

(No Model.)

A. WIDICK.
GRAIN WEIGHER.

No. 485,779.

Patented Nov. 8, 1892.

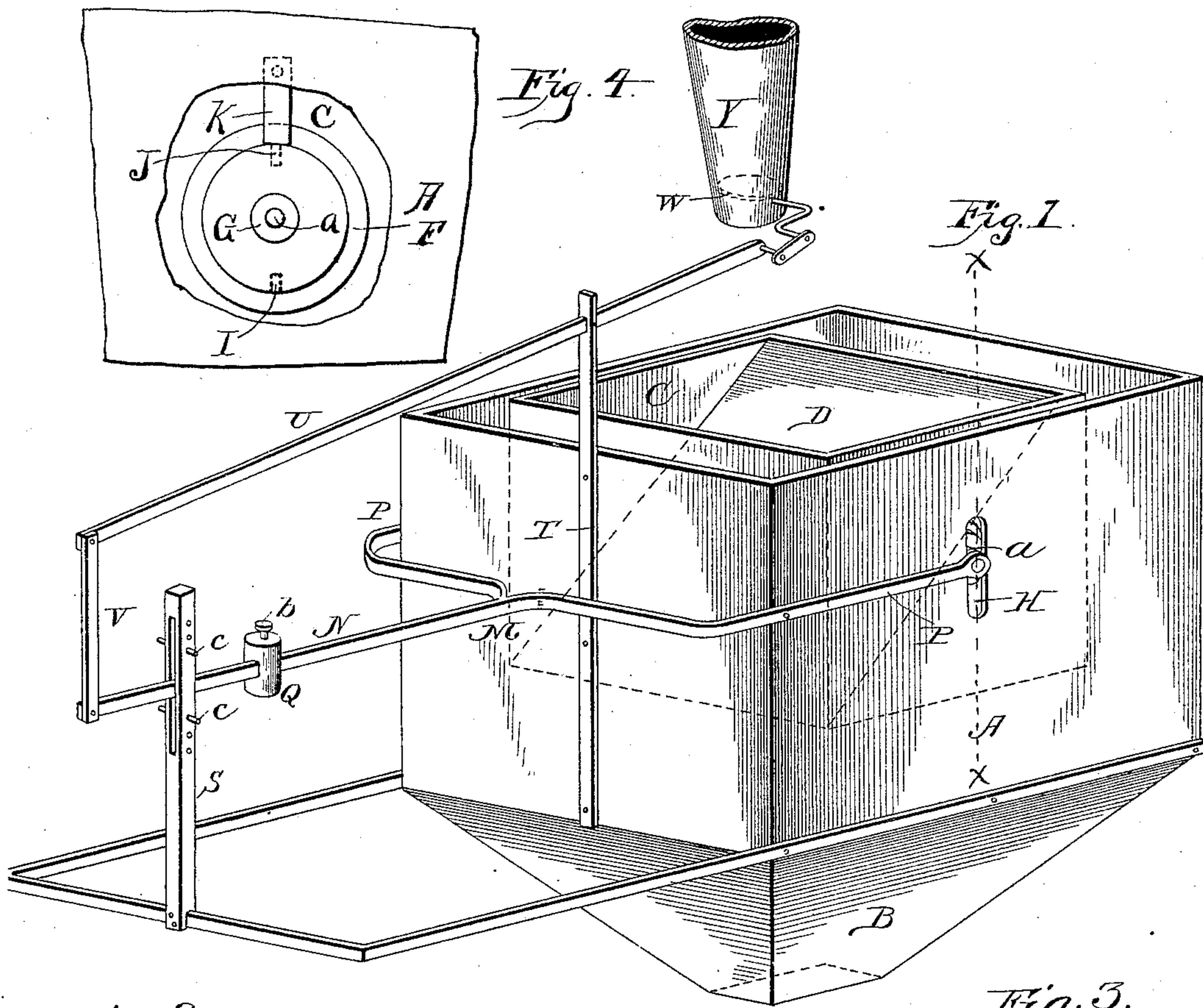
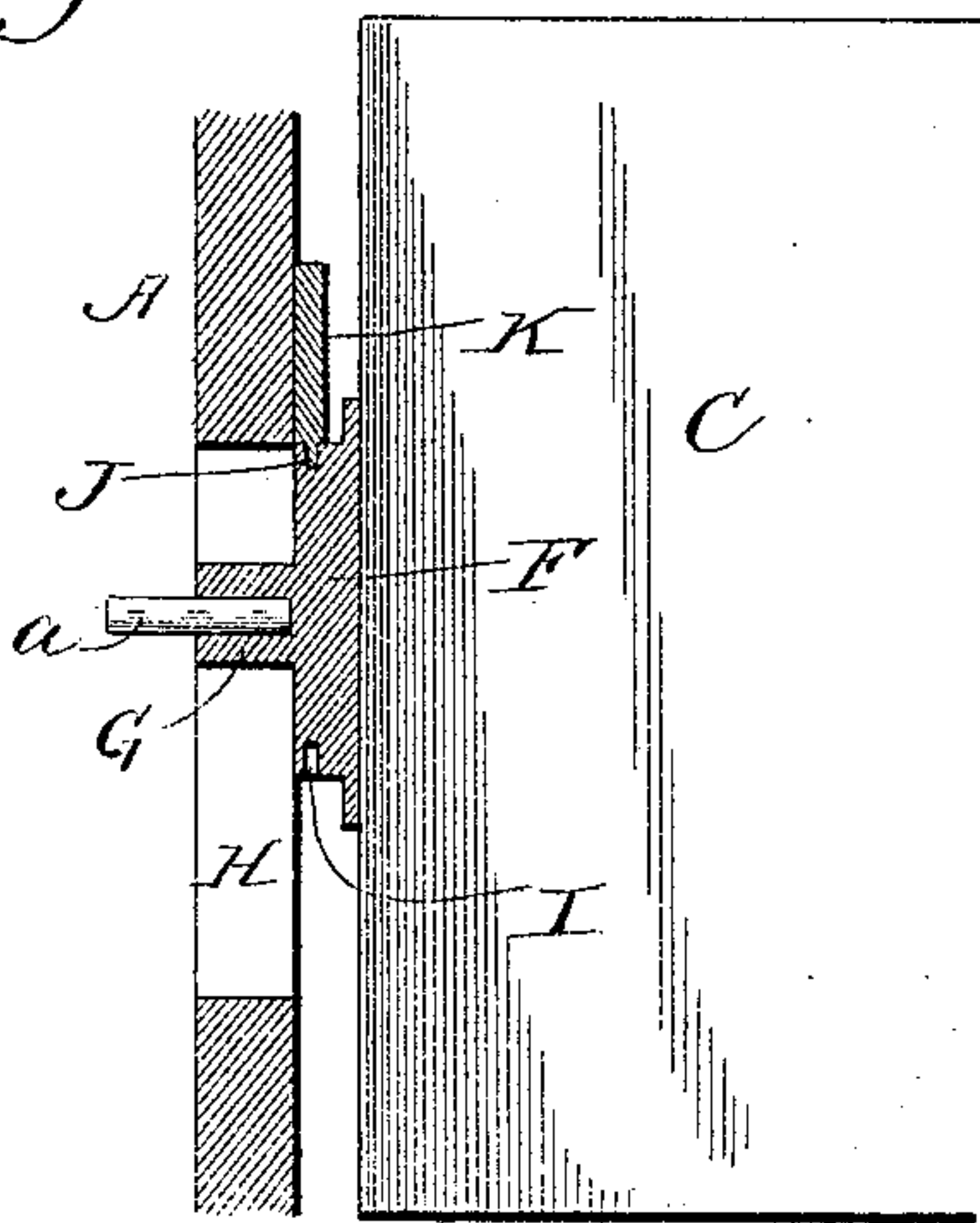


