F. L. PICKETT.

TRANSFER APPLIANCE FOR BEET DUMPS.

APPLICATION FILED MAY 15, 1908.

910,852. Patented Jan. 26, 1909.

2 SHEETS—SHEET 1.

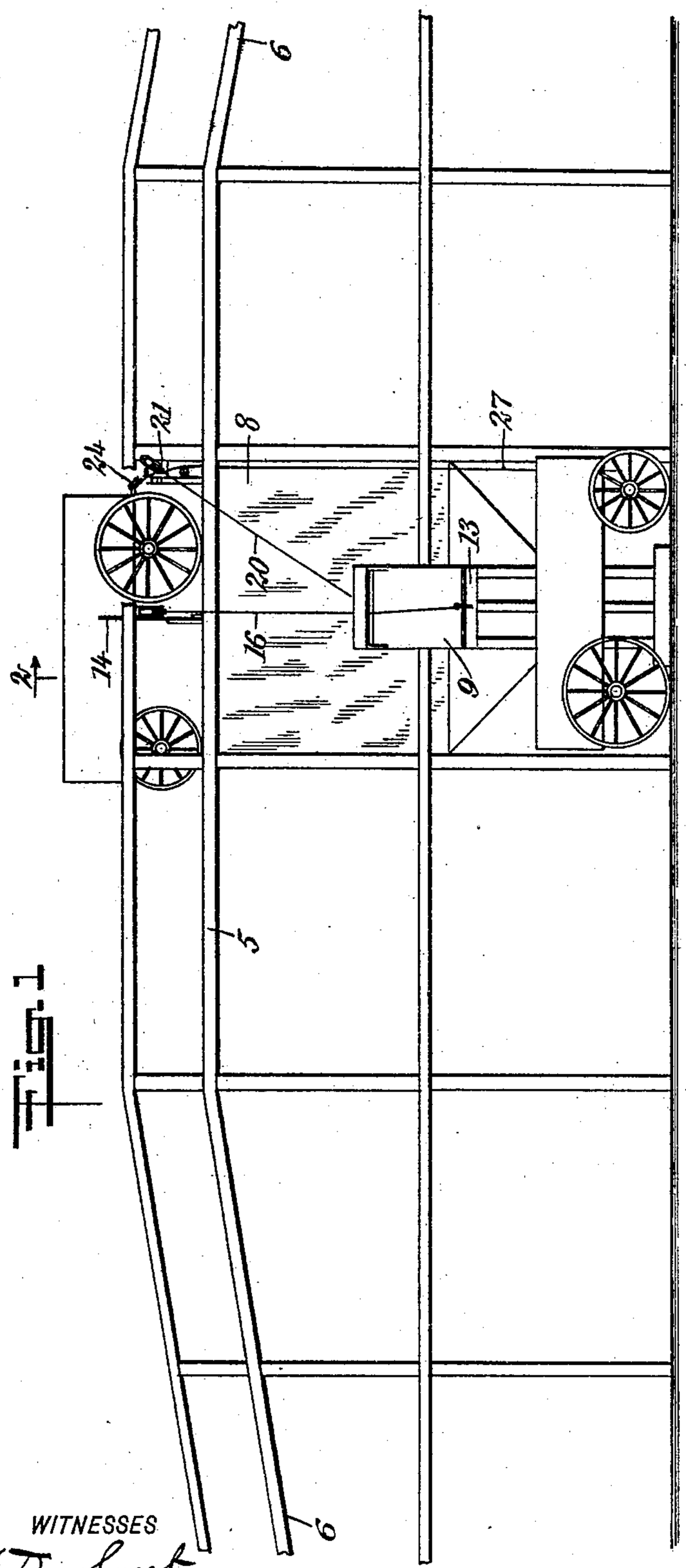

FIG. 1.

