

Our present limits will not allow us to give a detailed account of the machine, but we shall endeavour to do so in our next, accompanied with the specification of the last improvements, which have been adopted in the construction of the boiler, and which have tended very materially to the accomplishment of a perfectly safe and effective locomotive machine.

The boilers, engines, and their appendages, are all enclosed within a square compartment of about eight feet high and long, and five feet wide, which forms the central part before and behind, to which are attached capacious coach bodies, corresponding in appearance, and capable of holding ten persons in each; and connected to these are open cabriolets affording accommodation for eight persons more, making twenty-eight inside passengers. Below are receptacles for luggage, and on the roof accommodation for thirty persons, exclusive of the conductor and guard.

Little is to be expected from a first attempt, but we have much pleasure in saying that a more successful result could not have been anticipated.

After passing heavily laden from the manufactory at Bordesley Green, near Birmingham, through several green lanes recently laid with loose gravel, and performing several acute and difficult turns in the road, this ponderous vehicle proceeded along the Coventry Road with at least fifty persons upon it, at a rate of more than twenty miles per hour for some distance, (perhaps near a mile;) but as it was not designed to carry this experiment further than a mere trial of the capabilities of the machinery, and the means for prolonging the journey not having been provided, we are not in a situation to state such particulars at present as would, perhaps, be necessary to satisfy the inquiries of a practical engineer; but hope to be enabled in our next to give a more detailed account of the performance and construction of the machine, which certainly comprehends several features of considerable novelty and ingenuity, and unquestionably reflects very great credit both upon the ability and perseverance of its talented projector.

[*Ibid.*]

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### Air Gun.

It is a curious fact, that although the air pump is a modern invention, yet the air gun, which is so nearly allied to it, in the construction of its valves and condensing syringe, should have existed long antecedent to it; for it is recorded that an air gun was made for Henry the Fourth, by Marin of Liseau, in Normandy, as early as 1408, and another was preserved in the armoury at Schmetau, bearing the date of 1474. The air gun of the present day is, however, very different from that which was formerly made, and which discharged but one bullet after a long and tedious process of condensation, while it now discharges five or six without any visible variation of force, and will even act upon a dozen, though with less effect.