

hand doeth. As a merchant and banker he was successful, and the culmination of his business career was reached when he was elected to the presidency of the Chamber of Commerce. Through his activity this stately association of the merchants of New York was provided with its present magnificent building. This reminds us of another aspect of Mr. Jesup's life—his desire that science and commerce should both be set amidst appropriate and dignified surroundings.

During the past year, because of failing strength, Mr. Jesup has not been able to take an active part in the management of the museum, but its welfare has been one of the chief subjects of his thought and its progress one of the chief sources of happiness to him during the long suffering days and weeks of his illness. Born at Westport, Connecticut, June 21, 1830, he passed away in New York City on January 22, 1908. His death has been followed by rare testimonials of admiration and appreciation.

H. F. O.

SCIENTIFIC NOTES AND NEWS

PROFESSOR REGINALD W. BROCK, professor of geology in the School of Mining, Kingston, has been appointed director of the Geological Survey of Canada.

DR. ARTHUR NEWSHOLME has been appointed medical officer to the London Local Government Board on the retirement from that office of Mr. W. H. Power, C.B., F.R.S.

MR. R. H. LOCK, fellow of Gonville and Caius College, Cambridge University, has been appointed an assistant director at the Royal Botanic Gardens at Peradenyia, in Ceylon, a post which, at the instance of the director, Dr. Willis, has been created for him by the Colonial Office.

DR. THEODORE W. RICHARDS, professor of chemistry at Harvard University, has been elected a foreign member of the Academy of Sciences at Stockholm.

DR. FEODOR CERNYSHEV, St. Petersburg, has been elected a foreign correspondent of the Geological Society of London.

MR. C. O. WATERHOUSE has been elected president of the British Entomological Society.

THE senior students in mining at the Pennsylvania State College have presented to Professor M. E. Wadsworth, dean of the schools of mines and metallurgy, a silver loving cup on the occasion of his sixtieth birthday.

PROFESSOR J. PAUL GOODE, of the University of Chicago, will spend the next six months at Washington in order to use the geographical works in the congressional library.

DR. W. W. BEMAN, professor of mathematics at the University of Michigan, has been granted leave of absence for the coming academic year, which he will spend abroad.

MR. R. S. WILLIAMS, assistant curator of the New York Botanical Garden, has gone to the Isthmus of Panama to make collections for the garden. He expects to return in May.

THE *Koonya* has returned to Wellington, N. Z., after having towed the *Nimrod*, Lieutenant Shackleton's ship, with the British Antarctic Expedition on board, 1,500 miles to within a mile of the ice.

WE learn from the London *Times* that the Aéro Club of France gave a banquet on January 16 to Mr. Henry Farman in honor of his feat in winning the prize offered by the club for the first flight of one kilometer with a machine heavier than air. The chairman, in proposing the toast of the guest of the evening, recalled the history of the conquest of the air. The Comte de la Vaux then presented the gold medal of the Aéro Club to Mr. Farman, who also received two other gold medals, one from Messrs. Voisin, the builders of his aeroplane, and the other from M. Frank Reichel, as well as a bronze by Barrias, presented by M. Robert Esnault-Pettrie, of the Académie des Sports. M. Le Vasseur was presented with a medal in enamel by Messrs. Voisin. Speeches were then made by M. Henry Deutsch, Baron de Zuylen, M. Archdeacon, Prince Roland Bonaparte and Mr. Henry Farman, after which MM. Deutsch and Archdeacon each handed a cheque for 25,000 f. to Mr. Farman.

THE prize of £50 from the Gordon Wigan fund, Cambridge University, for an investigation in chemistry was awarded in the year 1907 to F. Buckney, of Sidney Sussex College, for his essay entitled "A Study of some quinquevalent cyclic nitrogen compounds."

MR. BAILEY WILLIS, of the United States Geological Survey, will give a series of six lectures at the University of Illinois from February 10 to 15. Most of these lectures will deal with the past and present geography of North America. In one Mr. Willis will give an account of his recent geological experiences in China.

PROFESSOR ROLLIN D. SALISBURY, University of Chicago, and Dr. H. Foster Bain, state geologist of Illinois, will give special lectures in geology at the University of Wisconsin during the present year.

THE sixth lecture in the Harvey Society course will be given by Professor Joseph Jastrow, University of Wisconsin, at the New York Academy of Medicine building, on Saturday evening, February 8, at 8:30 P.M. Subject, "Subconsciousness."

