

G E N E R A L .

The past year has been a difficult one from an operating stand-point. While there has been no very serious shortage of labor, we have never had a full complement of men at any except the Lake Mine. This has, to some extent, affected the output, but taken on the whole, the results have been satisfactory. There has been, however, a restlessness and independence on the part of the men, which has made it difficult to secure maximum results. The most serious shortage has been in trammers at the Cliff Shaft and Republic Mines. This class of labor is difficult to hold, as it consists principally of unmarried men who work for a short time only. The turn-over, therefore, is large and the men as a class incompetent. The first draft took from us 141 men, of whom 41 were miners. This represented 3.6% of this class employed, and measured in tons per man was a loss of 123,000 tons per year. If the same percentage of the remaining registered men is called, the number drafted will approximate three times those in the first draft. The new classification will reduce the number of miners, but will take a larger proportion of trammers.

In 1916 we secured the highest average efficiency ever known at our properties, and this year I am able to report that the results have been practically the same, as is shown by the statement which follows. Where the total per man is less than for 1916, there is an explanation. For example, the slight falling off in the total per man at the Stephenson Mine was due to decreased production, the result of having to transfer a certain number of the men from this property to the Austin, which is a summer proposition; also to the flooding of the mine, which occurred in the latter part of the year.

At the Maas Mine the slight decrease in 1917 was due to the fact that most of the ore came from drifting instead of stoping. It was desirable to secure as large a product of Bessemer as possible, and for this reason that portion of the ore immediately below the hanging was attacked.

At the Cliffs Shaft there are three reasons for the decrease in the total ore per man: The first is that in 1916 there was an over-run of 19,820 tons, whereas in 1917 the piles were not cleaned up and, therefore, no over-run is shown. Second, because the working places in 1917 were on the whole much smaller than in 1916. This necessitated breast-stoping in place of over-hand stoping, with a consequent decrease in the output of the men. Third, there was a large amount of improvement work done on surface, which was charged directly to operation.

At the Crosby Mine the slight falling off is due to the fact that a larger proportion of the ore came from underground than in 1916.

The increases in cost for the year are, therefore, entirely due to higher wages and increased cost of supplies, over which the superintendents had no control.

The efficiency of the men is a high tribute to the ability of our superintendents, and I cannot too highly commend them for the work which they did. The only serious accident at any of our properties was the flooding of the Stephenson and adjacent mines, the Austin and Section 29. This has been fully treated in Mr. Graff's report so that it is unnecessary for me to make any further reference to it, except to say that orders have been placed for pumps and as soon as they are received, work of unwatering these properties will begin. On the first of next May Michigan will adopt Prohibition. What effect it will have on our force is

difficult to determine. It is not likely that we shall lose many of our married men, but it is not improbable that a number of the young Italians and Finns may seek work where they cannot get liquor. There is a difference of opinion in regard to this, but it is well to bear it in mind. At this time there is no agitation among the men, and they seem satisfied with conditions. The only danger is from outside. For example, should any of the miners' unions attempt to organize, it is going to be a difficult problem to handle on account of the attitude of the Administration towards Unionism and the fact that we are producing one of the basic war necessities.

LEASES.

The only outstanding lease on lands of this Company is held by the Empire Iron Company, covering the  $E\frac{1}{2}$  of the  $SW\frac{1}{4}$  of Section 19, 47-26.

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General Manager.