

(No Model.)

2 Sheets—Sheet 1.

W. G. LANE.  
DUMPING CAR.

No. 528,546.

Patented Nov. 6, 1894.

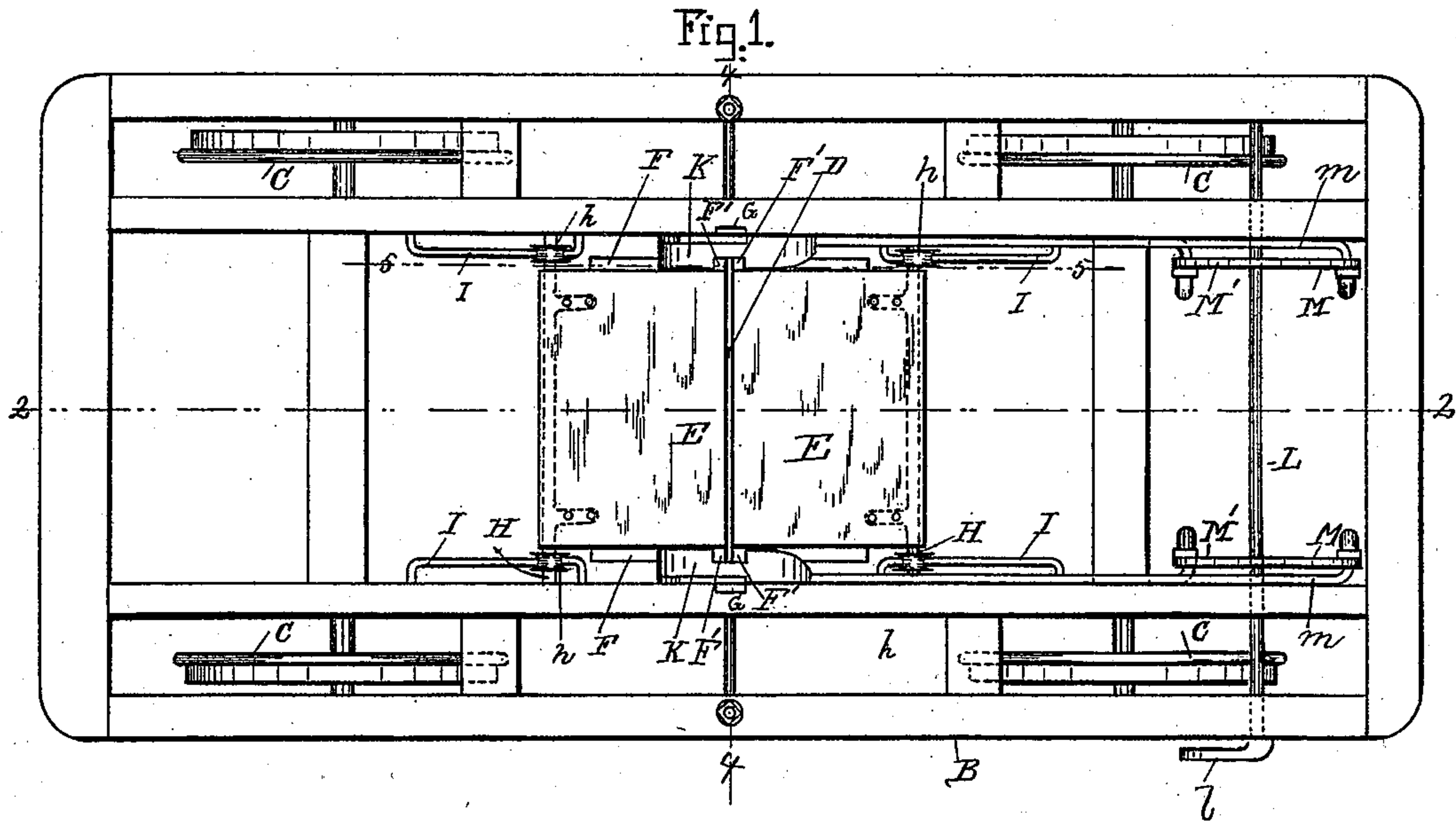


Fig. 4.