THE experiment of Foucault, originally performed in the Panthéon at Paris in 1851 to prove the rotation of our earth, will be repeated twice publicly at Columbia University in St. Paul's Chapel. The apparatus includes a pendulum, 91 feet long, of which the weight is a cannon ball weighing 140 pounds, the whole suspended within the chapel dome. The time required by this great pendulum to complete a swing is six seconds. Two half-hour lectures in explanation of the experiment will be given as follows: February 7, Dr. S. Alfred Mitchell, at 3 P.M., and February 12, Professor Jacoby, at 4:30 P.M. Visitors will be admitted to see the swinging pendulum until 5:30 P.M. on both days.

A BILL has been introduced in the senate by Senator Teller, for the erection of a memorial to John Wesley Powell, director of the Bureau of American Ethnology and the U. S. Geological Survey.

A LIFE-SIZE bronze bust of the late Professor von Bergmann was presented last month, as

we learn from the *Journal of the American Medical Association*, to the clinic, the scene of his surgical triumphs, by his former pupils, many of whom now occupy prominent positions in other clinics. The bust stands beside those of Gräfe, Dieffenbach and Langenbeck. Professor Bier, the present chief of the clinic, and Professor Sonnenburg delivered addresses.

SERVICES in honor of the late Nicholas Senn were held in the Fine Arts building, Chicago, on February 2, under the auspices of Rush Medical College, Northwestern University Medical School, College of Physicians and Surgeons, Chicago Medical Society, Chicago Surgical Association and the Nicholas Senn Club. President Edmund Janes James, of the University of Illinois, was chairman, and the speakers were: Dr. Frank Billings, dean of Rush Medical College, "Nicholas Senn as a Teacher"; Dr. Arthur R. Edwards, dean of Northwestern University Medical School, "Nicholas Senn as a Scientist"; Dr. William E. Quine, dean of the College of Physicians and Surgeons, "Nicholas Senn as a Man"; Dr. Henry B. Favill, president of the Chicago Medical Society, "Nicholas Senn as a Physician"; Dr. Albert J. Ochsner, president of the Chicago Surgical Association, "Nicholas Senn as a Surgeon," and Dr. Daniel R. Brower, president of the Nicholas Senn Club, "Nicholas Senn as a Traveler."

MR. CHARLES ABBOTT DAVIS, curator of natural history at the Roger Williams Park Museum, Providence, died, on January 29, at the age of thirty-nine years.

CAPTAIN JULES BAILLY, osteologist at McGill University, known for his work in osteology and natural history, died, on January 29, at the age of seventy-seven years.

DR. A. WILLIAMS WILKINSON, a chemist in New York City, known for his inventions in connection with illuminating gas, has died at the age of seventy-five years.

DR. H. G. KNAGGS, a British medical man, known for his contributions to entomology, died, on January 16, in his seventy-sixth year.

MR. JOHN MACFARLANE GRAY, the well-known British engineer, died, in Edinburgh on January 14, in his seventy-sixth year.

THERE will be civil service examinations on March 4 and 5 as follows: Statistician in the Geological Survey, three vacancies at salaries from \$1,200 to \$1,800; assistant geologist, qualified in petrology, at \$75 a month, a temporary position, but qualifying for promotion; aid in the Bureau of Standards, at a salary of \$600; executive assistants in the Bureau of Plant Industry, at salaries ranging from \$1,600 to \$2,000, there being at present vacancies in connection with tobacco investigation and in the office of the cerealist; and food and drug inspectors, at salaries from \$1,000 to \$1,800 in the Bureau of Chemistry, Department of Agriculture.

By the will of the late Morris K. Jesup an endowment fund of \$1,000,000 is given to the American Museum of Natural History, of which he had been president since 1882. The provision of the will relating to the museum is as follows:

I give and bequeath to the American Museum of Natural History in the city of New York \$1,000,000, to constitute a permanent fund, the principal to be invested and kept invested, and the income to be applied and apportioned to the general purposes of the museum, other than alterations, additions, repairs or erection of buildings, the purchase of land, or the payment of salaries, or for labor or for services of any kind ordinarily considered under the item of maintenance. I wish to explain that I have bequeathed this sum of \$1,000,000 to the American Museum of Natural History and that I have made for it the other bequests and provisions contained in my will because of the fact that I have been identified with the museum from its act of incorporation to the present time. I have been its president since 1882. Since that time I have devoted a great part of my life, my thoughts, and my attention to its interests. I believe it to be to-day one of the most effective agencies which exist in the city of New York for furnishing education, innocent amusement, and instruction to the people. It can be immensely increased in its usefulness by increasing its powers. The city of New York under its contract with the museum is to provide buildings and to maintain them, but the buildings must be filled with specimens. This means that for this

purpose the necessary amount must come from individual donors. It is in order that the means for this purpose may be helped, as the museum must grow in additional buildings by the city, that I make for the museum the bequests and provisions contained in my will, relying upon the trustees of the museum to do their share by looking after the investment of the funds, the use of its income, and by carefully watching over and wisely planning for the best interests of this great institution.

