

ings of No. 5 shaft, partly in an iron smokestack 26 in. diameter, and partly in two columns of vitrified clay pipe, each 18 in. diameter. The total length of this chimney is 520 feet.

The rope used on the winding drums is made of the best crucible cast steel. It is 1 in. diameter, has 6 strands with 7 wires in each strand, and hemp centre. The breaking strain is 25 tons; load about  $4\frac{1}{2}$  tons.

The skips or ore cars in use are made of steel, 5 ft. long, 3 ft. wide and  $2\frac{1}{2}$  ft. deep, and hold about two tons. These cars are taken directly from the landing by horses, and hauled to the dressing shed, a distance of about 2,000 feet. The ore is dumped out of the cars on to a series of screens, which size it into roughs, pickings and fines. The rough ore and pickings are dressed by hand, the latter being first washed. The fines, which includes all that goes over a  $\frac{3}{4}$  in. screen, is taken to the jigging plant, and is first put through a revolving screen, dividing it up into coarse pea from  $\frac{3}{4}$  in. to  $\frac{1}{2}$  in.; fine pea from  $\frac{1}{2}$  in. to  $\frac{1}{4}$  in.; and fines, taking in everything under  $\frac{1}{4}$  in.; each size being put through their own jigs and shipped separately.

The ore, after dressing, is taken directly in cars carrying about 9,000 lbs., to the Boston and Maine railway siding, and is there loaded into cars for shipment. The distance from the dressing shed to the railway is 2,200 ft., and in that distance there is a fall of 180 feet. In the first 400 ft. from the shed, the cars are let down 80 ft. by means of a counter-balance tramway, the loaded cars going down taking the empties up. The rest of the way has a descending grade of  $4\frac{1}{2}$  ft. per 100, down which the loaded cars run by their own gravity—the empties being hauled back by horses.

The ore is all shipped in the raw state to different places in the United States, and the first treatment is in converting the sulphur contents into sulphuric acid. The cinders from this process are then smelted and refined, the copper, silver, and gold being all extracted in the final process.

The output of the mine at the present time is at the rate of about 3,000 tons of dressed ore per month, and has averaged this quantity for a year or two back.

The mine, since it was first opened, has produced somewhere about half a million tons of ore, and judging from the general appearance of the vein in the bottom, it will in all likelihood produce as much more,