medal to J. Willard Gibbs as early as 1880, long before the world at large appreciated the fundamental character of the work of the great New Haven physicist. Wolcott Gibbs served on the Rumford Committee of the American Academy for thirty years (1864–94), and in many other ways did his best to aid the progress of science in America. He was for a time president of the National Academy of Sciences, until ill health enforced his resignation; and he served also as president of the American Association for the Advancement of Science.

Not only at home, but also abroad, his eminence was worthily recognized. His election to honorary membership in the German Chemical Society in 1883 and, to corresponding membership in the Royal Prussian Academy in 1885 is perhaps the most striking evidence of the foreign appreciation of his work. No other American chemist has ever attained to either of these high honors.

The brief autobiography published in the issue of SCIENCE for Friday, December 18, makes unnecessary a repetition of the chief events in his quiet daily life. His manhood was spent partly in New York, partly in Cambridge, and finally during recent years, among his cherished flowers at his home on Gibbs Avenue near the First Beach at Newport, R. I. The circumstances of his early academic life brought him into close contact with but few students. This is the more to be regretted because his enthusiastic spirit, his tireless energy, his generous recognition of everything good, and best of all his warm human friendship endeared him to all who knew him. Those who were thus fortunate, whether students or colleagues, will always devotedly treasure his memory; and his place as a pioneer of science in America will always be secure.

THEODORE WILLIAM RICHARDS

SCIENTIFIC NOTES AND NEWS

THE honorary local secretaries of the British Association for the Advancement of Science to be held in Winnipeg from August 25 to September 1, of the present year, are C. M. Bell, Esq., W. Sanford Evans, Esq., Professor M. A. Parker. Enquiries and communications on matters connected with the meeting should be addressed: To the Local Secretaries, British Association for the Advancement of Science, University Building, Winnipeg, Man.

THE American Society of Zoologists, Eastern Branch, at its recent meeting in Baltimore, elected the following officers: *President,* Professor Herbert S. Jennings, the Johns Hopkins University; *Vice-president,* Professor H. V. Wilson, University of North Carolina; *Secretary-treasurer,* Dr. Lorande Loss Woodruff, Yale University; *Member of Executive Committee,* Professor Maynard M. Metcalf, Oberlin College.

A DIVISION of Food and Agricultural Chemistry of the American Chemical Society has organized and elected the following officers and executive committee: *Chairman,* W. D. Bigelow; *Vice-chairman,* C. A. Brown; *Secretary,* W. B. D. Penniman; *Executive Committee,* F. K. Cameron, H. H. Huston, P. Rudnich, B. E. Curry.

AT the annual meeting of the Academy of Science of St. Louis, Professor Trelease was elected president, and Professor McCourt, recording secretary, for the current year.

PRESIDENT JAMES B. ANGELL, of the University of Michigan, celebrated his eightieth birthday on January 7, while attending the meeting of the Association of American Universities, at Cornell University.

PRESIDENT ELIOT, of Harvard University, expects to leave Cambridge on February 7, for a two-months' trip through the middle west to the southwest and south, during which he will make a large number of addresses to Harvard alumni and others.

DR. ALBRECHT PENCK, professor of geography at Berlin, and this year Kaiser Wilhelm professor at Columbia University, has been given the degree of doctor of science by Columbia University.

THE Wahlburg gold medal of the Swedish Society for Anthropology and Geography will be presented to Dr. Sven Hedin on his return to Stockholm. This is the second

presentation of the medal, it having been given previously to Professor G. Retzius.

Professor Theodore W. Richards has received a seventh grant of $2,500, and Assistant Professor Gregory P. Baxter a fifth grant of $1,000, from the Carnegie Institution of Washington, to aid in researches upon physico-chemical constants.

Mr. E. R. Lloyd, Rhodes scholar at Oxford from West Virginia, who was placed in the first class in the final honor schools, has been awarded the Burdett-Coutts scholarship in geology, which is held for two years and is of the annual value of £115.

King Edward has appointed Dr. H. R. D. Spitta to be bacteriologist to his household.

Mr. Raphael Zon, who will have charge of the forest experiment station work in the reorganized Forest Service, is now abroad studying the stations in Europe.

Mr. C. A. McLendon has resigned the position of assistant botanist and plant pathologist at the South Carolina Experiment Station to accept the position of botanist and plant pathologist at the Georgia Experiment Station, Experiment. He takes the place recently vacated by the removal to the State College, at Athens, of Professor R. J. H. De Loach.

It is announced that Professor George Hempl, of Stanford University, has made important discoveries in the interpretation of inscriptions left by the Etruscans.

