

(No Model.)

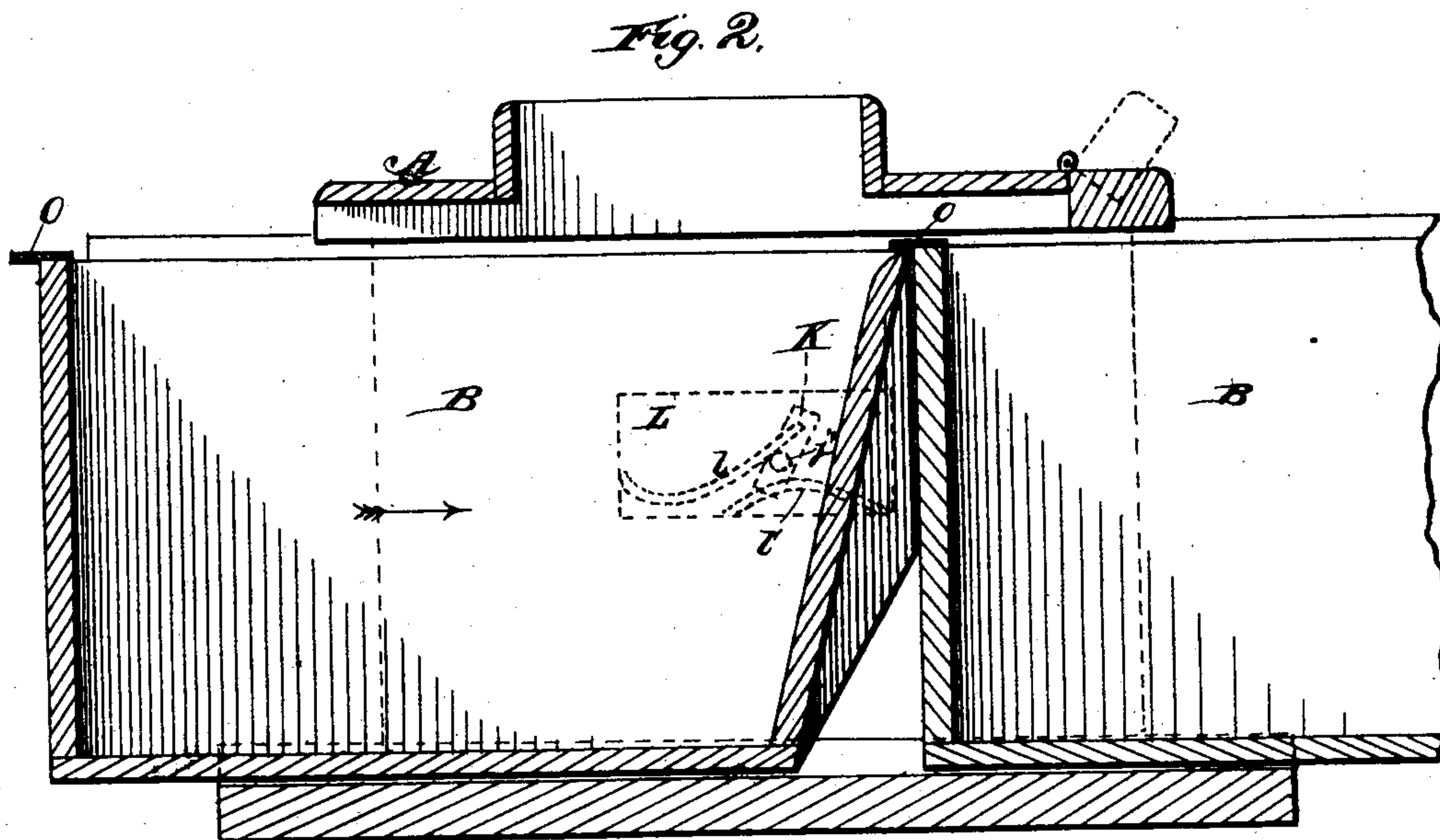
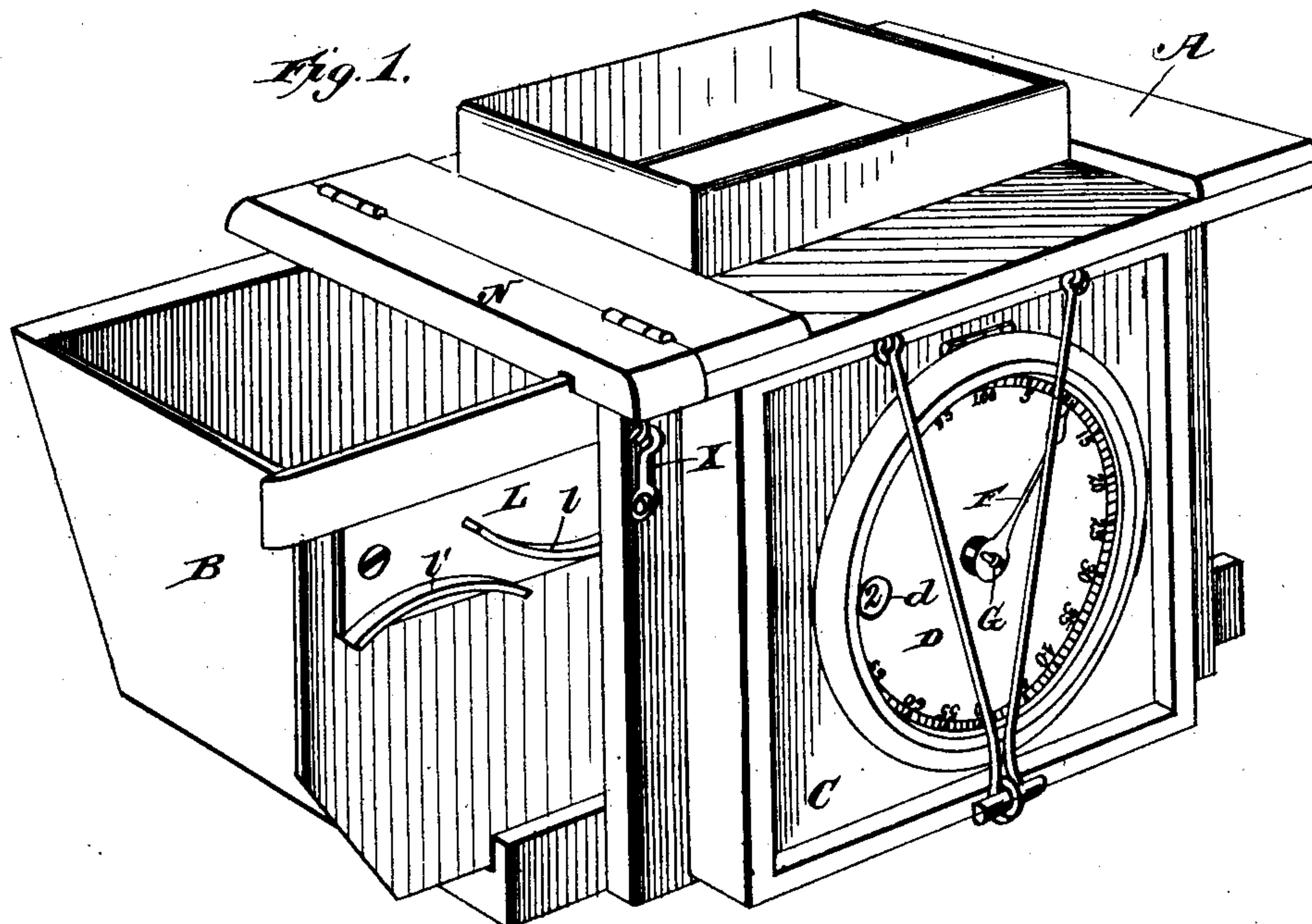
2 Sheets—Sheet 1

