

SCIENCE:

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Communications will be welcomed from any quarter. Abstracts of scientific papers are solicited, and twenty copies of the issue containing such will be mailed the author on request in advance. Rejected manuscripts will be returned to the authors only when the requisite amount of postage accompanies the manuscript. Whatever is intended for insertion must be authenticated by the name and address of the writer; not necessarily for publication, but as a guaranty of good faith. We do not hold ourselves responsible for any view or opinions expressed in the communications of our correspondents.

Attention is called to the "Wants" column. All are invited to use it in soliciting information or seeking new positions. The name and address of applicants should be given in full, so that answers will go direct to them. The "Exchange" column is likewise open.

THE CHEMICAL LABORATORY OF THE CASE SCHOOL.

THE "First Annual Report of the Chemical Laboratory of Case School of Applied Science," Cleveland, Ohio, which is under the directorship of Professor C. F. Mabery, contains a brief review of its development since the school was opened in 1881. The liberal expenditure at first granted by the trustees for chemical supplies, and for equipment of the temporary laboratory, laid the foundation for immediate arrangement of the course of study, which became necessary to meet the demand for instruction in chemistry. Upon the removal of the school to the new building on Euclid Avenue, in September, 1885, the commodious, well-lighted rooms on the third story were assigned to chemistry, and they were occupied until the building was burned in October, 1886. In promptly providing for the continuance of instruction after the fire, in a separate building, the trustees made it possible to resume laboratory work with a delay of less than four months. This building has served an excellent purpose during the four years it has been occupied, and the great amount of labor that has been expended in developing the course of study will be apparent when they are expanded in the more spacious rooms of the new laboratory. The first graduates in chemistry were of the class of 1886, and fifteen now fill responsible positions as chemists and professors of chemistry. Two of the graduates have received the degree of doctor of philosophy from the University at Berlin, and two others have nearly completed an advanced course of study, one at the University at Heidelberg, Germany, and the other at Zurich, Switzerland.

For the best development of chemical training, the beneficial influence of original research or study of special problems upon students as well as instructors, is recognized; and while it may be possible to include very little of this work in a course of study for undergraduates, the general effect of such an atmosphere is stimulating to their ambition. Then, too, questions constantly arise in professional pursuits that can only be determined by the application of knowledge independent of routine methods. The investigations carried on were on subjects of considerable practical importance. An exhaustive study by Mr. A. W. Smith of the composition of the water of the lake at different points along the shore, and the influence of varying currents in causing contamination, indicated the direction that an extension of the inlet tunnel should take to provide the best supply for the city. A paper on salt brines led to the perfection by Dr. Dow of a process now in operation for the extraction of bromine from brines that promises to replace the older methods. Although many methods have been proposed and protected by patents for the removal of sulphur from Ohio petroleum, the results of investigations made at Case School gave the first information concerning the forms of the sulphur compounds in these oils. The examination of oils from other localities promises interesting results. Since 1884 investigations have been constantly in progress in the laboratory on the metal-

lurgy and uses of metallic aluminum and its alloys, and they have contributed to the great reduction in price of the metal and to its more general use in the arts.

THE AMERICAN SOCIETY OF MICROSCOPISTS.

THIS association, now in the thirteenth year of its existence, will hold its fourteenth annual meeting in Washington, D.C., beginning Aug. 10, and continuing in session five days. Its roll of active members contains about three hundred and fifty names, embracing nearly every person in the United States who is at all prominent as a microscopist. Its membership consists of two distinct classes; viz., professional men and students of the natural sciences, who use the microscope in their daily avocations as an instrument of research, diagnosis, or precision; and amateurs, or those who find pleasure and profit in the revelations of the instrument. Many of the latter class, from having early chosen special lines of study and investigation, have acquired high reputations in their respective departments of microscopical research. In its earlier years this class predominated in the membership of the society, but at present the professional element is largely in excess.

The qualifications for membership are very simple. The applicant must be a respectable person socially, and interested in the use of the microscope.

The advantages of membership are dual in their nature; i.e., general and social, or those which accrue to the individual from association with others engaged or interested in the same pursuits in any and all walks of life; and special, in that the meetings of the society are to a certain extent educational in their nature. In the "working sessions" experts in every department of microscopical technology are engaged in giving manual demonstrations of the details of their lines of work; in the informal evening *conversaciones* the room of every worker who has anything special to exhibit or demonstrate is open for the reception of all those who wish to witness the demonstration; finally, the *soirée* affords an opportunity of displaying for the benefit of the members, as well as the public generally, all that is most beautiful, interesting, and instructive in the cabinets or laboratories of the exhibitors. Of late years the *soirées* have been attended by many thousands of visitors in every city in which the society has met, and have been regarded as distinguished social as well as scientific events.

The dues are only two dollars per annum, and in return the member gets a volume of the "Annual Proceedings," which costs very nearly this amount. All persons, professional or amateur, interested in microscopy and not already on the rolls, are invited to send in their applications for membership to the secretary, Dr. W. H. Seaman, 1424 Eleventh Street, Washington, D.C. The application should be accompanied by three dollars, which is the initiation fee and one year's dues. Any further information concerning the society or the approaching meeting may be obtained by addressing Frank L. James, president, Box 568, St. Louis, Mo.; W. H. Seaman, secretary, 1424 Eleventh Street, Washington, D.C.; or C. C. Mellor, treasurer, 77 Fifth Avenue, Pittsburgh, Penn.

INTERNATIONAL CONGRESS OF GEOLOGISTS.

THE Committee of Organization of the International Congress of Geologists announces the following details with regard to the meetings of the Fifth Geological Congress, to be held in Washington from Aug. 26 to Sept. 2, and for excursions which will follow.

The meetings will be held in the rooms of the Columbian University, at the corner of Fifteenth and H Streets. A large lecture-room, and smaller rooms for meetings of the council, exhibition of maps, rocks, minerals, etc., have been set apart for this purpose. Special postal, telegraph, and messenger service will be arranged in the building during the week of the meeting, and a bureau of information, where members will register. Those who arrive before the opening of the congress are requested to register their names at the secretary's office, 1330 F Street.