

H. STEPHAN.
GRAIN-REGISTER.

No. 176,089.

Patented April 11, 1876.

Fig. 1

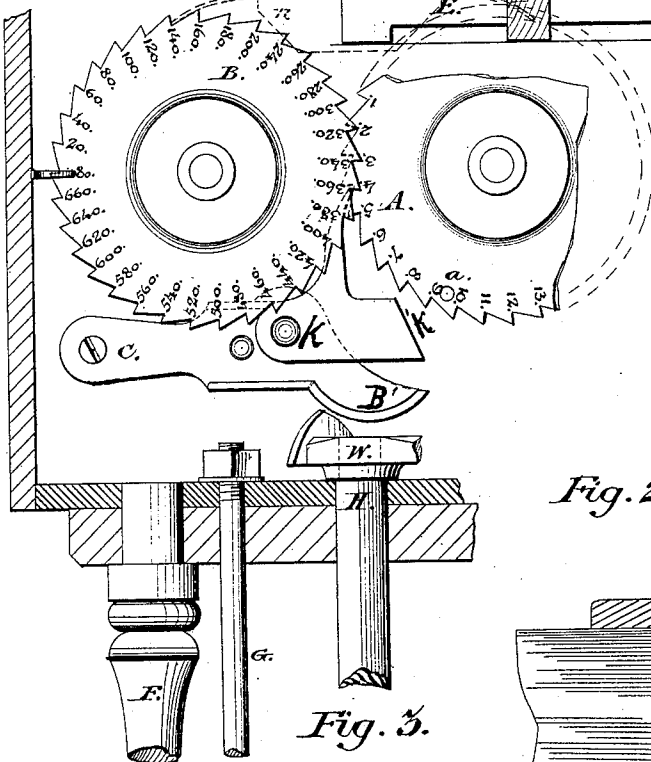
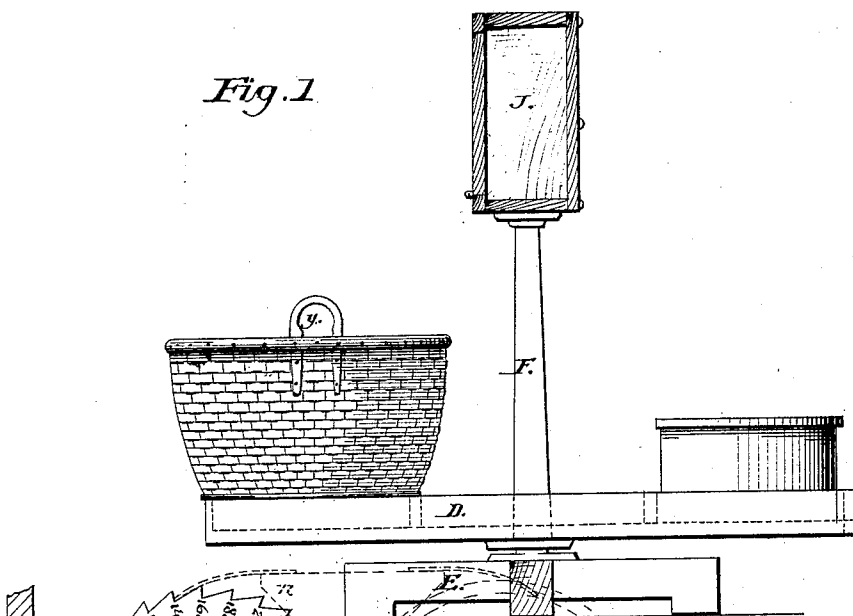
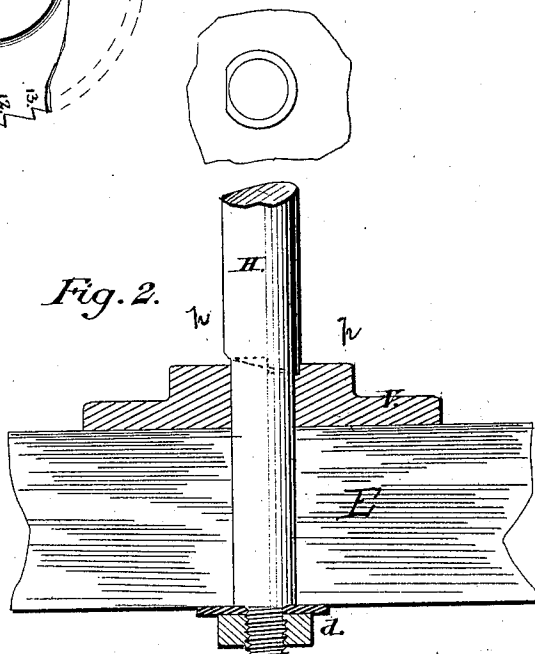