T. F. DODGE.

GRAIN MEASURE AND TALLY.

No. 254,934.

Patented Mar. 14, 1882.



Witnesses.

Robert Everett
Edward G. Siggers

Inventor.

Thomas F. Dodge
W. H. Babcock
Atty.

By.

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Fig. 3



Fig. 4.

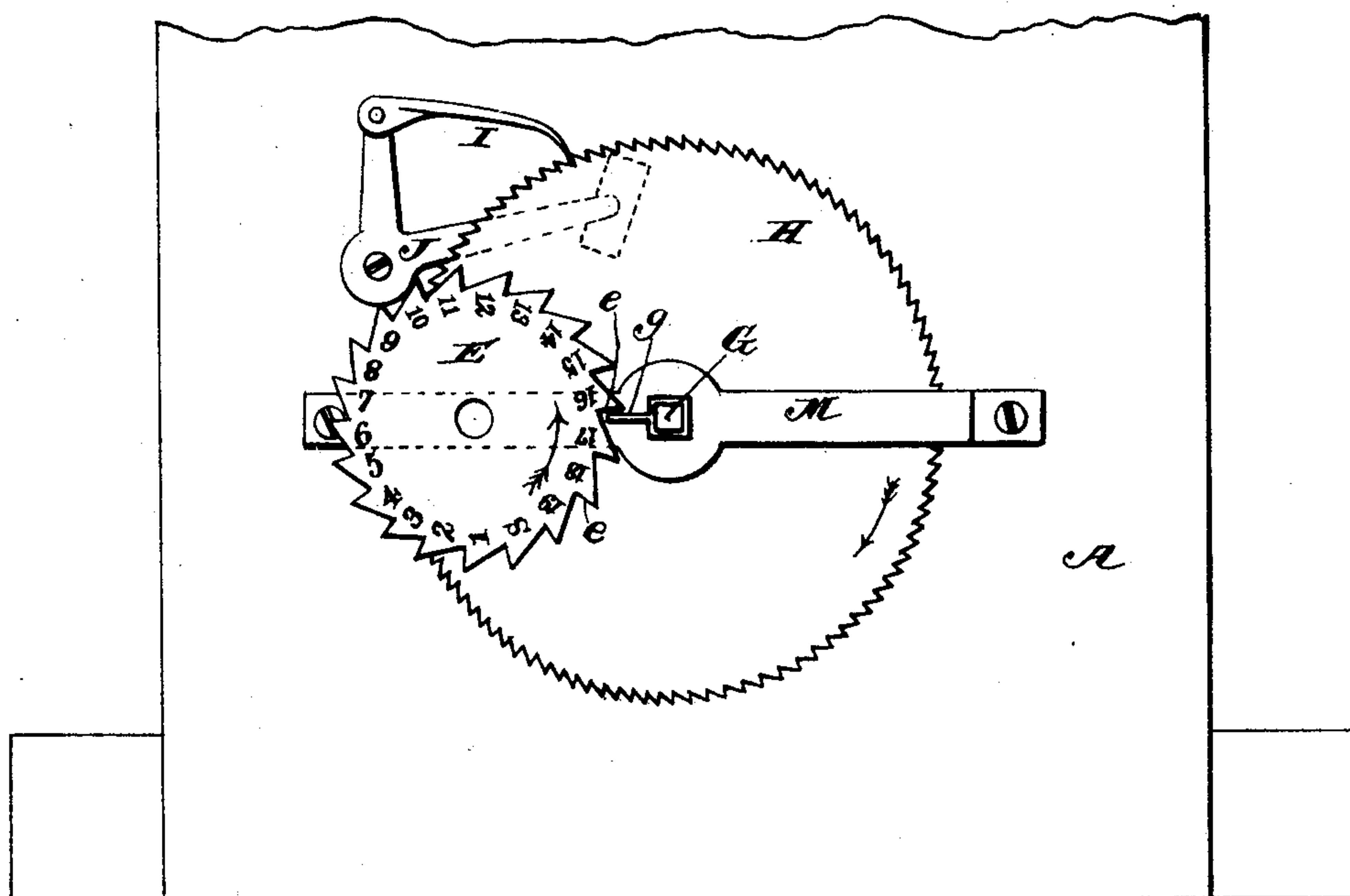
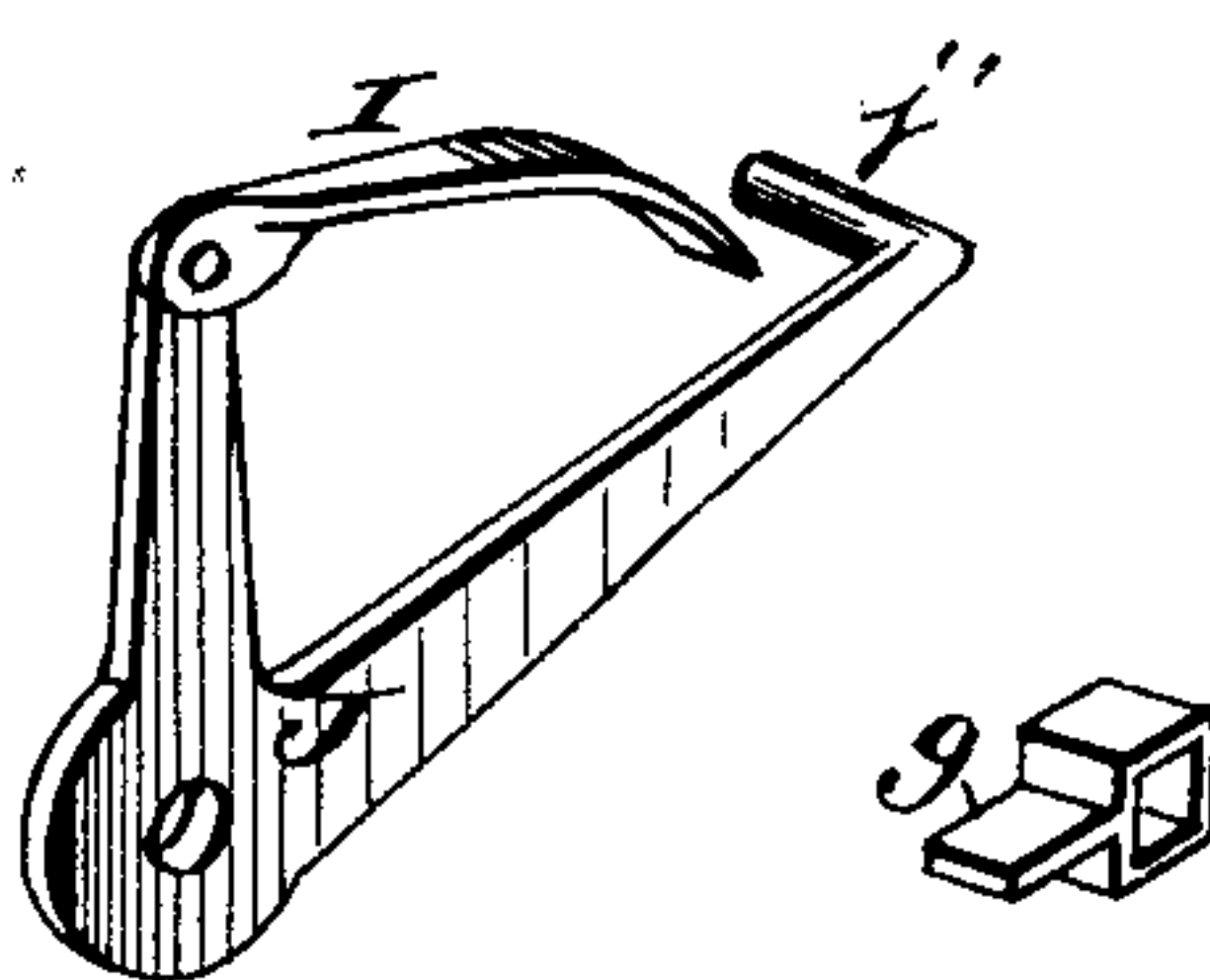


