

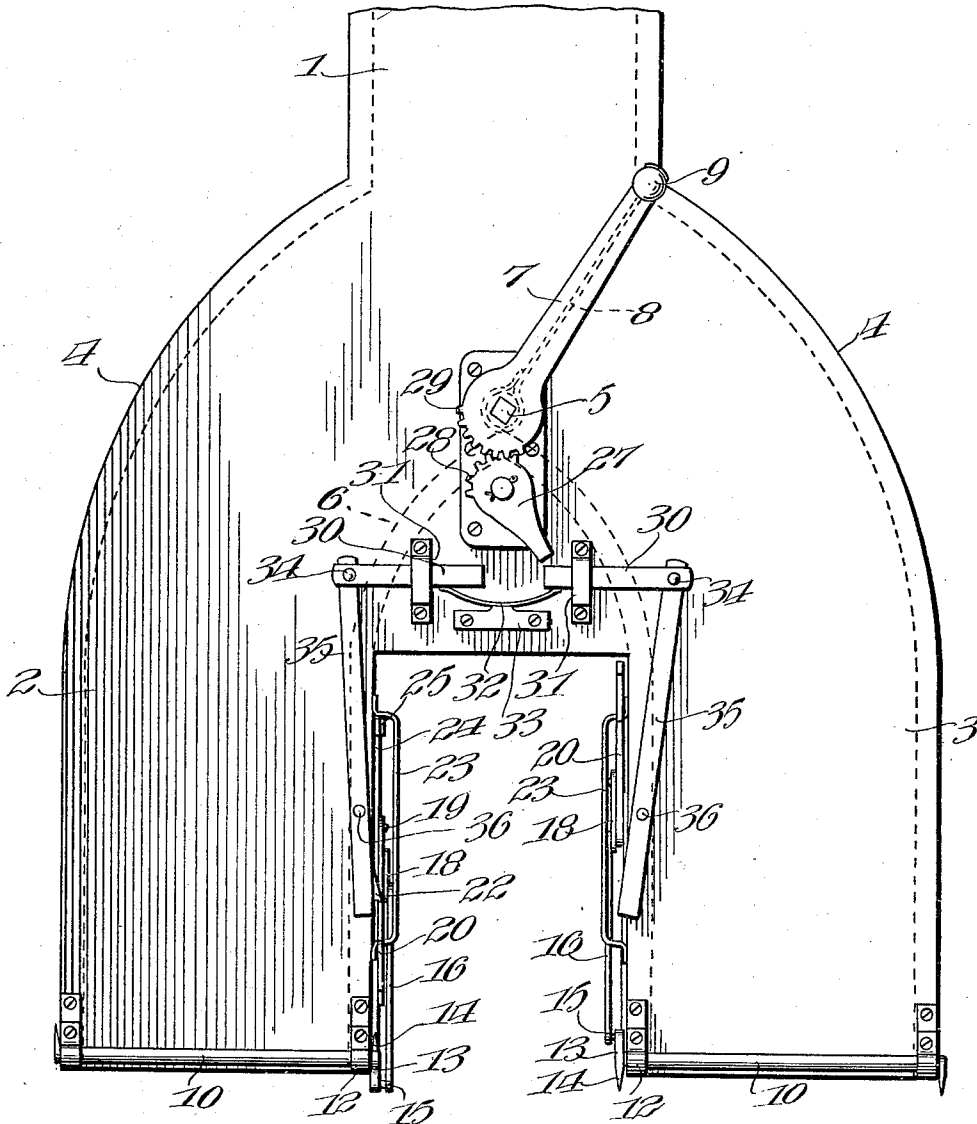
J. E. WILKERSON.
SACK FILLING DEVICE.
APPLICATION FILED APR. 12, 1912.

1,065,754.

Patented June 24, 1913.

2 SHEETS-SHEET 1.

Fig 1



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Witnesses

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2 SHEETS-SHEET 2.

