(No Model.)

2 Sheets—Sheet 1.

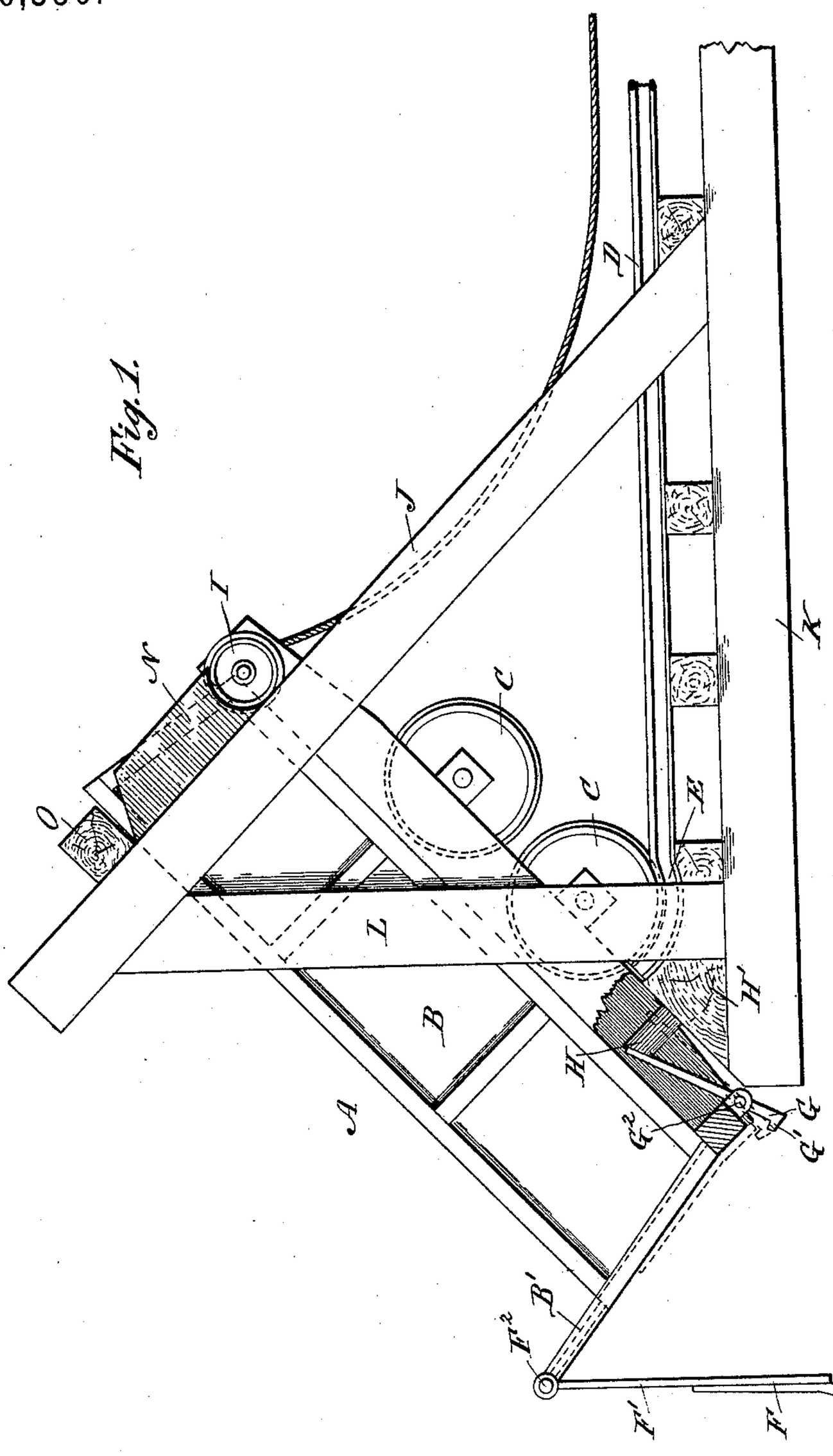
D. T. DENTON.

CAR DUMPING DEVICE.

No. 390,350.

Patented Oct. 2, 1888.

Fig. 1.



WITNESSES:

D. C. Reusch.

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ATTORNEY

(No Model.) 2 Sheets—Sheet 2.

