

The degree of bachelor of science, as well as that of bachelor of arts, will hereafter be open to students in the college. Candidates for the B.S. degree will not be required to offer any ancient language at entrance or to pursue the study of an ancient language in college, but such students must devote an equivalent time to the study of the natural and physical sciences.

After a student has made 72 points of the 124 required, which he can do in two years, (1) he may take the studies of the first year of the Schools of Applied Science and receive the degree of A.B. or B.S. upon the completion of two years' work; (2) he may take the studies of the first year of the College of Physicians and Surgeons, and receive his A.B. or B.S. upon the completion of two years' work; (3) he may take the studies of the first year of the professional course of Teachers College, and receive his A.B. or B.S. after two years' work; or (4) he may take the studies of the first year in the School of Fine Arts, and receive his A.B. or B.S. after two years' work. When a student has received 94 of the 124 points he may take the studies of the first year of the School of Law; and receive the degree of A.B. or B.S. upon the satisfactory completion of one year's work in this course.

The student who obtains the mark A in any two courses in one half year will be entitled to receive one point of extra credit, provided he has not fallen below the mark B in any of the courses pursued by him during the half year. A student who receives the mark D in two or more courses in any half year is to be given credit for but one of these courses.

Students will be regularly admitted to the freshman class at the beginning of the second half year in February, as well as at the beginning of the first half year in September. The work of one half year may be satisfied by the entrance examinations. Examinations for admission will be held in January of each year. A half year is made the unit for courses.

The first two years are practically prescribed, seven different subjects being required in the freshman year. The prescribed studies

are: English, five hours; French or German, three hours; history, three hours; mathematics, three hours; philosophy, three hours; physical education, two hours; science, three hours; and either Latin or an additional course in science, three hours, according as the student is a candidate for the A.B. or B.S. degree. The courses of the last two years are elective, and as indicated above, the courses of the professional schools may be elected.

SCIENTIFIC NOTES AND NEWS.

A GRANT of \$150,000 has been authorized by the Carnegie Institution for the Solar Observatory on Mt. Wilson, and it is expected that the first equipment will cost about twice this sum. The present staff of the observatory is: George E. Hale, director; G. W. Richey, astronomer and superintendent of instrument construction; Ferdinand Ellerman, assistant astronomer, and Walter S. Adams, assistant astronomer. The address of Messrs. Hale and Richey is Pasadena, and the address of Messrs. Allerman and Adams is Mt. Wilson. Professor Barnard is also at work temporarily on Mt. Wilson with the Bruce photographic telescope of the Yerkes Observatory.

PROFESSOR F. L. O. WADSWORTH has resigned his position as director of the Allegheny Observatory because of the lack of funds required to properly carry on the work of that institution. For this reason all work has been suspended at the observatory for more than a year, except that of taking routine time observations. Professor Wadsworth has been appointed general manager of the Pressed Prism Plate Glass Company and is now at Morgantown, W. Va.

SEÑOR MANUEL GARCIA celebrated his hundredth birthday on March 7 in excellent health. He gave the first performance of Italian opera in New York City in 1825, and was long celebrated as a teacher of singing. His important contribution to science was the invention of the laryngoscope fifty years ago. Señor Garcia was presented with a portrait of himself by Mr. John S. Sargent and received a number of congratulatory addresses with decorations from King Edward, Emperor William and the King of Spain.

THE University of Glasgow will confer its doctorate of laws on Dr. Alexander Crum Brown, professor of chemistry at Edinburgh.

PROFESSOR W. H. BURR, of Columbia University, has been appointed consulting engineer of the New York City aqueduct commission with a salary of \$6,000.

PROFESSOR W. T. SEDGWICK, of the Massachusetts Institute of Technology, has gone to Europe on leave for six months. His European address is in care of Messrs. Baring Bros., Limited, 8 Bishopsgate St., London, E. C.

DR. W. J. HOLLAND, the director of the Carnegie Museum, sailed for England on March 18. He repairs to London to install the reproduction of the great skeleton of *Diplodocus* which he has made from the original in the Carnegie Museum. It will be placed in the gallery of reptiles at the British Museum. Mr. Carnegie will formally present the restoration, which has been made at his expense, to the trustees of the British Museum some time in May. The total length of the vertebral column, including the skull, is eighty-four feet, exceeding the dinosaur *Brontosaurus* in the American Museum of Natural History by nearly twenty feet. Dr. Holland is accompanied by Mr. A. S. Coggeshall, the chief preparator in the section of paleontology in the Carnegie Museum.

PROFESSOR E. A. MINCHIN, Jodrell professor of zoology in University College, London, has undertaken to conduct further investigations, under the auspices of the Royal Society's committee, into the causation of sleeping sickness in the Uganda Protectorate.