THE anthropological collections made by Mr. Henry G. Bryant among the Esquimaux, have been presented by him to the University of Pennsylvania.

PROFESSOR HIRSCHBERG has informed the authorities that his will presents his valuable collection of ophthalmologic works to the Berlin Royal Library with an endowment of about \$4,000, the income of which is to be applied for subscriptions to the current periodicals on ophthalmology and optics.

IN its recent report to the government the Swedish Commission for the Prevention of Tuberculosis recommends the gradual establishment of 4,600 sanatoria at a total expense of 10,810,000 crowns. It is proposed that the expenses of patients shall be paid by the municipalities.

A CONFERENCE of the district engineers of the water resources branch of the United States Geological Survey was held at the office of the Survey in Washington during the week ending January 25. Those present were: W. B. Clapp, of Los Angeles, Cal., in charge of the California district; J. C. Stevens, of Portland, Ore., whose district includes Oregon and Washington; Robert Follansbee, of Washington, D. C., in charge of the district covering Montana, North Dakota and a portion of northern Wyoming; W. B. Freeman, of Denver, Colo., supervising work in Colorado, Nebraska, Oklahoma, New Mexico and southern Wyoming; E. C. LaRue, of Salt Lake City, whose district is Utah, Idaho and Nevada; H. K. Barrows, of Boston, in charge of the New England district and New York; M. R. Hall, of Atlanta, Ga., in charge of the work in the South Atlantic and Gulf States; and J. C. Hoyt, assistant chief hydrographer, who

supervises from the Washington office the work in the Middle Atlantic States. Other engineers present were C. C. Covert and F. W. Henshaw, of the Washington office, recently engaged in stream measurements in Alaska in cooperation with the survey's Division of Alaskan Mineral Resources; R. H. Bolster and W. G. Steward, also of the home office; F. W. Hanna, of the U. S. Reclamation Service; and Sydney K. Clapp, of the Board of Additional Water Supply for New York City. The meeting was presided over by the chief hydrographer, Mr. Marshall O. Leighton. The subjects under discussion included methods of work, instruments and equipment, scientific studies, storage and evaporation investigations, cost-keeping systems, and publicity and cooperation work. Special addresses were made by the director of the survey, George Otis Smith, and by Dr. G. K. Gilbert, who explained in detail the methods of investigation of what is known as the "débris problem" of California rivers, now in progress at the hydrologic laboratory of the survey, at Berkeley, Cal.

THE London *Times* states that in a recent German patent a method is described for producing artificially certain mineral species, such as olivine, zircon, beryll, and spinelle, in a definitely crystalline form. This consists in dissolving their constituent oxides in appropriate proportions in molten sodium or potassium metaborate. The temperature of the fused mixture is then raised to 1,300° C., when the alkali metaborate volatilizes, leaving the artificial mineral in the form of crystals. In addition to obtaining products corresponding with the naturally occurring minerals, other compounds having no mineralogical counterparts may be produced by this method. A nickel chrome spinelle, NiO , Cr_2O_3 , prepared from its constituent oxides, was obtained in the form of small green crystals. It is well known that the mineral species corundum occurs in the form of very variously colored stones ranging from colorless sapphire to brown and opaque corundum. Between these extremes one meets with sapphires tinted in yellow, green, blue, red, and intermediate hues, and it is generally supposed

that these various colors are due to the presence of compounds of iron, manganese, chromium, titanium, or other foreign elements. In the *Comptes rendus de l'Académie des Sciences* F. Bordas describes experiments in which the color of these gems is caused to change by exposing the stones to the action of a very radioactive specimen of radium bromide. In these circumstances a blue sapphire assumes successively green, light yellow, and dark yellow tints, whilst a red sapphire develops in succession shades of violet, blue, green and yellow. These experiments justify the belief that the distinctive colors of these precious stones are not due to the presence of any particular oxides. The variation always occurs in the above sense from red to yellow, and it seems likely that the topaz represents the last term in this transformation. Moreover it seems probable that these gems are found in regions where the surrounding soil has a certain degree of radioactivity. This idea receives support from the fact that the yellow sapphires are the commonest, although yellow and blue sapphires frequently occur together. The gems which have been thus artificially colored are not radioactive; they do not become luminescent in the dark under the influence of radium bromide, but they retain their color on heating.

