

The Boekit-Asam coal mines, which were opened in 1919, also use electric power, two A. E. G. steam turbines and generators, each of 1,250 kilowatts capacity having been installed in 1924.

Since the important coal mines in the territory already have electrical equipment, any further business in this field will necessarily take the form of renewals and extensions.

Tin mining.—Electric power is used extensively by Government and private interests in the extraction of tin on the islands of Banka and Billiton. On Banka the mines are entirely Government owned and operated. They obtain their power from the Government station at Mantoeng, where six Stork steam turbines developing 2,500 horsepower each operate a similar number of generators manufactured by the Dutch firm, Willem Smit & Co., having a total capacity of 12,000 kilowatts. The first installation was made in 1919 and consisted of two 2,500-horsepower steam turbines and two 2,000-kilowatt generators. Four additional installations have been made since then, and at present the mines are completely electrified. A still further increase in the central power station is now under consideration.

The mines operated by the Gemeenschappelijke Mijnbouw Maatschappij Billiton are also using electric power obtained from a central station at Manggar, which is claimed to be the second largest Diesel installation in the world. The plant at Manggar was first opened in 1914, when three Werkspoor Diesel motors and three Siemens-Schuckert motors, having a total generating capacity of 3,300 kilowatts, were installed. The plant has been enlarged from time to time until the present capacity is now about 8,700 kilowatts.

Electrical energy is used chiefly by the above mines in connection with the operation of suction pumps of 200 and 250 horsepower, and other small motors. As early as 1921 the Banka tin mines were using approximately 40 electric motors aggregating over 1,300 horsepower. As in the case of electric power used in coal mining, new business in this field is limited to renewals and extensions of existing facilities.

RUBBER INDUSTRY

With few exceptions, all of the European rubber estates in the Netherland East Indies are using electrical energy of some description for power or lighting purposes. Few of the estates are obtaining their electric supply from the public-utility companies, as the latter's transmission lines have not yet been extended to the localities where rubber estates are situated.

In the rubber factories electric power is used chiefly for driving the machines which press the coagulated latex into sheets. Electrically driven machines are also used to macerate the coagulum and produce crêpe or to clean and process scrap rubber. These machines are little more than a set of two steel or cast-iron rollers, which are driven by a prime mover of some description, commonly a Diesel or a steam engine. But estates with ample electric power available are now using motors. Motors of 6 to 10 horsepower for each battery of three machines are used for the manufacture of sheet rubber, and motors of from 15 to 20 horsepower are used for similar batteries of rollers making crêpe sheets.

Electric driers, especially for crêpe rubber, are being tried out in the Netherland East Indies, several being installed in 1929. The