

J. McMULLIN.

Plows for Unloading Cars.

No. 135,351.

Patented Jan. 28, 1873.

Fig. 1.

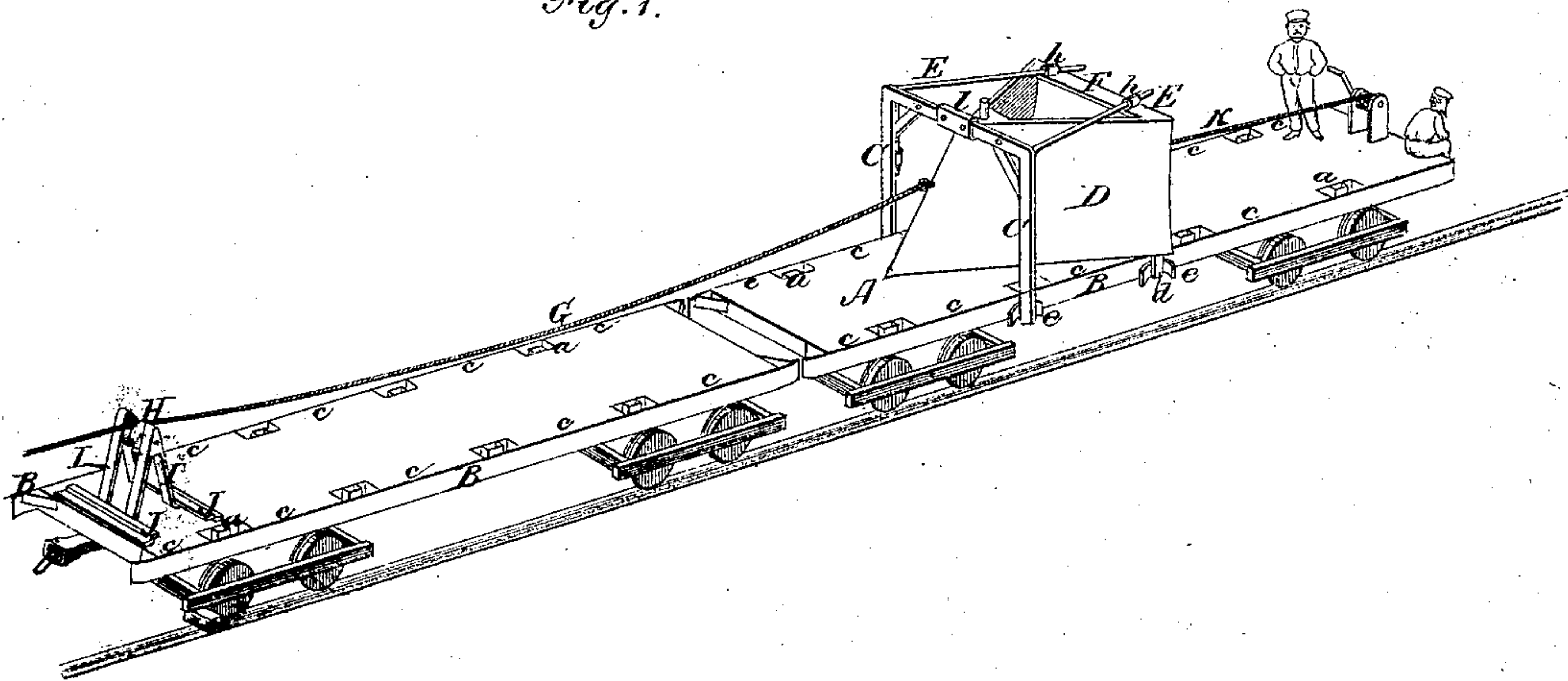


Fig. 2.

