

The hospital will accommodate only about seventy patients. They will be selected to enable the physicians of the institution to study particular diseases on the combating of which all their strength and ability will be concentrated. Only a small group of diseases will be included at a time, so as to permit thorough concentration. As a result of this arrangement the patient will get the best treatment and the benefit of the most up-to-date medical information.

Up to the present time the work of the Rockefeller Institute was confined to laboratory studies of physiological and chemical aspects of diseases and to surgical and other problems that could be studied on animals.

The need for the direct study of diseases under conditions that would permit the most minute and accurate observations with the aid of a most comprehensive equipment led to the foundation of the hospital. The physicians of the institute will devote all their time and energy to the cure of the sick entrusted to their care. They will not engage in outside practise. But instead of being compelled to treat almost every kind of disease, as in a general hospital, they will concentrate on a few ailments without being diverted by attending to others.

The hospital will have physiological, chemical and biological laboratories to supplement those of like nature in the institute. The laboratories of the hospital will be devoted to investigations bearing on the diseases under treatment, while the laboratories of the institute will continue their investigations as conducted at present. Any discovery of a new remedy in the laboratory of the institute will be immediately available to the hospital, and a constant cooperation of the two divisions will be assured.

The medical staff of the hospital will consist of the director, Dr. Rufus J. Cole, formerly of Johns Hopkins University; Dr. Christian A. Herter, Dr. C. C. Robinson and four internes, Drs. Draper, Swift, Marks and Peabody. The diseases to be admitted to the hospital at its opening to patients will be infantile paralysis, pneumonia and heart disease.

FOUNDATIONS FOR RESEARCH AT BERLIN

At the celebration of the centenary of the University of Berlin Emperor William made an address, in the course of which, according to the report in the *London Times*, he said:

The present occasion seemed to him to be peculiarly appropriate for a fresh movement towards the completion of Humboldt's aims. Humboldt's scheme required, in addition to the Academy of Sciences and the University, independent institutions for research as integral parts of the whole. The foundation of such institutions had not kept pace in Prussia with the development of universities, and this lacuna, especially with regard to the natural sciences, was felt more and more with the growth of knowledge. They needed establishments for pure research in close touch with the academy and the university, but unhampered by the giving of instruction. The early provision of such places of research seemed to him to be a sacred obligation of the present day, and it was his duty to appeal for general interest in this cause. Large sums were needed and could be obtained only by universal cooperation and by sacrifices. He would say to everybody, "Tua res agitur," and he was confident of success. The plan had been communicated only to a small circle, but already considerable sums, amounting to between nine and ten millions of Marks, had been forthcoming, together with enthusiastic expressions of approval from different parts of the country. It was his wish to found a society under his own patronage and bearing his own name for the foundation and maintenance of research institutions. It would be the care of his government to see that the new foundations did not lack state assistance as far as was necessary. Might that day mark a fresh stage in the development of the intellectual life of Germany.

SCIENTIFIC NOTES AND NEWS

THE annual meeting of the American Society of Naturalists will be held from December 28 to 30 at Cornell University, Ithaca, New York. The general program will consist of a symposium on the subject of "Genotypes or pure lines of Johannsen." Professor Johannsen himself, of Copenhagen, will contribute a paper, and other invited papers will be given by investigators working in the fields of inheritance and evolution. Each presentation will be followed by an open discussion. The naturalists' dinner will be arranged for the evening of December 29, when the president, Professor D. T. MacDougal, will deliver his address. Dr. Charles R.

Stockard, Cornell Medical School, New York City, is the secretary.

THE ninth annual meeting of the central branch of the American Society of Zoologists will be held in joint session with Section F of the American Association for the Advancement of Science at Minneapolis, Minnesota, beginning December 27, 1910. Titles of papers in order to appear on the printed program must be in the hands of the secretary, H. V. Neal, Knox College, Galesburg, Illinois, not later than December 10. Nominations for membership must also be in the hands of the secretary by that date.

THE Central Association of Science and Mathematics Teachers will hold its annual meeting at Cleveland, Ohio, on November 25 and 26. Reports of committees will be made and papers given in biology, chemistry, earth science, mathematics and physics. Addresses will be given by Harvey W. Wiley, of Washington, D. C.; Dayton C. Miller, of Cleveland; David Eugene Smith, of New York; J. F. Gilbert, of Illinois; Mark Jefferson, of Ypsilanti, and others. The program contains the names of forty-one speakers. Full information regarding the program, place of meeting, hotels, railroad rates, etc., may be obtained by addressing the secretary, James F. Millis, 330 Webster Ave., Chicago, Ill.