UNDER the auspices of the department of economics of Harvard University Professor W. F. Willcox, of Cornell University, who acted as expert in charge of methods and results in the United States census of 1900, will give three public lectures during the last week of the month on some phases of the census investigations. The subjects will be: 'The Population of the United States,' 'Some Statistical Aspects of the Negro Problem' and 'The Birth Rate and Death Rate of the United States.' The exact hours and place will be announced later.

PROFESSOR DAVID EUGENE SMITH, of Teachers College, Columbia University, has recently purchased the library of Professor Ferdinando Jacoli, of Venice, and has added it to his own collection for the use of his students. The library is particularly rich in the history and teaching of mathematics, containing many rare editions. Professor Smith has at the same time made available for study his rare collection of portraits and manuscripts of celebrated mathematicians, the largest that has been brought together.

THE Board of Estimate of New York City has appropriated \$5,000 to estimate the epidemic of cerebro-spinal meningitis. A commission has been named for this purpose as follows: Dr. William M. Polk, chairman, dean of Cornell Medical College; Dr. Walter B. James, professor in the College of Physicians and Surgeons; Dr. William P. Northrup, professor in Bellevue Hospital and at New York University; Dr. Simon Flexner, head of the Rockefeller Institute; Dr. Joshua M. Van Cott, pathologist at the Long Island College; Dr. E. K. Dunham, pathologist of Carnegie Laboratory, and Dr. William K. Draper, visiting physician at Bellevue and Minturn Hospitals.

THE first Herbert Spencer lecture, established by Pandit Shyamaji Krishnavarma, M.A., of Balliol College, was given at Oxford, on March 9, by Mr. Frederic Harrison, M.A., honorary fellow of Wadham College.

WE regret to record the deaths of Dr. Hjalmar Stolpe, the ethnologist of Stockholm; of Dr. Ludwig von Tetmajer, professor of mechanics in the Technical Institute of Dresden, and of M. Emile Fernet, a French physicist, for many years editor of the *Comptes Rendus* of the Academy of Sciences.

THE position of assistant in the clinical laboratory of the New York State Pathological Institute will be filled by civil service examination on April 8. The salary is \$1,500.

THE second section of the museum building, near the Prospect Park Plaza, Brooklyn, has been completed and provided with cases and furniture at an expense to the city of New York of upwards of \$600,000. It is expected

that this section of the museum will be turned over by the city to the Brooklyn Institute of Arts and Sciences very soon.

THE French government has proposed to the chamber of deputies to create a Universal Exposition in Paris in 1920 to commemorate the foundation of the French republic.

THE daily papers state that the Duke of Orleans is preparing an Arctic expedition, and has offered to purchase the *Fram* of the Nansen expedition. The Norwegian government has, however, declined to sell it.

IN order to avoid clashing with the International Tuberculosis Congress, which is to be held this year in Paris from October 2 to 7, the organizing committee of the French Congress of Medicine has decided to change the date of meeting from October 2, 3 and 4, to September 25, 26 and 27.

It is said that United States food laboratories will be established in Boston, Orleans and San Francisco similar to the one recently opened in New York City.

A METEOROLOGICAL observatory in the Transvaal has been established near Johannesburg, with Mr. R. T. A. Innes as director.

THE Lake Laboratory of the Ohio State University announces for its summer work in biology at the Cedar Point Laboratory, near Sandusky, courses of instruction in general zoology and botany and advanced courses in comparative anatomy, embryology, entomology, ichthyology, ornithology, experimental zoology, ecology and special work in botany. The staff includes, besides the director, Professor F. L. Landacre, of the Ohio State University; Dr. W. E. Kellicott, Barnard College, Columbia University; Professor L. B. Walton, Kenyon College, and Mr. O. E. Jennings, curator of botany at the Carnegie Museum, Pittsburg. The course in experimental zoology, under the charge of Dr. Kellicott, of Columbia University, is a new feature in the work. As heretofore special attention will be given to the opportunities for investigators, those doing independent work being allowed free use of the laboratory with the expectation that each will furnish his own microscope

and other apparatus or materials used in his investigation. The instruction courses open on June 26 and close on August 4, and the laboratory will be open for investigators from June 26 to September 15. Detailed information may be obtained by addressing the director, Professor Herbert Osborn, Ohio State University, Columbus, Ohio.

THE London *Times* states that the French Ministry of Public Works has commissioned M. Jacquier to project plans for a railway between Chamonix and Aosta. He considers the difficulty would not be so great as with the Simplon tunnel; the tunnel would be $4\frac{1}{2}$ miles shorter, and the rock gives no indication of subterranean reservoirs of water. The tunnel would commence at Chamonix, 3,415 feet above sea level, and end at Entrèves (4,550 feet), a distance of $8\frac{1}{2}$ miles. The Dora Baltea would give ample water power for the boring work, and afterwards for locomotion.