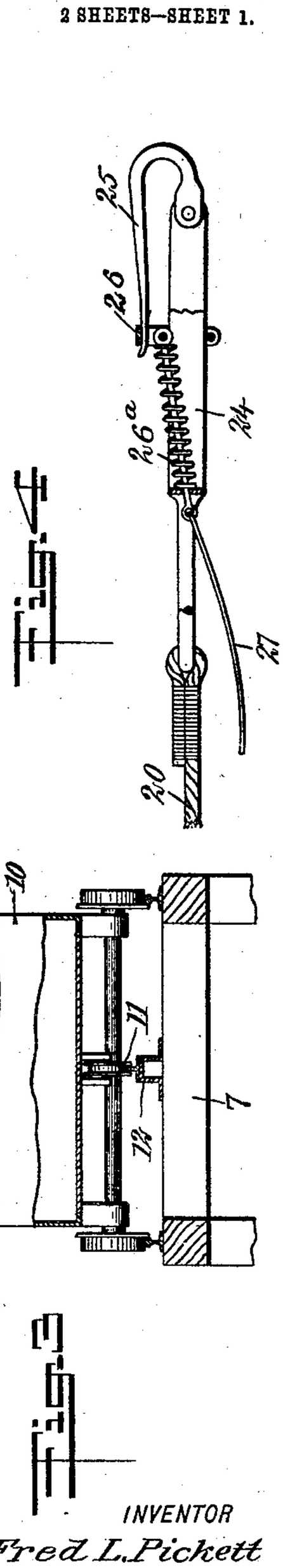

FIG. 2.

FIG. 3.

WITNESSES

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W. W. Thornton

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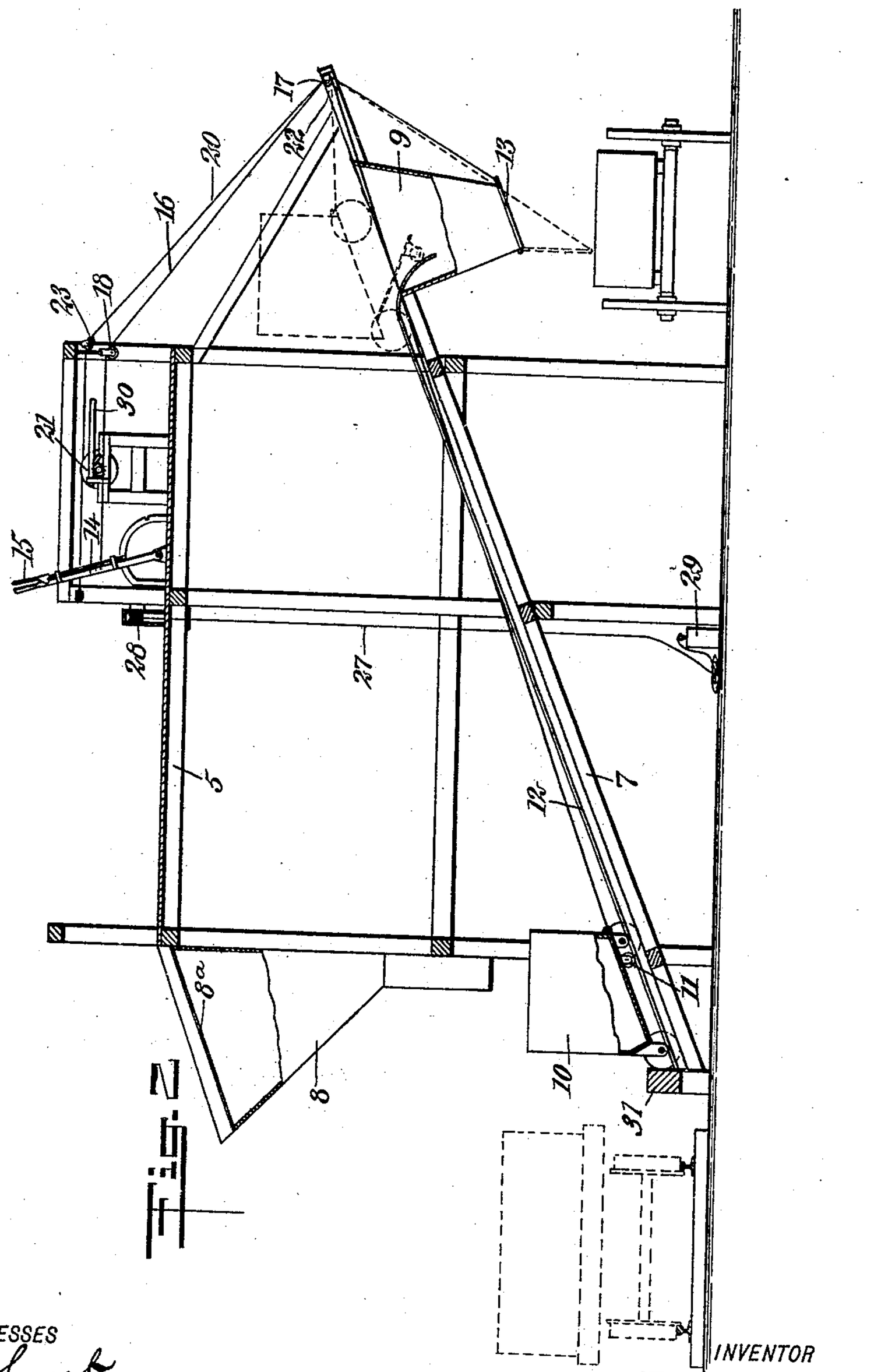

Fig. 2.