At the semi-annual meeting of the Philadelphia College of Pharmacy, the following scientific men were elected to honorary membership: Wilhelm Ostwald, formerly professor of chemistry at the University of Leipzig; Josef Moeller, professor of pharmacology and pharmacognosy at the University of Graz; H. Wefers Bettink, director of the pharmaceutical institute of the University of Utrecht; Charles E. Bessey, professor of botany, University of Nebraska.

At the recent celebration at Smith College the degree of Sc.D. was conferred upon Miss Florence R. Sabin, associate professor of history at Johns Hopkins University.

THE U. S. Fisheries steamer *Albatross* returned in May from her Philippine cruise in the interests of the fish and fisheries of the

archipelago, and is now at Sausalito, Cal. The chief naturalist of the *Albatross*, Mr. F. M. Chamberlain, will spend the winter in Washington engaged in the study of the fishes collected in the Philippines. Mr. Waldo L. Schmitt has been transferred from the Bureau of Plant Industry to be assistant naturalist on the *Albatross*.

DR. FREDERICK BEDELL, professor of applied electricity at Cornell University, has returned from a year's residence in Europe.

MR. J. A. DOUGLAS, demonstrator in geology at Oxford University, has gone on an expedition to Peru. The expedition has been sent out by Mr. W. E. Balston to take advantage, for geological research, of the excavations now in progress in the construction of new railways.

MR. SAMUEL F. HILDEBRAND, of the class of 1910, of the Indiana State Normal School, has been appointed scientific assistant in the Bureau of Fisheries at Washington. Mr. Austin F. Shira, of the class of 1910, of the University of Ohio, has likewise been appointed scientific assistant at the U. S. Fish Cultural Station at Homer, Minnesota.

THE International Medical Society, consisting of representatives from Mexico, United States and foreign countries will meet in El Paso, Texas, October 27-29. Dr. von Ehrlich, of Berlin, and Drs. Charles Wardell Stiles and Claude H. Lavinder, of the U. S. Public Health and Marine Hospital Service, will deliver addresses.

DR. FREDERIC S. LEE will give this year the Jesup lectures of Columbia University at the American Museum of Natural History. His subject will be "The scientific features of modern medicine," and the dates will probably be February 7, 14, 21 and 28 and March 7, 14, 21 and 28.

DR. ERNST GRAWITZ, of the University of Berlin, lectured at the Johns Hopkins Hospital on October 11 on "Diseases of the Blood."

DR. CHARLES WARDELL STILES, U. S. Public Health and Marine Hospital Service, began a

course of lectures at Johns Hopkins University on October 12, on "Medical Zoology and Animal Parasites."

THE opening lecture of the session of the McGill Medical Faculty was delivered on October 3, by Dr. William Hunter, London, who spoke on "Antisepsis in Medicine."

THE Page May Memorial Lectures in Physiology will be delivered at University College, London, on October 24 and 25, November 7 and 8 and November 28 and 29. The first course, dealing with neurology, will be delivered by Professor C. S. Sherrington, of the University of Liverpool.

THE lectures to be given before the London Institution include the following: "Secrets in a Pebble-beach," by Cecil Carus-Wilson; "Malaria," by Major Ronald Ross, F.R.S.; "Smoke and its Prevention," by Professor Vivian B. Lewis; "Autumn and Winter," by F. Martin-Duncan; "The Art of Aviation," by R. W. A. Brewer; "Life and Work of Lord Kelvin," by Professor S. P. Thompson, F.R.S., and the "Art of Paleolithic Man," by Dr. A. C. Haddon, F.R.S.

DR. DEFOREST WILLARD, professor of orthopedic surgery at the University of Pennsylvania, died on October 14.

THE classification and cataloguing of the Simon Newcomb Library, the acquirement of which by the College of the City of New York has already been announced, has been completed by Miss Edyth L. Miller. This collection of 4,000 volumes and 6,000 pamphlets, which was presented by Mr. John Claffin, includes many important items in astronomical and mathematical publications. Among others, there is a first edition of Euclid's "Elements," a Pacioli of 1494 and the 1515 edition of the *Almagest* of Ptolemy. The library will soon be officially presented to the college by Professor Compton, head of the department of physics.

