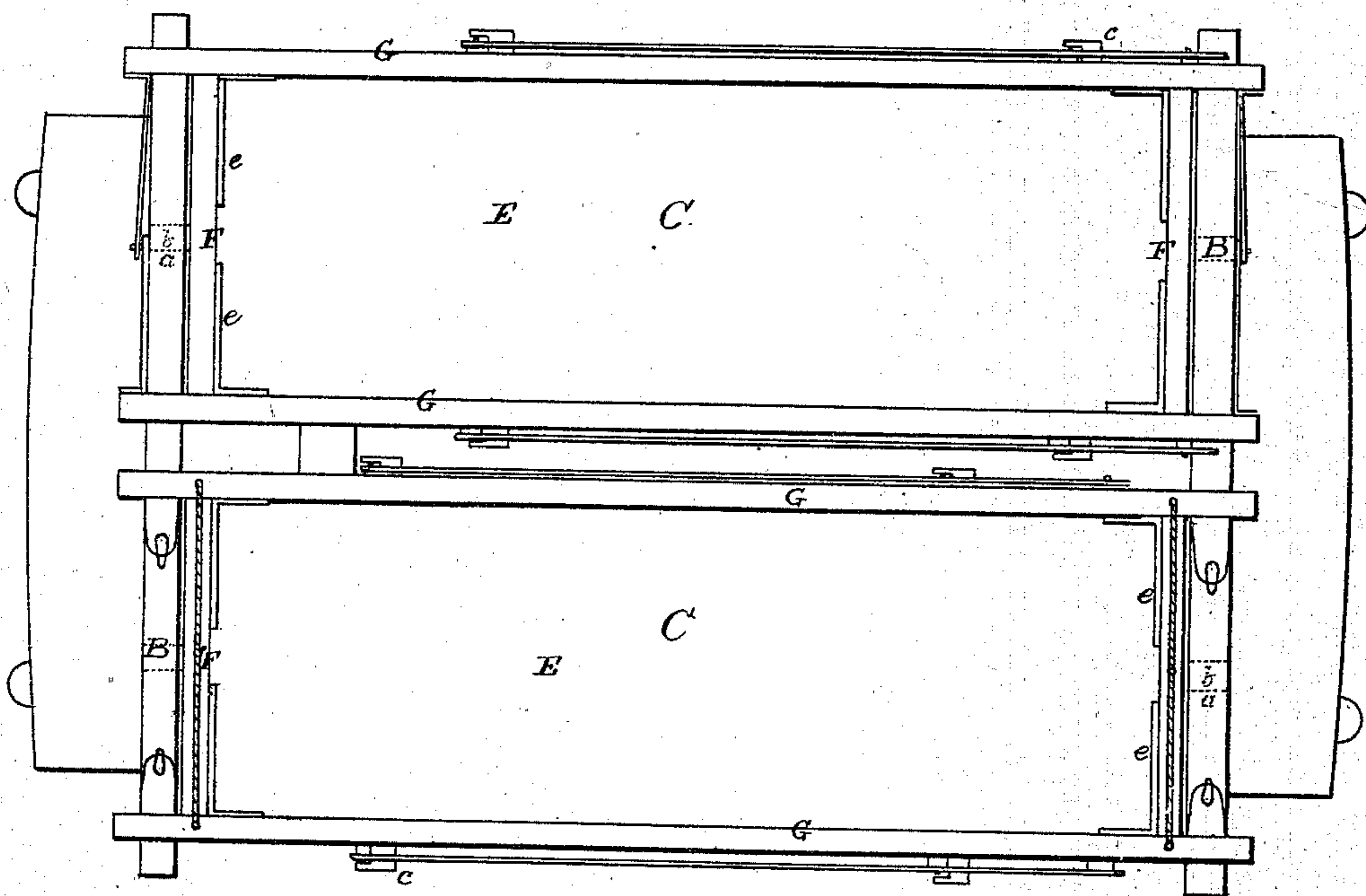
