No. 648,771. Patented May 1, 1900.

W. S. MILLER.

GRAIN REGISTER.

(Application filed Nov. 15, 1899.)

(No Model.) 2 Sheets—Sheet 1.

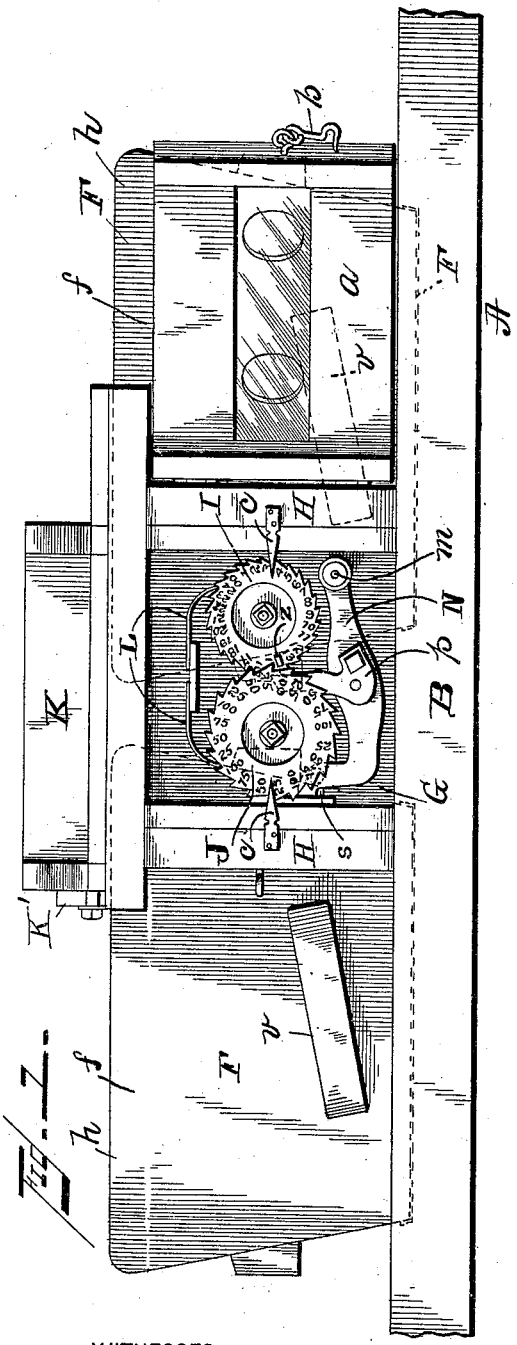

FIG. 1.

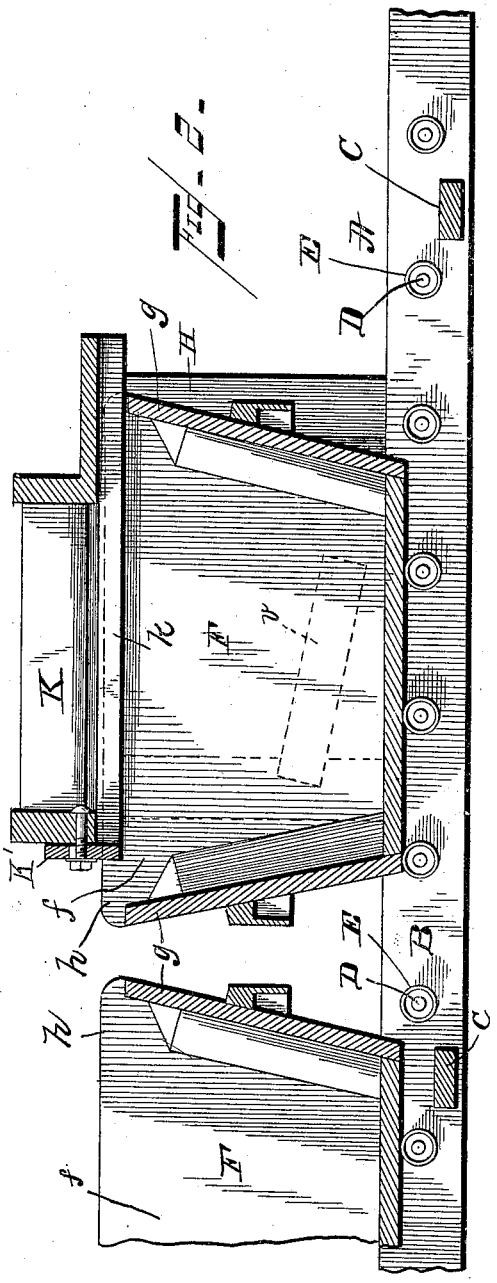

FIG. 2.

