will be begun at once. The sum of £300,000 has been appropriated for these buildings, which will occupy a position directly facing the Imperial Institute.

THE new building erected in the Dublin Zoological Gardens in memory of the late Professor Samuel Haughton was formally opened on May 19th by the Lord-Lieutenant, in the presence of a large gathering. Field-Marshal Lord Roberts, President of the Royal Zoological Society, described the purpose of the meeting and said that the new building was intended as a tribute to the memory of Dr. Haughton, whose name was intimately connected with many of the leading institutions in Dublin, but with none more closely than with the Royal Zoological Society, of which he had been five years President and 21 years Honorary Secretary.

THE City of Philadelphia has appointed a committee of expert engineers consisting of Rudolph Hering, of New York, Samuel Gray, of Providence, R. I., and Joseph L. Wilson, of Philadelphia, to make an investigation of the water supply of Philadelphia.

AN institute for the study of tropical medicine will be established at Berlin, with Dr. Koch as Director.

THE *Electrical World* abstracts from English journals an account of the early work of Professor Huges (inventor of the microphone), in wireless telegraphy by means of etheric waves; it appears to be the first published account of his experiments, which were made in 1879. He was experimenting with his microphone and induction balance, and found that the microphone produced a sound in the receiver even when it was placed several feet distant from the coils through which an intermittent current was passing and not in any other way connected. He found that the whole atmosphere, even in several rooms distant from there, would be invisibly changed and that this could be noticed with a microphone and telephone receiver. He experimented on the best form of receiver for these invisible electric rays, which he found would pass over great distances through walls, etc. He found that carbon contacts or a piece of coke resting on bright steel were very sensitive and self restoring receivers. A loose contact between metals, while equally sensitive, required restoring. He also used the microphone as a relay in detecting such rays. He endeavored to discover the best receiver so as to utilize such waves for the transmission of messages. He showed his experiments to a number of well-known physicists at that time. The distance was 60 feet in the building, but he also took the instrument on the street, and walked away from the transmitter, obtaining signals up to 500 yards. He claimed the existence of the waves at that time, but was unable to convince others of their presence. He also calls attention to still earlier experiments of Professor Henry, of Princeton (U. S.), which were published by the Smithsonian Institution, Vol. I., p. 203, the date being probably about 1850; he magnetized a needle in a coil 30 feet distant; also by a discharge of lightning eight miles distant.

UNIVERSITY AND EDUCATIONAL NEWS.

THE election of Professor Arthur T. Hadley to the presidency of Yale University by the Corporation on May 25th marks the beginning of a new era in the development of a great university. Yale has adhered more closely than most of our larger institutions to the clerical and classical traditions of the American college, and President Hadley, while conserving what is good, will undoubtedly use his influence to make Yale, as a university, the equal of Harvard. Like the Presidents of Harvard, Johns Hopkins and Stanford Universities, President Hadley may be claimed as a man of science, his work on railway transportation and other subjects being strictly scientific in character.

CLARK University proposes to celebrate its decennial by special exercises beginning on July 5th. These will include lectures by eminent foreign men of science. Invitations to speak having been accepted by M. Émile Picard, professor of mathematics at the University of Paris and a member of the Institute; Dr. Angelo Mosso, professor of physiology at the University of Turin; and Dr. Santiago Ramon y Cajal, professor of histology and pathological anatomy at the University in Madrid.

A SPECIAL course in the fundamental problems of geology intended particularly for college

teachers will be offered during the first term of the summer quarter (July 1 to August 10, 1899) at the University of Chicago by Professor T. C. Chamberlin. This will embrace a discussion of the chief problems of geology involving basal principles and fundamental modes of interpretation. While old views will not ignored, a special feature of the course will be a relatively new series of working hypotheses based upon the accretion theory of the earth's origin. These hypotheses will be carried out to their practical applications in the unsolved problems of geology and be made the basis of new modes of interpretation of geological history. The course will embrace an exposition of the stages of expansional, restrictional and provincial life evolution in the earth's history and the conditions controlling them. The functions of base-levels, sea-shelves, epicontinental seas, and continental stages of quiescence and readjustment in the control of life evolution, will be set forth. Parallel with the above there will be given a course in glacial geology involving a discussion of principles, the phenomena and modes of interpretation. These courses will be offered for the coming summer only, in response to an expressed desire for them. The usual courses in general geology and physiology, and in field and laboratory work, will be given by Professor Salisbury, aided by Messrs. Goode, Atwood, Calhoun and Finch.

THE Rhode Island College of Agriculture and Mechanic Arts, with the cooperation of Hon. Thomas B. Stockwell, State Commissioner of Public Schools, and Dr. Horace S. Tarbell, Superintendent of Schools in Providence, proposes to open a summer school for nature study at Kingston, R. I., from July 5 to 19, 1899, provided forty applicants are enrolled before June 1st. A general summer school is not contemplated, and the work offered by the various departments constitutes a single course dealing solely with local phenomena in their adaptability to the teaching of nature study. The distinctive feature will be the study of living nature. On the excursions attention will be directed to special facts and illustrations in botany, zoology, geography and mineralogy, and to the manner in which chemical, physical and biological laws are utilized by practical application to horticulture and agriculture. The evenings will be devoted to general lectures bearing upon nature and upon methods of teaching nature study. Among those who have consented to aid by conducting excursions, conferences and lectures are Professors H. C. Bumpus, E. G. Conklin, H. W. Conn, C. B. Davenport and W. M. Wheeler.

THE Women's Medical College of New York will be closed at the end of the year, when the thirty-first annual commencement will be celebrated. When the College was established there was no opportunity for women to secure a medical education, but Johns Hopkins and Cornell having admitted women to their medical schools it has been decided that a special medical school for women is unnecessary. The infirmary for women and children will be continued, and the buildings of the College will be used for graduate work.

THE medical faculty of the University of Pennsylvania has made nominations as follows: Dr. James Tyson, professor of clinical medicine, to the chair of medicine, vacant by the death of the late Dr. Pepper; Dr. John H. Musser and Dr. Alfred Stangel, to be professors of clinical medicine; Dr. Judson Daland, Dr. M. Howard Fussell, Dr. John K. Mitchell and Dr. Frederick A. Packard to be assistant professors of medicine, and Dr. G. Davis to be assistant professor of applied anatomy.

DR. C. E. BEECHER, professor of historical geology in Yale University, has been appointed to succeed the late Professor O. C. Marsh as Curator of the Geological Collections of the Peabody Museum. Professor Beecher has been made a member of the Executive Council of the Museum.

AT the University of Kansas the following appointments have been recently made: W. R. Crane, of Janesville, Wis., to be assistant professor of mining engineering; Thomas M. Gardner, of Mitchell, Ind., to be assistant professor of mechanical drawing; Dr. Ida Hyde, of Cambridge, Mass., to be assistant professor of zoology; Hamilton P. Cady, of Ithaca, N. Y., to be assistant professor of chemistry, and Charles L. Searcy, of the College of Montana, to be assistant professor of civil engineering.