

some of our most notable engineering enterprises have grown out of efforts to control them. It was computed by Generals Humphreys and Abbott half a century ago that the Mississippi alone sweeps into its lower reaches and the Gulf 400,000,000 tons of floating sediment each year (about twice the amount of material to be excavated in opening the Panama Canal), besides an enormous but unmeasured amount of earth-salts and soil-matter carried in solution. This vast load not only causes its channels to clog and flood the lowlands of the lower river, but renders the flow capricious and difficult to control. Furthermore, the greater part of the sediment and soil-matter is the most fertile material of the fields and pastures drained by the smaller and larger tributaries. Any plan for utilizing our inland waterways should consider floods and their control by forests and other means; the protection of bottomlands from injury by overflows and uplands from loss by soil-wash; the physics of sediment-charged waters and the physical or other ways of purifying them; the construction of dams and locks, not only to facilitate navigation but to control the character and movement of the waters; and should look to the full use and control of our running waters and the complete artificialization of our waterways for the benefit of our people as a whole.

It is not possible properly to frame so large a plan as this for the control of our rivers without taking account of the orderly development of other natural resources. Therefore, I ask that the Inland Waterways Commission shall consider the relations of the streams to the use of all the great permanent natural resources and their conservation for the making and maintenance of prosperous homes.

Any plan for utilizing our inland waterways, to be feasible, should recognize the means for executing it already in existence, both in the federal departments of War, Interior, Agriculture and Commerce and Labor, and in the states and their subdivisions; and it must not involve unduly burdensome expenditures from the national treasury. The cost will necessarily be large in proportion to the magnitude of the benefits to be conferred, but it will be small in comparison with the \$17,000,000,000 of capital now invested in steam railways in the United States—an amount that would have seemed enormous and incredible half a century ago. Yet the investment has been a constant source of profit to the people and without it our industrial progress would have been impossible.

The questions which will come before the Inland Waterways Commission must necessarily relate to

every part of the United States and affect every interest within its borders. Its plans should be considered in the light of the widest knowledge of the country and its people, and from the most diverse points of view. Accordingly, when its work is sufficiently advanced, I shall add to the commission certain consulting members, with whom I shall ask that its recommendations shall be fully discussed before they are submitted to me. The reports of the commission should include both a general statement of the problem and recommendations as to the manner and means of attacking it.

#### SCIENTIFIC NOTES AND NEWS

THE bodies of Berthelot and his wife were entombed in state in the Panthéon on March 25 in the presence of President Fallières, the cabinet ministers, the diplomatic corps, members of the French Academy, judges, deputies, senators and deputations from learned societies. M. Briand, minister of education made an address. Every school in France was closed as a sign of mourning.

THE portrait-group of Drs. Halsted, Kelly, Osler and Welch, of the Medical School of the Johns Hopkins University, painted by Mr. John S. Sargent, R.A., was unveiled on the evening of January 19, 1907, in McCoy Hall. The painting was hung at the south end of the hall, where the wall had been appropriately draped. The portrait-group was presented to the university by Miss Garrett and accepted on behalf of the trustees by President Remsen. The Sargent portrait of Miss Garrett was hung in the panel to the left. Dr. Welch gave an account of some of the experiences of the sitters, and Mr. Royal Cortissoz, of the *New York Tribune*, spoke of Sargent as an artist.

At the New York meeting of the American Association for the Advancement of Science, a silver loving cup was presented to Professor W. F. Ganong by Professor G. F. Atkinson on behalf of the former members of the Society of Plant Morphology and Physiology, as a token of appreciation of Professor Ganong's long and efficient services as executive officer of that society.

At the fourth International Mathematical Congress to be held at Rome from April 6 to 11, 1908, lectures have been arranged by Pro-

fessors G. Darboux, A. R. Forsyth, D. Hilbert, F. Klein, H. A. Lorentz, G. Mittag Leffler, S. Newcomb, E. Picard and H. Poincaré.

PROFESSOR GEORGE T. LADD, who recently retired from the active duties of the chair of philosophy at Yale University, has gone from Japan to Korea, at the invitation of Marquis Ito, in the interest of the educational development of the country.

At the close of the year Dr. George Frederick Wright, professor of the harmony of science and revelation at Oberlin, will become professor emeritus, retiring under the provision of the Carnegie Foundation.

THE Prussian ministry of education has appointed Professor Felix Adler as Theodore Roosevelt professor in the University of Berlin for the year 1908-09, upon the nomination of the trustees of Columbia University, where he holds the chair of political and social ethics.

DR. C. S. SHERRINGTON, professor of physiology at Liverpool University, has been elected a foreign corresponding member of the Belgian Royal Academy of Medicine.

DR. P. CHALMERS MITCHELL, secretary of the London Zoological Society, and Mrs. Mitchell arrived in New York on March 30.

