candidate must present evidence of qualifications under the following heads: (1) A letter from the candidate addressed to the secretary of the committee, giving an account of previous educational opportunities and training, and of plans for future work. (2) College diploma or a certificate from the registrar of her college, and if she has already held a position as instructor or teacher in any college or other institution, a clear statement of the work done, together with a certificate as to the quality of work. (3) Examples of work already accomplished. (4) Testimonials as to ability and character. (5) Satisfactory evidence of thoroughly good health. The fellowship at all times must be used for purposes of serious study, and the fellow should be as free as possible from other responsibilities.

Application for the year beginning June 15, 1912, should be made under the above heads, and must be in the hands of the secretary of the committee, Mrs. Charles S. Hinchman, 3635 Chestnut Street, Philadelphia, Pa., on or before March 1, 1912. The committee consists of Professor Mary W. Whitney, director of Vassar College Observatory, chairman; Annie J. Cannon, A.M., Harvard Observatory, vice-chairman; Professor Anne S. Young, Ph.D., Mt. Holyoke Observatory; Dr. Edward C. Pickering, director of Harvard Observatory; Elizabeth R. Coffin, A.B., Vassar College, '70; Florence M. Cushing, A.B., Vassar College, '74; Lydia S. Hinchman, Philadelphia, secretary.

## SCIENTIFIC NOTES AND NEWS

THE Vienna Academy of Sciences has elected as honorary members Professor Svante Arrhenius, of Stockholm; Professor Archibald Geikie, of London, and Professor E. Metchnikoff, of Paris.

PROFESSOR E. COSSERAT, director of the observatory at Toulouse, has been elected a corresponding member of the Paris Academy of Sciences.

THE Paris Academy of Medicine has elected as national associates Dr. de Brun, professor of pathology at Beirut, and Dr. Herrgott, professor of clinical obstetrics at Nancy. THE celebration of the seventieth birthday of the Königsberg pharmacologist, Professor Jaffé, took place on July 25.

THE Middlemore prize of the British Medical Association has been presented to Mr. C. W. G. Bryan in recognition of his essay on serum and vaccine therapy, in connection with disease of the eye.

MR. HARLAN I. SMITH, of the American Museum of Natural History, has been appointed archeologist of the Geological Survey of Canada, with an office in the Victoria Memorial Museum, the national museum of Canada, at Ottawa.

AT the recent meeting of the American Ophthalmologic Society at New London, Dr. Edward Jackson, of Denver, was elected president.

THE following honorary degrees were conferred at the ninety-first commencement of Colgate University: L.H.D. on John Burroughs, the naturalist; Sc.D. on H. E. Slaught, Ph.D., professor of mathematics, University of Chicago, and John B. Ekeley, Ph.D., professor of chemistry, University of Colorado.

THE Dutch geologist, Dr. Molengraaf, has lately undertaken an investigation of the interior of Timor.

THE eighteenth Congress of Americanists will be held next year in London, the invitation issued by the Royal Anthropological Institute, through its president, Mr. A. P. Maudslay, having been accepted by the congress. The president-elect is Sir Clements Markham.

THE fourteenth annual session of the American Mining Congress is called to meet at Chicago, Ill., on September 26, 27, 28 and 29.

THE Michigan Health Board of Exhibit started on its first trip over the state on August 1, promulgating facts regarding typhoid fever, tuberculosis, infant mortality and general sanitation to the people of the state.

By the will of the late Dr. J. Smith, of Hanover, Pa., he devised his entire estate, valued at about \$50,000, toward the endowment of a library for Hanover. A citizen of the town has given a building, which is just completed and the local physicians have undertaken to develop a medical reference section as a memorial to Dr. Smith.

THE Scottish Geographical Magazine states that the annual relief of the observers located at Laurie Island, South Orkneys, was effected early in February by the Uruguay, which experienced very heavy weather, both on the outward and homeward voyage. The observers report a very open autumn and winter as having occurred last year-May, June and July being all milder than any noted previously. The first zero temperature was not observed till July 24, or three months later than in 1903, when the Scotia was frozen in by the end of March. In 1910 Scotia Bay remained unfrozen till the last week of July, being the latest date observed, and broke up on November 18. August was a cold month. During the summer of 1910-11 there was much pack ice round the islands, which did not disperse till early in February, a few days before the arrival of the relief ship. Mr. Elliston, a Norwegian, one of the meteorological observers, died on August 20 of a cardiac complaint after a few weeks' illness.

THE president of the British local government board has, as we learn from the Journal of the American Medical Association, authorized the following special researches to be paid for out of the annual grant voted by parliament in aid of scientific investigations concerning the causes and processes of disease: (1) A research into the causes of premature arterial degeneration in man, by Dr. F. W. Andrewes, pathologist to St. Bartholomew's Hospital; (2) an inquiry by Dr. J. H. Thursfield, of St. Bartholomew's Hospital into the causes of death in measles; (3) a comparison by Professor Nuttall, F.R.S., Quick professor of biology at the University of Cambridge, of the number and kinds of fleas found on rats; (4) a continuation by Dr. C. J. Lewis, of Birmingham University, of his investigation into the degree of prevalence and the characteristics of microorganisms known as non-

lactose fermenters in the alimentary canal of infants; (5) an investigation into the same subject by Dr. D. M. Alexander, of Liverpool University; (6) an inquiry by Dr. Graham Smith, of Cambridge University into the incidence of non-lactose fermenters in flies in normal surroundings and in surroundings associated with epidemic diarrhœa; (7) a study by Dr. F. A. Bainbridge, of the Lister Institute, of the anaerobic bacteria in the alimentary canal of infants; (8) an investigation by Dr. Graham Smith into the possibility of pathogenic microorganisms being taken up by the larva and subsequently distributed by the fly.