Fig 2

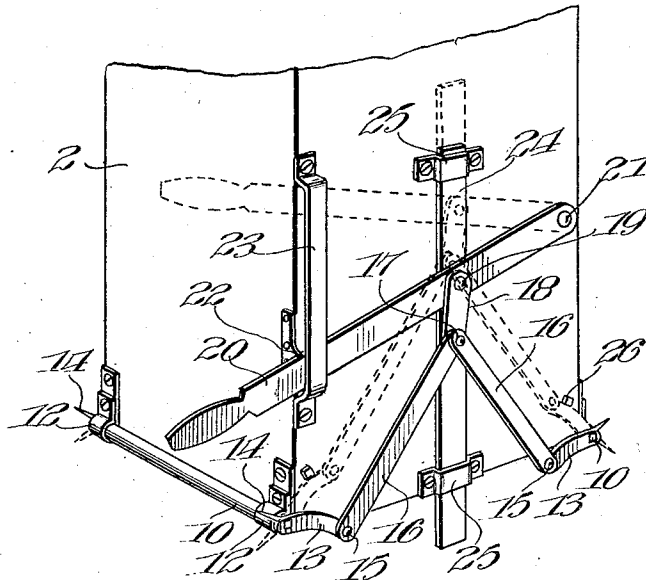


Fig 4

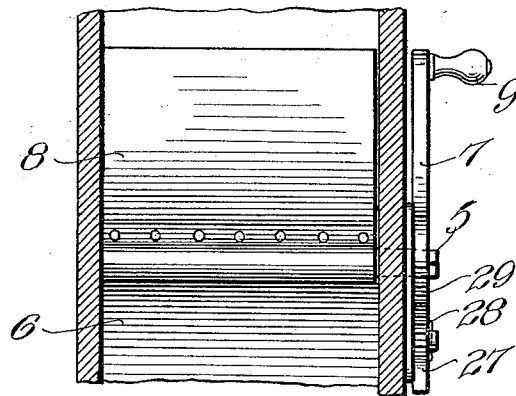
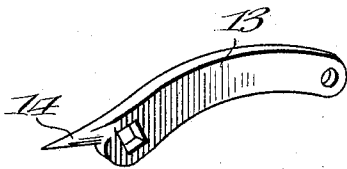


Fig 3



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UNITED STATES PATENT OFFICE.

JOHN E. WILKERSON, OF DALLAS, OREGON.

SACK-FILLING DEVICE.

1,065,754.

Specification of Letters Patent.

Patented June 24, 1913.

Application filed April 12, 1912. Serial No. 690,292.

To all whom it may concern:

Be it known that I, JOHN E. WILKERSON, a citizen of the United States, residing at Dallas, in the county of Polk and State of Oregon, have invented new and useful Improvements in Sack-Filling Devices, of which the following is a specification.

This invention relates to sack filling devices, the object of the invention being to provide, in connection with a chute for conveying material to a given point, novel and efficient means for supporting one or more sacks thereon in position to be filled, combined with means for tripping the sack sustaining devices and releasing the sack when filled.

A further object is to provide, in connection with a chute having branches and sack supporting means for each branch, a combined sack releasing device and valve simultaneously operable therewith, whereby the material passing downward through the main trunk of the chute may be delivered into either branch thereof, and diverted from one branch to another, as may be required.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts, as will be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claims hereunto appended.

In the accompanying drawings: Figure 1 is a front elevation of a chute having a plurality of branches and illustrating the present invention applied thereto. Fig. 2 is a perspective view illustrating the construction and operation of the mechanism for sustaining and releasing a sack, showing the sustaining position in full lines and the releasing position in dotted lines. Fig. 3 is a detail perspective view of one of the arms and its impaling spur. Fig. 4 is a detail sectional view of the valve and the operating device therefor.

Referring to the drawings, 1 designates the main chute, by which the material is conveyed from the mill or other source of supply to the point where the bagging or sacking operation is to take effect. In Fig. 1, I have shown the chute 1 provided with two branches or nozzles 2 and 3, the outer walls of which, adjacent to the main chute 1, are curved, as shown at 4, on the arc of a circle, of which the combined valve

and crank shaft 5 is the center. The shaft 5 extends transversely across the crown of the chute, just above the apex of the inner curved wall 6, and is operated by means of a crank arm 7 which is fast on one end of the shaft 5, outside of the casing of the chute, as illustrated. Fast on the same shaft 5 is a valve or shutter 8 which preferably lies in the same plane with the crank arm 7, and swings therewith when the crank arm moves to one side or the other for closing one branch of the chute and opening the other branch thereof. The crank arm 7 is shown provided with a suitable laterally projecting handle 9 to facilitate the operation thereof.