Fig. 1.



WITNESSES
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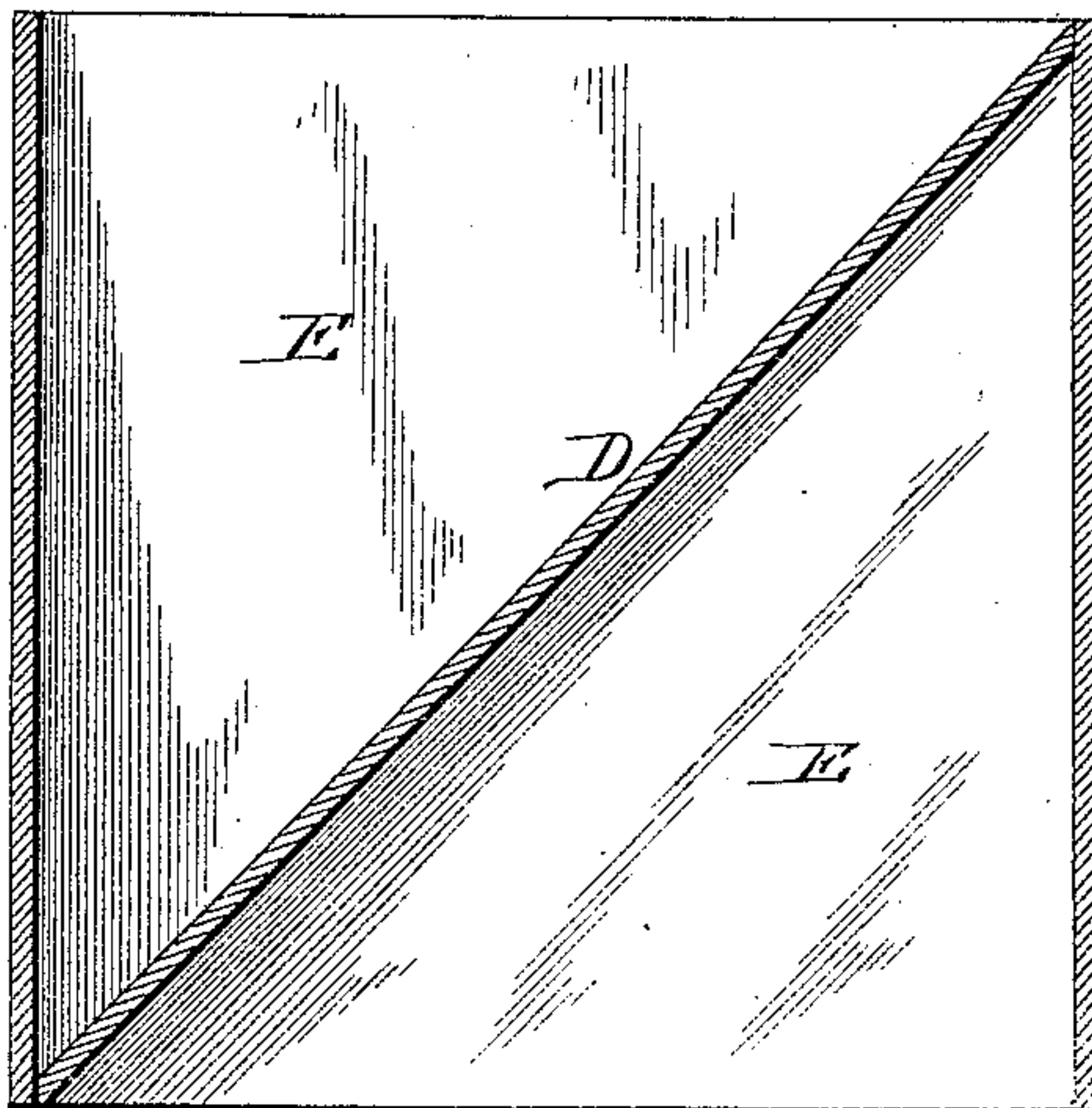


Fig. 3.

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GRAIN-WEIGHER.

SPECIFICATION forming part of Letters Patent No. 485,779, dated November 8, 1892.

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To all whom it may concern:

Be it known that I, ALBERT WIDICK, a citizen of the United States, residing at Argonia, in the county of Sumner and State of Kansas, have invented certain new and useful Improvements in Automatic Weighers; 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.

My invention has relation to improvements in automatic grain-measuring machines; and it consists in the peculiar construction, certain novel combinations, and the adaptation of parts hereinafter described, and particularly pointed out in the claim appended.

In the accompanying drawings, Figure 1 is a perspective view of my improved machine. Fig. 2 is a detail vertical transverse section taken in the plane indicated by the line $x x$ of Fig. 1. Fig. 3 is a vertical section of the revoluble measuring-box removed. Fig. 4 is a detail side elevation of one of the collars or disks having the radially-disposed sockets at diametrically-opposite points in their peripheries and the stationary lugs I for engaging said collars, the side wall of the casing being broken away.

In the said drawings similar letters designate corresponding parts throughout the several views, referring to which—

A indicates the main casing of my improved machine, which is preferably of the rectangular form illustrated and is provided with the hopper-shaped bottom B, the central discharge-opening of which may be connected with a conveyer, if desirable.

