

this work completing the survey of the reserve; also 154 miles of the boundaries of the Black Mesa Forest Reserve and 12 miles of those of the Mount Graham Forest Reserve of Arizona were surveyed and similarly marked. In the office 97 atlas sheets were completed and the entire revision and redrafting of the large topographic wall map of the United States was commenced.

The division of geography and forestry was instrumental in making an agreement between the representatives of the farming industry and the sheep industry in Utah, to the effect that the entire mountain region of Utah, which constitutes at present the summer range for sheep, be reserved; that in such portions of these reserves as contributed to the water supply of the agricultural settlements sheep grazing be prohibited; that the remaining portions of the reserves be allotted to the various sheep owners for extended periods, and that the number of sheep to be grazed upon a unit of area be restricted far below the present number. About 7,500 square miles of forest reserves were examined during the season. The appropriation for this work amounted to \$130,000.

The funds available for the work of the division of hydrography were doubled by the appropriation act of June 28, 1902, and the operations under the reclamation law were entrusted to the officials of this division. As a consequence, it became necessary, for administrative purposes, to create a separate branch of the Geological Survey. This is known as the hydrographic branch, and includes the work of the division of hydrography and also that of the reclamation service, organized to carry on the surveys and examinations authorized by the reclamation law. The proceeds of the sale of public lands in the western states and territories, which were set aside to create a fund for this purpose, amount to between \$3,000,000 and \$4,000,000 a year. Preliminary investigations made to show the extent to which the arid lands can be reclaimed by irrigation have been carried on by the Geological Survey for many years. At the beginning of the fiscal year the various engineers who had previously

been engaged in these investigations were provided with added facilities for extending the work and carrying on to construction the projects that were considered feasible. Surveys and examinations were made in the states of Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington and Wyoming.

A division of hydrology has also been added to the hydrographic branch, the purpose of which is to study geologic conditions governing the occurrence of underground waters. Another feature of this branch is the division of hydro-economics, of which the chief *raison d'être* is the investigation of the equality of water and its effect on various industries.

Many interesting details are also given in this report concerning the work of the publication and administrative branches of the survey. Significant of the amount of matter published by the survey is the statement that 20,756 pages of manuscript were edited during the year and 257 atlas sheets and special maps were engraved.

This report is published for gratuitous distribution and may be procured on application to the director of the Geological Survey, Washington, D. C.

EMIL ALEXANDER DE SCHWEINITZ.

THE Medical and Dental Departments of Columbian University have passed the following resolutions in memory of the late Dr. de Schweinitz:

A great calamity has befallen the medical and dental departments of the Columbian University in the death of Dr. Emil A. de Schweinitz, professor of chemistry and toxicology and dean of the medical faculty.

Dr. de Schweinitz became professor of chemistry in 1893, and four years thereafter (1897) he was appointed dean of the medical faculty. He filled both positions with marked ability until his death on February 15, 1904.

Not only was he admired and beloved by the students for his ability as a skillful teacher, both in the lecture room and laboratory, but his gentle method and kindly interest in their welfare won for him their devout regard and unlimited esteem.

In his work as dean of the medical faculty he displayed unusual executive ability. In the equipment and internal arrangement of laboratories for the new college building he labored with untiring industry, care and skill; and in the establishment of a hospital for the medical school (for which many of us worked conjointly) it may be safely said that in the original design of this institution the leading spirit whose persistent and energetic efforts became a prime factor in the development of the enterprise, and whose never-failing hope encouraged those of us who were inclined to despond, was the progressive and unrelenting spirit of Dr. de Schweinitz.

In thus recording our appreciation of his valued services to ourselves and our university, we must not neglect also to join with the world of scientific medicine at large in commending his important labors in the domain of original research. His work in bacteriology, in the investigation of tuberculosis and other infectious diseases both in men and animals, has won for him deserved distinction and renown.

Cut off suddenly in the prime of his manhood and professional usefulness, we devoutly mourn his untimely end. In his demise we have lost a friend, counselor and companion whom we had learned to love, honor and admire.

We offer to his bereaved relatives our tenderest sympathy.

SCIENTIFIC NOTES AND NEWS.

THE American Institute of Electrical Engineers held its annual dinner in New York on February 11, at the same time celebrating the fifty-seventh birthday of Mr. Thomas A. Edison. The president of the institute, Mr. J. B. Arnold, made the opening address. Mr. Edison was unwilling to make a speech, but replied by sending a telegraphic message through an installation placed in the room. Addresses were made by Professor A. E. Kennelly, of Harvard University, Professor Cyrus F. Brackett, of Princeton University, Mr. Joseph B. McCall and Mr. C. L. Edgar. The deed of gift of the Edison Medal, for which about \$7,000 had been collected, was presented to the institute by Mr. F. Insull. Many congratulatory messages were read, including the following from President Roosevelt: I congratulate you as one of the Americans to whom America owes much; as one of the men whose life work has tended to give

America no small portion of its present position in the international world.

THE centenary of the death of Kant was commemorated on February 12 by the university and the town of Königsberg. A tablet was unveiled by the Prussian minister of education, Dr. Studt, who made a commemorative address. The town of Königsberg has appropriated \$2,500 for the establishment of a philosophical prize. A collection of Kantiana was placed on exhibition. The British Academy has also held a celebration at which an address in honor of Kant was made by Dr. Shadworth Hodgson. At Columbia University Dr. Felix Adler gave a commemorative address.

A COMMITTEE has been formed to prepare a medal in honor of the late Professor A. Cornu, the eminent physicist.

DR. EMIL FISCHER, professor of chemistry at Berlin, has been made a knight of the Prussian order 'Pour le merite.'

THE Turin Academy of Sciences has divided the Ballauri prize of about \$6,000 between Signor Marconi and Professor Grassi, and has awarded the Brasso prize of about \$1,600 to the Duke of the Abruzzi.

THE University of Edinburgh has awarded the Cameron prize in practical therapeutics to Professor Niels R. Finsen, M.D., of Copenhagen, in recognition of his pioneer work in connection with the application of light rays to the treatment of disease.

THE board of control of the Naval Institute has awarded the annual prize for the best essay to Lieut. S. P. Fullenwider, U.S.N. The subject was 'The Fleet and its Personnel.' The prize is \$200 and life membership in the institute.

MR. JAMES GAYLEY has been elected president of the American Institute of Mining Engineers.

DR. EDWARD COWLES has resigned the superintendency of the McLean Hospital, at Waverly, Mass., where much excellent work in psychiatry has been accomplished under his direction.

MR. W. C. NASH, superintendent of the Magnetic and Meteorological Department of