

(No Model.)

C. J. M. BEREUTER.  
GRAIN WEIGHER AND REGISTER.

No. 262,355.

Patented Aug. 8, 1882.

Fig. 1.

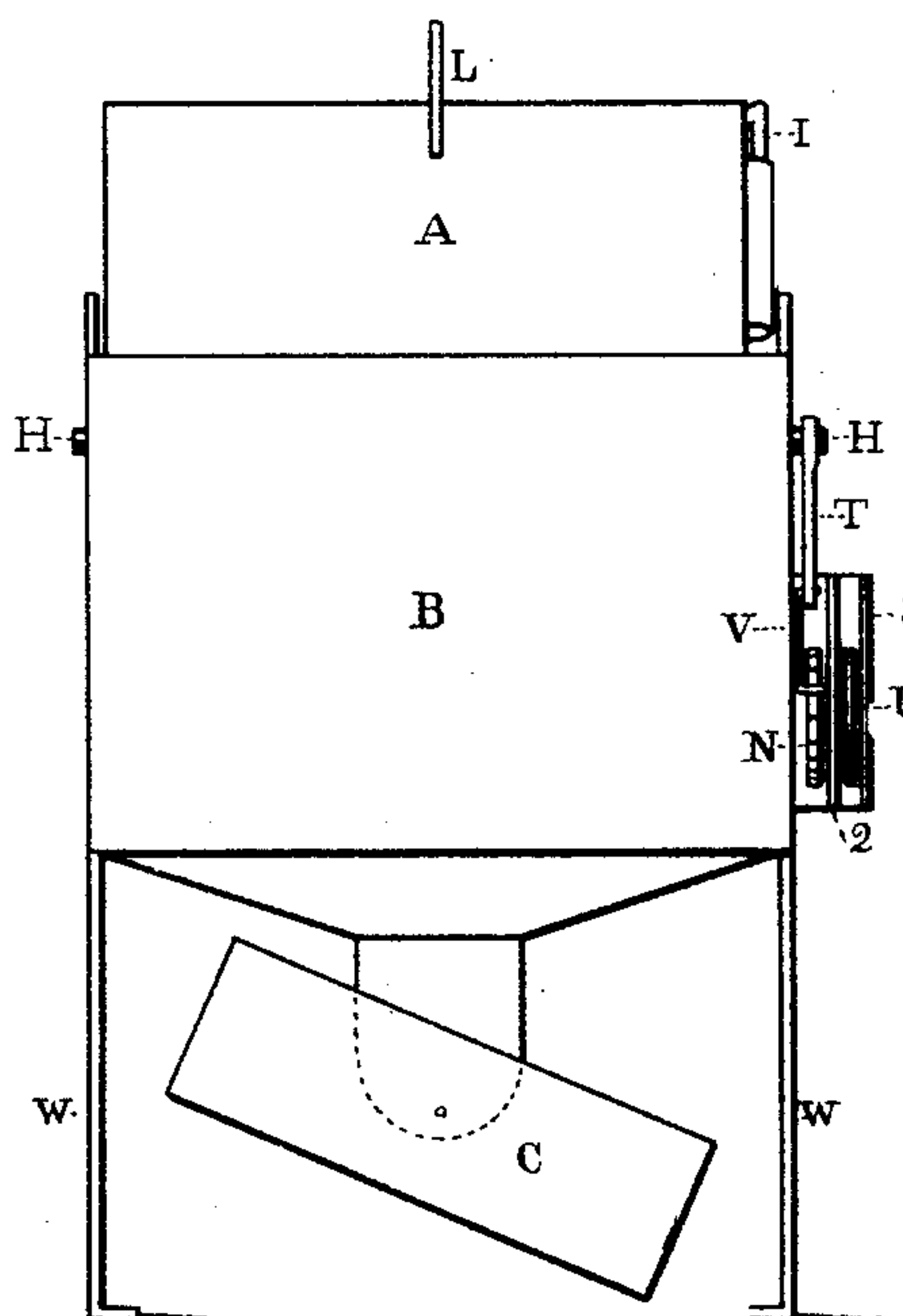


Fig. 2.

