THE AMERICAN FEDERATION OF TEACHERS OF THE MATHEMATICAL AND THE NATURAL SCIENCES

In accordance with a call, issued by joint action of a committee of the American Society of Teachers of Mathematics and the Natural Sciences and one of the Central Association of Science and Mathematics Teachers, a meeting of delegates of a number of associations was held in New York on December 27, 1906, for the purpose of discussing the formation of a federation of associations of teachers of science and mathematics. A roll of the meeting was taken, and it was found that there were present 27 delegates, representing seven associations, as follows: The Association of Teachers of Mathematics of the Middle States and Maryland, 9 delegates; the New York State Science Teachers' Association (Mathematics Section), 6 delegates; the Central Association of Science and Mathematics Teachers, 5 delegates; the Association of the Teachers of Mathematics of New England, 3 delegates; the Association of the Teachers of Physics of Washington City, 2 delegates; the Missouri Society of Teachers of Mathematics and Science, 1 delegate; the New Jersey State Science Teachers' Association, 1 delegate.

Professor T. S. Fiske, of the Association of Teachers of Mathematics of the Middle States and Maryland, was elected chairman of the meeting, and Professor C. R. Mann, of the Central Association of Science and Mathematics Teachers, was made secretary.

After some preliminary discussion, it was, on motion duly seconded, unanimously voted:

That it is recommended that there be formed, by the various associations of teachers of science and of mathematics, an 'American Federation of Teachers of the Mathematical and the Natural Sciences.'

The question of the form of the organization was then taken up. Two different forms were proposed: one, that of a single society of teachers of mathematics and the mathematical sciences, the membership to be limited to associations that publish literature and reports; the other, a rather loose federation of all associations of teachers of either mathematical or natural sciences, the membership being limited to associations that have more than fifty members. The first of these forms was that adopted by the American Society of Teachers of Mathematics and the Natural Sciences at the conference held at Asbury Park in 1905. The latter form was proposed by the Central Association of Science and Mathematics Teachers.

In the discussion of this question, the latter form of organization was shown to be less formal and more flexible and to interfere less with the individual activities of the associations. Because this form of federation appeared to furnish the necessary basis for a first step toward a more complete organization, and because it was considered advisable that associations not represented at the meeting should have a voice in the final decision, it was, on motion duly seconded, unanimously voted:

That the form of organization proposed by the Central Association of Science and Mathematics Teachers in the printed circular issued by them be tentatively adopted for the coming year, the final form of organization to be decided at the next meeting.

No officers were elected; but an executive committee, which should look after the formation and development of the Federation pending permanent organization, was elected as follows: T. S. Fiske, Columbia University, *chairman;* C. R. Mann, University of Chicago, *secretary-treasurer;* H. W. Tyler, Massachusetts Institute of Technology; R. E. Dodge, Teachers College, New York; F. N. Peters, Kansas City High School.

On motion duly seconded, it was voted: That this executive committee have power to fill vacancies and to add to its membership by unanimous vote.

On motion, the meeting adjourned, subject to the call of the executive committee.

C. R. MANN,
Secretary

SCIENTIFIC BOOKS

Animal Micrology: Practical Exercises in Microscopical Methods. By MICHAEL F. GUYER, Ph.D., Professor of Zoology in the University of Cincinnati. Chicago, The University of Chicago Press. 1906.

This little book of 240 pages is devoted to a concise, eminently practical and well-classified treatment of the methods and 'tricks' of convenience fundamental to modern microscopic study. While it is intended primarily for the beginner, its consultation will be found profitable to all of us who have to suffer the trials and time-consuming details of microscopical technique. The author's years of experience in giving instruction in general zoology and microscopic anatomy, combined with his marked ingenuity in mechanical and chemical manipulation, has resulted, not only in a well-grounded knowledge of the fundamental principles upon which depend the successful application of the various methods, but also in the devising and proving of numerous little simplifications and time-saving 'short-cuts' of procedure which will be appreciated by the advanced student and investigator as well. On the other hand, the treatment is expressly detailed enough for the piloting of the beginner safely through the various methods, and, methods for given purposes being chosen for him, he is saved from the bewildering maze of the superfluity of present-day methods. The student is told definitely what to do with his material, what method to apply for a given result, how to proceed step by step, and is given either the positive or the most probable reasons for the various steps.

Unlike other books of a similar nature, Professor Guyer's book is not confined to a single branch of the subject, such as histological or embryological methods exclusively, nor does it attempt to include material to the extent of making it bulky and unwieldy. However, it embraces the methods necessary in practically the whole field of the more usual biological courses and is thus purposely adapted for those combination courses given in high schools and colleges, which begin, preliminarily, with the simpler forms of life and pass to the consideration of the tissues and organology of the higher forms, giving some attention to embryology, and neurology as such.

The book is divided into seventeen chapters and five appendices. Beginning with a useful list of the apparatus and supplies usually required, the former well illustrated, the arrangement thence consists of a general statement concerning methods and the needs for them, followed by the procedures for 'killing' and 'fixing,' a description of the simple methods of sectioning, the methods of imbedding and sectioning in paraffin and celloidin, the processes of staining and 'mounting,' the method of frozen sections, the methods involving the precipitation of metallic substances for special differentiations, methods for the isolation of elements by 'tricks of teasing' and use of dissociating fluids, continuing with methods for the treatment of bone and other hard substances and methods for the injection of the blood- and lymph-vascular systems. Then is interpolated a chapter entitled, Objects of General Interest, in which are discussed subjects such as 'cell making' and the preparation of fluid mounts, and in which are given some ingenious devices for making 'in toto' preparations of the smaller organisms, such as water mites, transparent larvæ, small crustacea, worms, small insects and parts of insects, and for making 'opaque mounts' of such as beetles, wings of butterflies, etc. This chapter is followed by methods for the preparation and study of blood and a chapter dealing with the general procedures for the staining and mounting of bacteria. Chapter XVI. describes some of the methods necessary in the study of embryology, including technique for whole mounts and for the measuring and serial sectioning of embryos, special applica-