Fig. 5.



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UNITED STATES PATENT OFFICE.

THOMAS F. DODGE, OF LAWTON, MICHIGAN.

GRAIN MEASURE AND TALLY.

SPECIFICATION forming part of Letters Patent No. 254,934, dated March 14, 1882.

Application filed July 2, 1881. (No model.)

To all whom it may concern:

Be it known that I, THOMAS F. DODGE, a citizen of the United States of America, residing at Lawton, in the county of Van Buren and State of Michigan, have invented certain new and useful Improvements in Grain-Measures for Thrashing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in grain-measuring devices for use with thrashing-machines.

It consists partly in the peculiar construction of the devices for actuating the dial mechanism; partly in the addition to each box of a plate which extends from the rear of the top thereof and overlaps the front end of the next succeeding box; partly in the construction of the channel or cam plate which actuates the arm that turns the pointer-shaft as the drawer passes through the cage; and, finally, in various additional improvements hereinafter set forth.

In the accompanying drawings, Figure 1 represents a perspective view of my improved measure. Fig. 2 represents a longitudinal section of the same. Fig. 3 represents a detail view of the cam-plate or channel-plate with the curved ribs or flanges thereon. Fig. 4 represents a front view of the dial mechanism, the dial-plate being removed; and Fig. 5 represents a detail view of the angular arm which turns the dial that indicates units, and also the lug or finger which operates the wheel for indicating hundreds.

In said figures the same parts are indicated by the same letters.

