

The object of this letter is to attract the attention of the authorities of such institutions as may seem, to such authorities, qualified to compete; and the request is hereby made that all such institutions send, through their proper channels, their names to 'The Edison Medal Committee' of the American Institute of Electrical Engineers, 95 Liberty Street, New York City, on or before June 1, 1904, in order that the committee may have before it the names of all institutions which those in direct authority of them believe qualified to comply with the conditions as set forth in the various sections of the deed of gift, as follows:

Fourth. The Institute shall, so long as the requisite funds accrue from the said investments so to be made by the trust company, annually cause to be executed a gold medal, and shall, through a committee to be duly appointed and authorized by it and known as the Edison Medal Committee, award said medal in accordance with the provisions of this clause.

1. The medal shall be awarded to such qualified student as shall have submitted to the institute, in accordance with the provisions of this deed and of the regulations which may be prescribed by the Edison Medal Committee, the best thesis or record of research on theoretical or applied electricity or magnetism.

2. Each competitor for the medal, in order to be qualified, must have graduated and received a degree during the year for which the medal shall be awarded, in some course of study at some institution of learning in the United States of America or Dominion of Canada, which course of study shall include the branch of electrical engineering. The United States Naval Academy and Military Academy are included within the institutions from which competitors may be qualified.

3. Not more than two students may compete in any one year from any one institution of learning; nor may any student compete, unless duly presented for competition through the faculty of the particular institution at which he is a student.

4. The course of study must be one normally representing not less than two years of continuous residence and work.

5. The thesis or record must not exceed six thousand words, not inclusive of words employed in explanation of accompanying drawings.

6. No competitor shall be of greater age than twenty-five years at the day of his graduation in such course of study.

Fifth. The institute shall, through its Edison Medal Committee, forthwith make such rules and regulations, not inconsistent with any of the provisions or conditions of this deed, as may, in their judgment, assist in the proper execution of the trust herein created. The Edison Medal Committee shall immediately upon making such rules and regulations notify the institutions of learning open to competition, of such provisions of this deed, and of such rules and regulations as may properly be communicated to them, and through them to the students at such institutions.

Sixth. The institute will further, through its Edison Medal Committee, issue to each recipient of the Edison Medal a parchment certificate in such form as may be prescribed by said committee, certifying the name of the person to whom said medal is awarded, the date of such award, and such other facts as may be deemed proper by the committee.

The Edison Medal Committee is being selected from among the members of the institute who are not now connected with educational institutions, but who have the necessary early educational training, and subsequent experience, to enable them to critically analyze and justly determine the merits of the theses offered in the various fields of research. This committee will, after organization, communicate such further information as may be necessary to those institutions whose names have been presented in compliance with this invitation, and it is hoped that prompt response may be received in order that no institution justly entitled to consideration may be overlooked.

BION J. ARNOLD,
President.

AMERICAN INSTITUTE OF
ELECTRICAL ENGINEERS.

SCIENTIFIC NOTES AND NEWS.

At the annual meeting of the American Academy of Arts and Sciences, held on May 11, it was voted, on the recommendation of the Rumford committee, to award the Rumford medals to Professor Ernest Fox Nichols, of Columbia University, for his researches on radiation, particularly on the pressure due to radiation, the heat of the stars and the infrared spectrum.

PROFESSOR EDWARD S. MORSE has been elected a corresponding member of the

Swedish Society of Anthropology and Geography.

THE council of the Royal Astronomical Society has proposed as associates M. Henri Deslandres, of the Meudon Observatory, Professor C. D. Perrine, of the Lick Observatory, and Mr. George W. Ritchie, of the Yerkes Observatory.

PROFESSOR FRIEDRICH KOHLRAUSCH, president of the Reichsanstalt, has been elected a foreign member of the Danish Academy of Sciences.

PROFESSOR BARROIS, of Lille, the geologist, has been elected a member of the Paris Academy of Sciences.

THE University of Göttingen has awarded its Otto Wahlbruch prize, of the value of \$3,000, to Dr. Wilhelm Pfeffer, professor of botany at Leipzig. The prize is awarded for the most important contribution to science during the past two years.

