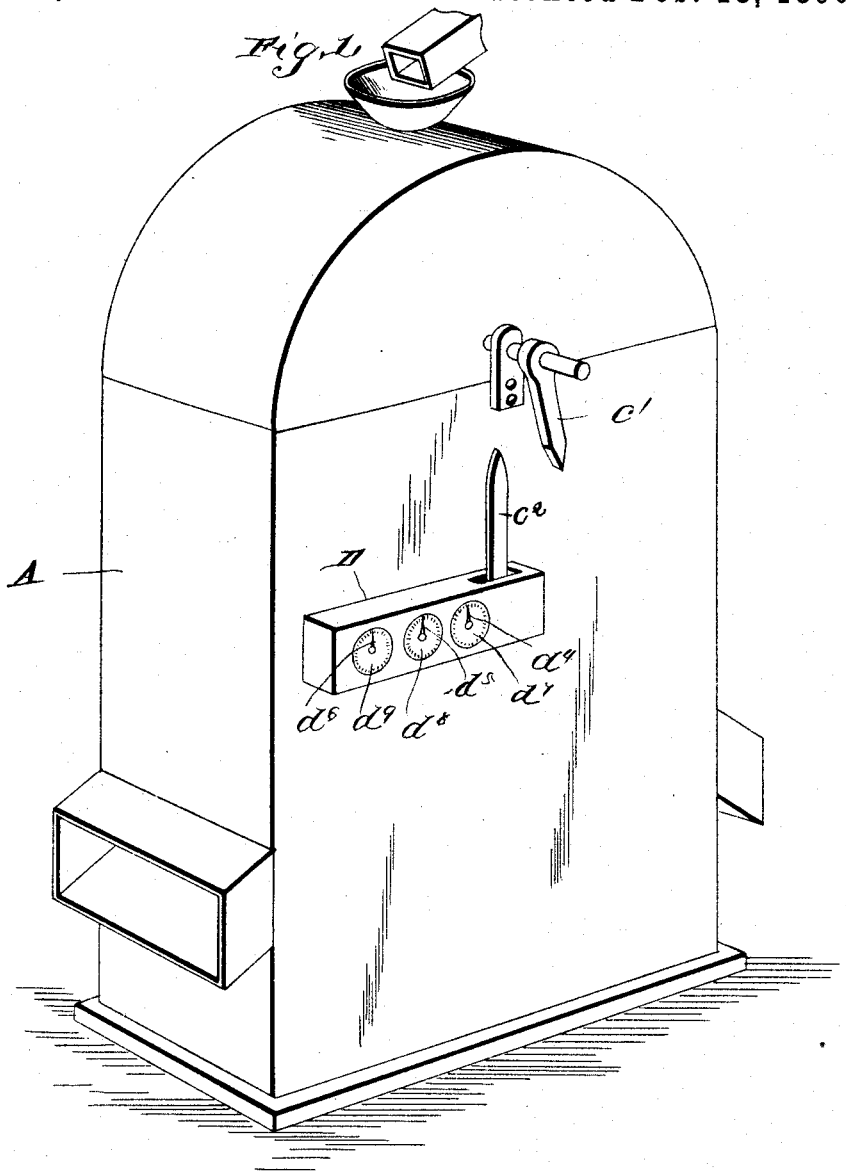
(No Model.) 3 Sheets—Sheet 1.

J. STRUBLE.

GRAIN METER.

No. 421,875. Patented Feb. 18, 1890.

Fig. 1.



WITNESSES

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(No Model.) 3 Sheets—Sheet 2.

