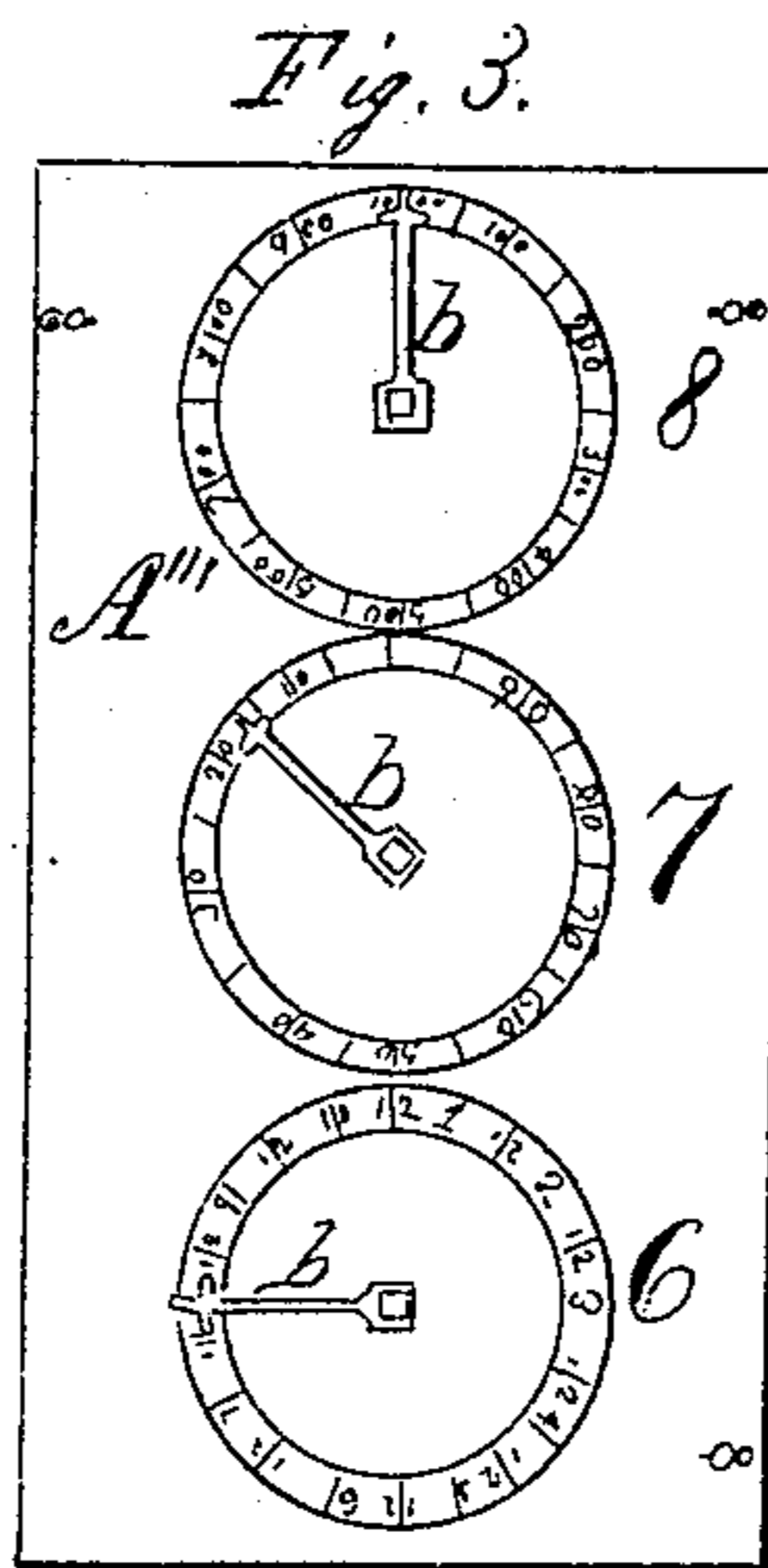
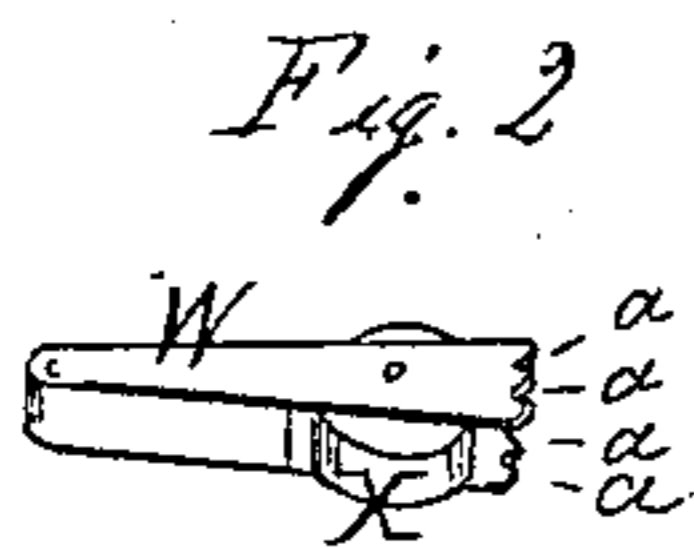