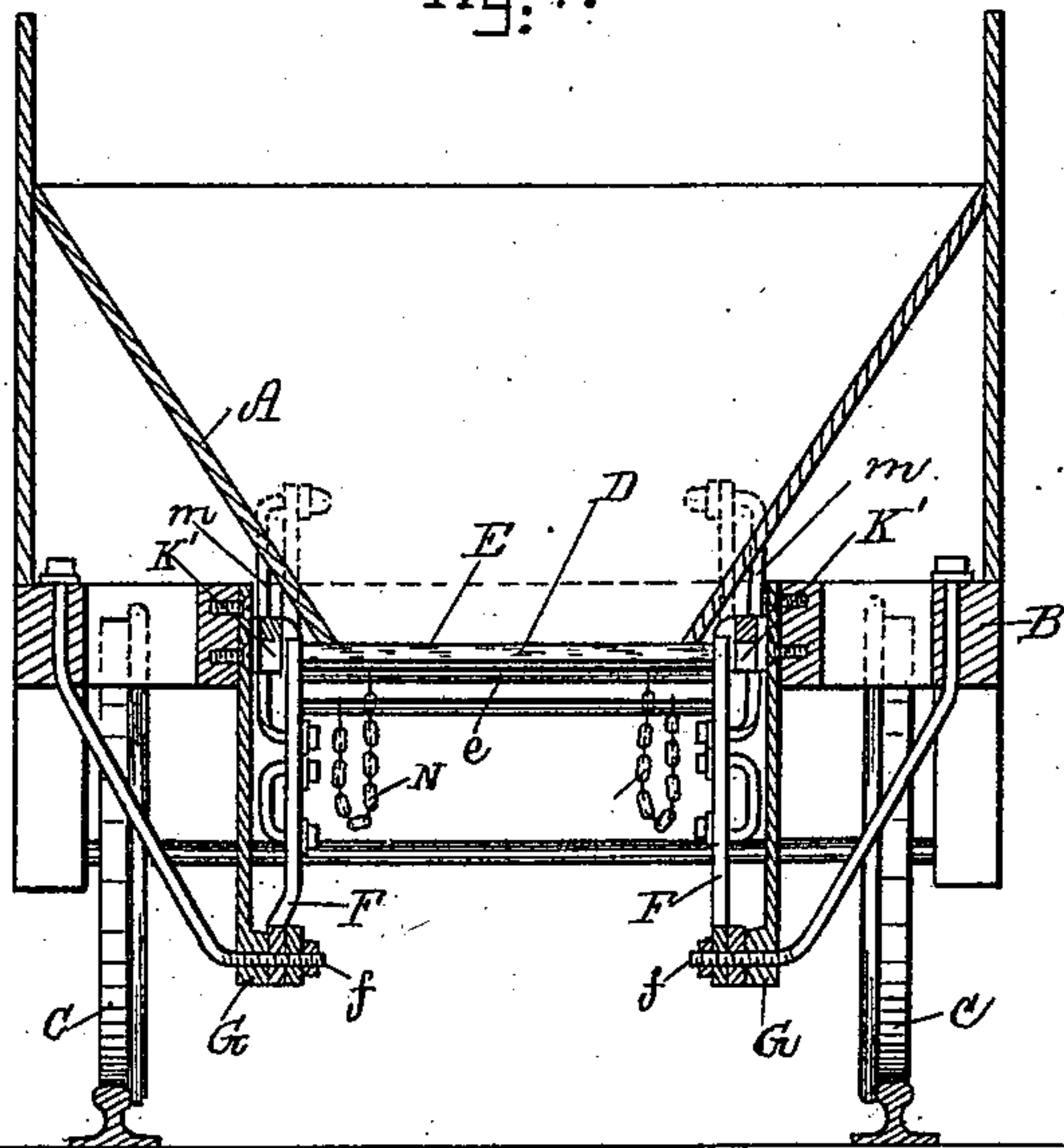
