

ency to a line officer of the navy should be changed so as to provide that the official head of the observatory—perhaps styled simply the director—should be an eminent astronomer appointed by the President, by and with the advice and consent of the Senate, holding this place by a tenure at least as permanent as that of the superintendent of the coast survey, or the head of the geological survey, and not merely by a detail of two or three years' duration. Only in this way can there be a continuous and effective policy of administration which will insure astronomical work of a high order. In rank, salary, privileges and prestige he should be superior to any other official on the ground.

"The limitation in the selection of assistants should also be removed, and the assistant once appointed should be secure against detachment or removal except by the action, for cause, of the director. The institution should be related to the Navy Department, if continued under its control, in some such way as the Royal Observatory at Greenwich is related to the British admiralty. It should be put under the control of the secretary directly, and not through a bureau as at present."

In conclusion the Board finds objection to the manner in which appropriations have been made in support of the observatory, saying that it is not easy to determine what portion of the expenditures pertains properly to astronomical work, what portion to the naval work, and what portion to the improvement and care of the grounds as a part. The cost of maintenance for the last fiscal year was \$108,428, of which amount \$21,258 was expended in salaries.

SCIENTIFIC NOTES AND NEWS.

DR. J. WILLARD GIBBS, of Yale University, has been awarded the Copley Medal of the Royal Society for his contributions to mathematical physics.

HENRY M. HOWE, professor of metallurgy at Columbia University, has been elected an honorary member of the Russian Technical Society at St. Petersburg.

DR. E. A. DE SCHWEINITZ, dean of the Columbian University Medical School and direct-

or of the Biochemic Laboratory, U. S. Department of Agriculture, has recently been elected a corresponding member of the Epidemiological Society of London, and also of the 'Society for Combating Tuberculosis,' of Berlin.

PROFESSOR WILLIAM F. WILLOUGHBY, recently expert in the U. S. Department of Labor and now of Harvard University, has been appointed treasurer of Porto Rico.

PROFESSOR LUIGI PALAZZO has been appointed director of the Central Meteorological and Geodetic Institute at Rome.

DR. VON WETTSTEIN, of the University of Vienna, who was sent by the government to study the flora of Brazil, has returned.

It is stated by the Berlin correspondent of the *Times* that Professor Paul Ehrlich, of Frankfurt-on-the-Main, has been enabled to devote himself to a special study of the disease of cancer in consequence of a bequest of the interest for three years of a sum of 500,000 Marks dedicated to this purpose by a Frankfurt banker, the late Herr Theodor Stern. Other sums contributed by private individuals will bring up the amount to be devoted to this special investigation of cancer by Dr. Ehrlich to 40,000 Marks, or \$10,000 a year. In Berlin there exists a special committee for the investigation of cancer, which studies pathological accounts of cases and collects statistics and medical literature on this subject. Professor von Leyden is at the head of the committee, and Professor von Kirchner, of the medical department of the Ministry of Public Instruction, is one of its members.

THE Craig Colony Prize of \$200 has been awarded to Professor Carlo Ceni, of Pavia, Italy, for an essay, entitled 'Serotherapy in Epilepsy.'

At the scientific meeting of the Zoological Society of London, on November 19, papers were read by Professor Ray Lankester, on '*Okapia*, a New Genus of Giraffidæ from Central Africa,' and by Mr. Oldfield Thomas 'On the Giraffe discovered by Sir Harry Johnston near Mount Elgon, Central Africa.'

THE work of putting in place at Wood's Holl a boulder to serve as a memorial to the late Professor Spencer F. Baird is now completed.

The erection of this monument is the outcome of the action of the American Fisheries Society at a meeting held at Wood's Holl in the summer of 1900, when resolutions presented by Dr. H. M. Smith, providing for an appropriate memorial to Professor Baird, were unanimously adopted. The boulder is of granite, weighs about six tons, and was taken from the shores of Nonamesset Island by permission of Mr. J. Malcolm Forbes, whose father, the late John Murray Forbes, manifested great interest in the establishment and work of the station. The memorial will be completed when a suitably inscribed artistic bronze tablet is attached to the stone. This will probably be deferred until next spring.

A MEDALLION in memory of Dr. W. Kühne, formerly director of the Physiological Institute, was unveiled at the University of Heidelberg on October 20.