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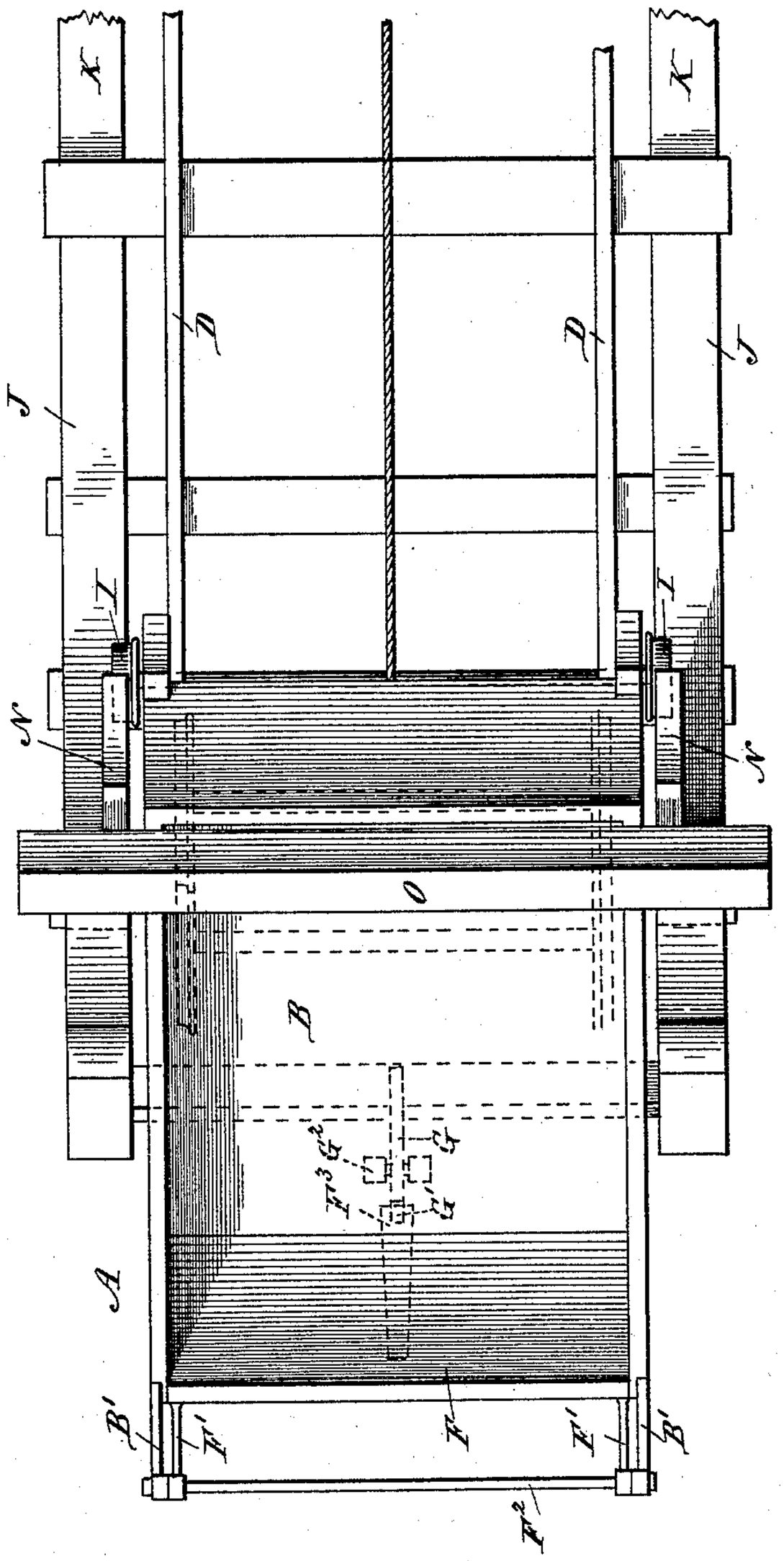
Fig. 2.



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INVENTOR

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UNITED STATES PATENT OFFICE.

DANIEL T. DENTON, OF TOWER MINES, MINNESOTA.

CAR-DUMPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 390,350, dated October 2, 1888.

Application filed April 5, 1888. Serial No. 269,652. (No model.)

To all whom it may concern:

Be it known that I, DANIEL T. DENTON, of Tower Mines, in the county of St. Louis and State of Minnesota, have invented a new and Improved Car-Dumping Device, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved dumping device by which loaded cars are easily, quickly, and automatically dumped of their contents.

