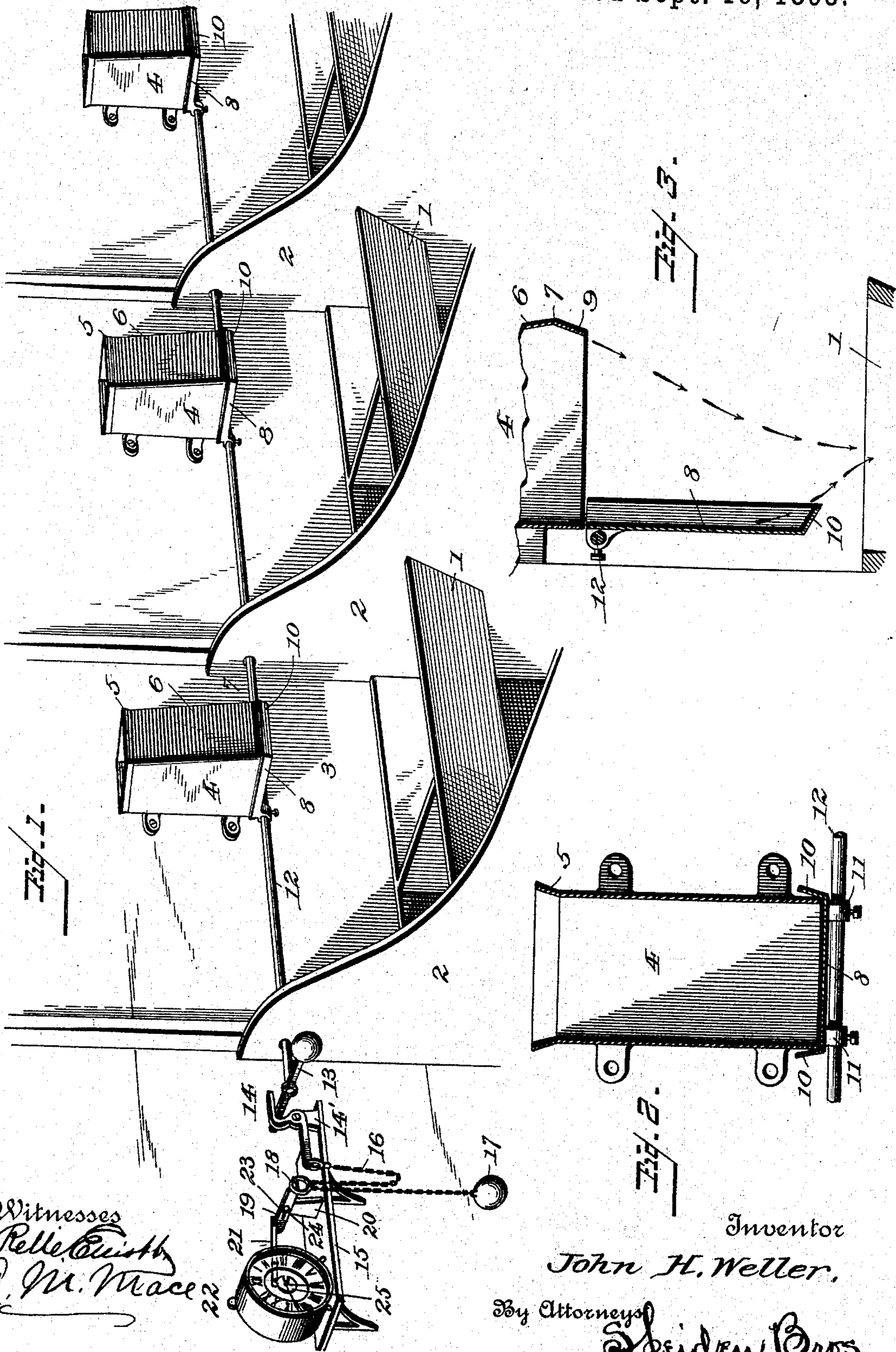


(No Model.)

J. H. WELLER.  
TIME STOCK FEEDER.

No. 505,180.

Patented Sept. 19, 1893.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JOHN H. WELLER, OF LOUISVILLE, KENTUCKY, ASSIGNOR TO THE TIME STOCK FEEDER COMPANY, OF SAME PLACE.

## TIME STOCK-FEEDER.

SPECIFICATION forming part of Letters Patent No. 505,180, dated September 19, 1893.

Application filed April 6, 1893. Serial No. 469,321. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN H. WELLER, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Automatic Time 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.

This invention relates to an improvement in automatic time stock-feeders.

One object of the invention is to provide positively actuated time-controlled mechanism for releasing the bottoms of a series of feed-boxes at a predetermined moment, whereby stock may be fed without the presence of an attendant.

A further object is to provide a feed-box of a contour that will effectually prevent any clogging or accumulation of grain or the like therein, and that will, in conjunction with its bottom, direct the flow of the feed to the center of the feed-trough.

A further object is to provide a trip-lever of a construction that will admit of its being re-set with relation to the time-mechanism, without the necessity of changing the position of the latter.

With these objects in view, the invention consists in the novel construction and combination of parts of a time stock-feeder, as will be hereinafter fully described and claimed.

