

No. 693,858.

Patented Feb. 25, 1902.

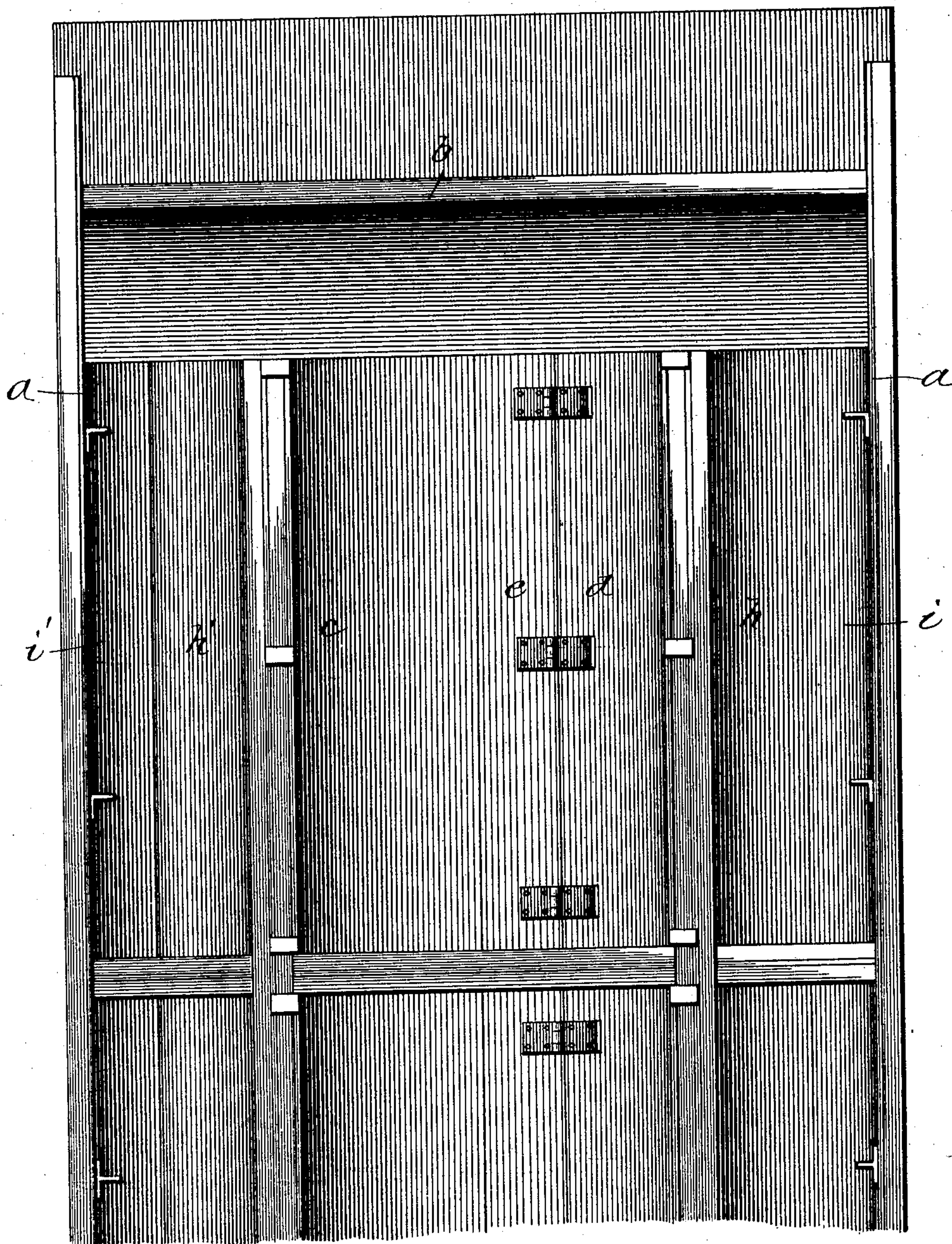
H. S. HART.
DUMPING CAR.

