

(No Model.)

J. A. McFAYDEN.
GRAIN MEASURE REGISTER.

No. 532,897.

Patented Jan. 22. 1895.

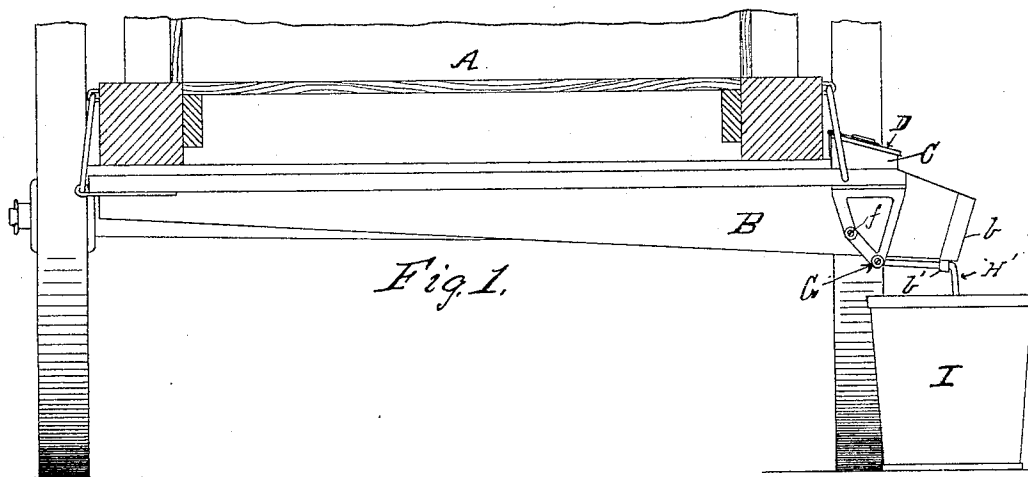


Fig. 5.

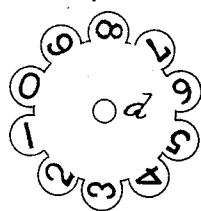


Fig. 2.

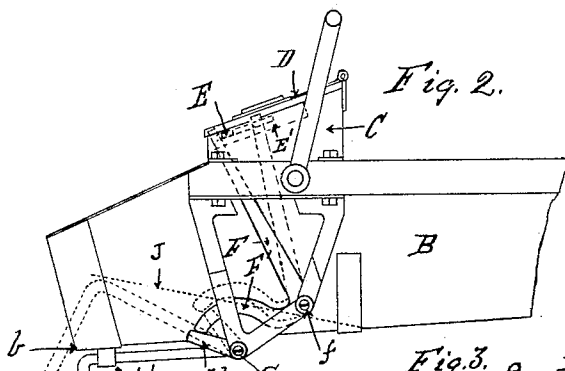


Fig. 3.

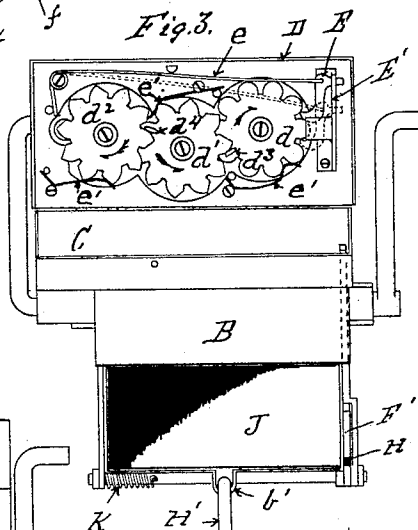
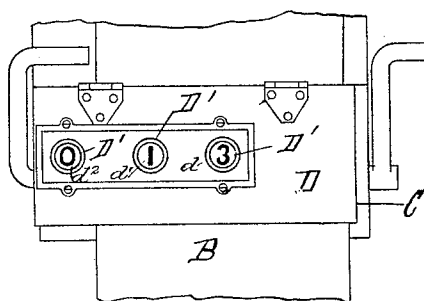


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN A. MCFAYDEN, OF ERIE, PENNSYLVANIA.

GRAIN-MEASURE REGISTER.

SPECIFICATION forming part of Letters Patent No. 532,897, dated January 22, 1895.

Application filed July 16, 1894. Serial No. 517,673. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. MCFAYDEN, a citizen of the United States, residing at the city of Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Grain-Measure Registers; 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention consists in the improvements in grain measure registers hereinafter set forth and described and illustrated in the accompanying drawings, in which—

Figure 1. shows a section of a grain thrasher and separator embodying my improved grain measure register. Fig. 2. shows a side view in elevation of my invention. Fig. 3. shows an end view of the same in elevation, with the register mechanism exposed. Fig. 4. shows a top or plan view of a section of the same, with the register casing closed. Fig. 5. shows a top or plan view of one of the register wheels.

