and at the same time as the officers of the Chicago Section.

At the first election of the jurors of the Willard Gibbs Medal, to be held in 1911, four jurors shall be elected to serve a term of one year, four to serve a term of two years and four to serve a term of three years. Of each four elected, two shall be from the Chicago Section.

6. At the call of the chairman of the Chicago Section the jury shall begin its deliberation on January 2 of each year.

Each member of the jury shall be entitled to place in nomination the names of two candidates. The voting shall then be on these candidates.

The four names receiving the highest number of votes on the first ballot shall be retained, the others rejected.

If of the four names retained, none receives a two-thirds vote on the second ballot, the two receiving the fewest votes shall be dropped. If on further balloting the committee finds it impossible to make a selection by a two-thirds vote, it will report to the section, which will proceed to elect the receivent of the medal; but if any candidate receives a two-thirds vote of the committee, his election shall be final and shall be so reported to the section.

7. It is desired that the paper or address, if suitable, be published in one of the publications of the American Chemical Society.

8. The executive committee of the Chicago Section shall have the power to decide any question not specifically covered by these rules.

9. The Chicago Section shall have the power to change or amend these rules in the same manner as the by-laws of the section.

For the first year of the foundation, 1911, by special amendment of the rules of the Section a special jury of award was elected, consisting of the following members: S. A. Mather, chairman of the section and president of the Thorkildsen-Mather Co.; W. Brady, chief chemist of the Illinois Steel Co.; D. K. French, secretary of the section and chemist of the Dearborn Drug and Chemical Co.; W. Hoskins, of Mariner and Hoskins; Professor John H. Long, of the Northwestern University Medical School; A. Lowenstein, chief chemist of Nelson Morris & Co.; Professor H. McCormick, of Armour Institute; Professor H. N. McCoy, of the University of Chicago; W. D. Richardson, chief chemist of Swift & Co.; Professor Alexander Smith, of the University of Chicago, and president of the American Chemical Society, and Professor Julius Stieglitz, of the University of Chicago. By a unanimous vote the jury decided to award the first medal to Professor Svante Arrhenius for his fundamental work on the theory of electrolytic dissociation.

The medal was presented to Dr. Arrhenius on the evening of May 12, after a banquet which was attended by over 200 members and guests of the section. The formal program of the evening included the following addresses: "International Bonds of Science," by Harry Pratt Judson, president of the University of Chicago; "Chemistry and Commerce," by Mr. Wheeler, president of the Association of Commerce of Chicago; "The Willard Gibbs Medal," by S. A. Mather, chairman of the Chicago Section of the American Chemical Society; "The Presentation of the Willard Gibbs Medal to Dr. Arrhenius," by Alexander Smith, president of the American Chemical Society, and "The Willard Gibbs Address," by the medallist, Svante Arrhenius, on "The Theory of Electrolytic Dissociation." The last address gave, in outline, the history of the discovery of the theory of electrolytic dissociation; it formed, on the one hand, an intensely interesting record of the birth of a great idea and theory, of its early difficulties and its final triumph; and, on the other hand, it presented a picture of the struggles, progress and development of the genial discoverer of the theory.

The address will be published under the auspices of the Chicago Section of the American Chemical Society.

## SCIENTIFIC NOTES AND NEWS

DR. SAMUEL H. SCUDDER, of Cambridge, eminent for his contributions to entomology, especially lepidoptera and fossil insects, died on May 17, aged seventy-four years.

DURING his recent visit to Washington at the time of the annual meeting of the National Academy of Sciences, Sir John Murray presented a fund of six thousand dollars to

## SCIENCE

the academy for the purpose of founding an Alexander Agassiz gold medal which shall be awarded to scientific men in any part of the world for original contributions to the science of oceanography.

At the twentieth annual commencement of Stanford University, to be held from May 17 to 22, a portrait of President Jordan will be presented to the university.

COLONEL WILLIAM GORGAS, U.S.A., head of the sanitary forces on the Isthmus of Panama, received the honorary degree of doctor of laws from Tulane University at its annual commencement on May 17.

PROFESSOR PAUL H. HANUS, head of the department of education at Harvard University, has been chosen to take general charge of the investigation of the New York public school administration conducted by the School Inquiry Committee.

PROFESSOR C. F. MABERY has resigned the professorship of chemistry in Case School of Applied Science, which he has occupied since 1883.

DR. J. REIN, professor of geography at Bonn, has celebrated the fiftieth anniversary of his doctorate.

DR. R. FICK, professor of anatomy at Innsbruck, has been elected a corresponding member of the Royal Society of Physicians of Vienna.