MR. W. T. HORNE has been appointed head of the department of plant pathology in the Central Agricultural Station of Cuba.

MR. W. H. POWER, C.B., F.R.S., medical inspector of the Local Government Board, has been appointed chairman of the Royal Commission on Tuberculosis, in succession to the late Sir Michael Foster.

DR. W. A. KELLERMAN, of the Ohio State University, and students, Condit and Imaly, who accompanied him, have just returned from Guatemala where the winter was spent in botanical exploration. He reports excellent success in getting interesting, rare and new plants, especially of parasitic fungi. Moreover, he has planned a regular 'Peripatetic School of Tropical Botany' for the successive winters beginning at the next holidays. This has been submitted to the State University authorities for approval. A very limited number of students would be accepted.

PROFESSOR R. MELDOLA, F.R.S., gave the presidential address before the Chemical Society, London, on March 22, his subject being 'The position and prospects of chemical research in Great Britain.' The anniversary dinner was held in the evening, when addresses were made by Lord Rayleigh, Sir William Ramsay, Professor Ray Lankester and Lord Kelvin.

THE Institution of Civil Engineers held its annual dinner in London on March 13, with Sir Alexander B. W. Kennedy in the chair. Addresses were made by Lord Kelvin, Sir Arthur Rücker and Lord Tweedmouth.

At the annual meeting of the Michigan Academy of Sciences, held at Ann Arbor during the past week, Professor William H. Hobbs delivered by invitation the public address, his subject being 'Earthquakes viewed in a New Light.'

PROFESSOR ALFRED C. LAWSON, of the University of California, chairman of the California earthquake commission, gave an illustrated lecture on 'The California Earthquake' before the Geographical Society of Philadelphia on April 3.

PROFESSOR GILMAN A. DREW, of the University of Maine, lectured before the Portland Society of Natural History on March 18, on 'Animal Adaptation.'

On April 2, Professor John W. Harshberger, of the University of Pennsylvania, delivered a free public lecture on 'The Scientific Application of Ecology in the Wet and Dry Cultivation of Plants,' illustrated by lantern slides and specimens, in the lecture hall of the Academy of Natural Sciences.

THE Friday evening meetings of the Royal Institution will be resumed on April 12, at 9 p.m., when Professor A. H. Church will give a discourse on 'Conservation of Historic Buildings and Frescoes.' Succeeding discourses will probably be given by Professor C. E. Sherrington, James Swinburne, Esq., Sir James Crichton-Browne, Signor Come, Giacomo Boni, Professor G. Chrystal (assisted by E. W. Wedderburn, Esq.), Professor F. A. Fleming, A. H. Savage Landor, Esq., Professor Sir James Dewar and others. To these meet-

ings members and their friends only are admitted.

PROFESSOR ERNST VON BERGMANN, the eminent German surgeon, died on March 25, after an operation for appendicitis. The seventieth birthday of Professor von Bergmann was widely celebrated on December 16 of last year.

THE *Washington Evening Star* states that at a meeting of the Washington Society of Engineers at the Hubbard Memorial Hall on March 26 it was announced that a plan was under way for the erection in Washington of a permanent home for the various scientific societies of the national capital. A letter was read from the Washington Academy of Sciences, which, through its building committee, invited the cooperation of the Washington Society of Engineers and like associations. The society by a unanimous vote decided to become a party to the movement, and announced that it would pay a yearly rental of \$800 for a portion of the building. It was stated that an endowment fund of \$100,000 is necessary for the maintenance of the building, which sum, it is expected, will be subscribed by the various societies interested.

THE Goldsmiths Company has given \$50,000 to be used at the Rothamsted Experiment Station for investigations on soils.

THE library of Oberlin College has recently received a valuable addition through the bequest of the late Professor Albert Allen Wright of his zoological and geological books.

THE Loubat prizes, awarded every five years by Columbia University, will be given for all works which have appeared between January 1, 1903, and January 1, 1908, which treat of the history, geography or numismatics of North America prior to 1776. The value of the first prize is not less than \$1,000, and that of the second prize not less than \$400, and the work of all persons, whether citizens of the United States or of any other country, will be considered.

THE Harvard Officers' Fund Association held its annual meeting on March 15. The objects of the association are indicated by the following extracts from the articles adopted in 1894: "This association shall be known as

the Harvard Officers' Fund Association. Its members shall be limited to those persons whose names are entered as officers of government or instruction in the annual catalogue of the university at the time their first subscription is made. The minimum amount of the annual subscription of each member shall be \$5. The funds of the association, so far as they may be derived from annual subscriptions or from interest thereon, shall be used by the trustees at their discretion in providing relief, ordinarily of a temporary nature, for the families of any deceased officers or for any officers distressed by illness or by other calamity."