WITNESSES

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FRED L. PICKETT, OF ROCKY FORD, COLORADO.

TRANSFER APPLIANCE FOR BEET-DUMPS.

No. 910,852. Specification of Letters Patent. Patented Jan. 26, 1909.

Application filed May 15, 1908. Serial No. 433,047.

To all whom it may concern:

Be it known that I, FRED L. PICKETT, a citizen of the United States, and a resident of Rocky Ford, in the county of Otero and State of Colorado, have invented a new and Improved Transfer Appliance for Beet-Dumps, of which the following is a full, clear, and exact description.

This invention is a transfer appliance for use in connection with beet dumps for reloading on the grower's wagon, dirt screened from sugar beets, and by it, avoiding the necessity of piling up the dirt at the dump and thereafter handling the same by hand and weighing it, usually entailing the services of a special man at the dump for this purpose.

The appliance, generally stated, consists of an elevated roadway having an inclined approach and exit respectively, at its opposite ends, an inclined railway under the roadway, a hopper in the floor of the roadway, a hopper at the elevated end of the railway, a car for transferring the dirt from the roadway hopper to the railway hopper, together with means for drawing the car up the incline of the railway by the descent of the wagon on the roadway, and automatically dumping the dirt into the railway hopper and discharging the same therefrom into the empty wagon when the latter is driven under the hopper for receiving it.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of an appliance embodying my invention, with the inclined terminals partly broken away, and a wagon in dumping position; Fig. 2 is a cross section on the line 2—2 of Fig. 1; Fig. 3 is a partial cross section through the inclined railway and transfer car; and Fig. 4 is a detail view on an enlarged scale, of the hook or connection which is employed by coupling the wagon to the transfer car preparatory to the descent of the wagon down the inclined exit.

More specifically described, the invention includes an elevated roadway 5, suitable for the travel of a farm wagon, and the intermediate portion of which is substantially level and has at its opposite ends inclined terminals 6, one of the terminals serving as an approach and the other as an exit. Underneath the horizontal or most elevated portion of the roadway is an inclined railway 7 having its lower end arranged under a hopper 8 which discharges from the floor of the roadway, and with its opposite and elevated end provided with a hopper 9. On the roadway 7 is a transfer car 10, having a dumping bottom hinged at one of its transverse edges and supported near its opposite free edge by a wheel 11, the latter traveling on a rail 12 arranged centrally of the railway, and with its upper end curving downwardly into the hopper 9, as shown in Fig. 2. The hopper 8 has a screen 8^a inclined from the roadway downwardly, so that when the beets and dirt are delivered from the growers' wagon thereon, the beets will roll into the railway car below, shown in dotted outline, and the screenings will pass into the car 10.

The hopper 9 has a hinged dumping bottom 13 which is operated from the roadway adjacent to the hopper 8 by a hand lever 14, the latter preferably traversing a notched arc and having a spring latch 15 for locking it in extreme positions of its movement. The connection between the lever 14 and the drop or dumping bottom 13 of the hopper 9 is effected by a cable 16, which is suitably directed to one side of the hopper by the sheaves 17 and 18, so that the bottom will close when the cable is pulled.

For drawing the transfer car up the inclined track after receiving its load from the roadway hopper above and carrying the same to the railway hopper, I utilize the energy of the wagon on the roadway in its descent down the inclined exit, for which purpose I provide a cable 20 which is connected to the car and passes a suitable number of times about a drum 21 after passing over sheaves 22 and 23, respectively located at the upper end of the inclined railway and at a point above on the roadway. The free end of the cable has a device 24 for coupling it to the rear end of the wagon, the said device being in the nature of a hook with its curved end 25 so pivoted that when moved to a closed position it will form an eye and can be locked to the shank of a hook by a keeper 26, which is slidable on the body of the hook and is forced forwardly thereover by a spring 26^a. This spring is arranged on a rod in connection with the keeper, which in turn is connected to a line or cable 27, which passes over a sheave 28 and thence through a small opening in the floor of the roadway, and has attached at its free end an enlargement 29. The length of the cable