PROFESSOR RICHMOND MAYO-SMITH, since 1883 professor of political economy and social science at Columbia University, died, as the result of a fall, on November 11. He was born in Ohio in 1854 and graduated from Amherst College in 1875. Professor Mayo-Smith was the author of numerous important contributions to statistics and other departments of political economy, including books on 'Emigration and Immigration' (1890), 'Sociology and Statistics' (1895) and 'Statistics and Economics' (1899). He was the only representative of political science in the National Academy of Sciences.

THE death is announced of Professor Ralph Tate, since 1876 professor of natural science in the University of Adelaide. He was the author of numerous papers on geology and zoology and was in 1893 president of the Australasian Association for the Advancement of Science.

DR. ALEXANDER HUGHES BENNETT, the eminent physician, known for his work on diseases of the nervous system, died in London on November 1, at the age of fifty-three years. On his special subjects of epilepsy and paralysis he had written largely, and was the author of the well-known 'Practical Treatise on Electro-diagnosis in Diseases of the Nervous System,' and of the smaller text-book founded upon that work.

MR. HENRY SPENCER SMITH, one of the original fellows of the Royal College of Surgeons, London, died on October 29, at the age of eighty-eight years. Mr. Smith was secretary to the first government inquiry into the pathology and treatment of contagious diseases, and was a fellow and formerly vice-president of the Royal Medico-Chirurgical Society. He contributed frequently to the medical journals and translated several works, including Professor Schwann's work on 'Microscopical Researches into the Accordance in the Structure and Growth of Animals and Plants,' which obtained for its author, in 1845, the award of the Copley Medal of the Royal Society of London.

WE also regret to record the deaths of Dr. Marcel Nencki, professor of biological chemistry in the University of St. Petersburg, at the age of 56 years; of Professor Max Märcker, director of the Agricultural Experiment Station at Halle, at the age of 59 years, and of Professor Miguel Colmeiro, director of the Botanical Gardens at Madrid, at the age of 86 years.

MR. ANDREW CARNEGIE has given \$1,000,000 as an additional endowment of the Carnegie Institute and has added \$1,000,000 to the million dollars he has already given toward an endowment of the Carnegie Polytechnic Institute, to be erected at Pittsburg. Mr. Carnegie has also offered \$50,000 to Springfield, Mo., for a free public library building.

A NEW YORK State civil service examination will be held in various cities throughout the State on or about December 7, 1901, for the position of director of the New York State Pathological Institute, with a salary of \$5,000. The subjects and weights for the examination are: Pathological anatomy of the nervous system, technique and methods of neural investigation, architecture of the nervous system and lines of research to be applied to the study of the pathology of insanity, 8; experience, 2. The position is open to non-residents of the State, subject to the provision that if the eligible list contains the names of three or more persons who are citizens and residents of New York State, such persons shall be preferred in certification over non-residents. Examinations will also be held for the positions of assistant

in the Antitoxin Laboratory, and assistant bacteriologist, both in the Department of Health, at salaries of \$750 and \$500, respectively. The former position is open only to women, and subjects of examination and their relative weights are as follows: Bacteria, their nature, position among other living objects, functions, classification, principles of bacteriological manipulations, methods of making and testing culture media, sterilization of instruments and media, preparation of diphtheria toxin, etc., 8; experience and education, 2. The position of assistant bacteriologist is open only to licensed medical practitioners of New York State. The incumbent must give half his time to the work, which must be the first charge on his time. The examination will cover general knowledge of bacteriology and special knowledge of the methods and problems of the preparation of diphtheria and other antitoxins.

THE U. S. Civil Service Commission announces that at the request of the Board of Visitors to the United States Naval Observatory, an examination will be held on December 11, 12, 13, 1901, at various places throughout the United States, for the position of assistant astronomer in the U. S. Naval Observatory, at a salary of \$1,800 per annum.

The subjects and weights are:

Pure mathematics, practical and spherical astronomy, celestial mechanics, general mechanics, optics, and French and German.....	20
Experience (a) in making astronomical observations, (b) in making astronomical computations, (c) in making and repairing, mounting and dismounting, and in caring for astronomical instruments, including auxiliary apparatus.....	40
Ability to carry on original astronomical investigations, as evidenced by printed or written memoirs, certificates, etc.....	40
Total.....	100

The examination on the technical subjects first named will be entirely of a scholastic character and will occupy three days. Under the second and third subjects applicants will be expected to submit evidence of their experience and ability. This evidence should be full and complete. Age limits, 20 to 45 years.

