

H. L. TOWNSEND.

GRAIN-TALLIES.

No. 171,195.

Patented Dec. 14, 1875.

Fig. 1.

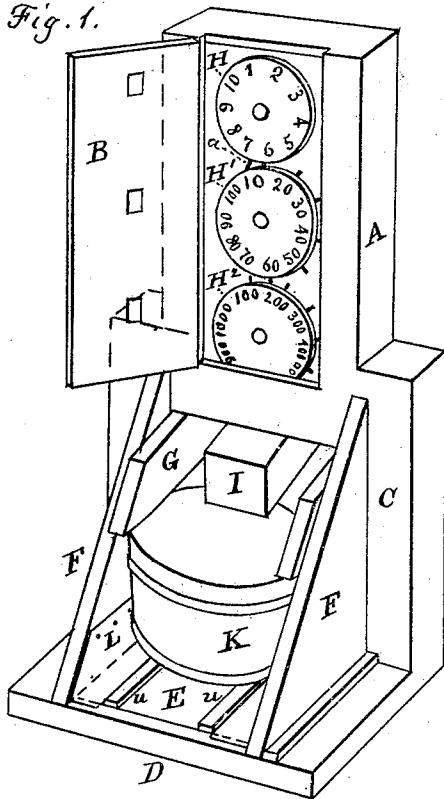


Fig. 2.

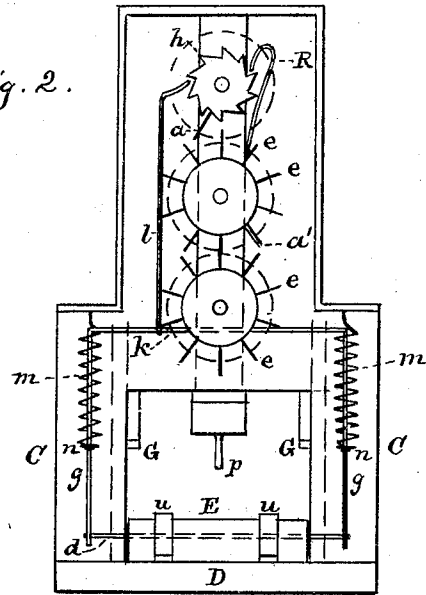


Fig. 3.

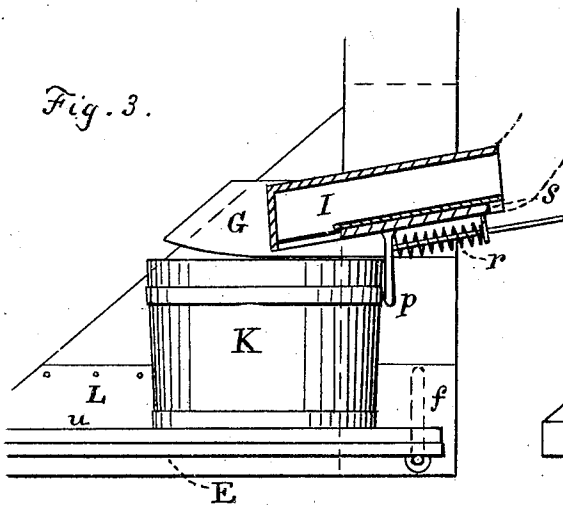
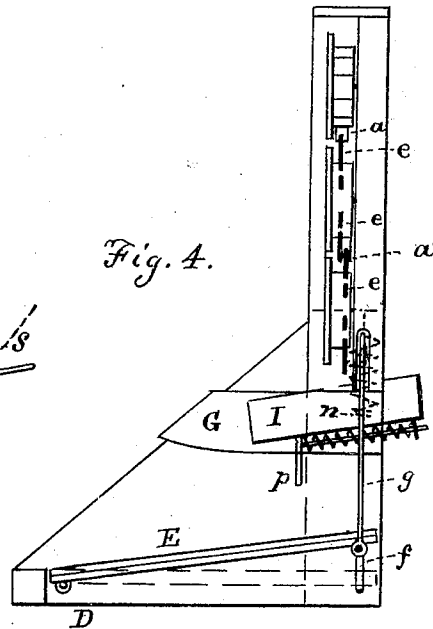


Fig. 4.



Witnesses:
Shes. Mungen.
Walter Allen

Inventor:
Henry L. Townsend
by H. A. Daniels.
Attorney

UNITED STATES PATENT OFFICE

HENRY L. TOWNSEND, OF BATH, NEW YORK.

IMPROVEMENT IN GRAIN-TALLIES.

Specification forming part of Letters Patent No. **171,195**, dated December 14, 1875; application filed November 9, 1875.

To all whom it may concern:

Be it known that I, HENRY L. TOWNSEND, of Bath, in the county of Steuben and State of New York, have invented certain Improvements in Registers for Grain, &c., of which the following is a specification:

My invention relates to registers used in the measurement of grain, &c.; and consists in certain improvements in the construction of the same, as hereinafter shown and described.

