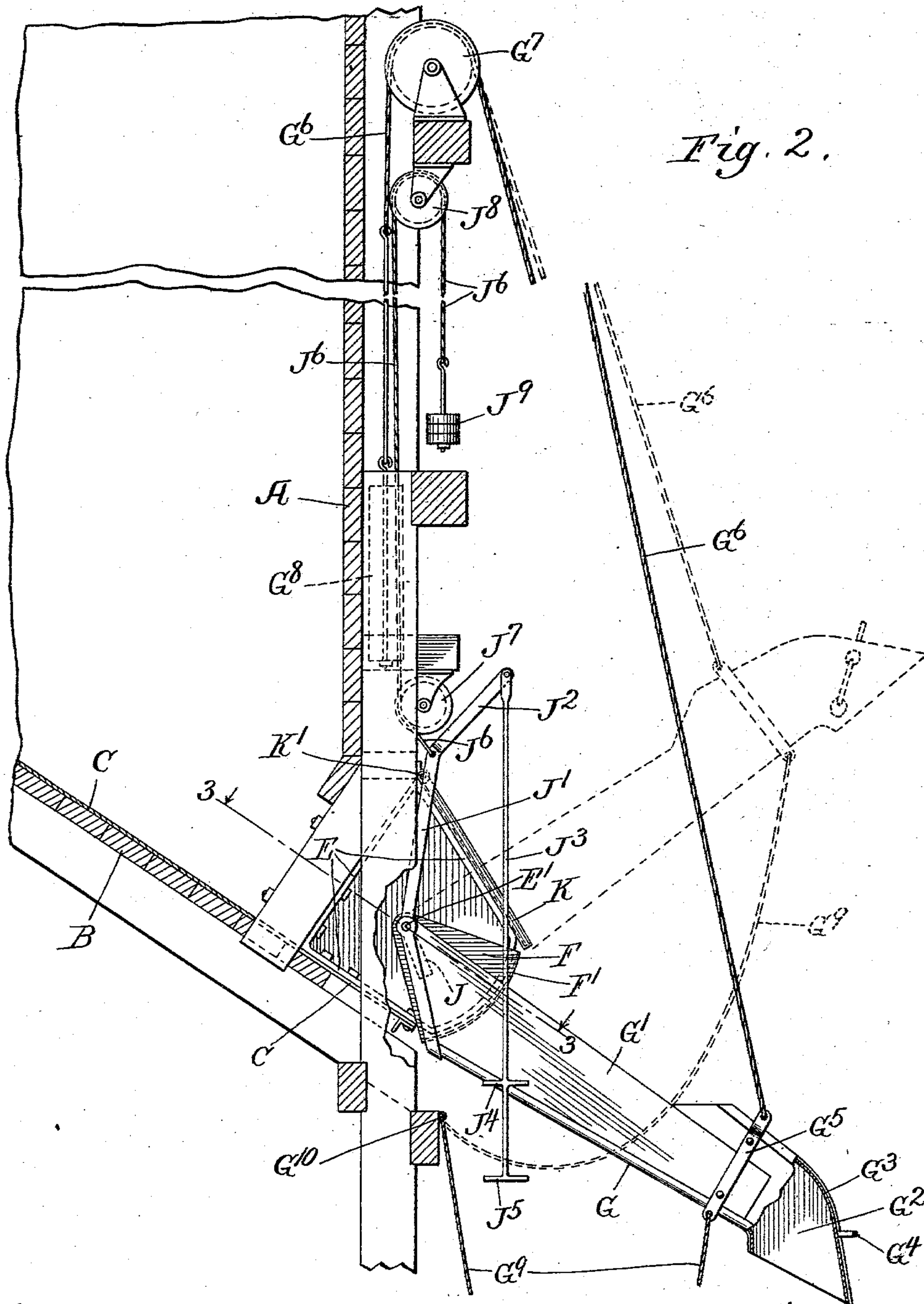


S. B. PECK.
COAL CHUTE DEVICE.

APPLICATION FILED JULY 11, 1903.

NO MODEL.

2 SHEETS—SHEET 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

STAUNTON B. PECK, OF CHICAGO, ILLINOIS, ASSIGNOR TO LINK BELT MACHINERY COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

COAL-CHUTE DEVICE.

SPECIFICATION forming part of Letters Patent No. 753,102, dated February 23, 1904.

Application filed July 11, 1903. Serial No. 165,039. (No model.)

To all whom it may concern:

Be it known that I, STAUNTON B. PECK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Coal-Chute Devices, of which the following is a specification.

My invention relates to coal-chute devices intended particularly for use in connection with railway coaling-stations.

An illustration of my invention is given in the accompanying drawings, wherein—

Figure 1 is a front view of my device with associated parts. Fig. 2 is a vertical section on the line 2 2 of Fig. 1. Fig. 3 is a section on the line 3 3 of Fig. 2.