A TELEGRAM has been received at the Harvard College Observatory from Professor W. W. Campbell at Lick Observatory stating that from a Crossley photograph, Professor Perrine finds that four principal condensations in faint nebula surrounding Nova Persei moved southeast one minute arc in six weeks. Professor G. E. Hale, from the Yerkes Observatory, reports that from photographs of Nova Persei on November 9 Ritchey finds the nebula probably expanding in all directions, this certainly being true of the southern half.

AN international sanitary congress will be held in Paris during the week of February 15-21, 1902. Among the subjects to be discussed will be the rôle of mosquitoes in the spread of yellow fever, malaria and filariasis, quarantine, and the value of municipal sanitation in the prevention of epidemics.

THE Institution of Junior Engineers opened its winter session on November 1, at the Westminster Palace Hotel. The new President, Sir John Jackson, was installed, and delivered his inaugural address, in which he dealt chiefly with the relations between employers and employed.

THE biennial dinner of the Physical Society of London will be held at the Hotel Cecil on Friday, November 15.

WE learn from the *Journal of the American Medical Society* that it is proposed to unite the scientific institutes at Hamburg under one direction, somewhat in the form of a university, and the directors and lecturers will compose the faculty, issue reports, etc. The official title of the faculty will be the 'Professorenconvent' of the Scientific Institutes. Besides promoting individual research, the institutes will carry on research desired by men of science and advise in scientific matters generally.

PREPARATIONS are being made for the despatch of a new Norwegian expedition to determine more exactly the position of the north magnetic pole. The expedition will be under the direction of M. Amundsen, a Norwegian, who was one of the officers in M. Gerlache's Antarctic expedition.

A CABLEGRAM to the New York *Sun* states that a striking discovery has been made during

excavations which were necessary to raise one of the monoliths in the famous prehistoric group at Stonehenge in Wiltshire into an upright position. The men engaged in the work have found numerous neolithic implements, which had evidently been used in cutting and squaring the stones, and, when blunted, had been turned into the bedding on which the stones are supported. The discovery is held to prove that the unique spectacle of Stonehenge is anterior to the Bronze Age and that the structure still visible was certainly built before 1500 B. C.

FOREIGN journals give particulars respecting a new meteorological station which has been established at Achariach, in Glen Nevis, Scotland. The situation is such that a spur of Ben Nevis shuts in the valley to the west, and the height above sea-level is only 165 feet. The intention of the founder of the station—Mr. R. C. Mossman of Edinburgh—is ‘to study the thermal conditions in the valley and on the adjacent hillsides during anticyclones in winter.’ It seems that in calm, cold weather and with a high barometer it not seldom happens that the mountain summits are much warmer than the valleys which are filled with cold air chilled by radiation from the surrounding hills. The height to which this lake of cold air extends is to be the principal subject of investigation. The station is well equipped with a complete set of the best instruments.

THE London *Times* calls attention to the fact that the late M. I. C. Jacobsen presented to the State or spent for scientific or philanthropic purposes nearly 20,000,000 kroner. He created the ‘Carlsberg Fund,’ which now amounts to 12,500,000 kroner and recently celebrated the 25th anniversary of its foundation. On this occasion his son, M. Carl Jacobsen, has added as a donation his own brewery, only reserving for himself and his family one third of the income for fifty years. The value of this gift is calculated at 10,000,000 kroner. M. Carl Jacobsen two years ago presented Copenhagen with what was certainly the largest private collection of sculptures in the world—its value being 12,000,000 kroner—and with many other large donations.

WE learn from the *Auk* that the large collection of birds’ eggs, nests and skins brought together by Miss Jean Bell, of Ridley Park, Pa., has been purchased by Mr. John Lewis Childs, of Floral Park, New York. It is said to contain about 30,000 eggs and 1,000 nests, and is reported to be one of the finest and most complete private collections of North American birds’ eggs extant. It includes many rarities, and is rich in large sets of comparatively rare species, the collection having been formed through the combination of several noteworthy private collections.

