

In corroborating Mr. Doherty's claims as fulfilled to a very large extent from my own practical experience, I might here state a strange coincidence, and that is, when Mr. Doherty was making his first test in England at the Hamilton Bridge Works, Garston, N. Liverpool, I was making similar tests at the Rangoon Foundry in Burnah from his drawings and details supplied at the time, and subsequently some years afterwards I happened to be selected out of 1,187 applicants to the management of the very works at Garston where he had been carrying out his tests. I regret to say I found his process, in the intervening years, had for some reason or other, been abandoned and I found also the foundry department of those works in a deplorable condition, which, although only an auxiliary department of fairly large works employing 600 men, had been a loss to the firm of £1,000 during the year previous to my taking over charge, and the directors pressed upon me the advisability of closing up this department and purchasing the castings required for the works from outside firms. It was with some misgivings on their part that I obtained their reluctant consent to try for one year more, and the result was that without spending a penny on new plant or tackle, on capital account, I converted the £1,000 loss into a £1,500 profit in the first twelve months and received the directors' thanks with permission to lay out in necessary plant and improvements all that I desired.

The relative figures were for the month before taking over charge, and the 12th month after taking over:

<i>Before.</i>	<i>After.</i>
Output (1 month) 72 tons	187 tons
Wasters, 18 %	0.9% (less than 1%)
Backscrap, 40%	8%
Cost per ton, £7-5-0	£5-13-0
(labour and material)	

I have only heard of one other works in Great Britain adopting this process, that of the firm of R. Hornsby & Sons, Limited, Grantham, well known large agricultural and general engineers, who with true British reticence or conservatism, I have only heard that they were satisfied as to the economy of the process and the quality of the castings produced, giving no details or statistics.

DESCRIPTION OF THE PROCESS AND OBJECTS AIMED AT.

The process consists of injecting dry steam into the cupola along with the blast, with the several objects of:—

1. Increasing the value of the gases of combustion present in the zone of fusion by the high specific heat of the hydrogen