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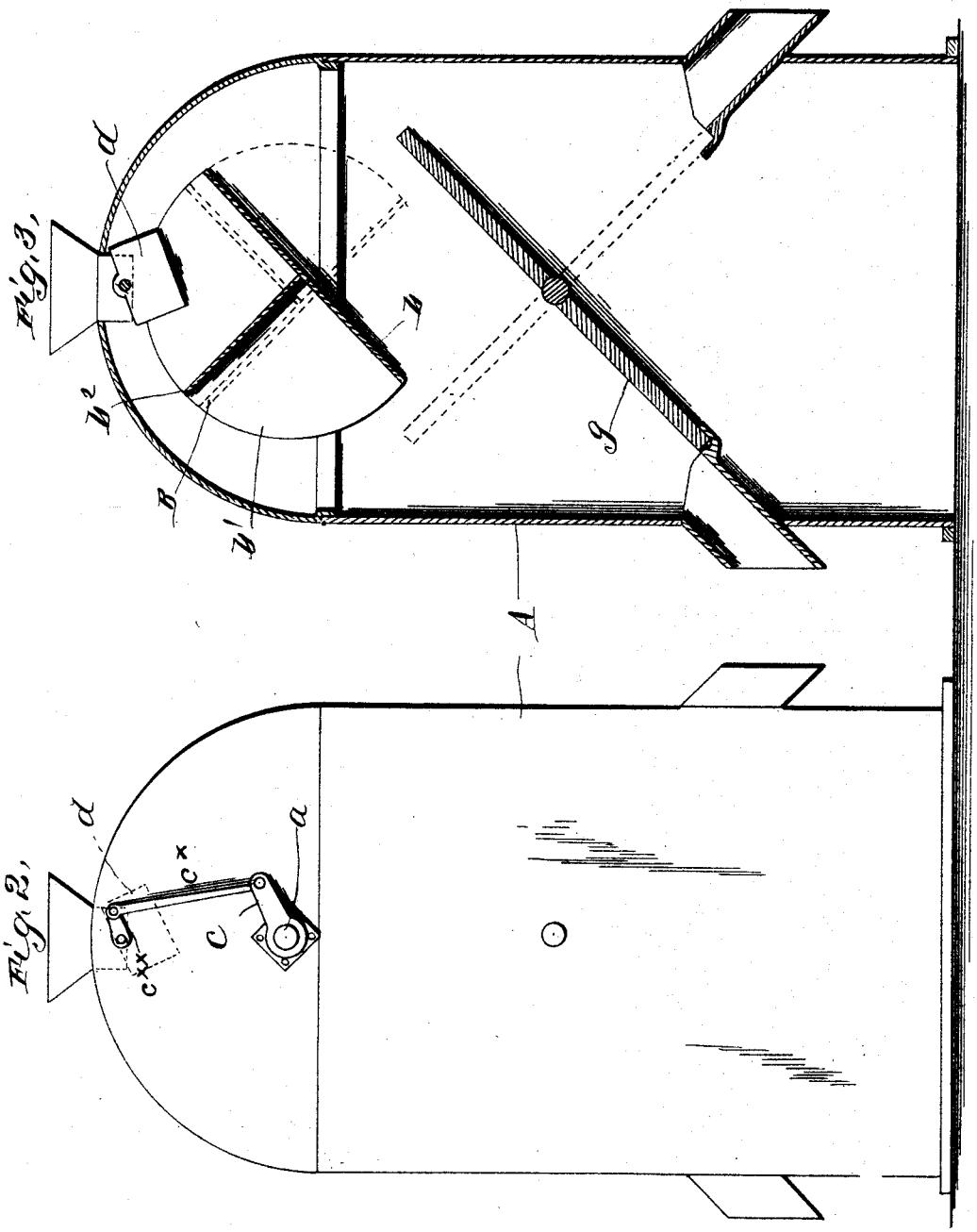

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(No Model.) 3 Sheets—Sheet 3.

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GRAIN METER.

No. 421,875. Patented Feb. 18, 1890.

Fig. 4.

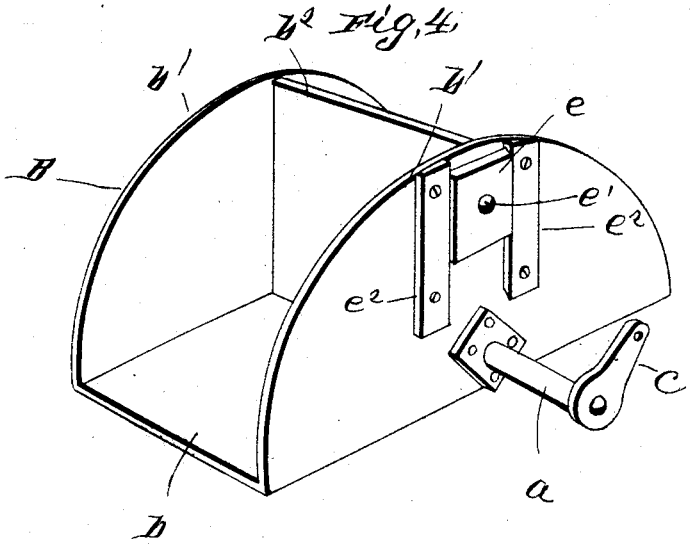
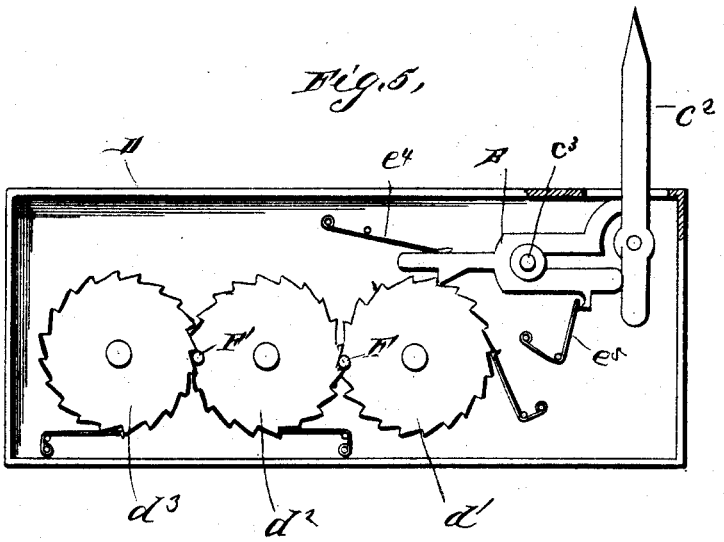


Fig. 5.



