

(No Model.)

2 Sheets—Sheet 1.

A. J. MILLER.

GRAIN REGISTERING AND LOADING ATTACHMENT.

No. 436,585.

Patented Sept. 16, 1890.

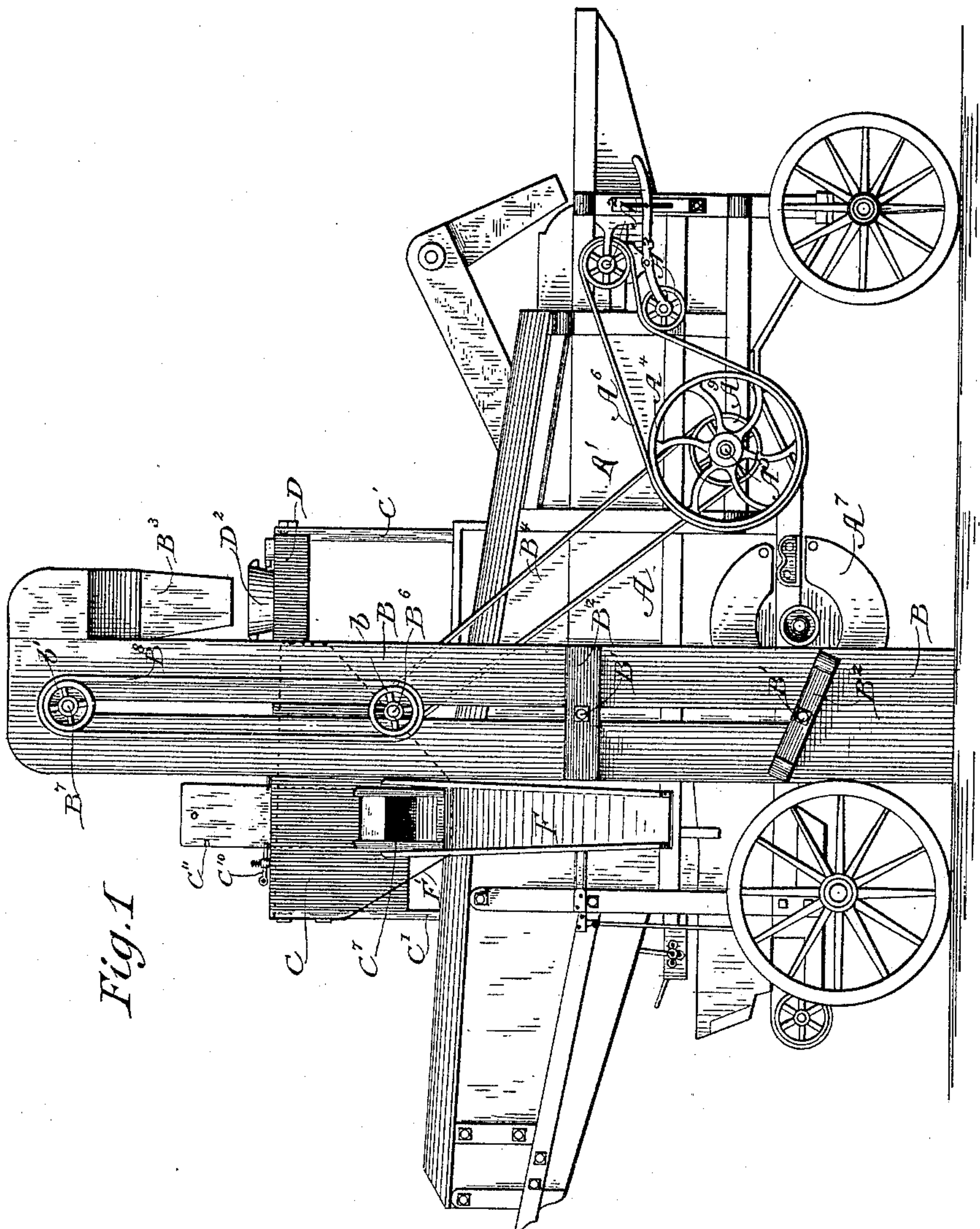


Fig. 1

Witnesses:  
*Wm. H. Howe*  
*H. M. Richards*

Inventor:  
*A. J. Miller*  
*By W. B. Richards,*  
*Att'y.*