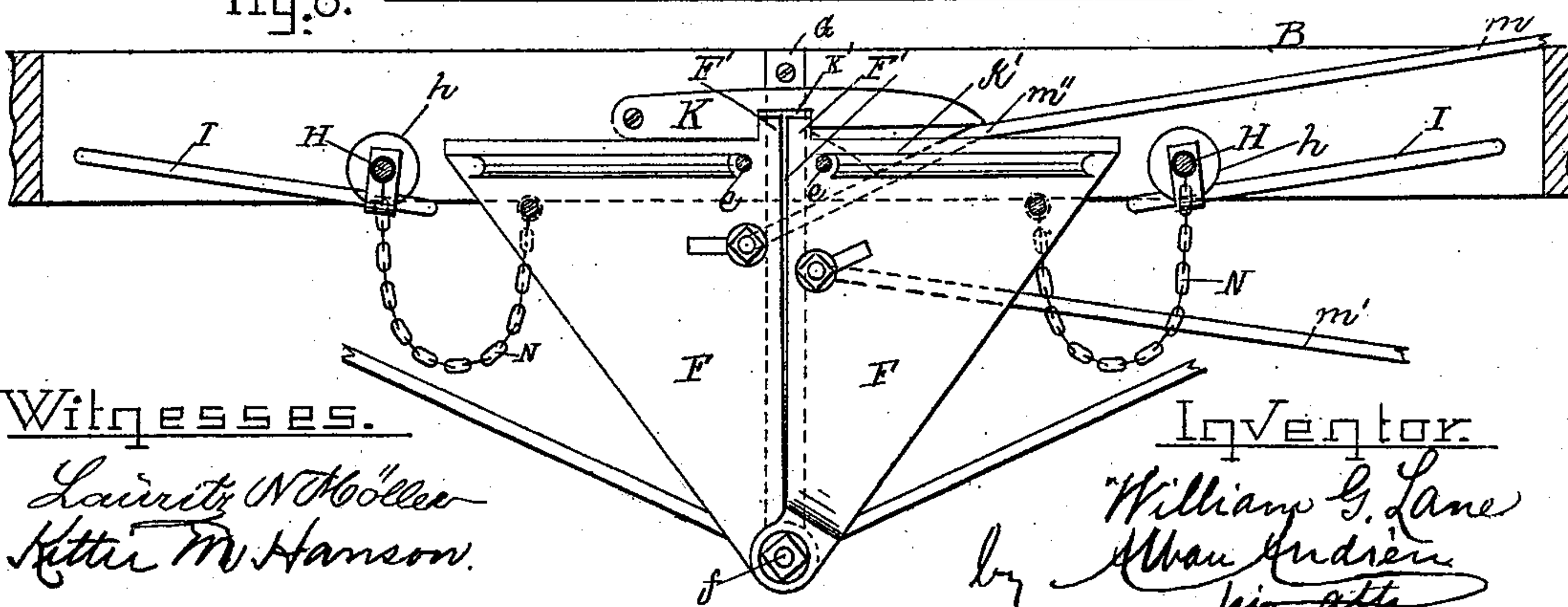


