

in its present form its various parts showing a certain lack of unity. It is well printed and elaborately illustrated.

FRANK D. ADAMS.

MCGILL UNIVERSITY, MONTREAL.

Catalogue of the Crosby Brown Collection of Musicians' Portraits. Biographical Sketches. New York, The Metropolitan Museum of Art. 1904. 8vo. Pp. vii + 131.

In the series of handbooks relating to Mrs. Brown's great collection which have received notice in SCIENCE as they have appeared this little volume is part IV. Along with musical instruments she has collected many hundred portraits of musicians; over 400 of these have been mounted, approximately in chronological order, on hinged frames, and placed in the exhibition galleries.

This catalogue gives a sketch of the life and works of the musicians whose portraits are exhibited, arranged in order of framing. It has also indexes, classified, geographical and alphabetical. It is noticeable that no American is found in the list and no living Englishman; this is doubtless largely due to the fact that photographs have been excluded except in one instance. In view of the many fine prints in the collection the addition of the names of artist and engraver would have added to the value of the work, and interested a wider circle of people in the collection.

The pamphlet does not call for extended review here; its special interest to readers of SCIENCE arises from the fact that it is a well-considered attempt to make a museum collection thoroughly intelligible to the public.

CHARLES K. WEAD.

SCIENTIFIC JOURNALS AND ARTICLES.

THE *Botanical Gazette* for July contains the following articles: W. J. Land has made an important contribution in the results of his study of "Spermatogenesis and oogenesis in *Ephedra trifurca*." Among the important results may be mentioned the occurrence of two persistent prothallial cells in the male gametophyte, no wall separating the second prothallial from the generative and tube nuclei;

also the remarkable pollen chamber developed by the breaking down of the nucellar beak to the embryo sac, the necks of the archegonia projecting into the pollen chamber and coming immediately in contact with the pollen grains.—R. E. Smith presents 'The water-relation of *Puccinia asparagi*,' being a contribution to the biology of a parasitic fungus; both the direct and indirect results are discussed.—D. T. MacDougal presents a somewhat detailed account of 'Delta and desert vegetation' and shows that the region offers unusual opportunities for comparison of the most high developed xerophytic types of the desert with the broad-leaved forms of the delta which root in the mud.—J. C. Arthur has given an account of the discovery of 'The *Aecidium* of maize rust,' which is found on species of *Oxalis*. The communication is intended not only to announce an interesting fact, but also to illustrate a method of observation not yet commonly understood.—B. E. Livingston and G. H. Jensen have published a short statement of a somewhat striking result obtained from 'An experiment on the relation of soil physics to plant growth,' which gives somewhat conclusive evidence in favor of the view that the amount of water present in the surface layers of the soil is largely dependent upon the size of the soil particles.

DISCUSSION AND CORRESPONDENCE.

THE BIOLOGICAL SURVEY OF THE WATERS OF THE PACIFIC COAST.

TO THE EDITOR OF SCIENCE: The biological survey of the waters of the Pacific adjacent to the coast of southern California recently inaugurated by the San Diego Marine Biological Association will be prosecuted continuously for a number of years. The laboratory connected with the survey, at present located at Coronado, is under the immediate charge of the resident naturalist, and is ready at all times of the year for occupancy by investigators.

The director is authorized by the managing board of the association to offer the privileges of the laboratory to biologists who may desire to visit this locality for a period in the prosecution of special researches. Such facilities