

this was not quite worn out. During the seven years, therefore, that those rails were down, one ton five cwt. only of coal had been employed in the production of each ton of rails used at this station; whereas ten sets of iron rails would have been entirely worn out in that period, each set consuming two tons of coals in its manufacture, or equal to twenty tons of coals for iron rails, as against one ton five cwt. of coals for steel rails; and these, when turned, would be equal to another seven years' wear on the side not used.

The above is, no doubt, an extreme case, but the same sort of thing goes on everywhere where steel is used, though in a lesser degree. It has indeed been admitted by competent persons, that the rapid destruction of iron rails would have caused a complete collapse of the Metropolitan railways by continued interference with the traffic, while removing the worn-out rails, had not steel been employed.

It should further be borne in mind that the extra strength of steel over iron admits of a reduction of one-third of its weight in all structures, previously made in iron. Thus, a further saving is effected in the fuel consumed for a given work.

The rapidity, with which Bessemer's steel is coming into use, will be appreciated, when it is stated that the report of the jury at the London International Exhibition showed that the entire production of steel in Great Britain, prior to Bessemer's invention, amounted to 51,000 tons per annum; while the quantity of Bessemer's steel, made in Great Britain during the twelve