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Fig. 2

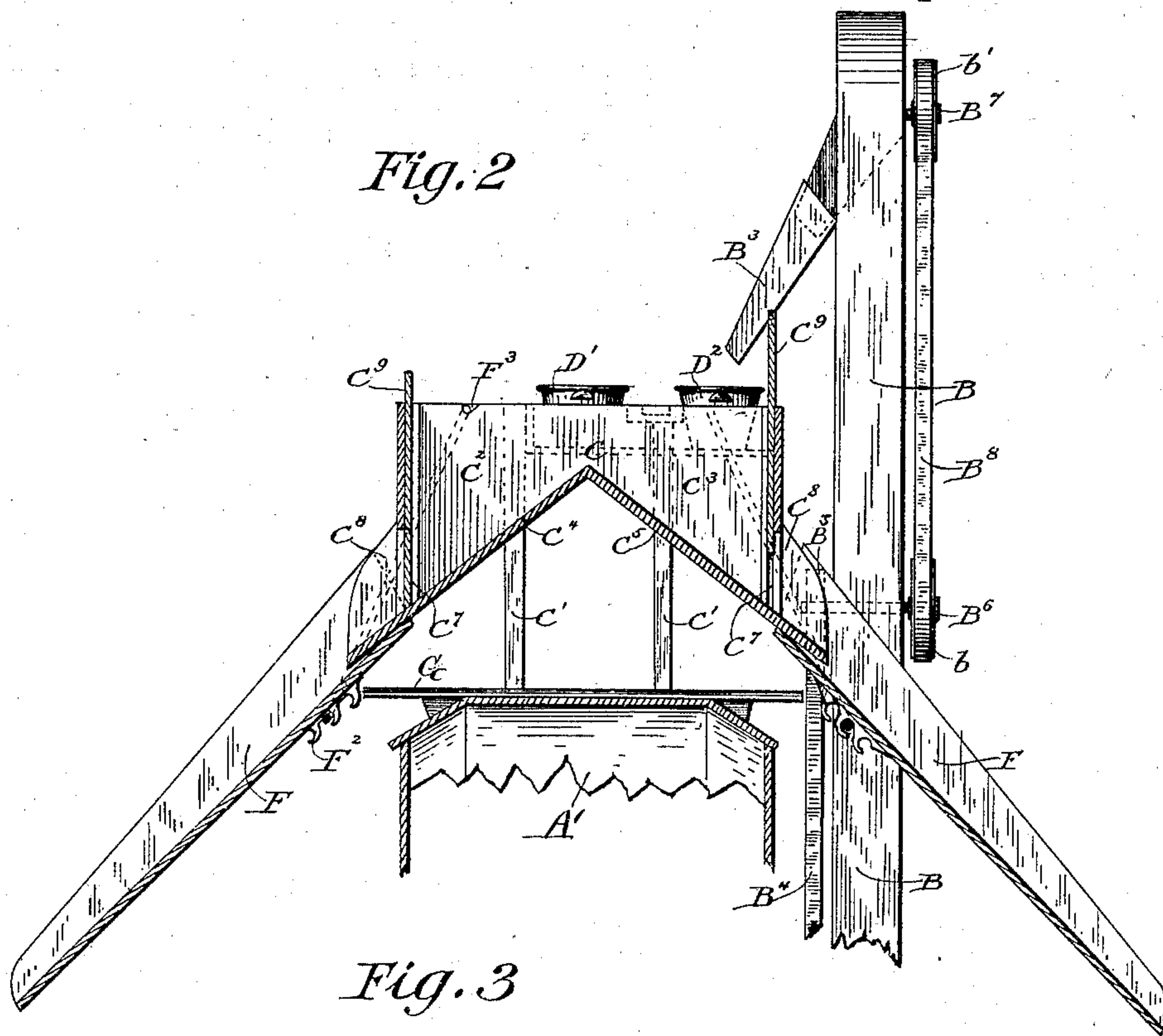
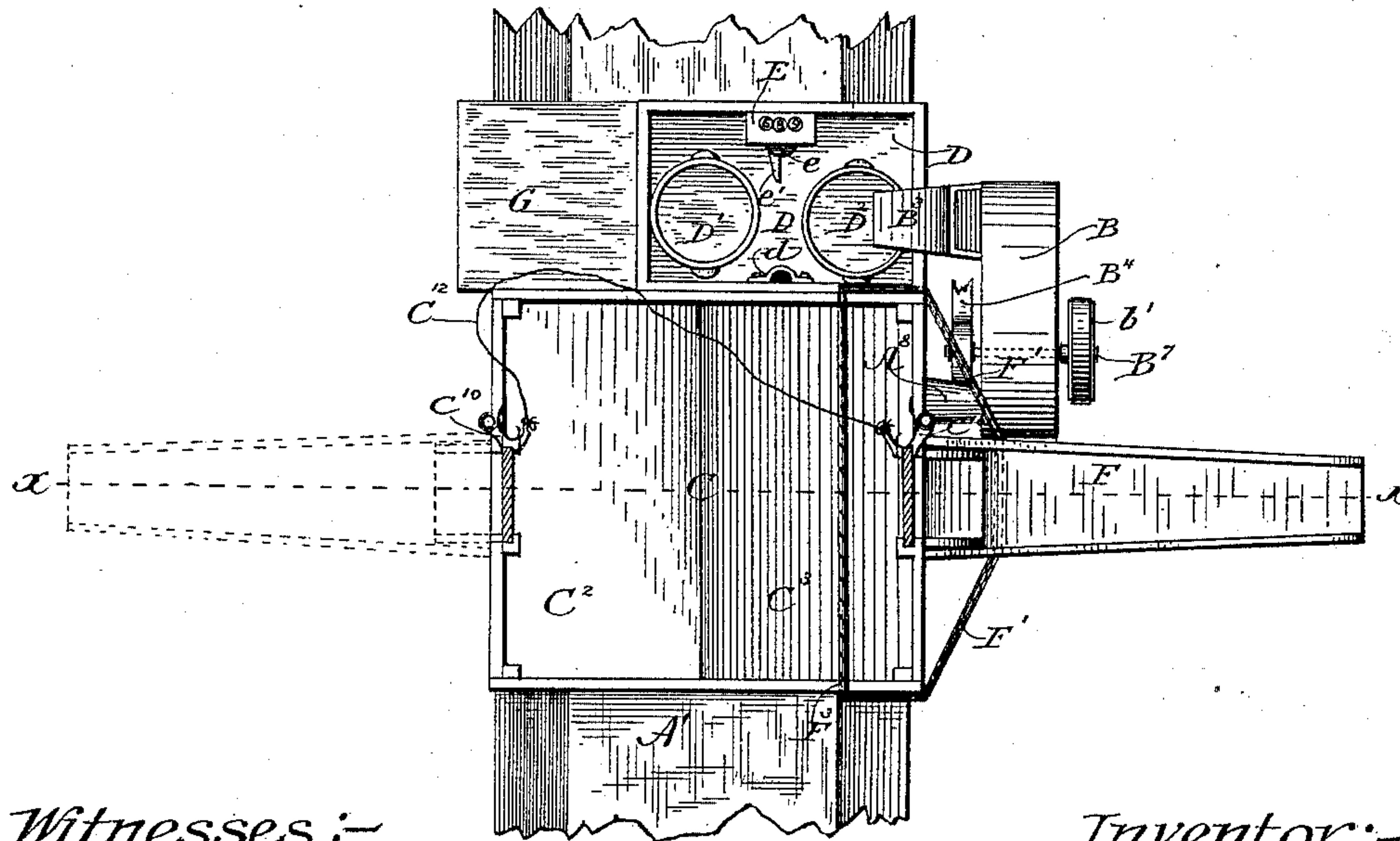