WE learn from the Princeton *Alumni News* that at the new vivarium, which is now in use by the department of biology, the salt water tanks have been filled with sea water. A tank steamer was sent out to sea and brought in a

fresh supply of water, which was transferred to Princeton by tank car and carried in water carts to the vivarium. By means of the circulating and filtrating system of the vivarium, this water can be used over and over again without detriment to the fish in it. Professor E. G. Conklin, who is in charge of the vivarium, has returned from a year's leave of absence, most of which he spent at the Marine Laboratory at Naples, and the work of stocking the vivarium is now under way.

THE states of the South African union will present to the king a representative collection of living specimens of the wild animals of the country, and arrangements are already in progress for bringing together the collection and transporting it to England. The latter part of the task will be under the superintendence of the Zoological Society of London, in whose menagerie it is hoped that the whole collection will be ready for exhibition next summer, under the title of the King's African Collection.

THE Omega chapter of the Sigma Xi of the Ohio State University has arranged its lecture program for the year. Dr. A. A. Michelson, Professor L. H. Bailey and Colonel G. W. Goethals, are to appear before the society and invited public on the J. C. Campbell Foundation. The following is a summarized program of the year's work:

November 9. Chapter. Professor R. C. Purdy on "Fluxes and Fusion" and Dr. Dachnowski on "Diseases of Peat and Muck Soils."

December 2. Public. Dr. A. A. Michelson, director of the department of physics of the Chicago University, on "Metallic Colors in Birds and Insects."

February 10. Public. Professor L. H. Bailey, director of the department of agriculture, Cornell University, on "The Country Life Movement."

— Colonel G. W. Goethals, chief engineer upon the Panama Canal. His lecture will have to do with some of the scientific problems of his work. Date and subject to be announced later.

March 17. Chapter. Mr. Julius Stone on "The Grand Canyon of the Colorado," giving some of the scientific results of his expedition.

April 14. Professor E. F. McCampbell on

"Studies on the Venoms of Snakes and other Poisonous Animals."

The executive committee of the chapter for the year consists of Professors W. L. Evans, president; C. H. Morris, vice-president, and Charles Sheard, secretary.

THE Field Museum of Natural History's thirty-third free lecture course is as follows:

October 15—"The Bird Life of the Bahamas, with Special Reference to the Nesting of the Flamingo," Professor Frank M. Chapman, assistant curator of mammalogy and ornithology, American Museum of Natural History.

October 22—"Japanese Mythology as Represented in their Archeology," Dr. William Elliot Griffis, Ithaca, N. Y.

October 29—"Through Africa with Roosevelt," Professor J. Alden Loring, Owego, N. Y., field naturalist to the Roosevelt African Expedition.

November 5—"Wild Game of Alaska," Professor Wilfred H. Osgood, assistant curator of mammalogy and ornithology, Field Museum.

November 12—"What Plants Mean to Man," Dr. Charles F. Millsbaugh, curator of botany, Field Museum.

November 19—"Gold Mining in Alaska," Professor Wallace W. Atwood, United States Geological Survey.

November 26—"Material Basis for Perpetuity of the American People," Dr. W. J. McGee, Washington, D. C.

December 3—"The Indians of the Province of Esmeraldas, Ecuador," Dr. S. A. Barrett, curator of anthropology, Public Museum, Milwaukee, Wis.

December 10—"Waste of Life in American Industries," Dr. Joseph A. Holmes, director of the United States Bureau of Mines.

Nature states that by the bequest of the late Mr. F. Tendron, for many years chairman of the St. John Del Rey Mining Company, the trustees of the British Museum have recently acquired a few choice mineral specimens. Conspicuous among them is a magnificent, and probably unique, crystal of pyrrhotite, measuring as much as fourteen centimeters across. The suite also includes smaller specimens of pyrrhotite, two specimens of the rare mineral chalmersite, some well-crystallized gold, etc.

