J. MILLER.

Grain-Spout Register.

No. 207,618. Patented Sept. 3, 1878.

Fig. 2.

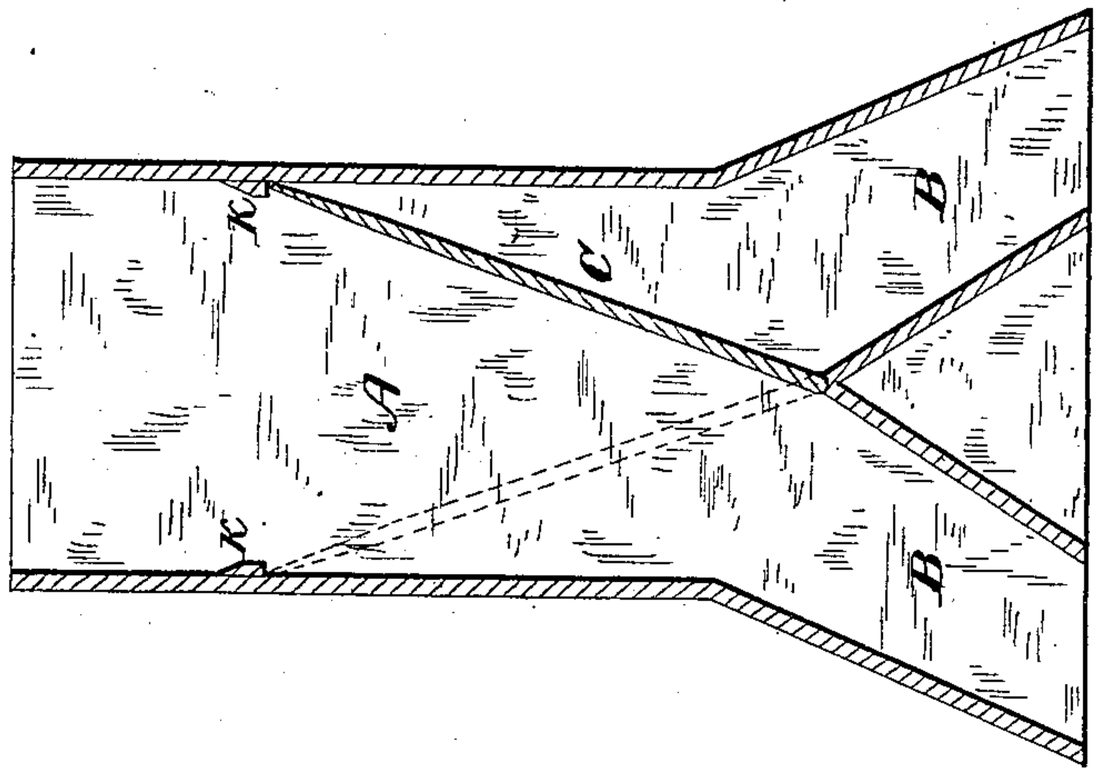
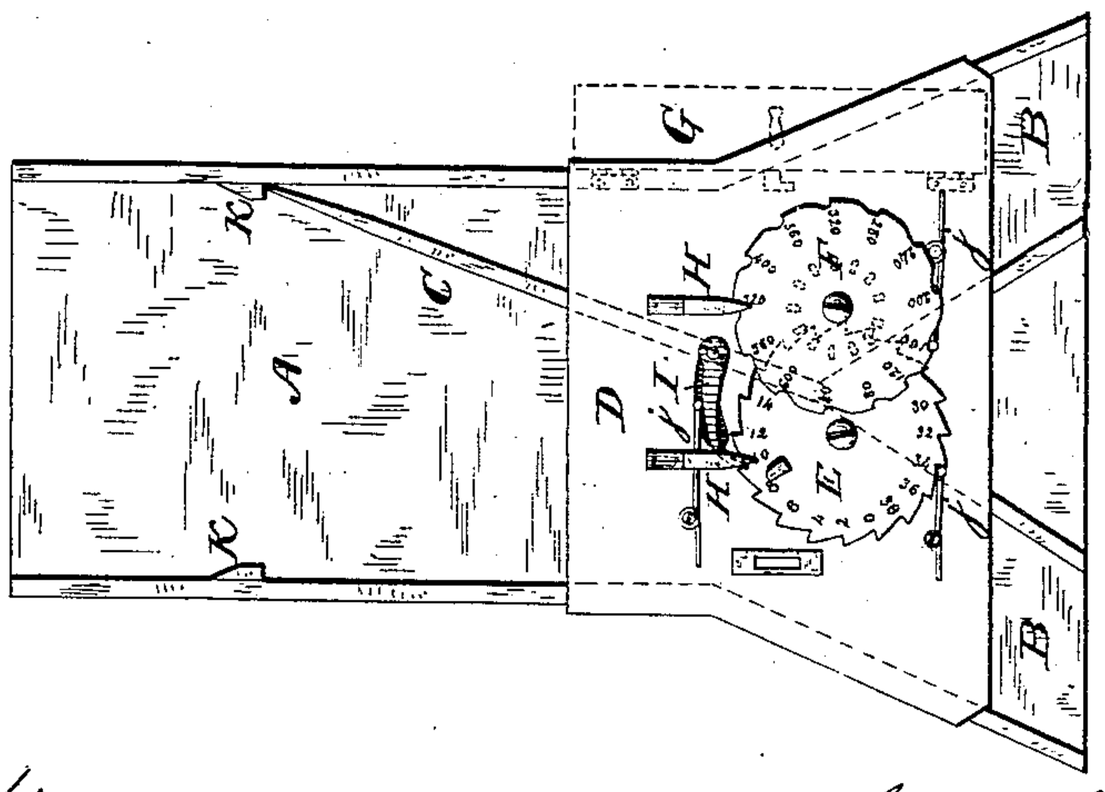


