A. H. VITT.
Grain-Toller.

No. 198,059. Patented Dec. 11, 1877

Fig: 1.

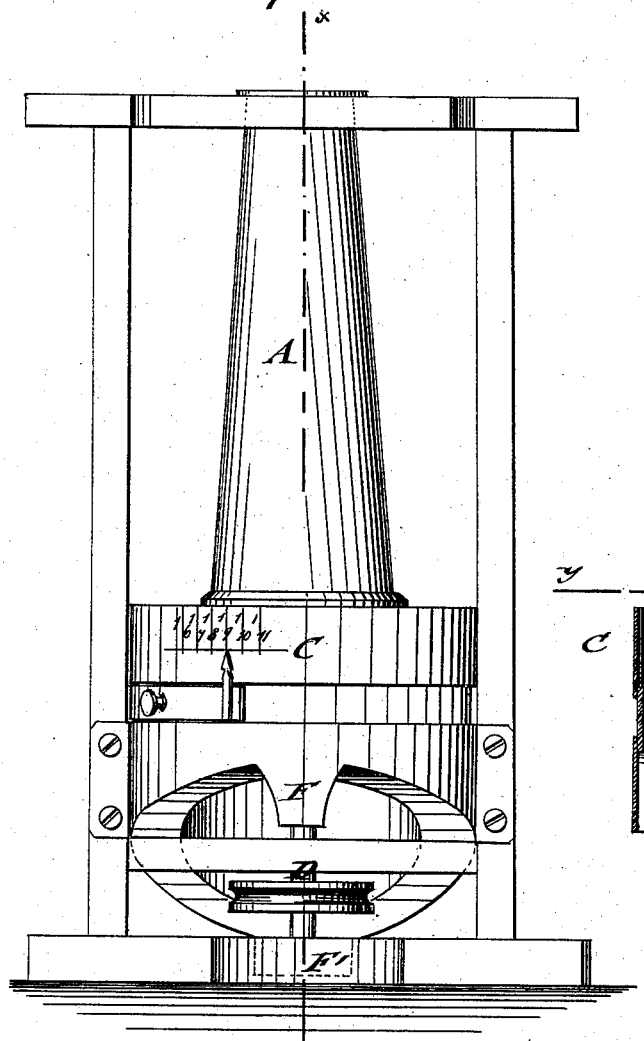


Fig: 2.

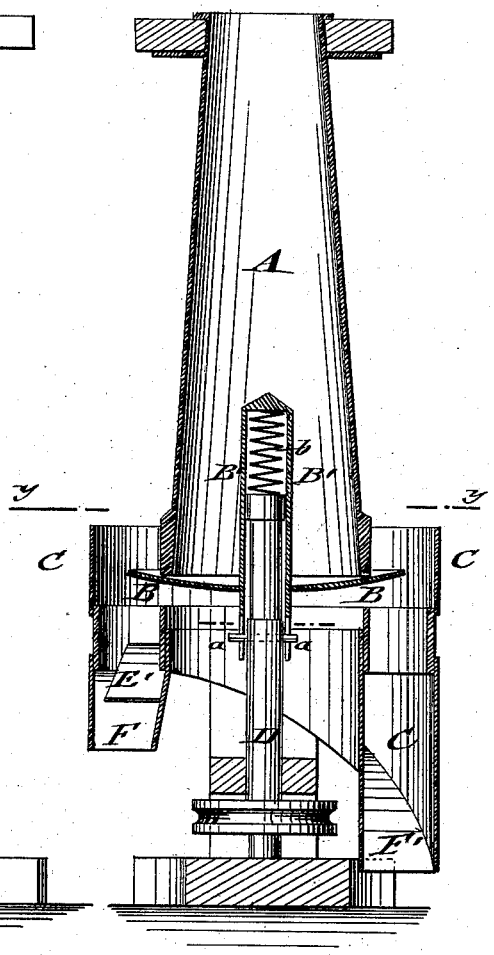
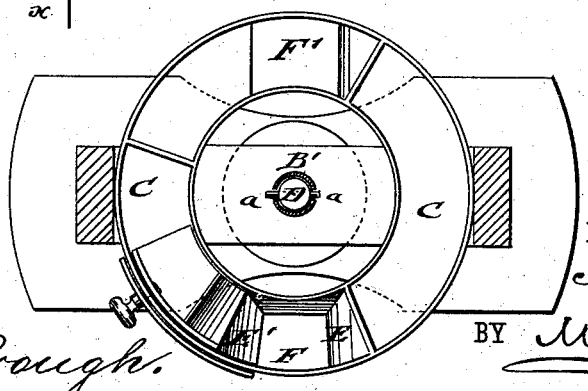


Fig: 3.



