was hoped, when the first moss section of "North American Flora" was issued, that this gap would soon be bridged; but fifteen years have elapsed and only two instalments have appeared. Even as far as it has gone, this latter work loses much of its usefulness to the general moss student in the complete absence of illustrations.

The present work aims to describe all known species of mosses occurring in North America, north of Mexico, together with any well-marked varieties or forms. In a measure, it is in the nature of a supplement to the author's justly popular "Mosses with Hand-lens and Microscope," but only to the extent that illustrations are here confined to species not already figured in that book. It will be issued in parts, of which the first (in order of publication) has just appeared. This deals with the Climacieae, Porotricheae and Brachythecieae, and describes sixteen genera and about one hundred species. Two new genera are distinguished, namely Pseudothecium (formerly included under Isothecium Brid.) and Chamberlainia (formerly included under Brachythecium Br. and Sch.), and there are numerous new nomenclatorial combinations. In addition to adequate technical descriptions for each species, there are citations of exsiccati and important illustrations, together with notes on distribution and habitat, and, in many cases, comparative notes. It is to be hoped that not only American bryologists but botanists in general will give this enterprise the support which its importance merits and upon which its completion depends.

G. E. NICHOLS

YALE UNIVERSITY

Special Cytology. The form and functions of the cell in health and disease. A text-book for students of biology and medicine. Edited by E. V. COWDRY. Paul B. Hoeber, Inc. New York, 1928.

THIS interesting and important book of 1,348 pages is the product of thirty-five distinguished American biologists, leaders in anatomy, histology, physiology, pathology, neurology, medicine and surgery. Each one has contributed a chapter on the subject which his investigations have helped to clarify. With such diversity of background of authorship and the marked inequalities in the extent of our existing knowledge of the cytology of different types of cells one would expect and does indeed find quite different modes of treatment of the subject-matter of the various chapters. This enhances the value of the book and is of particular interest where differences of opinion crop out in chapters with overlapping fields.

One is somewhat puzzled after reading the various chapters as to just what is meant by cytology. "The purpose of cytology," according to the introduction, "is not only to gain an accurate morphological knowledge of the cell, but also to learn its chemical constitution, the nature of its organs, the functions of its nucleus and cytoplasmic structures, etc." Twelve of the thirty-seven sections are concerned much more with microscopic anatomy, histology, embryology, comparative anatomy, physiology and pathology than with cytology. This is partly because comparatively little is known of the finer structure and functions of the individual cells and partly because the chapters seem to indicate that the authors are not cytologically minded: the treatment is not in terms of cell structure and cell function. The remaining twenty-five sections contain more or less cytology and in addition varying amounts of histology, physiology, embryology, pathology, etc. Each section is provided with a valuable bibliography.

The book emphasizes the fact that we know very little about the special cytology of the several hundred types of cells which make up the tissues and organs of the body. In spite of the somewhat misleading title of the book the editor and the contributors are to be congratulated on the excellent quality of the text, which will be very useful to students and teachers.

WARREN H. LEWIS

DEPARTMENT OF EMBRYOLOGY,
CARNEGIE INSTITUTION OF WASHINGTON

SCIENTIFIC APPARATUS AND LABORATORY METHODS

AN IMPROVED METHOD OF PALM-PRINTING[1]

THE usual method of obtaining palm-prints for the study of epidermal ridges involves the use of a hard surface, either plane or curved, for transferring by pressure a film of printers' ink to the palm, and again for receiving the imprint of the inked palm. Some investigators prefer to ink the palm directly by means of the roller.

Owing to the uneven contact between the irregularly curved palmar surface and the unyielding surface of the plate or slab used in inking and printing, the impression is often imperfect. Usually the prints show interruption of the epidermal ridge lines where the hollow of the palm makes imperfect contact with the inked slab or with the paper, or else there is blurring of the ridge patterns along the bases of the fingers.

[1] From the Department of Medicine, College of Physicians and Surgeons, Columbia University, and the Presbyterian Hospital, New York City.