and will alternate with the sessions of the Botanical Society of America, as at the Chicago meeting. The address of the retiring vice-president, Dr. C. E. Bessey, will be on "The Phyletic Idea in Taxonomy."

Section L—Education—will hold five sessions, three independent sessions and two joint sessions. The topics and speakers for the independent sessions are: 1. The Relation of the Bureau of Education to the Other Educational Work of the Country, President Harry Pratt Judson, Professor Edward C. Elliott, Superintendent E. C. Moore. 2. American College Education and Life, Professors Josiah Royce, Wm. North Rice, President Wm. L. Bryan and others. 3. The Relation of Governments to Education (address of the retiring vice-president), Hon. E. E. Brown, U. S. Commissioner of Education. The first of these sessions will be held on Tuesday, December 29, at 2 P.M.; the second on Wednesday, December 30, at 2 P.M., and the third on Thursday, December 31, at 3 P.M.

One of the joint sessions will be held on Tuesday, December 29, at 10 a.m. with the American Federation of Teachers of the Mathematical and the Natural Sciences at which the topic: The Problems of Science Teaching will be discussed by Presidents R. S. Woodward and Ira Remsen, and Professors John M. Coulter, N. M. Fennemann, George F. Stradling and William T. Campbell. The other joint session will be held on Wednesday, December 30, at 10 a.m., with the American Psychological Association, at which meeting reports of experimental work in educational psychology will be presented and discussed by a number of investigators in this field.

THE ANNUAL DUES OF MEMBERS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE permanent secretary of the American Association for the Advancement of Science begs to call the attention of members to the fact that the annual dues (three dollars) for the year beginning January the first should now be sent to him. The financial year of the association now ends on October 31, and

the dues for the following calendar year should be paid as soon as possible after that date. The dues are so small and the membership of the association has become so large that the sending of statements involves an expenditure of time and money, which, so far as possible, should be saved. The office of the permanent secretary must be removed to the place of meeting at Baltimore during the last week in December, and the dues should be paid prior to that time. If they are not paid before January 1, there are serious complications in regard to the sending of Science to members. The association can not make itself responsible for sending Science to those whose dues are in arrears, as there are some who may regard the non-payment of dues as equivalent to resignation from the association. The back numbers will be sent to those who pay their dues after January the first upon application to the publishers and the payment of postage at the rate of one cent a copy, so far as the edition permits, but the publishers do not guarantee that this will be done. Should the edition threaten to become exhausted, it will be necessary for those who wish to keep their sets of Science complete to pay for the numbers at the rate of fifteen cents each.

The permanent secretary takes this occasion to remind members of the desirability of assuming life membership in the association. By the payment of fifty dollars at the present time, all future trouble and expense is avoided. The fees of life members are ultimately transferred to the permanent fund, the income of which is used exclusively for the encouragement of research, and those who assume life membership thus contribute materially to the advancement of science.

L. O. Howard, Washington, D. C. Permanent Secretary

SCIENTIFIC NOTES AND NEWS

It is announced that the Nobel prizes for 1908 are to be awarded as follows: For chemistry, Professor Ernest Rutherford, director of the physical laboratories of the University of Manchester, England; for literature, Algernon Charles Swinburne; for physics, Dr. Max

Planck, professor of physics in the University of Berlin; for medicine, divided between Dr. Paul Ehrlich, of Berlin, and Professor Elie Metchnikoff, of the Pasteur Institute of Paris.

At a recent meeting of the board of directors of the Rockefeller Institute for Medical Research, Dr. Rufus I. Cole, of the Johns Hopkins Medical School, Baltimore, was appointed director of the Hospital of the Rockefeller Institute for Medical Research and Dr. Christian A. Herter was appointed physician to the hospital. Work on the hospital buildings is in progress. It is expected that the hospital will be completed and ready for occupancy in November, 1909.

Dr. S. F. Harmer, F.R.S., fellow and assistant tutor of King's College, Cambridge, has been appointed keeper in zoology at the British Museum of Natural History.

Mr. A. H. Kirkland, superintendent of the Massachusetts state work against gypsy and brown-tail moths, has resigned his office.

DR. WILLIAM MORTON WHEELER, who, during the past summer accepted the professorship of economic entomology in Harvard University, has recently been appointed honorary curator of social insects in the American Museum of Natural History, where, until the present year, he had been curator of the department of invertebrate zoology since 1902. At the close of his term of service at the museum, he presented to the institution his entire collection of Formicida—the result of many years of earnest effort and study-a gift of such value as to make the museum the possessor of the finest collection of its kind in America and one of the three largest in the world.

