providing the money to build it can be raised.

DR. JAMES E. RUSSELL has been made professor of pedagogy in the University of Colorado.

THE American Institute of Archæology, which had already given a fellowship of $600 to the American school at Athens, voted a second fellowship of $600–$800 at the semi-annual meeting of the committee held at Middletown, Conn., on May 17th. These scholarships will probably be awarded to students and graduates of the coöperating colleges on competitive examination. The first examination will probably be held at the end of a year.

PROF. E. S. HOLDEN has been made a commander of the Order of the Ernestine House of Saxony in recognition of his services to science.

DR. P. DANGEARD has been appointed professor of botany to the Faculty of Sciences at Poitiers.—*Nature*.

WE learn from the *Naturwissenschaftliche Rundschau* that Prof. Overbeck of Greifswald has been appointed professor of physics in the University of Tübingen as successor to Professor Braun. Dr. Hermann Struve, astronomer in the Observatory of Pulkowa, has been made professor of astronomy in the University of Königsberg; Prof. Koken of Königsberg, professor of geology and mineralogy in Tübingen; Prof. Hauser of Erlangen, Director of the Erlangen Anatomical Institution; Prof. Brauns of Karlsruhe, professor of geology and mineralogy in Giessen, and Dr. Schutt of Kiel, professor of botany in the University of Greifswald.

PROFESSOR V. KNORRE has been called to the new chair of electro-chemistry in the technical High School at Berlin-Charlottenburg.

THE death is announced on May 4th of Surgeon-Major Carter, F. R. S., also of Prof. Manuel Pinheiro Chagas, General Secretary of the Royal Academy of Sciences at Lisbon, at the age of fifty-three.

IT is announced that Dr. J. P. D. John, who resigned the presidency of De Pauw University a few days ago, will be asked by the trustees to reconsider his resignation.—*Evening Post.*

THEOBALD SMITH, M. D., has been elected professor of applied zoölogy, and Henry Lloyd Smythe assistant professor of mining, in Harvard University.

AT the semi-annual meeting of the trustees of the American University it was announced that $127,300 had been subscribed towards the erection of the first building (the Hall of History), but that $150,000 were required. Those present at the meeting subscribed and assumed the entire deficiency.

DR. ROB. SACHSSE, assistant professor of agricultural chemistry in Leipzig University, died on April 26.

SCIENTIFIC JOURNALS.

THE ASTROPHYSICAL JOURNAL, MAY.

The Modern Spectroscope, XII: WILLIAM HUGGINS.

Dr. Huggins here describes the Tulse Hill ultra-violet spectroscope. An earlier arrangement of telescope and spectroscope had consisted in exchanging the small mirror of an eighteen-inch Cassegrain telescope for a spectroscope with its slit in the principal focus of the large mirror. Difficulties of adjustment and the sacrifice of either light or purity due to the restricted size of the spectroscope led to the abandonment of this form. The small speculum was replaced and the collimator was then inserted in the hole through the large mirror. The long equivalent focal length of the Cassegrain form is of advantage where it is desirable to have images of considerable dimensions upon the slit, while the instrument itself and the building may remain of moderate size.

On the Spectrographic Performance of the Thirty-inch Pulkowa Refractor: A. Bélopolsky.

The work of the great refractor with a spectrograph not well adapted to it compares unfavorably with that of the new thirteen-inch photographic telescope.

Note on the Spectrum of Argon: H. F. Newall.

A line spectrum obtained last year under peculiar conditions of low pressure has been identified as that of argon. A glass bulb was sealed to a mercury pump and the air exhausted. Two photographs, with an exposure for each of thirty minutes, differed in that the second showed the nitrogen bands much weaker than the first, besides containing lines since identified as those of argon.

Preliminary Table of Solar Spectrum Wave-Lengths, V: Henry A. Rowland.

The table is continued from λ 4414 to λ 4674.

On Martian Longitudes: Percival Lowell.

A series of observations on the positions of thirty-six points on Mars with a view to the construction of a map. A discrepancy of five degrees between present longitudes and those determined by Schiaparelli in 1879 suggests that the received time of rotation of the planet is too small.

A Combination Telescope and Dome: A. E. Douglass.

The article describes a novel plan of mounting a telescope within a hollow sphere supported like an ordinary globe, but with much of the weight taken off from the supports by floating the sphere in water. The plan is the result of an effort to reduce the instability of the usual mounting by flotation, and the application of the motive power as far as possible from the axes of rotation.

Stars Having Peculiar Spectra; Eleven New Variable Stars: M. Fleming.

Some Arequipa photographs show eleven peculiar star spectra and eleven new variables.

A Spectroscopic Proof of the Meteoric Constitution of Saturn's Rings: James E. Keeler.

The spectrum of the planet was photographed with the slit parallel to the major axis of the rings. The inclination of the spectral lines of the ansæ show that the inner part of the ring is moving faster than the outer portion, which would not be the case were the rings moving as a solid. The indicated velocities of the different parts satisfy Kepler's third law.

Remarks on Professor Pickering's 'Comparison of Photometric Magnitudes of the Stars,' in A. N. 3269: G. Muller and P. Kempf.

A criticism of the Cambridge catalogues, translated from the Astronomische Nachrichten.

The Short Wave-Lengths of the Spark Spectrum of Aluminium: C. Runge.

A Large Eruptive Prominence; On a Photographic Method of Determining the Visibility of Interference Fringes in Spectroscopic Measurements; Note on the Exposure Required in Photographing the Solar Corona Without an Eclipse: George E. Hale.

Terrestrial Helium (?).

A Large Reflector for the Lick Observatory: Edward S. Holden.

S. B. Barrett.

NEW BOOKS.

The Natural History of Plants; their Forms, Growth, Reproduction and Distribution. From the German of Anton Kerner von Marilawn, by F. W. Oliver, with the assistance of Marian Busk and Mary F. Ewart. With almost 1,000 original wood-cut illustrations and 16 plates in colors. New York, Henry Holt & Co. 1895. 40, Vol. I., in two parts. Pp. 777. Price $7.50.

Twentieth Annual Report of the Secretary of the State Board of Health of the State of Michigan. Lansing, Robert Smith & Co. 1894. Pp. cxlvi + 416.