*The Geographical Journal* states that Dr. Rudolf Pöch, who, as assistant physician to the Austrian Plague Expedition in 1897 and 1902, made a name for himself by his malaria researches in West Africa, has in 1904-6, with the aid of the Imperial Academy of Sciences in Vienna, prosecuted anthropological journeys in New Guinea, and has also with like purpose visited New South Wales, the Solomon Islands and Bismarck archipelago. In these two years he has traveled along three quarters of the coast of the island of New Guinea. At five spots he stopped for some length of time, and thence wandered into regions of the interior, still in part wholly unknown. The material brought home with him includes 300 measurements of living persons, 15 skeletons, 80 skulls, many anatomical preparations, 1,500 photographs, more than 3,000 feet of cinematograph films (taken by bioscopic camera), representing dances and scenes of village life. Included in the collection are also 90 plates for the phonographic archives of the academy, with a view to the study of the language, songs and music of the natives, and 2,000 ethnological objects. Itineraries of the hitherto unknown regions were kept and altitudes noted in them.

WE learn from *Nature* that Lieutenant Boyd Alexander, who, with his brother Captain Claud Alexander, Captain G. B. Gosling, Mr. P. A. Talbot (surveyor), and a Portuguese collector, left England in the spring of 1904 on an exploring expedition

across Africa, has returned to London. Captain Claud Alexander died at Naifoni in November, 1904, and Captain Gosling in the Ubangi-Welle region of June, 1906. Much valuable work has been accomplished. A careful triangulation has been carried out from Ibi, in Nigeria, to Lake Chad, and the lake itself traversed in various directions. Part of the course of the Shari was explored; from thence the Ubangi was reached, and the expedition made its way northward to the little-known region where many of the Bahr-el-Ghazal tributaries rise, and down the Yei to the Nile. The expedition has been particularly successful in collecting specimens in natural history, including skulls, bones and skins of the okapi.

THE visiting committee of the division of geology of Harvard University has provided the geological department with the funds necessary to erect a seismograph in the University Museum. A Bash-Omori seismograph with two 100-kilogram conical pendulums, one swung in the meridian and the other east and west, will shortly be placed on a suitable foundation in the basement of the geological section. This type of instrument records earth vibrations on smoked paper carried on revolving drums operated by clock-work. One of the same general type, which has been set up in the State Museum at Albany, N. Y., for more than a year, on a clay foundation like that underlying the Harvard Station, gave complete records of the San Francisco, Valparaiso and the great Indian earthquakes. The Harvard Station will pay particular attention to New England earthquakes and to the geological examination of the recent fault-lines along which it is suspected many historically recorded small shocks have arisen.

#### UNIVERSITY AND EDUCATIONAL NEWS

At a meeting of the General Education Board, held in New York City on March 26, the sum of \$625,000 was conditionally appropriated as follows:

Bowdoin College, Brunswick, Me., \$50,000 toward \$250,000.

Colorado College, Colorado Springs, Col., \$50,000 toward \$500,000.

Millsaps College, Jackson, Miss., \$25,000 toward \$100,000.

Yale University, New Haven, Conn., \$300,000 toward \$2,000,000.

Princeton University, Princeton, N. J., \$200,000 toward \$2,000,000.

It is reported that the suggestion to send 500 or 1,000 American teachers next year to study the educational system of Great Britain has met with such a response that it is practically certain now the pilgrimage will be made. It is understood that Mr. Alfred Moseley will make the same arrangements for the trip to England and return as he did for the British teachers—a rate of \$25 for the round trip. Dr. Nicholas Murray Butler, president of Columbia University, and City Superintendent Maxwell, of the New York city schools, are the American committee.

BARNETT SMITH, PH.D. (Pennsylvania), has been appointed assistant professor in the geological department of Syracuse University.

MISS IDA WHITESIDE, B.A. (Vassar, 1904), has been appointed assistant in astronomy in Wellesley College.

IN the faculty of medicine of McGill University, Drs. F. G. Finley, H. A. Lafleur, and C. F. Martin have been made professors of medicine and clinical medicine. These promotions follow the death of Dr. James Stewart, who was for many years head of the department.

LORD CURZON was elected chancellor of Oxford University on March 14. The votes were: Lord Curzon, 1,101; Lord Rosebery, 440.

THE council of the University of Liverpool has elected Mr. John Edmond Salvin-Moore to the chair of experimental and pathological cytology, recently established by the Liverpool Cancer Research Committee.

MR. C. G. HEWITT, has been appointed to the newly-established lectureship of economic zoology in the University of Manchester, and Mr. H. Heap has been appointed assistant lecturer in sanitary chemistry.

THE King of Spain has created a chair of automobilism at the School of Arts and Sciences at Madrid.