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UNITED STATES PATENT OFFICE.

JACOB STRUBLE, OF SIOUX CITY, ASSIGNOR OF ONE-HALF TO BENJAMIN HARRISON, OF LINCOLN TOWNSHIP, IOWA.

GRAIN-METER.

SPECIFICATION forming part of Letters Patent No. 421,875, dated February 18, 1890.

Application filed July 27, 1889. Serial No. 318,857. (No model.)

To all whom it may concern:

Be it known that I, JACOB STRUBLE, a citizen of the United States, and a resident of Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in Automatic Grain-Measures and Tally-Boxes; and I do 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 of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a perspective view of this invention. Fig. 2 is a back view of the same. Fig. 3 is a vertical section. Figs. 4 and 5 are details.

This invention relates to certain improvements in grain-measures; and it consists of the novel construction and combination of parts, as will fully appear from the following description and accompanying illustrations, in which—

In the embodiment of my invention I support between the side pieces of an inclosure A, near their upper ends, a tilting receptacle B by means of a shaft a, resting in said side pieces. This tilting receptacle consists of a bottom board b, semicircular side pieces b', and a central partition-piece b^2, converting the receptacle into two compartments, each having preferably the capacity of a half-bushel. The shaft a, it will be observed, is arranged a short distance above the bottom of the receptacle B, to permit it to readily tilt when the required compartment has been filled, to effect the discharge of its contents. One end of the shaft a carries a crank c, which is connected by a rod $c^\times$ to a crank $c^{\times\times}$ of the pivoted or shifting chute d, hung in the side pieces of the inclosure or casing A near their extreme upper edges, to effect the automatic shifting of the chute simultaneously with the tilting of the measuring-receptacle B, thus directing the flow of the grain into the required compartment of said receptacle. The other end of the shaft a carries a pin or crank c' to actuate the register D to tally each half-bushel measured out by the tilting of the receptacle B.

e is a sliding or adjustable weight held by a set-screw e' between opposite inner beveled surfaces of cleats or strips e^2, fastened centrally upon one side of the receptacle B. The weight e holds the receptacle B against tilting during the filling of the required compartment of the latter. After such filling the weight permits the receptacle B to tilt so as to discharge the contents of the filled compartment, the other compartment at the same time being brought into proper position to be filled in its turn.

g is a chute-board, which is centrally pivoted in the inclosure or casing A, and primarily conducts the contents of the discharging-compartment of the receptacle B from said casing or inclosure, while it is adapted, as indicated, to shift the discharge of said contents from one side to the other of said casing or inclosure.

The register D consists, principally, of a train or series of intergearing ratchet-wheels d' d^2 d^3, having holding-pawls and mounted upon suitable shafts bearing in the sides of the inclosure or casing thereof. The lowermost wheel actuates a pointer or index d^4, the intermediate wheel a pointer or index d^5, and the uppermost wheel a pointer or index d^6, said pointers or indexes moving, respectively, over the faces of dials d^7 d^8 d^9 upon the outer side of the inclosure or casing. The pointer or index d^4 registers each half-bushel measured out to the number of twenty half-bushels or ten bushels, the pointer d^5 from ten bushels to two hundred, and the pointer d^6 from two hundred bushels to four thousand. This is effected by the mechanism hereinafter described.

E is a bifurcated lever-pawl centrally pivoted upon a pin c^3, secured in the casing or inclosure thereof, the prongs of its bifurcated portion resting upon a pin or crank c^2, engaged by the pin or crank c' of the measure. The lever-pawl E has engagement with the ratchet-wheel d', being held in such relation to the latter by springs e^4 e^5.

F F′ are projections or studs, one applied to wheel d' and the other to wheel d^2, the

lower one F engaging a tooth of the wheel d^2 when the wheel d' has made a complete revolution, and the other projection or stud F′ engaging a tooth of the wheel d^3 when the wheel d^2 has made a whole revolution.

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

The combination of the tilting receptacle having a bottom, sides, and a central partition, a sliding weight applied to said receptacle centrally of said partition, the cleats secured to said receptacle and between which said weight is held, and the screw for adjusting said weight, substantially as set forth.

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

JACOB STRUBLE.

Witnesses:
LOUIS PAUTLITZ,
G. M. ALLEN.