THE candidates selected by the council of the Royal Society have been elected as follows: Dr. T. G. Brodie, Major S. G. Burrard, Professor A. C. Dixon, Professor J. J. Dobbie, Mr. T. H. Holland, Professor C. J. Joly, Dr. Hugh Marshall, Mr. Edward Meyrick, Dr. Alexander Muirhead, Dr. G. H. F. Nuttall, Mr. A. E. Shipley, Professor M. W. Travers, Mr. Harold Wager, Mr. G. T. Walker and Professor W. W. Watts.

THE Royal Institution, London, has elected the following honorary members: Professor E. H. Amagat, Professor L. P. Cailletet, Professor J. M. Crafts, Professor H. A. Lorentz, Professor E. W. Morley, Professor E. C. Pickering, Professor and Madame Curie, Professor H. L. Le Chatelier, Professor G. Lippmann, Professor J. W. Bruhl, Professor G. H. Quincke, Professor E. Fischer, Professor F. W. G. Kohlrausch, Professor H. Landolt, Professor L. Boltzmann, Dr. H. Kamerlingh Onnes, Dr. G. Lunge, Professor P. T. Cleve and Professor P. Zeeman.

DR. W. SCHMID has been appointed director of the Bavarian National Museum at Munich.

PROFESSOR W. F. KING, chief astronomer for the Canadian government, is preparing to un-

dertake the resurvey of the Alaskan boundary in accordance with the recent award of the Alaskan Commission.

M. ALFRED GRANDIDIER has been elected president of the French Society of Geography.

PROFESSOR HENRY B. WARD, of the University of Nebraska, will sail on June 11 for England. He expects to visit the university laboratories in England and on the continent and to attend the International Zoological Congress. He will not return to Lincoln until about September 15.

DR. ROBERT KOCH has arrived at Cairo from West Africa, and is being consulted by the Egyptian Sanitary Department on the epidemic of bovine typhus now prevalent in Egypt.

DEAN EDWARD C. KIRK, of the Dental School of the University of Pennsylvania, has been made chairman of the committee on organization of the fourth International Dental Congress, which is to be held at St. Louis from August 29 to September 3.

MR. R. W. WILLIAMS, JR., of the Biological Survey, will soon return to his home in Tallahassee, Florida, to resume the practice of law.

A JURY in Brooklyn has rendered a verdict of \$20,000 damages in favor of Mr. Arthur MacDonald against the New York *Sun*. The *Sun* published numerous editorials attacking Dr. MacDonald while he was specialist on the defective classes of the U. S. Bureau of Education.

DR. WILLIAM OSLER, professor of medicine at the Johns Hopkins University, delivered on May 18 the Ingersoll lecture at Harvard University. His topic was 'Science and Immortality.'

PROFESSOR ROBERT FLETCHER, director of the Thayer School of Engineering, Dartmouth College, has addressed the students of the Worcester Polytechnic Institute on 'Our Personal Relation to Sanitary Science.'

THE Croonian lectures before the Royal College of Physicians of London will be delivered by Dr. J. Rose Bradford on June 7, 9, 14 and 16, his subject being 'Bright's Disease and its Varieties.'

It is stated in the *Condor* that Mr. W. L. Dawson, the author of 'The Birds of Ohio,' intends to move to the state of Washington, where he will undertake, in co-authorship with Mr. J. H. Bowles, of Tacoma, an illustrated work upon the 'Birds of Washington.'

THE monument in honor of Benjamin Rush, presented to the nation by the American Medical Association, will be unveiled at Washington, on June 11, at four o'clock in the afternoon. There will be an introductory address by the president of the American Medical Association; an oration on Benjamin Rush by Dr. J. C. Wilson, Philadelphia, and an address of the president of the United States accepting the gift.

THE fellowship established at the University of California in honor of the late Professor Joseph Le Conte has been awarded to C. O. Esterly, at present assistant in zoology at the University.

NEWS has just been received by cable that Professor E. J. Marey died on May 16. Physiology has thus lost one of its ablest exponents and a leader in the application of methods of physical research to the study of biological phenomena.

PROFESSOR WILHELM HISS, professor of anatomy at Leipzig and eminent for his contributions to that science, died on May 1, at the age of seventy-two years.

DR. GEORGE JOHNSTON ALLMAN, F.R.S., for more than forty years professor of mathematics in Queen's College, Galway, has died at the age of eighty years. He was the author of numerous contributions to mathematics, especially on the history of the science.

WE regret also to record the death of M. Emile Godfernaux, a well-known French civil engineer, and of M. Charles Soret, who held, since 1879, a chair at the University of Geneva, first of mineralogy and then of physics, on April 4.

