

W. N. JULIAN & J. H. BUSSERT.

Grain-Weighing Apparatus.

No. 157,522.

Patented Dec. 8, 1874.

Fig. 1.

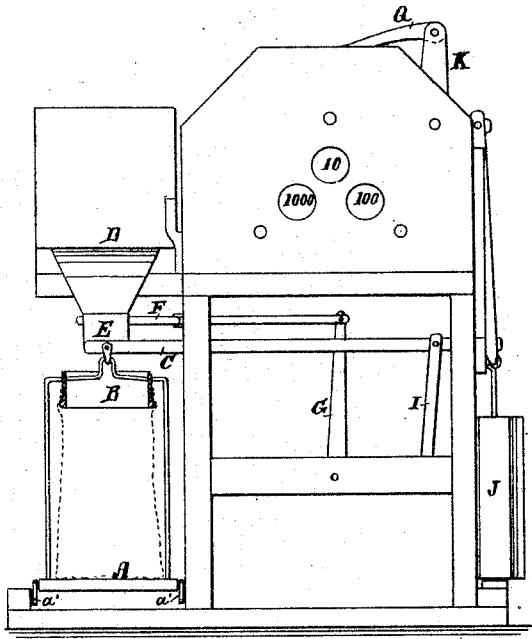


Fig. 2.

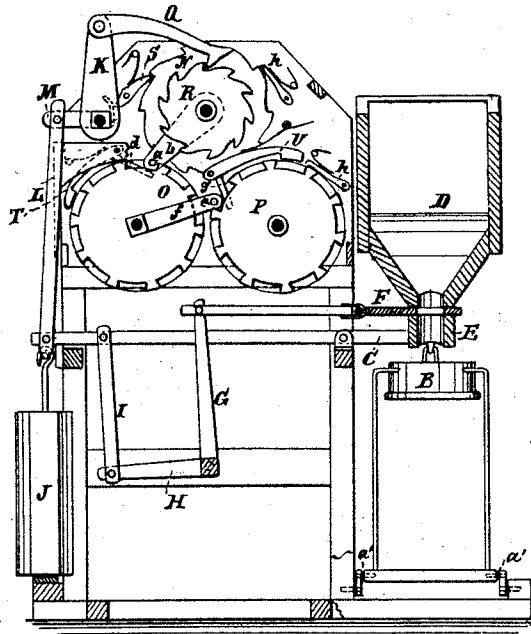
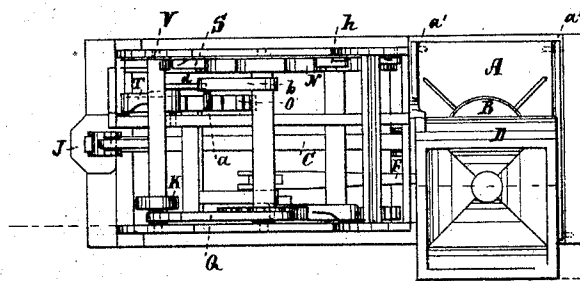


Fig. 3.



WITNESSES:

A. Benneken
C. Edgwick

INVENTOR:

W. N. Julian
J. H. Bussert

BY

M. M. L.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM N. JULIAN AND JOSEPH H. BUSSERT, OF TARLTON, OHIO.

IMPROVEMENT IN GRAIN-WEIGHING APPARATUS.

Specification forming part of Letters Patent No. **157,522**, dated December 8, 1874; application filed May 1, 1874.

To all whom it may concern:

Be it known that we, WILLIAM N. JULIAN and JOSEPH H. BUSSERT, of Tarlton, in the county of Pickaway and State of Ohio, have invented a new and Improved Automatic Grain Weighing, Sacking, and Recording Apparatus, of which the following is a specification:

The invention is an improvement in the class of apparatus for sacking and tallying grain; and consists in the construction and arrangement of parts, as herein described, and specifically indicated in the claim.

Figure 1 is a side elevation of my improved apparatus. Fig. 2 is a sectional elevation taken on the line *xx* of Fig. 3, and Fig. 3 is a plan view.

Similar letters of reference indicate corresponding parts.

A represents the platform for the bag to rest on, and B the ring for holding the mouth of the bag. They are suspended from the short arm of a scale-beam or weighted balance-lever, C, so as to have a slight rising-and-falling motion, and the platform is jointed to the frame by bars or links *a'*, to prevent it from swinging. D is a hopper on the lever or scale-beam, with a spout, E, discharging into the ring B and the bag when stretched on it. F is a gate or slide for opening and closing the spout. It is connected to arm G of a rock-lever, whose other arm, H, is connected by a link, I, with the lever C, in such an arrangement that when the hopper goes down the spout will be closed, and when the weight J goes down it will be opened, so that the grain may be continuously spouted into the hopper while the filled bags are removed and empty ones put on. Care will be taken that the filled bag be not removed until the empty one has been adjusted, so that the hopper will not rise and its spout be opened without a bag to receive the grain from it. The beam C is caused to work a rock-lever, K, by a rod, L, and arm M, to turn a system of registering-disks, N O P, by a pawl, Q, and a ratchet-wheel, R.

These disks are turned successively in the order in which they are named for counting or recording in the ordinary method.

My invention, in this recording apparatus, consists of a holding-pawl for each disk, S, T, and U, which the lever or arm for turning the disk is arranged to raise out of the disk just before turning it. The pawl S is lifted by an arm, V, on the axis of pawl-arm K, the pawl T is lifted by the pin *a* of arm *b*, which turns disk O, striking against arm *d*, and the pawl U is lifted by pin *e* of arm *f*, which turns disk P, striking against arm *g*. These holding-pawls are all provided with a spring for holding them in contact with their disk. The disks have also a friction-pawl, *h*, to prevent them from overrunning.

The machine is designed to be used in connection with a thrashing-machine, to receive the grain from the cleaning apparatus, and weigh and sack it, and record the weight.

We do not claim the combination of a slide or cut-off with a rising-and-falling hopper or grain-receptacle, nor of a recording apparatus with a weighing apparatus; but

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination, with the stationary hopper D, of the bag-holder consisting of platform and ring B, the suspended levers C & H, rod I, weight J, and cut-off or slide F, arranged to operate as shown and described.

2. The combination, with the weighted lever of the cut-off apparatus, of the rod L, link M, rock-lever K, notched registering-disks N O P, pawl Q, ratchet-wheel R, the spring holding pawls and arms for raising them off the disks, as shown and described, to operate as specified.

WILLIAM N. JULIAN.

JOSEPH H. BUSSERT.

Witnesses:

INGHAM WILEY,
ANDREW FOUST.