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19. MOTION-PICTURE FILMS

Motion-picture films of the Bureau of Mines, listed hereafter, are loaned to educational institutions, industries conducting training classes for workers, engineering and scientific societies, civic and business associations, and other responsible organizations. The films are designed to acquaint the people of the United States with their mineral resources and to show the needs and value of conservation in their production and utilization, the promotion of health and safety of the workers, and the economic development of our natural resources.

Only films relating to the mining, preparation, or utilization of solid fuels are listed below. For a complete list of all Bureau films, write to the Office of Minerals Reports, Washington 25, D. C., under whose direction the films are produced and circulated.

The main distribution center for the films is the Bureau of Mines Experiment Station, Graphic Services Section, 4800 Forbes Street, Pittsburgh 13, Pa. All requests for the loan of films should be sent to this address. There is no rental charge for the films, but the borrower must agree to pay transportation costs both ways, pay for all necessary telegrams, and to pay for loss or damage other than ordinary wear and tear on the films as determined by Bureau film inspectors.

Requests for films should be accompanied by enough postage stamps to pay the insured parcel post charges from Pittsburgh, Pa. The shipping weight of each film is given in the following descriptions. All of these films are in 16-millimeter sound.

FILMS

- 814. BUREAU OF MINES AND THE JOHNS-MANVILLE CORP.**
x192. Heat and Its Control. 20 min., 6 lb.

Controlled heat vs. destructive power of unharnessed heat. Animation of three methods of heat transfer in a steam boiler. Heat loss due to lack of insulation. Manufacture of magnesia insulation. Fabrication of rock-wool insulation from solid rock. Uses in homes and industry. Fabrication of asbestos into paper. Mining of celite and manufacture into furnace insulation. Uses of insulation in covering boilers and in lining rotary kilns in industry.

- 815. ———.** x193. The Story of Rock-Wool Home Insulation. 25 min., 7 lb.

Problems of a young couple offered a drafty house as a wedding gift. Friend convinces them house can be made comfortable by adequate insulation; explains theory of drafts and heat loss and causes of heat transfer in building walls. Animation of adverse conditions that result from uninsulated walls, and use of rock wool as good insulating material. Manufacture of rock wool; cupola charged with rock and other materials, molten mixture poured upon a jet of high-pressure steam to make threadlike fibers which solidify, fabrication of these into nodules for houses already built and into batts for new houses. Procedure for insulating a building.

- 816. BUREAU OF MINES AND THE TEXAS GULF SULPHUR Co., Inc.** x216. Texas and Its Natural Resources, in color. 43 min., 11 lb.

Texas has developed under flags of six nations and symbolizes conquering of new frontiers through enter-

prise, courage, and determination. Film pictures cotton fields, oil wells, cattle, industrial products, prospecting and production of oil, offshore drilling, natural gas and its uses, helium production, sulphur, iron and steel, magnesium, chemicals, synthetic rubber, water power, timbering and reforestation, recreational facilities, wildlife, agricultural products, fruit, cattle raising, State fair, and rodeos. Scenes in Amarillo, Fort Worth, Dallas, San Antonio, The Alamo, Houston, Palo Duro Canyon, and Big Bend National Park.

- 817. BUREAU OF MINES AND THE INTERNATIONAL NICKEL Co., Inc.** x217. The Story of Nickel. 30 min., 8 lb.

Production and preparation of nickel and its alloys. Construction of drills, compressed-air drilling, loading drill holes with dynamite, mucking, timbering, loading, and hauling ore to tipple; crushing, screening, grinding, pulverizing, washing, concentrating by flotation, filtering and drying, roasting, smelting, converting matte, and separation of copper from nickel. Smelter, where blast furnaces produce a special matte, which is shipped to the refinery and rolling mill. Nickel "bottoms" are crushed, leached, washed, dried, calcined, and melted to produce crude nickel anodes, which are dissolved and redeposited as pure nickel cathodes, then made into high-nickel alloys. Refined metal cast into molds and ingots rough-milled, heated, and forged into square and flat blooms, which are reheated and rolled into rods and sheets, then cold-drawn into tubes and wire. Closing scenes show nickel-alloy strips ground, polished, and prepared for shipment.