Mr. Eduard Essed, B.Sc. (Edinburgh), has been appointed forest botanist to the government of Dutch Guiana.

Professor John M. Coulter has been appointed to represent the University of Chicago at the University of Cambridge Darwin memorial celebration.

MM. EDMOND PERRIER and Van Tieghem have been appointed delegates from the Paris Academy of Sciences to the Darwin centenary in Cambridge.

Dr. Percy Gardner, professor of archeology at Oxford, and Dr. Barclay Vincent Head, some time keeper of the department of coins and medals in the British Museum, have been elected corresponding members of the Prussian Academy of Sciences.

THE council of the University College, Bristol, has appointed Dr. John Beddoe, F.R.S., honorary professor of anthropology.

WE learn from *Nature* that Mr. N. W. Thomas has been selected by the secretary of state for the colonies to conduct an investigation into the laws and customs of the native tribes of southern Nigeria. The tribes to be studied are, in the first instance, those of the old kingdom of Benin, but it is probable that the inquiry will be continued and include the natives of the other West African colonies in addition. Mr. Thomas is leaving to take up his duties in a few weeks.

Dr. Charcot and his companions left Buenos Ayres, on November 23, on the exploration ship *Pourquoi Pas* for Punta Arenas, whence they will continue their journey to the South Polar regions.

In reply to an invitation sent him by the president of the Royal Geographical Society, President Roosevelt has promised when he goes to England, about April, 1910, after his journey in Africa, to address the society.

Professor Edwin G. Conklin, of Princeton University, is to deliver the address at the public semi-annual meeting of the Ohio Eta Chapter of Phi Beta Kappa, Ohio Wesleyan University, on the twentieth of February. The exact title of the address has not been announced, but it is to be in the nature of a Darwin centenary memorial.

The three hundred and forty-ninth meeting of the Middletown Scientific Association was held in the Scott Laboratory of Physics, Wesleyan University, on December 8, when Gordon Ferrie Hull, Ph.D., professor of physics in Dartmouth College, gave an illustrated lecture on The Electron Theory of Matter.

The former library building of Oberlin College has been remodeled and is now the Spear Zoological Laboratory. Some of those who were students under Albert A. Wright, the former professor of geology and zoology, have placed in this building a tablet bearing the words:

To

ALBERT ALLEN WRIGHT for thirty-one years Professor of Geology and Natural History in Oberlin College 1874-1905

An expression of the honor and love of its pupils. Labor that in lasting fruit outgrows Far noisier schemes, accomplished in repose, Too great for haste, too high for rivalry.

THE Empress Auguste Victoria has presented to the Senckenberg Natural History Society of Frankfort a bust of Goethe by the sculptor Ernst Freese, which has been erected in the entrance hall of the new museum of the society.

Dr. Andrew J. McCosh, professor of clinical surgery at Columbia University and eminent as a surgeon, died on December 2 at the age of fifty years. His death resulted from being thrown from his carriage while on the way to the Presbyterian Hospital, where he had been a surgeon for nineteen years.

THE attendance of the joint Conservation Conference, meeting at Washington this week, is composed of men who have been active participants in the work for conservation since the White House Conference. About half the governors have definitely said that they will be present and the others will send representatives of their states. These governors or their representatives are accompanied by the members of the state conservation commissions which have been named during the summer and fall. In addition to these there will be present the special conservation committees which have been formed by twentyfive or more national organizations. The session on the morning of the eighth was a more or less informal gathering in the Red Room of the Willard Hotel for the purpose of organizing. At 4:15 o'clock that afternoon was the general meeting at the Belasco Theater, at which President Roosevelt and President-elect Taft were among the speakers to address the members of the joint Conservation Conference, the Rivers and Harbors Congress, the Southern Commercial Congress and other organizations with allied objects whose sessions in Washington at that time will help to make up what has been called "Conservation Week." After that the joint conference was to take up its business at the Hubbard Memorial Hall. The plan was to take up one after another the main subjects which the National Conservation Commission has been studying-waters. lands, forests, minerals.

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At the General Assembly of the International Institute of Agriculture, held in Rome on November 27, Signor Tittoni, the Italian minister for foreign affairs, was appointed president, and M. Muravieff, the Russian ambassador, and Sidney A. Fisher, the Canadian minister of agriculture, were chosen vice-presidents.

