

J. C. SIMPSON.  
 AUTOMATIC LIVE STOCK FEEDER.  
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1,164,416.

Patented Dec. 14, 1915.

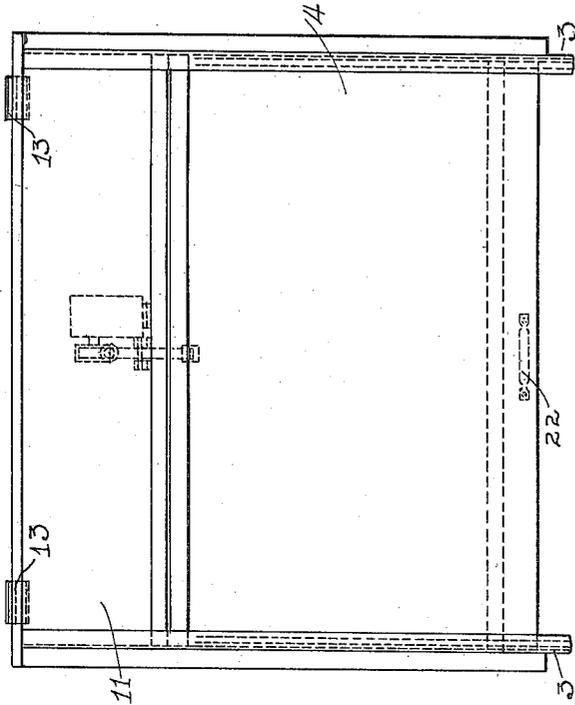


Fig. 1.

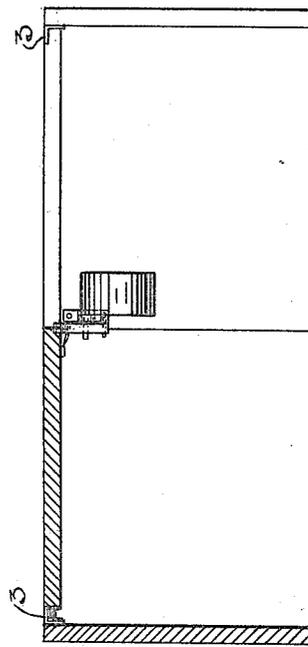


Fig. 3.

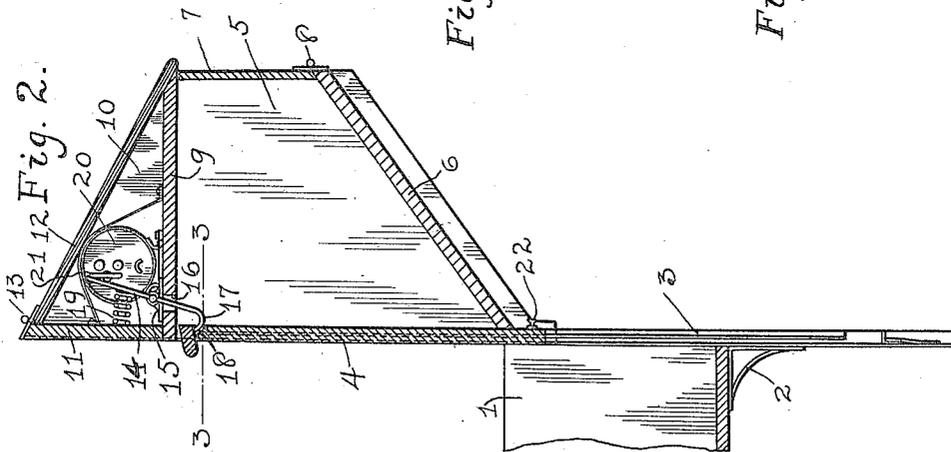


Fig. 2.

Witnesses

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# UNITED STATES PATENT OFFICE.

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## AUTOMATIC LIVE-STOCK FEEDER.

1,164,416.

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Application filed January 21, 1914. Serial No. 813,475.

