WILLIAM ABBOTT HERDMAN, delegate from the University of Liverpool; a great authority on marine biology, who has dredged the floor of the ocean, and learned the secrets of the oyster and the pearl.

WILLIAM BERRYMAN SCOTT, a delegate from Princeton University; a persistent and thorough explorer of early mammal forms, he has helped to draw aside the veil that shrouds the mystery of life upon our planet.

ARTHUE AMOS Noves, chemist of renown; a leader of research in physical chemistry. As professor at the Massachusetts Institute of Technology, and recently its head, our neighbor, our fellow-laborer, and our friend.

EDWARD BRADFORD TITCHENER, a delegate from Cornell; thorough and exact in methods of work in a new and rich field, his researches in experimental psychology have enlarged the bounds of human knowledge.

ELIHU THOMSON, delegate from the American Academy of Arts and Sciences; prolific in research and invention; a magician who by the witchcraft of science has subdued electricity to the service of man.

The degree of doctor of law was conferred on President Remsen with the following words:

IRA REMSEN, president of Johns Hopkins University; eminent for his researches in chemistry; a public-spirited citizen; and worthy to lead the university that first taught our country the higher training of scholars.

SCIENTIFIC NOTES AND NEWS

Professor Georg Lunge, the eminent chemist of Zurich, was presented on September 19 with a gold medal bearing his portrait and the sum of 40,000 francs to celebrate his seventieth birthday and the jubilee of his doctorate. Chemists were present from many countries and addresses were delivered by a number of delegates. Professor Lunge in his reply announced his intention of giving the money to the Polytechnic Institute for the aid of students of chemistry.

WE learn from Nature that in view of the retirement of Professor J. Cleland, F.R.S., from the chair of anatomy, and of Professor Jack from the chair of mathematics, at the end of the present month, there has been set

on foot, on the initiative of the business committee of the general council of the University of Glasgow, a movement for making appropriate recognition of their long and distinguished services. The form of recognition will, to a large extent, depend on the amounts subscribed, but it is thought that it might fitly include the provision of some fund for the advancement of anatomical and anthropological science in the case of Professor Cleland, and of mathematical science in the case of Professor Jack, and the presentation to the university of portraits or busts by an eminent artist.

Dr. J. F. Anderson has been appointed director of the Hygienic Laboratory, Washington, D. C., to succeed Dr. M. J. Rosenau, who retires from the Public Health Service to accept a professorship of preventive medicine and hygiene at Harvard University. Dr. Anderson entered the Public Health Service in 1898 and for the past seven years has been assistant director of the laboratory. He has carried on his work on the standardization of diphtheria and tetanus antitoxins, market milks for tubercle bacilli and immunity and anaphylaxis. He is a graduate of the University of Virginia.

Dr. Karl Schwarzschild, professor of astronomy at Göttingen, has been appointed director of the Astrophysical Observatory at Pottsdam.

Dr. O. L. ZUR STRASSEN, associate professor of zoology at Leipzig, has been appointed director of the Museum of the Senckenberg Natural History Society at Frankfort.

Temporary Industrial Fellowship, No. 7, at the University of Kansas, concerning the relation of the optical properties of glass to its chemical constitution, has been awarded to E. Ward Tillotson, Ph.D., of Yale. Dr. Tillotson, while at Yale, held both the Loomis and the Silliman fellowships in chemistry.

WM. A. WITHERS, professor of chemistry in the North Carolina College of Agriculture and Mechanic Arts and chemist of the Experiment Station, was elected president of the Association of Official Agricultural Chemists at its recent meeting in Denver, August 26 to 28, 1909.

Some anxiety is caused by the failure to receive news from Professor C. K. Leith, of the University of Wisconsin, who, with Mr. Hugh M. Roberts and Mr. Francis S. Adams, has been making geological explorations in the neighborhood of Hudson Bay. No word has been received from them since their departure last June, and it is thought that they may be compelled to spend the winter in the north.

Professor A. S. Hitchcock, systematic agrostologist of the U. S. Department of Agriculture, has returned to Washington after four months spent in Alaska and the Yukon District studying the grasses of the region. The greater part of the work was done in the valley of the Yukon. Large collections representing the rich grass flora of the country were made for the National Herbarium.

