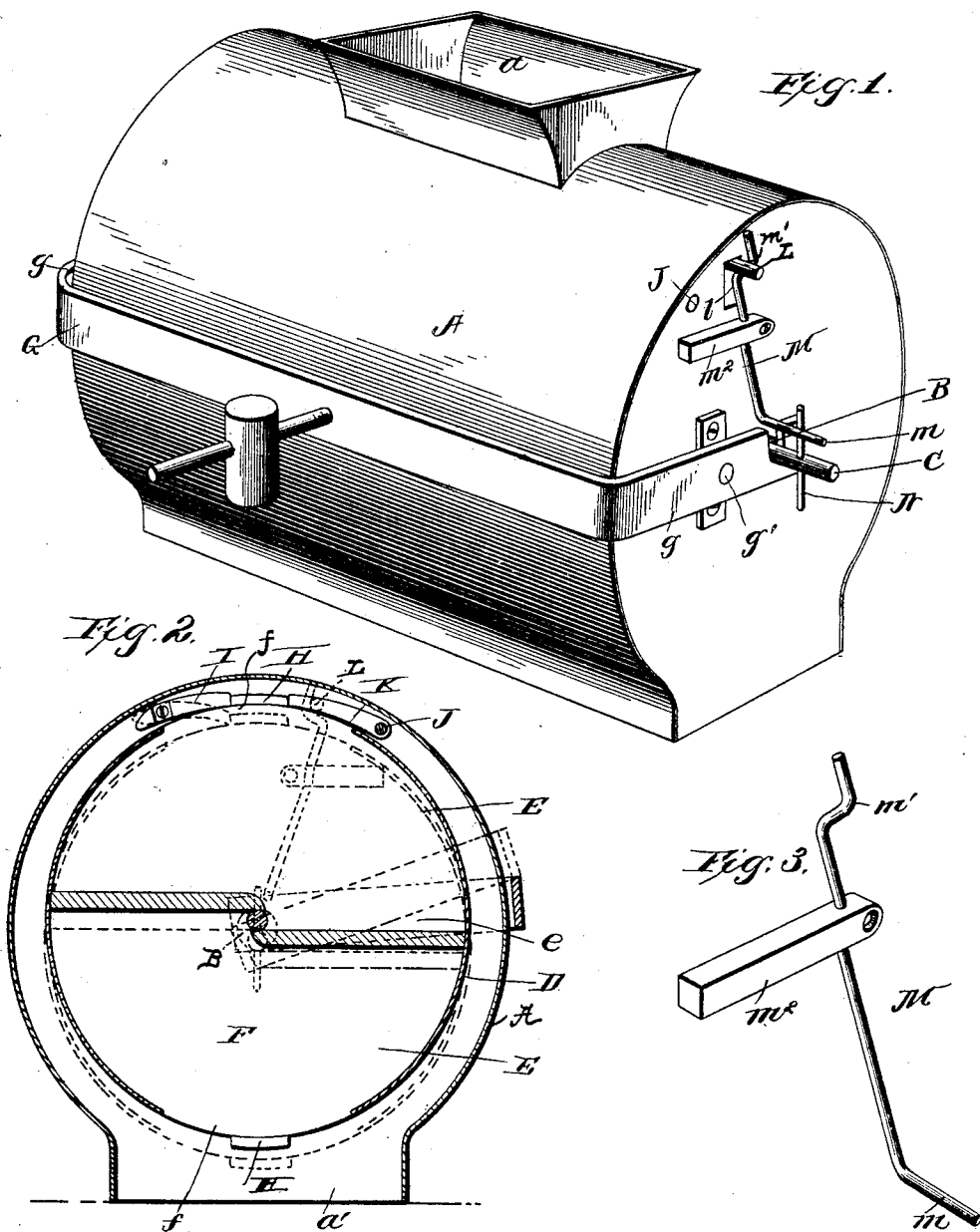


(No Model.)

W. SWARTOUT.
ROTATING GRAIN WEIGHER.

No. 479,537.

Patented July 26, 1892.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM SWARTOUT, OF REYNOLDS, ILLINOIS.

ROTATING GRAIN-WEIGHER.

SPECIFICATION forming part of Letters Patent No. 479,537, dated July 26, 1892.

Application filed February 26, 1892. Serial No. 422,895. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SWARTOUT, a citizen of the United States, residing at Reynolds, in the county of Rock Island and State of Illinois, have invented a new and useful Grain-Weigher, of which the following is a specification.

This invention relates to grain-weighers; and it has for its object to provide an improved rotary grain-weigher which will not only accurately regulate and weigh the quantity of grain passing therethrough, but is so constructed as to provide locking means for locking the measuring-cylinder in its receiving and discharging positions, and being so constructed that the grain not only drops from the device of its own weight, but on account of the particular construction claimed the device has a tendency to throw the grain out by suddenly stopping the cylinder, which is particularly advantageous in discharging wet as well as dry grain.