*To all whom it may concern:*

Be it known that I, JESSE CLEVELAND SIMPSON, a citizen of the United States, residing at Elizabeth City, in the county of Pasquotank and State of North Carolina, have invented certain new and useful Improvements in Automatic Live-Stock Feeders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The general object of this invention is to admit of a quantity of feed at a predetermined time to be discharged into a feed trough; also to admit of the conveniently cleaning of the feed trough, when desired; and to this end the invention consists in the provision of a feed trough having an opened side, a feed receptacle positioned above the trough and having a discharge opening, a vertically sliding door adapted when in one position to close the discharge opening, and in another position to release the feed and to form a wall for the open side of the feed trough, means for normally holding the door in the first mentioned position, and time controlled mechanism adapted at a predetermined time to release the door holding mechanism so as to permit the door to move to the second mentioned position.

With the above and other objects in view as will more fully appear from that embodiment of my invention of which the following is the specification, reference is being had to the accompanying drawings, forming a part thereof in which;

Figure 1 is a front elevation of an automatic feeding device made in accordance with this invention, Fig. 2 is a vertical sectional view of the same, and Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2.

Referring to the drawing, the numeral 1 designates a feed trough supported upon brackets 2, and provided with side upright members 3. The members 3 are preferably of angle-iron, and mounted to slide upon said members 3 is a vertical door 4 for a feed compartment 5. The door 4 is provided to form a wall for one side of the feed trough to prevent the spilling of the feed from the trough. This feed compartment is provided with an inclined bottom 6 and a door 7 hinged at 8 to the bottom 6. The top wall 9 of the feed receptacle 5 forms

a support for the operating mechanism, and this mechanism is inclosed within a compartment 10 formed by means of the extension 11 at the front of the feeder and the inclined cover 12 hinged at 13 to the extension 11.

A lever 14 pivoted in a bracket 15 supported on the top wall 9, extends through an opening 16 in the wall 9, and the lower end of said lever is curved to form a hook 17 designed to engage a recess 18 in the rear portion of the sliding door 4 at the upper end thereof.

A spring 19 secured at one end to the inner wall extension 11, has its other end disposed in the line of movement of the lever 14 at its upper end, and this spring serves to hold the hook or latch 17 engaged with the recess 18 in the sliding door 4.

An alarm clock 20 of any suitable type is placed in the compartment 10, with its alarm mechanism key 21 disposed in alinement with the upper end of the lever 14.

The operation of the invention may be briefly described as follows: The alarm clock 20 is held in position by means of a strap. When the alarm mechanism is set off, the key 21 rotates and pushes the upper end of the lever 14 toward the left in Fig. 2, thus withdrawing the hook 17 from the recess 18 in the sliding door 4 permitting the latter to drop and to release the contents of the feed receptacle and permit the same to be discharged into the feed trough, the said door when in the latter position adapted to serve as a wall for the open side of the feed trough so as to prevent the discharge of the feed from the trough. The sliding door 4 may be pushed up into its former position by means of a handle 22, and the hook portion 17 will automatically engage the recess 18 for holding the door elevated. The compartment 5 may be then refilled with the feed for the next operation of the alarm clock and discharge into the trough 1. When the door 4 is moved to close the feed receptacle, access to the feed trough may be had through the opened side so that the said feed trough can be conveniently cleaned.

The invention is simple in construction, can be installed without excessive cost, cannot readily get out of order, and can be reset to insure a feeding of the stock at a predetermined time.

Various changes may be made in the de-

tails of construction without departing from the spirit and scope of the invention as defined in the claim.

What is claimed is:—

5 In combination with a feed trough having one of its sides open, an automatic feeding device located above the opened side of the trough, and including a feed receptacle hav-  
 10 ing a bottom inclined in the direction of the feed trough, and having one of its sides open for the discharge of the feed, a verti-  
 cally sliding door, adapted when in one po-  
 sition to close the open side of the recepta-  
 cle so as to prevent the discharge of the feed,

and when in another position to permit of  
 the discharge of the feed and to form a wall 15  
 for the open side of the trough, and means  
 for normally holding the door in the first  
 mentioned position, and means for releasing  
 the holding means for the door to permit 20  
 the latter to move to the second mentioned  
 position.

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

JESSE CLEVELAND SIMPSON.

Witnesses:

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W. S. CULPEPPER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,  
 Washington, D. C."