

G. W. NESMITH.
Grain-Registers.

No. 143,527.

Patented Oct. 7, 1873.

Fig. 1.

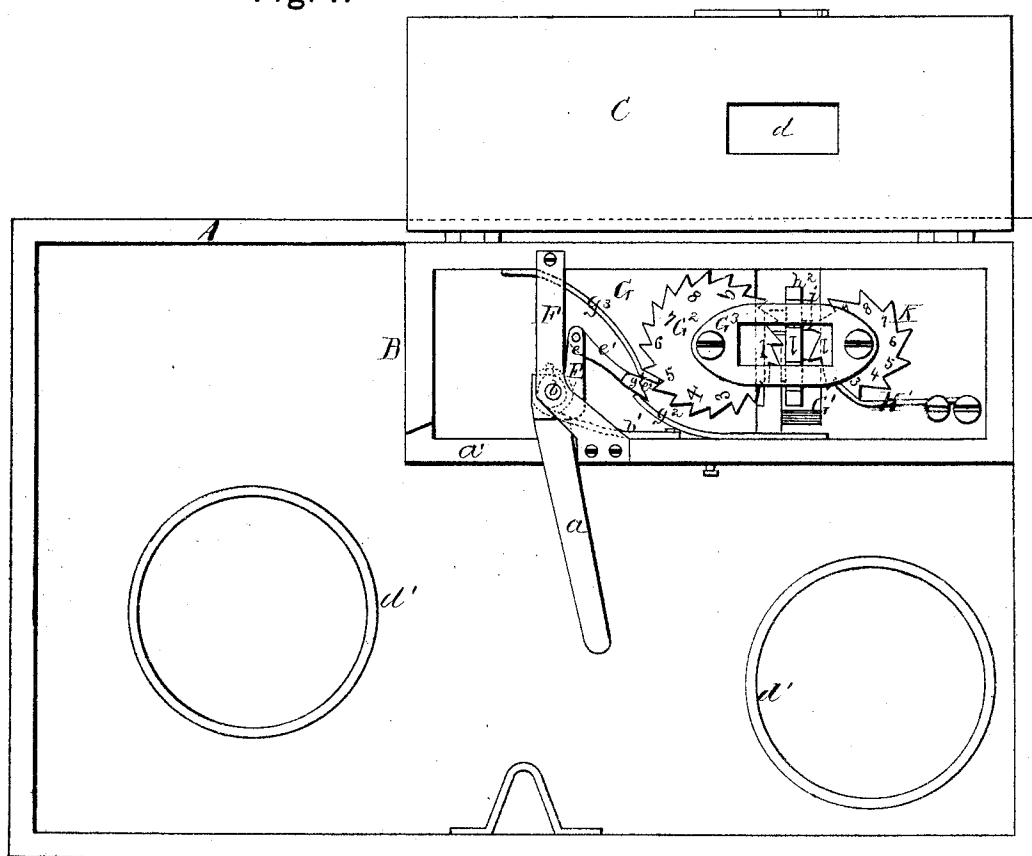
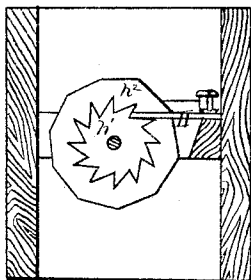


Fig. 2.



WITNESSES.

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IMPROVEMENT IN GRAIN-REGISTERS.

Specification forming part of Letters Patent No. **143,527**, dated October 7, 1873; application filed February 7, 1872.

To all whom it may concern:

Be it known that I, GEORGE W. NESMITH, of Metamora, in the county of Woodford and State of Illinois, have invented a new and valuable Improvement in Grain-Registers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a top-plan view of my invention. Fig. 2 is a detail of the same.

