

This work must be looked upon to a large extent as an *introduction* to the study of bacteriology. After all, most people who study bacteria are sure to study them for their practical bearing upon various topics, rather than for the scientific relations of the bacteria themselves. In order to understand the relations of bacteria to disease, to agriculture or any other practical subject it is necessary, first, to have a tolerably good knowledge of the bacteria themselves. Such a knowledge is furnished by the work in question and this book will, therefore, serve as a foundation for the study of bacteria to students who are interested in the application of these organisms in any direction. No work has yet appeared which gives in such a brief space an equally clear, concise account of bacteria, their structure, their methods of development, their relations to external conditions, their distribution, their physiological relations to environment, etc., as this work by Schmidt and Weis. It is to be hoped that a translation into English may appear.

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An Analytical Key to some of the Common Flowering Plants of the Rocky Mountain Region. By AVEN NELSON, professor in the University of Wyoming. New York, D. Appleton & Co. Pp. 94.

This little book is intended by the author to serve as an introduction to the study of Rocky Mountain plants. About four hundred species are described. It is expressly stated in the preface that the book should not take the place of a manual, and the teacher is warned not to use it for general field work. Plants should be selected for study which are described in the key. If the teacher will keep this warning in mind the work will, without doubt, be found very useful.

Hitherto it has been quite impossible to use modern nomenclature in school work in this region, because there was no work of reference containing the correct names of even our most common plants. Here is a work which, so far as it goes, is entirely modern.

It is a familiar fact, which was known even to Aristotle, that parents think most of their

own children, that poets think most of their own poems. It seems now that botanists think most of their own species of plants. At least there are a good many plants in the key credited to 'Aven Nelson.' This apparent nepotism is explained when we examine the work carefully. Many of these favored species are really species quite common, but generally confused with similar species of the eastern states.

The key to the families in the front of the book seems admirably arranged to show the diagnostic characters. The plants selected to represent the different families are well selected. An important feature of the descriptions is the reference to ecological points in connection with the various species and genera. The habits and habitats are given as only one who knows the plants in the field could give them. Professor Nelson's long experience in the Rocky Mountain region has given him a mastery of the subject which no one from the eastern states could possibly have.

It is very much to be desired that in future editions of the work it may be found possible to include a few of the more common species of grasses, since they form such an important part of the earth covering. The reviewer believes that a knowledge of the morphology of the grass flower and fruit is not beyond the grasp of beginners. Species of *Agropyron* and *Stipa*, which are abundant in the region, can well be used with such students.

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SCIENTIFIC JOURNALS AND ARTICLES.

THE *Popular Science Monthly* for July has for its frontispiece a portrait of Asaph Hall, President of the American Association, which has just met at Pittsburgh. Cloudsley Rutter presents some 'Studies in the Natural History of the Sacramento Salmon,' giving many details in the life history of the fish, and showing the movements of the young from the time they are hatched until they reach the sea. Under the title 'A Modern Street,' S. F. Peckham describes the methods and materials employed in laying an asphalt pavement. An abstract is given of the 'Views of Dr.