WITNESSES:
Chas. Nida.
J. H. Scarborough.

INVENTOR:
A. H. Vitt.
BY Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

ADOLPHUS H. VITT, OF UNION, MISSOURI.

IMPROVEMENT IN GRAIN-TOLLERS.

Specification forming part of Letters Patent No. **198,059**, dated December 11, 1877; application filed November 10, 1877.

To all whom it may concern:

Be it known that I, ADOLPHUS H. VITT, of Union, in the county of Franklin and State of Missouri, have invented a new and Improved Grain-Toller, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation of my improved grain-toller; Fig. 2, a vertical central section on line *x x*, Fig. 1; and Fig. 3, a horizontal section of the same on line *y y*, Fig. 2.

Similar letters of reference indicate corresponding parts.

This invention has reference to an improved mechanical grain-toller, to be used in custom-mills for the purpose of taking the toll accurately and without any trouble to the miller.

The tolling device may be readily adjusted to any proportion of toll, as agreed upon between the miller and the customer.

The invention consists of a stationary conductor-tube, that conveys the grain from the hopper or elevator to a revolving and vertically-movable spring-disk. The disk is lowered by the pressure of the grain, and the same allowed to escape over the edge of the disk into an encircling casing with two exit-spouts.

Vertical partitions of the encircling casing, of which one is stationary, the other adjustable, conduct a certain proportion of grain to the toll-spout, while the remaining grain is conducted to the grindstones of the mill.

Referring to the drawing, A represents a conducting-tube, through which the grain passes down from the hopper or elevator onto a slightly concaved revolving disk, B. The pressure of the grain bears on the revolving disk, and lowers the same, so that the grain may pass out between the lower end of tube A and disk B, and be distributed evenly over the same, dropping gradually over the edge of of the disk into an annular casing or receptacle, C, around the same.

The tube A is slightly increased in diameter toward the lower end, so as to let the grain pass down with less friction on the sides of the tube, and exert consequently more pressure on the disk.

The disk B is provided with a central tubular part, B′, that is extended above and below the disk, the lower part being diametrically slotted, and connected to a coupling-pin, *a*, of a center shaft, D, that revolves at suitable speed by a pulley and belt, driven from any convenient shaft in the mill.

The disk is compelled to follow the shaft by means of the pin-and-sleeve coupling.

The upper part of the tube is closed, and between the same and the upper end of the shaft D a spiral cushioning-spring, *b*, interposed, which, in connection with the lower slots, allows the disk to play freely up and down, while revolving at the same time with the shaft.

The spring-cushioned revolving disk B adjusts itself to the pressure of the grain, and regulates automatically the opening and outlet according to the quantity of grain coming in at the top of the machine, the spring giving to the pressure, and allowing the disk to work as well with a regular flow as with an irregular flow of grain.

The outer casing or receptacle C is arranged with two vertical partitions, E E′, of which one is stationary and the other movable, being adjusted by a slot, set-screw, face-plate, and index along a graduated scale at the outside of the casing, as shown in Figs. 1 and 3.

The partitions, when adjusted to the proper distance, take up a certain fixed proportion of the circumference of the disk, and receive, by the uniform dropping of grain over the edge of the disk, a corresponding proportion of the grain passing down through tube A. This forms the toll agreed upon between the miller and customer. This quantity of grain is conducted from the section of the casing, between the partitions, through an exit-spout, F, to a suitable receptacle, while the main part of the grain passes along the spirally-inclined bottom of the remaining portion of the casing to a second exit-spout, F′, and from the same to the mill or other suitable place.

The exact proportion of toll is separated by my tolling-machine in a reliable and certain manner, so as to be satisfactory to miller and customers.

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

A grain-toller for custom-mills, consisting of a grain-conducting tube, of a revolving and spring-cushioned disk, and of an encircling casing, with a fixed and adjustable partition, and separate exit-spouts for the main and toll portions of the grain, substantially as set forth.

ADOLPHUS H. VITT.

Witnesses:

STEPHEN FRAZEE,

F. W. REINHARD.