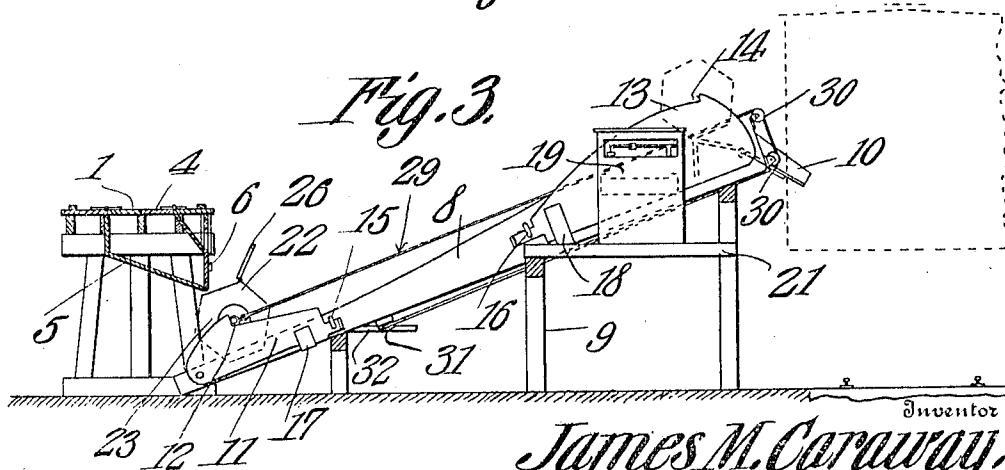
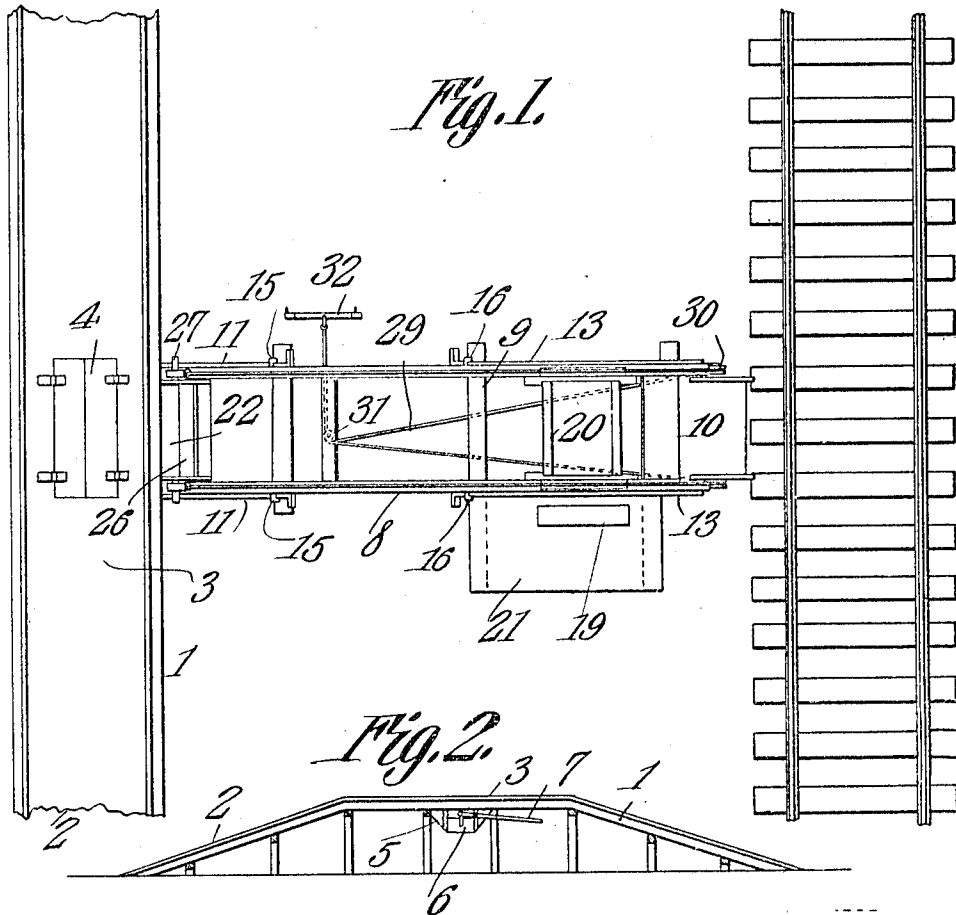


J. M. CARAWAY.
LOADING APPARATUS.
APPLICATION FILED FEB. 26, 1909.

950,593.

