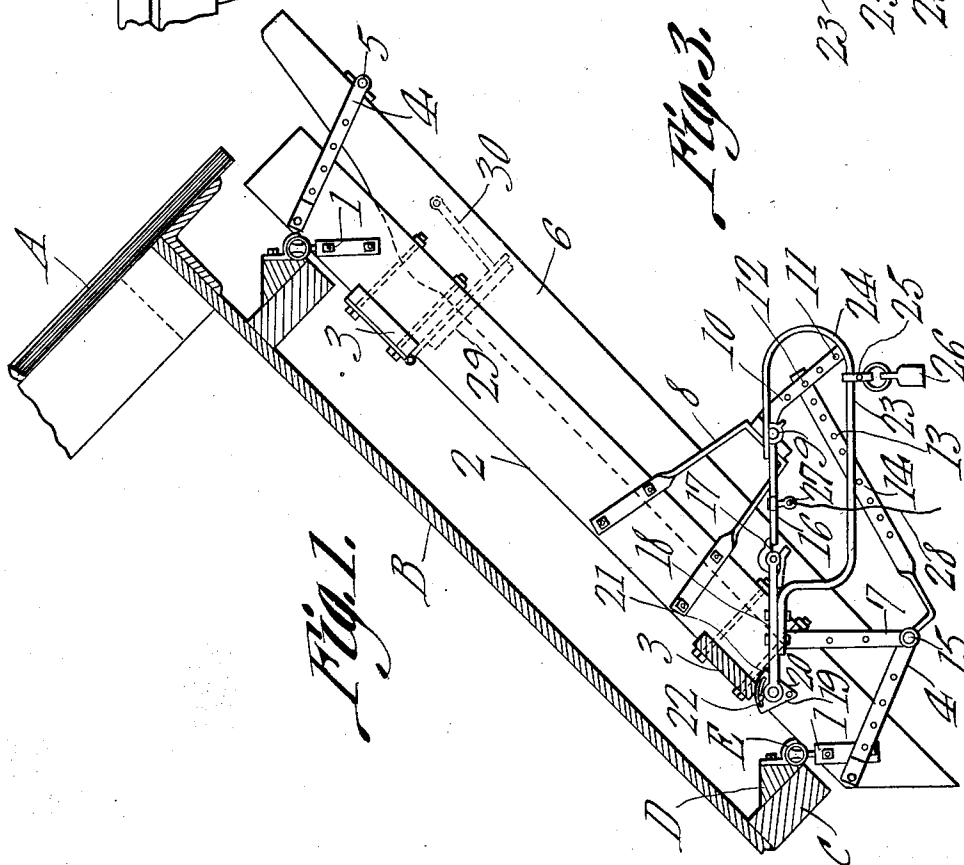
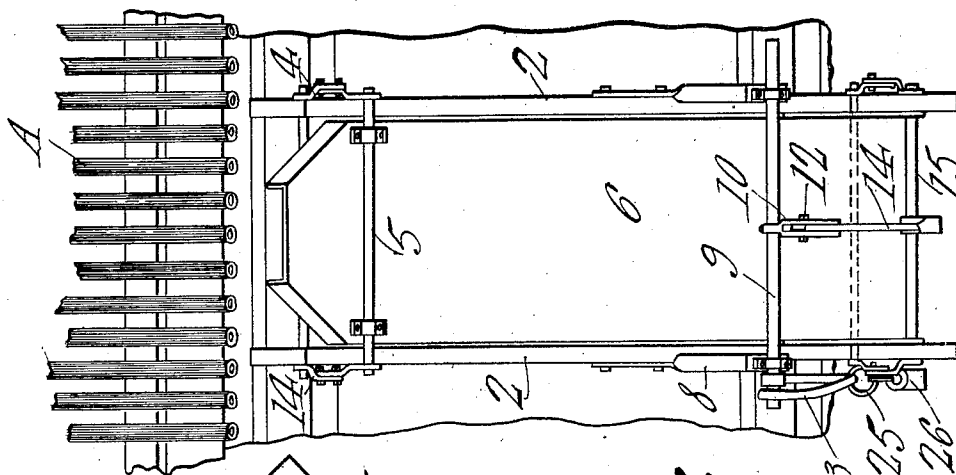


J. C. & W. W. DORSEY.
INTERCEPTING CHUTE.
APPLICATION FILED FEB. 1, 1911.

1,015,480.

Patented Jan. 23, 1912.

