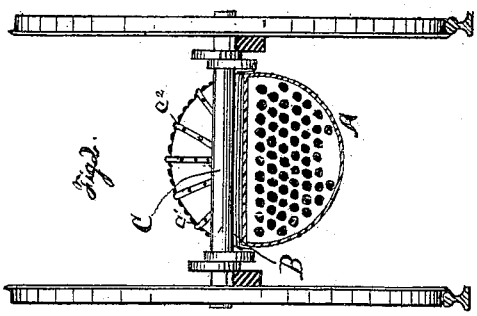
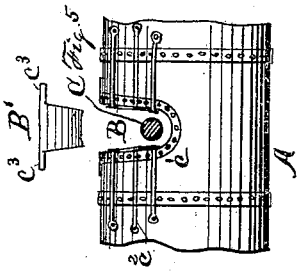
(No Model.)

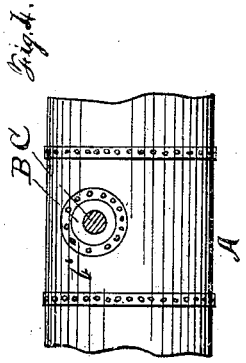
E. COLEMAN.

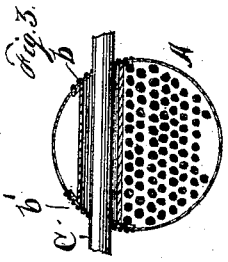
LOCOMOTIVE.

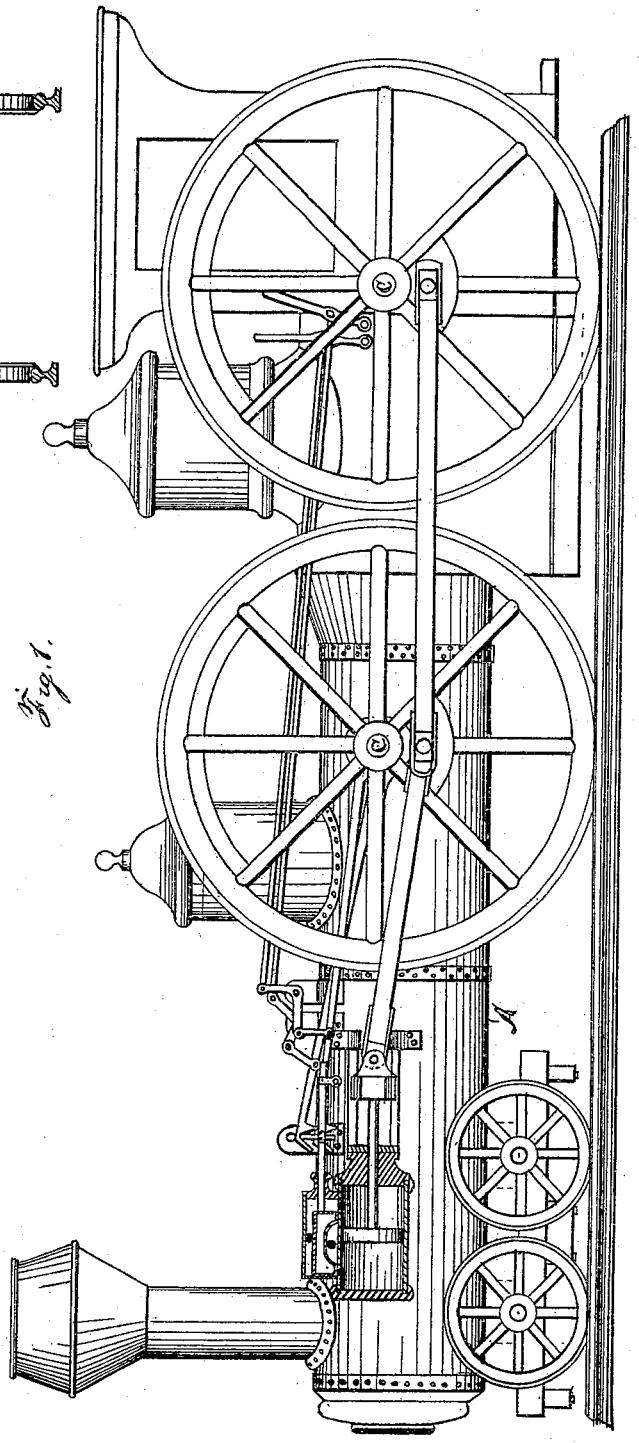
No. 265,388. Patented Oct. 3, 1882.