Patented Mar. 1, 1910.

2 SHEETS—SHEET 1.



Witnesses

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C. David

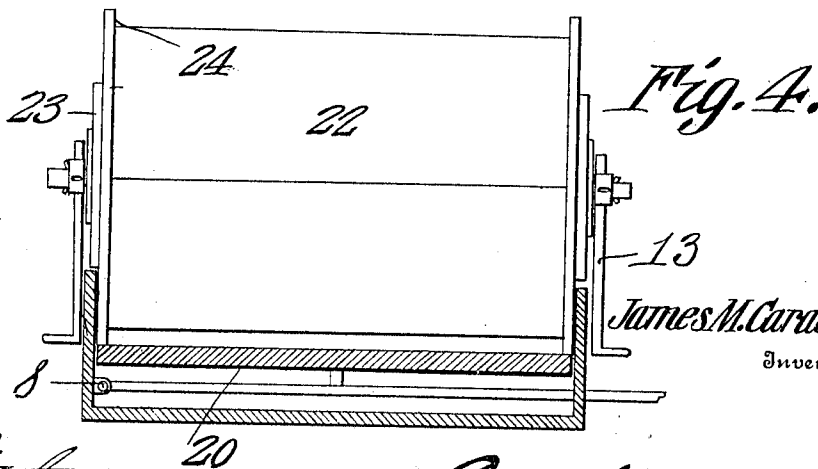
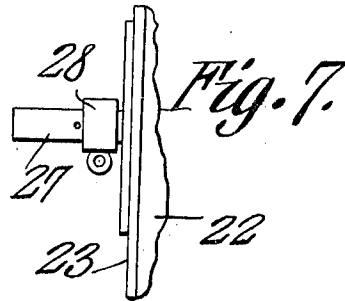
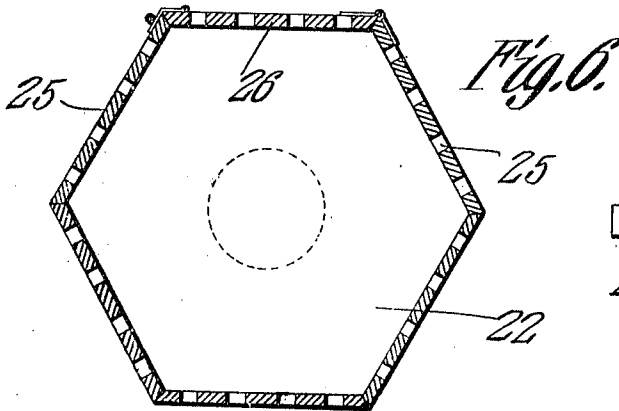
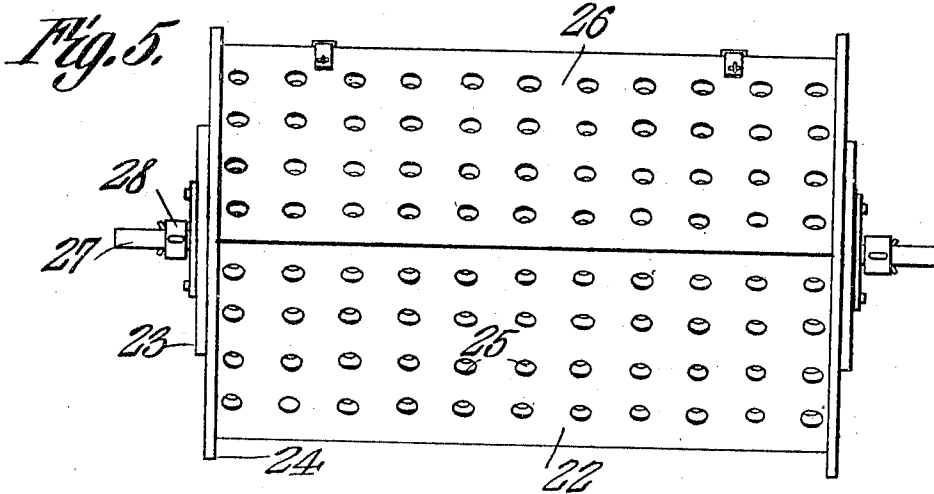
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JAMES MADISON CARAWAY, OF LONGMONT, COLORADO.