Mr. Carlos Guerrero, of the Argentine Republic, is visiting this country to study agricultural methods.

Dr. John C. Willis, director of the Royal Botanic Gardens of Ceylon, will give a course of four lectures on "Tropical Agriculture, with Special Reference to Economic Problems," at Harvard University, on October 12, 14, 16 and 19.

Dr. W. B. Cannon, professor of physiology in the Harvard School, lectured before the Middletown Scientific Association on October 12, his subject being "Digestive Processes and the Influence of the Emotions upon Them."

Dr. Charles R. Barnes, professor of plant physiology at the University of Chicago, lectures before the Geographical Society of Chicago on October 15, on "Mexican Plants and People."

The subject of Professor Osler's address at the London School of Tropical Medicine, which is to be delivered on October 28, is "The Nation and the Tropics."

AT University College, London, public introductory lectures were given by Sir William Ramsay, on "Radium Emanation: one of the Argon Lines of Gases," and by Professor J. A.

Fleming, on "Electrical Inventions and the Training of Electrical Engineers."

Washington Irving Stringham, A.B. (Harvard '77), Ph.D. (Johns Hopkins '80), professor of mathematics in the University of California since 1882, appointed acting-president of the university during the president's leave of absence, died on October 5, at the age of fifty-two years.

LEONARD PEARSON, M.D., since 1891 professor of veterinary medicine in the University of Pennsylvania, and since 1897 dean of the veterinary school, known for his work on tuberculosis among cattle, died on September 20 at the age of forty-one years.

Professor Anton Dohrn, whose death we were compelled to announce last week, died at Munich, on September 26. He was sixty-eight years of age. The funeral, after cremation, took place at Jena on October 3.

At the meeting of the Chemists' Club, New York, held on October 8, it was announced that a Chemists' Building Company had been organized, for the purpose of acquiring a plot of ground, 56×100 , at 50 East 41st Street, and erecting thereon a large scientific building, the lower floors of which are to be rented to the Chemists' Club on a long lease, and contain scientific meeting rooms, a library and a museum, as well as the ordinary facilities required by a social organization, including sleeping apartments for its members. The upper floors of the building are to be rented for scientific laboratories for commercial and research work in chemistry and allied sciences. For the past eleven years the Chemists' Club has been located at 108 West 55th Street, and various chemical societies have used its meeting room, which has gradually proved inadequate to meet the growth of these organizations.

At the closing meeting of the International Geodetic Association, held at Cambridge, there were made several announcements of scientific interest. According to the report in the London *Times* Lieutenant-Colonel Burrard, representing India, said that recent levelling operations in India showed that the Siwalik range gained a few centimeters in

height in the great earthquake of 1905. Geologists believed that the whole mass of the Himalayas and Tibet was being pushed south and wrinkling up a new range out of the alluvial plain. The survey authorities had recently laid down six lines of bench marks which would be observed every ten years. Mr. B. F. E. Keeling, representing the Survey of Egypt, announced that the Egyptian government had recently purchased a platinum iridium standard from the same batch as the international meters, which would be the standard of length for Egypt; and that they hoped to begin gravity observations next spring with the pendulums belonging to the South Kensington Museum which Captain Scott took to the Antarctic. Mr. W. F. King, presenting the report from Canada, nounced that his government had recently decided in favor of making the main triangulation of Canada not merely sufficient for topographical purposes, but of the highest possible accuracy, and that the department would henceforth be known as the Geodetic Survey of Canada. Mr. Nakano (Japan) described methods by which he had been successful in determining differences of longitude by the use of wireless telegraphy. Professor Foerster (Berlin) announced that the Bureau of Weights and Measures at Breteuil would shortly undertake a definite comparison between the stability of wires and of tapes of Suvar. M. Poincaré announced that arrangements had been made to send a signal each day at noon by wireless telegraphy from the Eiffel Tower. This signal will be available for shipping in the Atlantic and the Mediterranean, for the determination of longitude. Dr. Helmert (chief of the Central Bureau) announced the program of work of the Central Bureau for the next three years. It included further researches on the variation of latitude, deviations of the vertical along the 48th parallel, new reduction of the observations of gravity over the ocean, a general comparison of observations of latitude and deviation of vertical throughout the world, and a continuation of the observation of lunar earth tides. Sir George Darwin,

presenting the report of the Rigidity of the Earth Commission, asked the association to adopt a resolution approving of the grant of £100 annually to enable observations to be made by Dr. Hecher's method in the deep silver mines of Przbram, in Hungary, and asking the cooperation of the International Seismological Association.

