

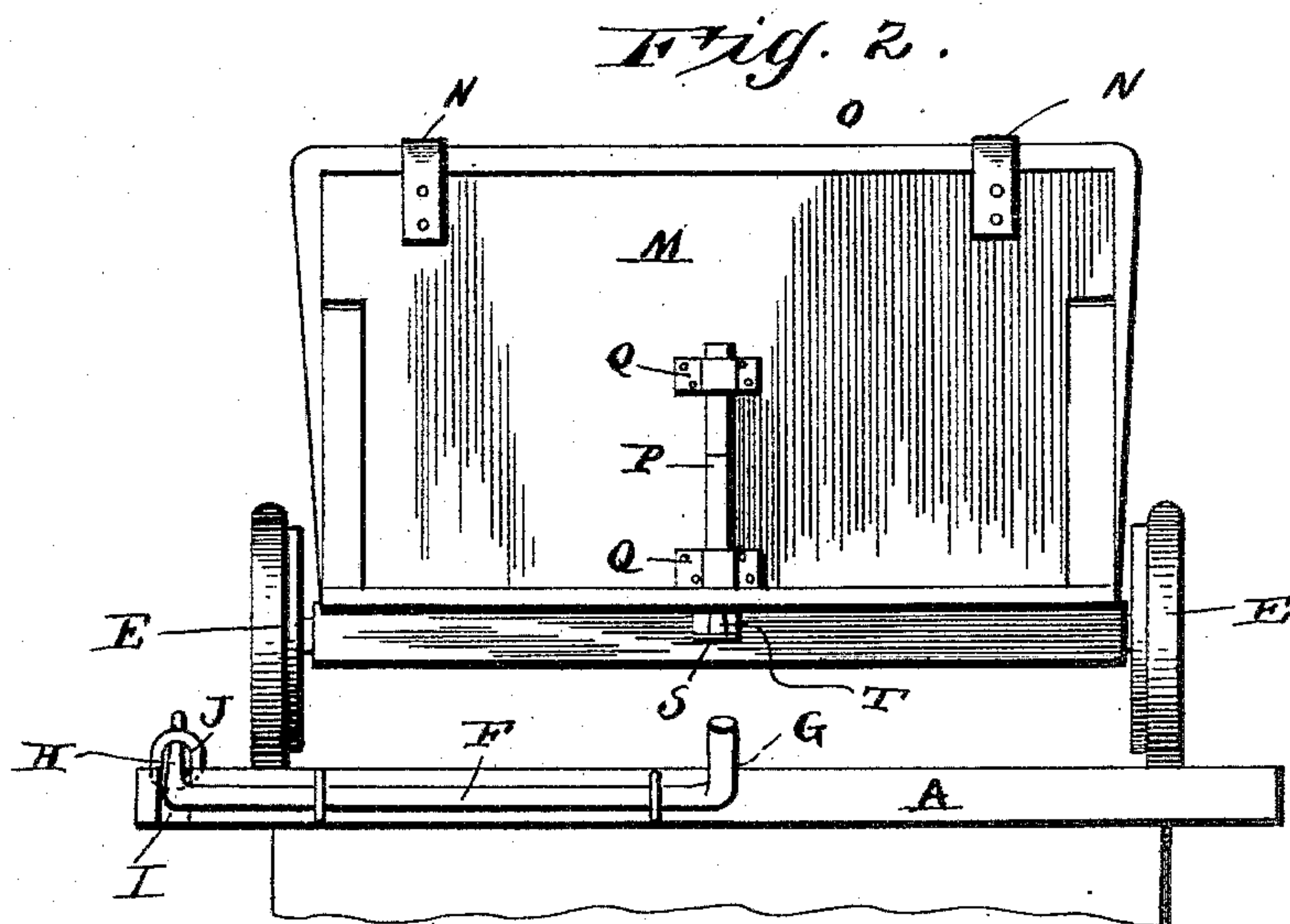
