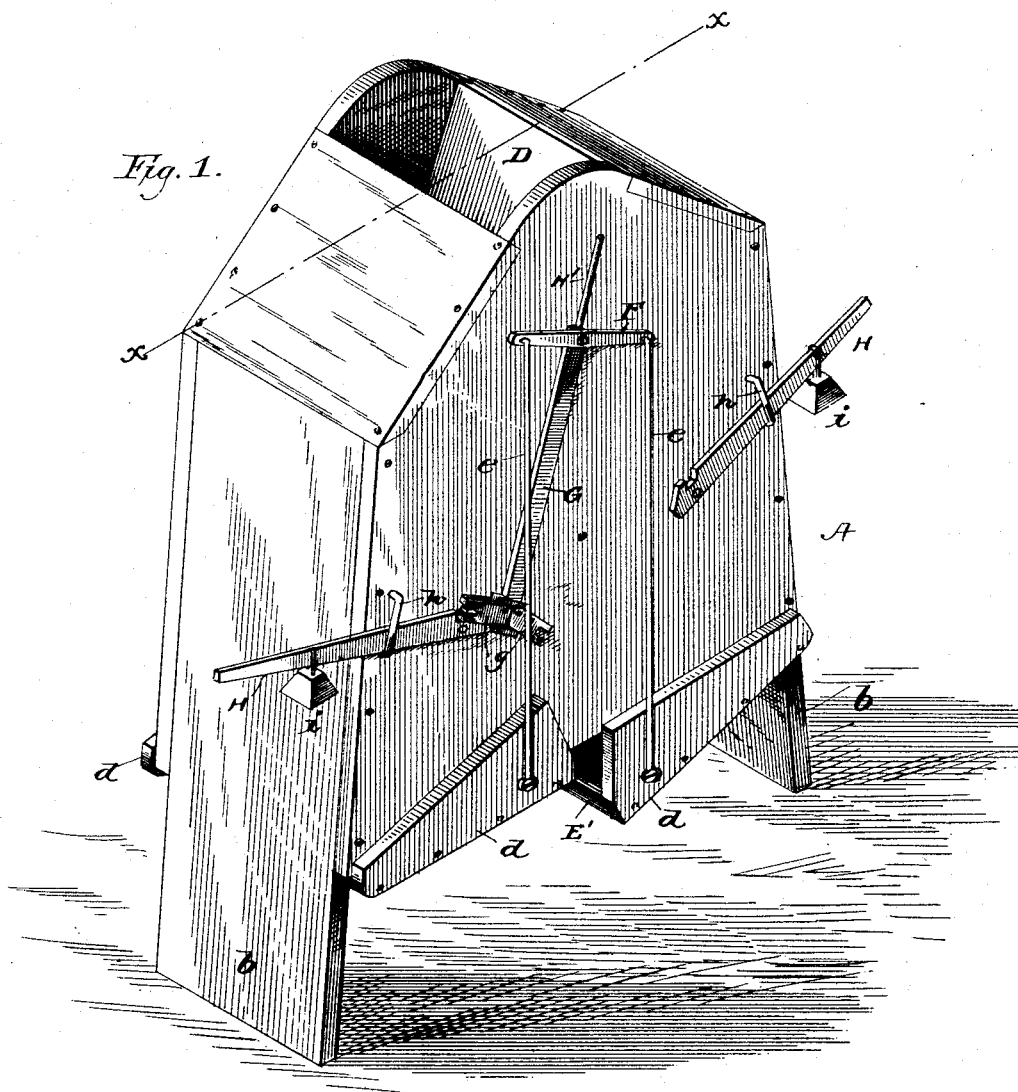


E. DICKSON.

# AUTOMATIC GRAIN WEIGHER.

No. 342,902.

Patented June 1, 1886.



WITNESSES

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W. H. Mortimer  
Wm. J. Little