HARLAN I. SMITH, of the department of anthropology of the American Museum of Natural History, has returned from a three months' trip along the northwest coast of America from Seattle to Skagway. sumed his archeological reconnoissance of the coast, carrying it northward from Alert Bay near the northern end of Vancouver Island to a point on the Chilkat River, about twenty-five miles above Haines. The following sites were located: an ancient village site about four miles above the mouth of the Bella Coola River; shell heaps in the vicinity of Old Matlankatla and Prince Rupert, and both north and south of Port Simpson; a village site at the old eulichon fishing ground on the north side of Nass River a few miles above Kincolith; petroglyphs near Wrangel, and several village sites along the Chilkat River, between Haines and Klukwan. Over three hundred photographs, of which one hundred ninety-two were on $6\frac{1}{2} \times 8\frac{1}{2}$ plates, were taken to show as completely as possible all the phases of Indian life met with on the trip at Victoria, North Saanich, Alert Bay, Rivers Inlet, Bella Coola, Port Simpson, along Nass River, at Wrangel and along the Stickine, Iskut and Chilkat Rivers. Photographic prints illustrating ethnological conditions were also purchased wherever possible. Among the ethnological objects seen the few not already represented in the museum collection were purchased. Two Bella Coola totem poles were secured in order that they may be preserved as ethnological specimens and may lend artistic effect to the Northwest Coast Hall in the museum. Arrangements were made to secure other poles from the various areas of the northwest coast culture for the same purpose. Mr. Will S. Taylor, a mural artist, the other member of the expedition, made color studies in oil of the Indians and their artificial and natural environments. These with the aid of the photographs secured on the expedition and those already in the museum are to be used for mural decorations in the Northwest Coast Hall. These it is hoped will illustrate the home country of the seven groups of natives together with their characteristic occupations.

The Philadelphia College of Pharmacy announces special lectures to be held from October to April, inclusive, at 3:30 p.m., in accordance with the following schedule:

Friday, October 8—" Examination of Foods," by Dr. W. D. Bigelow, Chief, Division of Foods, U. S. Department of Agriculture, Washington, D. C.

Friday, October 22—"The Application of the Microscope in Legal Investigations," by George M. Beringer, A.M., Ph.M., Pharmacist and Chemist, Camden, N. J.

Thursday, November 4—"American Medicinal Plants and Drugs," by Professor John Uri Lloyd, Manufacturing Pharmacist, Cincinnati, O.

Friday, November 19—"The Typhoid Organism and its Relation to the Public Health," by Dr. A. C. Abbott, Director Laboratory of Hygiene, University of Pennsylvania.

Friday, December 10—"The Manufacture and Testing of Medicinal Plasters," by F. B. Kilmer, Chemist for Johnson & Johnson, New Brunswick, N. J.

Friday, December 17—"Trypanosomes and Trypanosomiases (The Sleeping-Disease and its Causes)," by Dr. Leonard G. Rowntree, Instructor in Pharmacology and Experimental Therapeutics, Johns Hopkins University.

Friday, January 7—"Plants Injurious to Animals," by Dr. Rodney H. True, Physiologist, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C.

Friday, January 21—"Physiological Assay, Its Value and Limitations," by Professor H. C. Wood, Jr., Department of Pharmacology, University of Pennsylvania.

Friday, February 11—"The Ultra-microscope and its Application," by Jerome Alexander, Secretary-Treasurer National Gum and Mica Company.

Friday, February 25—"Some of the Important Tests for Essential Oils," by Dr. Francis D. Dodge, Chemist, Oil Distilling Laboratory, Dodge & Olcott, Bayonne, N. J.

Friday, March 11-"The Testing of Cements,"

by Richard K. Meade, B.S., Director Meade Testing Laboratories, Nazareth, Pa.

Thursday, March 24—"Biologic Products," by Dr. S. H. Gilliland, President, Dr. H. M. Alexander & Co., Marietta, Pa.