With these and many other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a grain-weigher constructed in accordance with this invention. Fig. 2 is a vertical transverse sectional view through one of the cylinder-heads and the casing. Fig. 3 is a detail in perspective of the dog-latch or trip-lever.

Referring to the accompanying drawings, A represents a cylindrical casing having the top receiving-opening *a* and the bottom discharge-opening *a'*. The said casing is provided in each end thereof with the slotted bearings or openings B, which receive the ends of the shaft C, carrying the measuring or weighing cylinder D, working within the casing. The said cylinder D is provided with the opposite compartments E, having the depressed bottom portion *e*, which provides for the overbalancing of the cylinders and causes the same to revolve under the weight of the grain. The said cylinder is further provided with the opposite circular heads F and elongated openings *f*, which receive the grain and

discharge the same, respectively, as the cylinder is turned. The shaft C extends through the slotted openings in the ends of the casing and loosely bears upon the notched ends of the forked weight-lever G. The said forked weight-lever G accommodates an adjustable weight which is adjusted to regulate the required amount of grain to be measured, and has the opposite arms *g* thereof fulcrumed at *g'* on each end of said casing at one side of the slots in the sides of the same. The opposite cylinder-heads F are provided with the locking lugs or blocks H at each end of each opening *f* on the periphery of the same, and are designed to be engaged by the pivoted dogs I, pivotally secured to opposite inner ends of the casing and adapted to rest upon the opposite cylinder-heads, so that when the cylinder is turned the raised lugs or blocks ride under said pivoted dogs, which drop behind said lugs or blocks and prevent the cylinder from turning backward. Directly opposite the pivoted dogs I and pivotally mounted at each end of the casing upon the rod J are the opposite trip-dogs K, which are designed to engage in front of said lugs or blocks and stop the cylinder while receiving the grain and discharging the same. Secured to the opposite trip-dogs K are the outwardly-extending pins L, which project through slots *l* in the casing ends, and thus allow the opposite dogs to be raised up or down. Located directly below the projecting pins L are the opposite trip latches or levers M, which are pivotally secured to opposite ends of the casing and are provided with lower outwardly-extending operating-arms *m*, upper shoulders *m'*, and intermediate weights *m''*, which normally cause the upper shouldered ends of said levers to engage under the dog-pins L and hold the dogs in their raised position while the cylinder is receiving the grain. To opposite ends of the shaft C are secured the projecting arms N, extending from each side of the same, and which when the grain has counterbalanced the weighted forked lever and carried the cylinder below the pins L are adapted to engage the outwardly-extending arms *m* of said trip-levers M and throw the locking-shoulders of said levers out of engagement with the dog-pins. The said trip-dogs are al-

lowed to drop immediately and come into engagement with the next set of locking lugs or blocks and hold the cylinder while discharging. After the filled compartment has discharged its contents the cylinder rises and carries the trip-dogs upward and allows the weighted trip-levers M to be thrown under the dog-pins L, and thus lock the said dogs in position until the cylinder has again fallen under the weight of grain and out of their planes.

The operation is apparent. The weighted cylinder overbalances the weighted lever or yoke supporting the cylinder and drops below and disengages the locking-lugs thereon. The cylinder turns, the trip-levers unlock the dogs and allow the same to drop, and engage the next set of locking-lugs until the grain is discharged. The cylinder again rises and the parts assume their normal positions and continue their operation, as described.

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

1. In a grain-weigher, the combination, with the casing, of the partitioned counterbalanced revoluble cylinder supported within said casing and provided with opposite locking-lugs at each end of the openings therein, dogs pivotally secured in each end of said casing and engaging in front of and behind said lugs, locking and trip pins connected with the front

set of dogs and projecting through the ends of the casing, shouldered levers engaging said trip-pins, and means for automatically operating said levers, substantially as set forth.

2. In a grain-weigher, the combination, with the casing having slots in the opposite ends thereof, of a weighted yoke fulcrumed to said casing, a revoluble partitioned cylinder supported upon said yoke within the casing and provided with opposite locking lugs or blocks at each end of the openings therein, locking-dogs pivoted at opposite ends of said casing and engaging in front of and behind said lugs, locking and trip pins secured to the front set of dogs and projecting through the slots in the ends of the casing, opposite trip and lock levers pivoted to the opposite ends of said casing and provided with lower outwardly-extending operating-arms, upper shoulders and overbalancing - weights normally throwing said shoulders under said locking and trip pins, and devices for operating said trip-levers from the cylinder-shaft, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM SWARTOUT.

Witnesses:

M. SCHOONMAKER,
R. P. WAIT.