A designates the cage or casing of the measuring devices; B, the drawer or box which contains the grain and slides through said cage on suitable ways in the usual manner; and C designates the additional casing for the dial mechanism and dial D, this additional casing or frame being secured to the front of said cage. Said dial has, as usual, a circular series of graduations and figures indicating the number of bushels (or other certain quantities cor-

responding to a box's contents,) up to one hundred, and said dial has an opening, *d*, on one side of it to allow the figures on an inner dial-wheel to show through. This inner dial-wheel (marked E) has figures indicating hundreds marked on the front of it in circular graduation, and is arranged so that each journey of the pointer F around the main dial will be coincident with a sufficient forward movement of dial-wheel E to present the next figure in order on said dial-wheel. Thus when a hundred boxes or drawers of wheat or other grain have passed through the cage the figure 1 will show through openings *d*, and as the pointer, sweeping round the main dial, successively indicates the figures 1, 2, 3, &c., it will be understood that these are figures in excess of one hundred drawers-full. These drawers or boxes ordinarily contain a bushel; but any other measurement may be substituted. Of course when two hundred have passed the figure 2 appears through the opening *d*, and so on. The movements of said pointer and dial-wheel are caused as follows: Pointer F is mounted outside of dial-plate D on the prismatic end of a rotating pointer-shaft, G. This shaft carries a lug, *g*, which engages at each rotation of said shaft with one of the teeth *e* on the periphery of the dial-wheel E, thus advancing said wheel the space of one tooth, which corresponds to the space between each two of the figures on said dial-wheel. This shaft G also carries another toothed wheel, H, which is arranged to be engaged by a pawl, I, carried by one arm of an angular pivoted bar or lever, J, the other arm, *j*, of which is bent out through a curved or inclined opening, K, in the rear wall of casing C.

A cam-plate or casting-plate, L, attached to the proximate side of box B, has on its face two ribs, beads, or flanges, *l* *l'*, which are curved in reverse directions, leaving a channel or passage-way between them. The said end *j'* is received into this passage-way. As the box slides into the case the upper bead or flange, *l*, is struck by said arm and operates to turn the bar J on its pivot so as to throw said pawl I back to the next tooth. Shortly afterward the lower bead, *l'*, is struck by this arm and operates to move the pawl in the reverse direction, thus advancing by one tooth

the wheel with which said pawl engages, and giving a corresponding partial rotation to the shaft. The reverse curvature of the beads *l l'* with respect to one another leaves a flaring opening at each end of the channel between them, and thereby insures the reception of the bent end of the register-operating lever or arm into said channel. This tallying is effected when the box moves in one direction, but not when it moves in the other. A metallic frame, *M*, composed of two strong bars or plates of metal clamped to case *C*, affords bearings for said shaft.

A hinged striker, *N*, attached to the top of cage *A*, lies even with said top when measuring wheat, and is fastened down by a catch, *X*, which may be only a hook and eye, so as strike off any surplus from each box. At the rear end of the box a plate, *O*, is attached, which extends from the top of said box a little over the front end of the box next following, so that surplus grain scraped off, as above stated, will not fall between the boxes, but will be scraped from one box to another over said plate without loss. When it is not desired to strike off the grain even with the top of the box or drawer the hinged striker may be turned back upon the top of the cage. This striker when turned down for operation lies flatly, with its side down upon the box or drawer. When turned back upon the top of the cage, as stated, its weight will hold it out of the way without any other fastening.

I am aware that it is not new to provide cages of grain-measures with vertically-movable strikers which are slotted to pass up and down and held by adjusting or clamping bolts

so as to present their edges for striking off surplus grain, or else to be held by said bolts out of position for such service. I am also aware that a grain-box has been provided with a pair of ribs curving parallel to one another and used for actuating registering mechanism. These constructions I do not claim.

What I do claim, and desire to secure by Letters Patent, is—

1. The sliding box *B*, having secured to its side the reversely-curved ribs or beads *l l'*, in combination with registering mechanism actuated by said ribs, substantially as set forth.

2. The sliding box *B*, having on its side a plate, *L*, provided with reversely-curved ribs or beads *l l'*, in combination with lever *J*, having end *j*, that enters the channel between said ribs, pawl *I*, toothed wheels *H* and *E*, shaft *G*, and lug *g*, substantially as set forth.

3. A box or drawer having a plate attached to its rear end and arranged to overlap the next succeeding box or drawer, in combination with the cage and registering mechanism, substantially as set forth.

4. In combination with the cage and drawer of a grain-measure, a striker, *N*, hinged to the edge of the cage so as to lie flatly on said drawer, and adapted to be turned back off from the same and retained in this inoperative position by its own gravity, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS F. DODGE.

Witnesses:

JUAN M. KEYES,
O. F. THOMAS.