FREDERICK A. WALPOLE, the botanical artist of the Department of Agriculture, died on May 11, 1904, of typhoid fever, at Cottage Hospital, Santa Barbara, Cal. He was considered the best plant artist in the United States, his drawings having been used to illustrate

various reports published by the Department of Agriculture and the Smithsonian Institution, as well as the narrative of the Harriman Alaska expedition. Mr. Walpole was born in Essex County, New York, in 1861, and at an early age moved with his parents to Illinois and later to Portland, Oregon, where he was engaged for some years as artist of a lithographic establishment. In 1896 his drawings of plants came to the notice of the Department of Agriculture and procured for him the position which he has since occupied. His method was to make his drawings from living plants growing under their natural wild conditions. His summers were spent mainly in the field, and his winters at the National Herbarium in Washington, where he completed and perfected his work. The greater part of his drawings remain unpublished, including a remarkable series of colored paintings of the native poisonous plants of the United States, now on exhibition by the Department of Agriculture at St. Louis. He was a member of the American Association for the Advancement of Science, the National Geographic Society and the Biological Society of Washington.

THERE will be a civil service examination on June 8 for the position of civil engineer in the Philippine Service Bureau of Forestry, at a salary of \$2,400. On June 15 there will be an examination for the position of laboratory assistant in the Bureau of Standards at a salary of \$900.

THE New York Civil Service Commission will hold examination on June 7, for director of Pathological Laboratories, Department of Bellevue and Allied Hospitals, New York City. The salary is \$5,000 a year; the successful candidate will be required to devote all his time to the work.

COLONEL J. E. THAYER, of Lancaster, Mass., is erecting a museum in that town to contain his valuable collection of birds.

MR. E. R. THOMAS has given \$40,000 to the Manhattan Eye, Ear and Throat Hospital, which makes available conditional gifts amounting to \$125,000.

THE proposal has been made to erect in Albany, N. Y., an institution, to cost \$1,250,000. It is intended for a home for the Albany Institute and Historical and Art Society, as well as the research center of the newly organized society of engineers of eastern New York.

THE sixth International Zoological Congress will, as has already been announced, be held at Berne from August 14 to 19. The congress will be invited to hold its next session in the United States.

IN connection with the mathematical congress which will be held at Heidelberg from August 8 to 13, there will be an exhibition of the mathematical literature of the past ten years, to which mathematicians are invited to contribute. Further information may be obtained from Dr. A. Gutzmer, University of Jena.

WE take from the *Medical News* the following facts in regard to the program of the American Medical Association which meets at Atlantic City from June 7 to 10. On Tuesday evening, beside the Oration on Medicine, the title of which is 'The Importance of Pathologic Anatomy in Clinical Medicine,' by Dr. George Dock, Ann Arbor, Mich., there will be a symposium on research work in the United States. Dr. J. S. Billings, New York, will give an account of the work being done by the Carnegie Institution; Dr. L. Emmett Holt, New York, will speak of the Rockefeller Institute; Dr. Frank Billings, Chicago, of the Memorial Institute for Infectious Diseases; Dr. Harold C. Ernst, Boston, concerning the research work at Harvard, and Dr. Alfred Stengel concerning the William Pepper Clinical Laboratory. On Wednesday evening Dr. W. J. Mayo, Rochester, Minn., will deliver the Oration on Surgery, entitled 'The Association of Surgical Diseases in the Upper Abdomen.' This will be followed by a symposium on 'The Mutual Relation and Duties of the Government Medical Services and the Medical Profession.' Dr. Victor C. Vaughan will talk on the subject 'What Can the Medical Departments of the Army, of the Navy, and of the Public Health and Marine-Hospital Service do for Medical Science?' Surgeon-Major

William C. Borden, U. S. Army, will speak on 'What Can the Medical Profession do for the Army?' Surgeon C. F. Stokes, U. S. Navy, will speak for the Navy, and Surgeon-General Walter Wyman will speak for the Public Health and Marine-Hospital Service. On Thursday evening the oration on State Medicine will be delivered by Dr. Herman M. Biggs, New York City, on 'Preventive Medicine; its Achievements, Scope and Possibilities.' Following this will be a symposium in which Dr. William H. Welch, Baltimore, will speak in 'The Bureau of Animal Industry; its Service to Medical Science'; Dr. D. E. Salmon, Washington, D. C., on 'The Service of the Medical Profession to the Bureau of Animal Industry,' and Dr. H. W. Wiley, Washington, D. C., on 'The Bureau of Chemistry and Medical Science.' These evening meetings will be held on Young's Pier, so there will be ample room for the large number that will certainly attend them.

