scribed from America. It was, therefore, with the greatest surprise and pleasure that I detected some galls produced by a coccid, on the leaves of *Quercus wrightii* at Pinos Altos, New Mexico, on July 8th. The galls were quite abundant and are situated on the midrib on the under side of the leaf, at or near the base; their shape is something like that of a hazel-nut, but flatter on one side, with the midrib continued to form a ridge, terminating in a more or less pointed apical crest. Frequently two galls will be combined in one, in which case there are two pointed crests. On the upper side of the leaf is observed a narrow slit, opening into the cavity of the gall. The cavity of the gall is low-conical and is filled by the dark-colored female coccid.

The coccid, aside from the fact of its forming a gall, is extremely interesting. It belongs to the Idiococcinæ, a group of sixteen known species, all confined to Australia, except one in the Sandwich Islands and one in Japan. It is closely allied to the Australian forms, the larva being very like that of *Crocidocysta*, lately described by Rübsaamen, while the adult resembles certain species of Maskell's genus *Sphærococcus*. It represents, however, a new genus, which I call *Olliffiella*, in memory of Mr. Sidney Olliff, whose lamented death occurred just as he was about to publish on the gall-making coccids of Australia. The genus *Olliffiella* will be known by its adult female having very small but perfectly distinct and well-formed legs and antennæ; the antennæ resembling those of *Coccus*, six-jointed, the joints after the third successively shorter; the femora very stout, semi-circular in outline, the tarsi distinctly two-jointed (a rare but not unique character in coccids), the four digitules all filiform, with small round knobs; the skin of the dorsal surface is thickly beset with glands, mostly double or figure-of-eight. The larva after being treated with potash is reddish-purple, with the legs, antennæ and spines pale yellowish. There are rows of blunt dorsal spines, as in various Coccinæ. The anal ring has distinct but very small bristles; the antennæ are six-jointed, joints 1, 3 and 6 equal in length and longest, 2, 4 and 5 equal and shortest. The caudal setæ are fairly long. The species may be termed *Olliffiella cristicola*, n. sp. At some later date it is intended to give a detailed and illustrated account of it.

T. D. A. Cockerell.

Mesilla, N. M., August 3, 1896.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.

The fourth annual meeting of this Society was held at Buffalo, N. Y., on August 20, 21, 22. Five sessions were held and twenty-one papers were read and discussed. On August 22d there was an excursion to Niagara Falls and Lewiston, under the auspices of the Engineer's Society of Western New York. The following were the officers of the meeting: President, Mansfield Merriman, of Lehigh University; Secretary, C. Frank Allen, of Massachusetts Institute of Technology; Treasurer, J. J. Flather, of Purdue University. The opening address of President Merriman was published in the last issue of Science.

This report of the Committee on Requirements for Admission to Engineering Colleges was presented by the Chairman, Prof. Marvin. This report gives in full the data from both engineering colleges and preparatory schools, collected by the committee during the two years of its labors, as also a careful analysis of the same with conclusions and recommendations. It was advised that a qualitative uniformity seemed desirable in regard to subjects for admission, and a list of such subjects was presented. The reports will be printed in full and opinions thereon be requested from the 350 institutions which have furnished the data.

'A Quarter Century of Progress in Engineering Education,' by Prof. Robert Fletcher, of the Thayer School of Civil Engineering, was a historical paper which especially set forth the influence of engineering education upon other education, upon the profession of engineering and upon the technical press.

'The Study of Modern Languages in Engineering Courses,' by Dr. T. M. Drown, President of Lehigh University, recommended that after one year of study instruction in technical reading should be given by teachers of engineering, the aim being to accomplish an important practical end in the shortest possible time. After one year of such instruction the author had found that students could read technical books and journals with ease and confidence.

'Biology for Civil Engineers,' by G. C. Whipple, of the Boston Water Works, set forth the advantages of instruction in biology to sanitary engineers. It was thought that this is not less an age of electricity than it is an age of bacteria, and itw as maintained that better sanitation would result from thorough fundamental instruction of the laws governing matter in the living state.

The following are the titles of the other papers read at the meeting:

'Agreement on Definitions of Engineering Terms,' by Thomas Grey, of Rose Polytechnic Institute.

'Seminar Methods as Applied to Engineering Subjects,' by F. P. Spalding, of Cornell University.

'An Experiment in the Conduct of Field Practice,' by F. O. Marvin, of University of Kansas.

'Methods of Teaching Perspective to Engineering Students,' by H. S. Jacoby, of Cornell University.

'A Course of Study in Naval Architecture,' by C. H. Peabody, of Massachusetts Institute of Technology.

'The Elective System in Engineering Colleges,' by M. E. Wadsworth, Director of the Michigan Mining School.

'The Desirability of Lectures to Undergraduates on the Ethics of Engineering,' by C. C. Brown, Civil Engineer.

'Quantity versus Quality in Smaller Colleges,' by Albert Kingsbury, of New Hampshire College of Agriculture and Mechanic Arts.

'The Conservation of Government Energy in Promoting Education and Research,' by C. W. Hall, of University of Minnesota.

'The Hale Engineering Experiment Station Bill,' by W. S. Aldrich, of University of West Virginia.

'Uniformity of Symbols for Engineering Text-Books,' by I. O. Baker, of University of Illinois, being a report of progress of a committee on this subject.