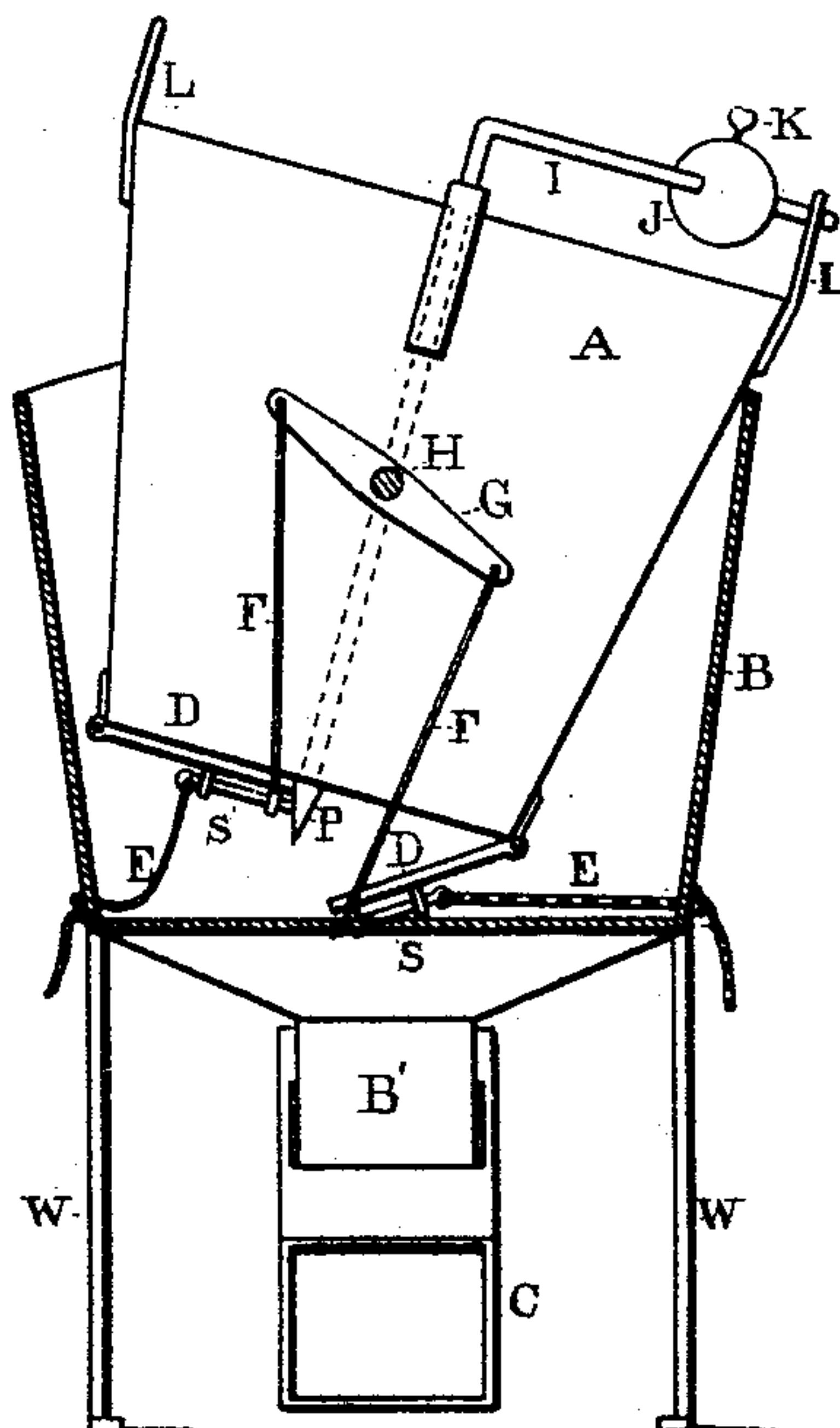


Fig. 3.