THE *Journal* of the American Medical Association states that Professor Osler's "Prin-

ciples and Practise of Medicine" has been translated into Chinese by Dr. P. B. Cousland, president of the China Medical Missionary Association, Shanghai. This undertaking has engaged Dr. Cousland for several years. The book is the only first-class work on medicine that has so far been translated into Chinese. Other translations are in progress. Dr. Cochrane, of Peking, is translating Heath's "Anatomy"; Dr. McAll, of Han-kau, Stengel's "Pathology"; Dr. Cormack, of Peking, Hutchinson and Rainey's "Clinical Methods"; and Dr. Neal, of Tsi-nan, Fuch's "Ophthalmology." A new and compact "Systematic Anatomy" is also passing through the press. An atlas of beautiful anatomic plates has just been printed for the China Medical Missionary Association by the Oxford Press at a cost apart from the letterpress of \$2,500, a part of which has been contributed by the China Emergency Appeal Committee. As dissection of the human body is not yet allowed in China such plates are of great importance.

THROUGH the generosity of Mr. John E. Thayer, class of 1885, the Museum of Comparative Zoology of Harvard University, has recently received the valuable collection of letters and drawings of Alexander Wilson and John J. Audubon which belonged to the late Joseph M. Wade. The Wilsoniana contain Wilson's sketch of the "Sorrel Horse Inn," a sketch of his School House and seventy of his original drawings of birds. These drawings are in various stages of completeness, from rough outlines to finished paintings, and are, as has been noted, superior both in delicacy and in perspective to the plates engraved by Alexander Lawson for the American Ornithology. There are sixteen autograph letters of Wilson, ranging in date from 1803 to 1810, two autograph poems and his book of receipts for the engraving and coloring of the plates of his American Ornithology. A few years ago Mr. Thayer gave the museum seven volumes containing the original ledgers, day books and account books, with the list of subscribers, kept by Audubon and his sons during the publication of their works on the birds

and mammals of North America. The Auduboniana of the Wade collection consist of five original drawings of John J. Audubon and seventy-three of his autograph letters, written chiefly to Dr. John Bachman. There are a few letters of Mrs. Audubon, one of her son, John W. Audubon and sixty letters of another son, Victor G. Audubon. Some of the letters of Audubon and of Wilson are without doubt unpublished.

THE annual report of the Board of Scientific Advice for India for 1908-09 is abstracted in the *Geographical Journal*. Mr. Gilbert T. Walker, director-general of observations, contributes three reports on researches in solar physics, meteorology and terrestrial magnetism. The geological chapter by Sir Thomas H. Holland, director of the Geological Survey, covers fifty pages. Under the head of mineralogy is noticed the discovery of several new varieties and species of minerals characterized by the presence of manganese in small or large quantities. Among economic inquiries importance attaches to Mr. Murray Stuart's discovery of kaolin in the Rajmahal hills, suitable for the manufacture of china and porcelain. In one locality the quality of the clay is good, strongly resembling the Cornish china clays, and the quantity, speaking from a manufacturer's point of view, is unlimited. In three of the coalfields in these hills Mr. Murray Stuart lighted on some deposits of excellent fire-clay. These are, however, difficult of access at present and not very large. Under the head of Geological Surveys there is a variety of work achieved by Dr. Pilgrim in Baluchistan and Mr. Middlemiss and Mr. Datta in Kashmir and the Central Provinces. The report on geography and geodesy contains a brief review of Dr. Stein's and surveyors Ram Singh and Lal Singh's surveys in Chinese Turkistan and Kansu. The invar wire measuring apparatus ordered from Paris has been received, and an alley 97 feet in length is now being constructed in the grounds of the Trigonometrical Survey Office, in which a base 24 meters long will be laid down. The base will be laid out by means of the new 4-meter invar standard bar, now being manufactured

at Geneva. In each of the end walls a frictionless pulley will be fixed, over which the wire to be tested will be strained. During 1908-09 four detachments were employed on principal triangulation, and in consequence the additions made to the Geodetic Survey have again been large. In all a length of 270 miles of triangulation covering an area of 9,600 square miles has been added. The districts in which the detachments were at work were northern Baluchistan, Shan States (Burma) and Kashmir. In May, 1908, Lieut. Oakes commenced the northern Baluchistan series, starting from the Kalat longitudinal series, and, working along the meridian $66^{\circ} 31' E.$, carried the new series northwards to $31^{\circ} N.$ Hence onward the series will take an easterly direction, following as closely as possible the Afghan-Baluchistan frontier, and eventually closing on the great Indus Series. Mr. Tresham and Lieutenant Cardew continued this work, the latter executing 50 miles of triangulation enclosing an area of 1,900 square miles. In Burma, Captain Browne continued the Great Salwen Series, carrying the new triangulation forward for a distance of 120 miles, a small outturn due to the monsoon rains, heavy mists and, later on in March, dust haze, which compelled a stoppage of the work. In Kashmir Mr. de Graaf Hunter has started a new series which emanates from the northwest Himalaya Series.

