

third largest gain, 3,126,079 tons, which was also the largest percentage of increase, amounting to 19 per cent., of all the important coal-producing states. Indiana was fourth, Illinois fifth, Ohio sixth, and Alabama seventh. While the total increase was very large as figured in tons, the percentage is what may be considered normal and indicative of healthy industrial activity throughout the country.

Coal mining, like all other industries in the Ohio Valley states, was seriously interfered with by the great floods during the spring of 1913, and Mr. Parker estimates that from 5 to 10 million tons of coal would have been added to the year's output but for this disaster. With no violent fluctuations in the demand by the blast furnaces, steel works, and other manufacturing industries, the demand for coal for those purposes shows only a normal increase. The continued decrease in the use of fuel oil in the Mid-Continent oil field and the strike in the Colorado coal mines resulted in an increased output of coal in the central and southwestern states. With a few exceptions, notably in Illinois, Indiana and Oklahoma, values ranged higher than in former normal years, so that from the producers' standpoint the conditions in 1913 were fairly satisfactory.

The development of our coal-mining industry with reference to population presents some interesting comparisons. In 1850 the coal output was 7,018,181 tons, or 0.3 ton for each of the 23,191,876 inhabitants; in 1880 the population had increased to about 50,000,000 and the production of coal to about 71,000,000 tons; an average of 1.42 tons per capita. At the close of the nineteenth century the population was 76,303,387, an increase of a little over 50 per cent. as compared with 1880, while the production of coal had increased nearly 400 per cent. in the same period and averaged 3.53 tons for each person. In 1913 the per capita production was figured at 5.85 tons. In addition to this increase in the consumption of coal, the use in recent years of petroleum and natural gas should also be considered.

The coal mines of the country gave employment in 1913 to an army of nearly three quarters of a million men—747,644. The

average number of days worked by the bituminous miners in 1913 was 232, against 223 in 1912, while the average time made in the anthracite mines in 1913 was the best on record—257 days for each man. The average production per miner in the bituminous mines increased from 820 tons in 1912 to 838 tons in 1913, both being record-breaking averages, while anthracite miners increased their average from 485 tons in 1912 to 532 tons in 1913.

#### THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

THE board of scientific directors of the Rockefeller Institute for Medical Research announces the following appointments and promotions:

Dr. Hideyo Noguchi, hitherto an associate member in the department of pathology and bacteriology, has been made a member of the institute.

Dr. Alfred E. Cohn, hitherto an associate in medicine, has been made an associate member for the term of three years.

Dr. Wade H. Brown, hitherto an associate in the department of pathology and bacteriology, has been made an associate member for the term of three years.

The following assistants have been made associates:

Harold Lindsay Amoss, M.D. (pathology and bacteriology).

Arthur William Mickle Ellis, M.D. (medicine).

Thomas Stotesbury Githens, M.D. (physiology and pharmacology).

Israel Simon Kleiner, M.D. (physiology and pharmacology).

Alphonse Raymond Dochez, M.D. (medicine).

Dr. Dochez has also been appointed resident physician in the hospital to succeed Dr. Swift.

The following fellows have been made assistants:

Frederick Lamont Gates, M.D. (physiology and pharmacology).

Louise Pearce, M.D. (pathology and bacteriology).

The following new appointments are announced:

Chester Harmon Allen, M.S., fellow in chemistry.

Alan M. Chesney, M.D., assistant resident physician and assistant in medicine.

Harold Knieset Faber, M.D., fellow in pathology.

Ross Alexander Jamieson, M.D., assistant resident physician and assistant in medicine.

Benjamin Schönbrun Kline, M.D., fellow in physiology and pharmacology.

John Jamieson Morton, Jr., M.D., fellow in pathology.

James Kuhn Senior, M.A., fellow in chemistry.

Joseph Richard Turner, M.D., fellow in pathology.

Dr. Paul Franklin Clark, formerly associate in pathology and bacteriology has been appointed assistant professor of bacteriology in the University of Wisconsin. Dr. Homer F. Swift, formerly resident physician in the hospital and associate in medicine, has been appointed associate professor of Medicine at the College of Physicians and Surgeons, Columbia University, and associate attending physician, Presbyterian Hospital.

#### SCIENTIFIC NOTES AND NEWS

THE Society of Chemical Industry has awarded its medal to Sir Henry Roscoe, its first president, for his services to science.

MR. DOUGLAS FRESHFIELD has been elected president of the Royal Geographical Society in succession to Lord Curzon.

THE technical school at Dantzig has conferred the honorary degree of doctor of engineering on Dr. Walther Nernst, professor of physical chemistry at the University of Berlin.

IN addition to the honorary degrees already noted in *SCIENCE* as conferred at the thirtieth anniversary celebration of Groningen University, there were conferred degrees in the sciences on two other Americans; on Professor Edward B. Van Vleck, professor of mathematics at the University of Wisconsin, and on Mr. Edward Phelps Allis, the zoologist, who resides at Montene, France.

DR. HENRY WINSTON HARPER, professor of chemistry in the University of Texas, received the degree of doctor of laws, from Baylor University, at its recent commencement.

ON the recommendation of the committee on awards of the scientific exhibit, of which Professor Richard M. Pearce of the University of Pennsylvania was chairman, at the recent Atlantic City meeting of the American Medical Association, the first prize, the gold medal for the best scientific exhibit, was awarded to Miss Maude Slye of the Otho S. A. Sprague Memorial Institute of Chicago, for her exhibit of charts, diagrams, specimens and tables on the transmission of hereditary cancer and other diseases in mice.

DR. CAMILLO GOLGI, professor of pathology at Pavia, known especially for his investigations on the minute structure of the brain, celebrated his seventieth birthday on July 7.

DR. MYLES STANDISH, Williams professor of ophthalmology in the Harvard Medical School, has been appointed professor emeritus.

A COMPLETE list of American scientific men who have accepted invitations to attend the Australasian meeting of the British Association as the guests of the New Zealand government, is as follows:

Dr. L. H. Bailey, Ithaca, N. Y.; Mr. Lyman J. Briggs, Department of Agriculture, Washington, D. C.; Professor A. P. Coleman, Toronto University, Toronto; Dr. Edwin G. Conklin, Princeton University, Princeton, N. J.; Dr. Charles B. Davenport, Cold Spring Harbor, Long Island, N. Y.; Professor William M. Davis, Harvard University, Cambridge, Mass.; Dr. George A. Dorsey, Curator of Anthropology, Field Museum, Chicago; President G. C. Creelman, Ontario Agricultural College, Guelph, Ontario; Professor R. T. Ely, Madison, Wisconsin; Professor E. C. Franklin, Leland Stanford University, Palo Alto, Cal.; Professor P. H. Hanus, Harvard University, Cambridge, Mass.; President E. F. Nichols, Dartmouth College, Hanover, N. H.; Dr. Ira Remsen, President, Johns Hopkins University, Baltimore; Professor William M. Wheeler, Bussey Institution, Forest Hills, Boston.

PROFESSOR F. P. LEAVENWORTH, of the University of Minnesota, is spending the summer at the Yerkes Observatory in working with the micrometer and the forty-inch telescope.

PROFESSOR C. H. EIGENMANN has been appointed research professor of zoology in Indi-