The object of my invention is to provide register mechanism on the delivery spout of a grain thrasher and separator which is automatically operated by the removal of the measure from under the end of the spout, and so constructed that every time a measure is removed, its removal is automatically registered.

In the construction of my invention illustrated in the accompanying drawings, A is a section of an ordinary grain thrasher and separator, and B the grain delivery spout of said machine. Preferably on the top of the spout near the outer end thereof is secured a box C having a hinged top D to the inside of which are pivoted register wheels d , d' , and d^2 , each provided with ten teeth, numbered as illustrated in Fig. 5, the wheel d' overlapping the wheel d , and the wheel d^2 overlapping the wheel d' , and on the wheel d is a stud d^3 adapted to engage a tooth of the wheel d' and move it forward one tooth at each rotation of the wheel d , and on the wheel d' is a stud d^4 adapted to engage a tooth of the wheel d^2 and move it forward one tooth at each rotation of

the wheel d' . On the upper sides of the wheels d , d' , and d^2 are figures one for each tooth, which show one at a time through openings D' in the cover D, where the aggregate amount registered can be read.

For actuating the wheel d a sliding dog E is provided which moves forward and back in a guide E'. The point of the dog E engages the teeth of the wheel d when moved forward, which is done by a bell crank lever F F' pivoted at one side of the spout B at f , one arm F of which is adapted to engage the dog E and move it forward as illustrated by the dotted lines in Fig. 2, and it is moved back by a retracting spring e which moves the dog E back to its normal position, as illustrated in Fig. 2. Each of the register wheels d , d' , and d^2 is provided with a spring dog e' which operates to prevent them from any improper movement.

I have shown and described a train of three registering wheels, but is obvious that I can use a greater number if desired.

At a point G on one side of the spout B is pivoted a second bell-crank lever H H', one arm H of which is adapted to engage the arm F' of the bell-crank lever F F', and the other arm H' projects forward and downward in front of and below the outer end b of the spout B, so as to extend downward into a measure I placed under the end b of the spout B, as illustrated in Fig. 2; the downward movement of the arm H' being limited by the stirrup b' secured to the frame of the end b of the spout.

The bottom J of the outer end of the spout, I preferably make of thin spring steel, secured at its inner end to the bottom of the spout B, so that when the arm H' of the bell-crank lever H H' is raised, as illustrated in the dotted lines in Fig. 2, it operates to raise the end of the bottom J of the spout, as illustrated by the dotted line in Fig. 2, and cut off the flow of grain from the end b of the spout until the arm H' of the lever H H' falls back to its normal position projecting downward into the measure I.

In operation, when the measure I is filled, a second measure is placed behind it and the two measures are then moved forward until the empty measure takes the place of the full one. This operates to raise the arm H' of the

lever H H' out of the full measure and for a
 short time during said movement the end of
 the said arm rests upon the edges of the meas-
 ures I until it finally falls into place in the
 5 empty measure which has been placed under
 the end *b* of the spout. The downward move-
 ment of the arm H' is actuated by means of
 a helical spring K shown in Fig. 3, which op-
 erates to return it to its normal position. The
 10 upward movement of the arm H' of said lever
 as above described, has meanwhile oper-
 ated upon the bell-crank lever F F' to move
 the dog E operating on the register wheel *d*
 forward, so as to register, and has also oper-
 15 ated on the part J of the bottom of the spout
 during the movement of the measures, so as
 to cut off the flow of grain during that time,
 and the downward movement has permitted
 the spring *e* to move the dog E back one tooth
 20 on the register wheel *d* to its normal position,
 so that removal of the measure is registered
 and the mechanism ready for the next regis-
 try. This operation is the same each time a
 measure is removed, resulting in registering
 25 every such removal.

Having thus described my invention, so as
 to enable others to construct and operate the

same, what I claim as new, and desire to secure
 by Letters Patent of the United States, is—

1. The combination, with a grain delivery 30
 spout, and registering mechanism secured
 thereto and provided with an operating lever;
 of a pivoted bell-crank lever having one arm
 H adapted to actuate the said operating lever,
 and another arm H' extending forwardly 35
 and downwardly below the mouth of the said
 spout; and a grain measure normally inclos-
 ing the end of the arm H' and operating to
 turn it on its pivot and actuate the register-
 ing mechanism when moved laterally from 40
 under the spout, substantially as set forth.

2. The combination of a grain delivery spout
 B, a register mechanism *d*, *d'*, *d*², E, and *e'*
 mounted thereon, levers F F' and H H' for op-
 erating said register mechanism, and a mov- 45
 able bottom J in the end of said spout adapted
 to be raised by the action of the lever H H',
 substantially as and for the purpose set forth.

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

JOHN A. MCFAYDEN.

Witnesses:

W. T. MCFAYDEN,
 F. EINFELDT.