C. LAMB.

Improvement in Grain-Meter.

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PATENTED NOV 22 1870

Fig. 1.

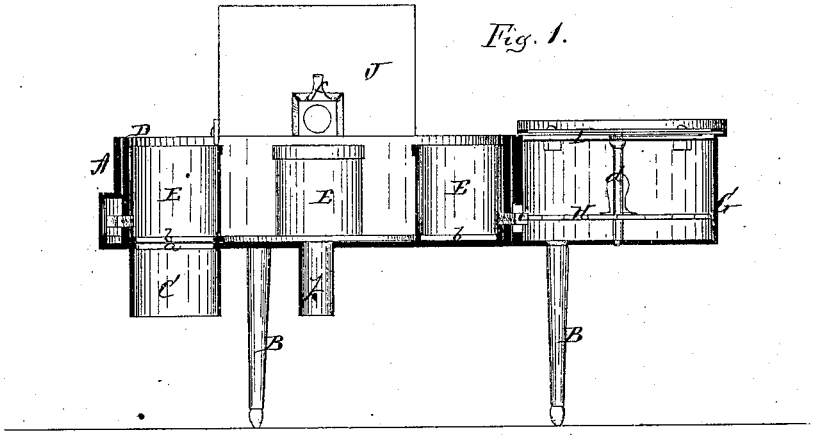
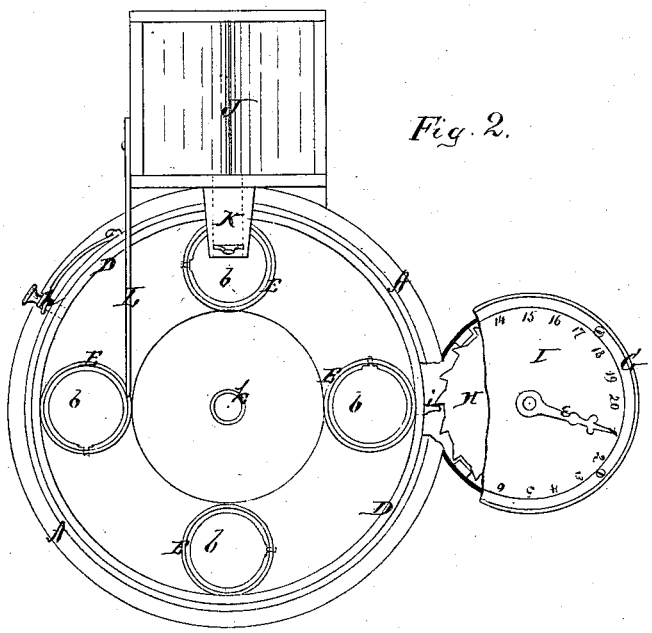


Fig. 2.



Witnesses:

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CHARLES LAMB, OF BINGHAMTON, NEW YORK.

Letters Patent No. 109,522, dated November 22, 1870.

IMPROVEMENT IN GRAIN-REGISTERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES LAMB, of the city of Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Grain-Measurers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a "self-emptying grain-meter," as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal vertical section, and

Figure 2 is a plan view of my machine.

A represents a circular box, of any desired dimensions, resting upon legs, B B, a suitable height from the floor, and having a round opening, *a*, in its bottom, near one side.

From this opening a tube, C, leads downward for a short distance, to the lower end of which tube the sack which is to be filled with grain is fastened.

Within the box A, upon its bottom, is placed another circular box, D, which just fits within the rim of the box A, and upon the bottom of which are secured, near the outer edge, four half-bushel measures, E E, at equal distances apart.

The bottom of the box D is provided with an opening under each measure E of the same size as the lower end of the measure, and in said opening is hinged a valve, *b*, of suitable size to close up the said opening and form the bottom of the measure.

On the opposite side of the box A from the tube C is attached a register, consisting of a casing, G, with a vertical shaft, *d*, through the center.

Near the lower end of this shaft is secured a cogged or toothed wheel, H, and the upper end of the shaft *d* passes through a dial-plate, I, and is, above the same, provided with a finger or indicator, *e*, the dial I being numbered to correspond with the number of cogs or teeth on the wheel H.

On the outside of the rim of the box D, directly opposite each other, are placed two pins, *i i*, which, as the box D revolves, move in a groove on the inside of the rim of the box A, except at the point where the indicator or register is attached.

Here a small opening is made for a portion of the wheel H to project through, so that the pin *i* can strike the same and turn it the distance of one of its teeth or cogs.

On one side, at equal distance from the register and the tube C, a hopper, J, is attached to the box A, from which hopper a spout, K, leads inward over the rim of the box, and has a sliding door, *f*, at its outer end.

The operation of my machine is as follows:

The grain being poured into the hopper is allowed to pass through the spout into one of the measures E. When this is filled the door *f* in the spout is closed.

The box D is now revolved, when the filled measure first passes under an arm, L, so that the top is scraped off level, the grain that is scraped off the top falling into the box D, and passes out through a tube, *k*, in the center.

When the box D has completed a one-fourth revolution a spring-pin, *h*, attached to the box A, passes into a hole in the rim of the box D and stops it.

The filled measure is then directly above the tube C, and the valve *b* falls down, emptying the grain.

The next measure is under the spout K, being filled, and as soon as filled the spring-pin *h* is withdrawn and the box D turned another one-fourth around, and the same operation continued.

There being only two pins, *i*, to operate the indicator, it is evident that this will show two bushels for each revolution of the box D, the measures being half-bushels.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The revolving box D, provided with measures E E, each having a drop-valve or bottom, *b*, operating as and for the purpose set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

CHAS. LAMB.

Witnesses:

F. A. DURKEE,

M. E. CONKLIN.