

SCIENTIFIC NOTES AND NEWS

THE National Academy of Sciences will hold its autumn meeting at the American Museum of Natural History, New York City, on November 15, 16 and 17.

SECTION II of the Pan-American Scientific Congress will discuss problems of international interest in astronomy and geodesy and in meteorology and seismology. The chairman of this section is Dr. Robert S. Woodward, president of the Carnegie Institution of Washington. It is divided into two sub-sections: astronomy and geodesy, of which Dr. Woodward is the chairman; and meteorology and seismology, of which Professor Charles Frederick Marvin, chief of the United States Weather Bureau, is chairman. Among the topics to be discussed are: (1) The desirability and feasibility of extending a gravimetric survey to cover the American continents. (2) Present condition, needs and prospects of meteorological and seismological work in each of the participating countries of the Scientific Congress. The report from each country should contain a list of all meteorological and seismological stations and other local information pertinent to this report in that country.

TEN additional directors, to represent the important institutions interested in aeronautics, have been added to the executive board of the American Society of Aeronautic Engineers. The appointments are as follows; U. S. Army: Captain A. S. Cowan, commanding S. C. A. S., and Captain V. E. Clark, chief aeronautical engineer, U. S. Army. U. S. Navy: Lieutenant Commander Henry C. Mustin and C. Holden Richardson, naval constructor. Smithsonian Institution: Dr. Albert F. Zahm. Weather Bureau: Professor Wm. R. Blair, in charge of aerological investigation. Bureau of Standards: Dr. D. E. Buckingham. Massachusetts Institute of Technology: Lieutenant Jerome C. Hunsaker, U. S. N. University of Michigan: Dr. Herbert C. Sadler. Aero Club of America: Alan R. Hawley.

THERE has been appointed a British governmental committee to consider and advise on questions of industrial fatigue, hours of labor,

and other matters affecting the personal health and physical efficiency of workers in munition factories and workshops. The committee is constituted as follows: Sir George Newman (chairman); Sir Thomas Barlow, G. Bellhouse, Professor A. E. Boycott, J. R. Clynes, E. L. Collis, W. M. Fletcher, Leonard E. Hill, Samuel Osborn, Miss R. E. Squire and Mrs. H. J. Tennant.

DR. JOHN D. BLAKE, Baltimore, has been appointed commissioner of health to succeed Dr. Nathan R. Gorter. Dr. Gorter has been appointed a member of the Maryland State Board of Health.

DR. MILTON J. ROSENAU has resigned as a member of the Public Health Council of Boston and has been succeeded by John T. Wheelright.

BEFORE the Geographic Society of Chicago on October 8, a lecture was given by Dr. Henry C. Cowles, of the University of Chicago, on "Romance and Reality from the Mississippi Bottom Lands."

At the stated meeting of the New York Academy of Medicine, on October 7, Dr. George W. Crile, of the Western Reserve University, delivered the Wesley M. Carpenter lecture on "Kinetic Drive—Its Phenomena and Its Control."

A TABLET was unveiled, on September 18, in Cheltenham College Chapel, and a life-size portrait by Mr. Hugh Riviere in the College Library, to the memory of Dr. E. A. Wilson, who perished with Captain Scott in the Antarctic. The late Dr. Wilson was educated at Cheltenham College.

SUSANNA PHELPS GAGE, known for her work on comparative anatomy, has died at the age of fifty-eight years. Mrs. Gage received the degree of doctor of philosophy from Cornell University in 1880. She was the wife of Professor S. H. Gage.

WILLIAM HENRY HOAR HUDSON, late fellow of St. John's College, Cambridge, and professor of mathematics at King's College, London, died on September 21, aged seventy-six years.

PROFESSOR D. T. GWYNNE-VAUGHAN, professor of botany at University College, Reading, died, on September 4, at the age of forty-four years.

J. U. T. QUENSEL, professor of pathologic anatomy and hygiene at the University of Upsala, has died at the age of seventy-five years.

DR. THEODOR ALBRECHT, of the Potsdam Geodetic Institute, head of the International Bureau for Geodesy, has died at the age of seventy-two years.

AMONG those who have been killed while tending the wounded in the field are G. Heilmann, of Berlin, one of the pioneers in eugenics, and Professor H. Piper, of the Institute for Physiology, Berlin. Dr. Piper's work was on the physiology of the senses.

THE American Academy of Arts and Sciences receives the sum of \$3,000 under the will of William Watson, of which he was secretary. Mr. Watson's scientific books and instruments are to be divided among the academy, Harvard University and the Massachusetts Institute of Technology.

