A COMPARATIVE ACCOUNT AND DELINEATION OF RAILWAY ENGINE & CARRIAGE WHEELS

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RAILWAY ENGINE & CARRIAGE WHEELS,

COMPILED AND ARRANGED BY

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59, HIGH HOLBORN.

1848.

INTRODUCTION.

In submitting the following comparative account of Railway Wheels to the public, the author does not profess to enumerate all the Wheels that ever have been made—that would be almost impossible: he has, however, collected and arranged all those that have been published in the Repertory of Arts, the London Journal, and several other periodicals, in addition to many obtained from private sources.

The author thinks the accompanying engraving will be particularly acceptable to patentees, as it will enable them at a glance to form a pretty correct idea of what has been done in Railway Wheels; it also shews the necessity of searching diligently among previous patents before parties apply for fresh Letters Patent, as there are several instances in this list in which the same invention has been twice patented.

May, 1848.

OFFICE FOR PATENTS,

Exchange Arcade, Manchester.

INDEX.

RAILWAY ENGINE AND CARRIAGE

WHEELS.

THE earliest patent for improvements in the construction of wheels to be used on railroads is that granted to George Hawks, of Gateshead, in the County of Durham, Iron Manufacturer, dated November 6th, 1807. The title of this patent is, "For a method of making, and likewise keeping in repair, cast iron wheels for coal waggons, and other carriages where such wheels are applicable." Figure 1 represents a front view and section of a wheel, constructed according to the patent of Mr. Hawks, who says in his specification, that "the usual method of making iron wheels for coal waggons, and other carriages where such wheels are applicable, is to cast their arms and rims in one entire piece, by which method they are partially weakened by the irregular contracting of the arms and rims in cooling, and are consequently subject to be frequently broken from trifling shocks or jerks; and when the rims are worn out or broken, or when any other part of the wheel is injured, the whole wheel becomes useless and must be replaced by an entire new one: these defects are removed by my invention, which consists simply in making or casting the wheel in two or more parts, and in joining those parts together by screws, rivets, pins, forelocks, keys, dovetails, rabbets, or mortises, as is frequently done with wheels used in the machinery of mills and similar purposes, or by any other convenient means; by this method the injuries occasioned by the contraction of the metal are avoided, the wheel is much stronger