the location of the ore deposits of this and neighboring districts and the border areas of the Ozark uplift, as pointed out by Haworth.\*

A fuller discussion of the minerals noted in this paper and their occurrence will be found in the forthcoming 'Lead and Zinc Report of the University Geological Survey of Kansas.'

Edmund O. Hovey, Secretary.

THE ACADEMY OF SCIENCE OF ST. LOUIS.

At the meeting of May 19, 1902, fifteen persons were present. Professor C. M. Woodward presented some notes on the 'Stresses in a Rotating Disk,' from which it appeared that the stresses in such a disk, as, for instance, in an emery-wheel or grindstone, when mathematically analyzed, are entirely tangential, notwithstanding the fact that the disk increases in diameter when rotated at a high rate of speed, so that the tendency to fracture is along radial lines. Professor Woodward also discussed the stresses in the disk when bound by a thin cylinder of greater strength and a high modulus of elasticity.

One person was elected to active membership.

WILLIAM TRELEASE, Recording Secretary.

THE PACIFIC COAST ASSOCIATION OF CHEMISTRY
TEACHERS.

The Association organized last summer, held its first regular meeting as Berkeley, April 26, The Association was started during the session of the summer school of the University of California by a few teachers who were in attendance, and who realized the importance of a better understanding among themselves as to the proper methods of teaching chemistry. During the first six months of its existence a number of 'Circulars of Information' were issued, and the membership steadily increased until it now numbers about fifty. In April the Association had become strong enough to begin to hold meetings for the discussion of subjects of interest to the members. The first meeting was held in the chemistry building of the University of California and was attended by representatives from the principal schools in that part of the state within easy reach of Berkeley. Two subjects had been assigned for discussion, both dealing with the proportion of work that should bedone by the teacher and the student respect-But the discussion took a wider range and covered the entire subject before the meeting adjourned. While there was considerable difference of opinion as to methods. it was the unanimous opinion of those present that it is necessary to emphasize the practical, everyday side of chemistry to make it interesting and attractive to the beginner.

The Association is planning to hold its annual meeting in July during the summer school at the University, when teachers from all parts of California and the other Pacific states gather at Berkeley in large numbers.

EDWARD BOOTH,

Secretary.

University of California.

DISCUSSION AND CORRESPONDENCE.

THE COMING MEETING OF THE AMERICAN ASSOCIA-TION FOR THE ADVANCEMENT OF SCIENCE.

Unfortunately the list of officers of the coming meeting of the American Association in Pittsburgh was dropped by the printer from the paged proofs of the Preliminary Circular, and the omission was not detected until the entire edition had been printed and mailed. That there may be no misunderstanding the list of officers for this meeting is herewith given:

OFFICERS OF THE PITTSBURGH MEETING.

President.

Asaph Hall, U. S. N., South Norfolk, Conn.

Vice-Presidents.

A—Mathematics and Astronomy, G. W. Hough, Northwestern University.

B—Physics, W. S. Franklin, Lehigh University. C—Chemistry, H. A. Weber, Ohio State University.

D—Mechanical Science and Engineering, J. J. Flather, University of Minnesota.

E—Geology and Geography, O. A. Derby, Sao-Paulo, Brazil.

<sup>\*</sup> Bull. Geol. Soc. Amer., 11: 221, 1900.

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.