THE CENTRAL RAILWAY AND

With these stokers you have no smoke whatever as long as you run them at a normal speed; at times I have used the worst coal you can get. I have also used lump coal which has been crushed, but I found that with the crushed coal we could not crush it fine enough to burn satisfactorily as the small lumps run over the arch before they were properly consumed.

I find that we obtain the best results from the very fine coal, as with this coal when the occasion arises you can run your grates faster without any waste.

Mr. Bly,-

In regard to automatic devices. No doubt some of them are good under certain conditions. I once had charge of a plant on which we had an automatic apparatus for shutting off the water when the glass broke. The plant ran for about two years and was always giving trouble with the water coming over into the engines making it necessary at times to shut down the engines. I found on investigation that the automatic shut-offs were being opened to far and closed on the opening side. I took off the valve and put on an ordinary hand valve and we had no trouble after that with the water overflowing.

Mr. McRobert,-

Is there any type of engine which will develop a h.p. for 1.23 pounds of coal per hour?

Mr. Kastella,-

Under normal conditions there is no engine built in the world to-day that will do this. I may say, however, that there are engines in Canada that if they are properly attended to they will run below 3 pounds under normal conditions.

Mr. Bly,-

In my first question I asked Mr. Kastella how many pounds of water he can evaporate per pound of coal with chain grates. No doubt Mr. Kastella overlooked this question when he made his reply. I have in my plant an automatic furnace, and recently I ran some tests and got some pretty good results. It was somewhere about 10.2 to 10.9 pounds of water per pound of coal, of course these tests were run under practically theoretical conditions. I found the greatest efficiency at about 125 pounds saturated steam, and we got 185 h.p. Then we ran a test for capacity and got 285 h.p. per hour. We used soft coal screenings. We had a hand fired test with hard and soft coal screenings and got 312 h.p. per hour.

40