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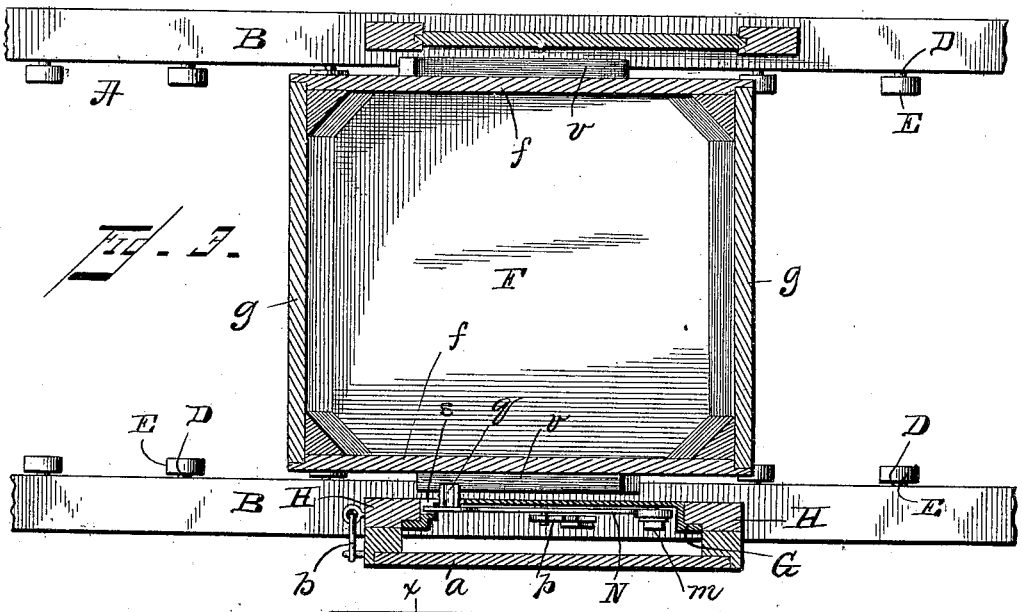

Fig. 3.

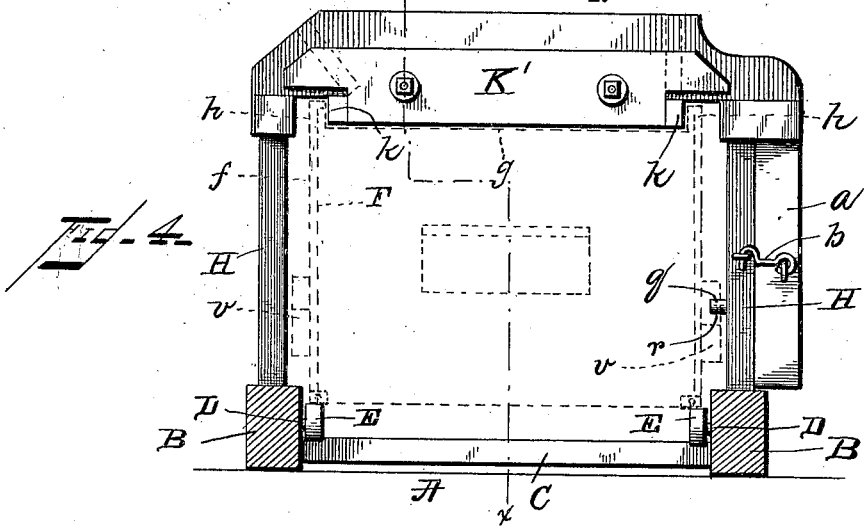

Fig. 4.

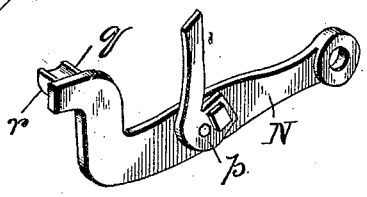

Fig. 5.

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WILLIAM S. MILLER, OF MEYERSDALE, PENNSYLVANIA.

GRAIN-REGISTER.

SPECIFICATION forming part of Letters Patent No. 648,771, dated May 1, 1900.