ACCORDING to foreign exchanges, the Danish government has begun a survey of Iceland. Much of Iceland has never been accurately surveyed, triangulation having been carried out in only a few parts of the island. The least known region is the southern coast, which is impassable in summer owing to the quicksands, and also the inland ice-masses of the Vatna Jökull, and it is here that a beginning has been made with the survey. During the summer of 1903 a plan of the survey was laid down by means of a preliminary expedition, and in the spring of 1904, so long as the frosts made it possible to cross the morasses and streams, a part of the southern region in the district of Skeideraasande was surveyed. A second survey party was detailed to study the inland ice. One result of the work was to show that the highest point of the island is Hvannadalshnukur, which is 2,120 meters, and not, as has been hitherto supposed, the Oraefa Jökull, which is only 1,959 meters. In all about 100 Danish square miles, that is 5,700 square kilometers, have been already surveyed.

REUTER'S AGENCY is informed that Mr. A. E. Pratt, who lately returned to England from a two years' expedition in the remote interior of British New Guinea, chiefly along the Owen Stanley Range, has sailed on a new scientific

expedition, which is expected to last for two and a half years. Mr. Pratt, accompanied by his two sons, proceeds direct to Batavia, where he will make final arrangements for his journey. After conferring with the Dutch government officials he will cross to Dobo, the chief town of the Aru Islands, a group unknown to Europeans. After making collections there the expedition will cross to Dutch New Guinea and will immediately strike into the interior with the object of reaching the highest possible point of the Charles Louis Range, a snow region running east and west of Dutch New Guinea never before explored. Valuable geographical results are expected, and a map will be made, but the special work of the expedition will be the collecting of natural history specimens.

THE council of the Royal Meteorological Society arranged to hold an exhibition of meteorological instruments from March 14 to 17. The exhibition was chiefly devoted to recording instruments; but it also included new meteorological apparatus invented or first constructed since the society's last exhibition, as well as photographs, drawings and other objects possessing meteorological interest.

UNIVERSITY AND EDUCATIONAL NEWS.

THE will of Mrs. Jane Lathrop Stanford gives about \$3,000,000 to relatives, and about \$100,000 to charities. The residue of the estate, which it is said will amount to about \$2,000,000, is bequeathed to Leland Stanford Junior University. The university also comes into possession of the house built by Senator Stanford at San Francisco and its contents, which are valued at more than \$2,000,000.

It is now said that Sir William MacDonald, of Montreal, has decided to give \$4,000,000 to the cause of education and has unfolded his scheme in detail. It consists of the erection of a normal school at St. Anne de Bellevue, a few miles distant from Montreal, and the erection and endowment of an agricultural college at the same place, to the plans for which we have already called attention.

THE legislature of North Carolina, which adjourned on March 7, appropriated \$50,000 for the erection of a chemical laboratory at the University of North Carolina. The plans for this laboratory have been accepted and work will begin at once.

THE Boys' Central High School of Philadelphia was injured by fire to the extent of \$100,000 on March 9. The equipment of the astronomical department suffered especially, the loss there being estimated at \$30,000, in addition to books and manuscripts belonging to Professor Monroe B. Snyder.

MR. SHYAMÁJI KRISHNAVARMA has offered to establish six traveling fellowships at Oxford, five of them to be called the Herbert Spencer Indian fellowships. The fellowships are intended for natives of India.

MR. EDWARD WHITLEY, B.A. Trinity College, has given £1,000 towards the permanent endowment of the chair of physiology in the University of Oxford.

AT St. Petersburg, Moscow, Kieff, Kharkoff, Kazan and other large towns having universities or technical colleges, these institutions have been closed by order of the authorities.

MEETINGS are being held between the medical faculties of McGill University and the Bishop's College University, Montreal, looking toward the amalgamation of Bishop's medical faculty with that of McGill University.

THE Thaw fellowship in astronomy at Princeton University is open for the coming academic year to college graduates of not more than five years' standing. The income of the fellowship is five hundred dollars a year; the holder is expected to devote his entire time to graduate work and research, and will be eligible to reelection. Applications with credentials should be received by the dean of the graduate school before the first of May.

DR. R. S. WOODWORTH, instructor in psychology in Columbia University, has been promoted to an adjunct professorship.

MR. JAMES C. IRVINE, Ph.D., D.Sc., has been appointed to the new lectureship in organic chemistry in St. Andrews University.

DR. PAUL DRUDE, of Giessen, has accepted a call to a professorship of physics at Berlin.