Professor S. A. Mitchell, of Columbia University, on successive Saturday evenings, beginning January 9, delivers a course of lectures on "Astronomy" at the Wagner Institute, Philadelphia, as follows: (1) The sun and its motion through space; (2) Eclipses of the sun; (3) Wonders of the heavens revealed by the spectroscope; (4) Foucault's pendulum; (5) The moon; (6) Is Mars inhabited?

The Southern California Science Association was organized at Occidental College, Los Angeles, Cal., on December 12. The next meeting will be held in April at the University of Southern California, Los Angeles. The following officers were elected at the meeting for organization: *President,* W. A. Fiske, Occidental College, Los Angeles; *Vice-president,* W. R. Bowker, University of Southern California, Los Angeles; *Secretary-treasurer,* H. T. Clifton, Throop Polytechnic Institute, Pasadena.

At the meeting of the Middletown Scientific Association, on January 12, Charles Edward Amory Winslow, assistant professor of sanitary biology at the Massachusetts Institute of Technology, gave an illustrated lecture on "Water Supply and Water Purification."

Dr. John A. Brashear lectured at Lehigh University on December 11 on contributions of photography to our knowledge of the stellar universe.

The agricultural faculty and experiment station staff of Clemson College, S. C., have formed an organization to be known as the Clemson Biological Club. Dr. C. H. Shattuck has been elected president and Professor A. F. Conradi, secretary. Regular meetings will be held each week.

The British Admiralty will restore Halley's grave in the old burial-ground of Lee Parish Church. E. Halley, who was the astronomer royal from 1721 to 1742, was given the temporary rank of a captain in the navy, and commanded a ship of war in 1698–1701, for the purpose of making observations for magnetic variations.

A committee has been formed in Denmark to erect a memorial to Mylius Erichsen, who perished with his companions while engaged in explorations in Greenland. It is expected that the memorial will take the form of a lighthouse to be erected on the Danish coast.

A monument to Professor von Krafft-Ebing, was unveiled in the hall of the University of Vienna at the time of the recent international congress in that city on the care of the insane.

It is proposed to erect a building for surgical cases in connection with the Presbyterian Hospital, New York, as a memorial to the late Dr. Andrew J. McCosh. The chairman of the committee having charge of the memorial is Mr. John S. Kennedy, New York City.

The Brooklyn Institute of Arts and Sciences held a Charles Darwin centennial meet-

ing on the evening of January 12, when an address on "Charles Darwin and his Influence" was made by Professor Edward G. Poulton, of Oxford University.

As we have already announced, arrangements have been made for the celebration of the one-hundredth anniversary of the birth of Charles Darwin by the New York Academy of Sciences on February 12 at the American Museum of Natural History. In addition to the presentation to the museum of a bust of Darwin—the presentation to be made by Charles F. Cox, president of the academy, and the acceptance by Henry F. Osborn, president of the museum—addresses will be made on "Darwin's work in botany," by Professor N. L. Britton; on "Darwin's work in zoology," by Professor H. C. Bumpus; and on "Darwin's work in geology," by Professor J. J. Stevenson.

DR. GEORGE GORE, F.R.S., formerly lecturer on chemical and physical science at King Edward's School, Birmingham, the author of works on electrometallurgy and other subjects, has died at the age of eighty-two years.

A RECENT communication from Vienna announces the death, after a long and painful illness, of the eminent Austrian physicist and meteorologist, Hofrat Professor Dr. Josef Maria Pernter on December 20, 1908, at Arco, Tyrol, Austria. Professor Pernter was the director of the Austrian Central Institution for Meteorology and Geodynamics, Hohe Warte, Vienna, a member of the International Meteorological Committee and vice-president of the Austrian Meteorological Society. His death at the comparatively early age of sixty may leave still incomplete his important "Treatise on Meteorological Optics."

WE learn from the *Journal* of the American Medical Association that the recent small epidemic of yellow fever at Saint-Nazaire, on the French coast, has impressed on the authorities the necessity for more effectual measures against yellow fever in the French colonies, whence the disease was imported. The task was entrusted to Drs. Simond and Marchoux, who spent some time in Brazil two or three years ago in study of tropical diseases. They left for Martinique November 11, fully equipped for the extermination of yellow fever and malaria mosquitoes in Martinique and Guadeloupe.

THE appropriation bill in which are included the appropriations for carrying on the work of the Bureau of Education has passed the House of Representatives and is now in the Senate Committee on Appropriations. The only increase over appropriations for the previous year made by the House of Representatives is provision for an editor at two thousand dollars per annum. The bureau needs badly provision for larger and more sanitary quarters than it now occupies, a considerable increase in its staff, as well as an increase in the salaries of the present members of the staff, and is endeavoring to secure these increases in the Senate.

