

the production of metals at these works. A Vezin sampler was installed during the year and many improvements to plant were made, so that the smelter is now in excellent running order. Although this smelter is outside the province, being situated a few miles south of the International Boundary line, it is to all intents and purposes a British Columbian establishment, since it is owned by the Le Roi Mining Company and obtains its supplies of ore from British Columbian mines.

BOUNDARY DISTRICT.

The Boundary shows a large advance in tonnage for the year 1904 as compared with the production of earlier years, and this notwithstanding that the Snowshoe mine, which in 1903 produced nearly 100,000 tons, was not working. The

Senator	3,500
Sunset	2,800
Mountain Rose	1,800
Sundry small shippers	2,500

Total 811,000

Granby.—The report of development for the year is that 2,130 feet of sinking and raising and 3,046 feet of cross-cutting were done; total 5,176 feet. The total footage to date is 26,237 lin. feet, about five miles of underground workings, to say nothing of stopes of immense size and enormous excavations in the quarries of these mines. With a record output of about 1,500,000 tons to date, extensive workings at these mines may well be looked for. The information supplied from the mine does not give particulars of new plant and ma-



Second Big Crusher Supplied by the Jenckes Machine Company to the Granby Company's Mines, Phoenix.

Brooklyn, Stemwinder and Rawhide mines, in Phoenix camp, and the Senator, Mountain Rose and two or three others that were not producers in 1903 added 30,000 to 40,000 tons to the total output of 1904. As in former years, though, the larger part of the ore produced came from the Granby mines, with the Mother Lode next, these two being together credited with about 719,000 tons. The details of production have not been supplied by some of the mines, notwithstanding the efforts made to secure the tonnage direct from the companies shipping. Some of the figures that follow, have therefore been approximated or taken from published tables. Where there are discrepancies they are caused by different tonnage having been supplied by the mines concerned, but in the main they are substantially correct. The following is the tonnage of the various shipping mines:

	Tons.
Granby	543,000
Mother Lode	175,800
Emma	38,000
Brooklyn and Stemwinder	24,000
Oro Denoro	15,000
Athelstan-Jackpot	4,600

chinery installed, but it is known that new ore bins were built, to meet requirements of the Great Northern Railway company's connection of its system with No. 3 tunnel, and that this tunnel is being equipped in readiness to send out a large tonnage of ore to the smelter over the new railway. Hauling from the tunnel will be by an electric locomotive, which should by now be at the mine. No. 4 tunnel will be similarly prepared for delivering ore to the same railway. A second big crusher has been obtained for use here. Like the other installed some time ago, it was supplied by the Jenckes Machine Co., of Sherbrooke, Quebec. Its nominal capacity is 150 tons per hour, the size of its jaw-opening, 42 by 30 in., and its total weight 113,000 lb. Its frame is of semi-steel, having a tensile strength of 32,000 lb. to the square inch. The accompanying illustration shows the chief parts of one of these big machines as they reached the Granby mines on one of the largest and strongest flat cars the C. P. R. company possesses. About 350 men are employed at these mines, which are steadily enlarging their producing capacity, already considerably beyond the present requirements of the company's smelting works.

Mother Lode.—At the B. C. Copper Co.'s Mother Lode