The sack sustaining and releasing mechanism is mounted on each branch or nozzle of the chute illustrated in Fig. 1, and by reference to Fig. 2, it will be seen that such mechanism embodies a pair of rock shafts 10 and 11 arranged at opposite sides of the nozzle and immediately adjacent to the discharge end thereof, said shafts being mounted in suitable bearings 12. On each shaft 10 and 11 are mounted two arms 13, each of which is provided with an outwardly projecting impaling spur 14, and upon the four impaling spurs thus provided the sack is adapted to be supported in position for receiving the material passing downwardly through the chute. The arms 13 are pivotally connected, at 15, to the lower extremities of a pair of toggle levers 16 which are pivotally connected together, at 17, and also pivotally connected at the same point to a link 18 which is pivotally connected, at 19, to a manually operated setting lever 20. This lever is pivoted at one end to the nozzle of the chute, as shown at 21, while the opposite end thereof is adapted to be forced under a stationary catch 22 on the nozzle, the lever being confined within a suitable keeper 23 also secured terminally to the nozzle.

24 designates a slide bar movable up and down in suitable guides 25 on the nozzle and receiving the pivot 17 of the toggle levers, and the link 18, whereby the pivotal connection at the point 17 is caused to travel in a rectilinear vertical path, thereby assuring the simultaneous and equal operation of the rock shafts 10 and 11. The upward movements of the arms 13 are limited by stops 26.

It will be understood that by depressing the lever 20, the rock shafts 10 and 11 are

turned, so as to cause the impaling spurs 14 to slant upwardly, in which position they are adapted to sustain a sack impaled thereon. When the sack has been filled, by pressing the lever 20 outward from beneath the lip of the catch 22, the lever 20 swings upward within the keeper 23, due to the weight of the sack. This causes the impaling points to incline downwardly, as shown by dotted lines in Fig. 2, thereby automatically releasing the sack.

In connection with the holding and releasing mechanism above described, I employ the tripping mechanism illustrated in Fig. 1, wherein it will be seen that in connection with the crank arm 7, I employ a pivoted trip 27 provided with teeth 28 which mesh with corresponding teeth 29 on the hub of the crank arm 7, whereby the trip 27 is swung in a reverse direction to the movement of said crank arm. Arranged in the path of the trip 27 are two oppositely extending trip fingers 30 moving through keepers 31 and having their inner ends upheld by means of a sustaining spring 32 secured to a supporting block 33 on the casing of the chute. At their outer ends the trip fingers connect pivotally, at 34, with the upper extremities of a pair of trip levers 35. These levers are fulcrumed, at 36, so that the lower extremities thereof are adapted to work against the back of the setting levers 20 when held beneath the stationary catch 22.

From the foregoing description, it will be understood that after a sack is filled, while being sustained on one of the nozzles, the operator by moving the crank arm 7 to one side simultaneously shifts the deflecting valve 8, so that the material will flow into the other branch of the chute, and releases the filled sack supported up to that time by the arms 13 and the impaling spurs 14. Another sack is then impaled upon the upwardly inclined impaling spurs at the other branch of the spout, so as to receive the material deflected to that part of the spout by the reversible valve 8. The spring 32 permits the trip fingers 30 to be depressed at their inner ends in order that the trip 37 may pass by the same and operate subsequently against the inner end thereof, for urging the trip fingers outwardly.

What is claimed is:

1. The combination with a chute provided with a plurality of nozzles, of a set of pivoted arms on each nozzle provided with sack supporting spurs, independent arm setting levers each operatively connected with one set of arms for simultaneously setting the latter in sack supporting position, catches engaging the setting levers and retaining the same in position to hold the spurs in sack supporting position, and means for independently tripping each setting lever.

2. The combination with a chute having two discharge nozzles, of an independent set of rock shafts for each nozzle having sack supporting spurs thereon and adapted for movement to supporting and non-supporting positions, arms on said rock shafts, independent setting levers connected with said arms for setting the rock shafts in sack supporting position, trip levers for releasing the setting levers, and a manually operated device for working each trip lever independently of the other.

3. The combination with a chute having two branches or discharge nozzles, of independent sets of sack supporting spurs therefor adapted for movement to supporting and non-supporting position, setting levers for moving said spurs, trip levers for releasing said setting levers, trip fingers on said trip levers, a trip adapted to cooperate with either finger, and a manually controlled device for operating the trip.

4. The combination with a chute having two brackets or discharge nozzles, of independent sets of sack supporting spurs therefor adapted for movement to supporting and non-supporting position, setting levers for moving said spurs, trip levers for releasing the setting levers, spring sustained trip fingers on said trip levers, a trip adapted to cooperate with either finger, and a manually controlled device for operating the trip.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN E. WILKERSON.

Witnesses:

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