THE Pharmaceutical Society has elected the following honorary members: Professor W. E. Dixon, F.R.S., professor of pharmacology, King's College, London; Dr. Adolph Engler, director, Botanical Museum, Berlin; Professor Percy F. Frankland, F.R.S.; M. Eugène Léger, pharmacien en chef de l'Hôpital St. Louis, Paris; Lieutenant-Colonel D. Prain, F.R.S., director of Royal Gardens, Kew; and Dr. Ludwig Radlkofer, professor of botany, University of Munich.

THE Bulletin of the American Mathematical Society states that the eminent mathematician, Professor Gaston Darboux, of the University of Paris, being about to complete his fiftieth year of service as a teacher in the system of public instruction of France, it is proposed by a large international group of his mathematical co-workers, friends and former pupils to commemorate this anniversary by presenting to Professor Darboux a gold medal bearing his portrait, and an appropriate address signed by the participants. All mathematicians are invited to share in rendering this honor to Professor Darboux. Copies of the medal, in reduced size, will be struck. Subscribers of twenty-five francs will receive a copy in bronze, subscribers of fifty francs a copy in silver. Subscriptions should be sent to Professor Cl. Guichard, secretary of the Faculté des Sciences.

DR. JOHANNES HARTMANN, professor of astronomy at Göttingen and director of the university observatory, has been called to be director of the Argentine Observatory at La Plata.

PROFESSOR C. H. HITCHCOCK, emeritus professor of geology at Dartmouth College, has come east from Hawaii for the purpose of completing his field work for the Geological Survey of Vermont. Some attention will also be paid by him to ichnological studies. His address will be at Hanover, N. H., for the summer.

PROFESSOR ALEXANDER GRAHAM BELL returned on May 8 from a trip around the world.

DR. T. C. MENDENHALL, formerly of the Ohio State University and later president of Worcester Polytechnic Institute, is on a visit to Japan, where from 1878 to 1881 he occupied the chair of physics in Tokyo University.

DR. JOHN C. BRANNER, of Stanford University, is the head of a scientific expedition to the coast of Brazil, which sailed from New York on April 18 for Para.

MR. WILFRED H. OSGOOD, of the Field Museum of Natural History, has returned from three months work in Venezuela and Columbia, having obtained important collections of birds and mammals, including a small series of the rare marsupial, *Caenolestes*, a living representative of the family Epanorthidæ. WE learn from the Auk that Mr. A. C. Bent, of Taunton, Mass., is organizing an expedition to the Aleutian Islands for the purpose of making a thorough biological survey of that interesting region, covering practically the whole of the summer season. Negotiations are now on foot to secure the use of a revenue cutter to take the party, which will consist of three scientific men in addition to Mr. Bent. Mr. Rollo H. Beck, known for his work in the Galapagos Islands and along the coast of California, has already been engaged, and it is probable that the United States National Museum and the Biological Survey will each send a representative.

PROFESSOR W. F. WATSON, who has held since 1890 the chair of chemistry and biology at Furman University, Greenville, S. C., has resigned, and will spend four years in a tour around the world.

DR. SVANTE ARRHENIUS lectured at the College of the City of New York on May 17 and at Columbia University on May 18. On May 15 he lectured on the J. C. Campbell foundation of the Sigma Xi Society of the Ohio State University.

DR. WALTER B. CANNON, professor of physiology in the Harvard Medical School, will give the annual address before the graduating class of the Yale Medical School at the approaching commencement.

PROFESSOR JOHN M. COULTER, head of the department of botany of the University of Chicago, will give an address before a joint meeting of the Sigma Xi and Phi Beta Kappafraternities on June 12, as a part of the program of commencement week at the University of Illinois.

PROFESSOR W. W. OSTERHOUT addressed the Biological Society of Smith College on May 18 on "Some Aspects of the Action of Mineral Salts on Plants."

DR. E. E. BARNARD, of Yerkes Observatory, lectured on "Photographic Revelations in Astronomy" before the Dayton Astronomical Society on May 10 and before the Cincinnati Astronomical Society on May 12. At the first annual meeting of the Cincinnati Society, held May 12, the following officers were elected: Dr. Lisle Stewart, president; W. C. Cooder, vice-president; Robert H. Correy, secretary; A. D. Fisher, treasurer; A. D. Alcorn, P. B. Evens, J. D. Griese, A. P. Henkel, C. H. Norton, M. C. Slutes, directors. President Taft was unanimously elected an honorary member. Sixty-five men and women joined as charter members. This society expects to interest itself particularly with astronomical and astrophysical research.