In the accompanying drawings forming a part of this specification, and in which like numerals of reference indicate corresponding parts: Figure 1, is a perspective view of the device, showing the time mechanism set, and the bottoms of the feed-boxes in their raised position. Fig. 2, is a longitudinal sectional view through one of the feed-boxes, showing more particularly the contour of the bottom. Fig. 3, is a transverse sectional view, showing the bottom dropped, the arrows indicating the path of the grain from the feed-box to the feed-trough.

Referring to the drawings, 1 designates a series of feed-troughs, which may be of any preferred construction, 2 the stall-partitions,

and 3 the wall of the stable or barn. Rigidly secured to the said wall at a suitable distance above the feed-troughs are a series of feed-boxes 4 which are by preference rectangular in cross section, and are each provided with a flaring mouth 5, whereby to assist the feeding of the grain to the boxes. The front wall 6 of the feed-box is inclined outward from the top to the point 7, in order to prevent any clogging of the feed therein when the bottom 8 is dropped, and then inward as at 9 to direct the flow of grain or the like toward the center of the feed-trough, as clearly shown in Fig. 3. The bottom 8, to which reference has been made, consists of a pan-like receptacle having outward-flaring side and end flanges 10 which are designed to fit around the bottom of the feed-box and thus prevent a waste of grain, the inclining of the flanges serving to assist the flow of the feed to the center of the feed-trough, and to render the bottom self-seating, and also prevents any binding between the flanges and the sides of the feed-box which would be apt to occur if the flanges 10 were arranged at right angles to the base of the bottom. Firmly secured to the bottom, or formed integral therewith, are two perforated ears or lugs 11 through which passes a rock-shaft 12 suitably held in position with relation to feed-boxes. To one end of the shaft is secured a weighted lever 13, the free end of which is designed to be engaged by one end of an approximately S-shaped trigger 14 pivoted at right angles to the lever 13 on a standard 14' secured to a shelf 15. The free end of the trigger carries a chain 16 to which is attached a weight 17 and a ring 18, the heft of the weight being sufficient when dropped to overcome the upward pressure of the weighted lever and the bottoms 8 with their sustained load of feed, and thus draw the trigger out of engagement with the lever 13. Arranged at right angles to the trigger is a trip-lever 19 which is pivoted to a standard 20 on the shelf and is designed to be engaged at one end by the ring 18, and at the other end by the releasing-lever 21 connecting with the alarm mechanism of a clock 22. As the clock and lever 21 are of the ordinary construction, a detailed description of them is deemed unnecessary.

necessary. The trip-lever 19 is provided with a slot 23 through which passes the pivot-pin 24 for holding it in place. The object of the slot is to allow the said lever to be moved to  
 5 and from the lever 21, so as to render unnecessary the removal of the clock from the shelf for the purpose of re-setting the device, an act that would be necessary if the lever 19 had only a swinging movement. By this means  
 10 the re-setting of the device is facilitated and its action rendered more accurate, as the lever 21 always retains the same position with relation to the lever 19 and always engages the same portion thereof.

15 The operation of the device is as follows: The rock-shaft is first turned to bring the bottoms 8 to position beneath the feed-boxes, and the trigger is brought into engagement with the lever 13 after which the feed-boxes  
 20 are filled. The alarm mechanism is now set at the desired time and the ring 18 is hooked to the end of the trip-lever. When the alarm dial 25 has reached the proper point, the trip-lever is released from engagement with the  
 25 lever 21, thereby allowing the ring to slip off its end and the weight 17 to throw the trigger out of engagement with the lever 13 and thus free the shaft 12 which rocks and allows  
 30 the bottoms 8 to drop and deposit the feed in the feed-troughs.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

35 1. In an automatic time stock-feeder, the combination, with a series of feed-boxes and a rock shaft carrying bottoms for closing the said boxes, of a lever carried by the free end of the shaft and having a weight at one end, a trigger having one end in engagement with  
 40 the unweighted end of the lever and its other end bearing a weighted chain, and a trip-lever having one end in engagement with the

alarm-mechanism of a clock and the other end in engagement with the said chain.

2. In an automatic time stock-feeder, the 45 combination with a series of feed-boxes and a rock-shaft carrying bottoms for closing the said boxes, of a lever carried by the free end of the shaft and having a weight at one end, a trigger pivoted at right angles to the un- 50 weighted end of the lever and having one end in engagement with the lever and its other end bearing a weighted chain, and a trip-lever pivoted at right angles to the trigger and having one end in engagement with the 55 alarm-mechanism of a clock and the other end in engagement with the said chain.

3. In an automatic time stock-feeder, the combination with a clock having an alarm- 60 releasing lever projecting therefrom, of a pivoted trip-lever designed to be moved in a horizontal plane to and from the releasing lever, a series of feed boxes, a rock-shaft journaled beneath the boxes and carrying the bottoms thereof, a weighted lever carried by the shaft, 65 a trigger in engagement with the latter lever, and a weighted chain carried by the trigger and adapted to be hooked into engagement with the trip-lever.

4. In an automatic time stock-feeder, the 70 combination with a suitable time releasing mechanism, of a feed-box having its front side inclined outward from the top to a point near the bottom and then inclined inward, and a pivoted bottom having outward flaring 75 side and end flanges designed to fit around the lower portion of the said box.

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

JNO. H. WELLER.

Witnesses:

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 ALBERT SPEIDEN.