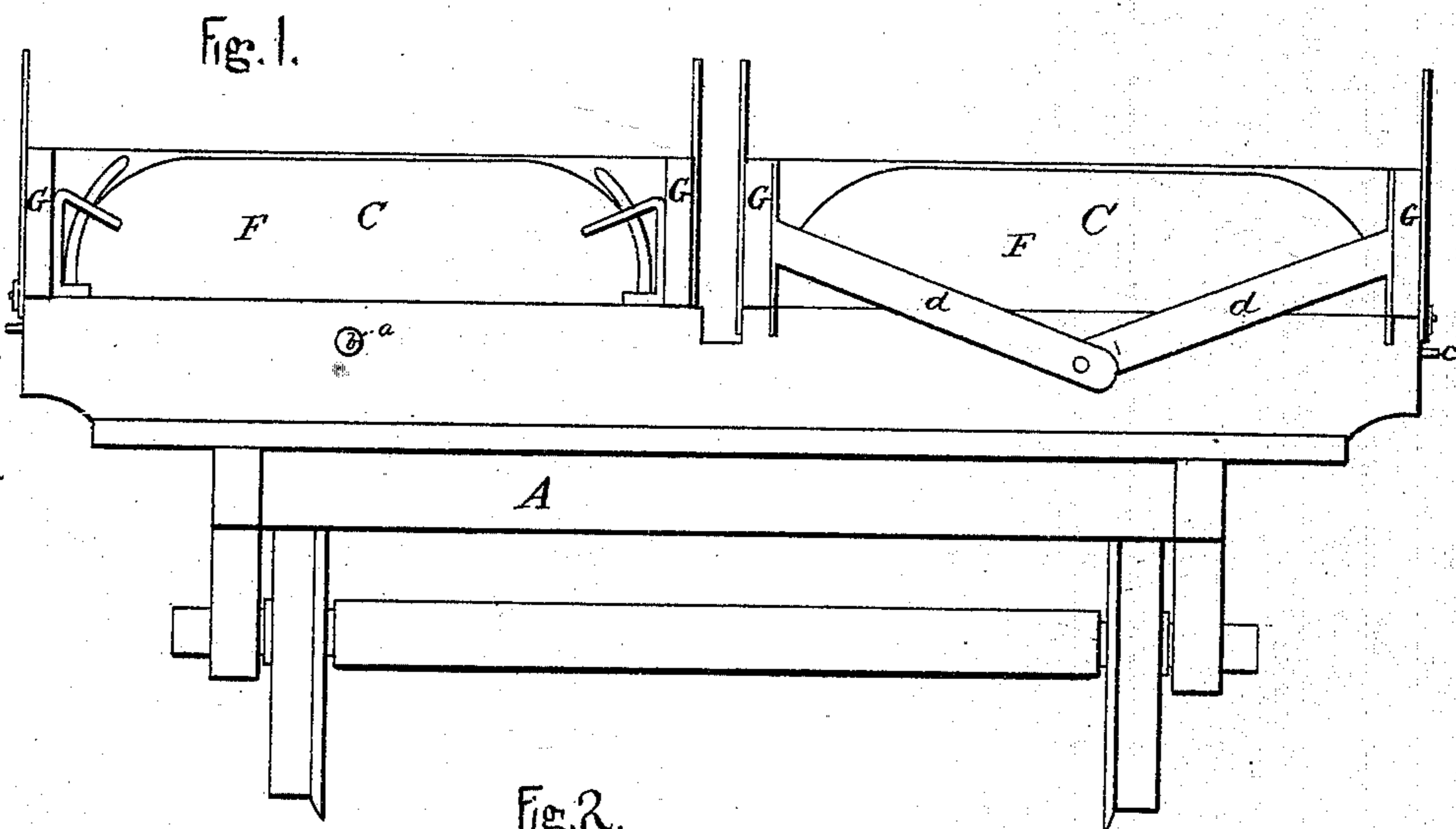


