

F—Zoology, C. C. Nutting, Iowa State University.

G—Botany, D. H. Campbell, Stanford University.

H—Anthropology, Stewart Culin, University of Pennsylvania.

I—Social and Economic Science, Carroll D. Wright, Commissioner of Labor.

K—Physiology and Experimental Medicine, W. H. Welch, Johns Hopkins University.

*Permanent Secretary.*

L. O. Howard, Cosmos Club, Washington, D. C.

*General Secretary.*

D. T. MacDougal, New York Botanical Gardens.

*Secretary of the Council.*

H. B. Ward, University of Nebraska.

*Secretaries of the Sections.*

A—E. S. Crawley, University of Penna., Philadelphia, Pa.

B—E. F. Nicholas, Dartmouth College, Hanover, N. H.

C—F. C. Phillips, Western University of Pennsylvania, Allegheny, Pa.

D—C. A. Waldo, Purdue University, Lafayette, Ind.

E—F. P. Gulliver, St. Mark's School, Southboro, Mass.

F—C. W. Stiles, U. S. Department of Agriculture, Washington, D. C.

G—H. von Schrenk, Shaw School of Botany, St. Louis, Mo.

H—H. I. Smith, American Museum of Natural History, New York, N. Y.

I—(To be elected).

K—F. S. Lee, Columbia University, New York, N. Y.

*Treasurer.*

R. S. Woodward, Columbia University.

Inasmuch as it is always desirable that so far as possible those who attend the meetings of the American Association for the Advancement of Science should be sure when coming of comfortable quarters in which to lodge, I desire through the columns of SCIENCE to emphasize the importance of the recommendation made on page 22 of the Preliminary Circular, that the members of the Association correspond in advance with the proprietors of the hotels and the keepers of boarding houses in order to secure pleasant quarters. There is the

more reason for this because of the fact that the President of the United States has signified his intention to be present in Pittsburgh to take part in the celebration of the Fourth of July, which is always celebrated in this city in a manner that is unique. It is highly probable that the city will be resorted to by a large concourse of people from all parts of the country. The sessions of the American Association do not conclude until the 3d, and it would therefore be well for members intending to be present to write at an early date, making sure of their accommodations. There is abundance of room at the service of the members, but prudence dictates that an early application for quarters should be made. In this connection I desire to call attention to the fact that very pleasant lodgings can be secured in the dormitories of the Pennsylvania College for Women, located in a delightful spot. Letters referring to accommodations at the college should be addressed to the Rev. Dr. Chalmers Martin, President.

The fact that the celebration of the Fourth to which I have alluded is practically coincident with the meeting of the American Association should not deter members from attending, but should be an attraction. An 'old-fashioned Fourth' in Pittsburgh is something which those who have witnessed it will never forget.

W. J. HOLLAND,

*Chairman, Executive Committee.*

AMERICAN CHEMICAL SOCIETY, SECTION C OF THE  
A. A. A. S.

THE American Chemical Society will hold its summer meeting, as usual, in connection with the meeting of Section C of the American Association for the Advancement of Science. These meetings will be held this year in Pittsburgh, Pa., Monday, June 30, to Thursday, July 3, inclusive. The sessions on Monday and Tuesday will be in charge of the American Chemical Society, with the exception of a short session of Section C, for the purpose of organization, immediately after the general meeting of the A. A. A. S. on Monday morning. The sessions on Wednesday and Thursday will be in charge of Section C.

The various papers presented, whether offered to Section C or to the American Chemical Society, will be classified, in so far as possible, under certain general topics, and in this manner will be distributed among the sessions throughout the week.

Brief abstracts of all original papers to be presented should be forwarded to the committee on program, W. A. Noyes, Terre Haute, Ind., Chairman, as early as convenient, and *not later than June 10*. Papers to be presented at the meeting are not necessarily in the same form as those prepared for publication. For public presentation few details should be given, and papers should consist chiefly of a clear and reasonably concise statement of the results which have been obtained and the conclusions reached. Abstracts should be accompanied with a statement of the time desired for the presentation of the paper. Persons presenting general addresses and reviews under special arrangement with the committee need furnish only a brief outline as an abstract.

ALBERT C. HALE,

*Secretary of the American Chemical Society.*

BROOKLYN, N. Y.

FRANCIS C. PHILLIPS,

*Secretary of Section C of A. A. A. S.*

ALLEGHENY, PA.

#### ON PYRITE AND MARCASITE.

TO THE EDITOR OF SCIENCE: In your number for November 1, 1901, abstract is given of an excellent paper by Dr. H. N. Stokes 'On Pyrite and Marcasite,' published in full in *Bulletin* No. 186, of the U. S. Geological Survey. The new method here proposed for quantitative determination of these minerals involves many intricate precautions which have been carefully and thoroughly worked out. So that although the process and apparatus seem to call for rather difficult manipulation, the method is likely to be very welcome to every student of this subject. Proper criticism of its details could only be justified by repetition of the process. In the absence of this I am entirely ready to accept its logical results, viz., that in this chemical method we at last possess a satisfactory means for discrimination of the two minerals and for approximate

determination—to a degree of accuracy of within 1 to 3 per cent. in Dr. Stokes's skilled hands—of the amount of each in the generally composite specimens of pyrites found in nature.

There are certain inferences, however, which I cannot recognize as proved, in opposition to views advanced many years ago in my paper 'On the Variation of Decomposition in the Iron Pyrites; Its Cause, and Its Relation to Density' (*Annals of N. Y. Acad. Sci.*, Vols. III. and IV., 1887).

1. Dr. Stokes maintains 'that the hypothesis that most specimens of pyrite and marcasite, even when well crystallized, are mixtures of the two, or paramorphs, is without foundation.' Of the truth of that hypothesis, I think, much confirmation is found in the results obtained by this chemical method. In my paper (*loc. cit.*, pp. 179–180) it was pointed out for the first time 'that, on a fresh fracture, unaffected by alteration, the true color of marcasite is invariably *grayish white, nearly tin-white*'; while 'normal pyrite has a pale brass-yellow color' (p. 213). These color characteristics of the normal native minerals are accepted by Dr. Stokes, but further assumed by him as criteria for discrimination of the *pure* minerals, the very problem under investigation. Thus, in the determination of the oxidation-coefficient,  $p$ , five samples of pyrite and nine of marcasite were selected 'as being free from visible impurity and showing characteristic crystallization.' These fourteen samples served as the standards on which all following determinations of this coefficient have been based; apparently the same criteria were assumed in selection of the samples ground up for mixtures, in application of the process to calculation of the curve. But the visibility of impurities may have little value in their recognition, above all when the admixture becomes molecular. Even those samples, at the one extreme, selected for purity and mostly for perfection of crystallization, have revealed to Dr. Stokes, in the variations of  $p$ , the intermixture of one or of the other mineral, as well as of other impurities, in notable amount. At the other extreme (page 36 of his paper), out of 13 miscellaneous