Fig. 3.

Fig. 2.



Witnesses:
Edw. W. Brown
Myhandall,

Inventor:
Henry Stephan
J. S. Sharon
atty.

UNITED STATES PATENT OFFICE.

HENRY STEPHAN, OF SPRINGFIELD, OHIO.

IMPROVEMENT IN GRAIN-REGISTERS.

Specification forming part of Letters Patent No. **176,089**, dated April 11, 1876; application filed March 20, 1876.

To all whom it may concern:

Be it known that I, HENRY STEPHAN, of the city of Springfield, county of Clarke and State of Ohio, have invented certain new and useful Improvements in Automatic Registering Apparatus, of which the following is a specification:

While this invention is capable of use in many situations and for many purposes, it is more particularly designed for use in connection with thrashing-machines, to automatically register the number of measures of grain taken therefrom.

The object of the invention is to provide a register which shall register upon a movement in either direction; and to this end it consists in those features more particularly hereinafter described and claimed.

Referring to the drawings, Figure 1 is an end view; Fig. 2, a view of stationary shaft, showing the method of connecting the same to the base. Fig. 3 is a section showing the devices for and method of operating the registering apparatus.

D is a base of sufficient size to accommodate two measures. This base is arranged to turn upon and revolve a fixed central shaft, H. J is a case or box containing a registering apparatus. It is rigidly connected to the base D by standards E and rods G, and revolves with the base. In the registering apparatus, A is the units-wheel, which is actuated by a pawl in the pawl-arm K, as shown in Fig. 3. This pawl-arm K is provided with the weighted end K', which serves to hold by its gravity the pawl in proper contact with the ratchet-teeth of the wheel A. K is pivoted to and operated by a lever, C, which is provided with a rounded cam, B. In the revolution of the apparatus, this cam takes upon and rides over cams on an arm, W, on the stationary shaft H, whereby the arm C is elevated, carrying upward the pawl and actuating the units-wheel A.

By this construction and the peculiar shape of the cams B' and W, the register is operated whenever the base D is revolved in either direction. Upon the units-wheel A is a pin, a, which once in each revolution takes into a tooth of the carrying-wheel B and moves it in one direction. Suitable pointers and holding-pawls are provided, as customary in registering apparatuses.

As the stationary central shaft H supports the base D and registering apparatus, it is necessary that it should be very rigidly and firmly secured. This is accomplished by the peculiar way in which it is attached to the base E. The shaft H is shouldered at h h, the shoulders being of different heights on opposite sides. The different heights may be connected by an incline, or by stepped shoulders, as shown in dotted lines. The shoulder-block V, secured to the base E, is recessed to correspond with these shoulders, and the shaft H secures them by screw-nut d, as shown in Fig. 2.

Having thus described my invention, what I claim is—

1. The combination, with the stationary center shaft H and cam W, of a revolving base, D, and revolving registering apparatus J, with the cam B, for operating the registering apparatus in either direction, as substantially set forth.

2. The combination, with the ratchet-wheel A, of the lever C, cam B, and arm K, having weighted end K', substantially as described.

3. The combination, with shaft H, having shoulder h, of shoulder-block V and screw d, substantially as set forth.

4. The combination, with actuating finger or pawl a and lever C, of cam B, adapted to operating the register on its movement in either direction, substantially as set forth.

HENRY STEPHAN.

Witnesses:

ROBT. C. RODGERS,
A. T. BYERS.