

W. ROBINSON.

Dumping-Cars.

No. 134,488.

Patented Dec. 31, 1872.

FIG. 1.

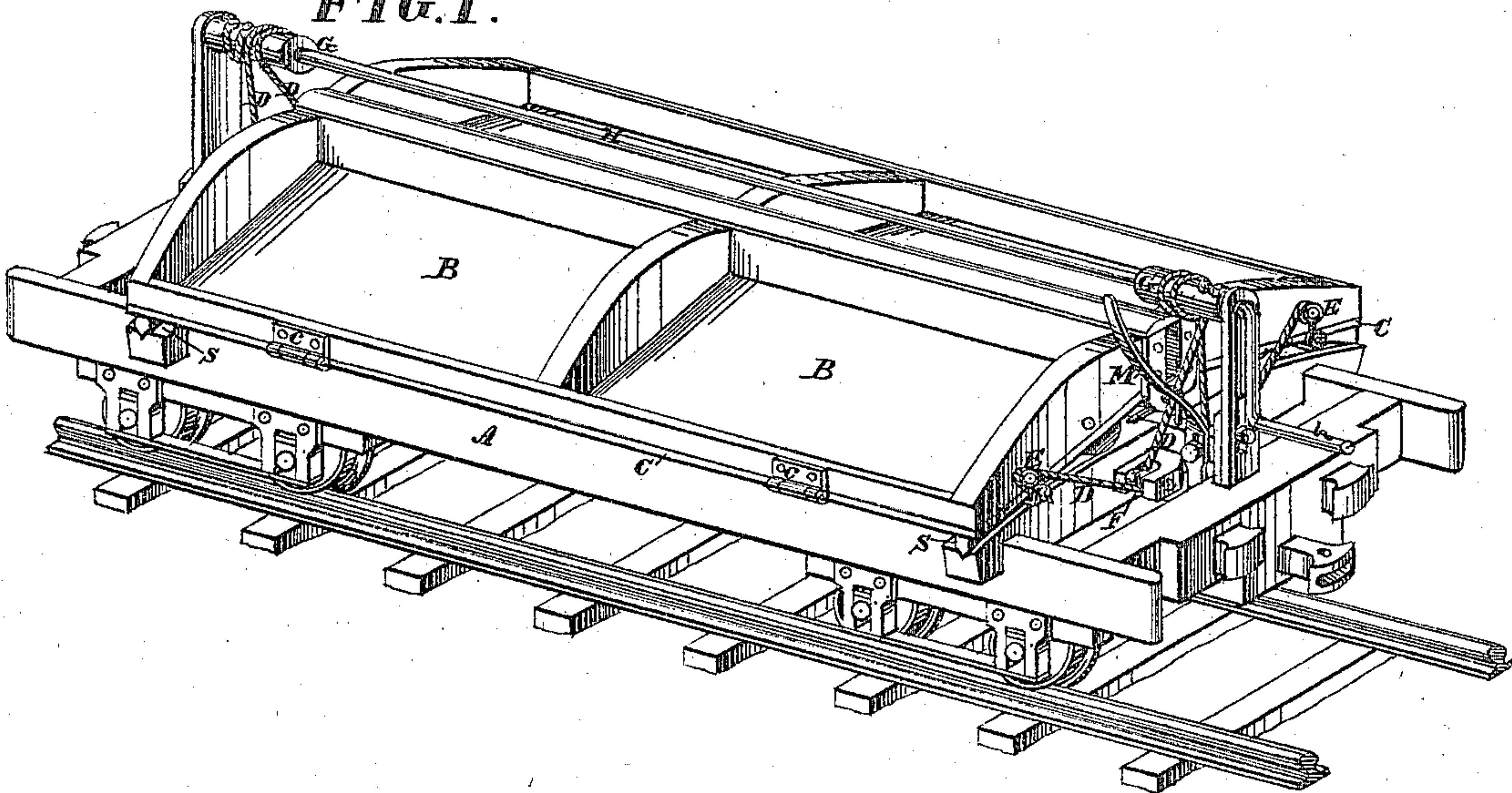


FIG. 2.

