

(No Model.)

W. P. FARRELL.

GRAIN MEASURING ATTACHMENT FOR THRASHING MACHINES.

No. 454,727.

Patented June 23, 1891.

Fig. 1.

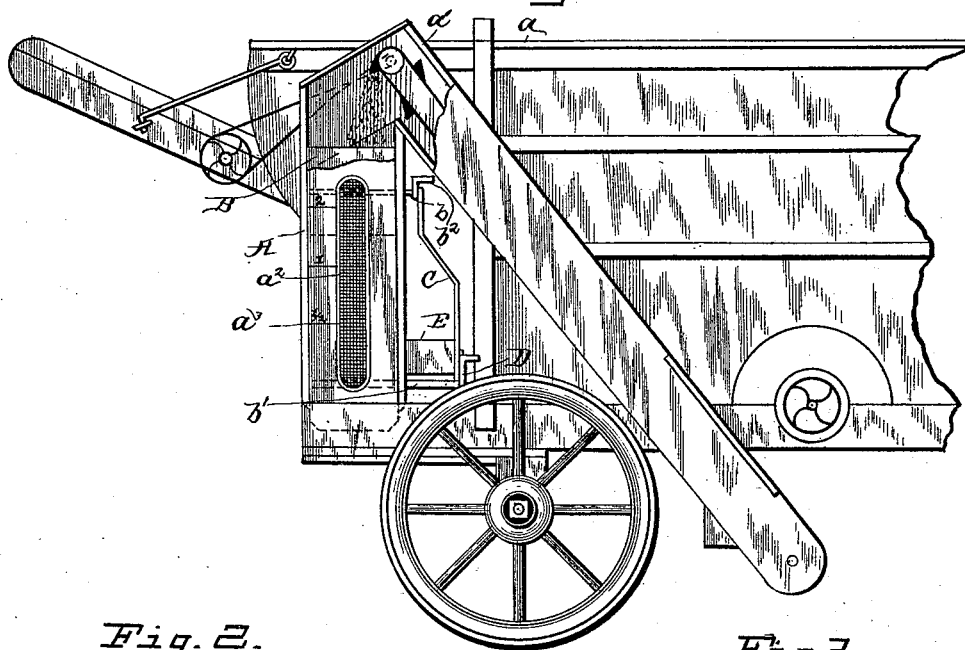


Fig. 2.

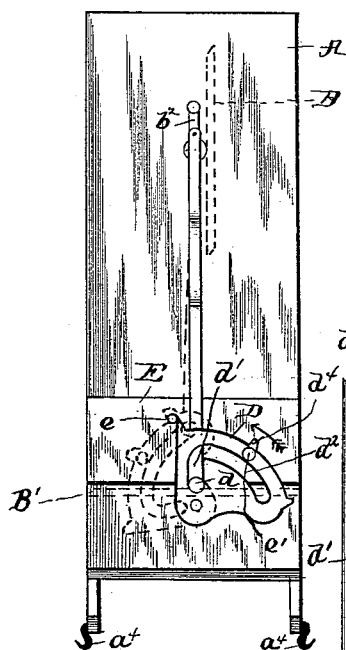


Fig. 3.

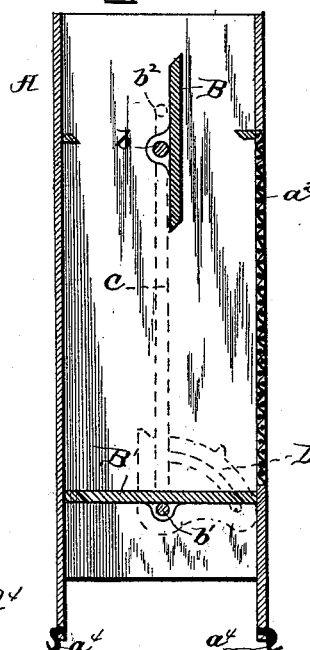
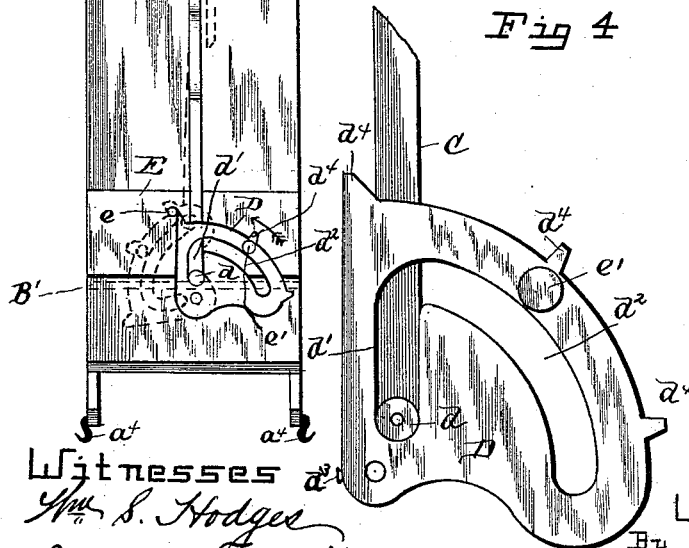


Fig. 4.



Witnesses
S. S. Hodges
O. St. O. Farrell.