Edward Dickson,  
by J. R. Littell,  
INVENTOR  
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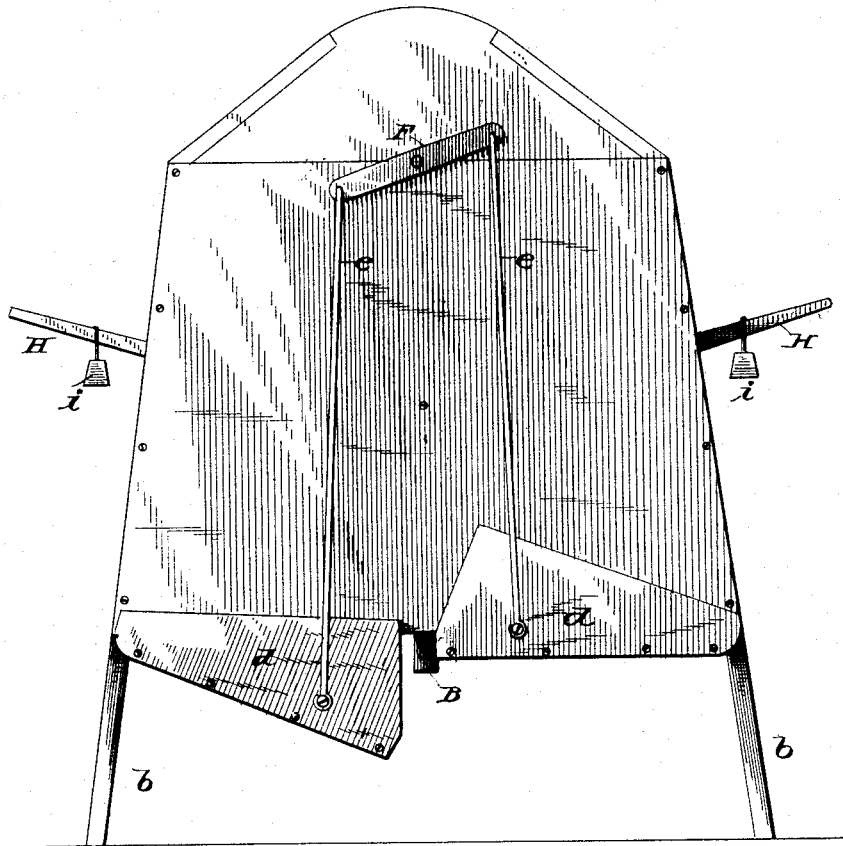
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Fig. 2.



WITNESSES:

*N. N. Ashmer.*  
*Wm. J. Little,*

INVENTOR:

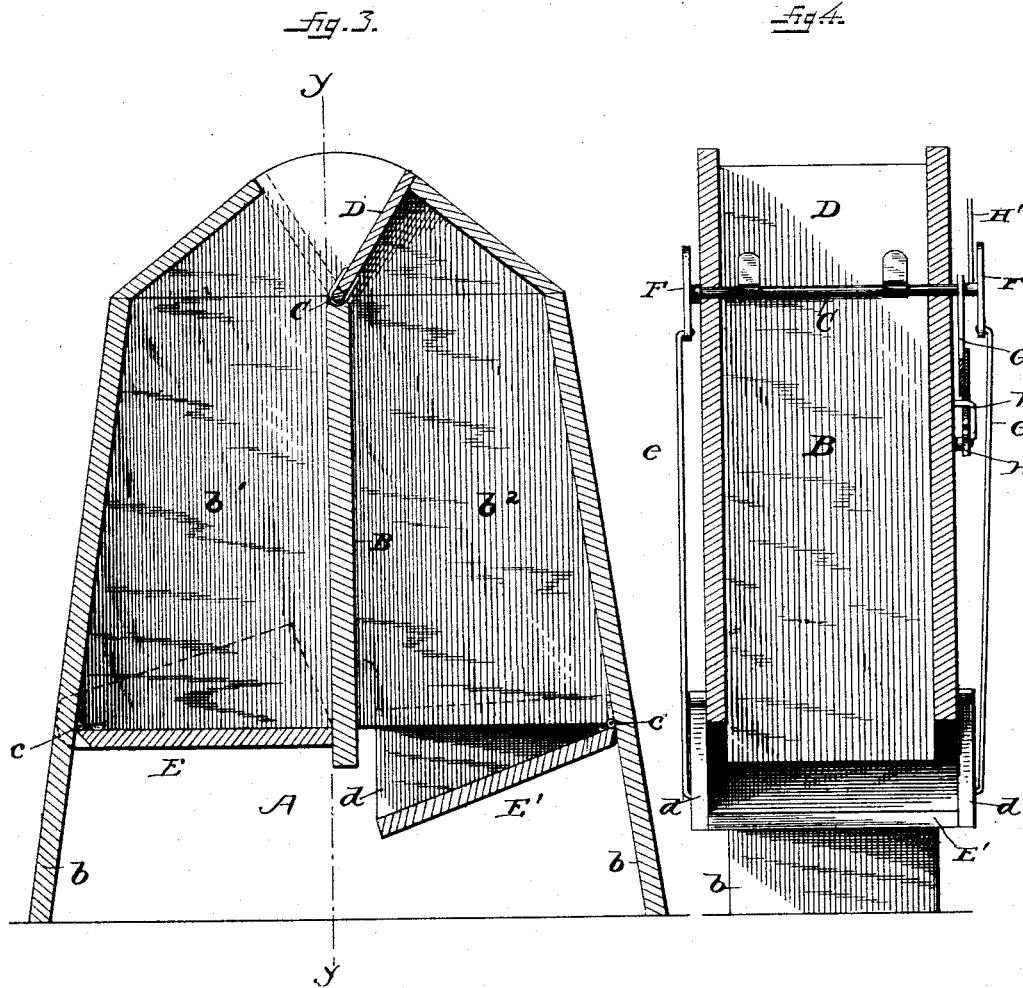
*E. Dickson,*  
by *J. R. Little,*  
his attorney.