A FREE public museum and scientific laboratory has recently been established in Reading, Pa. The public school board is furnishing the cases for the exhibition of material now on hand. The museum is located in the old boys' high school, recently vacated. The material now on hand is largely of the nature of commercial interests although it is proposed to include all branches of natural history. The administration is under the direction of the Reading school district. Professor Levi W. Mengel is the director.

THE Garden of the Gods, is to become by gift of the children of the late Charles E. Perkins, of Boston, the property of Colorado Springs. Papers have been filed whereby the six children and heirs deed to three trustees the 480 acres comprising the Garden of the Gods, authorizing them to transfer the same free of charge to the city of Colorado Springs before January 1, 1911. The tract comprising the Garden of the Gods was secured by Mr. Perkins in 1879, and has always been free to the public. It was his wish that this scenic attraction forever be open to the world. and it is in accordance with his expressed wishes that the transfer is made.

The Drapers' Company has granted £500, to be paid in five annual instalments of £100, to the Middlesex Hospital cancer research fund to assist the governors in maintaining the investigations which are being pursued into the cause of cancer and its cure.

UNIVERSITY AND EDUCATIONAL NEWS

THE legislature of Vermont has acted favorably upon the proposition to establish at Middlebury College a department of pedagogy for the training of high school teachers. The bill, which has been signed by Governor Prouty, carries an annual appropriation of \$6,000.

RICHMOND COLLEGE, at Richmond, Va., controlled by the Baptists of that state, has collected \$350,000, required to secure a conditional gift of \$150,000 from Mr. John D. Rockefeller.

Eighteen months have now elapsed since the Chancellor's Fund for the further endowment of Oxford University was inaugurated. The committee then appointed under the chairmanship of Lord Curzon to organize the appeal has so far been successful in its efforts to raise the required sum of £250,000 that it has now received gifts or promises of a total value of more than £133,000. Recent subscribers have been: Sir Julius Wernher, £2,000; Mrs. Craig-Sellar, £1,000; Mr. Otto Beit, £500; the Merchant Tailors' Company, £500; Mr. J. Hamilton Beattie, £300; Mr. Gerard Craig-Sellar, £300; the Skinners' Company, £250. Mr. Henry Phipps has added £200 to his original gift of £1,000, and Lord Brassey has given £200 for the School of Geography in addition to the £1,000 promised by him for the School of Engineering.

THE board of managers of Haverford College and the faculty held recently their annual joint meeting. The topics for discussion were the advisability of increasing the number of dormitories, and as to whether it would be well to limit the number of students by raising the entrance requirement.

THE Central Association of Science and Mathematics Teachers, at its meeting held in Chicago on November 28, unanimously passed the following resolutions as embodying the conclusions of the association with regard to two important matters of interest to all teachers of science:

Resolved, That we believe in the recognition and inclusion within our courses of the practical and applied aspects that make possible an appreciable significance and belief in the worthwhileness in practical life of the various subjects studied; and

Resolved, That we believe that the formulation of secondary school courses should be made entirely from the point of view of the needs of the majority of secondary school pupils; and, further, that any course that is best for the majority of secondary school pupils is best for college entrance.

Professor Walter S. Graffam, of Howard University, Washington, D. C., has accepted the instructorship in mechanic arts at Smith's Agricultural School and Northampton School of Technology. He will be placed at the head of the mechanic arts department, and will take up his new duties September 1, 1909.

Deans of faculties at the University of London have been elected as follows: For medicine, Professor S. H. C. Martin, F.R.S.; for science, Professor J. M. Thomson, F.R.S.; for engineering, Professor W. E. Dalby.

DISCUSSION AND CORRESPONDENCE

AN ELECTRIC STORM ON THE WASHAKIE NEEDLES To the issue of Science of November 6. 1908, Professor J. E. Church, Jr., contributes an article entitled, "Electric Disturbances and Perils on Mountain Tops." The exceedingly interesting phenomena there described recall a personal experience, vivid and unpleasant, and of like character, but differing enough in detail to render it possibly worthy of being recorded. It has remained until now unpublished, because I feared that as it came from one who had no pretensions to scientific education, it might not meet with credence. What follows happened near the top of some mountains in Wyoming, to the southeast of the Yellowstone Park, generally known on local maps as the Washakie Needles. Visible from a long distance, these sharp gray peaks are somewhat higher than the surrounding range, and two well-known streams, Owl Creek