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PATENTED JUL 12 1870

LON HENDEE.
ASH PAN.
FOR
LOCOMOTIVES.

Fig. 1.

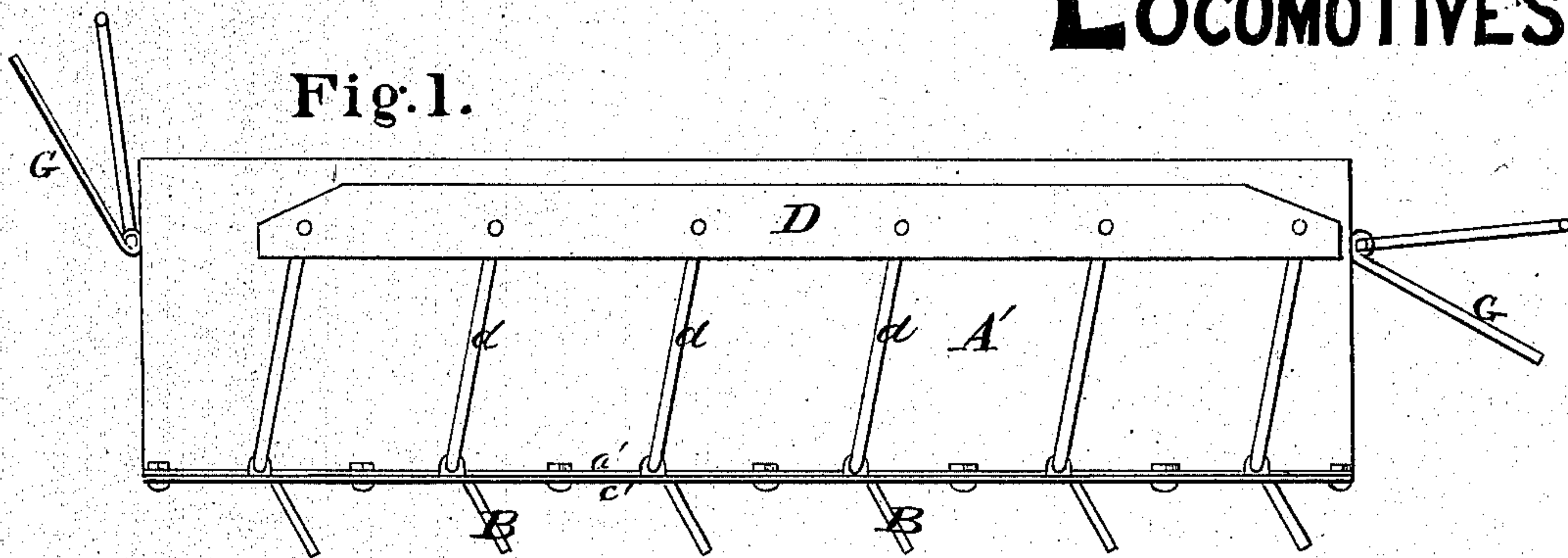


Fig. 2.

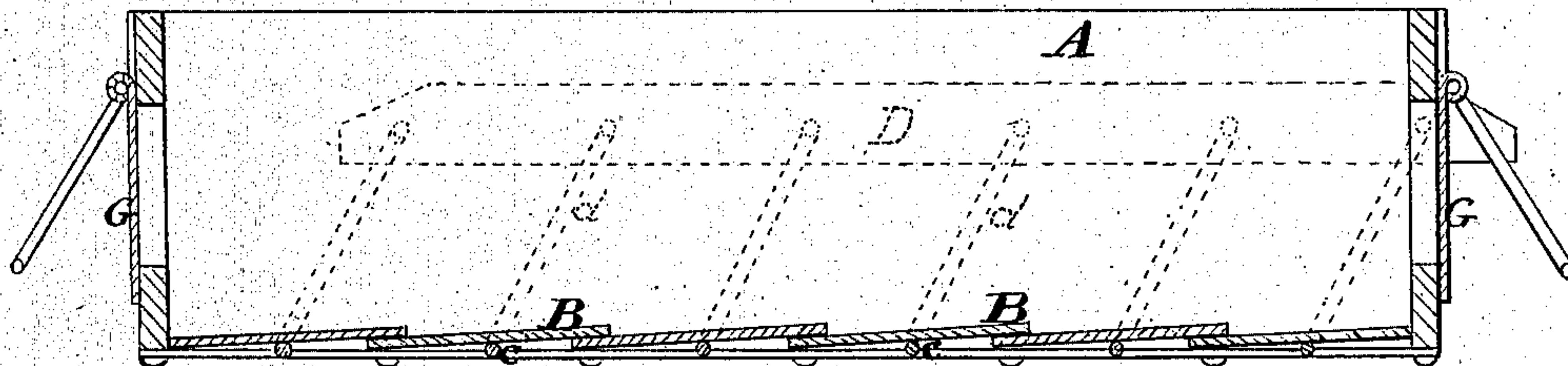
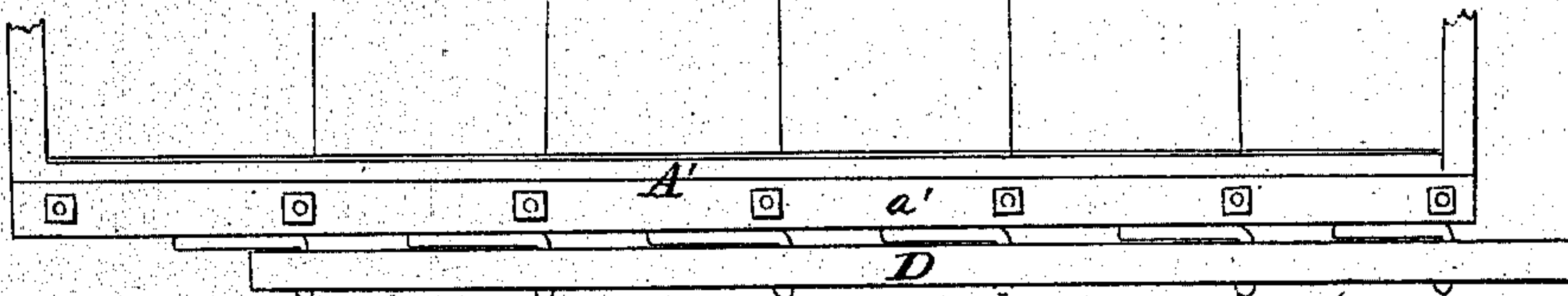