In the accompanying drawing, which forms a part of this specification, Figure 1 is a perspective view of my improved grain-register. Fig. 2 illustrates the operating mechanism in front view. Fig. 3 illustrates the mechanism in side view; and Fig. 4 illustrates the spout and other details.

In the drawing referred to, A designates the case which incloses the mechanism, said case having a door, B, provided with three small lights of glass, so placed that the numbers on the three dials within may be seen through them severally. The lower part of the casing is made somewhat wider, and with a central opening, so as to form the hollow posts C. The frame forming the base D of the structure extends forward, as shown, and has hinged thereto, at its forward extremity, the platform E. The oblique side pieces F serve as braces and guides, and also have secured to them the cleats G, the purpose of the latter being hereinafter stated. Pivoted within the upper part of the casing, and arranged on a perpendicular line, are the three dials H, H¹, and H², each having on it a series of ten numbers, those on the dial H being from 1 to 10, those on the dial H¹ increasing by ten from 10 to 100, and those on the dial H² increasing by one hundred from 100 to 1000. The upper dial H is fastened to the ratchet-wheel *h*, and revolves with it, and each of the other dials is fixed to a wheel having ten teeth, *e*; but the teeth *e* on each of these wheels are so arranged that they do not engage with the teeth *e* on the other wheel, as shown in Fig. 4. Further, the upper dial is provided with a projecting tooth, *a*, which, at every revolution of said dial, strikes a tooth, *e*, of the dial H¹, which also has an additional tooth, *a'*, so placed

that at every revolution of said dial it strikes a tooth, *e*, in the dial H².

As above stated, one end of the platform E is hinged to the base D, and the opposite end of said platform rests upon a rod, *d*, the extremities of which extend into the hollow side posts C, through slots *f*, which allow the rod *d* to move up and down. Extending upward from the rod *d*, to the extremities of which they are loosely coupled, are the rods *g*, the upper ends of which are rigidly attached to the horizontal cross-rod *k*, from which extends upward the rod *l*, having a pawl at its upper extremity, formed to operate against the ratchet-wheel *h*, a detent, R, being also provided, as shown.

About each of the upright rods *g*, and attached thereto at *n*, is a spring, *m*, the upper end of which is attached to the casing above, as shown. When the platform E is unoccupied, it is held in an inclined position by the springs *m*. I designates the spout through which the grain passes to the measure or receiver K, said spout being fixed to the casing, between and equidistant from the cleats G. The spout is provided with a slide, S, for opening and closing it, these being done by means of the link *p* projecting downward from the slide, and the spring *r* connected with it, as shown, so that when the measure K is pushed back on the platform, and held down by the cleats G, it strikes or presses against the limb *p*, thus moving the slide back, the latter being sent forward by the spring *r* when the measure is withdrawn, and the spout being closed.

It will be observed that the cleats G are so formed that when the measure is pushed back on the platform, it bears against the cleats, and by this means the platform is brought from an inclination to a level position as the measure is moved under the spout. The aprons L are provided to cover the edges of the platform and catch such grain as may fall from the receiver K during the operation.

The platform is constructed with the rails *u*, upon which the grain-receiver is placed.

In operation, the three dials having been set in proper position, and the case securely closed, the grain is allowed to descend through a suitable conductor to the spout I, entering

at the rear. The measure or grain-receiver is then placed on the platform, and pushed back under the cleats G far enough to be filled from the spout I, the platform yielding, and the spout being opened by the measure pressing the arm *p*, and moving back the slide S. The measure being filled, it is withdrawn and removed, and simultaneously the spout is closed by the spring bearing the slide S forward. The platform is again brought to its inclined position by the springs *m*. The cross-rod *k* moves up, and the pawl *l* pushes the ratchet-wheel one tooth forward, moving the upper dial so that the figure 1 appears. Thus the placing and withdrawing of the grain-receiver effect one movement of the uppermost dial, communication being established with the dials below, as before stated.

Having described my invention, I claim—

1. The register, having the casing constructed with the hollow posts C, inclosing the rods

g, attached to the cross-rod *k*, the said rods *g* being connected with the casing by the springs *m*, and coupled to the hinged platform, as and for the purposes set forth.

2. In combination with the platform E and rods *g* and *d*, and springs *m*, the cleats G, as shown, for the purposes set forth.

3. The register, consisting of the three dials mounted upon the toothed wheels, as shown, the uppermost being on a ratchet-wheel, the pawl *l*, and detent R, the rods *k*, *g*, and *d*, springs *m*, platform E, the casing provided with the hollow posts C, and cleats G, and the spout I, as and for the purposes set forth.

Witness my signature hereto in the presence of two witnesses.

HENRY L. TOWNSEND.

Witnesses:

THEODORE MÜNGEN,
C. W. CAMPBELL.