WE learn from Nature that the organizing committee of the fourth International Conference of Genetics, to be held in Paris on September 18-23, met recently under the presidency of Dr. Viger. M. Philippe de Vilmorin, secretary of the committee, reported what had been done up to that day in preparation for the conference. Not counting the names of the principal French biologists who are members of the committee, the secretary was able to give the names of the following foreigners who have subscribed: Baur, Giesenhagen, Goldschmidt, Pfitzer, Poll, etc. (for Germany); Agar, Bateson, Darbishire, Gregory, Miss Durham, Hartog, Laxton, Lynch, Nettleship, Paton, Punnett, Miss Saunders, Staples-Browne, Sutton, Miss Wheldale, etc. (for Great Britain); Bradley (for Australia); Fruwirth, Strakosh, Tchermak, etc. (for Austria); W. and Chs. Saunders (for Canada); Johannsen (Denmark); Balls (Egypt); Davenport, Hays, Howard, Swingle, Tower. etc. (United States); Hagedoorn, Houwink, Lotsy, Noordnijn (for Holland); Leake (for India); Strampeli (for Italy); Nilsson-Ehle, Rosenberg (for Sweden); Chodat (Switzerland); Boris de Fedtschenko (Russia), and Arechavaleta (Uruguay). Many universities and scientific societies will be officially represented. Numerous communications have been promised; short descriptions of them will be published before the meeting of the conference, and they will be published in full in the proceedings, a copy of which will be sent to each subscriber. The meetings of the conference will depend upon the number of the communications, but it seems probable that five sittings will be sufficient. The remaining time will be devoted to visits to the Museum of Natural History, the Pasteur Institute at Garches, to Verrières, the laboratories of the Sorbonne, etc. Probably there will be a reception by the French National Society of Horticulture on September 18, and one at the Hôtel de Ville on September 23.

WHEN congress, in order to encourage the building of the great transcontinental railroads, subsidized them by land grants of enormous areas along the lines to be built, certain restrictions were made as to the character of lands which were thus granted. Thus the land grant of the Northern Pacific excepted all mineral lands other than those containing coal and iron, these minerals being excepted because they would be of use in the building and maintenance of the road. After the grant was made it became necessary to determine what parts of these lands were mineral and should therefore be retained by the government. A classification of the lands included within the Northern Pacific grant in the Bozeman, Helena and Missoula land districts, in Montana and in the Cœur d'Alene district, in Idaho, was accordingly required by the Act of Congress of February 26, 1895, which provided that the classifications should be made by three commissioners in each land district. In the sundry civil Act of June 25, 1910, an appropriation of \$30,000 was made to enable the commissioner of the General Land Office to complete the examination and classification of lands within the Northern Pacific grant in this territory. The additional classification was made by geologists of the Geological Survey. As a result of the work done 288,545 acres were examined and classified during the year. Of this area 112,-514 acres were classified as non-mineral and may therefore properly be patented to the Northern Pacific Railroad. On the other hand, 176,031 acres were classified as mineral land, either because the lands examined were

found to contain valuable deposits of gold, silver, lead, phosphate or other important minerals, or because the geological and other indications warranted the prospecting of the lands for valuable minerals. Lands that are finally held to be mineral will remain in the public domain for entry and development by private enterprise. The potential value of the minerals included in these lands has not been fully estimated, but it is certainly very great.

## UNIVERSITY AND EDUCATIONAL NEWS

THE dean of the Wisconsin College of Physicians and Surgeons, Milwaukee, announces that an anonymous benefactor has given \$5,000 to the maintenance fund of the college.

THE trustees of Indiana University have appointed Dr. Charles P. Emerson as dean of the Indiana University School of Medicine, and head of the department of medicine. He will take up his residence in Indianapolis, the first of September, and will enter on his teaching and executive duties at the beginning of the fall term. It is definitely agreed that his first duties shall be to the university, and that consultations, to which his practise will be limited, shall be strictly secondary to these.

DR. M. A. ROSANOFF, since 1907 acting head of the department of chemistry in Clark University, has been made full university professor and head of the department.

MR. PAUL HAYHURST, assistant entomologist at the Arkansas Experiment Station, has been promoted to the full title of entomologist at the station and professor of entomology in the University of Arkansas with Mr. George G. Becker as his assistant. Mr. Hayhurst thus succeeds Dr. C. F. Adams, dean and director, who was formerly the entomologist.

Dr. HEINRICH BILTZ, associate professor at Kiel, has been called to the chair of chemistry at Breslau.

PROFESSOR RÖSSLER, of Munich, has accepted a call to Jena as professor of pathologic anatomy.