Fig. 5.



Witnesses.

Lauritz N. Høller  
Kitter M. Hanson.

Inventor.

William G. Lane  
by Allan Anderson  
his atty.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

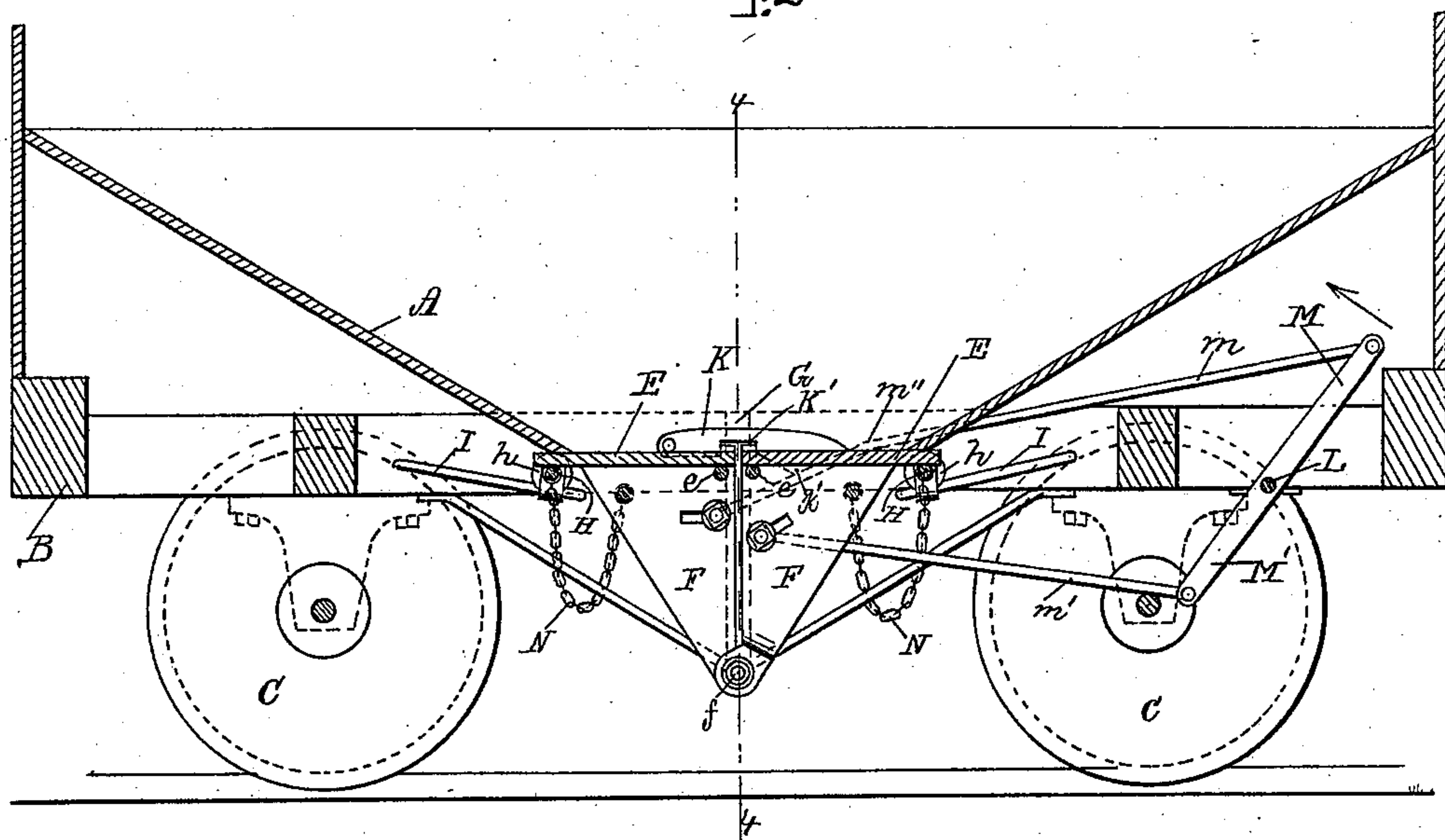
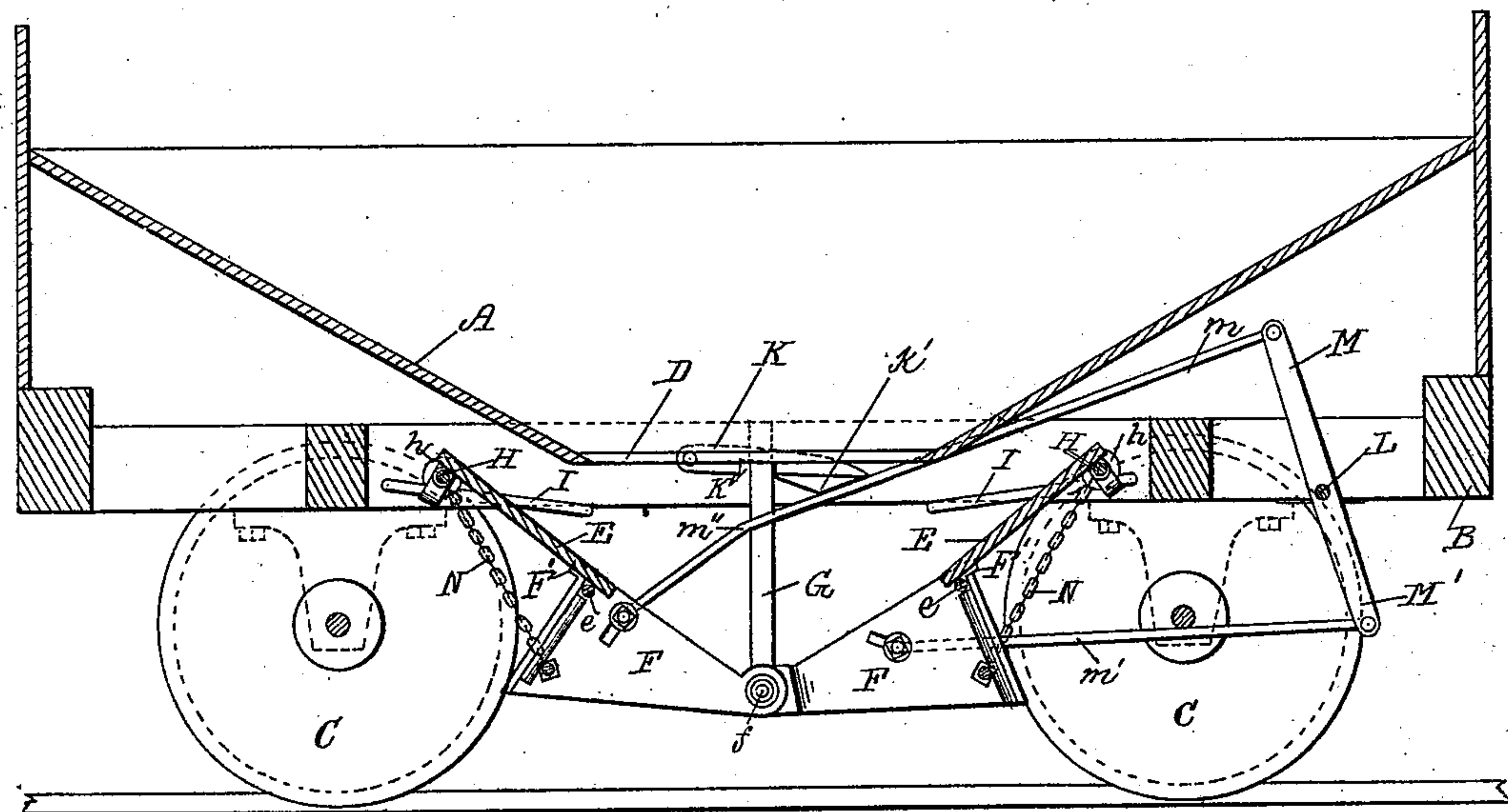