2 SHEETS—SHEET 1.



Witnesses

J. P. Cornelia
L. H. Wilcox

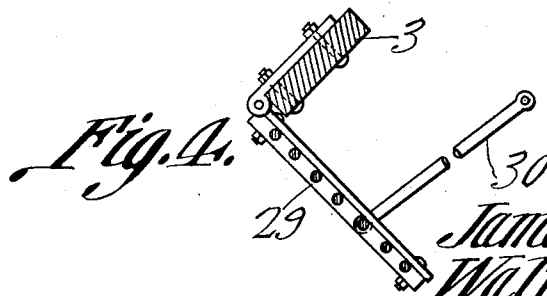
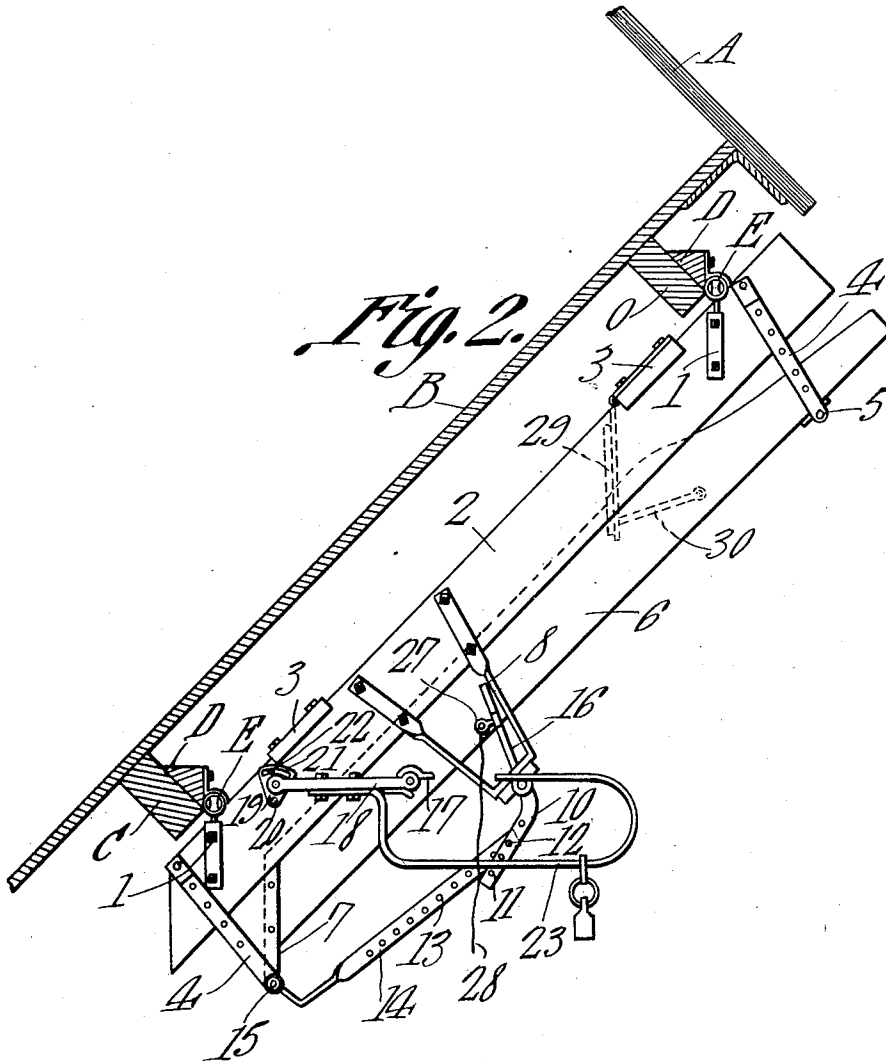
James C. Dorsey AND
Walter W. Dorsey, Inventors
by *C. A. Snow & Co.*
Attorneys

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2 SHEETS—SHEET 2.



Witnesses

J. P. Goulin
L. H. Wilcox.

by

James C. Dorsey,
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UNITED STATES PATENT OFFICE.

JAMES C. DORSEY AND WALTER W. DORSEY, OF LAS ANIMAS, COLORADO, ASSIGNORS
OF ONE-FOURTH TO RAYMOND BAUBLITS AND ONE-FOURTH TO MARTIN F. LOUB,
OF LAS ANIMAS, COLORADO.

INTERCEPTING-CHUTE.

1,015,480.

Specification of Letters Patent.

Patented Jan. 23, 1912.

Application filed February 1, 1911. Serial No. 606,018.

