trigla capite,* etc., Artedi, Ichth., 1738, p. 44; mare Mediterraneum).

A large example of this species was taken at Holly Beach, October 11, 1902. It is now in the collection of the Academy of Natural Sciences of Philadelphia.

HENRY W. FOWLER.
ACADEMY OF NATURAL SCIENCES,
PHILADELPHIA, PA., January 17, 1903.

CURRENT NOTES ON METEOROLOGY.

BIGELOW'S BAROMETRY.

VOLUME II. of the 'Report of the Chief of the Weather Bureau for 1900–1901' is an elaborate 'Report on the Barometry of the United States, Canada and the West Indies,' prepared by Professor F. H. Bigelow. The volume numbers 1,005 quarto pages, and contains 55 tables and 39 charts. The need of some revision of the barometric observations becomes apparent when it is recalled that these observations have not hitherto been reduced to a homogeneous system by the application of all the necessary reductions. The method of reduction has also varied from time to time. Four methods of reduction have been employed before the one contained in this report. Professor Bigelow has preserved the Ferrel system of reduction, has 'added another for local abnormality, computed the effect of the vapor pressure separately from that of the free air, and discussed thoroughly the temperature argument, so that these, added to the usual free-air reduction, give the ones required for the plateau districts.' Some idea of the scope of the report may be gained