is such that as the transfer car passes over the hopper 9, the enlargement 29 strikes the flooring of the roadway or other conveniently-arranged stop and pulls the keeper from over the free end of the hook, which releases the cable 20 from the wagon and thereby permits the transfer car to descend to initial position under the hopper 8, and in its descent drawing the cable 20 back to position in readiness to be attached to the next wagon. The empty wagon passes underneath the hopper 9, where it is in position to receive the dirt from the screened beets, at which time the operator on the elevated roadway throws the hand lever 14 to one side, releasing the bottom 13 and permitting of the discharge of the contents of the hopper. It is desirable that the speed of the transfer car in descending from the hopper 9 to the hopper 8 be broken, for which purpose I provide in connection with the drum 21 a braking lever 30. This lever also enables the operator to hold the car and wagon in any position of their travel and to regulate their speed as desired. The braking of the drum, however, is not depended on for retaining the car after it has passed directly under the hopper 8, but a cross-sill 31 at the lower end of the railway performs this function.

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

1. The combination of an elevated roadway having a hopper in which a vehicle on the roadway is adapted to discharge, an inclined track under the roadway having a hopper in its bed at its elevated end, a car on the inclined track for receiving the load discharged from the vehicle through the first-mentioned hopper, and means for drawing the car up the inclined track, passing to the vehicle and adapted to be attached thereto, whereby the movement of the vehicle away from the roadway hopper draws the car up the track.

2. The combination of an elevated roadway having a hopper in which a vehicle on the roadway is adapted to discharge, an inclined track under the roadway having a hopper at its elevated end, a car on the inclined track for receiving the load discharged from the vehicle through the first-mentioned hopper and transferring it to the last-named hopper, means for drawing the car up the inclined track, passing to the vehicle and adapted to be attached thereto, whereby the movement of the vehicle away from the roadway hopper draws the car up the track, and means for automatically releasing the vehicle from said means when the car pasess over the hopper carried by the track.

3. The combination of an elevated roadway having an inclined exit and provided with a hopper in which a vehicle on the roadway is adapted to discharge, an inclined track under the roadway, with its lower end arranged under said hopper, having a hopper in the bed of the track at its opposite and elevated end, a transfer car on the track for carrying the load discharged from the vehicle through the first-mentioned hopper to the last-named hopper, and means for drawing the transfer car up the inclined track by the power developed by the vehicle passing down the inclined exit of the roadway.

4. The combination of an elevated roadway having means through which a vehicle may discharge its load, an inclined track having a hopper provided with a dumping bottom, a transfer car on the track for receiving the load from the vehicle and discharging it into the hopper, and means operable from the roadway for releasing the bottom of the hopper.

5. The combination of an elevated roadway having an inclined approach and exit and provided with a hopper in which a vehicle on the roadway is adapted to discharge, an inclined track having a hopper in the bed thereof at its upper end, a transfer car on the track for receiving the material from the vehicle through the first mentioned hopper and discharging it in the last mentioned hopper, a cable attached to the car for drawing it up the track, passing to the roadway hopper, and means for attaching the cable to the vehicle, whereby the descent thereof down the inclined exit draws the car up the inclined track.

6. The combination of an elevated roadway having a hopper in which a vehicle on the roadway is adapted to discharge, an inclined track under the roadway having a hopper in its bed at its elevated end, a car on the track for transferring the material from the first mentioned hopper to the last-named hopper, a drum on the roadway having a manually-controlled brake, and a cable connected with the car for drawing it up the track, passing around said drum and provided with a device for attaching it to the vehicle.

7. The combination of an elevated roadway, an inclined track under the roadway, a transfer car on the track for receiving the load from a vehicle on the roadway and discharging it at an elevated point in said track, a cable for drawing the car up the track, passing to the roadway and having a device for attaching it to the vehicle, and means for automatically releasing said device from the vehicle when the car passes to the point of discharge in the track.

8. The combination of an elevated roadway, an inclined track under the roadway, a transfer car on the track for receiving the load from a vehicle on the roadway and discharging it at an elevated point in said track, a cable for drawing the car up the track, passing to the roadway and having a device

for attaching it to the vehicle, means for locking said device, a cable connected with said locking means having an enlargement, and a stop arranged in the path of the enlargement, adapted to contact therewith and release said locking means from said device when the transfer car passes over the point of discharge in the track.

9. The combination of means for transporting beets or the like mixed with dirt, means for screening the dirt from the beets, and means for returning the dirt to the transporting means.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRED L. PICKETT.

Witnesses:
G. W. SINSHEIMER,
C. F. EVANS.