

as follows: Pole of Mars, R. A. $317^{\circ}.5$; Dec., $54^{\circ}.5$. Epoch 1905. Tilt of martian equator to martian ecliptic, $23^{\circ} 59'$. This value of the inclination of the martian equator is somewhat less than that which has been generally accepted heretofore.

RECENT COMETS.

DURING the year 1905 three comets were discovered for which orbits were determined. Two of them were found by Giacobini, and the other by Shaer. So far during the present year two comets have been discovered, by Brooks and Kopff. None of these has been of much popular interest. For an unusually long period no spectacular object, such as the great comets of 1843, 1858, 1881 and 1882, has appeared. One may appear at any time, but of this there is no certainty. However, Halley's periodic comet will be due about 1910, and it will probably be bright.

S. I. BAILEY.

SAMUEL PIERPONT LANGLEY.

At a memorial meeting of the board of regents of the Smithsonian Institution, on March 6, the following resolutions were passed:

Resolved, That the Board of Regents of the Smithsonian Institution express their profound sorrow at the death, on February 27, 1906, of Samuel Pierpont Langley, Secretary of the Institution since 1887, and tender to the relatives of Mr. Langley their sincere sympathy in their bereavement.

That in the death of Mr. Langley this Institution has lost a distinguished, efficient and faithful executive officer under whose administration the international influence of the parent Institution has been greatly increased, and by whose personal efforts two important branches of work have been added to its care—the National Zoological Park and the Astrophysical Observatory.

That the scientific world is indebted to Mr. Langley for the invention of important apparatus and instruments of precision, for numerous additions to knowledge, more especially for his epoch-making investigations in solar physics, and for his efforts in placing the important subject of aerial navigation upon a scientific basis.

That all who sought the truth and cultivated science, letters and the fine arts, have lost through his death a co-worker and a sympathizer.

That the Executive Committee be requested to arrange for a memorial meeting to be held in Washington.

That Doctor Andrew D. White be invited to prepare a suitable memorial which shall form a part of the Records of this Board.

SCIENTIFIC NOTES AND NEWS.

SIR GEORGE DARWIN, K.C.B., Plumian professor of astronomy, will represent the University of Cambridge at the celebration of the two hundredth anniversary of the birth of Benjamin Franklin by the American Philosophical Society.

At a meeting held at the Mansion House, on February 27, the Lord Mayor of London presiding, Lord Halsbury moved "That, in view of this being the fiftieth year of the foundation of the coal-tar color industry, it is desirable that steps should be taken to memorialize the event and to do honor to Dr. W. H. Perkin, the founder." After this motion had been supported and carried, Lord Rayleigh moved "That an appeal be made in this country and abroad for subscriptions for the purpose of carrying out the following objects: (1) The presentation to Dr. Perkin for his life time of an oil portrait of himself, executed by an eminent artist, the portrait to become the property of the nation at his death. (2) The execution of a marble bust of Dr. Perkin to be placed in the rooms of the Chemical Society. (3) The establishment of a 'Perkin Research Fund' for the promotion of chemical research to be administered through the Chemical Society." After this motion had been supported by Sir William Ramsay and Sir Henry Roscoe and carried, arrangements were made for the appointment of a general committee and an executive committee for carrying out the objects of the resolution.

DR. HANS DREISCH, of Heidelberg, has been appointed Gifford Lecturer in Aberdeen University for 1907-9.

THE University of Heidelberg has conferred the Victor Meyer prize on Dr. Ernst Stern for his investigations in organic chemistry.

DR. ROBERT KOCH will return to East Africa, in April, to continue his investigations

on sleeping sickness under the auspices of the German government.

DR. WALTER R. BRINCKERHOFF, of the pathological department of the Harvard Medical School, has been appointed director of the Leprosy Station at Molokai, Hawaii.

THE thirteenth lecture in the Harvey Society course will be delivered by Professor W. H. Howell, of Johns Hopkins University, at the New York Academy of Medicine, on March 17, at 8:30 P.M., on 'The Cause of the Heart Beat.' This is the last lecture of the series given during the present year. The twelfth lecture was delivered by Professor Theobald Smith, of the Harvard Medical School, his subject being 'The Parasiticism of the Tubercle Bacillus and its Bearing on Infection and Immunity.'

PROFESSOR HUGO MÜNSTERBERG will give the last of the Harvard lectures at Yale University this year, on March 16. The subject will be 'Science and Idealism.'

PROFESSOR GEORGE H. HOWISON, of the University of California, will give a course of lectures at Yale University on 'The Human Import of Philosophy.'

DR. G. MARCONI will lecture before the New York Electrical Society, at Columbia University, on March 28. It is said that he will come to the country especially for that purpose.

MR. ANDREW CARNEGIE has contributed £9,300 to complete the fund for a memorial to James Watt, which will take the form of a commemorative public building and statue at Greenock, his birthplace. Subscriptions to the fund from Great Britain amount to £700 and from the United States to £190.

A MEMORIAL tablet has been erected by the London County Council, on the house, No. 110 Gower Street, where Charles Darwin lived from 1839 to 1841.