Fig. 3.



Witnesses.

Lauritz N. O'boller.  
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# UNITED STATES PATENT OFFICE.

WILLIAM G. LANE, OF PICTOU, CANADA, ASSIGNOR TO THE UNIVERSAL  
COAL DUMPING CAR COMPANY, OF SPRINGFIELD, ILLINOIS.

## DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 528,546, dated November 6, 1894.

Application filed February 9, 1894. Serial No. 499,640. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM G. LANE, a subject of the Queen of Great Britain, and a resident of Pictou, in the Province of Nova Scotia, in the Dominion of Canada, have invented new and useful Improvements in Coal-Dumping Cars, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in coal dumping cars and it is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1, represents a plan view of the improved coal dumping car showing the hopper removed and the doors closed. Fig. 2, represents a longitudinal section on the line 2—2 shown in Fig. 1. Fig. 3, represents a similar longitudinal section showing the doors open. Fig. 4, represents a cross section on the line 4—4 shown in Fig. 2; and Fig. 5, represents an enlarged longitudinal section on the line 5—5 shown in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

The object of my invention is to carry a load of coal or other materials in a hopper car and means for dumping the load instantly as will hereinafter be more fully shown and described.

In the drawings A, represents the hopper of the car secured to the car frame B, in any suitable manner.

C, C, are the wheels on which the car frame is mounted.

D, represents the lower discharge opening of the hopper which opening is normally held closed by means of doors E, E, which are pivoted at *e, e*, to the upper portions of the end pieces or wings F, F, which latter are pivoted together in their lower ends at *f*, to the braces, standards or girders G, G, secured to the car frame as shown. To the outer ends of the doors E, E, are secured axles H, H, on the ends of which are journaled the grooved rollers *h, h*, adapted to roll on rods or ways I, I, secured to the car frame as shown.

On the inside of the car frame are pivoted

at *k, k*, the gravitating latches K, K, having notches K', K', adapted to receive the lugs or locking projections F', F', on the upper ends of the wings F, F, when the doors E, E, are closed as shown in the drawings.

*k'*, is a cam projection on the under side of the free end of each of the latches K, as shown.

The doors E, E, are opened simultaneously by a rock shaft L, journaled across the frame of the car and adapted to be actuated by a lever *l*, secured to one or both ends of said shaft, and to the latter are secured the levers or arms M, M, M', M', extending in opposite directions. The upper ends of the arms M, M, are connected to the most distant wings F, by means of rods *m, m*, and the lower ends of the arms M', M', are connected to the nearer wings F, by means of rods *m', m'*, as shown. Each rod *m*, has an offset or cam projection *m''*, adapted to come in contact with the cam projections *k', k'*, on the latches K, K, during the release of the doors from said latches.

To unload the car all that is necessary to do is to swing the lever *l*, in the direction shown by arrow in Fig. 2 by which the latches K, K, are released from the lugs F', F', by the action of the rod projections *m'', m''*, coming in contact with the projections *k', k'*, on the latches K, K, causing the doors and their side wings to fall by gravitation and in so doing the said doors are caused to move outward by the rolling motion of the rollers *h, h*, on the rods or ways H, H, to the position as fully shown in Fig. 3. In closing the doors after the contents of the car have been discharged all that is necessary to do is to swing the lever *l*, in the opposite direction causing the wings F, F, and their doors E, E, to be closed and automatically locked in such closed position by the lugs F', F', on said wings engaging with the notches in the pivoted latches K, K, as fully shown in Figs. 2 and 5.

N, N, are suitable chains attached to the upper portion of the wings F, F, and to the axles H, H, as shown in the drawings for the purpose of limiting the opening movement of the doors E, E, and their wings and to sup-

port said doors and wings in their open position during the discharge of the load as fully shown in Fig. 3.

What I wish to secure by Letters Patent  
5 and claim is—

1. A dumping car having a hopper open at its lower end and a pair of doors pivoted to jointed side pieces or wings, gravitating locking latches adapted to secure said doors in  
10 closed positions and rollers on said doors adapted to roll on guides or ways secured to the car frame substantially as and for the purpose set forth.

2. A dumping car having a hopper open at  
15 its lower end and a pair of doors pivoted to jointed side pieces or wings and gravitating

latches adapted to secure said doors in closed positions and rollers on said doors adapted to roll on guides or ways secured to the car frame combined with a rock shaft having a  
20 releasing lever and arms connected to the respective side wings and means for releasing the latches during the opening of the doors substantially as and for the purpose set forth.

In testimony whereof I have signed my  
25 name to this specification, in the presence of two subscribing witnesses, on this 31st day of January, A. D. 1894.

WILLIAM G. LANE.

Witnesses:

ALBAN ANDRÉN,  
KITTEE M. HANSON.