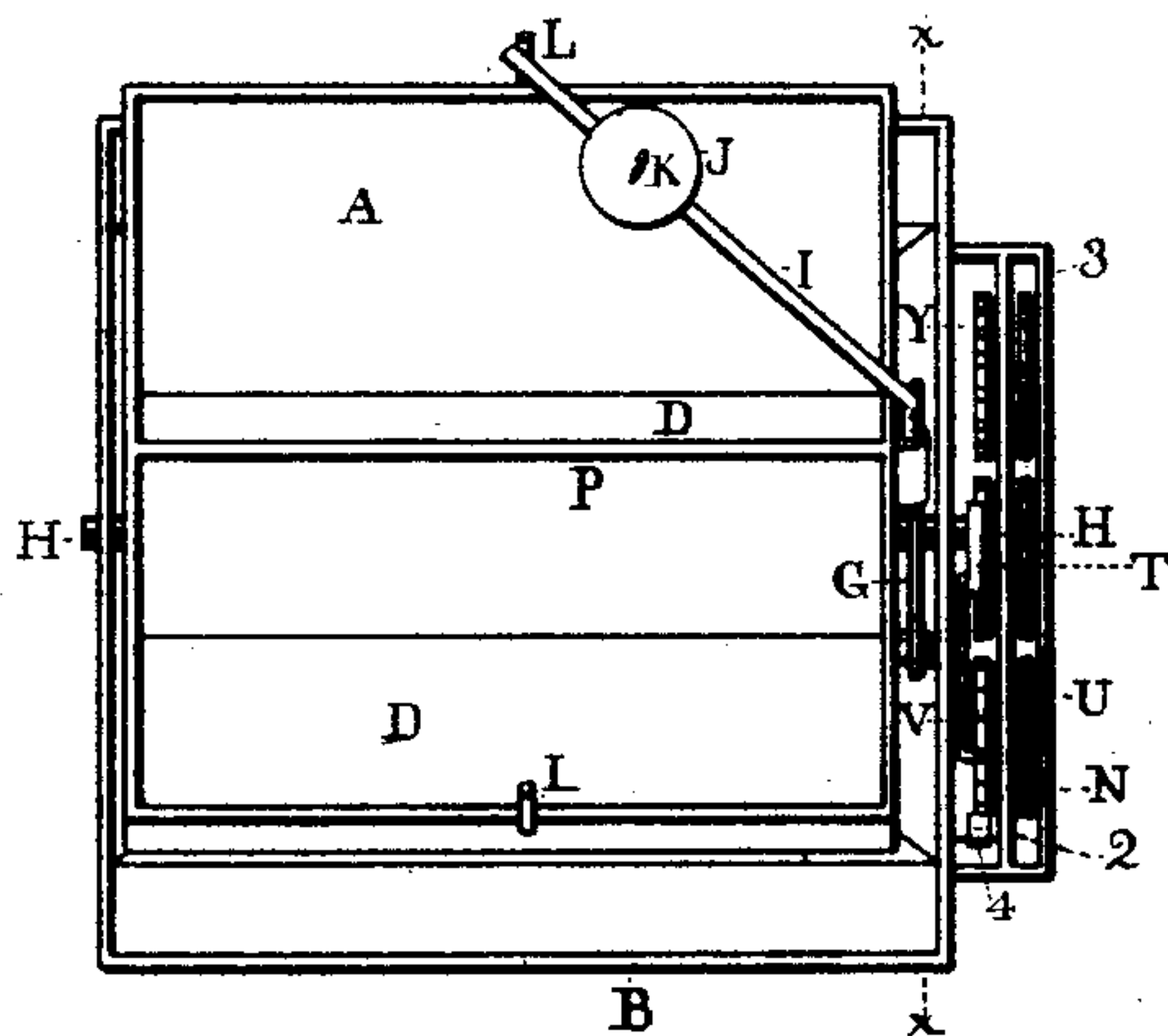
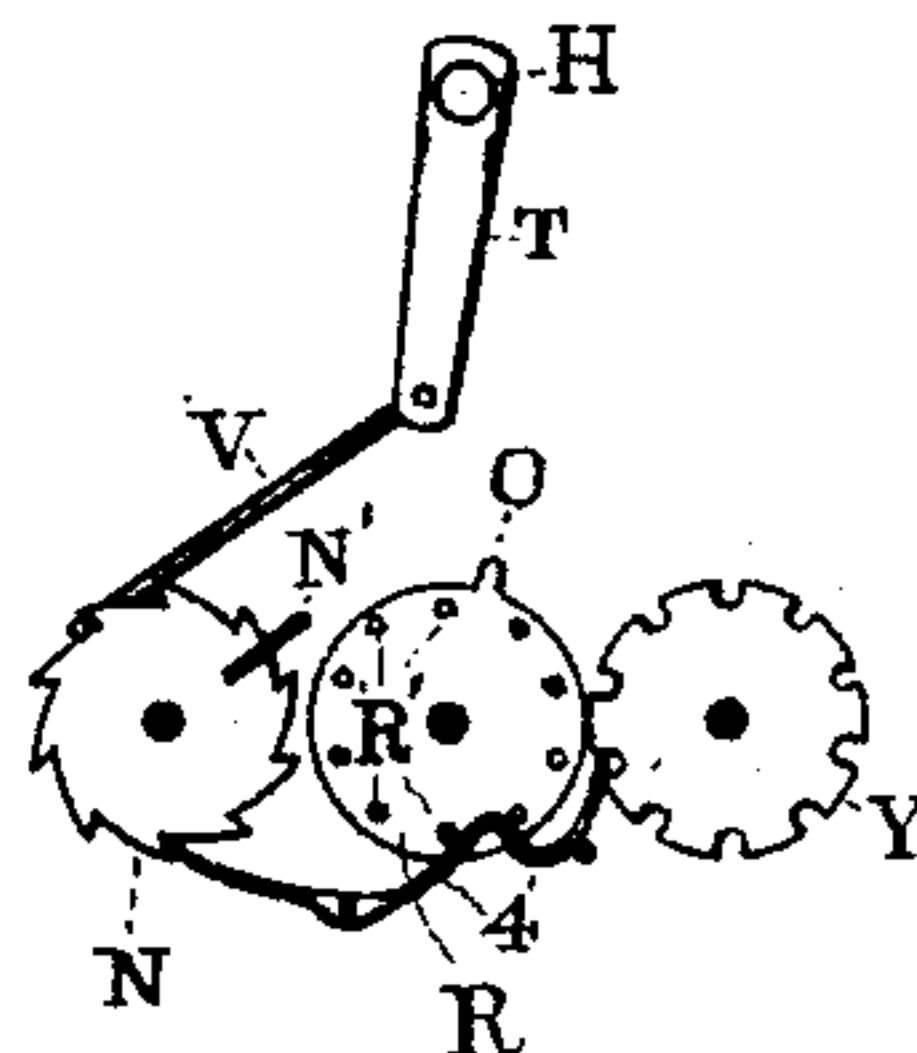