Like parts are indicated by the same letters in all the figures.

A is the side of the coal-bin, which may be made in any desired manner. B is the bottom thereof inclined at the opening. This bottom is preferably covered at the opening with the sheet-metal floor C. The discharge-opening for the coal-bin may have leading to it walls like that indicated at D to direct the coal between such opening.

E E are metal plates, shaped as shown, secured to the timbers of the bin, so as to form sides for the discharge-opening, and they are provided with laterally-projecting pins E', on which are pivoted the gate and the chute. The gate consists of two side portions F and a front portion F', and the side portions are free to rotate on the pin E'.

G is the bottom of the chute associated with the sides G' G', which sides are pivoted on the pin E'. The chute is completed by the end piece G², downwardly turned, as indicated, and having the protecting-cover G³ and handle G⁴. To the sides of the chute are secured the straps G⁵ G⁵, to each of which is attached a rod G⁶, which passes over a pulley G⁷ and descending is connected with a weight G⁸. Thus the chute is counterbalanced.

G⁹ is a rope attached to the outer end of the chute and also at G¹⁰ to the side of the bin.

Secured to one of the sides F of the gate is the lower end J of a lever, which is pivoted on the pin E' and has an upward projection J',

with an offset J², to the upper end of which is secured the rod J³, having the two handles J⁴ J⁵. At the base of the offset J² is secured the rope J⁶, which passes under the idler J⁷ and over the pulley J⁸ and has at its other end the weight J⁹.

The parts are so related that the gate cutting up from below passes between the floor C of the opening and the floor G of the chute, while its sides lie outside of the plates E E, which form the sides of the discharge-opening. The gate is normally held in closed position by the counterbalance-weight J⁹, but can be pulled open by means of the rod J³.

K is a lid pivoted at K' to the bin at the upper edge of the discharge-opening and adapted to lie upon the upper inclined surfaces of the plates E E.

I do not wish to be understood as limiting myself to the precise form, arrangement, proportions, and shapes of the several parts, and some could be omitted without departing from the spirit of my invention. I have only shown enough to illustrate one use of my invention.

The use and operation of my invention are as follows: When the locomotive engineer reaches the coaling station or bin, he finds the parts in the positions generally indicated in Figs. 1 and 2, except that the chute is up in the position shown by dotted lines. The attendant will now grasp the rope G⁹ and pull the chute down into the position shown in Fig. 2 against the counterbalancing-weight G⁸. He will now pull downwardly on the rod J³, thus retracting the gate F until an uninterrupted passage-way from the interior of the bin to the locomotive-tender by way of the discharge-opening and the chute is provided. The coal will now flow at the side plates E E, which prevent large lumps, if the flow is irregular, from falling outside of the chute, and the covering or hood G³ prevents the coal from scattering too much as it falls upon the tender. When a sufficient quantity has been received, the operator will push the rod J³ up, and thus with the aid of the counterbalance-weight J⁹ will restore the gate to its position to close off the flow. In doing this the gate cuts upwardly from beneath through

the stream of coal. If now a lump of unusual size be in the stream, it may strike the gate as the latter is advancing and not be able to pass over. The lid will give or yield as the gate is raised, and if the lump of coal does not in the end fall over the top of the gate and down into the chute it will remain in or upon or back of the gate. The cover K can yield or rise as such lump of coal strikes it. The operator will then allow the counterbalance G⁸ to raise the chute into the position shown by dotted lines. When the parts are in this position, the coal lying in the discharge-way and near the gate is covered or protected. When the coal is exposed at this point to the weather, it is likely to become frozen together, so as to make it very difficult to get the coal out without first breaking up these frozen masses. Therefore one important feature of my invention is the protection of the coal about the gate from the action of the weather.

I claim—

1. In a coal-chute device, the combination of a discharge-way with forwardly-projecting exterior parts, a lid which lies upon these parts and a chute adapted to receive coal from the way.

2. In a coal-chute device, the combination of a chute with a discharge-way having an interval between them, an upwardly-cutting gate between the chute and the discharge-way and a movable cover above the gate and over the outer end of the discharge-way.

3. In a coal-chute device, the combination of a bin having a discharge-opening with outwardly-projecting side plates for such discharge-opening, a hinged lid on top of said plates, and an upwardly-cutting gate beneath the hinged lid.

4. In a coal-chute device, the combination of a bin having a discharge-opening with outwardly-projecting side plates for such discharge-opening, a hinged lid on top of said plates, and an upwardly-cutting gate beneath the hinged lid, with a chute beyond the gate.

5. In a coal-chute device, the combination of a coal-bin with a discharge-opening, a hinged chute an upwardly-cutting gate, and a downwardly-turned hood at the outer end of such chute.

STAUNTON B. PECK.

Witnesses:

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