The committee on resolutions presented the following, which was adopted:

WHEREAS, Modern geography has come to rank with the most important studies in the high school as a valuable life preparation, touching as it does the relation of man to his physical surroundings; and

WHEREAS, Too little time and attention is given to this vital and very important study;

Be it Resolved, That we strongly urge that one year be considered the minimum amount of time that can be reasonably assigned to this subject in the high school.

Be it Resolved, That this section extend its appreciation of the admirable papers presented by Mr. G. A. Barker, Miss Stella Wilson, Mr. Frank Carney, Mr. C. F. Knirk, Mr. H. P. Holt, Miss Grace F. Ellis, Mr. James H. Smith, and Prof. G. D. Hubbard.

Be it Resolved, That the thanks of the Association be extended to the American Geographical Society for the loan of the most excellent collection of maps and books. We have found them suggestive of what maps ought to be and geography in our schools will be placed on a more efficient basis when such maps are available in our school rooms.

Resolved, That it is the sense of this section that the assignment of teachers to teach geography and physiography, who are not qualified by training in these sciences, is detrimental to the interests of the sciences, of the pupils, and of the school.

It was moved by Mr. W. P. Holt that a committee be appointed to investigate and to report at the next meeting upon the desirability of a general science course in connection with the first year course in earth science in the high school. The motion was carried.

The following papers were presented:

"The Value of the Physical versus the Human Element in Secondary School Geography," by Prof. Frank Carney, Dennison University, Granville, Ohio.

The discussion was opened in brief papers by Miss Grace F. Ellis and Prof. G. D. Hubbard and then became general.

Mr. Barker of Normal, Ill., pointed out the difficulty of tracing geographic influences upon human life in cases where other elements are introduced, such as railroad rates and immigration from different regions.

Mr. James H. Smith (of Chicago) raised the question as to the source of materials and stated that he was trying to establish a course in which the work would be partly in three or four outside books, partly in text-books, and partly in laboratory work.

The report of the special committee to investigate the value of the different methods of teaching physiography, by J. H. Smith, chairman, Austin High School, Chicago, Ill. It was moved and carried that the report be received and the committee continued.

On account of the lateness of the hour Prof. Hubbard suggested that his paper on the special collection of European maps and atlases, loaned for the meeting by the American Geographical Society, be omitted. Upon request he kindly consented to speak informally on the subject after the close of the session.

G. R. MANSFIELD, Secretary.

W. M. GREGORY, Chairman.

REPORT OF THE MEETING OF THE CHEMISTRY SECTION

C. A. S. AND M. T., CLEVELAND, OHIO, NOVEMBER 25, 1910.

Meeting called to order by Dr. Albert L. Smith, chairman. The secretary being absent, the chair appointed Mr. L. B. Altaffer secretary pro tem. A

motion prevailed for the chairman to appoint a nominating committee; the committee, consisting of Mr. Greenmeyer, Miss Caplin, and Mr. Lohr, then retired to consider the selection of officers, with the following result:

Chairman, Frank B. Wade, Shortridge High School, Indianapolis, Ind.

Vice-Chairman, Howard W. Adams, State Normal School, Normal, Ill.

Secretary, Lillian Kurtz, Medill High School, Chicago, Ill.

The regular program was then carried out, consisting of the following excellent papers:

"How I Attempt to Convey to High School Juniors the Meaning of a Chemical Formula," Frank B. Wade, Shortridge High School, Indianapolis, Ind.

"Physical Chemistry—A Basis for Secondary School Chemistry?" Vergil C. Lohr, Joliet Township High School, Joliet, Ill.

"An Outline of the Manufacture of Iron and Steel," B. D. Quarrie, Asst. Gen. Supt., Newburgh Steel Works and Blast Furnaces.

"The Manufacture of Paints and Pigments," Edward C. Holton, Chief Chemist for the Sherwin-Williams Company.

After questions and discussion of these papers the section adjourned.

L. B. ALTAFFER, Secretary pro tem.

PACIFIC COAST ASSOCIATION OF CHEMISTRY AND PHYSICS TEACHERS.

Meeting of this association was held in connection with the state teachers' association at Berkeley during the holiday vacation. Room 217 in the Chemistry Building was placed at the disposal of the association on Wednesday, December 28. The program was somewhat unique. The morning session was given up to the discussion of questions, "What did I Get Out of High School Science? How Might Its Value Have Been Increased?" The discussion was participated in by Dr. Daniel Crosby, Oakland, a physician; Alfred C. Skaife, San Francisco, a lawyer; Rev. A. W. Palmer of Plymouth Congregational Church, Oakland; Ward Easterly, of Easterly Construction Company, Berkeley; Perry Tompkins, manager Mason-McDuffie Company, Berkeley; and by Lewis B. Avery, principal San Jose High School. Each speaker spoke of the effect of high school science on observation and on habits of thought, but emphasized as above everything else the benefit derived from close personal contact with the teachers of science. The chief criticism of the subject arose from insufficient apparatus, a criticism that still holds good, they feel. In the afternoon Dr. H. C. Biddle gave a splendid lecture on "Liquid Air," showing many experiments which can be carried out with this material. The entire meeting was very helpful and interesting to everyone in attendance. H. F. SHELDON, Secretary.

THE ACETYLENE PROCESS.

The manufacture of acetylene gas, C_2H_2 , which is accomplished by the user himself in a generator, is of important use in the attainment of high temperatures. Mixed with oxygen and ignited, it gives what is known as an oxy-acetylene flame, from which temperatures as high as 6,000 degrees F. are secured. This is especially desirable in welding processes. The extensive use of acetylene is made possible by the manufacture of calcium carbide, CaC_2 , which is accomplished in the electric furnace by the action of carbon upon lime at a very high temperature. The application of water to the carbide produces a decomposition of which acetylene is one of the products. Thus three very common materials, carbon, lime, and water, are by two reactions capable of producing a very important artificial gas.