Fig. 4.



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# UNITED STATES PATENT OFFICE.

CHARLES J. M. BEREUTER, OF FLANNIGAN, ILLINOIS.

## GRAIN WEIGHER AND REGISTER.

SPECIFICATION forming part of Letters Patent No. 262,355, dated August 8, 1882.

Application filed April 15, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES J. M. BEREUTER, of Flannigan, in the county of Livingston, in the State of Illinois, have invented an Improved Grain Weigher, Measurer, and Register; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a side elevation; Fig. 2, sectional elevation at  $x x$ ; Fig. 3, top view; Fig. 4, detail view of registering part.

The box A, supported through its center of gravity by the axis H H, is separated by a vertical partition, P, into two equal chambers.

The supporting-box B has a funnel-shaped bottom terminating in the reversible spout C.

To the top of the box A is pivoted an arm, I, having an adjustable weight, J. This arm is kept from swinging too far by pegs L, fastened to the sides of said box A.

The bottoms of the two chambers of the box A are closed by doors D, so arranged by means of the rods F F and lever G swinging upon the axis H that when either door is opened the other is thereby closed. These doors D are hinged to the outside edges of the box A, and are held fast, when closed, by the spring-catches S slipping into notches in the projecting end of partition P. The cords or chains E E, fastened to the rear ends of the spring-catches S and to the sides of the box B, serve to withdraw one of the spring-catches S when the box A swings to either one side or the other. This pull of the cord or chain E, aided by the weight of the grain in the chamber above, throws the door D open, thereby closing and fastening the other door D.