Inventor
W. P. Farrell
By Patrick O'Farrell.
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM P. FARRELL, OF JAMESTOWN, NORTH DAKOTA.

GRAIN-MEASURING ATTACHMENT FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 454,727, dated June 23, 1891.

Application filed August 2, 1890. Serial No. 360,802. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. FARRELL, a citizen of the United States of America, residing at Jamestown, in the county of Stutsman and State of North Dakota, have invented certain new and useful Improvements in Grain-Measurers, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention pertains to certain new and useful improvements in grain-measurers, having for its object the production of an improved measuring device capable of being attached to a thrashing-machine, whereby the
15 grain will be accurately measured before it is placed into bags for transportation to the granary.

The invention comprises a box connected at its upper end to the elevator frame or chute
20 of a thrashing-machine and having a trap door or valve at each end and a lever for simultaneously operating said trap doors or valves and registering the amount in the
25 tally-box, and also the detail construction, combination, and arrangement of parts, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view, with parts broken away, of the
30 rear portion of a thrashing-machine with my invention applied thereto. Fig. 2 is a rear view of the grain-measure detached. Fig. 3 is a longitudinal sectional view of the latter. Fig. 4 is a detail.

35 Referring to the drawings, A designates a grain box or measure attached by suitable means to the discharge end of a thrashing-machine *a*, the upper end of said box being connected to the end of the discharge or ele-
40 vator chute *a'* of said machine. In the outer side of this box is formed a vertical longitudinal opening, over which is placed a fine-wire screen *a²*, by means of which the contents of the box are always visible. Adjacent this
45 screen-covered opening on the side of the box is a graduated scale *a³*, indicating one-half bushel, one bushel, or two bushels, as the case may be.

To the lower end of box A are secured
50 hooks *a⁴*, by which bags can be held while being filled.

B B' designate upper and lower trap doors

or valves located in box A, said valves being secured on pivot-rods *b b'*, projecting through openings in the box. To one end of rod *b* of
55 valve B is secured a crank-handle *b²*, by which said valve can be readily operated. To this crank-handle is secured the upper end of an arm or pitman C, the lower end of which is provided with a friction-roller *d*,
60 projected through either one of two slots *d'* *d²*, formed in a plate or quadrant D, rigidly secured on one end of rod *b'* of the lower valve B' by a set-screw *d³*. Upon the circular portion of this plate or quadrant is a series of lugs or projections *d⁴*, corresponding in
65 number to the scales of graduation on the grain-box. These lugs are designed to engage with the lever *e* of the tally-box E, secured to box A, whereby a register is made
70 each time the valves are operated and the quantity of grain is indicated in the tally-box. When the lower valve B' is closed and the upper valve B open, the roller *d* of pitman C is located at the lower end of the
75 straight or vertical slot *d'* of plate or quadrant D; but as soon as crank *b²* of the valve B is operated to close said valve said roller will be moved to the top of said slot. In operating the lower valve B' by turning plate
80 or quadrant D by its handle *e'*, said roller will move in the curved slot *d²* and will hold said valve open until the plate or quadrant is again operated. In closing the lower valve B' the upper valve B is opened through the
85 agency of pitman C and plate or quadrant D. In the movement of plate or quadrant D the lugs thereof engage the lever of the tally-box and register the amount of grain measured in each operation. It will be seen that the valve
90 B' cannot be opened without closing the upper valve B, and thus there is no waste caused by the opening of the former before closing the latter, and vice versa, thus insuring accurate measurement. It will also be seen
95 that there being plenty of storage space above valve B the working of the elevator may continue when valve B' is opened in bagging the grain, the latter being facilitated by hanging the bags on the hooks in the bottom of the
100 grain box or measure.

I claim as my invention—

1. As an improvement in grain-measurers, the grain box or measure having a longitudi-

nal sight-opening, the upper and lower valves having pivoted crank-shafts, the pitmen connecting said crank-shafts, and the slotted plate for holding said valves in their respective positions, substantially as set forth.

5 2. As an improvement in grain-measurers, the grain box or measure having a longitudinal sight-opening, and the upper and lower valves having pivoted shafts, the crank-handle secured to the shaft of said upper valve, 10 the plate or quadrant secured to the shaft of said lower valve and having slots formed therein, and the pitman pivoted at its upper end to said crank-handle and having a friction-roller secured to its lower end working 15 in said slots, substantially as set forth.

3. As an improvement in grain-measurers, the combination of the box or measure having a lower valve, together with its shaft, the 20 plate or quadrant secured upon the end of said shaft and having lugs or projections, and the tally-box having its lever operated by

said lugs or projections, substantially as set forth.

4. As an improvement in grain-measurers, 25 the combination of a box or measure having a longitudinal screen-covered opening and a scale of graduation, the upper and lower valves having pivoted shafts, the crank-handle secured to the shaft of said upper valve, 30 the plate or quadrant secured to the shaft of said lower valve and having slots formed therein, and lugs or projections, the pitman connected to said crank-handle and having a roller on its lower end working in said slots, 35 and the tally-box having its crank operated by said lugs or projections, substantially as set forth.

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

WILLIAM P. FARRELL.

Witnesses:

JOHN WILKINS,

FREDRUS BALDWIN.