To all whom it may concern:

Be it known that we, JAMES C. DORSEY and WALTER W. DORSEY, citizens of the United States, residing at Las Animas, in the county of Bent, State of Colorado, have invented a new and useful Intercepting-Chute, of which the following is a specification.

This invention relates to intercepting chutes and is more particularly an improvement upon the structure disclosed in Patent No. 976,852, issued to us on November 29, 1910.

The principal object of the invention is to provide an improved means whereby the chute, after accumulating a predetermined quantity of material, will automatically withdraw out of the path of the material being discharged from the screen and will, at the same time, discharge its contents into a suitable receptacle provided therefor.

A further object is to provide mechanism of this character which can be readily adjusted so as to cause the chute to accumulate different quantities of material.

A further object is to provide controlling means which can be readily set and which is accurate in operation.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings, the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a side elevation of the apparatus, the supporting structure being shown in section and the holding means being shown set with the intercepting chute projecting into the path of material to be collected. Fig. 2 is a view similar to Fig. 1 but showing the intercepting chute dropped out of intercepting position and with the parts arranged to discharge the contents of the chute into a suitable receptacle provided therefor. Fig. 3 is a front elevation of the parts shown in Fig. 1. Fig. 4 is an enlarged detail view

of the gate used in connection with the intercepting chute.

Referring to the figures by characters of reference A designates a screen or other feed device for directing beets or other produce into a freight car or the like and this screen is arranged above, and extends beyond an inclined dirt apron B mounted on longitudinally extending beams C. These beams carry strips D preferably triangular in cross section and to which are secured rails E. The rails E support hangers 1 connected to the upper and lower end portions of the side strips 2 of a supporting frame, these side strips being connected together adjacent their ends by cross strips 3 bolted or otherwise secured to them. Hangers 4 are pivotally connected to the end portions of the side strips 2 and extend downwardly below said strips, the uppermost hangers 4 being connected to a cross rod 5 extending under and secured to the bottom portion of the chute 6 *per se*. The lowermost hangers 4 are connected to a pair of reinforcing strips 7 secured along the lower ends of the sides of the chute and projecting below said chute. It will thus be seen that, by reason of the swinging connections between the chute and the side strips 1, said chute may be swung relative to the side strips so as to protect its upper end, across the plane occupied by the screen A or downwardly below said plane. The sides of the chute 6 are so proportioned as to constantly project between the side strips 2, said strips thus serving to guide the chute during its swinging movement.

Brackets 8 extend downwardly from the side strips 2 and below the chute 6, these brackets having a shaft 9 journaled therein. A forked arm 10 is secured to and rotates with the shaft 9, and this arm is formed with a series of apertures 11, any one of which is designed to receive a coupling pin 12 insertible into any one of a series of openings 13 formed within a link 14. This link is pivotally connected to the rod 15 engaged by the lower ends of the strips 7 and the lower hangers 4. Another arm 16 extends from and moves with the shaft 9 and is adapted to be engaged, at its free end, by a pivoted catch 17 mounted on an arm 18. This last mentioned arm is pivotally connected to a segmental plate 19 connected to

one of the side strips 2 by means of a pivot bolt 20, there being an arcuate slot 21 within the plate for the reception of a clamping bolt 22. It will be apparent that, by mounting the arm 18 in the manner shown and described, it becomes possible to adjust said arm longitudinally toward or away from the arm 16 so as to cause the catch 17 to lap the arm 16 at any distance desired. An angular strip 23 is secured to the arm 18 and extends downwardly therefrom, thence under the shaft 9, this strip terminating in a hooked portion 24 which extends over the shaft 9 and bears downwardly on the arm 16. A clip 25 is adjustably mounted on the strip 23 and carries a weight 26. Arm 16 has an eye 27 to which a cord 28 or the like may be connected. A gate 29 is hingedly connected at its upper end to the upper cross strip 3 and its lower end is connected, as by means of links 30, to the sides of the chute 6. This link and gate are so disposed relative to the chute that, when the chute is swung upwardly into intercepting position, as shown in Fig. 1, the gate 29 assumes a position perpendicular to the bottom of the chute so as to prevent the contents of the upper portion of the chute from passing downwardly within the chute. When the parts are thus disposed, the arm 16 is engaged by the catch 17 and thus prevented from swinging upwardly, and as the arm 10 is connected to the chute by link 14, it will be apparent that when arm 16 is thus held by the catch, the chute 6 is maintained in intercepting position. With the chute still located in the manner set forth, the produce or other material passing into the chute from the screen 8 will be stopped by the closed gate 29 and will gradually accumulate within the chute. As the weight of the contents of the chute gradually increases, the said chute pulls with gradually increasing force upon the link 14 and the arm 10 until the weight added to the chute is sufficient to cause the arm 16 to swing the catch 17 upwardly, this causing the arm 18 and the weighted strip 23 to also move upwardly. After the parts have been elevated to a predetermined distance, the arm 16 slips past the catch 17 and is thus free to swing upwardly to the position shown in Fig. 2, thus allowing arm 10 to swing downwardly toward the chute 6 and also permitting the hangers 4 and the chute to swing downwardly relative to the side strips 2. This swinging movement of the chute will cause the links 30 to swing the gate 29 upwardly, thus releasing the contents of the chute and permitting them to slide downwardly therein into any suitable receptacle provided for them. This downward movement of the chute 6 will be sufficient to withdraw its upper end out of the path of the material being discharged from the screen A. The ma-

