

Dr. Rusby, in behalf of the Committee on Program, announced arrangements in progress relative to presentation of several interesting topics before the Club by botanists from other cities.

The fourth order of business was the annual election, resulting in the main in the re-election of the previous officers. The Treasurer, Mr. Ogden, and the Editor, Dr. Britton, on account of pressing present obligations, declined re-election. Their services, rendered for a long series of years, elicited remarks of hearty appreciation.

The officers for 1898 include the following: President, Addison Brown; Vice-Presidents, T. H. Allen, H. H. Rusby; Treasurer, Maturin L. Delafield, Jr.; Recording Secretary, Edward S. Burgess; Corresponding Secretary, John K. Small; Editor, Lucien M. Underwood.

Discussion on the development of the tomato and strawberry followed.

Professor Lloyd spoke of the work of Professor L. H. Bailey upon the origin of the tomato, and exhibited illustrative specimens loaned by Professor Bailey, with others to indicate that *Fragaria Chilensis* is the source of the cultivated strawberry. He also exhibited the original specimen of the strawberry known as Hovey's Seedling.

Dr. Rusby spoke of his experience with the *Fragaria Chilensis* as cultivated in the Bolivian Andes, where, at 10,000 feet altitude, its growth is luxuriant, standing up nearly to the knees. Its fruit is large and juicy, does not keep well, and is without flavor or fragrance. It bears continuously, and he ate from it every month of the year but two. Its identity with the coast form was questioned by Dr. Britton.

Dr. Rusby also exhibited a sample of *Fragaria Mexicana*, by some identified with *F. Chilensis*, and by others with *F. vesca*, but which keeps well and is high flavored.

EDWARD S. BURGESS,  
Secretary.

#### SCIENTIFIC JOURNALS.

*The Journal of Geology* for January-February, 1898, contains papers on the following subjects: 'An Hypothesis to Account for the Movement in the Crust of the Earth,' J. W.

POWELL. After a preliminary introductory statement, the general disturbances of an organic and epeirogenic character are explained by the principle that under sufficient loading, rocks flow; but that the modulus of compression varies for different rocks, and for the same rock as its critical point is approximated. As this point is reached freedom of molecular movement may even become so marked as to cause recrystallization. All these changes tend to produce upheaval and subsidence. 'Estimates and Causes of Crustal Shortening,' C. R. VAN HISE. The author considers the crustal shortening to have probably been much less than is generally assumed and, after a discussion of its various effects and concomitant phenomena in rocks, takes up the following conceivable causes: secular cooling, vulcanism, cementation, change of pressure, change in physical conditions, loss of water and gas. 'Note on the pressure within the earth,' by CHARLES S. SLICHTER. The paper discusses "the magnitude of the pressures within the earth-spheroid, especially as influenced by the changes that have been brought about in the ellipticity of the earth's figure by its changing rotation period." 'The geological *versus* the petrographical classification of igneous rocks,' by WHITMAN CROSS. The paper distinguishes the petrological from the petrographical point of view in rock classification and in a very temperate and excellent manner advocates the latter for systematic classification, the former for theoretical discussion. No actual scheme is, however, advanced. The paper was read at the Montreal meeting of the Geological Society of America and has been previously abstracted in these columns (p. 83). 'On Rock Classification,' by J. P. IDDINGS. With several very suggestive and comprehensive diagrams the author discusses the chemical relations of the igneous rocks. The paper was read at the Montreal meeting of the Geological Society of America and has been previously reviewed in these columns (p. 83).

