

pleted the company expects to have a capacity of 10,000 or 12,000 tons of briquets per month.

**The Briquette Coal Company, Staten Island, N.Y.**—This plant, which was completed in July, 1906, and which was briefly described in Bulletin 316, consists of two presses, one of German type and one of Belgian type, the briquets made in the former weighing approximately 1 pound each and those in the Belgian about 4 ounces each. The machines have a capacity of respectively  $4\frac{1}{2}$  to  $7\frac{1}{2}$  tons per hour. The plant is operated on a mixture of anthracite culm and bituminous slack coal and also on anthracite alone with a binder, of which coal-tar pitch is the basis. The company does not care to give details as to binder or the percentages used.

**The United Gas Improvement Company, Point Breeze, Philadelphia, Pa.**—As stated in the report on the Coal Briquetting Industry in 1906, published in Bulletin 316, this plant is operated primarily for the purpose of utilizing the breeze produced at the gas works of the company. It is found advantageous to mix the coke breeze with anthracite culm and bituminous slack in addition to the binding material. The average mixture is 42 per cent. anthracite culm, 13 per cent. bituminous slack, 35 per cent. coke breeze, and 10 per cent. water-gas pitch. The briquets weigh approximately 5 ounces each, are of eggette pattern, and are charged into retorts and used in the manufacture of water gas. There are two machines in the plant, both of Belgian type, which have a capacity of 50 tons per day.

In addition to the preceding list of plants, all of which were in operation in 1907, the following companies have been organized for the purpose of establishing coal-briquetting plants. This list does not include any of the names published in Bulletin 316 which have passed out of existence or from which no replies were received from inquiries sent asking for information regarding the operations of the plants during 1907:

**The Standard Fuel Company, Birmingham, Ala.**—A new company, incorporated in 1907; it did not produce any commercial briquets during the year.

**The United States Briquetting Company, San Francisco, Cal.**—This company was organized for the purpose of exploiting a process for briquetting peat with California petroleum. All of the work so far has been of an experimental character.

**North American Coal Briquetting Company, 81 New Street, New York, N.Y.**—This company was organized for exploiting the Forst briquetting process, the main feature of which consists in the material to be used as binder. It consists principally of coal-tar pitch, but the other ingredients of the binding material are kept secret and the process is a patented one. The company has not yet begun operation on a commercial scale.

**Zwoyer Fuel Company, 60 Wall Street, New York, N.Y.**—The plant of this company, which is described in Bulletin 316, was removed from Brooklyn, N.Y., to Perth Amboy, N.J., during 1907, and was not operated during the year.

**American Briquetting and Manufacturing Company, Williston, N. Dak.**—This company was organized for the purpose of briquetting North Dakota lignite, using 94 per cent. of lignite and 6 per cent. of binder composed of flax-fiber sirup and rosin. The briquets are to be made in large sizes, weighing 2 pounds 8 ounces each. It is estimated that the machine would have a capacity of 9 tons per hour. It is anticipated that the

plant will be in operation during 1908, manufacturing briquets intended for household purposes and for stationary boilers.

**Washington Coal Briquetting Company, Seattle, Wash.**—This company was incorporated in 1907 for the briquetting of slack coals from the coal mines of the State. The plant had not been completed at the close of 1907.

**The Coal-Briquette Machine Company, Oshkosh, Wis.**—This company organized in 1907 and expected to be in operation during 1908. It is manufacturing some briquets out of anthracite and bituminous coal and lignite in an experimental way. The briquets are cylindrical in shape and weigh, approximately, 12 ounces each. The capacity of the machine is rated at 48 tons a day.

**American Lignite Briquette Company, Rockdale, Tex.**—This company, of which Mr. J. J. Olsen, of San Antonio, is president, was organized in 1907 for the purpose of briquetting lignite mined at Rockdale. The company expected to be in operation during the summer of 1908.

**United States Coal Manufacturing Company, 1339 Arch Street, Philadelphia, Pa.**—This company has manufactured some briquets in an experimental manner, but at the close of 1907 had not produced any on a commercial scale. The briquets are of triangular shape, of small size, and intended for domestic use. The character of the binder and the proportion of binder and coal used are kept secret by the company. High calorific value, easy ignition, complete combustion, and absence of clinkering are merits claimed for these briquets.

**R. B. Metcalf, Portsmouth, R.I.**—Mr. Metcalf, who has done considerable experimental work in the briquetting of Rhode Island anthracite, had not begun the manufacturing of briquets on a commercial scale at the close of 1907, although he expected to have a plant in operation before the close of 1908.

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When a few years ago, the alloy of aluminum with 6 per cent. of copper for use for various naval purposes did not give the complete satisfaction that was expected of it, the aluminum then available had not the degree of purity which now obtains. Aluminum manufacturers then set to work to improve their methods of manufacture; they now produce aluminum of a high degree of purity, and they are quite as eager in recommending the use of this pure aluminum in alloys as its ing of a French aluminum manufacturer to the effect use alone for different engineering purposes. The saying that "the future of aluminum lies upon the water," is more true now than it ever has been. Seeing also the very great efforts which are being made at the present time in the construction of dirigible balloons and aeroplanes, its future is likely to be further extended still, while in the numerous branches of the electric industry the use of aluminum is steadily developing day by day."

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The marble output of the United States in 1907 was valued at \$7,837,685. Vermont marble is used for outside building and for monumental work, also for interior decorations, for electric work, mosaic work, etc., and is sold principally as dressed stone. Vermont produced about 1,450,000 cubic feet, 58.65 per cent. of the entire output.