Fig. 1.



Witnesses.

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UNITED STATES PATENT OFFICE.

JACOB MILLER, OF CANTON, OHIO.

IMPROVEMENT IN GRAIN-SPOUT REGISTERS.

Specification forming part of Letters Patent No. **207,618**, dated September 3, 1878; application filed January 3, 1878.

To all whom it may concern:

Be it known that I, JACOB MILLER, of Canton, in the county of Stark and State of Ohio, have invented a new and Improved Grain Spout and Register; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation with the cover of the registering mechanism opened, and Fig. 2 is a similar view with the registering mechanism removed to show the arrangement of the grain spout and valve.

Similar letters of reference indicate the same parts in the several figures.

The object of my invention is to improve the construction and operation of grain spouts and registers for recording the grain delivered from thrashing-machines; and to this end it consists in a new organization of devices for effecting the result, which I will now proceed to describe in detail.

In the accompanying drawings, A is the main spout, adapted for attachment to the thrashing-machine in any convenient manner, and formed at its lower end with two branch spouts, B B. C is the valve, pivoted at its lower end to the main spout at the angle of the two branches, so that its upper end can be swung from side to side of the main spout in the position shown in the drawing, for the purpose of directing the grain from the thrashing-machine alternately into the branch spouts, from which it discharges into a measure.

The valve is moved directly by hand, although it may be operated through the medium of a handle, if preferred.

K K are beveled cleats, secured transversely to the inner sides of the main spout, just above the points where the end of the valve comes in contact with such sides, for the purpose of forming guides to direct the grain upon the valve. The end of the valve swings under these cleats, which thus prevent the grain from clogging or falling behind the valve when the latter is first moved.

D is a plate, of wood or metal, fastened to the face of the spouts A B over the junction of the branches with the main spout, and upon it is mounted the initial registering-wheel E, made in the form of a ratchet-wheel, and the multiplying-wheel F, made with peripheral notches, so arranged that, at every complete revolution of the first, the second shall be moved one point or figure, such movements being observed through a glass door, G, hinged to the plate and adapted to be locked to prevent the registering devices from being tampered with or casually moved.

Pointers H H, also secured to the plate, serve to indicate the figures upon the wheels which are to be recorded or counted.

I is a pawl, engaging with the teeth of the initial-wheel E, and mounted upon a stud secured to the cut-off valve, and projecting through a slot in the plate, so that when the valve is swung it shall move the pawl back and forth in one direction to turn the initial wheel, and in the other to ride back upon its teeth.

Springs *j j j* serve to hold the wheels against casual rotation, and the pawl I in contact with the initial-wheel.

It will be seen that this latter wheel is marked with double numbers, as 2, 4, 6, &c., because, as there are two throws of the valve to one of the wheel, two measures of grain are discharged into the respective branch spouts, which the wheel must register every time it moves one tooth.

By this construction of the spout and registering mechanism a simple and compact attachment is produced, which is not liable to get out of order, and is always ready for use with the thrashing-machine.

I am aware that branched spouts, provided with vibrating valves for directing the grain alternately into different branches, have before been used, and also that said valves have been operated both by hand and automatically by clock mechanism or by the weight of the grain.

So, too, I am aware that registering mechanisms have been employed to record the number of vibrations of the valve, and thus indicate the weight or quantity of the grain passed through the spouts.

I therefore do not claim any of such devices, *per se*, nor their combinations with each other, broadly; but

What I do claim is—

The organized apparatus as a whole, which may be briefly summed up as follows: the grain spout and register herein described, consisting of the main spout A, provided with the beveled cleats K K, the branches B B, formed with the main spout, the slotted plate carrying the registering mechanism, and the valve C, pivoted at the junction of the two branches and provided with the pawl I for operating the initial-wheel of the registering mechanism through the slotted plate, all arranged and adapted for operation in the manner set forth.

JACOB MILLER.

Witnesses:

JEFF A. HOUSER,

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