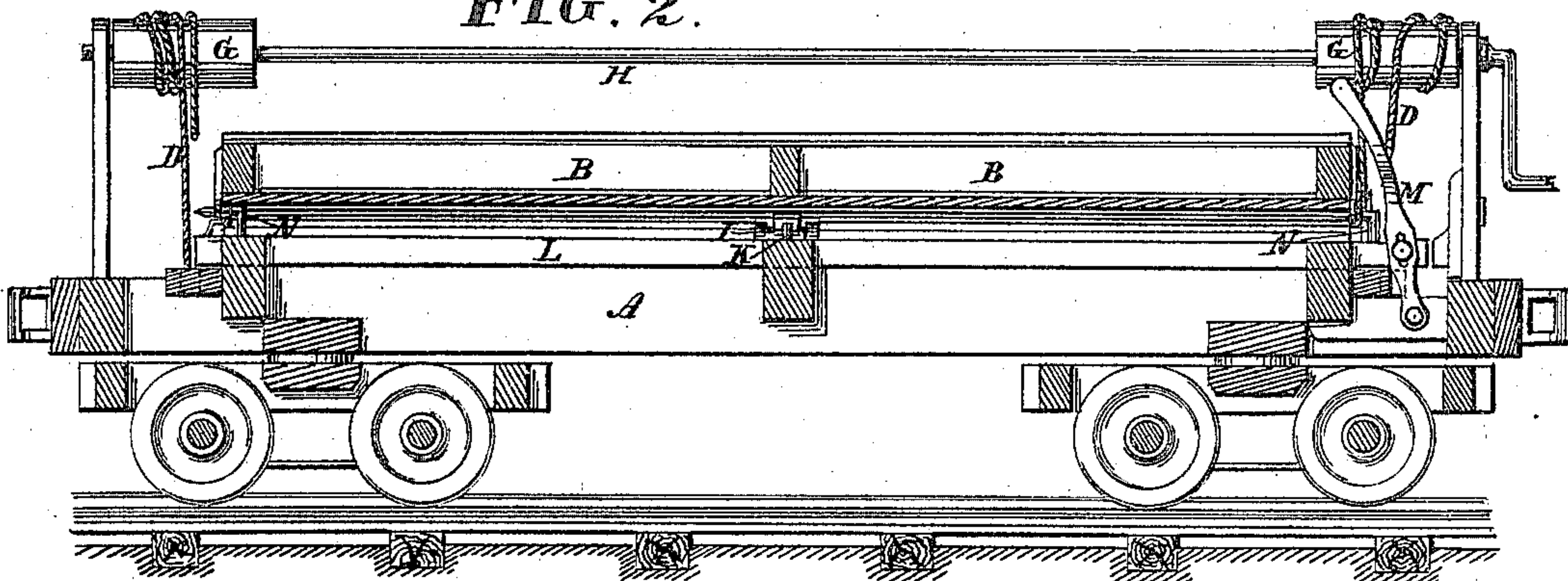
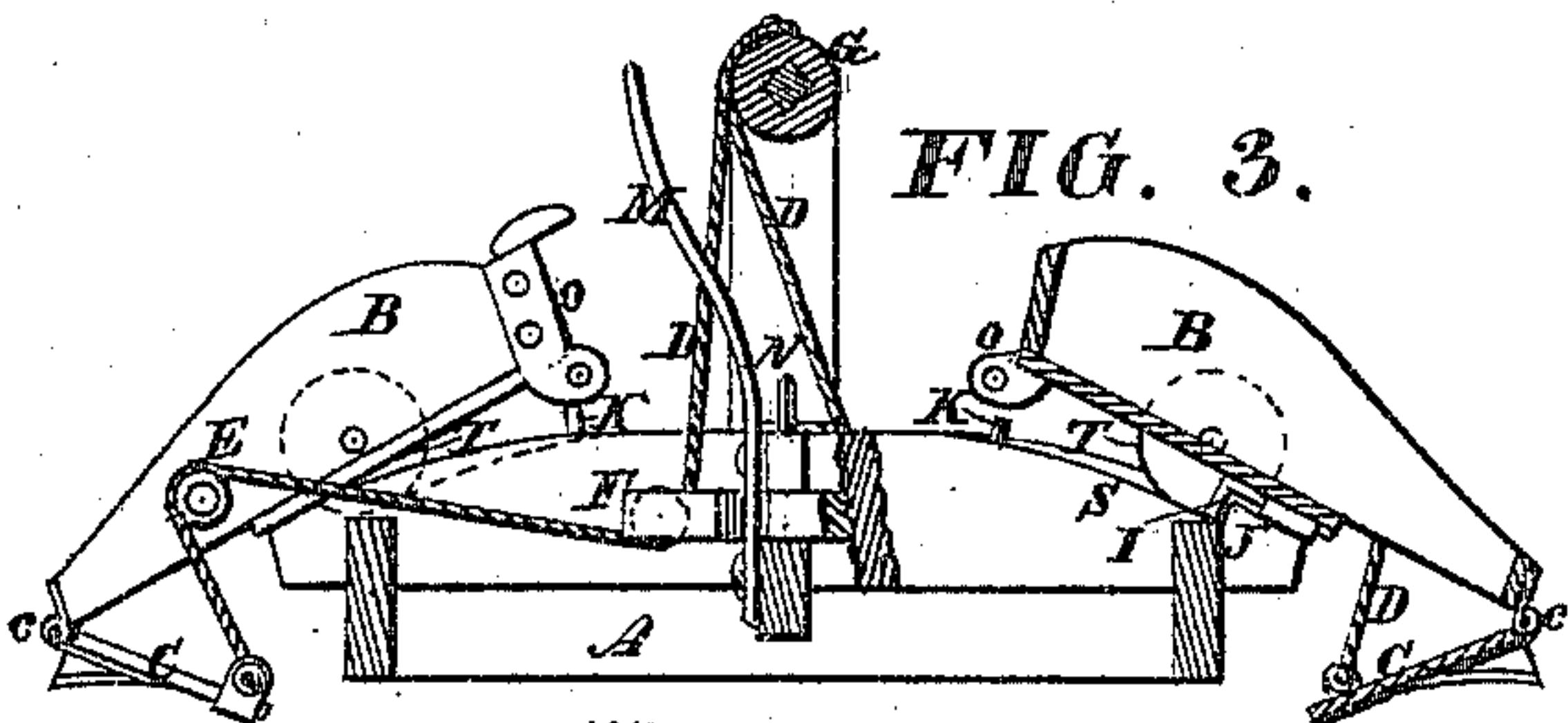