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Dumping-Cars.

No. 139,575.

Patented June 3, 1873.



WITNESSES.

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Fig. 3.

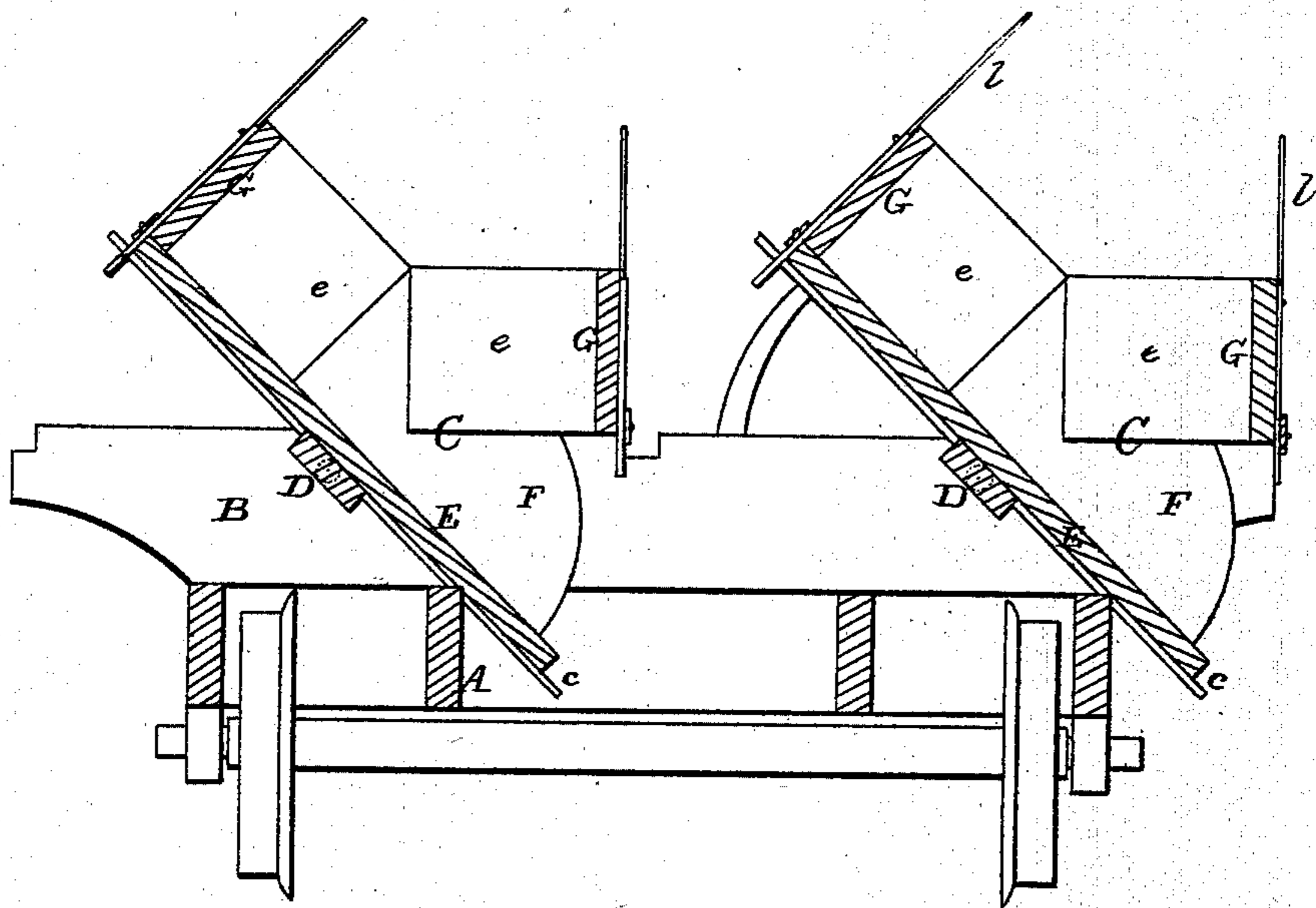
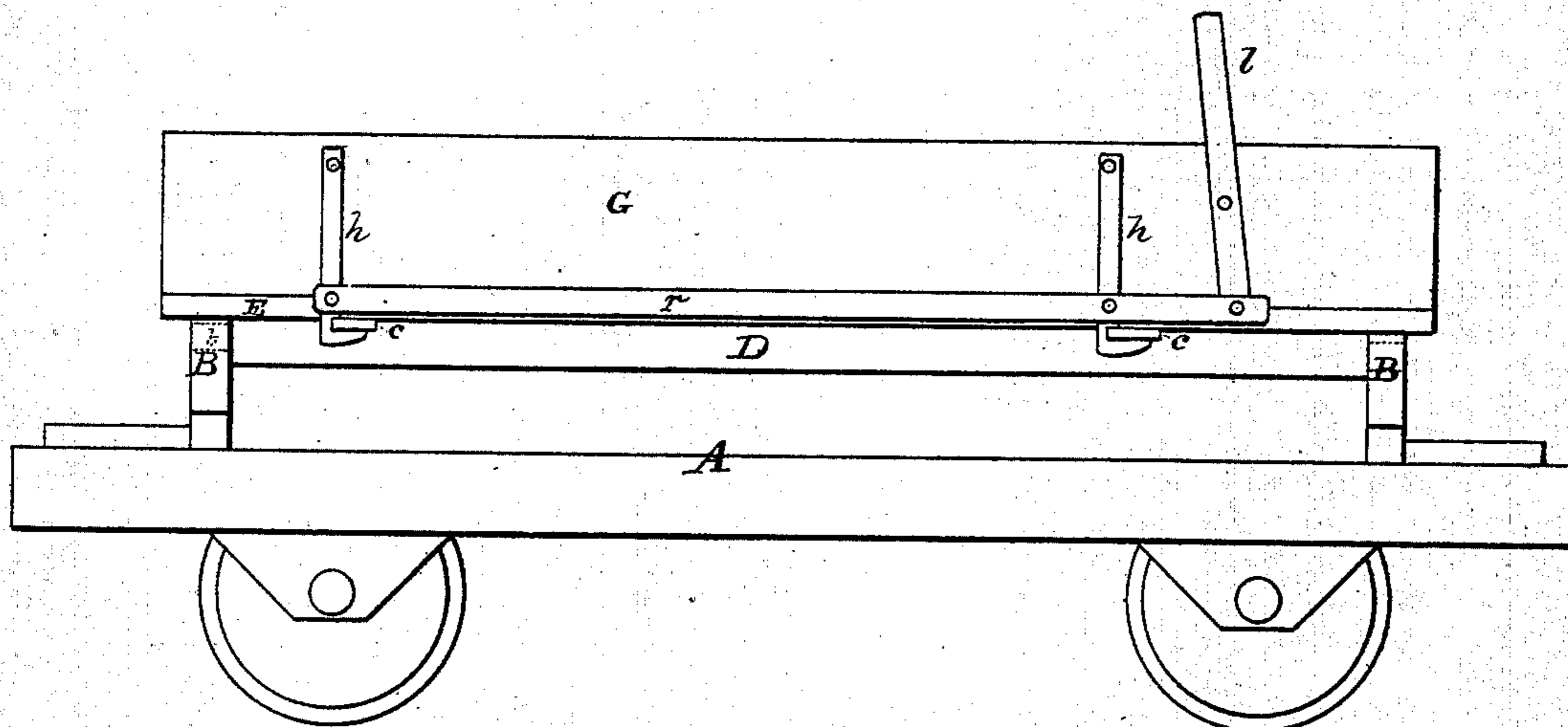