(Application filed Aug. 10, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



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2 Sheets—Sheet 2.

Fig. 3.

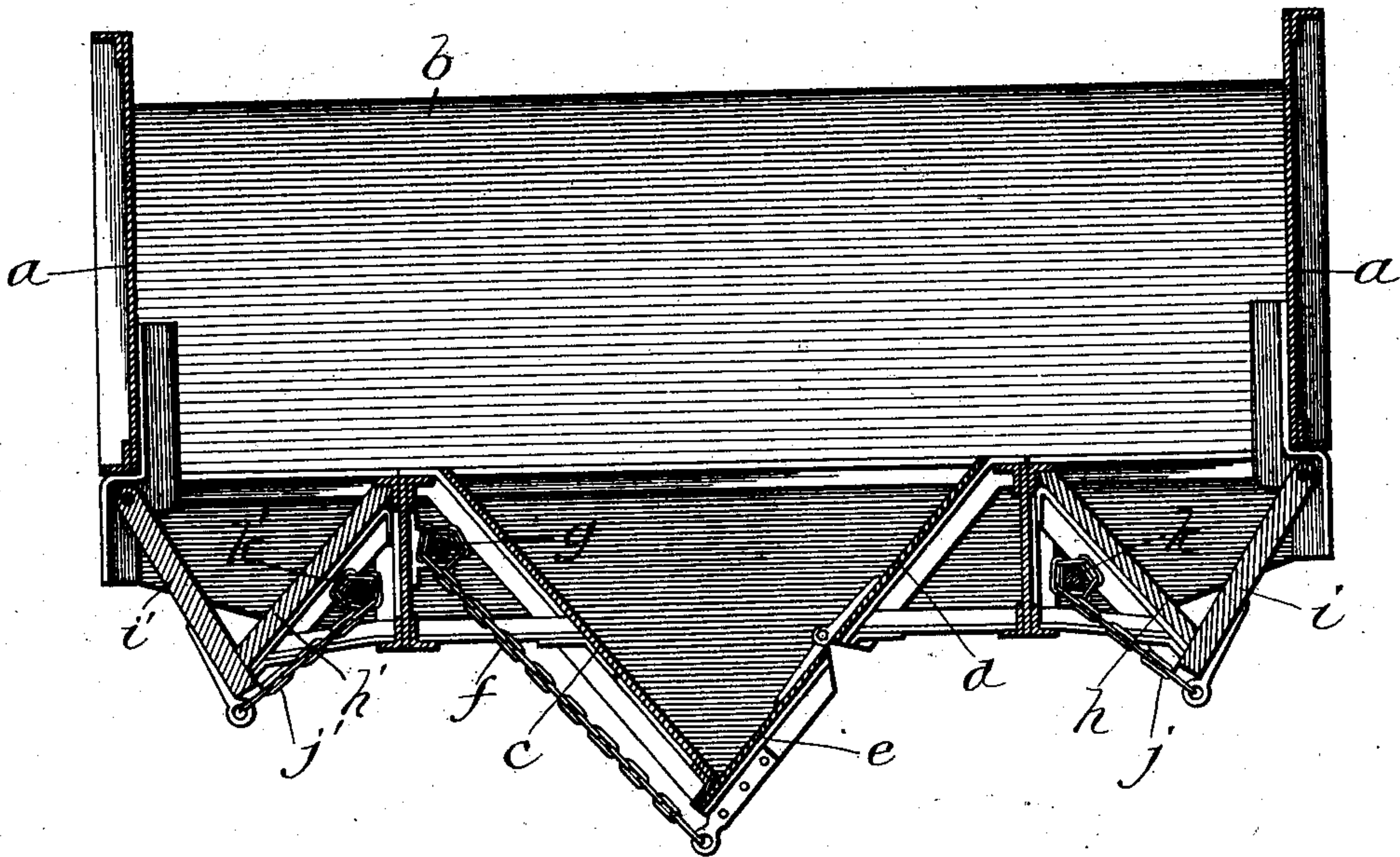
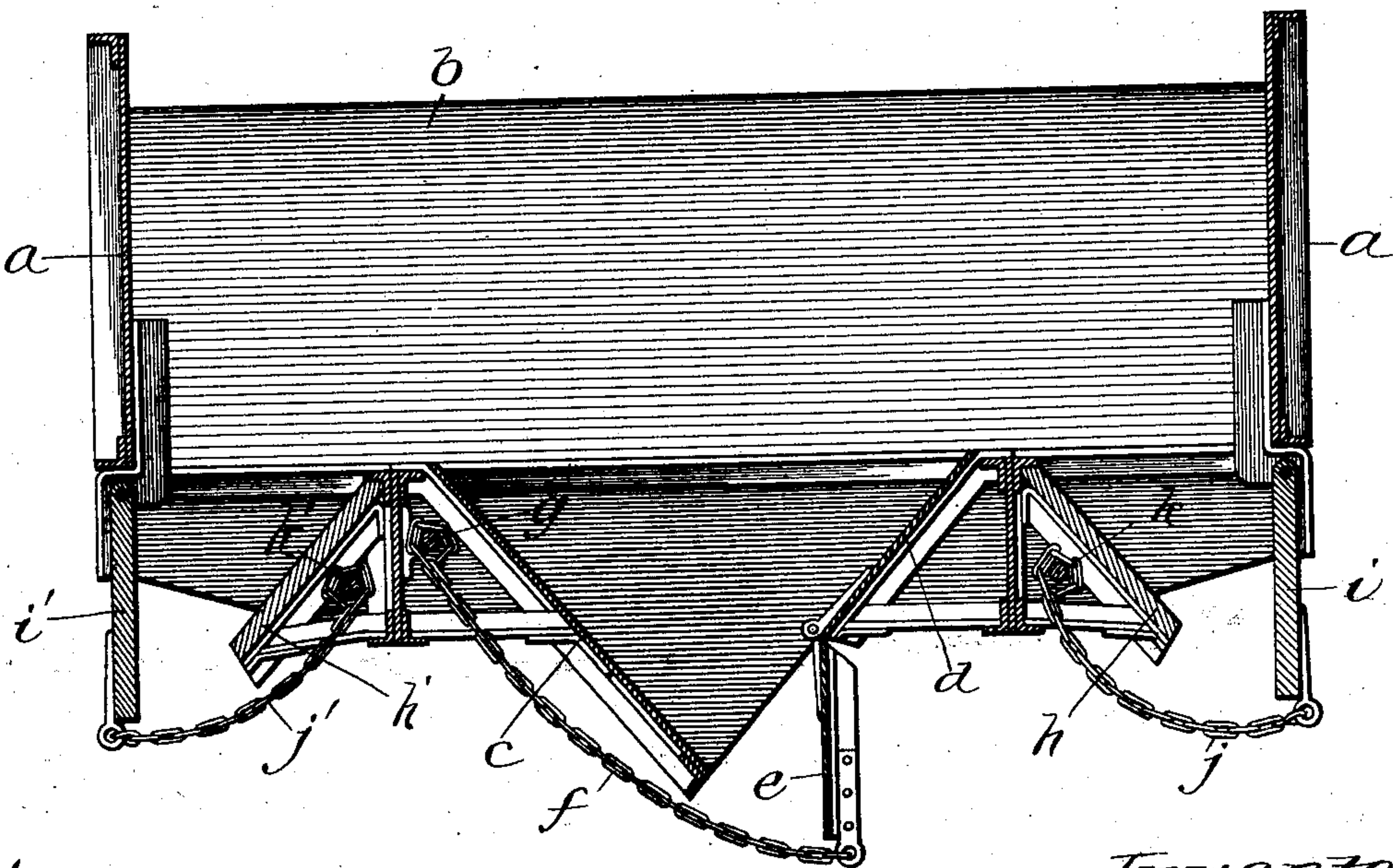


Fig. 2.



