

until the mortality from this cause is less in London than in any other large city. (It is, however, important to notice that the death-rate of young children from disease of the bowels has little, if at all, diminished. See Sir Richard Thorne's Harben Lectures.)

B. The prevention of infection of the lungs by the bacillus of tubercle depends chiefly on the rational treatment of the sputa of consumptive patients, or rather, for practical purposes, of the sputa of all those affected with cough and expectoration. The phlegm should never be deposited on the ground or on a handkerchief, where it can dry up; it should be kept moist until it can be destroyed by heat, and the vessel used to receive it should contain phenol or some other antiseptic solution.

C. The prevention of infection by tuberculous milk may be accomplished either by boiling all milk given as food to children or by inspection of dairies, so as to prevent tuberculous milch-cows being used.

D. The prevention of infection by meat can be secured by careful and thorough inspection of carcasses, or by diagnostic testing of cattle with tuberculin. This, the only undoubtedly useful application of the so called tuberculin, has the drawback that after the effect of the inoculation has passed off a tuberculous animal becomes immune to it for a time, and so may be passed as healthy. (It is said that cattle suspected of tubercle are thus rendered immune to the tubercular test before being sent over the French frontier.)

Though the question of the treatment of phthisis was only a supplementary part of the work of the Congress, Dr. Pye-Smith gives the following facts, which are, he says, "important for the people as well as their governors to be aware of":

a. That tuberculous disease of the bones and joints of the glands and skin and abdomen, though dangerous, is not incurable, and, by the modern methods of operative medicine, is in most cases successfully cured.

b. That tuberculosis of the lungs (phthisis, or consumption) is frequently cured, and probably more often now than formerly. (Curschmann, of Leipzig, fourth day of Congress.)

c. That there is no specific drug which has

direct influence upon consumption, but that many, both old and new, have valuable effects upon its complications. (On the Action of the New Tuberculin, see Briger's paper, on the second day of Congress, and Dr. C. T. Williams in the R. Med. Ch. Trans. for the present year.)

d. That abundant food, particularly of a fatty nature, and a life in the open air, are no less valuable in the treatment than in the prevention of phthisis, and that the hospitals and asylums for providing these essentials, which are now numerous in Germany, and far from rare in England, Austria and Hungary, France and the United States, are of essential value. That the 'open-air treatment' has been long known and practiced in the United Kingdom was handsomely acknowledged by Professor Von Leyden (first day of Congress). Compare papers by Kaurin (Norway), Westhoven (Ludwigshaven), J. R. Walters (London), Desider Kuthy (Budapest), Schmidt (Switzerland), Dómeñe (Spain), fourth day.

e. That the influence of climate, altitude, temperature, and dryness of the air and soil, of travelling and of sea voyages has been very differently estimated at different periods, and that, while each is in various degrees important, popular opinion probably exaggerates their power. (Herman Weber, of London, fourth day of Congress.)

f. That the prospect of improved success in the treatment of tuberculosis in general, and of consumption in particular, by the advance of pathology and the progress of surgery and medicine, is a hopeful one, almost as hopeful as that of limiting the spread of the disease by preventive measures.

SCIENTIFIC NOTES AND NEWS.

PROFESSOR SIMON NEWCOMB has been elected president of the Astronomical and Astrophysical Society of America, organized last week at the Yerkes Observatory, in succession to the Conferences of Astronomers and Astrophysicists which met last year at the Harvard College Observatory and the preceding year at Yerkes Observatory.

THE delegates of the National Geographic Society to the Seventh International Geograph-

ical Congress, which will be held at Berlin from Thursday, September 28th, to Wednesday, October 4th, under the auspices of 'die Gesellschaft für Erdkunde zu Berlin,' are as follows: Dr. Alexander Graham Bell, President of the Society; Gen. A. W. Greely, U.S.A., also designated by President McKinley to represent the United States Government; Professor Willis L. Moore, Chief of the Weather Bureau; Hon. Andrew D. White, U. S. Ambassador to Germany; Miss Eliza Ruhamah Scidmore, Foreign Secretary of the Society; Mr. Marcus Baker, of the U. S. Geological Survey; Dr. L. A. Bauer, of the U. S. Coast and Geodetic Survey; and Professor Wm. M. Davis, of Harvard University.

THE German government has sent Professor von Volken, of the University of Berlin, to the Caroline Islands to investigate the soil and the flora.

ALBERT B. PRESCOTT, professor of chemistry in the University of Michigan, was elected president of the American Pharmaceutical Association at its meeting last week at Put-in Bay, Ohio.

WE regret to record the following deaths: Dr. Karl Bernhard Brühl, formerly professor of zootomy in the University of Vienna, on August 14th, aged 80 years; Professor Erhardt, formerly director of the Museum of Natural History at Coburg, aged 80 years, and Professor Oluf Rygh, who held the chair of archæology at Christiania.