WE learn from *Nature* that a committee of the Geological Society, London, has been formed to secure the means of providing a memorial to the late Professor T. Rupert Jones, F.R.S., in aid of his widow and daughters. The late Professor Jones was never in receipt of more than a very moderate income, and received only a small pension upon his retirement thirty years ago from the post of professor of geology in the Royal Military College, Sandhurst.

THE ninety-fourth annual meeting of the Swiss Scientific Society, will be held this year at Solothurn, from July 30 to August 2, under the presidency of Dr. A. Pfaehler. In addition to the general sessions for which a number of addresses of general interest are arranged, there meet with the association the Swiss societies for botany, chemistry, geology, mathematics, physics and zoology. Foreign men of science are especially invited to be present at the meetings.

THE H. F. KIETH COMPANY, of Boston, have given \$5,000 to the Massachusetts Institute of Technology, for a research on the decomposition and general wholesomeness of eggs and for an investigation of the bacterial and chemical contents of the product under varying conditions.

Two collections of birds have been placed on deposit in the American Museum of Natural History. One of these, the property of Dr. Jonathan Dwight, Jr., of New York City, numbers about 30,000 specimens, ranking as one of the largest private collections in this country. It is especially valuable in showing plumages and molts of North American species. The second collection belonging to Dr. Leonard C. Sanford, of New Haven, Connecticut, contains about 400 specimens, largely non-passerine birds, and includes rare species especially among the albatrosses and petrels, some of which are not represented in the American Museum collections.

An arrangement has been concluded between the German and English governments and the Marconi Company by which the weather observations transmitted by wireless telegraphy from ships on the Atlantic will be made mutually available to the English and German Meteorological Offices. Experiments in this direction were made in 1909. The new arrangement is expected to come into force by next year at latest. The observations will be transmitted to the Meteorological Office in London, to the Marine Observatory at Hamburg and to the Meteorological Station at Aachen.

IN Bulletin 420 of the United States Geological Survey, entitled "Economic Geology of the Feldspar Deposits of the United States," by Edson S. Bastin, there are descriptions of the many feldspar deposits in the country and the extent to which the industry has grown. The principal consumers of feldspar are manufacturers of pottery, enamel ware, enamel brick and electric ware. The trade demands that feldspar for use in pottery be nearly free from iron-bearing minerals (biotite, garnet, hornblende, black tourmaline, etc.) and that it contain little if any muscovite. Feldspar is also used in the manufacture of emery and carborundum wheels, as a flux to bind the abrading particles together. Small quantities of feldspar are used in the manufacture of opalescent glass and carefully selected pure feldspar is used in the manufacture of artificial teeth. Some is used in scouring soaps and window washes, the fact that feldspar is slightly softer than glass rendering these soaps less liable to scratch windows or glassware than the soaps in which quartz is the abrasive substance. Two firms in New York and one in Connecticut crush

feldspar for poultry grit and for use in the manufacture of ready roofing. In a number of the feldspar quarries garnets, green tourmalines and aquamarines (beryl) of gem quality are found, but seldom in such quantity as to warrant mining for the gems alone. Mr. Bastin mentions a feldspar quarry in Connecticut where some of the cavities that yielded gem tourmalines were as large as a bushel basket. At another quarry in the state a large transparent green tourmaline about seven inches long was found. This stone is now in the museum of the Wesleyan University at Middletown, Conn. One pocket in the same quarry contained a large crystal weighing several pounds, of pale-blue to palegreen color, the tints being similar to those observed in some aquamarines. Unfortunately, this crystal was much shattered in the blasting, but the fragments have yielded a number of small cut gems of great beauty.

## UNIVERSITY AND EDUCATIONAL NEWS

GOVERNOR Foss has signed the bill by which the Massachusetts Institute of Technology will receive \$100,000 annually from the state for ten years. By the terms of the measure the Institute will maintain 80 free scholarships to be apportioned among the 40 senatorial districts of the state.

THE California legislature has passed a bill which has been recently signed by the governor appropriating \$25,000 for a soils laboratory building, equipment and other improvements at the Citrus Experiment Station. About \$1,500 of this amount will be used in improving the irrigation system, \$2,500 to complete the title for building site and nursery grounds, about \$2,000 for incidentals, leaving \$19,000 for building and equipment. The work of this laboratory is to be confined to the study of citrus soils from their chemical, physical and biological phases.

THE legislature of Hawaii, just adjourned, appropriated \$75,000 for a new building for the College of Hawaii and \$20,000 for maintenance expenses. The committee of education favored the adoption of the plans that have been drawn up for the development and