LOADING APPARATUS.

950,593.

Specification of Letters Patent.

Patented Mar. 1, 1910.

Application filed February 26, 1909. Serial No. 480,120.

To all whom it may concern:

Be it known that I, JAMES M. CARAWAY, a citizen of the United States, residing at Longmont, in the county of Boulder and State of Colorado, have invented a new and useful Loading Apparatus, of which the following is a specification.

This invention has relation to loading apparatus and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide an apparatus especially adapted to be used for transferring beets from wagons to railway cars, but it is to be understood that the same apparatus may also be used to advantage for handling other commodities in a similar manner.

With the above object in view the apparatus consists of a runway having an elevated portion, upon which a loaded wagon may pass, and from which it may deposit its contents through an opening into a receiving hopper located under the elevated portion of the said runway. Extending from beneath the elevated portion of the said runway is an inclined track, having near its upper portion a scale platform which is operatively connected with a weighing mechanism. A cylinder or rotating body is mounted for movement along the said track and is provided with foraminous sides and a hinged section. Gudgeons are provided at the ends of the said member, and elevating means are provided at the opposite ends of the said track, which may be raised to engage the gudgeons, whereby the member may be lifted from the track and turned into suitable position to receive the commodity at the runway end of the track, or to dump the same at the delivery end of the track into a chute provided thereat.

In the accompanying drawings:—Figure 1 is a plan view of the apparatus. Fig. 2 is a side elevation of the wagon runway. Fig. 3 is a side elevation of the track, showing the runway in section. Fig. 4 is a transverse sectional view of the track, showing the rotating member located thereon. Fig. 5 is a side elevation of the rotating member. Fig. 6 is a transverse sectional view of the rotating member. Fig. 7 is a detailed side elevation of an end portion of the said rotating member.

The wagon runway 1 consists of the inclined end sections 2 and the intermediate

elevated section 3. Hinged doors 4 are provided in the floor of the elevated section 3, or other suitable closures may be provided for an opening provided in the said elevated section 3. A hopper 5 is fixed to the under side of the elevated section 3, below the opening closed by the doors 4, and is provided with a slidable gate 6, which is adapted to be raised and lowered by an operating lever 7.

An inclined track 8 has its lower end located under the delivery end of the hopper 5, and is mounted upon trestle works 9, and provided at its upper elevated end with a chute 10. The said chute 10 is preferably hingedly attached to the upper elevated end of the said track 8. Levers 11 are fulcrumed at the lower end of the track 8 and are provided upon their upper edges with the notches or shoulders 12. Levers 13 are fulcrumed at the upper end of the said track 8, and are provided at their upper edges with the shoulders or notches 14. Pins 15 enter the sides of the track 8 and are adapted to retain the free ends of the levers 11 against movement, while pins 16 are similarly located and are adapted to retain the free ends of the levers 13 against vertical movement. Guides 17 are provided for the levers 11, and guides 18 are provided for the levers 13.

A scale 19 is located in the vicinity of the upper end of the track 8, and a scale platform 20 is located between the side members of the said track and is operatively connected with the said scale 19 in the usual manner. A platform 21 is located adjacent the said scale 19 and it is from the platform that the registrations of the scale may be viewed by an operator, as also the operation of the apparatus.