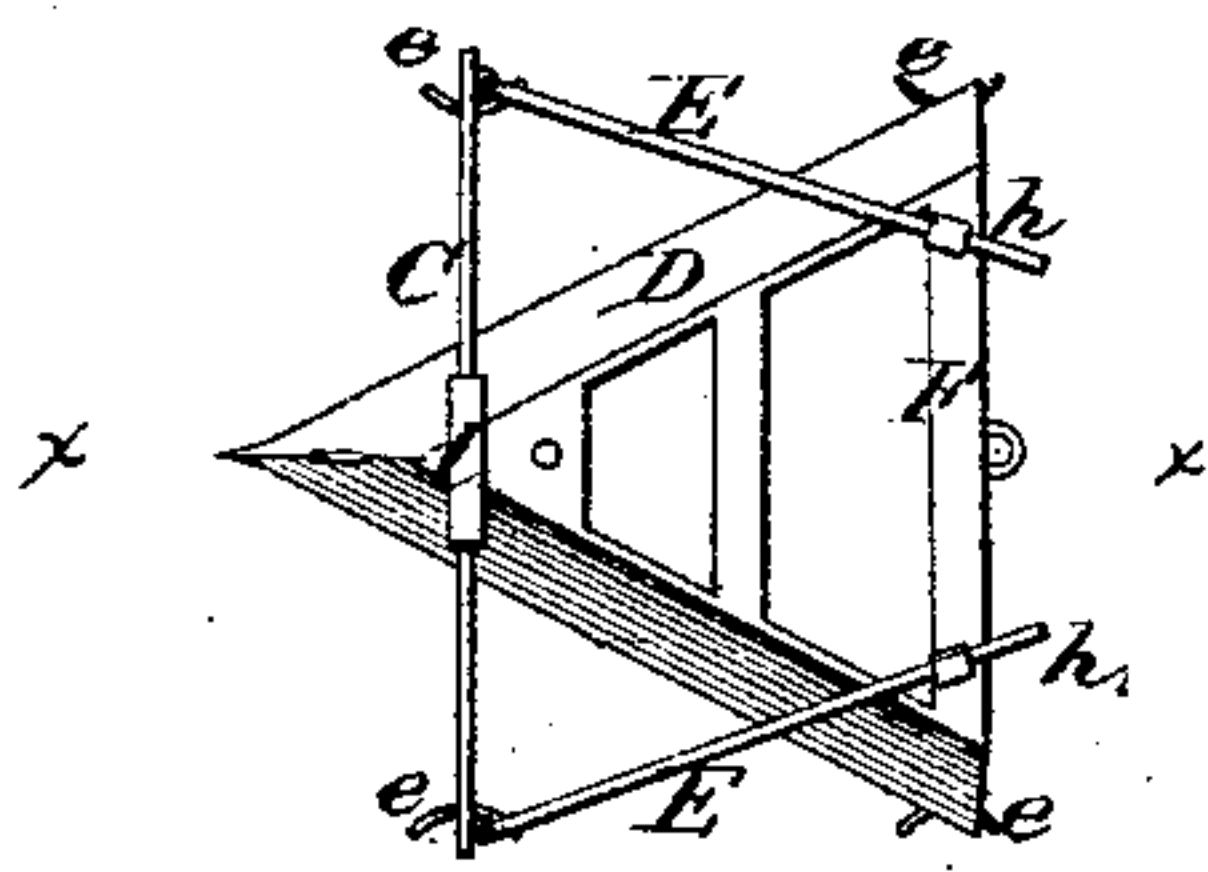
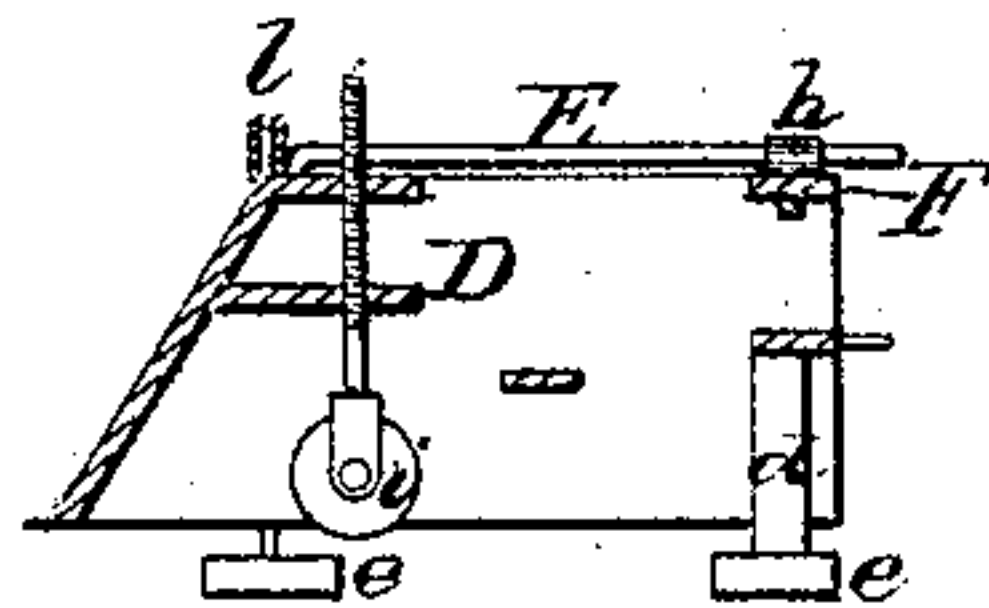


Fig. 3.