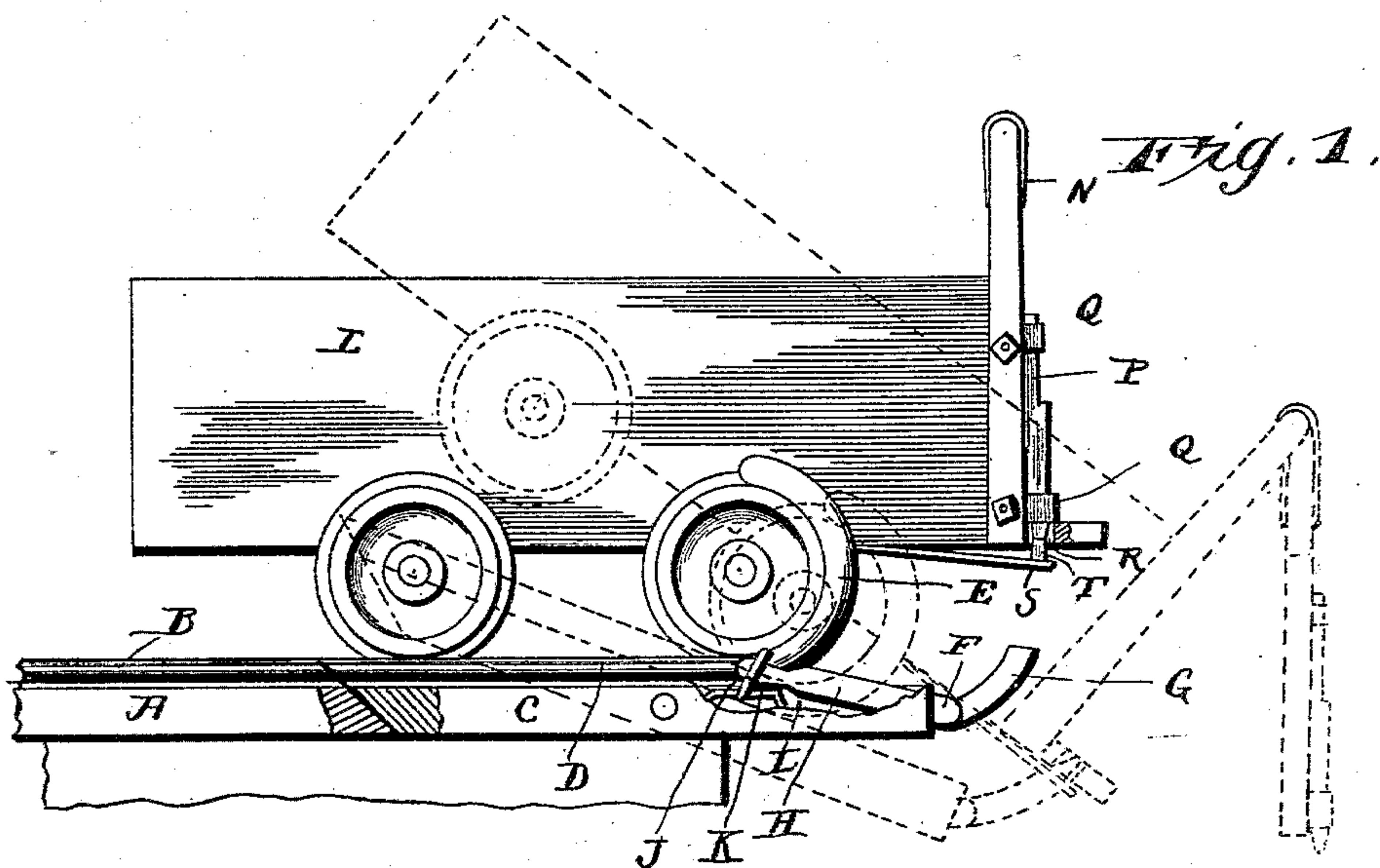
(No Model.)