To the end of the axis or shaft H, projecting outside the box B, is keyed an arm, T, having at its lower extremity a pawl, V. This pawl V, being hooked, catches into the ratchet-wheel N. Each time the box A rocks to one side the pawl is slid along to a new ratchet-tooth, and when said box rocks back to the other side the wheel N is made to revolve through an arc equal to the distance between two teeth. By having ten ratchet-teeth in this wheel it is made to register up to ten. In-

stead of stamping the units upon this wheel N, I use a dial-plate, U, joined to said wheel N by a short shaft having its bearings in the plate 2. To this wheel N is soldered or otherwise affixed a projecting pin, N'. The wheel R, having ten pins, O, and one radially-projecting tooth, R', has also its dial-plate marked with numbers, from one to ten, joined by a short shaft supported by the plate 2. The wheel Y has ten notches to fit the tooth R', and a dial-plate joined, supported, and marked in the same way as the wheel R. The spring 4 keeps said wheels and dials from being jarred out of the position in which each is left. A face-plate, 3, having a narrow slot, covers the dial-plates except where the correct figures are to show.

In the drawings I show the box B supported on legs W; but these are dispensed with when the machine is used with corn-shellers.

The mode of operation of my grain weigher, measurer, and register is as follows: The spout through which grain is to be delivered into the box A must have its center in the same vertical line with the axis H H. If it is desired to register by weight, the heavy ball J is moved along on the arm I until it is just overbalanced by the desired weight of grain in the chamber opposite. If it is desired to register bushels, half a bushel of grain is placed in one of the chambers of the box A, and the weight J adjusted along the arm I to balance. The set-screw K secures said ball or weight J at the desired point. Each of the dial-plates being set at zero, and the box A being canted in the opposite position from the one shown in Fig. 2, the flow of grain is allowed to begin. From the position of the partition P all the grain from the spout above is received into the right-hand or upper chamber. As soon as the right amount of grain has entered said chamber the ball J is overbalanced, the box A cants toward the opposite side, and the said ball J swings around upon its arm I till it is brought to a stop quite forcibly by a peg, L. This extra blow by the ball J, together with the weight of grain in the chamber, is sufficient to make sure that the spring-catch S will be withdrawn, the door D opened, and the door D of the empty chamber instantly closed to receive the grain now entering therein from the spout



above. Through the opened door D the grain from the formerly-filled chamber escapes down through the tunnel B' and spout C to wherever desired. In the same way each chamber 5 of the box A fills and empties alternately, registering only each alternate movement of said box A. When the wheel N has been caused to make one revolution the wheel R is moved through one-tenth of its circumference by the 10 pin N'. In the same way when R has revolved once Y is moved along one-tenth of a revolution. As N registers units, R tens, and Y hundreds, the three wheels combined record up to nine hundred and ninety-nine.

15 The object in having the spout C pivoted through its center to the end of the tunnel B' is that when a bin or wagon has the desired amount of grain poured into it the inflow can be instantly diverted to some other receptacle 20 by simply tipping said spout C down the other way.

What I claim as my invention, and for which I desire Letters Patent, is as follows, to wit:

1. As a grain weigher and measurer, a box 25 having a vibratory movement upon an axis near its center of gravity, and divided into two equal chambers by a vertical partition through the line of said axis, each of said chambers having an automatically opening and 30 closing bottom, in combination with a weight secured to an arm pivoted at a top corner of

said partition and capable of swinging from side to side of said box.

2. The box A, having partition P, and supported near its center of gravity by the axis 35 H, in combination with the doors D, having spring-catches S and cords or chains E, the rods F, lever G, pivoted arm I, ball J, and pegs L, substantially as and for the purpose specified. 40

3. The box A, having partition P, and axis H, the arm I, pegs L, ball J, lever G, rods F, spring-catches S, cords E, and doors D, in combination with the supporting-box B, arm T, pawl V, wheels N, R, and Y, and dial-plates 45 connected therewith, substantially as and for the purpose set forth.

4. The box A, having partition P, and axis H, the arm I, weight J, doors D, catches S, cords or chains E, rods F, and lever G, in combination with the supporting-box B, having 50 funnel-shaped bottom B', and the spout C, pivoted at its center of gravity to the extremity of said bottom B', substantially as and for the purpose specified. 55

In testimony that I claim the foregoing invention I have hereunto set my hand.

CHARLES J. M. BEREUTER.

Witnesses:

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E. J. TREXEL.