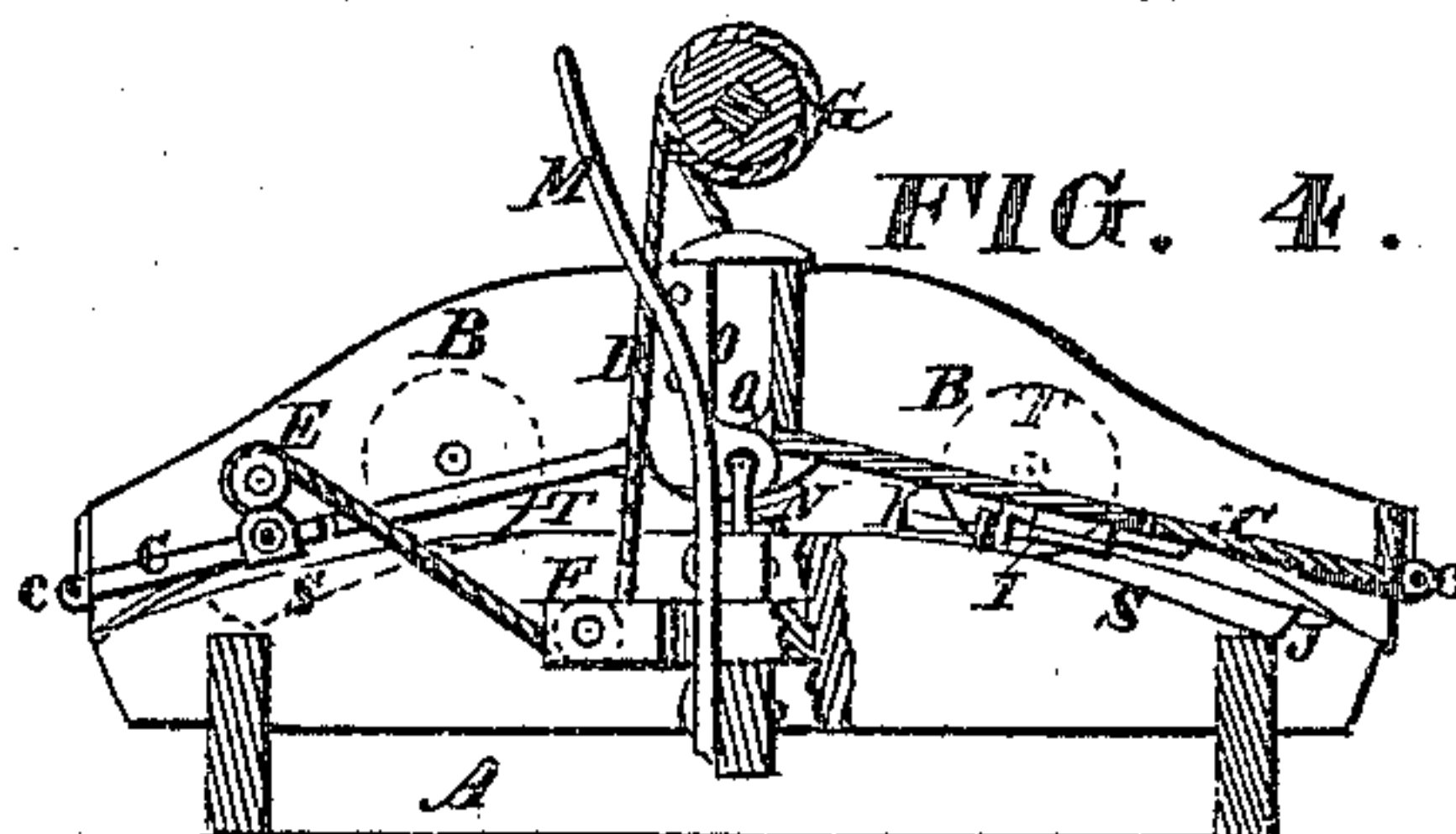