The invention consists in a certain construction and combination of parts, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation, partly in section, of the improvement; and Fig. 2 is a plan view of the same.

The improvement is specially adapted for cable-cars loaded with ore, coal, or other material, and traveling on a track to a dumping-place to discharge the contents of the car and then returning empty to the place of starting.

The car A, of any approved construction, is provided with the usual body, B, mounted on the car-wheels C, adapted to run on the track-rails D, the ends E of which on the place of dumping are curved upward to the shape of the periphery of the tread of the car-wheels C.

On the front end of the car A is held a gate, F, fastened to the upwardly-extending bars F′, mounted to swing on a shaft, F^2, held in the brackets B′, fastened to the car body B. On the lower end of the gate F is secured the downwardly-extending lug F^3, adapted to be engaged, when the gate F is closed, by a catch, G′, of a lever, G, pivoted at G^2 to the bottom of the car-body B. The rearwardly-extending end of the lever G engages, when the car is at the place of dumping, with a tripping-post, H, projecting from the cross-beam H′, held at the ends E of the track-rails D.

On the rear end of the car-body B on its sides are mounted the wheels I I, adapted to travel on the inclined beams J J, located at the outside of the track-rails D and resting on the horizontal bases K K, and the posts L L, erected on the said bases K K. On each of the inclined beams J is secured a stop, N, provided on its lower end with a recess fitting the periphery of the respective wheel I. The two inclined beams J J are connected with each other by a cross-beam, O, located above the stops N, and serving to engage the top or the rear of the car-body B when the latter is in the position shown in the drawings.

The operation is as follows: When the car is loaded with ore, coal, or other material, the gate F is closed and locked by the catch G′ of the lever G engaging the lug F^3 of the gate F, as shown in dotted lines in Fig. 2. The loaded car A is then run down the track-rails D in the usual manner and at any desired rate of speed. When the car nears the dumping-point, the front car-wheel, C, passes onto the curved ends E of the track-rails D, and at the same time the wheels I travel up the inclined beams J by the force of the momentum of the car, so that the latter assumes an inclined position, as shown in Fig. 1. The car A comes to a standstill as soon as the wheels I strike against the curved recesses in the stops N, and the top of the car-body B at the same time rests against the transverse stop-beam O. When the car A commences to assume the inclined position above described, the rear end of the lever G comes in contact with the post H, so that on the further inclination of the car the outer catch end, G′, of the lever G is disengaged from the lug F^3, whereby the gate F becomes unlocked, and now swings open by its own gravity and by the weight of the load pressing against the inside of the gate F. The contents of the car now pass out through the open front end of the car, which thus becomes discharged. The car A, partly by its own weight and partly by a forward pull of the cable connected with the car, will again assume a horizontal position—that is, the wheel I will travel down the inclined beams J until the rear car-wheels C again rest on the track-rails D. When the car A assumes its horizontal position, the gate F swings inward, and is again locked by the catch G′ of the lever G engaging the lug F^3 of the gate F. Thus it will be seen that the dumping of the contents of the car is done automatically and very rapidly. The end track-rails, D, the inclined beams

J J, and their supports L and K are preferably made portable, so as to be set up at any desired place.

The whole dumping device is portable, so that it can be moved without taking it apart.

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

1. In a car-dumping device, a car provided with side wheels, an end-gate mounted to swing on the car-body, and a catch-lever for locking the said gate, in combination with track-rails provided with curved ends and on which the said car travels, inclined beams erected on the outside of the said track-rails and on which travel the said wheels, stops held on the said inclined beams and provided at their lower ends with curved recesses, and a tripping-post adapted to engage the said catch-lever, as shown and described.

2. In a car-dumping device, a car provided with side wheels, an end-gate mounted to swing on the car-body, and a catch-lever for locking the said gate, in combination with track-rails provided with curved ends and on which the said car travels, inclined beams erected on the outside of the said track-rails and on which travel the said side wheels, stops held on the said inclined beams and provided at their lower ends with curved recesses, a cross-beam connecting the two inclined beams with each other and serving as a stop for the car-body, and a tripping-post adapted to engage the said catch-lever, substantially as shown and described.

DANIEL T. DENTON.

Witnesses:
J. A. GRIERSON,
W. G. BONHAM.