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UNITED STATES PATENT OFFICE.

HARRY STILLSON HART, OF CHICAGO, ILLINOIS, ASSIGNOR TO RODGER BALLAST CAR COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 693,858, dated February 25, 1902.

Application filed August 10, 1901. Serial No. 71,547. (No model.)

To all whom it may concern:

Be it known that I, HARRY STILLSON HART, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Dumping-Cars, of which the following is a specification.

The invention relates to that class of dumping-cars that is provided with hopper-bottoms arranged longitudinally of the car, and particularly to the construction thereof by which ballast or other material may be dumped between the tracks, to either side, or both, as may be desired, all of which will more fully hereinafter appear.

The principal object of the invention is to provide a simple, economical, and efficient dumping-car with hopper-bottoms arranged to dump material between the tracks or to each side thereof.

Further objects of the invention will appear from an examination of the drawings and the following description and claims.

The invention consists principally in a car of the class set forth in which there is combined with the usual frame portion a plurality of hopper-bottoms arranged longitudinally of the car, so as to dump material between the tracks or to each side thereof.

The invention consists, further, in a car of the class set forth in which there is combined with the usual frame portion a hopper-bottom extending longitudinally of the car, with its apex arranged at or near the central portion thereof, so as to dump material between the tracks, and supplementary hopper-bottoms arranged at each side of the central hopper-bottom to discharge material to each side of the tracks.

The invention consists, further, in a car of the class set forth having, in combination with the usual frame portion, a main large hopper-bottom arranged longitudinally of the car, with its apex at or near the central portion thereof and having a dumping-door near its apex, and smaller supplementary hopper-bottoms arranged longitudinally of the car to each side of the main hopper-bottom and provided with dumping-doors forming a portion

of the inclined bottoms, so as to discharge material to each side of the track.

The invention consists, further and finally, in the features, combinations, and details of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of a car constructed in accordance with these improvements; Fig. 2, a longitudinal sectional view taken through the car on line 2 of Fig. 1 looking in the direction of the arrow and showing the hopper-bottoms with their discharging-doors arranged in open discharging position; Fig. 3, a similar view to that shown in Fig. 2, with the discharging-doors locked in their closed position.

In the art to which this invention relates it is well known that there are two classes of dumping-cars, one arranged to discharge material at or near the center and between the supporting-tracks and the other to discharge material to each side of the car and outside of the supporting-tracks. It is also well known that it is highly desirable to have a car which can discharge material either between the tracks or to each side thereof and which can also be used for discharging a portion of the material to either or both sides of the track and the balance, if necessary, between the tracks. The principal object, therefore, of this invention is to provide a car with a plurality of discharging-hoppers by which a portion of the material may be first discharged to either or both sides of the track and the balance between the tracks, or the larger part of the material between the tracks and the balance at each side of the tracks.

In illustrating and describing this invention I have only illustrated and described that which I consider to be new, taken in connection with so much that is old as will properly disclose the invention to others and enable those skilled in the art to practice the same, leaving out of consideration other and well-known parts, which if illustrated and described herein would only tend to confusion, prolixity, and ambiguity.

In constructing a car in accordance with these improvements I make a car provided

with side boards *a* and end boards *b*, supported on a frame portion constructed in any usual manner and which needs no further or detailed description here. The end boards
5 may be inclined downwardly and inwardly, if necessary, though to meet ordinary circumstances and conditions in this type of car they can be vertically arranged.