It is stated in *Nature* that at the sale by auction of the Amesbury Abbey estate on September 21, the historic monument of Stonehenge was purchased for £6,600 by a local landowner, Mr. C. H. E. Chubb, of Bemerton Lodge, Salisbury. The estate came into the market in consequence of the deaths of Sir Edmund Antrobus and of his only son, who was killed in action last October. As Stonehenge is under the protection of the ancient monuments act, no steps can be taken by the owner to alter or remove any parts of this remarkable relic of antiquity.

THE Botanical Society of Pennsylvania held its twelfth annual scientific assembly in Botanical Hall on Saturday, October 2. The program included illustrated lectures by H. H. M. Bowman and Mr. W. R. Taylor, the former on "Botanical Experiences Along the Keys of Southern Florida"; the latter on "Summer Botanizing on Mount Desert." Dr. Joseph S. Hepburn explained his "Experiments on the

Digestive Action in the Pitcher Liquids of *Nepenthes*."

WE learn from *Nature* that the members of the Siberian Expedition sent out sixteen months ago, at the joint expense of the Oxford University School of Anthropology and the University of Pennsylvania Museum, reached London last week. The leader, Miss M. A. Czaplicka, is a native of Russian Poland, and has been a student of the Warsaw University and of Somerville College, Oxford. The expedition consisted of Miss Curtis, the artist, Miss Haviland, ornithologist, and Mr. Hull, of the University of Pennsylvania, ethnologist. They proceeded from Warsaw to Krasniack, in Siberia, and thence to the mouth of the Yenisei. The first tribe examined was that of the Samoyeds, and then the winter was spent among the Tungus of the Tundra, a very primitive race, little influenced by Russian culture. The spring was devoted to the Tartars, who are much more civilized than either the Samoyeds or the Tungus. Much information of scientific interest has been acquired, and a large collection of costumes, weapons, implements, and ornaments made of copper and iron has been made. These will, it is hoped, be exhibited later in Europe and America.

THE mid-year review of the copper situation by B. S. Butler, of the United States Geological Survey, records a general betterment in the six months' period. At the beginning of the year 1915 most of the large copper producing companies of the United States had for nearly five months been operating on a 50 to 60 per cent. basis and probably none were producing at normal capacity. A considerable proportion of the smaller producers had shut down their plants, where this could be done without great loss. Developments and improvements had been generally suspended. Copper was selling below 13 cents a pound and had been considerably lower. Wages had been reduced in most of the camps and many men had been either laid off or were employed only part time. Soon after the first of the year, however, there was a notable improvement in the demand for copper and the price

has rather steadily advanced from below 13 cents to about 20 cents a pound, the highest price reached since 1907. With the increase in demand, and the advance in price, there has been a corresponding steady increase in the production of the metal and at the present time most of the larger producers have brought their output to normal, while many of the smaller producers have resumed operations. The output of copper has also probably nearly or quite reached the normal. Wages have been raised in the camps where reduction had taken place and the industry in general is in a highly prosperous condition.

IN his last report to the Union government of South Africa, as we learn from *Nature*, the secretary for agriculture points out that the difficulty of procuring good men to fill the scientific and administrative posts in the department, which has been commented on before, continues. Men of moderate attainments are plentiful and easy to obtain, but good men are more in request than ever. It also appears as if men who are really worth having, and therefore usually in a position to choose, prefer to work in universities and other learned institutions which are independent or semi-independent of government control, or engage in business on their own account, rather than in government departments, as in the former they have more scope and freedom of action and have not to waste time by furnishing multitudes of returns and continually explaining and demonstrating the necessity for their existence. Seeing that the value of the department to the country depends in the first instance entirely upon the quality of its professional and administrative officers, this is a very serious matter. Efforts are being made to overcome the difficulty of obtaining professional and technical officers by giving scholarships to likely young men to study at institutions abroad, at which they can get the best training obtainable in their particular subjects. The course of study is usually a four years' one, and a number of scholars have already returned and been drafted into the department. It is considered that this is one of the best methods of obtaining officers for the

department, but it may not entirely suffice, and from time to time officers will have to be appointed from wherever they are obtainable, as at present.