MR. O. G. JONES, instructor of Physics in the City of London School, has been killed by an Alpine accident on the Dent Blanche near Zermatt.

THE British Association has this week begun its meeting at Dover. According to preliminary announcements, Professor Michael Foster, the President, will compare the condition of science in 1899 and 1799, and will dwell upon the intellectual influence of science and its value as mental training. He will also consider the benefits of international efforts. The addresses by the presidents before the Sections will be as follows: Mathematics and Physics, Professor J. H. Poynting, on the nature of law, explanation and hypothesis as used in physical science;

Chemistry, Mr. Horace T. Brown, on the assimilation of carbon by the higher plants; Geology, Sir Archibald Geikie, on geological time; Zoology, Professor Adam Sedgwick, on variation in phenomena connected with reproduction and sex; Geography, Sir John Murray, on the floor of the ocean; Political Economy and Statistics, Mr. Henry Higgs, on the consumption of wealth; Mechanical Science, Sir H. W. White, on steam navigation at high speeds; Anthropology, Mr. C. S. Read, subject not announced; Physiology, Mr. J. M. Langley, on the motor nerves; Botany, Sir George King, on systematic botany in India. Professor Ch. Richet will give a lecture on nervous vibration, and Professor Fleming one on the centenary of the electric current. The usual lecture to working men will this year be omitted.

THE systematic effort begun in June by the National Geographic Society toward the enlargement of its work by increasing its membership throughout the country is proving most successful. Within the last three months over 375 non-resident members have been enrolled, representing every state in the Union and different sections of Canada. The membership of the Society is now about 2,000.

THE 18th Annual Congress of the Sanitary Institute of Great Britain opened at Southampton on August 29th with about 1,700 members in attendance. The president, Sir W. H. Preece, made the annual address, in which he discussed pure air, pure water, pure food, pure soil and pure dwellings.

THE burning of the buildings of the Volta Centenary Exposition, at Como, will not, as we have already stated, prevent the holding of the electrical congress, which opens on the 18th inst. Professor Righi will open the congress with a commemorative address on Volta. As part of the proceedings there will be a discussion on electrical terminology.

THE American Museum of Natural History, New York City, has now twenty-three representatives in the field engaged as follows: The Jesup expedition to the North Pacific making archæological and ethnological researches in British Columbia and Northeastern Siberia; the Jesup zoological expedition to the United

States of Columbia; the Constable expedition to the Northwest for large mammals; an expedition to New Mexico to study the cliff dwellings and the Pueblos; an expedition for the study of North American Indians in California and Arizona; a paleontological expedition to Wyoming; an expedition to Peru and Bolivia under Dr. Bandelier, and lastly local archaeological work.

It is reported that the explorer, Professor Wilhelm Joest, who died some time ago during an expedition among the South Sea islands, has left \$75,000 to the Ethnological Museum in Berlin. The interest of that sum is to be used for getting new collections and assisting scientific expeditions.

NEWS has been received from the steamship, *Windward*, which has arrived at Newfoundland from North Greenland, and from the steamship *Diana*, which arrived at Cape Breton on the 12th. The two steamships met at Etah on August 12th, and under Lieutenant Peary's direction made arrangements for the winter and for the explorations in the spring. The *Windward* was ice-bound in Allman Bay about fifty miles north of Cape Sabine, from August 18, 1898, to August 2, 1899. During this period Lieutenant Peary made sledging journeys aggregating more than 1,500 miles, including a visit to Fort Conger, headquarters of the Greely expedition. The *Fram* was also at Etah at the same time as the other two steamships.

THERE will be a U. S. Civil Service examination on October 4th to fill the position of assistant physician in the Government Hospital for the insane. One man is wanted at a salary of \$900, and one woman at a salary of \$600.

THE new white star steamship *Oceanic* sailed from Liverpool for New York on the 6th inst., with 1,400 passengers. The steamship is the largest afloat, its tonnage being 17,000 and its length 704 feet.

EXPERIMENTS in wireless telegraphy are being made between the Blue Hill Observatory and Cambridge, the wires at the Blue Hill Observatory being attached to kites.

A COMPETITION has been held in Liverpool for motor vehicles invented for heavy traffic.

Distances from 27 to 40 miles were traversed on two successive days, and six motors, all using steam, took part. The Steam Carriage and Wagon Company was given gold medals, both for vehicles having a minimum load of two tons, and for those having a minimum load of six and one-half tons.

It is reported that an International Sanitary Commission will meet at Brussels during the present month to discuss measures for preventing the spreading of the plague in Europe.

WE learn from the *Botanical Gazette* that Mr. J. N. Rose, who was accompanied by Dr. Walter Hough, has just returned from a three months' trip through Mexico, bringing about nine hundred species of dried plants, many living plants and plant photographs. Besides rediscovering *Echinocactus Parryi*, he collected several other species lost or hitherto unknown to American herbaria. About 200 species were collected at type localities. Mr. Rose made a thorough study of the species of agave, especially those used in the manufacture of pulque and mescal.

