

tion of the United States in 1918 for the purpose of making public as soon as possible the statistics collected by the U. S. Geological Survey for that year. The statistics given for most commodities are final; those for a few are only estimates based on incomplete returns; but on the whole the report gives a fairly complete record of the mineral output of the country during the year.

The total value of the minerals produced was about \$5,526,000,000, more than half a billion dollars in excess of the value recorded for 1917, but the total quantity produced was less. The output of fuels was greater than in 1917, though somewhat less anthracite coal was marketed. The increase in the quantity of coal marketed was about 5 per cent. but the increase in value, due to higher prices, was more than 17 per cent. It is significant that though the increase in the quantity of petroleum marketed was only a little more than 4 per cent. the increase in value was over 32 per cent.

The value of the metals produced was about 3 per cent. greater in 1918 than in 1917. The figures show that less iron ore and steel were produced, but here again values were higher. A little more pig iron was made, though the quantity shipped was less. Copper and zinc not only in themselves but as the components of brass are perhaps next in importance to iron in the world's industry to-day, and in 1918 they stood high on the list of war metals. A little more copper but less zinc was produced, and the values of both were lower, that of zinc falling about 25 per cent. The output of the war metals manganese and chromite, used in hardening steel, was greater than in any preceding year. Chromite increased 88 per cent. in quantity and 275 per cent. in value over 1917, and the increases in manganese ore were 136 and 100 per cent., respectively. Less gold and silver were mined than for many years. Though the price of silver rose from 81 cents an ounce in 1917 nearly to 97 cents in 1918, the increase was not enough to cover the increased cost of mining.

The output of building material—clay prod-

ucts, building stone, cement, lime, gypsum—showed a great decline.

The domestic productions of potash in 1918 was 54,000 tons, an increase of 68 per cent. over the output in 1917.

FIFTH NATIONAL EXPOSITION OF CHEMICAL INDUSTRIES

THE forthcoming National Exposition of Chemical Industries at the Coliseum and First Regiment Armory, Chicago, during the week of September 22 to 27, inclusive, promises great benefit to American chemical industry as in the past during the war period when it contributed so directly to the advance of chemical industry in this country. The meetings of the societies which are being held in conjunction with the exposition are as follows:

American Institute of Mining and Metallurgical Engineers, September 22 to 27.

American Ceramic Society, September 24.

American Electrochemical Society, September 24 to 26.

At the opening exercises on Monday Governor Frank O. Lowden, will make the address of welcome, to which Dr. Charles H. Hertzy, chairman of the advisory committee will reply.

John W. O'Leary, president of the Metal Trades Association of Chicago, will give an address on "The relation of the chemist to the manufacturer." On Tuesday there will be a symposium on "America's case in chemistry," in which the speakers will be:

Technical Association of the Pulp and Paper Industry, September 24 to 27.

Chairman's address, Ellwood Hendrick.

"Dyestuffs," J. Merritt Matthews, editor, *Color Trade Journal*.

"Glassware," E. C. Sullivan, of Corning Glass Company.

"Optical glass," Harvey N. Ott, of Spencer Lens Company.

"Chemical porcelain," Herman S. Coors, of Herold China and Pottery Company.

"Essential mineral minerals," J. E. Spurr, of the War Minerals Relief Committee.

"Laboratory supplies," C. G. Fischer, of Scientific Materials Company.

"Laboratory supplies," J. M. Roberts, secretary, Apparatus Makers Association of United States.

"Fine chemicals," H. T. Clarke, of Eastman Kodak Company.

Plans have been made for a joint session of the American Electrochemical Society with the Mining Institute upon the subject of "Electric steel and electric furnaces" on Wednesday of the week. This will be followed by another joint session on "Pyrometry," probably on Friday, when the following phases of the subject will be considered and discussed: Methods of Pyrometry, Industrial Pyrometry, Pyrometry and its Relation to Science. The Electrochemical Society is arranging a meeting on "Catalysis." About a hundred papers have been prepared for the meeting of the Mining Institute. Addresses of general interest include one by Dr. H. E. Howe, on "The organization and plans of the National Research Council with special reference to the Industries."

SCIENTIFIC NOTES AND NEWS

DR. THEODORE W. RICHARDS, professor of chemistry at Harvard University, has been elected president of the American Academy of Arts and Sciences.

MAJOR GENERAL WM. L. SIBERT, director of the Chemical Warfare Service, U. S. A., has been made a commander of the French Legion of Honor.

PROFESSOR ALEXANDER SMITH, head of the department of chemistry at Columbia University, was granted on July 10, the honorary degree of doctor of laws by the University of Edinburgh. The following was the introduction: "Alexander Smith, B.Sc., Ph.D., director of the chemistry department of Columbia University, New York.—A most distinguished graduate of our own university, Professor Smith has risen to the rank of a super-chemist in the United States, head of a department embracing many specialized professorships, and director of one of the most important laboratories in the new world. We congratulate Columbia University on the possession of a teacher and investigator of such rare ability, and we congratulate ourselves on the opportunity of laureating an *alumnus* whose success reflects no little lustre on the institution where he received his early training."

CLARENCE OUSLEY, assistant secretary of agriculture, has resigned, leaving the Department of Agriculture on July 31. He gave as his reasons that he had finished the work for which he went to the department during the war and that he could not afford longer to hold public office. In transmitting the resignation to the president, Secretary Houston expressed deep regret that Mr. Ousley felt obliged to leave the department and stated that he was constrained to recommend the acceptance of the resignation only in deference to Mr. Ousley's wishes. The retiring assistant secretary remains in Washington.

DR. SAMUEL T. ORTON, of the University of Pennsylvania Hospital, has been appointed head of the new psychopathic hospital at Iowa City, which is being erected at a cost of \$150,000.

DR. M. OZORIO DE ALMEIDA has been placed in charge of the recently organized section of physiology of the Institute Oswaldo Cruz in Rio de Janeiro.

MR. F. J. CHITTENDEN, the head of the Wisley scientific station and laboratory, has been appointed director of the Royal Horticultural Society's Gardens at Wisley.

It is stated in *Nature* that Dr. Shaiffer, of the University of Toronto, has been appointed expert in animal husbandry to the government of Mysore. He will work under Dr. Coleman, the director of agriculture.

THE Bessemer medal of the Iron and Steel Institute for the present year has been awarded to Professor F. Giolitti, of Turin.

LORD LEE, of Fareham, has been appointed to the presidency of the British Board of Agriculture and Fisheries, in succession to Lord Ernle.

GONVILLE and Caius College, Cambridge, has elected to a fellowship Lieutenant-Colonel C. S. Myers, who has been university lecturer in experimental psychology since 1907, and is director of the university laboratory of experimental psychology.

DR. S. W. PATTERSON has been appointed director of the Eliza Hall Institute of Re-