

MARTIN'S IMPROVED SUPERHEATER FOR LOCOMOTIVES.

In the Journal of the Board for the year 1861, we noticed the important invention of Mr. Martin, the Locomotive Superintendent of the Western Division of the Grand Trunk Railway of Canada,

for economizing fuel in Locomotives. We have now the opportunity of illustrating this invention from stereotyped plates, which first appeared, we believe, in the *Scientific American*, with the sub-joined descriptive notice from the same excellent Mechanical Journal.

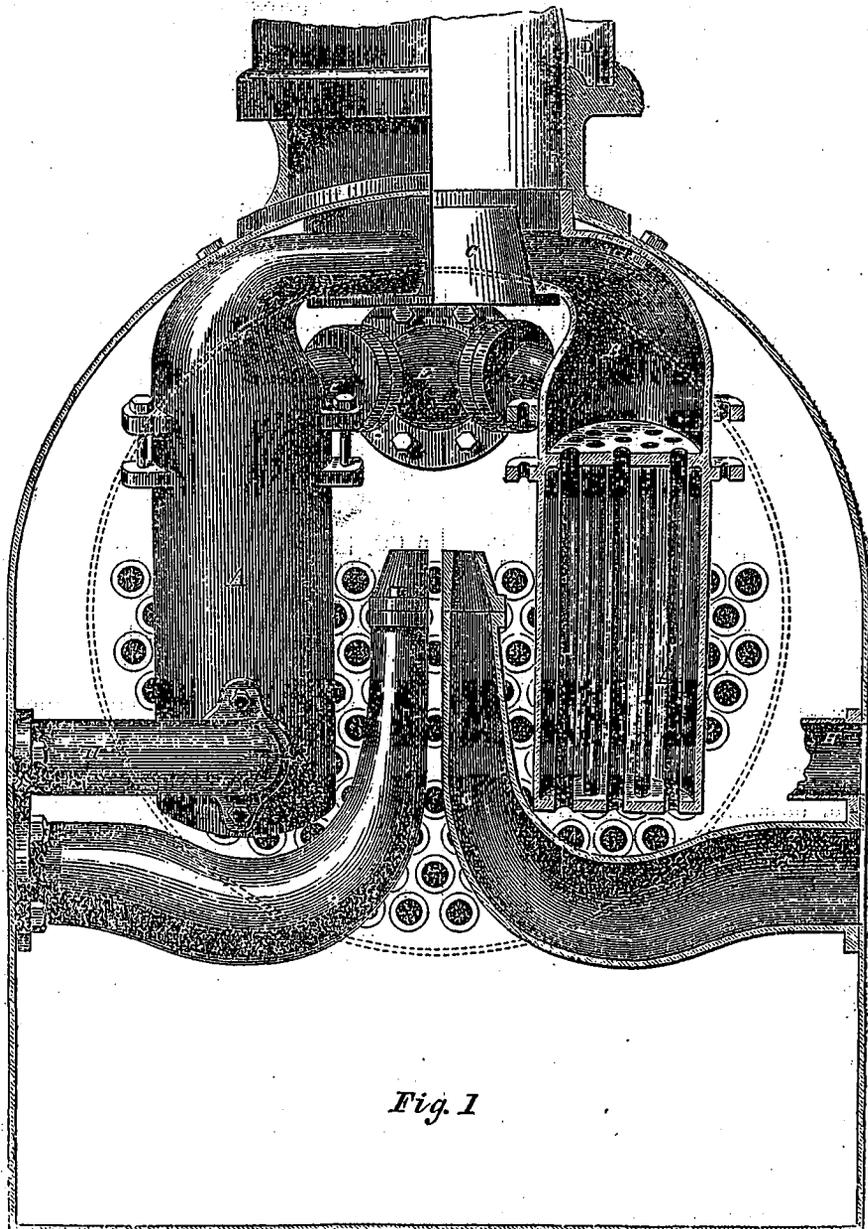


Fig. 1

In boiling water that portion is converted into steam which is nearest to the fire, and as the little globes of steam rise up from the bottom of the boiler through the water, they drive up a portion of water, filling the steam space with spray. As this water is carried into the cylinder it of course does no work there, and thus all the fuel expended in heating it is wasted. To complete the evapora-

tion of this spray, the plan has been adopted of imparting to the steam an additional quantity of heat after it has left the water. This is called superheating; it has attracted a great deal of attention, and many forms of mechanism have been devised to accomplish it. The plan which we here illustrate is designed for locomotive engines only. It is now in use on several locomotives on the