Friday, April 8—"Modern Methods of Food Manufacture," by L. S. Dow, of the Heinz Preserving Company, Pennsylvania.

Friday, April 22—"State Control of Contagious and Infectious Diseases," by Dr. Samuel G. Dixon, Commissioner of Health of Pennsylvania.

THE British Medical Journal states that the natural history department of the British Museum has received a cast of the fossil human lower jaw found recently some seventy feet below the surface in a sand deposit at Mauer, near Heidelberg. It was found along with fossil remains of a rhinoceros and elephant, similar to those met with in the Cromer forest beds, and Dr. Shoetensack, who has published a description of the jaw, considers that it may be referred to the later pleistocene epoch. The discovery of this "Heidelberg man," therefore, takes the antiquity of the human race back to an age earlier than the famous Spy and Neanderthal skulls. The jaw is massive, and has no chin, in which respects it presents ape-like characters, but the teeth are distinctly human; the molars have five cusps, the canines are not specially prominent, and the dimensions of the teeth generally are within the limits of variation at the present day. The skull is exhibited in a case which contains also casts of Pithecanthropus erectus from Java, the Neanderthal skull, the Gibraltar skull of the same type, the Spy skull and limb bones, the Cannstadt skull, and the Tilbury skull described by Owen.

The Journal of the American Medical Association says: Several statues of prominent members of the profession in Europe have been installed recently as memorials at the scene of their labors, but the designs of the sculptors have all been ornately allegorical, and many criticisms have been made that this conflicts with the simplicity and love of absolute truth which distinguishes the scientists thus honored. The Brouardel statue at Paris is a bust of the scientist on a tall pedestal with two

graceful female figures below, forensic medicine and hygiene, a little smaller in proportion than the bust, lifting high a garland to wreath it at the base of the bust. It stands in the grounds of the medical school. The Mikulicz memorial at the surgical clinic at Breslau represents in bas relief Mikulicz seated in profile, while two standing female figures, medicine and science, of a size rather dwarfing the recipient, are placing the wreath of immortality on his brow. One can not help imagining that Mikulicz feels rather embarrassed at the situation. The Kussmaul memorial is a bust rather larger than life-size hewn out of the stone forming the base of the memorial, with a smaller allegorical bas relief below of medicine relieving a sick youth. The allegorical design has run riot in the Virchow statue, which is to be merely a statue of Hercules overcoming the Nemean lion, representing Virchow's conquest of disease. There is nothing to suggest Virchow personally except a small bas relief bust below. Something like the simple grandeur and life-like presentation of a St. Gauden's statue of Lincoln is what the friends of the scientists long for as a much more appropriate tribute to the memory of men of science, perpetuating their personality, but the sculptors, as a rule, seem determined to insist on decorative allegorical designs.

THE government is now carrying on work at regular forest experiment stations similar to the agricultural experiment stations in the different states. The first forest experiment station created in this country was the Coconino Experiment Station at Flagstaff, Arizona, established last summer. Investigations covering many phases of forestry in the southwest have already been undertaken at this station. The second forest experiment station has been established this year on Pike's Peak, Colorado. The need for such stations becomes apparent when the long time necessary for handling forest experiments is considered. In agricultural experiments definite results can usually be obtained in one or at most a few years; in forestry, because of the long time required for trees to develop, scores of years are often required to complete a

single experiment. All experimental work is conducted under the direction of men who have had training in technical and practical forestry, and every experiment is intended to have a direct bearing upon some problem which vitally concerns the management of the forest. Under this system any new plan can be thoroughly tried before being put into practise on a large scale, and thus the injury resulting from mistaken practises can be minimized. The greatest technical problem which now confronts the forester in handling the great pine forests of Arizona and New Mexico is that of establishing a new stand of trees to replace the old timber which is cut off. This was the first problem undertaken by the Coconino Experiment Station. Much information regarding the factors influencing natural reproduction has already been secured, but many years of systematic study will be required to fully solve the problem. feasibility of artificial regeneration by planting and sowing is also being tested. latter experiments, for the sake of economy, are being conducted on the smallest scale which will insure reliable results applicable to general conditions. The plans for the near future provide for a detailed study of the problems concerning the natural and artificial regeneration of other commercial trees such as Douglas fir, Engelmann spruce and the junipers.

