have since been changed to the straight form. If asked to advise a company as to which type to adopt, having regard to prevention of danger from fire, he would say the straight stack undoubtedly.

For the defence: Michael J. Flynn, master mechanic of the Canada Southern (sc., the defendants). His duty was to see that the engines were properly constructed, and in proper condition. In the spring of 1897 they were operating both types of engines. In his opinion, from a long experience, there was very little difference between the two as regards danger from fire. After the fire in question this engine was overhauled, and fitted with a straight stack. This was ordered by a superior officer "because of the diamond being a nuisance and on account of cleanness"—nothing said about danger from fire. No engines now in use on the road have the diamond stack. The company began to make the change in 1895. The New York Central use the straight, though, no doubt, some of their switch engines are still fitted with the diamond.

Samuel Behan, general foreman of Canadian Pacific at Toronto Junction, said that there were diamond stacks in use on the road in May, 1897, but the tendency now is to the straight, which is better as regards cleanliness, steaming qualities, and style. Thought the straight would throw more fire than the diamond (i.e., in a more dangerous manner), but had never used an engine fitted with one.

John Hall, formerly for many years a locomotive fireman on the Grand Trunk, thought the diamond stack the safer of the two as regards fire, because the mesh of the wire on the stack was smaller. The tendency had been for some years to adopt the straight type.

Geo. R. Joughins, mechanical superintendent on the Intercolonial Railway for the past 3 years. This road used some engines fitted with the diamond stack. There was no difference, in his opinion, between the two types in their value as spark-arresters. One was as safe as the other. They were however, giving up the diamond for the straight, and the change had been in progress for some years before he joined the road. The latter was thought to be the more economical as regards fuel; though there was a difference of opinion as to this.

In re-examination he said that the diamond was used in the company's yards and workshops.

All the witnesses appear to concur in saying that more sparks are emitted from the diamond stack, and escape therefrom in all directions. Those who speak in favour of it, however, say that, as they escape through a smaller mesh than that of the wire used in the straight stack, they are