FIG. 3.



Witnesses
Walter Allen
W. H. Pearce

FIG. 4.



Inventor.
Wm. Robinson
By Wright Bros
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM ROBINSON, OF BELLEFONTAINE, OHIO, ASSIGNOR TO HIMSELF
AND THOMAS MILTENBERGER, OF SAME PLACE.

IMPROVEMENT IN DUMPING-CARS.

Specification forming part of Letters Patent No. 134,488, dated December 31, 1872.

To all whom it may concern:

Be it known that I, WILLIAM ROBINSON, of Bellefontaine, in the county of Logan and State of Ohio, have invented an Improved Dumping-Car, of which the following is a specification:

Nature and Objects of the Invention.

The bed or box of my improved car is separated longitudinally into two parts, adapted to slide outward by gravity at the will of the operator and dump their contents through trap-doors in the bottom, which are released automatically at the proper moment and are re-closed by cords or chains, the continued draft of which serves to restore the sliding boxes to proper position for filling. These cords or chains are coiled upon drums near the extremities of a windlass-shaft, extending from end to end of the car. The trap-doors are locked by sliding bolts, operated by coming in contact with stationary studs on the frame as the box reaches each extremity of its movement. The boxes are locked in their upper or inward position by a bolt operated by a lever.

Description of the Accompanying Drawing.

Figure 1 is a perspective view of my improved car prepared for loading. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a transverse section in two planes, showing one of the boxes in elevation and the other in section, and representing their dumping position. Fig. 4 is a transverse section in the same planes, showing the boxes closed.

General Description.

The main frame A is supported on trucks in customary manner. B B are boxes, parting along the longitudinal center of the car and having a lateral sliding movement on curved and inclined ways S S. The boxes are preferably mounted on wheels T T to cause them to move more freely. C C are trap-doors, forming parts of the bottoms of the boxes and hinged at c c to the outer sides thereof. D D are cords or chains attached to the free ends of the trap-doors C and extending around sheaves E F to drums G G, located near the ends of a shaft or windlass, H, which extends

from end to end over the longitudinal center of the car, and may be rotated by a crank, h. These cords or chains or their equivalent serve to close the traps C, and further to retract the boxes B to their upper position in readiness for loading. I I are sliding bolts, which lock the trap-doors C in their closed position. These bolts are retracted by coming in contact with studs J J when the boxes slide outward, thus permitting the trap-doors to fall. K K are studs with which the bolts I come in contact, to re-shut them when the doors have been closed and the boxes are restored to their upper positions. L is a sliding bar, operated by a lever, M, and carrying bolts or pins N N, which catch in lugs or eyes O O projecting from the lower and inner corner of each box to hold them together in their elevated position for receiving and carrying the load. To adapt the sliding boxes to move more freely I prefer to have them supported on wheels T T running on inclined ways S.

Operation.

The dumping-car is well adapted for use in ballasting railways, and I will describe the mode of using it for this particular purpose. It may, however, be applied to various other uses.

To adapt the car to receive a load the boxes are retracted and locked in the position shown in Figs. 1, 2, and 4. Having received its load of gravel or stone it is run to the place at which the ballast is to be applied. The bar L is then drawn back by its lever M, withdrawing the hooks N from the eyes O, and permitting the boxes B B to run outward and downward on the ways R R by their own gravity, the curvature of the ways throwing the inner edges of the boxes upward as they slide out. At the end of this movement the bolts I strike the studs J and are thus made to release the trap-doors C, which fall to the positions shown in Fig. 3, so as to discharge the entire contents of the boxes, and at the same time serve as deflectors, by which it is deposited close to the rails where it is required. The windlass H is then rotated, closing the trap-doors C and retracting the boxes into position for loading, the bolts I coming in contact with the studs

K to lock the trap-doors, the boxes being then locked in position by the movement of the bar L.

Claims.

I claim as my invention—

1. A dumping-car constructed with boxes separated longitudinally, sliding on inclined ways, and provided with trap-doors in their bottoms, which, when open, serve as chutes to deflect the material toward the track, substantially as set forth.

2. In combination with the sliding boxes B and trap-doors C, the windlass H and cords or chains D, the latter being attached to the trap-doors so as to close them before retracting the boxes, substantially as set forth.

3. The bolts I, operated automatically by contact with projections J K, as described, for the purposes set forth.

WM. ROBINSON.

Witnesses:

OCTAVIUS KNIGHT,
WALTER ALLEN.