In order to provide for the discharge of
10 material between the tracks or to each side thereof, I make a main hopper portion composed of centrally-inclined bottom portions *c* and *d*, arranged longitudinally of the car and inclining down toward the central portion
15 thereof, so that the apex of such hopper-bottom is arranged substantially in line with the longitudinal center of the car. One of these inclined hopper-bottom portions, *d*, is provided with a discharge-door *e*, arranged near
20 the apex thereof, so that when such door is opened in the position shown in Fig. 2 the material may be passed out through the opening formed thereby and discharged in a pile of the desired size between the tracks. This
25 door is held in its closed position by means of a chain *f*, arranged so as to be wound around a shaft *g*, which shaft may be supplied with pawl-and-ratchet mechanism (not shown and well known to those skilled in
30 the art) for the purpose of rotating the shaft and holding it in its locked position. An examination of the drawings will show that the opening of the discharging-door in the central hopper will not discharge all of the
35 material in the car, but will leave small portions or piles to each side of the car, which it is necessary to discharge. These piles at each side of the car provide for a certain amount of material which may be dumped to
40 each side on supporting-tracks and in the case of ballast for ballasting the road-bed outside of the tracks. In order to provide for discharging this material, the car is provided with two supplementary hopper-bot-
45 toms of smaller capacity than the main central one, one of which is arranged to each side of the main central hopper-bottom. These hopper-bottoms are formed of two inclined hopper-bottom portions *h* and *h'*, one of which
50 is in fixed position, and swinging portions *i* and *i'*, which are swingingly held in position and also form discharging-doors. From this description of construction it will be seen that the doors may be swung into the position
55 shown in Fig. 2 and all of the remaining material dumped out through the opening formed thereby. The dumping-doors *i* and *i'* are held in their locked position by means of chains *j* and *j'*, which are wound around shafts *k* and
60 *k'*. These shafts may be provided with square ends, (not shown,) if necessary, to receive cranks (not shown) for turning the same, all of which is well known to those skilled in the art.

65 The principal advantages incident to a car constructed in accordance with these improve-

ments are that the larger amount of material, if necessary, can be dumped outside of the track for the ballasting of the road-bed outside of the tracks, or the hopper-bottom at
70 the central portion of the car can be first opened and the larger amount of material discharged between the tracks, the residue and smaller amount being left to be dumped to each side of the tracks to be used as may
75 be desired, either for filling of the embankment or ballasting the road-bed.

I claim—

1. In a car of the class described, the combination of a frame portion, a central hopper-
80 bottom, and two side hopper-bottoms arranged longitudinally of the car and provided with discharging-doors to discharge material between and outside of the tracks, substantially as described. 85

2. In a car of the class described, the combination of a frame portion, a main hopper-
bottom arranged longitudinally of the car at or near the central portion thereof and provided with a discharging-door arranged at its
90 apex to discharge material centrally of the car, a supplementary hopper arranged outside and to each side of the main hopper-bottom and longitudinally of the car and provided with discharge-doors to discharge the
95 material to each side of the car, substantially as described.

3. In a car of the class described, the combination of a frame portion, a main relatively large hopper-bottom arranged longitudinally
100 of the car with its apex arranged at or near the longitudinal center thereof and provided with a discharging-door at or near its apex to discharge material centrally of the car, and relatively smaller hopper-bottoms, one at
105 each side of the main hopper-bottom and provided with discharging-doors for discharging material to each side of the car, substantially as described.

4. In a car of the class described, the combination of a frame portion, a main relatively large hopper-bottom arranged longitudinally
110 of the car with its apex arranged substantially at the longitudinal center thereof, a swinging door in one of its inclined portions to provide for the discharge of material between the supporting-tracks, a supplementary and relatively smaller hopper-bottom arranged at
115 each side of the hopper-bottom and longitudinal of the car composed of a fixed inclined portion forming one side and a swinging portion forming the other side of such hopper-bottom and a discharging-door therefor, substantially as described. 120

5. In a car of the class described, the combination of a frame portion, a main relatively large hopper-bottom arranged longitudinally
125 of the car with its apex arranged substantially at the longitudinal center thereof, a swinging door in one of its inclined portions to provide for the discharge of material between the supporting-tracks, a supplementary and
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5 relatively smaller hopper-bottom arranged at each side of the hopper-bottom and longitudinal of the car composed of a fixed inclined portion forming one side of such hopper-bottom and a swinging portion forming the other side of such hopper-bottom and a discharging-door therefor, and means for holding the

discharging-doors in their locked position, substantially as described.

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