A rotating member 22 is provided at its ends with the circular disks 23, which are adapted to travel upon the upper edges of the side members of the track 8. The said member 22 is also provided at its end portions and adjacent the said disks 23 with the disks 24, which are slightly larger in diameter than the disks 23, and which bear against the inner sides of the members of the track 8, but which are adapted to rest upon the scale platform 20 when the member 22 is over the same, whereby the weight of the said member 22 and its contents will be borne by the said scale platform. The said member 22 is provided with the foraminous sides 25, and also with a hinged section 26. The

member 22 is further provided at its ends with the concentrically placed gudgeons 27, which project beyond the outer sides of the members of the track 8 and are located above the planes occupied by the levers 11 and 13. Sleeves 28 are journaled upon the gudgeons 27 and cables 29 are connected with the said sleeves and pass around rollers 30, provided at the upper end of the track 8, and from thence they pass around a roller 31 located under the track 8 at an intermediate point thereof, and are connected with a swingle-tree 32, to which a draft animal may be attached, it being understood that in lieu of the said swingle-tree 32, other means for drawing the cables 29 may be provided.

As above stated, the apparatus as described is especially designed to be used for loading material from a wagon upon the body of a railroad car, and, of course when so employed it is used adjacent a track, which is illustrated in Figs. 1 and 3 of the drawings. It is to be understood however that the apparatus may also be used to advantage for loading material from one wagon to another, or from a wagon to any suitable receptacle.

In operation the apparatus is manipulated as follows:—A wagon containing the material, such, for instance, as beets, is driven upon the runway 1, up one of the inclines 2, and upon the elevated portion 3. The contents of the wagon are then dumped (the doors 4 having previously been opened) into the hopper 5. Presuming that the member 22 is at the lower end of the track 8, an operator raises the levers 11 until their upper edges at the notches or shoulder 12 come in contact with the gudgeons 27 at the ends of the said member. By continuing the upward movement of the levers 11 the member 22 is lifted until the peripheries of the disks 23 are above the upper surfaces of the side members of the track 8. The said member 22 is then free to be rotated upon its gudgeon 17, and this is done until the hinged section 26 of the member 22 is brought under the delivery end of the hopper 5. The gate 6 of the said hopper is then opened by swinging the lever 7, and the contents of the hopper fall from the same into the member 22. The hinged section 26 of the said member 22 is then closed and secured in any suitable manner, and, by applying draft to the ends of the cables 29, as above indicated, the said cables are moved longitudinally, whereby the member 22 is drawn to-

ward the upper end of the track 8. When the gudgeons 27 pass beyond the upper edges of the levers 11, the peripheries of the disks 23, and the member 22 are drawn up along the track 8, and as the same rotates, dirt and grit which might adhere to the commodity within the member 22 is loosened from the same and is sifted through the foraminous sides 25 of the said member 22. When the member 22 arrives at the scale platform 20 the disks 24 engage the end portions of the upper side of the said platform 20, and the said member 22 is slightly elevated with relation to the side members of the track 8. Thus the weight of the member 22 and its contents is transferred from the track 8 to the scale platform 20. Thus means is provided for weighing the contents of the said member 22. After the weight thereof has been noted the cables 29 are operated further as above indicated whereby the member 22 is drawn along the track 8 above the scale platform 20. When the said member 22 arrives sufficiently near the upper end of the track 8 an operator raises the lever 13, whereby the shouldered portions 14 thereof are brought under the gudgeons 27 of the said member 22, and the member 22 is again lifted and may be rotated so that its hinged section 26 is positioned under the body of the said member, and, when in such position, the said section 26 is opened, whereby the contents of the member 22 may fall from the same into the chute 10, and from the said chute may be directed into the body of a car or other receptacle provided for the reception of the material.

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

In a loading apparatus a track, a member mounted for movement along the track, said member having a hinged section forming a closure, gudgeons projecting beyond the ends of the member, and lifting levers fulcrumed at the side of the track and adapted to engage the gudgeons to lift the member with relation to the track.

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

JAMES MADISON CARAWAY.

Witnesses:

ROBERT SPRINGS,
A. F. DWORAK.