

diminished by the action of social barriers and the natural preference of individuals, which induce marriages among like grades of mentality, in a foreign as well as a native locality.

"3. The amount of town aid which this one group of defective families requires decennially has increased 400 per cent. in the last thirty years. In the same length of time its criminal bill has been \$10,763.43 for sixteen persons; and the bill for its thirty children who were supported by the state during the last twenty-three years is \$45,888.57. During the past sixty years this community has, it is estimated, cost the state and the people half a million dollars.

"4. Half of the present number of school children from these families who are living at home show evidence of mental deficiency.

"5. One half of the state wards from the community in question have reacted favorably in an improved environment and give promise of becoming more or less useful citizens; the other half consist of institutional cases and those which have not reacted to the better environment, but are likely to become troublesome and dangerous citizens.

"6. The comparative cost of segregating one feeble-minded couple and that of maintaining their offspring shows, in the instance at hand, that the latter policy has been three times more expensive."

Valuable as are the deductions from such a piece of work as this, its greatest value lies in the number of facts collected and recorded, which will always be available for later comparisons in two ways, viz., with any subsequent information concerning the same people, and with collected facts concerning other families and settlement groups as they are being secured in different parts of the country.

A. C. ROGERS

*The Microtometist's Vade-mecum.* A Handbook of the Methods of Microscopic Anatomy. By ARTHUR BOLLES LEE. Seventh edition. Philadelphia: P. Blakiston's Son & Co. Pp. x + 526. 1913.

The appearance of a new edition of this well-known handbook will be welcomed by

biologists, many of whom, like the reviewer, have doubtless awaited its appearance with some impatient anticipation. Although entitled a "Handbook of the Methods of Microscopic Anatomy," the field covered is broad, as there are included methods employed by embryologist, histologist, zoologist and botanist. The need the book aims to meet is thus not a simple one. The extensiveness of the field calls for a careful selection from a large mass of material, of standard methods of real value which need to be worked over and personally tested. This the author has in most instances done and hence the greater practical value of the book.

The present edition conforms to the previous one in arrangement, form of presentation and size—this last despite the addition of considerable new matter ("more than 700 new entries in the index"). Indeed, of the thirty-six chapters that make up the book the only ones which are increased in length are those on Embryological Methods (Ch. XXV.) and Nervous System; Cytological Methods (Ch. XXXIII.). The condensation has been secured by "cutting out superfluous matter, condensation of the text and typographical compression." The sections relating to neurofibrils and to blood and blood parasites the author states in the preface have been almost entirely rewritten. Of important additions to histological technique introduced since the previous edition, the author specifically mentions Gilson's mounting media, camsal balsam and euparal, which permit mounting direct from 95 per cent. alcohol, and also improvements in the Bielschowsky and Cajal silver methods.

As in the previous editions, the methods considered by the author more important are presented in larger type, those less important in small type. The references to the original articles are in all instances given and are, as far as the reviewer has tested them, exact.

It would not be difficult in a book of this kind whose excellence depends upon a rigorous selection and personal emphasis, for a worker to cite methods which might well have been included or which seem to merit more

emphasis, such as Wright's blood stain and Mallory's connective tissue stain, the latter not given in its latest form. Hasting's Nocht's blood stain is not mentioned, nor the value and usefulness of formalin with the freezing microtome. Under embryological methods the modeling methods should perhaps have been given more attention, and to the von Wijhe methylene blue clearing method for cartilage might well have been added others such as the alizarin oil of wintergreen and benzylbenzoate method (Spaltcholtz) and the Schultze caustic potash and glycerin clearing methods for bone and nerves. But when all is said, the emphasis should be placed, not on what has been omitted, but on the large number of standard methods that have been included.

The index is full, cross references are numerous and the typography, paper and binding satisfactory; typographical errors are rare; in fact, the high standard of the sixth edition has been maintained in the present one, which, like those that have preceded it, may be expected to occupy an important place on the table of the practical worker with the microscope in the field of biology.

B. F. KINGSBURY

SEVENTH LIST OF GENERIC NAMES  
(TUNICATES) UNDER CONSIDERATION  
IN CONNECTION WITH THE OFFICIAL LIST OF ZOOLOGICAL  
NAMES

26. Notice is hereby given of the receipt by the secretary of the Commission on Nomenclature of the following communication regarding generic names of tunicates. All persons interested in the matter are cordially invited to submit to the secretary any arguments for or against the proposed action. In accordance with instructions from the International Congress, the secretary is required to give at least one year's notice to the zoological profession before the Commission takes any action involving the acceptance of any name under the plenary power for suspension of rules.

27. In accordance with instructions from

the Congress, copies of this notice are sent simultaneously, but without comment, to the following journals: *Bull. Soc. Zool. France*, *Monitore Zoologico*, *Nature*, *SCIENCE*, *Zool. Anz.*

*Doliolum*, *Pyrosoma*, *Salpa*, *Cyclosalpa*, *Appendicularia* und *Fritillaria* sind gegen Aenderung zu stützen.

Wir 12 unterzeichneten Tunicatenforscher sind übereingekommen, die 6 genannten Genusnamen pelagischer Tunicaten als gültig anzunehmen. Die Namen dieser Tunicaten werden von jedem Zoologen als vollkommen eingebürgert anerkannt werden, ihr Gebrauch hat bisher niemals zu Missverständnissen Anlass gegeben, die Genera sind Paradigmata in der zoologischen Systematik, sie spielen in der Entwicklungsgeschichte eine grosse Rolle und beanspruchen in der Tiergeographie, Planktonforschung und auch in der Hydrogeographie einem ganz hervorragenden Platz. Eine Aenderung der Namen würde eine schwere Schädigung bedeuten.

(1) *Doliolum* Quoy & Gaimard, 1834.—*Doliolum* ist von Otto 1823 (*N. Acta Ac. Leop.*, v. 11, p. 313) für eine wohl durch *Phronima* ausgefressene *Pyrosoma* aufgestellt worden. Dann ist *Doliolum* von Quoy & Gaimard, 1834 (*Voy. Astrolabe*, v. 3, p. 599) gut beschrieben und jetzt in letzterem Sinne allgemein in Gebrauch. Den bisherigen Regeln nach würde *Doliolum* Synonym zu *Pyrosoma* werden, für *Doliolum* in heutigem Sinne würde ein neuer Name gebildet werden müssen. Der Familienname Doliolidae würde verschwinden.

(2) *Pyrosoma* Péron, 1804.—1804 beschrieb Péron (*Ann. Mus.*, Paris, v. 4, p. 440) *Pyrosoma* und ebenfalls 1804 Bory (*Voy. Iles Afr.*, v. 1, p. 107, nota) *Monophora*. Welcher der beiden Namen der ältere ist, lässt sich nicht feststellen, aber aus Quoy & Gaimard, 1824 (*Voy. Uranie & Physicienne*, p. 495) scheint hervorzugehen, dass *Monophora* älter ist; sie schreiben "Bory—avait donné le nom de monophore à un mollusque, qui depuis a été appelé pyrosome Péron." Es empfiehlt sich den Namen *Pyrosoma* für alle Fälle zu sichern.