C indicates the measuring-box of my improved machine, which comprises the vertical side walls and the diagonal partition-wall D, which extends from the rear upper transverse edge of the box to the forward lower transverse edge thereof and forms the bottom of the respective bins E, which are designed to receive the grain to be measured, as will be presently disclosed.

Suitably connected to the vertical side walls of the measuring-box C, as better shown in Fig. 2 of the drawings, are flanged collars or disks F, from the center of which extend lateral sleeves or sockets G, which take through the vertical guide-slots H in the side walls of

the main casing A and are designed for a purpose presently to be described.

The collars or disks F, as illustrated, are provided at diametrically-opposite points in their peripheries with radially-disposed sockets I, which are designed to be alternately engaged by stationary depending lugs J when the measuring-box is in the position illustrated in Fig. 2, whereby the measuring-box will be prevented from casual movement while each of the bins E is being filled.

The stationary lugs J, as better shown in Fig. 3 of the drawings, depend from, preferably, integral plates K, which are fixedly connected to the inside of the side walls of the casing above the vertical guide-slots H therein.

M indicates the weighing-beam of my improved machine, the forward main portion N of which merges into the branches P, which straddle the casing A, and are provided at their ends with inwardly-directed lateral branches a , which take into the lateral sockets G of the measuring-box and form the pivot-bearings of said box. These branches P, as better illustrated in Fig. 1 of the drawings, are pivotally connected to or fulcrumed upon the side walls of the casing A adjacent to the forward end thereof for a purpose presently stated.

Adjustably mounted on the straight main portion of the weighing-beam M is the counterbalance pea or weight Q, which is provided with a set-screw b , whereby it may be fixed at a proper point on the beam with respect to the capacity of the bins E of the measuring-box C or the amount of grain to be measured at each revolution of said box.

The forward end of the weighing-beam M takes loosely through the slot in the upright S, which is provided with transverse apertures, as shown, to receive transverse plugs or bolts c , which serve in practice to limit the vibration of the said weighing-beam.

Fulcrumed upon an upright T, rising from the front wall of the casing A, is a lever U, which is connected at its forward end to the forward end of the weighing-beam M by a link V, as shown.

Pivotally mounted in the feed-conveyer Y is a cut-off valve W, one of the trunnions of which is extended, as illustrated, and formed into a crank, which is connected by a short

link to the rear end of the lever U, whereby it will be seen that when the forward end of the weighing-beam M is raised the valve W will be closed and the feed of grain stopped.

5 It is obvious that in practice any valve suitable to the purposes of my invention might be employed, and I therefore do not desire to be confined to the construction of valve illustrated.

10 In operation it will be seen that when the measuring-box is empty the weight Q, through the medium of the beam M, will raise said box, so that the sockets in the disks or collars F will be engaged by the depending lugs J.

15 At the same time the measuring-box is raised the valve W will be opened and the grain will flow from the feed-conveyer Y into one of the bins E of the measuring-box C until the weight thereof is sufficient to overcome
20 the counterbalance weight or pea, when the measuring-box will fall, so as to disengage the sockets in the collars F from the depending lugs J, when the box will revolve, the bin will be emptied, and the other bin brought into
25 position to be filled.

Although I have specifically described the construction and relative arrangement of the several elements of my improved machine,
30 yet I do not desire to be confined to such construction, as such modifications may be made

as fairly fall within the scope of my invention.

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

In a grain-measuring machine, substantially 35 as described, the combination, with the main casing having vertical guide-slots in its side walls and the depending lugs rigidly connected to the inside of the side walls above said guide-slots, of the vertically-movable and 40 revoluble measuring-box comprising the vertical side walls and the diagonal partition-wall, the flanged disks or collars connected to opposite side walls of said box and having lateral sockets adapted to move in the guide- 45 slots of the casing, the radially-disposed sockets formed at diametrically-opposite points in the disks or collars and adapted to engage the depending lugs of the casing, the weight-beam having the branches straddling the casing and 50 pivotally connected to the sides thereof and to the lateral sockets of the measuring-box, and a pea or counterbalance-weight mounted on said beam, substantially as specified.

In testimony whereof I affix my signature in 55 presence of two witnesses.

ALBERT WIDICK.

Witnesses:

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