Aug. 7, 1951 C. STERLER 2,563,432

DISCHARGE CONTROL FOR CORN PICKER ELEVATORS

Filed Dec. 12, 1949

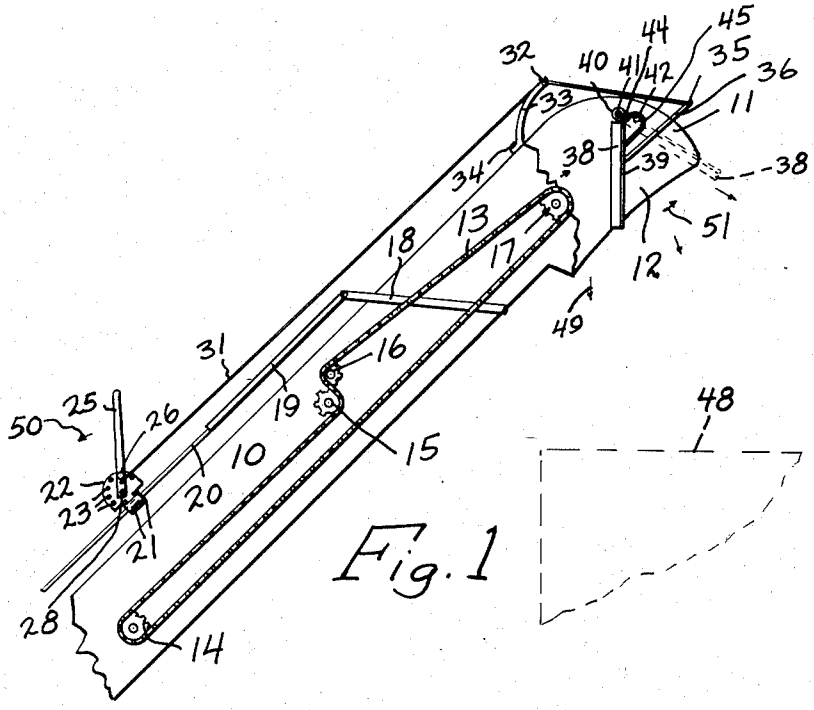


Fig. 1

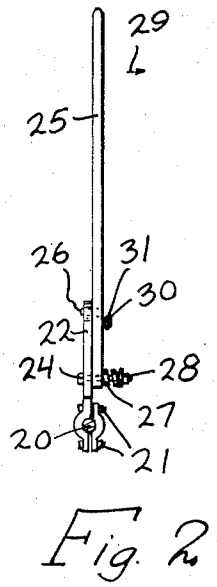


Fig. 2

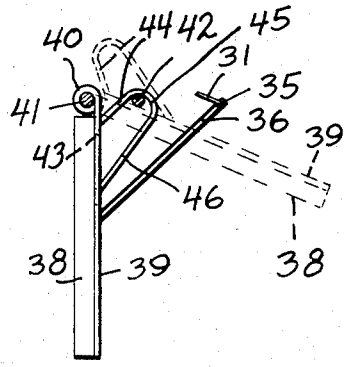


Fig. 3

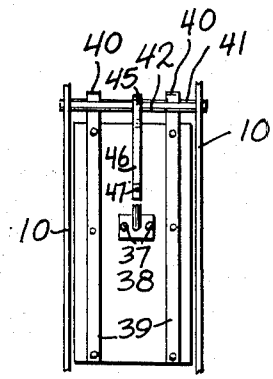


Fig. 4

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DISCHARGE CONTROL FOR CORN PICKER ELEVATORS

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1 Claim. (Cl. 198—73)

1

My invention relates to a device attachable to corn picker elevators for controlling the discharge of the corn therefrom.

An object of my invention is to provide a device which will control the discharge of the ears so that they can be uniformly discharged into a wagon or other vehicle, and so that the ears of corn will not pile up in certain portions.

A further object of my invention is to provide a control arrangement which is easily operated, and which includes limiting members whereby the control members will be equally positioned at either limit.