Witnesses.
C. F. Brown.
M. Church.

Inventor.
J. McMullin,
by his Attys.
Shee & Alsworth.

UNITED STATES PATENT OFFICE

JOSEPH McMULLIN, OF CASEY, IOWA.

IMPROVEMENT IN PLOWS FOR UNLOADING CARS.

Specification forming part of Letters Patent No. 135,351, dated January 28, 1873.

To all whom it may concern:

Be it known that I, JOSEPH McMULLIN, of Casey, in the county of Adair and State of Iowa, have invented a new and Improved Plow for Unloading Cars; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a perspective view of two cars provided with my apparatus. Fig. 2 is a top view of the plow, guide-frame, and braces; and Fig. 3 is a sectional elevation of the same.

Similar letters of reference in the accompanying drawing denote the same parts.

This invention has for its object to improve the construction of devices for unloading dirt-cars, in respect of a plow which is drawn forward by the engine, and drawn back by means of a windlass over the surface of the car. To this end the invention consists in, first, a plow laterally adjustable as to its point, so as to throw all the load off one side of the car, or a greater or less portion off on either side; second, a sliding frame to guide the plow; third, a sheave to sustain the draw-chain placed on the front car and made adjustable in order that it may always be set more nearly in line with the engine and plow when the train is curved; and, fourth, a car constructed with rails at its sides and projecting beyond its ends, and forming ways for the frame and plow to travel on, all which I will now proceed to describe.

In the drawing, A A are ordinary dirt-cars. To the sides of such cars iron pockets *a* are usually attached to receive stakes, and to prepare a car having such pockets for combination with my unloading apparatus there should be attached to its sides between the pockets pieces of wood *c*, all extending to the same distance outside the pockets. Iron plates B, fastened to these wooden pieces, extending the whole length of the car and projecting beyond its ends some little distance, form continuous ways for the unloading apparatus to travel on throughout the entire train. C is a three-sided rectangular frame set upright on the car, the legs of the frame extending past the sides of the latter, curved shoes *e* being attached to the inner sides of said legs, which shoes abut against the rails B. D is an instrument constructed much like a railway snow-plow, and

placed on one of the cars A, said plow having legs *d* extending downward past the sides of the car, and furnished also with convex shoes *e*. The plow has an internal adjustable anti-friction wheel, *i*. Braces E, in the shape of cranes, are jointed to the legs C and pass through eyes *h* secured to the cross-bar F of the plow D. To the upper corner of the plow is rigidly secured a box, *l*, which is placed loosely on the top piece C, and fastened thereto in any particular position by means of a pin passing through holes in the box and bar; hence the edge of the plow can be placed at any point in the width of the car, the box *l* sliding freely on the bar C. This arrangement enables the load to be cast to either side in any desired proportions. The plow as it moves backward or forward is guided by the frame C. Its forward movements are effected by means of a cable, G, connected with the engine and running over a sheave, H, mounted in supports, I, placed at the front end of the front car, and adjustable crosswise of the same in grooved guide-ways J, which allow the supports I to be set at any point in the width of the car that may be necessary to keep the sheave in line, or nearly so, with the plow and engine, and the strain of the latter upon the former in a right line, even when the train is on a curve. The plow is drawn back by means of a cable, K, running to a windlass placed at the rear end of the hind car, and operated by hand.

What I claim as new is—

1. A plow for unloading cars, combined with a guide-frame by which the plow is laterally adjusted, substantially as described.

2. A guide-frame combined with a plow for unloading cars when the plow is laterally adjustable in the same as to its point, so as to throw a greater or less part of the load to either side, substantially as described.

3. The plow D, combined with the sliding frame C and adjustable sheave H, substantially as described.

4. A car constructed with side rails B, projecting at its sides so as to form a continuous track, in combination with the frame C and convex shoes *e e*, substantially as described.

JOSEPH McMULLIN.

Witnesses:

R. H. MARSHALL,
W. T. DORAN.