THE program for the forthcoming session of the Royal Geographical Society of London is announced as follows: At the opening meeting, on November 11, Sir Harry Johnston proposed to give a paper on Uganda and the bordering countries, through which he made several journeys in his capacity as special commissioner. Not only will the paper be illustrated by a large number of slides, including a colored one of the Okapi, but Sir Harry will give phonographic reproductions of the songs of the natives. At the second meeting, on November 25, the president, Sir Clements Markham, will give a short opening address, and he will follow that with a paper on King Alfred and the geography of his time. During the evening Dr. Vaughan Cornish will give an extremely interesting cinematographic representation of the Bore of the Severn. The paper at the meeting on December 9 will be by Mr. Douglas Freshfield, on the ‘Glaciers of Kauchinjunga,’ the results of his recent expedition to that vastly interesting region; it will be illustrated by many lantern slides, mainly from photographs taken by Signor Sella, who accompanied the expedition. Among the papers to be expected after Christmas are the following: ‘An Expedition across Abyssinia, through Kaffa and the Region to the West and North,’ by Dr. Oscar Neumann; the ‘Maldives,’ by Mr. J. Stanley Gardiner; ‘Journeys in Western China,’ by Dr. R. L. Jack; ‘The Influence of Geographical Conditions on History and Religion, with Special Reference to Asia Minor,’ by Professor W. M. Ramsay; ‘Four Years’ Travel and Survey in Persia,’ by Major Molesworth Sykes; ‘An Expedition from Omdur-

man to Mombasa by Lake Rudolf,' by Major H. H. Austin; 'Southwards on the Antarctic Ship *Discovery*,' by Mr. George Murray, F.R.S., and Dr. Hugh Robert Mill; 'A Journey from Quetta to Meshed by the New Nushki Trade Route,' by the Earl of Ronaldshay; 'The Bedford Level and Experimental Demonstration of the Rotundity of the Earth,' by Mr. H. Yule Oldham; 'The Snows of Canada,' by Mr. Vaughan Cornish; 'Antarctic Glaciation,' by M. Henryk Arctowski, and 'Methods and Appliances in the Teaching of Geography,' a special lecture for teachers, by Mr. A. W. Andrews. The paper by M. Arctowski will be given at an afternoon meeting, while Mr. Andrews's lecture will be given at a special meeting on a date and at an hour likely to be convenient to teachers in and around London.

UNIVERSITY AND EDUCATIONAL NEWS.

MR. WILLIAM WYMAN announces that \$750,000 has been raised of the \$1,000,000 necessary to make available his offer to the Johns Hopkins University of 60 acres of land in the Northern Annex. Mr. William Keyser gave \$200,000 of the amount. The names of all the contributors to the fund will not, however, be announced until it is complete.

KENYON COLLEGE has received from various sources \$100,000 towards its endowment and \$50,000 for a new dormitory.

AN industrial college for women, to be called The Simmons Female College, will be shortly established in Boston, in accordance with a bequest made by John Simmons in 1875. The estate, which was subject to a life interest, now amounts to over \$2,000,000.

MR. B. F. BARGE, B.A. (Yale '57), has added \$2,500, to the same sum given by him recently to Yale University. The money is to endow a mathematical fund.

By the will of the late E. P. Barker, Amherst College and Alfred University each receive \$1,000.

MR. and MRS. E. C. THOMPSON, of Indianapolis have added \$20,000 to the \$10,000 previously given by them to Butler College in that

city, for the construction of the Bona Thompson Library, as a memorial to their daughter.

MR. B. A. PALMER, of New York, has made a gift of \$30,000 to Union Christian College, Merom, Ind.

DRURY COLLEGE, at Springfield, has received \$8,000 from E. A. Goodnow, Esq., of Worcester, Mass., for scholarships for young women.

THE Duke of Sutherland has decided to erect a large technical school near Golspie, Sutherland. Building and equipment will cost £10,000, and in order to place the institution in an independent position it is said that Mr. Carnegie has offered another £10,000 as an endowment.

MRS. FITZPATRICK has given £2,000 to found a lectureship on the history of medicine, in the Royal College of Physicians, London, in memory of her late husband, Dr. Thomas FitzPatrick.

THE Horace Mann school building of Teachers College, Columbia University, will be dedicated on December 5. The principal address will be by ex-President Daniel C. Gilman, of the Johns Hopkins University.

EDWARD P. HYDE, A.M. (Johns Hopkins, 1900), has been given a fellowship in physics in the Johns Hopkins University.

MR. R. P. PARANJPYE, who was bracketed senior wrangler in 1899, has been elected to a fellowship at St. John's College.

DR. HANS SOLEREDER, of Munich, has been appointed professor of botany and director of the Botanical Institute at the University at Erlangen. Dr. V. Schiffner, associate professor of systematic botany in the German University at Prague, has been called to a similar position in the University of Munich. A full professorship of astronomy in the University of Göttingen has been offered to Dr. Karl Schwarzschild, docent at Munich. Dr. G. Kowalewski, docent in mathematics at Leipzig, has been called to an associate professorship in the University at Greifswald, and Dr. Julius Sommer, docent at Göttingen has been appointed professor of mathematics in the Agricultural School at Bonn-Poppelsdorf.