Fig. 3



Witnesses:-  
C. H. Rowe,  
H. M. Richards.

Inventor:-  
A. J. Miller,  
By H. B. Richards,  
Att'y.



# UNITED STATES PATENT OFFICE.

ALONZO J. MILLER, OF ONEIDA, ILLINOIS.

## GRAIN REGISTERING AND LOADING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 436,585, dated September 16, 1890.

Application filed January 26, 1886. Serial No. 189,826. (No model.)

*To all whom it may concern:*

Be it known that I, ALONZO J. MILLER, a citizen of the United States, residing at Oneida, in the county of Knox and State of Illinois, have invented certain new and useful Improvements in Registering and Loading Attachments to Grain Thrashers and Separators, of which the following is a specification.

My invention relates to an elevated grain receiving and delivering attachment to thrashing-machines.

The objects of the invention are to combine and arrange the parts in such manner that the grain will be conducted to an elevated and convenient place upon the thrashing-machine, to avoid the labor of unnecessarily lifting it; to admit of perfect freedom of movement in passing the measure from one side to the other of the tally-box; to place the tally-box and operator's stand in such a position that every movement may be seen by persons in the vicinity of and from both sides of the thrashing-machine; to expose irregularities in counting or in measurement, if need be; to place the operator in a raised position, out of the dust and flying chaff, and which will give him complete command of the field at both ends of the thrashing-machine to direct the workmen and teamsters; to provide means for the storage of grain upon the machine after it has been measured and before it is delivered to the wagons in sufficient quantities to allow the wagons ample time to come and go, to be filled and refilled, to be changed in position, or to be absent from their position alongside of the machine as long as occasion may require, without danger of the grain overrunning the measuring-receptacles or requiring the stopping of the machine during such intervals, and to provide means for delivering the grain from the storage-receptacle to either side of the thrashing-machine to be sacked or run into an open wagon, which may preferably be drawn up to the spout or trunk, which is at the time to the windward side of the machine, under shelter and away from floating dust and chaff.

My invention consists of construction and combination, hereinafter more particularly described, and specifically designated in the claims.

In the accompanying drawings, Figure 1 is

a side elevation of a thrasher with my improvements attached; Fig. 2, an enlarged vertical section in line *xx* in Fig. 3 of my improvements, and also showing a fragmental portion of the casing of a thrasher to which said improvements are attached; Fig. 3, a plan of my improvements enlarged, as in Fig. 2, and showing a single side spout applied to the machine, represented by full lines upon one side and by dotted lines upon the opposite side of the machine.

The thrasher A may be of any ordinary or preferred construction wherein a boxing A' incloses the mechanism. A cylinder-shaft A<sup>2</sup>, idler-pulley A<sup>3</sup>, and driving-pulley A<sup>4</sup>, driven by drive-shaft A<sup>5</sup>, from which motion is transmitted through a driving-belt A<sup>6</sup>, are ordinarily employed in this class of machines. A separator-fan box A<sup>7</sup> and grain-delivery spout A<sup>8</sup> also constitute features of the thrasher, and said last-named parts are ordinarily located slightly in advance of the rear wheels and as low down as they can safely be placed, to clear ordinary obstructions in a road when traveling. The delivery-spout is necessarily placed so low down that a slight excavation is ordinarily made to receive the bushel-measure or tally-box, and the operator who measures the grain and empties the half-bushel is required to stoop or kneel and perform his labor with great inconvenience. Elevators have been applied to the side of the machine to receive the grain from the delivery-spout and elevate it a sufficient distance to discharge it into a wagon.

The improvements herein claimed consist, generally, in an elevator B of any ordinary or preferred construction, secured in an upright position by bolts B' and clamps B<sup>2</sup> to the side of the machine, (see Fig. 1,) to receive the grain from the delivery-spout A<sup>8</sup> of the separator and elevate it above the machine a sufficient distance to discharge it through the elevator-spout B<sup>3</sup> into a receptacle supported upon the top of the thrashing and separating machine.

The elevator is driven by a belt B<sup>4</sup>, supported upon pulleys A<sup>9</sup> and B<sup>5</sup>, secured, respectively, to the driving-shaft A<sup>8</sup> and to a shaft B<sup>6</sup>, supported in bearings upon the elevator-casing. A counter-shaft B<sup>7</sup>, also supported upon the elevator-casing immediately



over the shaft B<sup>6</sup>, is driven by a belt B<sup>8</sup> and pulleys b b', secured, respectively, to the upper and lower shafts aforesaid, and the elevator-apron is driven from the upper shaft b' in the usual manner.

A grain-receptacle C and tally-box D are supported by legs C' upon and about breast-high above the casing of the machine, and are located so that the tally-box and half-bushel measures D' D<sup>2</sup> supported therein will be held directly beneath the elevator-spout B<sup>3</sup> to receive the grain therefrom, and after being filled are drawn to the other end of the tally-box with perfect freedom by the operator, who replaces the full half-bushel measure by an empty measure, and then pours the contents of the full measure in the grain-receptacle C, located immediately adjoining the tally-box, without the necessity and labor of lifting and emptying the half-bushels above the height at which they are filled. The tally-box is of the usual well-known construction, and consists of a shallow box D, provided upon one side with an abutment-block d and upon the opposite side with a register E. The register E is provided with an abutment e, between which and the abutment d the half-bushel is drawn after being filled, and is also provided with a vibrating lever e', which is necessarily actuated by each half-bushel that passes between the abutments, and registers by suitable mechanism of well-known construction the number of measures or grain-tallies delivered from the machine.