Fig. 4.



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# UNITED STATES PATENT OFFICE.

JOHN M. HANFORD AND JOHN WOOD, OF MIDDLETOWN, NEW YORK.

## IMPROVEMENT IN DUMPING-CARS.

Specification forming part of Letters Patent No. **139,575**, dated June 3, 1873; application filed April 12, 1873.

*To all whom it may concern:*

Be it known that we, JOHN M. HANFORD and JOHN WOOD, of Middletown, in the county of Orange and State of New York, have invented a new and valuable Improvement in Dumping-Cars; and we 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 drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of an end view of our dumping-car. Fig. 2 is a plan view of the same. Fig. 3 is a sectional, and Fig. 4 a side, view of the same.

This invention has relation to means for rapidly discharging the loads of earth or coal-cars, and it consists in the construction and novel arrangement of devices, whereby the two sections of the car are made to tilt either toward the center or toward the outside of the bolsters, bottoms, sides, and pivoted arm, whereby the sides of each sections are made to remain stationary, while the bottom is being inclined on one side of the axis, and to rise with the bottom on the other side; and of the devices whereby the sides are secured to the bottoms, for receiving and holding the load securely.

In the accompanying drawings, the letter A indicates the truck-frame or frames, which may be constructed in the usual manner. B B represent the bolsters, secured to the truck-frame at each end of the car, and provided with suitable journal-seats *a* for the journals *b* of each section C of the dumping-car. These journals are arranged at the ends of the longitudinal beams D, which are centrally arranged under the bottom E of each section. To the bottom E of each section is secured at each end a segment-board, F, which forms the end wall of each section. Transversely under the bottom of each section extend the catch-bars *c*, which project somewhat beyond the side edges of the bottom. The sides G of each section are longer than the bottom, and extend beyond it at each end over the bolster. Radial arms or braces *d* are secured to the sides at their ends, and are pivoted to the bolsters in the

line of the axis of the bottom of each section. To the sides, within the segment-boards at the ends of each section, are secured the guard corner-plates *e*, which are designed to fit closely against the inside wall of each segment-board, and to extend nearly to its middle portion. These guard-plates *e* serve to prevent the earth from escaping through the angular spaces between the rounded ends of the segment-boards and the sides. To the outside of each of the sides G are pivoted above the catches *c* the hooks *h*. These are connected by a horizontal rod, *r*, to which they are pivoted, and which is pivoted at its end to the operating-lever *l*.

It is apparent that these sections can be made rigid and close for the reception of the load by securing the long sides G, which rest on the bolsters, to the bottoms by means of the hooks *h* and catchers *c*. These fastening devices should therefore be made in a substantial and strong manner.

In dumping or discharging the sections the lever *l* should be operated to unfasten the hooks of the outer or inner side, according to the location of the deposit, the outer hooks being loosed for a side discharge, and the inner hooks for a center discharge. The bottom is then tilted, and the side which has been unfastened remains stationary, while the bottom rotates downward and away from it on its axis. At the same time the other side wall, which has not been unfastened, rises with the bottom as it revolves upwards on this side. These movements are important, and the devices employed in their production are simple and durable. It is apparent that the bottom of each section is secured in the level position by its attachment to the side pieces, which are in turn pivoted independently to the bolster. The same result may be accomplished by various means well known to those skilled in the art, and, therefore, we do not desire to confine our claim to the precise means described.

What we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the bolsters, the centrally and longitudinally pivoted bottoms, the sides extending over the bolsters at each end, substantially as specified.