Nature states that an addition to the exhibition galleries of the British Museum (Natural History) has been made in the shape of a copy of a water-color drawing made about 1585 by John White, containing the earliest known representation of the American king-crab, *Limulus polyphemus*. John White, who was one of the first settlers in Virginia, of which he was for some time governor, served as lieutenant to Sir Walter Raleigh. In three volumes of drawings by him preserved in the department of prints and drawings in the British Museum, many of the delineations of natural objects are of great beauty, and show a fidelity to nature rare at the period. The drawing in which the king-crab is depicted was engraved, with some modifications, for de Bry's "America" ("Grands Voyages," Part I., pl. 13) in 1590. In the engraving the king-crab is, however, shown in somewhat

greater detail, thus suggesting that the engraver had an actual specimen or another drawing from which to copy.

UNIVERSITY AND EDUCATIONAL NEWS

MR. LAWRENCE introduced in the House of Representatives on January 27 a bill to create a commission to investigate and report to congress as to the advisability of the establishment of a Pan-American University. It was referred to the committee on education.

THE regents of the University of Michigan have appropriated \$275,000 for the new chemical building, which will be erected as soon as possible on the north side of the campus. It will consist of four stories and a central court, being built on the same plan as the new medical building.

ACCORDING to the *Journal of the American Medical Association* the contract for the building of the new Richardson Memorial Building, Tulane University, has been let. The new building is to cost about \$200,000 and will be three stories and a basement in height. The basement will contain workrooms for minor surgery, original research and toilet and storage rooms; the first floor will have a large lecture room and physiologic and pharmacologic laboratories, and also the administration offices; the second floor will contain pathologic, bacteriologic and histologic laboratories, private laboratories for the professors and research rooms; the third floor will contain the dissecting room, anatomical museum and laboratories for the curator of the museum and the professor of anatomy, research rooms and also a large lecture room. The building is expected to be ready in October next.

THE last legislature of Pennsylvania appropriated \$50,000 for the School of Mines and Metallurgy of the Pennsylvania State College, of which sum \$20,000 were for further extension of its buildings and \$30,000 for its maintenance. The buildings, as planned and partly built and occupied, contain over 60,000 square feet of floor space. The buildings contain laboratories and lecture rooms, for the instruction in crystallography, mineralogy, petrography, geology, mining geology, metal-

lography, metallurgy, assaying, ore dressing, coal washing, mining, etc. Among the recent appointments are these: Clarence P. Linville, assistant professor of metallurgy; Frank A. Dalburg, instructor in mining and metallurgy; Lloyd B. Smith, instructor in mineralogy and geology, and Howard I. Smith, instructor in mineralogy and metallurgy.

THE trustees of Boston College, an institution in charge of the Jesuits, have acquired thirty-three acres of land near the Chestnut Hill Reservoir in Boston, for a new site for the college. The site is said to be one of the finest in New England for educational purposes. It has been suggested that the initial plan should contemplate the erection of a recitation building, an administration building, two science buildings, a gymnasium, a library and a college theater. Work is to begin at once.

THE sum of \$50,000 has been collected for Illinois College at Jacksonville, Ill., which makes available the \$50,000 offered on this condition by Mr. Andrew Carnegie.

NEW four-year courses in chemistry designed to train analytical chemists, industrial chemists, agricultural and soil chemists, sanitary and food chemists, and physiological chemists have just been arranged by the faculty of the University of Wisconsin.

THE Harvard Faculty of Art and Sciences has passed the following resolution:

At the last meeting of the faculty of arts and sciences it was voted to send to the president and fellows of Harvard College, the committee on athletic sports, and to each college represented in the Association of Colleges of New England, the following expression of opinion: "That in the opinion of this faculty the number of intercollegiate contests should be largely reduced."

DR. G. M. STRATTON, professor of experimental psychology and director of the Psychological Laboratory at the Johns Hopkins University, has accepted the chair in psychology in the University of California.

PROFESSOR JUNGFLEISCH has been called to the chair of chemistry in the Collège de France, vacant through the death of M. Berthelot.