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WITNESSES:

Wm. J. Little

INVENTOR:

Ernest Dickson,  
by his attorney,  
J. R. Littell,

# UNITED STATES PATENT OFFICE.

ELWOOD DICKSON, OF KEWANEE, ILLINOIS.

## AUTOMATIC GRAIN-WEIGHER.

SPECIFICATION forming part of Letters Patent No. 342,902, dated June 1, 1886.

Application filed February 18, 1886. Serial No. 192,355. (Model.)

*To all whom it may concern:*

Be it known that I, ELWOOD DICKSON, a citizen of the United States, residing at Kewanee, in the county of Henry and State Illinois, have invented certain new and useful Improvements in Grain Weighers and Measurers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a grain weigher and measurer; and the object of my invention is to provide a device of this character adapted to receive the grain as it comes from the thrashing-machine, measure it, and deliver it to a suitable receiving receptacle.

A further object of the invention is to provide a device of the character mentioned which shall be simple in its construction, strong and durable, and automatic in its operation.

With the above and other objects in view the invention consists in the combination, with a box or bin divided into two compartments, of a shaft carrying a shifting-board, a bottom consisting of two hinged sections, connections between the bottom and the shaft, and means for alternately holding the sections comprising the bottom in a raised position and alternately lowering them.

The invention further consists in the improved construction and combinations of parts, hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my invention. Fig. 2 is a rear elevation. Fig. 3 is a section on the line *xx* of Fig. 1, and Fig. 4 is a section on the line *yy* of Fig. 3.

Corresponding parts in the several figures are denoted by the same letters of reference.

Referring to the drawings, A represents a box or bin having an opening at its upper end, and having its ends extended, as at *b*, to form supports for the bin or box.

B represents a partition dividing the box or bin into two compartments, *b'* *b''*, said partition extending from a point just below the sides of the bin to a point near the upper end thereof.

C represents a shaft journaled in the sides of the bin, and having its ends extending beyond said sides.

D represents a shifting-board, rigidly secured to the shaft C, and adapted to be turned with the same to cause the grain to fall into either of the compartments *b'* *b''* by moving it so that its upper end will bear against the side of the opening in the upper end of the box.

The bottom of the hopper consists of two sections, *EE'*, which are hinged at their outer ends, as at *e*, and are provided with the side strips, *d*, to inclose the sides of the bin to prevent the escape of grain when either of the compartments is being filled.

Upon the ends of the shaft C are rigidly mounted arms F, said arms being located on the shaft midway their ends, and pivotally connecting the outer ends of said arms with the side strips of the sections comprising the bottom of the bin are rods *e*.

Secured upon and depending from end of the shaft C is a bar, G, upon the lower end of which are pivoted detents *g*.

Pivoted to the sides of the box or bin A are hooked levers H, the movement of which is limited by guides *h*, in which they work.

Upon the hooked levers H are movable weights *i*, whereby the weight necessary to cause the disengagement with either one of the detents may be regulated.

Extending upwardly from the shaft C is an arm which is adapted to actuate suitable registering or recording mechanism at each movement of the shaft upon which it is secured.

The operation is as follows: The grain is received from the elevator of the thrashing-machine and falls into either one of the hoppers, depending, of course, upon which side of the opening in the bin the shifting-board is bearing against. The bottom of this compartment is supported by one of the detents engaging one of the hooked levers H, (that one which is pivoted to the side of the bin adjacent to the compartment being filled.) The weight of grain necessary to partially turn the shaft C, and through the medium of the bar G overcome the weight on the lever, is regulated by the movable weight, as before described. When the grain in the closed compartment is

sufficient to overcome the weight on the lever, the bottom drops, thus partially rotating shaft C and shifting the partition-board, the detent being released from the hooked lever as the bottom is lowered, the bar G shifting to the other side of the bin and the detent to engage the other hooked lever and close the bottom to compartment  $b^2$ . The arm H', at each forward and backward movement of the arm, causes suitable apparatus of ordinary construction to register the number of bushels that have been discharged.

It will be apparent from the above description that the operation of my invention is certain and automatic, and that there is no liability of the parts to derangement.

Having thus described my invention, I claim—

1. The combination, with a box or bin divided into two compartments, and having a receiving-opening, of a journaled shaft carrying

a shifting-board, hinged sections comprising a bottom connection between the shaft and sections, a bar depending from the shaft and carrying detents, and hooked levers provided with movable weights, as set forth.

2. The combination, with a box or bin divided into two compartments, and having a receiving-opening common to both said compartments, of a journaled shaft carrying a shifting-board, a bottom comprising hinged sections, arms on the ends of the shaft, rods connecting the arms and the sections, a bar depending from the shaft and carrying pivoted detents, and pivoted hooked levers carrying movable weights, as set forth.

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

ELWOOD DICKSON.

Witnesses:

SAML. DICKSON,  
CHAS. K. LADD.