Some account of the work of the Hamburg Expedition to the Pacific is given in Globus and summarized in the Geographical Magazine. Its principal field of operations has been the little-known island of New Britain (New Pomerania), the first crossing of which, in its full width, has been effected by the expedition. As mentioned in a previous note, the expedition, which is under the leadership of Dr. Fülleborn, has the benefit of a vessel specially chartered for the purpose, and its work has been greatly facilitated thereby. inary cruise along the north coast of the island showed that the eastern district—that of Nakanai—which has not been supposed to extend further west than Open Bay, in reality extends for more than half the length of the north

coast, being followed, further west, by those of Talasea and Bariai, in which the influence of New Guinea culture is much more manifest. Owing to the exposure of the north coast to the northwest monsoon during the early months of the year, it was decided to begin serious work on the south coast, which was followed from east to west, a large number of coast villages being visited, and some communication opened with the very primitive dwellers in the back country. The observations permit the definition of several distinct culture regions on this coast. Artificial deformation of the skull was found to be practised, especially between Montague Harbor and Cape Pedder. The voyage extended to the New Guinea coast (where a key was found to various facts in the ethnology of western New Britain), and a visit was paid to Sir George Rooke or Umbai Island. Returning, a landing was effected at the mouth of the Pulie River, whence a trade route leads across to the north coast, and this was utilized for the crossing of the island by Dr. Fülleborn and two of his European companions, who afterwards returned by the same route. The crossing occupied seven days, and the country was found to be covered with a uniform thin forest, broken only by the extensive plantations of the natives. The health of several members of the expedition has unfortunately suffered a good deal.

UNIVERSITY AND EDUCATIONAL NEWS

YALE UNIVERSITY has received from Mr. William D. Sloane and Mr. Henry T. Sloane the sum of \$475,000 to build, equip and endow a physical laboratory. This laboratory, it is understood, will replace the present Sloane Physical Laboratory, and will be used by the academic, the scientific and the graduate departments. Yale University has also received \$25,000 from Mr. Alfred G. Vanderbilt for general endowment, and \$15,000 from Mr. G. H. Meyers for the endowment of the Forest School, of which he is an alumnus.

COLUMBIA UNIVERSITY has received gifts amounting to about \$236,000, of which \$112,500 is from Mr. W. H. Charpentier, to be

added to the J. S. Charpentier fund, and \$100,000 is given anonymously toward the cost of Kent Hall.

THE Pratt Institute of Brooklyn has received the sum of \$1,750,000 from Mr. Charles M. Pratt, son of the founder and now its president, and from his five brothers and his sister, Mrs. E. B. Dane.

Dr. D. K. Pearsons has offered to give \$100,000 to Berea College, provided that the sum of \$400,000 is otherwise subscribed.

Mr. N. B. Duke has made a further gift of \$50,000 to Trinity College at Durham, N. C.

It is reported that the Free University of Brussels has received an anonymous gift of 4,000,000 francs for its scientific departments.

Dr. George E. Fisher, professor of mathematics in the University of Pennsylvania, has been appointed dean of the college.

At the University of Nebraska, Professor Robert H. Wolcott has been made professor of zoology and acting dean of the College of Medicine as successor of Henry B. Ward, who has gone to the University of Illinois.

Professor Gustave F. Wittig, of the electrical engineering department of the University of Maine, has resigned to become head of the electrical engineering department of the University of Alabama.

Dr. Byron B. Brackett has been appointed to the chair of electrical engineering at the South Dakota State College. He has held the chair of electrical engineering at the Clarkson School of Technology since 1903.

AT Harvard University, Dr. Edwin Katzenellenbogen has been appointed lecturer in abnormal psychology, W. J. Risley, A.M., instructor in mathematics, and A. V. Kidder, A.B., Austin teaching fellow in anthropology.

Dr. H. B. Kribs has been promoted to an instructorship of zoology at the University of Pennsylvania and Dr. H. M. Jacobs to a similar position in the place of Philip P. Calvert, who is on leave of absence. In the same department Dr. Harold Colton has been appointed assistant.

THE following appointments have been made in the chemical department of the