Application filed November 15, 1899. Serial No. 737,058. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. MILLER, a citizen of the United States, and a resident of Meyersdale, in the county of Somerset and State of Pennsylvania, have invented certain new and useful Improvements in Grain-Registers; and I do 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 letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side elevation of the invention with the door of the register-box in open position. Fig. 2 is a section through same on the line $x\,x$, Fig. 4. Fig. 3 is a horizontal section through one of the measure-boxes, the register, and bridgework just above the inclined bearing v, the register-wheels being removed. Fig. 4 is a front elevation of the track and bridgework with the measure-box shown in dotted lines. Fig. 5 is a detail view of the operating-lever and its weighted pawl.

This invention has relation to automatic grain-registers; and it consists in the novel construction and combinations of devices hereinafter set forth.

In the accompanying drawings the letter A designates the track, consisting of the longitudinal track-bars B, connected at intervals by cross-bars C and having the series of depressed journal-pins D arranged on the inside of each track-bar at about the level of the upper surfaces of the cross-bars and serving as bearings for the track-rollers E. The track-bars B are broad enough above the journals D to extend above and protect the same and to form guides for the traveling measure-boxes F.

G is a register-box secured between the uprights H on one side of the bridgework K, which is secured to the track-bars, said bridgework forming a passage through which pass the traveling measure-boxes F.

The register consists of the ratchet-wheels I and J, whereof the wheel I is of lower order and the wheel J of higher order.

L represents the spring holding-pawls, and N the operating-lever pivoted at m and carrying the weighted pawl p. Said lever is provided at one end with a projection q, which extends through a slot s in the register-case wall inward and is provided with a rounded bearing r, which projects sufficiently inward beyond the register-case wall to be in the path of an inclined-plane bearing or rib V, which is on the side of each traveling measure-box F.

Each measure-box F is formed with parallel side walls f, which extend slightly above the level of the tops of the end walls g to form bearings h, which when the box passes through the bridge-passage engage the guides k of the bridgework, which serve to hold the box steady in its passage past the register. Each box should have an inclined-plane bearing v on each side, the bearing on one side being reversed in its inclination with reference to the bearing on the other side in order that the measure-box may be moved in either direction endwise through the register-passage in the bridgework. Each measure-box is provided with the metallic bearing-strips on the lateral edges of its bottom to arm the same against undue wear in passing over the track-rollers E.

Each box after filling is pushed through the register-passage in the bridgework, and as it engages the projection of the operating-lever N, the register is moved to turn the wheels I and J and mark the contents of the box. As the wheel of lower order completes one rotation its projection z engages a ratchet-tooth of the wheel J, and moves this wheel one step to carry the amount of the wheel of lower order thereto.

The registerb-ox should be provided with a glazed door or shutter a, having a hook or fastening b. Pointers for the register are indicated at c.

An adjustable sweep-strip K′ is provided across the face of the upper portion of the bridgework to level the contents of the measuring-boxes as they leave the registering-passage.

The track-rollers are protected in the bridge-passage, as well as along the track-bars, so that they are not liable to injury, and the lodgment of grain is materially obviated. These rollers are not in operation except while

the measure-boxes are passing over them, and therefore are designed to wear a long time before replacement is required.

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

1. The combination with the bridgework and the register in the side thereof, of the traveling measure-boxes having means on the sides thereof for actuating said register, and the track-bars having the depressed track-rollers connected by journals to their inner sides, substantially as specified.

2. The track-bars having the series of depressed rollers below the level of their upper surfaces, the connecting cross-bars and bridgework, the register in the bridgework and the traveling measure-boxes for actuating said register, substantially as specified.

3. The combination with the measure-boxes and the metallic-strip armings on their bottoms, of the track-bars, and their depressed track-rollers, the bridgework and the register in the side of said bridgework, the inclined ribs of the measure-boxes and the inward-projecting register-lever of the register, substantially as specified.

4. The combination with the track-bars and the depressed track-rollers, the bridgework its guides and register and the adjustable sweep-strip of said bridgework of the traveling measure-box, its bottom-arming strips, lateral inclined-plane bearings, and upwardly-extended parallel side walls, substantially as specified.

5. In a grain-register, the combination with a roller-track and bridgework in connection therewith, of the slotted-case register, its ratchet-wheels, and operating-lever, the inward projection of the latter, the measure-box and the lateral bearing of said box adapted to operate said lever, substantially as specified.

6. In a grain-register, the combination with a register-wheel, the lever having an inward projection, and the pawl carried by said lever and engaging said wheel, of traveling measure-boxes having means on the sides thereof, for engagement with said projection, substantially as specified.

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

WILLIAM S. MILLER.

Witnesses:
JOHN O. WELLER,
EDWARD C. PLITT.