THE special committee on Weights and Measures at the recent meeting of the American Pharmaceutical Association, submitted the following report:

No action has been taken during the past year, by the legislative branch of our Government in regard to the adoption of the Metric System of Weights and Measures.

The bill formerly before Congress, making the Metric System the legal system of weights and measures in the United States, is still in the hands of the Committee on Coinage, Weights and Measures.

Notwithstanding the inactivity of Congress on this question, we are pleased to report a healthy growth in the sentiment favoring the use of the Metric System both in medicine and for general usage.

In many of the reports made to the President by United States Consuls, the importance of the adoption of the Metric System by the United States for commercial purposes, is dwelt upon and strongly recommended. In a number of recent medical journals, editorials have been published advocating its adoption by the medical colleges.

While no definite statement can be made as to the probable action by the next Congress of the United States, or by the new Committee on Coinage, Weights and Measures yet to be appointed, it is hoped

by your committee that some definite advance can be made toward the adoption of the Metric System during the sessions of the Fifty-sixth Congress.

UNIVERSITY AND EDUCATIONAL NEWS.

THE plans for building the University of California, submitted by M. Bernard, of Paris, have received the first prize in the competition arranged by Mrs. Phoebe Hearst. The cost of the buildings is estimated at over \$15,000,000. Contrary to the statements in the daily papers we understand that Mrs. Hearst has not as yet undertaken to defray the cost of any of the new buildings.

IN addition to \$300,000 subscribed from various sources for an endowment of Brown University, made on condition that \$2,000,000 be collected, Mr. John D. Rockefeller has offered to give \$250,000 on condition that \$1,000,000 be raised before commencement of next year.

ACCORDING to a dispatch in the daily papers Mr. S. F. Loubat, of New York, now residing at Paris, has given 300,000 Marks to the University of Berlin to endow a professorship 'for Americans,' which probably means for 'Americana,' a subject in which Mr. Loubat is much interested.

A CORRESPONDENT of the London *Times* sends the epitaph of the founder of Yale University from his tombstone in Wrexham Churchyard, North Wales, which is as follows:

Eliugh Yale, Esq., was buried the twenty-second of July in the year of our Lord MDCCXXI.

'Born in America, in Europe bred,
'In Africa travellèd, in Asia wed,
'Where long he lived and thrived, in London dead.
'Much good, some ill, he did, so hope all's even,
'And that his soul through mercy's gone to Heaven.
'You that survive, and read this tale, take care
'For this most certain exit to prepare,
'Where blest in peace the action of the just
'Smell sweet, and blossom in the silent dust.'

It was remarked in a recent number of SCIENCE that "the most disappointing aspect of university education seems to be the complete lack of medical students who take higher degrees." The observation appears to be enforced by the fact that three of the students who this year received the Ph.D. in psychology

at Columbia University have been appointed to assistantships in the physiological laboratories of medical schools—Drs. G. V. N. Dearborn and S. I. Franz in the Harvard Medical School, and Dr. R. S. Woodworth in the University and Bellevue Hospital Medical College.

DAVID R. MAJOR, Ph.D. (Cornell), who was last year fellow in education at Teachers College, Columbia University, has been appointed acting professor of pedagogy in the University of Nebraska.

L. C. GLEN, Ph.D. (Johns Hopkins), has been appointed professor of geology at South Carolina College. F. A. Saunders, Ph. D (Johns Hopkins), has been appointed instructor in physics in Haverford College.

MR. EDGAR R. CUMMINGS, a recent graduate of Union College, has been appointed an instructor in geology in Indiana University. Mr. Cummings has published papers on the geology of the Mohawk Valley, N. Y., and is planning original work in the stratigraphical geology and paleontology of Indiana.

PROFESSOR W. S. MILLER, of the University of Wisconsin, has declined a call to the chair of anatomy and histology in the University of the State of Missouri.

DR. ALEXANDER MCADIE, of the San Francisco Weather Bureau, has been appointed honorary lecturer in meteorology in the University of California.

AT the University of North Carolina, J. E. Latta, B.Ph. (University of North Carolina), has been appointed instructor in physics, and Thomas Clarke, B.S. (University of Carolina, '96), Ph.D. (Brown University, '98), instructor in chemistry.

DR. ADOLF MIETHE, of Braunschweig, has been appointed professor of photo-chemistry in the Technical Institute at Berlin.

THE following have qualified as docents in German universities: Dr. Kauffman in physics at Göttingen; Dr. Henneberg in anatomy at Geessen, and Dr. Göttler in mathematics at Munich.

DR. OTTO KRIGAR-MENZEL, docent in physics in the University of Berlin, has been appointed to an associate professorship.