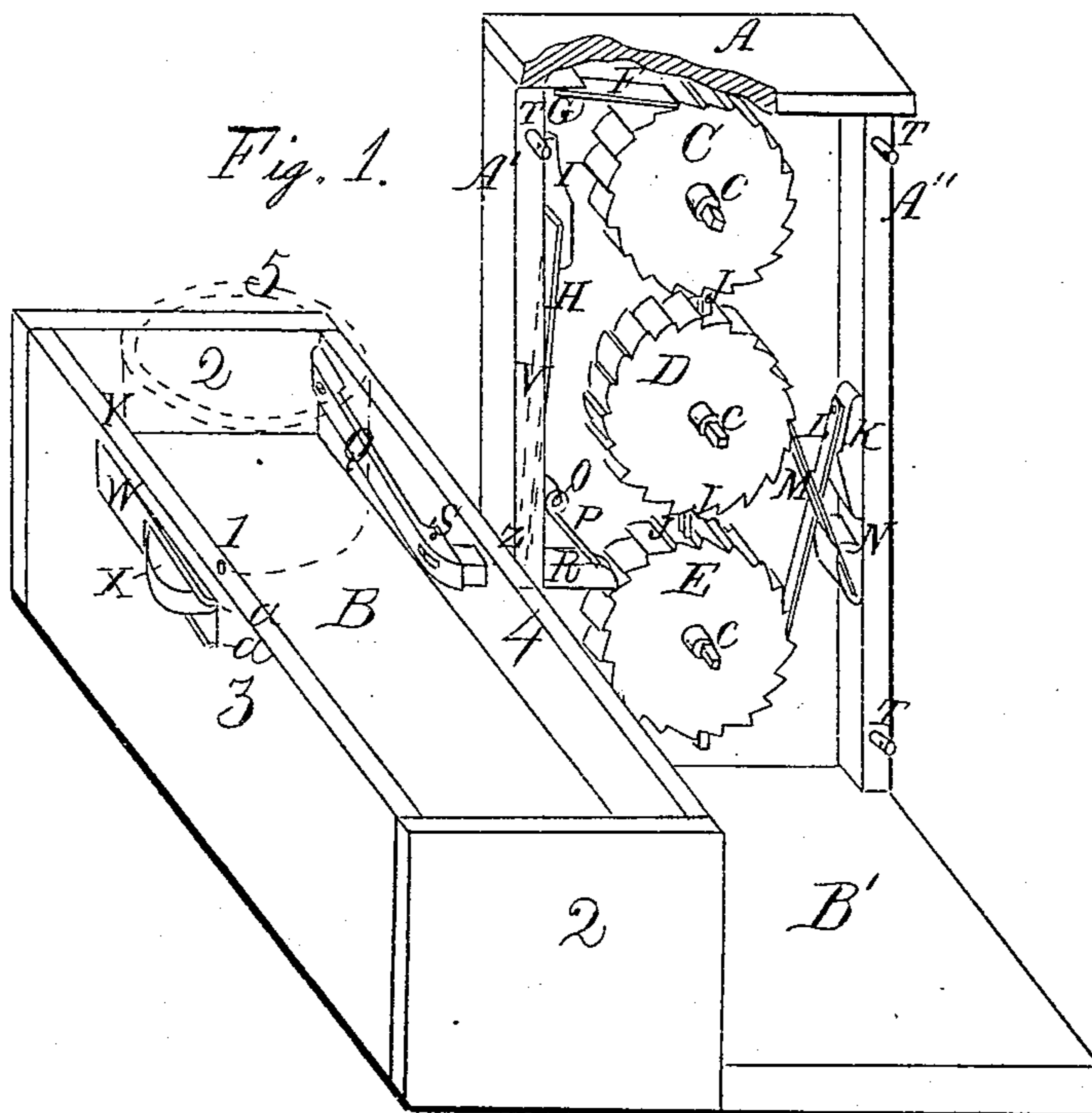