Witnesses:
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UNITED STATES PATENT OFFICE.

EZRA COLEMAN, OF NEW YORK, N. Y.

LOCOMOTIVE.

SPECIFICATION forming part of Letters Patent No. 265,388, dated October 3, 1882.

Application filed February 9, 1882. (No model.)

To all whom it may concern:

Be it known that I, EZRA COLEMAN, a citizen of the United States of America, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Locomotives; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a side view of my improved locomotive. Fig. 2 is a vertical transverse section of the same, and Figs. 3, 4, and 5 are detailed views thereof.

To effect the running of locomotives at a high rate of speed with the greatest possible safety, while enabling them to travel at the usual rate of speed without the great wear upon the valves, pistons, and other driving mechanism heretofore experienced are objects greatly desired.

To these ends the nature of my invention consists in the combination and arrangement of parts, substantially as hereinafter more fully set forth and claimed.

In carrying out my invention I employ a boiler, A, as will be seen by reference to the accompanying drawings, differing from the ordinary locomotive-boiler only in having the passage B, which extends transversely through it, at a point above the tubes therein. This passage may be made, among other ways, either as shown in Figs. 3 and 4 or as shown in Figs. 5 and 2. In Figs. 3 and 4 it is represented as a circular passage formed by cutting similar apertures at opposite points in the sides of the boiler, below its top surface and above the tubes therein, and arranging transversely through the boiler a cylinder, *b*, whose ends rest in said apertures and are provided with flanges *b'*, fitting against and bolted or riveted to the sides of the boiler. In Figs. 5 and 2 it is represented as open at its upper side, giving it a U-shaped form, which is formed by making similar openings at opposite points in the sides of the boiler, above the tubes therein, and placing transversely through the boiler a correspondingly-shaped plate of metal, whose ends rest in the aforesaid openings and are provided with flanges *c'*, fitting against and bolted or riveted to the sides of the boiler. This plate may be further strengthened and fastened to the boiler by metal straps or bars c^2, and the unoccupied upper or open portion of the passage may be fitted with an approximate shaped block or piece of metal, B', to avoid any possibility of the collapsing of the boiler at that point. The upper part of this block is provided at its ends with flanges or projections c^3 to rest upon and to receive fastenings to secure it to the boiler. This construction of parts permits the arrangement of the driving-wheel axle C at a point above the tubes in the boiler to allow the lowering of the boiler to the lowest possible point, or as near as possible to the ground, which insures the greatest possible safety in running the locomotive at a high rate of speed, preventing it from leaving the track and to permit the increasing of the diameter of the driving-wheels. By reason of increasing the diameter of the driving-wheels it is obvious that, while permitting the running of the locomotive at the usual or a low rate of speed, the same or as great wear upon the valves, pistons, and other driving mechanism will not be experienced as with driving-wheels of the diameter commonly adopted.

Having thus fully described my invention, I claim and desire to secure by Letters Patent—

In a locomotive, the boiler having an opening or recess, B, fitted with a U-shaped plate flanged and fastened upon the boiler, and itself fitted above the axle of the driving-wheels passed through it, with a wedge or block, B', having flanges c^3, substantially as and for purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EZRA COLEMAN.

Witnesses:

JOSEPH FORREST,

J. WM. MISTER.