A BULLETIN from the Harvard College Observatory, under date of January 5, states that the variable star, 154428, R Coronæ was found by Mr. Leon Campbell to be faint on January 1, 1909, magn. 8.2. This star is usually of the magnitude 6.0, but occasionally undergoes marked and apparently irregular diminutions in light, sometimes becoming as faint as magnitude 13. The last diminution in brightness lasted from February 8 to September 6, 1905. On November 12, 1908, its magnitude was 6.1, and on December 13, 1908, it was 6.9. Only two other stars of this class have been as yet discovered, *191033*, R J Sagittarii and 054319—Tauri, the latter being now exceedingly faint. All three of these stars are being followed closely, both photographically and visually.

THE *American Museum Journal* states that through Edward L. Dufourcq, the directors of the Minas Pedrazzini Company at Arizpe, Sonora, Mexico, have presented to the mineral cabinet a remarkable specimen of crystallized polybasite. This ore of silver (sulphantimonide of silver with some of the silver replaced by copper) furnishes a large part of the vein material from which the silver is obtained in this mine. At favorable points there have developed beautifully crystallized specimens of the mineral upon a scale of magnitude almost

unique. The entire mass as forwarded consisted of a crystallized surface, displaying small and large crystals, nestling upon an ore body of considerable size. The value in bullion of this aggregate was $640, and it probably was the largest mass of polybasite ever taken from a mine entire.

The growth of the mineral industries of the United States is graphically exhibited by a chart just issued by the Geological Survey, tabulating for each year of the last decade the quantity and value of the output of our metallic and non-metallic mineral products. This chart shows that in 1898 the domestic production of the metals—pig iron, silver, gold, copper, lead, zinc, quicksilver, aluminum, antimony, nickel and platinum—had a total value of $305,482,183; in the same year the total value of the other mineral products amounted to $418,790,671; the grand total for the country in 1898 was therefore $724,272,854. Ten years later, at the close of the calendar year 1907, the value of the metals had increased to $903,024,005, that of the other products to $1,166,265,191, and the grand total was $2,069,289,196. The chart has interest in connection with a summary of the mineral production of the country, published by the survey as an advance chapter from "Mineral Resources of the United States, Calendar Year 1907," and copies of both the chart and the summary may be obtained by applying to the director of the survey at Washington, D. C. The survey has also published for free distribution separate chapters of its annual report on the mineral resources of the country, giving detailed statistics of many of the products that make up these totals.

Nature states that the council of the Röntgen Society has decided to act upon the advice of the committee appointed in 1906 to consider the possibility of preparing a standard for the measurement of radioactivity. This committee recommends that "The γ-ray ionization from 1 mg. of pure radium be regarded as a standard, and called a unit of radioactivity." The council has deputed Mr. C. E. S. Phillips to prepare a set of three substandards of $RaBr_2$, and these are now maturing. By the cooperation of Professor E. Rutherford, comparison will be made with a specimen of the purest $RaBr_2$ at the Victoria University, Manchester. The quantity of radium in other specimens will be capable of accurate measurement by comparison with the substandards. It is anticipated, therefore, that by this means the exact description of medical, physical or other work with radium will be facilitated, and that the possibility of fraud in the sale of expensive radium preparations will be eliminated. The council proposes to lend the substandards to any competent person desiring to measure the amount of radium in his possession, or to arrange for authoritative tests to be made. For further particulars application should be sent to the honorary secretary of the Röntgen Society, at 20 Hanover Square, London, W.

The following, as we learn from the *British Medical Journal*, are among the prizes awarded by the Paris Académie de Médecine for 1908: The Laborde prize (£200) for the most notable advancement of surgery, has been given to Professor Monprofit, of Angers, for his work on the operative surgery of the stomach; the Theodore Herpin prize (£120) has been gained by Dr. Albert Deschamps, of Riom, for an essay on the diseases of energy—general asthenias; the Amussat prize (£40) has been awarded to Dr. Destot, of Lyons, for a radiographic and clinical study.

UNIVERSITY AND EDUCATIONAL NEWS

Iowa College has obtained an additional endowment of $500,000, of which $100,000 is from the general education board and $50,000 from Mr. Andrew Carnegie.

Mr. John W. Gates has given $100,000 to establish a college at Port Arthur, Texas.

Mr. Jacob H. Schiff, of New York City, has given $100,000 towards the construction of a Jewish institute of technology at Haife, Palestine.

We learn from the London *Times* that the foundations of the laboratory which is being given to the University of Oxford for electrical work by the Drapers' Company are now being constructed. The laboratory will measure