terial thus accumulated within the chute and discharged into a receptacle can be used as a sample and, when it is desired to obtain another sample, it is merely necessary to pull downwardly on the cord 28. This will cause arm 16 to swing downwardly against catch 17 and to snap under the catch. At the same time arm 10 will pull upon the link 14 and thus cause the hangers 4 and the chute 6 to swing upwardly to bring the upper end of the chute into the path of the produce being discharged from the screen. This movement will result in the closing of the gate 29. The operation hereinbefore described will then be repeated, the chute automatically dropping and releasing its contents when a predetermined quantity has been accumulated. Obviously the amount of material accumulated in the chute can be regulated by adjusting the weight 26.

What is claimed is:—

1. In apparatus of the class described a supporting structure, a feed device, an intercepting chute mounted for movement relative to the supporting structure and normally removed from the discharge end of the feed device, a catch movably connected to the supporting structure, adjustable means for controlling the movement of the catch in one direction, a locking member, a pivoted connection between said member and the chute, and means for shifting said member to elevate the chute across the discharge end of the feed device and to engage the catch.

2. In apparatus of the class described a supporting structure, a feed device, an intercepting chute mounted for swinging movement relative to the supporting structure and normally removed from the discharge end of the feed device, a catch movably connected to the supporting structure, an adjustable weight for controlling the movement of the catch in one direction, a locking member, a pivoted connection between said member and the chute, means for shifting said member to elevate the chute across the discharge end of the feed device and to engage the catch, said connection constituting means for exerting a lifting action through the locking member and upon the weighted catch when the elevated chute is subjected to a predetermined load, and co-operating means connected to the supporting structure and to the chute for accumulating material within the chute until a predetermined load has been obtained.

3. Apparatus of the class described including a supporting structure, an intercepting chute suspended therefrom and mounted to swing relative thereto, a weighted catch movably connected to the supporting structure, a member carried by said structure and normally engaging the catch, connections between said member and the

chute for supporting the chute in intercepting position while said member is in engagement with the catch, a gate hingedly connected to the supporting structure and hung within the chute, and a link connection between the gate and chute.

4. Apparatus of the class described including a supporting structure, an intercepting chute suspended therefrom and mounted to swing relative thereto, a catch pivotally and adjustably connected to said structure, an adjustable weight for controlling the movement of the catch in one direction, a member connected to said structure and normally engaging the catch, connections between said member and the chute for holding the chute in intercepting position while said member is in normal position, and cooperating means upon the chute and supporting structure for retaining material within the chute, said chute and its connections operating, when subjected to a predetermined load, to actuate the member and elevate the weighted catch to release the chute.

5. Apparatus of the class described including a supporting structure, an intercepting chute suspended therefrom and mounted to swing relative thereto, a catch pivotally and adjustably connected to the supporting structure, a controlling weight adjustably connected to said catch, a member carried by the supporting structure and normally engaging the catch, connections between said

member and the chute for supporting the chute in intercepting position while said member is in normal position, said member being movable upwardly to elevate the weighted catch and release the chute when the chute is subjected to a predetermined load, and cooperating means upon the structure and chute for retaining material within the chute.

6. Apparatus of the class described including a supporting structure, a feed device an intercepting chute suspended from the structure and mounted to swing relative thereto, means for locking the chute in elevated or intercepting position, across the outlet of the feed device, a gate upon the supporting structure and hung within the chute for retaining material within the chute, and means operated by the chute when subjected to more than a predetermined load, for automatically releasing the chute, said chute when released being movable by gravity out of intercepting position, and means operated by the chute during such movement for opening the gate.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

JAMES C. DORSEY.
WALTER W. DORSEY.

Witnesses:

HERMAN FREY,
VICTOR FREY.