The grain-receptacle C is formed of a double trunk or compartments C<sup>2</sup> C<sup>3</sup>, separated by oppositely-inclined bottoms C<sup>4</sup> C<sup>5</sup>, sloping toward the opposite sides of the machine. The said compartments are provided at their lowermost or delivery ends with discharge-openings C<sup>7</sup>, spouts C<sup>8</sup>, and valves C<sup>9</sup>, which slide within guides vertically across said openings to discharge the contents of either compartment at pleasure. A spring-latch C<sup>10</sup> engages with notches C<sup>11</sup> in the edge of the valves to secure them in either their open or closed positions, and may be operated conveniently with a string C<sup>12</sup> by the operator at the tally-box.

A discharge-trough F is suspended beneath the spouts C<sup>8</sup> by means of a cord F', which engages with a toothed rack-plate F<sup>2</sup>, secured to the under side of the trough, and passes around and over the outside of the grain-receptacle and rests in notches F<sup>3</sup>, formed in the upper edge of said receptacle to support the said trough at any required angle upon the side of the machine to suit the height of the wagon into which the grain is discharged. A single trough may be employed, and is thus made transferable from one side to the other of the machine.

A platform G is supported upon the top of the machine, upon which the operator may stand, alongside of the tally-box and grain-receptacle, and be in position to command

the entire field of operations, both upon the ground and upon the rick, and at the same time attend to the correct measurement and registry of the grain delivered from the machine. One man may thus do the work of a number of men as heretofore employed, with greater ease and with many advantages obtainable because of his elevated position. The teams may be haled at a distance and hurried forward or directed to either side of the machine to receive the grain more conveniently, to be in position upon the windward side of the machine, out of the dust and flying chaff, and by locating the tally-box and grain-receptacle as above described ample room is afforded for handling the half-bushel measures conveniently without lifting them and for employing a grain-receptacle of any required size to store the grain during such intervals as may be required to bring the wagons in position, or transfer the delivery-trough from one side to the other of the machine.

The double discharge reservoir provides a simple means by which the grain may be measured and sacked conveniently at the machine with but little handling, as the number of half-bushels required to fill a sack may be emptied first into one compartment and then into the other compartment of the receptacle, and emptied from said compartments into sacks. The interval between the discharge of the compartments and the refilling of the same will afford ample time to tie up and dispose of the filled sacks.

I claim as my invention and desire to secure by Letters Patent—

1. The combination of a thrashing-machine, a grain-elevator secured to the side of the machine and having its receiving end connected with the discharge-spout of the thrashing-machine and its discharge-spout projecting over said machine, a grain-receptacle supported upon the top of said machine to receive the grain, and a platform also mounted upon said machine near the discharge-spout of the elevator and the grain-receptacle, substantially as described.

2. In a grain registering and loading attachment for separators, and in combination, a grain-elevator adapted to receive grain from the discharge-spout of the separator, a grain-receiver adapted to receive the grain from the upper or discharging end of the elevator, and spouts extending in opposite directions from said grain-receiver, through either of which the grain may be discharged to either side of the separator, substantially as described.

3. The combination of a thrashing-machine, a grain-receptacle and operator's stand mounted upon the top of said machine, a box to support the measuring-pail, and an elevator secured to the thrashing-machine and having its receiving end connected with the discharge end of the machine and its discharge end over the box for the pail, substantially as described.



4. The combination of a thrashing-machine,  
a grain-elevator secured to the thrashing-ma-  
chine and having its receiving end connected  
with the discharge of the machine and its  
5 discharge end over the top of said machine, a  
tally-box having the registering device and  
located upon said machine and under said  
spout, substantially as described.

5. The combination of the receptacle hav-

ing notches  $F^3$ , the discharge-trough  $F$ , hav- 10  
ing the toothed rack-plate  $F^2$ , and the end  $F'$ ,  
substantially as described.

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

ALONZO J. MILLER.

Witnesses:

GEO. W. PRINCE,  
THOMAS H. MEAD.