F. J. GIBBS.

DUMPING CAR.

No. 411,718.

Patented Sept. 24, 1889.



Witnesses

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UNITED STATES PATENT OFFICE.

FRANK J. GIBBS, OF TYRONE, PENNSYLVANIA.

DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 411,718, dated September 24, 1889.

Application filed January 29, 1889. Serial No. 298,003. (No model.)

To all whom it may concern:

Be it known that I, FRANK J. GIBBS, a citizen of the United States, residing at Tyrone, in the county of Blair and State of Pennsylvania, have invented new and useful Improvements in Dumping-Cars, of which the following is a specification.

My invention relates to improvements in dumping-cars; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side view showing the car in a horizontal position in full lines and showing it tilted in dotted lines. Fig. 2 is a front elevation.

Referring to the drawings by letter, A designates the platform, having the rails B on its upper side and having the tilting section C at one end. This tilting section C is also provided on its upper side with the rails D, which form a continuation of the track B, and have their outer ends turned up to form the stops E. On the front edge of the tilting section I mount the rock-shaft F, which has its inner end arranged about the center of the tilting section and provided with a small crank-arm G. At the outer end of this rock-shaft it is provided with the operating arm or lever H, which is adapted to lie in a groove I in the upper side of the tilting section, and be held therein by a ring J, mounted on a staple K, secured in said section and adapted to be slipped over the end of the lever.

L designates the car, which is mounted on the track formed by the rails D D, and is provided at its front end with the swinging end-gate M, which is hung by loops N upon a cross-bar O, secured to the front end of the car. On the front side of the end-gate and about the center of the same I provide the bolt P, which is mounted in keepers Q, secured to the end-gate, and has its lower end entering an opening R in the bottom of the car. To the under side of the bottom of the car I secure a spring or arm S, the free end of which is provided with a pin or stud T, which is held normally in the opening R, so as to bear against the end of the bolt by the said spring.

From the foregoing description, taken in connection with the accompanying drawings, it is thought the operation and advantages of my device will be apparent.

My car is intended more especially for use in mines and coal-yards and freight-depots; but it will be found advantageous in all cases where a dumping-car is necessary.

The loaded car is run over onto the tilting section of the platform, when the weight of the load will cause the said platform to tilt, and consequently dump the car. The car will be prevented from passing off the tilting section of the platform by reason of its front wheels contacting with the stops E at the front ends of the track-rails. When it is desired to discharge only about half the contents of the car, the lever is raised, so as to lower the crank-arm out of the path of the spring. The end-gate will thus be prevented from opening, and only so much of the contents will be discharged as can escape over the top of the car. When it is desired to discharge the entire load, the operating-lever is thrown downward, so as to bring the crank-arm upward against the free end of the spring, thereby raising the same and forcing the pin carried thereby against the bolt, so as to raise the same, when the pressure applied against the end-gate by the load will cause the same to swing outward, as will be readily understood. If more than one bolt is necessary to hold the gate, the rock-shaft will be provided with a corresponding number of crank-arms as will be readily understood.

It will be seen that I have provided a very efficient dumping-car, by the use of which either the entire load or only a portion of it may be discharged at will. My improvements are very simple, are composed of few parts, and are compactly arranged.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the car having an opening in its bottom, of the swinging end-gate, the bolt mounted thereon and adapted to engage said opening, and the spring secured to the bottom of the car and carrying a pin adapted to enter said opening and bear against the end of the bolt, as set forth.

2. The combination of the platform having a tilting section, the car moving over the platform and provided with the swinging end-gate, the bolt mounted on the end-gate and

engaging the bottom of the car, the spring secured to the bottom of the car and bearing against the bolt, and the rock-shaft mounted on the tilting section of the platform and having a crank-arm at one end adapted to bear against the spring and provided with an operating-lever at its other end, as set forth.

3. The combination of a dumping-car having a swinging end-gate hinged to its upper front end, a bolt or latch arranged to slide vertically on said end-gate and engaging an opening or keeper in the bottom of the car, an arm or spring attached to the under side

of the car and having a stud bearing against the lower end of the bolt, and a rock-shaft having an arm which, when the car is tilted, may be brought into contact with the spring or arm, so as to release the bolt of the end-gate, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

FRANK J. GIBBS.

Witnesses:

J S. McCARGAR,
D. R. CALDWELL.