*American Chemical Journal*, February.—'On the Action of Acetic Anhydride on Phenylpropionic Acid': By ARTHUR MICHAEL and J. E. BUCHER. The authors find that in

this reaction polymerization takes place with the formation of a naphthalene compound. 'The Relation of the Taste of Acids to their Degree of Dissociation': By T. W. RICHARDS. The relative strength and extent of dissociation of dilute acid solutions can be determined approximately by the sense of taste. 'Note on Fehling's Solution': By J. B. TINGLE. The ordinary solution containing tartaric acid is reduced even at the ordinary temperature if it has been partly neutralized with the free mineral acids and also decomposes spontaneously if allowed to stand. It is, therefore, necessary to use a freshly prepared solution. If, however, glycerine and ammonium hydroxide are used, instead of the tartaric acid salt, a solution is obtained which is perfectly stable. 'Action of the Anhydride of Orthosulphobenzoic Acid on Dimethyl- and on Diethylaniline': By M. D. SOHON. Formation of the corresponding aniline sulphonphthaleins. 'The Molecular Weight of Lactimide': By G. M. RICHARDSON and M. ADAMS. The evidence speaks in favor of the double formula. 'The Action of Sodium Ethylate upon  $\alpha$ ,  $\beta$ -Dibromhydrocinnamic Ester, Citradibrompyrotartaric Ester, and  $\alpha$ ,  $\beta$ -Diorompropionic Ester': By V. L. LEIGHTON. 'On some Bromine Derivatives of 2, 3,—Dimethylbutane': By H. L. WHEELER. 'Phosphatic Chert': By J. H. KASTLE, J. C. W. FRAZER and GEO. SULLIVAN. Analyses of phosphatic limestone. 'On the Effect of Light on the Combination of Hydrogen and Bromine at High Temperatures': By J. H. KASTLE and W. A. BEATTY. Light causes the combination of hydrogen and bromine at 196°.

J. ELLIOTT GILPIN.

The *Zeitschrift für den physikalischen und chemischen Unterricht* (Berlin, Julius Springer) deserves to be better known than it is by the teachers in our secondary schools. The ten volumes now completed are full of valuable matter bearing upon the teaching of physical sciences. In the first, January, number of the eleventh volume, the editor, Dr. Poske, reviews the history of the journal, reaffirms strongly his frequently expressed opinion of the humanistic character of all proper general physical instruction, and urges teachers to make

less of theory and hypothesis and more of experiment and experience. Then follow some notes by that wonderfully bright and prolific writer, Professor Mach, of Vienna, one of the associate editors, upon the 'Historical Development of Optics.' Dr. Strecker, of Berlin, writes upon theory and practice in the construction of rheostats for small physical laboratories. Then follows an article upon the nature of visible water-vapor and its experimental production before a class. Then we have Professor van't Hoff's paper of last summer before the Scientific Congress in Berlin on 'Stereo-chemistry.' Descriptions of new apparatus and experiments, historical notes, courses and methods of instruction, technics and mechanical praxis, new books, reports of scientific societies, and astronomy for the year, with maps, complete the volume.

E. A. STRONG.

YPSILANTI, MICH.

#### NEW BOOKS.

*Leçons sur l'intégration des équations aux dérivées partielles du second ordre a deux variables indépendantes.* E. GOURSAT. Paris, A. Hermann. 1898. Vol. II. Pp. 344.

*Peneroplis, eine Studie zur biologischen Morphologie und zur Speciesfrage.* FRIEDRICH DREYER. Leipzig, Wilhelm Engelmann, 1898. Pp. vi+119+5 plates. 10 Marks.

*Pasteur.* PERCY FRANKLAND and MRS. PERCY FRANKLAND. New York, The Macmillan Co. Pp. vi+224. \$1.25.

*Angewandte Elektrochemie.* FRANZ PETERS. Wien, Pest, Leipzig. A. Hartleben's Verlag. Vol. 2. 1st part, pp. xi+248; 2nd part, pp. xii+215.

*The Arrangement of Atoms in Space.* J. H. VAN'T HOFF. Second revised and enlarged edition; translated and edited by Arnold Eilvart. London, New York and Bombay, Longmans, Green & Co. 1898. Pp. vi+211.

*Spectrum Analysis.* JOHN LANDOWER. Authorized English Edition by J. BISHOP TINGLE. New York, John Wiley & Sons; London, Chapman & Hall, Ltd. 1898. Pp. x+239.

*Outlines of Descriptive Psychology.* GEORGE TRUMBULL LADD. New York, Charles Scribner's Sons. 1898. Pp. xi+428. \$1.50.