With these and other objects in view, my invention consists in the construction, arrangement, and combination of the various parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claim, and illustrated in the accompanying drawings, in which:

Figure 1 is a side elevation of a corn picker elevator, showing an upper portion in cross section,

Figure 2 is a detail of the control lever,

Figure 3 is a further detail of the control board, and

Figure 4 is an enlarged end view of a portion of Figure 1.

I have used the character 10 to indicate generally a corn picker elevator in which is mounted the usual conveying arrangement for carrying the ears of corn upwardly whereby such ears are discharged through the open portions at 11 and 12, and I have used the character 13 to indicate the external chain drive which passes over the various sprockets 14, 15, 16 and 17 for driving the upper portion of the arrangement, the conveyor itself not being shown herein since its construction is well-known in the art.

I have further used the character 18 to indicate certain brace portions of the arrangement, the character 19 indicating further portions attached to a bail or brace 20 of the usual form.

Clamped to the bail 20 by means of the bolts 21, I provide an arcuate member 22 having a series of openings 23 therein arranged radially from the center thereof, and pivoted to the member 22 by means of the bolt 24 is a control rod 25 having a pin 26, with such pin being adapted to enter into any of the selected openings 23, and I further provide a spring 27 receiving the bolt 24 and bearing against the washer assembly 28, whereby the lever 25 by moving in the direction of the arrow 29 will provide release of the pin 26 for selective positioning in any of the openings.

Attached at 30 to the lever 25 is the cable 31

2

which passes over a pulley 32 mounted at the upper termination of the curved bars 33 which are suitably attached at 34 to the chute 10, the cable 31 then being attached at 35 to the end of a rod 36, which rod is secured as at 37 to a substantially heavy board 38, the board being of the requisite thickness and weight for the reason to be described. Attached to the board 38 are the straps 39 terminating in the curled portions 40, which curled portions receive the transverse rod 41, which rod 41 is secured to either side of the chute 10.

A further rod 42 is also secured to the sides of the chute, the rod 42 being spaced from the rod 41, and secured at 43 to the member 38 is the strap member 44 extending into the curved portion at 45 which is turn extends into the portion 46 which is secured at 47 to the member 38.

The device is operated in the following manner. The dotted lines character 48 indicate the wagon to be filled with the corn, and assuming that it is to be filled from the rear end first toward the front end, the arrangement will appear substantially as shown in Figure 1 with the board 38 being in a practically vertical position. The ears of corn, which are rapidly impelled upwardly, will strike against the board 38 which is heavy enough to absorb the impact without moving, with the ears thereby dropping directly downwardly in the direction of the arrow 49. The operator can then move the lever 25 in the direction of the arrow 50 by successive steps in each of the successive openings 23 during the filling operation, whereby the board 38 will then swing in the direction of the arrow 51 with the ears of corn then being impelled further forwardly of the wagon, and until the maximum position is reached, with the ears filling the front end of the wagon, this arrangement thereby permitting the operator to effect a gradual control of the corn as desired.

It will be noted that the strap member 44 limits the movement of the board 38 to its vertical position, as shown clearly in Figure 3 by virtue of its engagement with the rod 42, and that the rod 42 limits movement of the board upwardly, this arrangement thereby preventing excessive movement in either direction, thereby preventing excessive discharge of the corn in undesired directions.

It will now be seen that I have provided the various advantages set forth in the objects of my invention with various other advantages being readily apparent.

Some changes may be made in the construc-

tion and arrangement of the parts of my invention without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claim any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim as my invention:

A discharge control for corn picker elevator chutes comprising a substantially heavy board pivoted at the upper end of said elevator chute, means for pivoting said board to selected position to thereby control the discharge of ears of corn impacted against said board, said board being movable to step by step positions whereby such control will be effected uniformly, thereby providing deposit of said corn ears in uniform longitudinal masses, said pivoting means including a rod attached to said board and extending therefrom, a cable attached to said rod, a bracket attached to said chute, a lever pivotally attached to said bracket and attached to said cable, said

bracket including means for selectively retaining said lever, means for limiting said board to outer or inner position including a transverse rod attached to said chute, a keeper enclosing said rod having a lost motion to thereby provide said limiting means, a further rod attached transversely across said chute, straps attached to said board and pivoted to said further rod.

CLARENCE STERLER.

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