- 818. BUREAU OF MINES AND THE INLAND STEEL Co.**
x218. The Drama of Steel. 34 min., 8 lb.

Primitive methods of producing steel, ancient iron castings, an early American blast furnace, and model of early air-blast or Bessemer converters. Modern open-pit iron mining and loading ore into railway cars and freighters; coke blast furnaces, control room, animated drawings and description of operations within the blast furnace, tapping furnace and casting pigs. Open-hearth furnace charged and animated drawings and description of operations within open hearth shown, as well as men tapping furnace and pouring metal into molds, resulting ingot being moved into soaking pit and then to blooming mill, where it is rolled and cut into slabs and strips, which are coiled or cut into sheets. Montage of steel products, and scenes in cold reduction mill where steel is washed, annealed, and tempered. Tin-mill scenes include both standard coating and electrolytic methods of tinning cold-rolled steel strip, followed by inspection of tin plate and manufacture of tin cans. Making of steel plates; blooming mill, billet mill, and bar mill. Review of industrial uses of steel.

- 819. BUREAU OF MINES AND THE SINCLAIR REFINING Co.**
x223. Oklahoma and Its Natural Resources. 26 min., 7 lb.

Development of State from its beginning as a part of Louisiana Purchase from France in 1803. Agriculture, mineral production, commercial buildings, residential areas, and educational and religious institutions in some of the principal cities of the State. Production of steel, clay products, pottery, glassware,

textile manufacture, rubber tires, wax, and chemicals. Grazing lands, industrial plants and transportation by land and air. Scenic beauties: cattle grazing, hatcheries, timbering, water power, farming and grain elevators. Mining and processing zinc; mining of coal; dredging of sand and gravel; production of ceramic clay and cement shale; quarrying limestone, marble, granite, tripoli, bentonite, rock asphalt, gypsum; and processing these natural resources. Geophysical prospecting for petroleum, drilling, laboratory research, and refining. Natural-gas and carbon-black plants; animated skyline with silhouettes of principal industries of the State.

820. ———. x234. Wyoming and Its Natural Resources. In color. 30 min., 8 lb.

Panoramic treatment of Wyoming's mineral resources, agricultural pursuits, forestry and lumbering, cattle and sheep ranching, scenic attractions, national parks and monuments, dams and power plants, industrial centers, educational institutions, and principal cities. Production of oil and gas from sand deposits; production of oil from shale formations, strip mining of a 90-foot coal seam; mining of soda ash,

bentonite, gypsum, sulfur, vermiculite, alumina, limestone, feldspar, jade, phosphate, sand, gravel, and cement. Frontier Day parades, rodeos, hunting, fishing, touring, and dude ranches. Yellowstone National Park, Grand Tetons, and Jackson and Jenny Lakes.

821. BUREAU OF MINES AND THE STANDARD OIL CO. (OHIO). x227. Ohio and Its Mineral Resources. In color. 29 min., 8 lb.

Two young people discuss necessity of moving from Ohio to realize their ambitions. Friend projects film showing and describing Ohio's mineral and other resources, symbolized by the capitol building, in Columbus, built of native stone, research building, Toledo transportation terminal, and river shipping. Map of Ohio shows coal deposits, followed by pictures of mining and transportation methods. Production and processing of oil, natural gas, limestone, dolomite, gypsum, silica sand for glassware, sandstone, and salt. Making of grindstones, cement from gypsum and clay, building brick, sewer pipe, tile, and forming clay into chinaware. Lake freighters bring iron ore to blast furnaces for steel making. Rural and city life, educational and recreational facilities, and industrial areas.

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