THE U. S. Department of Agriculture estimates that the farmers of the single state of Iowa use every year \$1,400,000 worth of new fence posts, which cost the equivalent of \$600,000 for setting them in the ground. Further, the department officials believe that a part of this expenditure might be saved. The opportunity for economy is found, first, in using the kinds of posts which, taking into account both cost and durability, are cheapest in the long run, and, secondly, by treating the posts to prevent decay, particularly those which decay most quickly. When a farmer sets a post which will have a comparatively short life, he loses not only through having to buy a new post but also because of the additional

labor involved in setting it. It is true that in both cases no money outlay may be involved, for he may set the posts himself, after getting them from his own wood-lot. Of the posts used last year in Iowa, seventy per cent., it is estimated, were grown on the farms where they were used, or were obtained from other farmers or wood-lot owners, and only thirty per cent. were bought from lumber dealers. Nevertheless, the farmer is out his labor and the part of the product of his wood-lot which is used up, even though he does not pay out any cash. The facts concerning the use of fence posts in Iowa were brought out by an investigation which the Department of Agriculture has been making through inquiries sent to farmers. Several thousand replies have been used in compiling the figures, which, combined with statistics issued by the Iowa State Board of Agriculture as to the number of farmers and the acreage, furnished the totals. According to these totals about 10,000,000 posts are called for yearly to build and repair fences on 209,163 farms, of an average size of $158\frac{1}{2}$ acres each. The average life of a fence post is stated to be fourteen years and the average cost 13.7 cents. There is, however, great difference in the lasting properties of different woods. Osage orange lasts more than five times as long as willow does, and for length of service it heads the list of post timbers in the state. The comparative life of other posts is shown in the following list ranging from the longest period to the shortest: red cedar, locust, white oak, northern white cedar (or arborvitæ), catalpa, black walnut, butternut, red oak and willow. The average cost of posts varies for different woods, and for the same woods in different localities. Red cedar is most expensive, at an average of $26\frac{1}{2}$ cents each, and willow the cheapest, at 6 cents. Taking into consideration the time a post will last, and the cost of buying it and setting it in the ground, the conclusion must be drawn that the osage orange post is the most economical in Iowa, followed by white oak, locust, catalpa, red cedar, black walnut, butternut, willow, white cedar and red oak, in the order named.

UNIVERSITY AND EDUCATIONAL NEWS

By will of Ezra J. Warner, '61, Middlebury College will receive \$25,000 as an endowment for the care and maintenance of Warner Science Hall and the purchase of apparatus and supplies for the departments which are housed in that building.

A SCHOLARSHIP valued at \$1,000 per year for advanced work in architecture has been offered to the trustees of the University of Illinois by Mr. Francis John Plym, of Niles, Mich.

THE trustees of Princeton University have accepted the resignation of President Woodrow Wilson and have elected John A. Stewart, senior trustee, to be acting president. Dr. Wilson retains the McCormick chair of jurisprudence and political history.

DR. JOHN B. ELLIOTT, Jr., has been made chief of the department of medicine of Tulane University, to succeed Dr. George Dock; Dr. J. Birney Guthrie has been made professor of clinical medicine, and Dr. R. Clyde Lunch, professor of oto-rhino-laryngology in the post-graduate department.

DR. ROBERT W. HEGENER has been promoted from instructor to assistant professor of zoology in the University of Michigan.

HENRY R. KREIDER, Ph.D. (Hopkins), has been appointed assistant professor of Chemistry at the Baltimore Medical College.

THE department of botany at Syracuse University is enlarged by the addition of Assistant Professor L. H. Pennington, recently of Northwestern University. Laboratory equipment is being installed for work along the lines of physiology and plant pathology.

AT Princeton University there have been appointed to instructorships, Richard L. Cary in mathematics and Mr. K. K. Smith in physics.

MR. W. L. UPSON, of the Ohio State University, has been appointed professor of electrical engineering in the University of Vermont.

PROFESSOR PAYR, of Griefswald, has been called to Königsberg as director of the surgical clinic to succeed Professor Lexer, who goes to Jena. Payr's successor is Professor