*W.C. Howard,
Grain Tally.*

No. 92,971.

Patented July 27, 1869.



Witnesses.

*C. D. Lanton
B. H. Howard*

Inventor.

*W. C. Howard
By his attorney
G. J. Chapman*

United States Patent Office.

WILLIAM C. HOWARD, OF BELLE PLAINE, IOWA.

Letters Patent No. 92,971, dated July 27, 1869.

IMPROVEMENT IN GRAIN-REGISTERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM C. HOWARD, of Belle Plaine, in the county of Benton, and State of Iowa, have invented an Improvement in Grain-Registers; and I do hereby declare that the following is a full and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, and letters and figures marked thereon, making a part of this specification, in which—

Figure 1 is a perspective representation of my improved grain-register.

Figure 2, a perspective representation of a part appertaining to the device, detached from the measuring-box.

Figure 3, an elevation of the dial-plate, removed from the case, at fig. 1.

The present invention relates to an improvement in that class of registers which is more especially used for registering the bushels or half bushels of grain, as it is being removed from a machine; and

Its nature consists in the novel means employed with the measuring-box, whereby, measures having different-sized diameters may be used, and at the same time operate the register correctly, said measuring-box and its attachments being used in combination with ratchet-wheels and suitable spring pawls, as hereinafter fully shown.

B represents what I denominate a measuring-box, which is provided with side-boards, 3 4, and end-boards, 2 2, of such height as will form a suitable receptacle to catch what grain might fall therein from the measures, and which is placed under a spout, conducting grain from a threshing-machine.

This box B is rigidly attached to a platform, B', which supports a case, A A' A" A"', figs. 1 and 2.

To the back side of this case are pivoted three ratchet-wheels, C D E, which are so arranged that a projecting pin, J, on the wheel E, will turn the wheel D, and a pin J, on wheel D, will turn wheel C, in the usual manner in this regard of operating-wheels which move the hands of a multiplying-dial.

Spring pawls F M L are fastened to the case, and arranged so as to lock the wheels C D E, that they shall turn only in the proper direction, as shown at fig. 1.

The device for operating the wheel E consists of a pawl, R, which is fastened to a spring, Q, attached to the side 4 of the measuring-box, and which passes through the said side 4, and is so operated by a spring, H, fitting into a notch formed in its upper side, as to have an easy reciprocating movement.

The spring striking flat against the side A' of the case, prevents the spring Q from drawing the pawl too far into the box B.

A block, carrying a friction-roller, X, is placed in a mortise made in the side 3 of the box, and pivoted to said side at Y, and in its opposite end is made a series of notches, *a a*, figs. 1 and 2, by means of which, and a pin, 1, the end of the block W carrying the roller, can be so adjusted to or from the spring Q, that half-bushels of different sizes may be used.

To operate the register, a half-bushel, or measure, should be placed in the measuring-box B, as shown by line 5, fig. 1, and when it is filled with grain, drawn forward, its bottom resting on B, between the spring Q and roller X. This movement will force the pawl R through the side 4, and consequently move the wheel E. The pointer *b*, on dial 6, fig. 3, registers half-bushels, and up to nine bushels. The pointer *b*, on dial 7, registers ten bushels, and up to ninety bushels; and the pointer *b*, on dial 8, registers one hundred bushels, and up to one thousand.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent of the United States, is—

The adjustable block, carrying the pulley X, in combination with the box B 2 3 4, and spring-pawl Q R, for holding the half-bushel, and operating a registering device, as set forth.

WM. C. HOWARD.

Witnesses:

C. D. FANTON,
B. F. HOWARD.