This invention has relation to grain-registers to be used in connection with thrashing-machines, for the purpose of indicating in an automatic manner the quantity of grain removed from the machine. The novelty consists in the construction and arrangement of a pawl, pivoted to the trip or actuating lever against which the measuring-vessels strike, in such a manner that said pawl will reach its dead-point or extreme limit of action at about the middle of the throw of the lever; and in the arrangement of the springs between which the pawl slides in their relation to said pawl and the serrated unit-wheel, whereby said wheel is made to register each vessel correctly, whether it be of sufficient size to throw the lever fully, or only large enough to carry it partially, around.

Referring to the accompanying drawings, A represents a rectangular box, containing a smaller box, B, located at one side, and furnished with a lid, C, having a glass panel, *d*, through which may be seen the registering-wheels arranged within. The measuring-vessel *d'* is to be moved from the spout of the thrashing-machine after being filled in such proximity to the side of the box B as to strike and move a lever, *a*, projecting from a slot, *a'*, near the rear end of said box. For the purpose of more clearly explaining my invention, I will let said measure represent a half-bushel. The lever *a* is attached at its inner end to a vertical post, *b*, around which is wrapped a spring, *b'*, which throws the lever back to its original position after the measure has passed it. The inner end of the lever holds a metallic head, E, from which projects a pair of hor-

izontal lugs, *e*, pivoted between which is a dog, *e'*, having an angular notch, *e''*, cut in its head, as shown. F represents a horizontal plate, to which is pivoted the upper end of the lever-post. G is a platform, having a central transverse aperture or slot, G¹. G² is a ratchet-wheel, having twenty teeth, and having on its face figures 1 to 0 or 10, arranged in order, a figure marking every alternate tooth or notch. This wheel is journaled to the platform G and to one end of a slotted plate, G³, which spans the aperture G¹. The wheel G² is turned the distance of one tooth at every stroke of the lever, causing the shoulder *g'* of the dog to bear against said wheel. A spring, *g''*, keeps the dog in position to strike the wheel. Reverse revolution of the latter is prevented by a spring, *g'''*.

A measure striking the lever causes the wheel to be moved the distance of one tooth. Two strokes of the lever move the wheel the distance between two of the registering figures. The measure being a half-bushel, every additional bushel taken from the thrasher is indicated, the figure explaining the quantity of grain being shown through the slot in the plate G³.

The arrangement of the dog which operates the registering-wheel is such that, after the wheel has been moved the distance of one tooth, said dog loses its power of moving the wheel, but yet allows the lever to move farther. The object of this arrangement is to prevent the wheel from being moved too far in case of the measure being wide, or so moved as to push the lever farther than absolutely required.

The wheel G² registers up to ten bushels. Underneath the 0 on wheel G² is a stud, *h*, which at every completed revolution strikes one of the teeth of a ratchet, *h'*, attached to the side of a ten-sided disk, *h''*, rotating on a horizontal axis between the sides of the slot G¹ and under the opening in the plate G³. The sides of the disk *h''* are numbered in order from 1 to 10. Each time the stud *h* strikes the ratchet *h'* the disk is turned so as to exhibit a new figure, thereby registering every ten bushels of grain. On one of the faces of said disk is a stud, *i*, standing opposite the 0 or 10. At every complete revolution of the

disk, occasioned by the registering of a hundred bushels of grain, the stud *i* strikes a ratchet, K, pivoted to one end of the plate G³, and moves it the distance of one tooth. This wheel is numbered from 1 to 10, each number indicating, when brought to the proper registering or exhibiting point, the number of bushels in hundreds. The figures indicating the quantities registered are noticeable through the glass panel in the lid of the register-case, and may be read off together.

H denotes a spring to prevent the reverse revolution of the disk *h*². H' is a similar spring to prevent the reverse revolution of the wheel K.

This device may be made to register any quantities as well as bushels.

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

In a measure-register for grain, the arrangement of the unit-wheel and its stop-spring, the lever and its spring, and the pawl sliding between the springs and pivoted to the lever, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE W. NESMITH.

Attest:

GEO. PUTERBAUGH,
GEO. UPHAM.