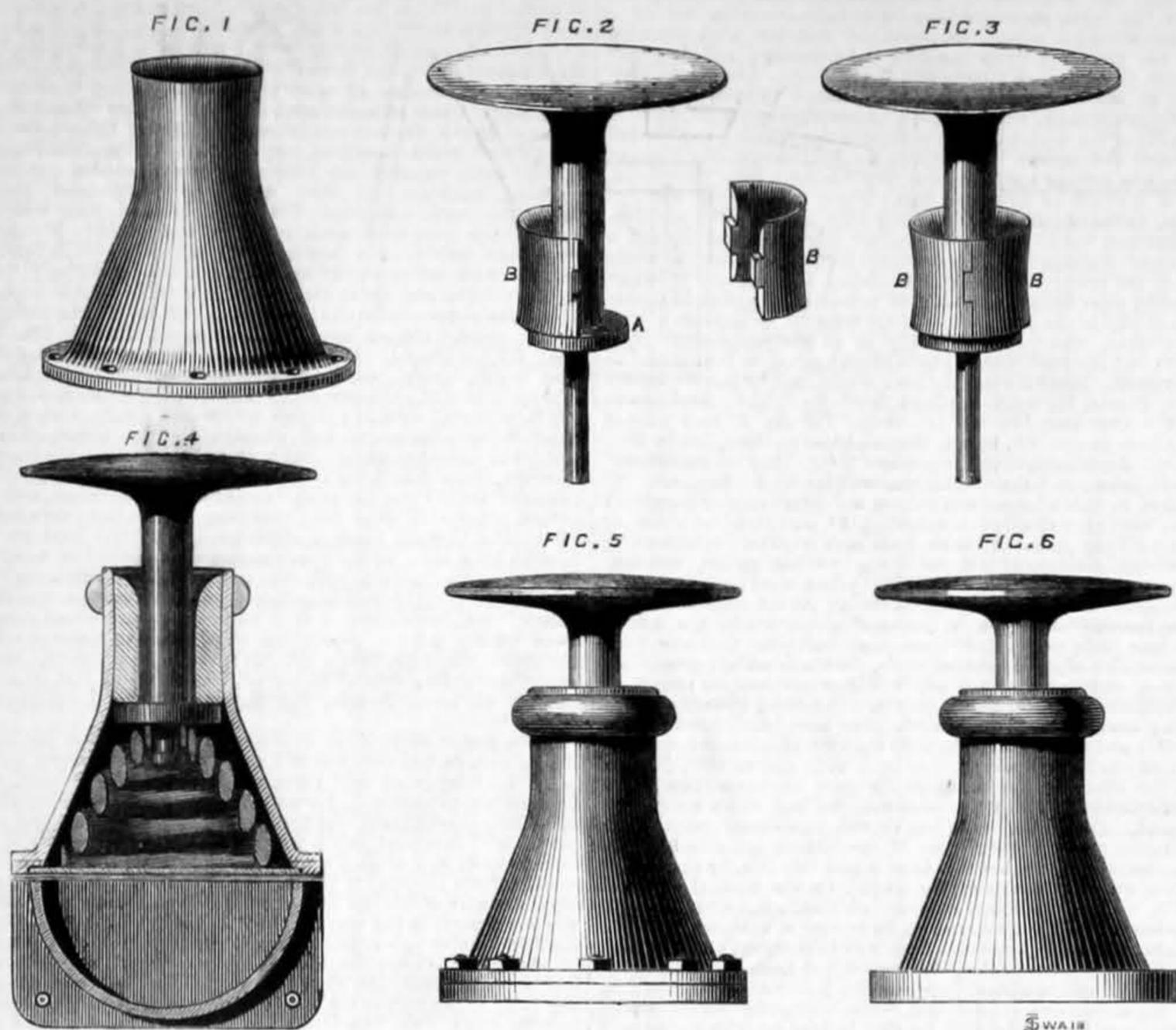


TURTON'S PATENT WROUGHT IRON BUFFERS.



We illustrate in the accompanying engraving a new and, in our opinion, excellent railway buffer, invented and patented by Mr. G. Turton, and manufactured by Messrs. Ibbotson, of Sheffield. That the buffer is giving satisfaction is proved by the fact that about 3000 of them are in use.