A REPORT of the chief commonwealth railway engineer, gives some details of the progress of construction of the east-to-west transcontinental railway of Australia, according to an abstract in the *Geographical Journal*. It states that the western Australian division survey is complete, and the route has been permanently located to 280 miles. Thence to the border the permanent survey will proceed in advance of plate-laying. The South Australian survey is complete. It is estimated that the rails will be laid throughout before the end of next year, although the rate of progress will be reduced by the very heavy earthworks soon to be taken in hand in the South Australian section. During the three months preceding the date of the report 240 miles had been laid. The line is to be ballasted throughout, and arrangements had been made to select quarry sites and erect the necessary plant for rock-crushing. In view of the scanty water-supply on the route, reservoirs have to be provided at various points, and several are in course of construction. They include one at Karonia, W.A. (late Cardonia), with an approximate capacity of 7,000,000 gallons; one at Bookloo, S.A. (6,000,000 gallons); and one each at Windabout and Eucla (5,000,000 gallons). Boring operations have been carried on in both divisions.

RADIUM deposits, the wearing away of the land by the sea, the make-up of the upper part of the earth's crust at various places, the development of mountain ranges, and the origin of dolomitic limestone are some of the subjects discussed in a volume recently published by the Geological Survey entitled "Shorter Contributions to General Geology, 1914." In former years the announcement of incidental discoveries made by geologists in connection with the study of their main problems has awaited the preparation of extended reports on those problems, but by a plan which has recently been put into operation by the United States Geological Survey such minor

additions to the world's store of knowledge, even though unrelated, are now grouped together in one volume and published as promptly as possible. Some of the conclusions in the volume which has just appeared are of interest to the general public; others will be appreciated only by those who have made a special study of geology. For example, the articles on the rock strata known to geologists as the "Montana group" describe the strata which make up that group and their variations from place to place and interpret the facts set forth, giving their significance as to the origin of the strata and the conditions under which they were formed. Most of the field evidence was obtained in examinations of public land for the purpose of determining its value as coal land. The direct results of such work, those which appeal to the man in the street, are the bringing into the United States treasury of some hundreds of thousands or millions of dollars. Indirectly a thorough knowledge of the strata makes the finding of coal and other valuable deposits easier, but the value of the work is not wholly expressible in dollars and cents, for in the realm of pure science the understanding of the make-up of the earth and its history in the past has a value entirely apart from what such knowledge may at present yield directly or indirectly in money. An article on pitchblende ores of Colorado includes not only an account of those ores in that state but also a brief description of the principal European occurrences of pitchblende, one of the ores of radium. An article on erosion in Chesapeake Bay prophesies that certain islands in the bay will be washed away by the waves within the next century and shows the places on the bottom of the bay to which the sand and soil of these islands is being carried by the waves and currents. Another article describes some lavas which have been thrust into cracks in the earth's crust in the vicinity of Spanish Peaks, Colo. Still another article shows that the echinoderms, a class of sea animals, secrete skeletons of one kind of material in cold water and of another kind in warm water, and that the origin of magnesian or dolomitic limestone

which has long been a mystery, may be partly explained by the nature of these skeletons, myriads of which make up considerable parts of certain rocks. Several papers discuss the strata underlying the surface of the earth in various parts of the country and give data of use to the driller of deep wells. A copy of this report—Professional Paper 90—may be obtained on application to the director, United States Geological Survey, Washington, D. C.

UNIVERSITY AND EDUCATIONAL NEWS

MR. JACOB H. SCHIFF, a member of the board of trustees of Barnard College and its first treasurer, has given \$500,000 to the college for a woman's building. It will include a library and additional lecture halls as well as a gymnasium, a lunch room and rooms for students' organizations.

THE University of California has received \$100,000 from an anonymous donor to endow the "Dr. C. W. and Mrs. Sarah E. Fox Memorial Beds" in the University of California Hospital, a part of the equipment of the University of California Medical School. These beds are to be maintained in the new University Hospital, now being erected in San Francisco through the gift of \$615,000 by various friends of the university. The superior court of San Francisco has just decided in favor of the university a suit for \$145,000 brought by the regents against the heirs of John M. Keith, who had refused to pay the balance of \$145,000 due under a subscription made toward this new hospital by Mr. Keith, of which but \$5,000 had been called for at the time of his death.

THE will of the late Anna Yarnall creates a trust fund of \$25,000, which is placed in the hands of the trustees of the University of Pennsylvania for the support of the botanic gardens of the Biological Hall at that institution. The income from this trust is to be continued for this purpose as long as the botanic garden is under the supervision of the head of the botanical department.

SINCE the transfer of the department of geology and geography of the University of Chicago to the new Julius Rosenwald Hall, Walker