

During the past winter we had considerable snow in our section of the country and all of our auto. apparatus was given a severe test in responding to calls; and I might say that we were able to go through snow drifts; where four horses would not take the same load. In fact the performance of the auto. in the snow was far beyond our expectations; and we have no hesitancy in saying that it is the only safe apparatus to use in snow.

At this point I wish to call your attention to our method of using the auto. engine in our city.

The company is given a large territory on account of its dispatch in reaching fires, they get to work quickly and put it out if possible, if not, and it is a fire that is going to require a large portion of your department to subdue, then the auto is kept to work on this fire until all of the heavy machinery arrives and gets to work, then the auto is immediately withdrawn and returns to a central point to protect a large portion of the city left bare. By this method the auto is not required to do much pumping, as we find it to our advantage to keep such apparatus ready and free to render service in any part of the city on short notice; auto. engines used in this manner you will find a valuable auxiliary to your department.

I think thus far I have covered all of the important points about the auto. engine that would be of interest to this association; and in conclusion I wish to say that we have used in our city a Webb Motor fire engine for the past ten months, which has given very good service. We have had tire trouble three times during that time, defects that were due to manufacturer and was replaced free of charge. We had transmission gear trouble once, due to a defect that has since been corrected and will not happen again, all other little minor details were taken care of by the operator at slight expense. In expressing my opinion of the auto engine I will say that present indications point to its general use in fire departments in the near future, with many improvements, no doubt, over the present type, and I would therefore advise fire departments not to discard your engines, but keep them all, and as soon as the opportunity offers put in one or two pieces of auto apparatus, and give them a fair trial, and arrive at your own conclusion, the more departments using them the quicker we can determine their value in the fire service. We have given many demonstrations for the benefit of other cities and shall continue to furnish such reliable information as we may have bearing on this subject, and hope to see the auto. engine perfected, and in general use; relieving the horse of his dangerous and arduous duties in the near future.

### ALBERTA'S RAILWAY AND BOND TANGLE.

The Alberta and Great Waterways tangle is likely to become a historic feat of financing. Bonds amounting to \$7,500,000, and guaranteed by the provincial government, were sold in London for the purpose of building a railroad into the Peace River country. Then came the charges of corruption, the dissolution of the Cabinet, and the collapse of the transportation scheme. The new premier, the Honorable A. F. Sifton, naturally thinks that the sum of \$7,500,000 raised in London is too good a thing to dissipate idly. He knows that the government guaranteed the bonds, and that a breach of that guarantee would irreparably damage his province's credit. The following are three clauses of a bill the premier has introduced in this connection:—

1. The province of Alberta hereby ratifies and confirms the guarantee by it of the said bonds, and the premier of Alberta is hereby empowered and instructed to execute a guarantee on behalf of the province of said bonds.

2. The whole of the proceeds of the said bonds and all interest thereon, including such part of the proceeds of the said sale as is now standing in certain banks in the name of the premier of the province, or otherwise, as follows: \$6,000,000 and accrued interest in the Royal Bank of Canada; \$1,000,000 and accrued interest in the Union Bank of Canada, and \$4,000 and accrued interest in the Dominion Bank, is hereby declared to form a part of the public revenue fund of the province of Alberta, free and clear of any claims thereon or thereto by the Alberta and Great Waterways Railway Company, their successors or assignees, and together with all accrued interest thereon shall, to the extent to which they are so held, be forthwith paid over by the banks and by any other person holding any parts thereof, to the treasurer of the province without any set-off, counterclaim or other deduction whatever.

3. Notwithstanding the form of the said bonds and guarantee thereof, the province of Alberta shall as between itself and the Alberta and Great Waterways Railway Company be primarily liable upon the said bonds to the several holders thereof, and the province shall indemnify and save harmless the railway company and its assets and undertakings from any and every claim made under the said bonds or any of them.

We are told that Premier Sifton proposes to build roads and bridges in Alberta with the money raised in London to build a railroad. If this is so, a somewhat dangerous precedent is created in borrowing money for one purpose and ultimately using it for another. Every effort should be made by the Alberta Government to use the money for the construction of a railroad, even though the proposed Alberta and Great Waterways line is no longer to be reckoned. But it is not to be plain sailing for the premier, as one of the chartered banks may fight the province with a view to preventing it from taking \$6,000,000 of the Alberta and Great Waterways funds from their bank, they understanding that they were to be protected to the extent of \$375,000, which they advanced to the railway company on the strength of the sale of the bonds. Whatever be the outcome, it would aid the maintenance and effect the betterment of Alberta's credit abroad, if the borrowed moneys were utilized, as they should be, for railroad building.

### POWER REQUIREMENTS FOR TUMBLING BARRELS AND SAND SIFTERS.

In the majority of cases the foundryman, although familiar with the total amount of power required for his entire plant or for different departments in his plant, seldom really knows the actual power which it takes to drive each individual machine.

In a recent investigation by Lockwood, Greene & Co., Boston, Mass., engineers and architects for industrial plants, there was occasion to determine the actual power required for the tumbling barrels and for the sand sifters in an iron foundry. This investigation was conducted in connection with determining the feasibility of replacing three separate power plants with one central plant in a large manufacturing concern.