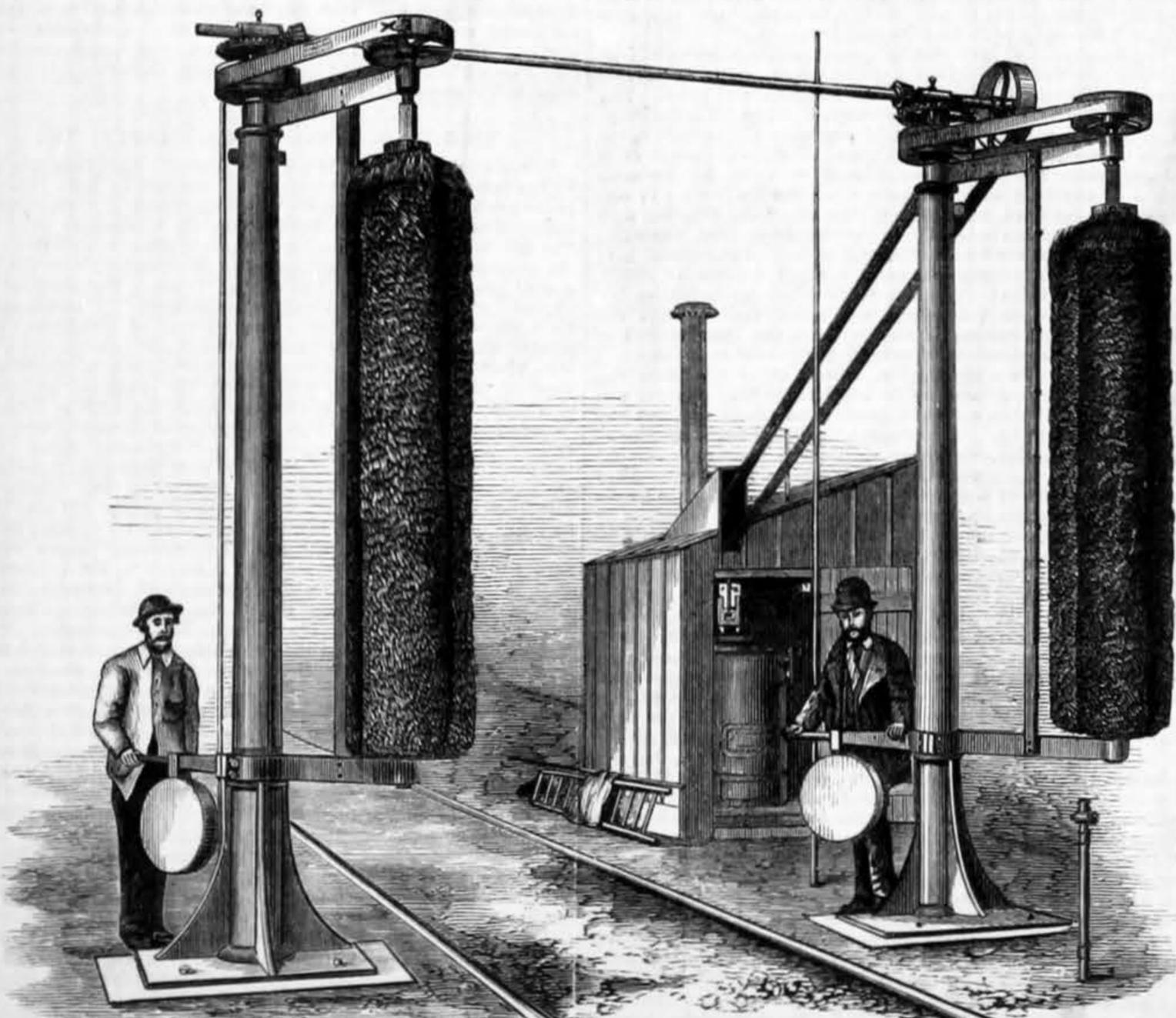
The construction of the buffer is so simple that it will be readily understood from the drawings without much description. The conical case, Fig. 1, is made of wrought iron stamped up to shape and welded. The neck is then bored out to the shape shown, and when heated the cast iron ring, B B, Figs. 2 and 3, made in halves in order that it may be put round the buffer rod, is inserted. The wrought iron contracts on the cast iron and holds

it firmly, and the strength of the whole is increased by shrinking on a wrought iron ring outside, as shown in Figs. 4, 5, and 6. The buffer head is jumped up solid with the rod from a bloom, and the end block which bears on the spring is welded on solid.

Certain modifications of the buffer are shown in our engravings, fitting them for use on locomotives, trucks, or carriages. In some cases the rod is extended right through the back plate in a way which will be readily understood.

The buffer is, as a whole simple, very solidly got up, should be able to stand a great deal of hard work, and is cheap. These circumstances will no doubt commend it to the attention of railway companies.

CARRIAGE WASHING APPARATUS, GREAT NORTHERN RAILWAY.



On Tuesday morning, last week, some private experiments took place near the running sheds of the Great Northern Railway, King's-cross, with some machinery just erected there for cleaning railway carriages by mechanical means, invented by the Earl of Caithness. The invention consists essentially of two large vertical brushes driven by a little steam engine; a number of dirty carriages making up a train of any length is passed slowly between these revolving brushes; water is thrown upon the side of each railway carriage, 2ft. in advance of the brush, from a vertical iron pipe pierced with small holes, placed at an average distance of 8in. from each other. A second water-pipe, pierced with similar holes, directs another series of small jets of water directly upon the brushes. The whole arrangement

is not very dissimilar in principle to that of hair brushing by machinery.

This invention was made and patented by Lord Caithness towards the end of last year, when after fitting up and trying a small revolving brush in one of the carriage repairing sheds at King's-cross, he resolved to order the construction of a machine for actual use. While this was in course of manufacture he left England on a prolonged visit to the United States of America, and a week or two since returned, bringing with him an exceedingly efficient and well-made stationary engine of 4-horse power, manufactured by the Baxter Steam Engine Company, at Colt's fire-arms manufactory. This little engine, which is very popular in America, is used to drive the brushes at King's-cross.