'Is not Too Much Time Given to Merely Manual Work in the Shops?' by W. H. Schuerman, of Vanderbilt University.

'How to Divide Subjects for Original Investigation among Different Colleges,' by C. H. Benjamin, of Case School of Applied Science.

'Credit for Shop Experience in Entrance Examinations,' by W. T. Magruder, of Vanderbilt University.

'A Course of Study in Municipal and Sanitary Engineering,' by A. N. Talbot, of University of Illinois.

'Engineering Education in Japan,' by J. A. L. Waddell, Civil Engineer.

'Modelling as an Aid to Teaching Machine Design,' by G. W. Bissell, of Iowa Agricultural College.

About 25 new members were elected, thus making the total membership over 200, about 85 engineering colleges being represented. Among the guests present was Mr. Surijo Mine, Electrical Engineer to the Japanese government. The number of members in attendance was about 50, and many interesting discussions upon the papers were held. On the motion of Dr.

T. C. Mendenhall, the Society adopted a resolution advocating the passage of a law by Congress for the adoption of the metric system of weights and measures.

The following officers were elected for the ensuing year: President, H. T. Eddy, of University of Minnesota. Vice-Presidents, J. Galbraith, of Toronto School of Practical Science, and J. M. Ordway, of Tulane University. Secretary, C. Frank Allen, of Massachusetts Institute of Technology. Treasurer, J. J. Flather, of Purdue University. Councillors, T. C. Mendenhall, of Worcester Polytechine Institute; Robert Fletcher, of Thayer School of Civil Engineering; A. Beardsley, of Swarthmore College; M. E. Wadsworth, of Michigan Mining School; W. H. Schuerman, of Vanderbilt University, and Wm. Kent, Editor of *Engineering News*.

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*THIRTEENTH GENERAL SESSION OF THE AMERICAN CHEMICAL SOCIETY.**

The president, Dr. Chas. B. Dudley, called the meeting to order. He spoke of the large program and proceeded at once to call upon the committee of arrangements.

Dr. Miller introduced Dr. Roswell Park, president of the Buffalo Society of Natural Science, who gave the address of welcome. After making the visitors feel at home, he made a plea to those who were interested in physiological chemistry to produce a substance which should have a germicidal property, so far as the deleterious germs were concerned, and yet not be toxic to the living tissue. With such a substance we could saturate our systems and live secure from the attacks of the deleterious germs. The president replied to Dr. Park's address. After thanking him for his kind welcome, he spoke of the advancement of chemistry in the last few years, and the benefits to be derived from chemists' being united in a society. The reading of papers was then proceeded with. Among the most interesting of the papers read was that of Prof. Kennicott, 'The Inspection and Sanitary Analysis of Ice.' This paper was discussed at length.

The following is a list of the papers read:

Composition of American Kaolins (*25m.*). Charles F. Mabery and Otis F. Klooz.

Composition of Certain Mineral Waters in Northwestern Pennsylvania (*15m.*). A. E. Robinson and Charles F. Mabery.

Mercuric Chlor-thiocyanate (*5m.*). Charles H. Herty and J. G. Smith.

Zinconium Oxalates (*10m.*). F. P. Venable and Charles Baskerville.

Rutheno-cyanides (*m.*). James Lewis Howe.

The Inspection and Sanitary Analysis of Ice (*20m.*). Cass L. Kennicott.

The Reduction of Concentrated Sulphuric Acid by Copper (*8m.*). Charles Baskerville.

Some Analytical Methods Involving the Use of Hydrogen Di-oxide (*15m.*). B. B. Ross.

Notes on the Preparation of Glucinum (*10m.*). Edward Hart.

Aluminum Analysis (*30m.*). James Otis Handy.

An Analytical Investigation of the Hydrolysis of Starch by Acids (*30m.*). George W. Rolfe and George Defren.

The Effect of an Excess of Reagent in the Precipitation of Barium Sulphate (*15m.*). C. W. Foulk.

Estimation of Thoria: Chemical Analysis of Monazite Sand (*15m.*). Charles Glazer.

Determination of Reducing Sugars in Terms of Cupric Oxide (*30m.*). George Defren.

Acidity of Milk increased by Boracic Acid (*5m.*). E. H. Farrington.

Accuracy of Chemical Analysis (*15m.*). Frederic P. Dewey.

Some Extensions of the Plaster of Paris Method in Blowpipe Analysis (*15m.*). W. W. Andrews.

Device for Rapidly Measuring and Discharging a Definite Amount of Liquid (*5m.*). Edward L. Smith.

Table of Factors (*5m.*). E. H. Miller.

A Modified Form of the Ebullioscope (*10m.*). H. W. Wiley.

A New Form of Potash Bulb (*5m.*). M. Gomberg. Communicated by A. B. Prescott.

Morphine in Putrefactive Tissue (*15m.*). H. T. Smith. Communicated by A. B. Prescott.

The Signification of Soil Analysis (*10m.*). H. W. Wiley.

A Complete Analysis of Phytolacca decandra (*5m.*). G. B. Frankforter and Francis Romaley.

The Crystallized Salts of Phytolacca decandra. G. B. Frankforter and Francis Romaley.

The By-products formed in the Conversion of Narcoline into Narceine (*5m.*). G. B. Frankforter.

* Buffalo, N. Y., August 21 and 22, 1896.