Fig. 3.



Witnesses:
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United States Patent Office.

LON HEN DEE, OF GRAND JUNCTION, IOWA.

Letters Patent No. 105,317, dated July 12, 1870.

IMPROVED ASH-PAN FOR LOCOMOTIVES.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, LON HEN DEE, of Grand Junction, in the county of Green and State of Iowa, have invented a new and valuable Improvement in Ash-Pans for Locomotives; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a side view of my invention, with bottom-slats and dampers open.

Figure 2 is a central vertical section of the same, showing the slats and dampers closed.

My invention relates to an improvement in the slatted bottom ash-pan for locomotives, and consists in the arrangement of the operating-lever at the side of and external to the pan, in the manner of strengthening the pivoted plates, in the freedom of draught obtained, and in the ready means provided for removing and replacing a bent or broken plate.

The letter A of the drawing designates the ash-pan, open at each end, and having its bottom formed of the pivoted slats or plates B, arranged to overlap each other when closed, in the manner shown at fig. 2.

G G represent dampers, hinged at each end of the pan, and arranged to shut off the draught entirely when desirable.

c c' represent removable strips, bolted to the lower edges of the walls of the pan, and serving to keep in place the journals of the plates which form the bottom.

The plates B B are secured to the rods d, which extend centrally throughout their length, and serve to strengthen them, and to assist in bearing up the weight of ashes.

The rod d also forms the journals of the plate, and, being bent upward at one side of the pan, serves as the crank or lever whereby the plate is operated.

D represents a connecting-bar, to which the ends of all the cranks d are pivoted, and which serves to regulate their movements, and to render them uniform and simultaneous.

The object of the slatted bottom is to obviate the necessity of removing the ashes by hand from under the fire-box, a laborious and uncomfortable operation, and, at best, but imperfectly performed. This, I am well aware, is not new; but, in order that the slatted

bottom shall not be productive of injury, it must have its plates accurately fitted to each other, and there must be no obstacles to the discharge of the ashes and cinders, which, by retaining them, can prevent the complete closing of the bottom. Otherwise the red-hot cinders will fall through upon the track, at any point along the road, and may result in the destruction of the ties, in dry weather, or of a bridge, thus creating accidents which may result in the destruction of life as well as of property.

Hence, I have placed the operating levers and the connecting-bar outside of the pan, thus securing within it a perfectly free space along the bottom, with nothing in the way to which the cinders can become attached, and thereby prevent the complete closing of the plates. On the contrary, when a sufficient amount of ashes has accumulated, and the engine has arrived at a suitable place for their discharge, the slats are brought into a perpendicular position, by means of the connecting-rod, and all the ashes and cinders must necessarily fall through the spaces between.

But if, by accident or otherwise, one of the plates should become warped or broken, so that it will not fit its neighboring slats securely, a means is provided whereby it may be removed in a very few minutes, and its place supplied by a new plate. In order to accomplish this, it is only necessary to remove the bolts from the removable strip c', which extends along the lower edge of the wall, and serves to confine the journals of the plates.

The dampers G G perform an important function in supplying the necessary draught to the grate when the engine is in motion.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a locomotive ash-pan, the arrangement of the pivoted plates B; rods d, connecting-bar D, and removable strips c c', when constructed as and for the purposes herein shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

LON HEN DEE.

Witnesses:

C. B. PARK, Jr.,
G. C. HILLMAN.