ACCORDING to Mr. George Otis Smith, of the United States Geological Survey, who is the author of a geologic folio on the Mount Stuart (Washington) quadrangle, there is likely to be an increase in the future in the gold production of that area. Mining operations in that field have heretofore been in the hands of people with limited capital, but during the last five years the claims of the small operators have been purchased by large companies, and it is probable that the mines will now be worked more steadily and more economically. The three principal gold-mining districts of central Washington are in this quadrangle. The Peshastin placers were discovered in 1860 and have been worked intermittently ever since. The Swauk placers have been worked rather more steadily since their discovery in 1868. Gold-bearing veins were first located in the Peshastin district in 1873, and in the Swauk district in 1881. Copper and silver occur with the gold in some of the veins of the Negro Creek district. Many of the ores are essentially copper ores, but whether the bodies are extensive enough to warrant their development has not yet been determined. Nickel is also a metal frequently

reported in the assays from this district. The Roslyn Basin is the most productive coal field in the Pacific coast states and it is included mostly within this quadrangle. The coal is a coking, bituminous coal, well adapted for steam raising and gas making. Its clean character and its high percentage of lump fit it for shipment as well as for local use.

UNIVERSITY AND EDUCATIONAL NEWS.

IN the thirtieth general assembly of Iowa, recently adjourned, an attempt was made to remove the departments of engineering from the State University at Iowa City to the State College of Agriculture at Ames. The measure was promptly killed by the vigorous action of the alumni and other friends of the university and an appropriation of \$50,000 was made for erecting either the first of a new series of engineering buildings or the wing of a single large engineering hall. An additional appropriation was made for constructing a dam in the Iowa River which will yield on the average over three hundred horse power. This power will be used for lighting and ventilating the university buildings, besides supplying power to the various engineering shops and laboratories. Plans for the proposed structures are being made and work will be commenced at the earliest possible date. An additional \$5,000 was appropriated for the better equipment of the bacteriological laboratory, which sum will be increased from the general support fund of the university. Ground will at once be broken for a new museum building to cost about \$225,000. The present natural science building of brick, completed in 1885 at a cost of \$45,000, will be moved bodily to a new site to make room for the proposed structure, this being in accordance with plans formed several years since for the development of the university buildings and grounds. The new medical buildings are nearing completion and are already partially occupied. All the new buildings are massive fireproof structures, finished in Bedford stone and thoroughly modern in every detail. The total income of the university for the next biennium will exceed \$960,000, about one third of which must be used for building.

ACCORDING to the New York *Evening Post* the Association of Class Secretaries of the Massachusetts Institute of Technology, which is active in opposition to the proposed union of the Institute with Harvard University, reports that over 2,000 of the alumni have signed the petition on the subject addressed to the corporation. Ninety-five per cent. of the graduates approached on the subject sign the adverse petition without qualification, or with unimportant modification; three per cent., while advocating the independence of the Institute, decline to sign because they rely on the judgment of the corporation, or consider the petition too sweeping; and two per cent. decline to sign because they believe that some combination of effort may be possible, or that a union with Harvard is desirable.

THE Cornell College of Agriculture is to add a school of landscape gardening to its curriculum.

WE learn from the London *Times* that the president of the board of education has appointed a departmental committee to inquire into the present working of the Royal College of Science, including the School of Mines; to consider in what manner the staff, together with the buildings and appliances now in occupation or in course of construction, may be utilized to the fullest extent for the promotion of higher scientific studies in connection with the work of existing or projected institutions for instruction of the same character in the metropolis or elsewhere; and to report on any changes which may be desirable in order to carry out such recommendations as they may make. Sir Francis Mowatt, G.C.B., is chairman of the committee, and Mr. J. C. G. Sykes, assistant secretary in the branch of the board which deals with evening schools, technology and higher education in science and art, has been appointed secretary to the committee.

DR. WILLIAM STIRLING, professor of physiology in the University of Manchester, has been appointed dean of the Medical School.

DR. R. BRAUNS, professor of geology and mineralogy at Giessen, has been called to Kiel.