WE learn from *The British Medical Journal* that the late Dr. Domenico Barbieri, of Vienna, bequeathed a sum of 300,000 crowns for the creation of a fund to be called by the name of Theodor Billroth. Dr. Barbieri was an assistant and a close personal friend of the

famous Vienna surgeon, who entrusted him with the administration of the anesthetic in some of his most daring operations. The interest of the fund is to be given in bursaries to poor students in the Second Surgical Clinic of Vienna, of which Billroth was the head, and, if possible, also to students in the First Clinic. The bursaries, which are to be awarded by the professorial college without distinction of nationality or creed, are of the yearly value of 2,000 crowns, and are tenable for three years.

THE death is announced of Professor Jean Louis Cabanis, the well-known ornithologist, for many years curator in ornithology at the Berlin Museum.

ANNOUNCEMENT was made at the opening, on March 5, of the Widener Memorial Home for Crippled Children, that Mr. P. A. B. Widener, who gave \$2,000,000 for the building, has given \$3,000,000 for a maintenance fund.

THE Verein Deutsche Ingenieure, which has more than 20,000 members, will celebrate its fiftieth anniversary this year, the meeting being held at Berlin from June 10 to 14.

THE Royal Sanitary Institute will, this year, hold its congress in Bristol from July 9 to 14, under the presidency of Sir Edward Fry. The Snell prize of the institute consists of £50 and a medal which is offered this year for an essay on 'Suggestions for improvements in sanitary appliances for use in workmen's dwellings and laborers' cottages under the varying conditions of water supply and drainage usually obtaining in towns and villages.'

ON La Zacualpa plantation in Chiapas, Southern Mexico, there has been established a botanical station, the principal object of which is to study the Central American rubber tree (*Castilla elastica*), its culture, and the preparation of commercial rubber from this tree. On La Zacualpa and affiliated plantations there are now planted over three million trees and at least two additional million trees will be planted. In connection with the botanical station, there is a laboratory for chemical and physiological investigation of the latex. A complete meteorological observatory

will soon be ready on La Zacualpa, and two meteorological substations will be established in the mountains close by, where simultaneous observations will be made at the elevations of 2,000 and 3,500 feet. The main station is situated at 250 feet above the sea, twelve miles from the Pacific Ocean, on the lowlands at the foot of Sierra Madre, about sixty miles from the border of Guatemala. The director of the station is Dr. Pehr Olsson-Seffer from Stanford University.

UNIVERSITY AND EDUCATIONAL NEWS.

PRINCETON UNIVERSITY has been made the residuary legatee of the estate of Mrs. J. Thompson Swan, which is said to be worth about \$300,000. The legacy will be used by the graduate school.

THE late Edwin Gilbert, of Georgetown, Conn., has left public bequests amounting to \$250,000, including \$60,000 for the model farm of the Connecticut Agricultural College.

HARVARD UNIVERSITY has received a gift of \$50,000 from Robert Wilcox Sayles, A.B. ('01), of Norwich, Conn., to establish a fund, preferably for the 'acquisition, preparation and maintenance of collections suitable for a geological museum.'

LORD RAYLEIGH has sent to the vice-chancellor of Cambridge University £7,733 12s. 8d., being the amount of the Nobel prize awarded to him in 1904. Lord Rayleigh desires that £5,000 of this should be employed in erecting a new building in connection with the Cavendish Laboratory, and that the remainder should be devoted to the purchase of scientific books and periodicals for the University Library.

At a recent meeting of the faculty of arts and sciences, of Harvard University, last week, it was voted to establish a department of education. Heretofore all courses in education have been included in the department of philosophy. Professor Paul H. Hanus is at the head of the new department.

DR. LESTER F. WARD, who has long been connected with the U. S. Geological Survey and the U. S. National Museum, and is

eminent for his contributions both to sociology and to paleobotany, has been elected professor of sociology at Brown University. He will take up the work of the chair in September.

DR. C. S. MINOT, professor of histology and embryology in the Harvard Medical School, has been appointed James Stillman professor of comparative anatomy.

DR. WILLIAM HALLOCK, professor of physics, Columbia University, has been appointed dean of the faculty of pure science.

MR. RENNIE W. DOANE, A.B. (Stanford, '96), has been appointed instructor in economic entomology and curator of the entomological collections at Stanford University.

MR. E. T. WHITTAKER, F.R.S., has been appointed Andrews professor of astronomy in the University of Dublin and royal astronomer of Ireland, in succession to the late Professor C. J. Joly, F.R.S.

At Manchester University Dr. William Mair, Riddell demonstrator in pathology and bacteriology in Queen's College, Belfast, has been appointed demonstrator in pathology; Dr. John Cameron, junior demonstrator in anatomy, has been appointed a senior demonstrator; Mr. C. M. Craig, has been appointed a junior demonstrator in anatomy; and Dr. F. W. Gamble, lecturer and demonstrator in zoology, has been appointed a senior assistant lecturer.

MR. CHARLES H. LEES, lecturer in physics and assistant director of the physical laboratory of the University of Manchester, has been appointed professor of physics of the East London College.

DR. F. KRUGER, docent in philosophy at Leipzig and assistant in Professor Wundt's laboratory, has accepted a call to a chair of philosophy in Buenos Ayres.

DR. A. KOLLE, of the Institute for Infectious Diseases at Berlin, has been appointed professor of hygiene and director of the Sero-therapeutic Laboratory at Bern.

DR. Clemens Schlüter is about to retire from the chair of geology and paleontology at Bonn.