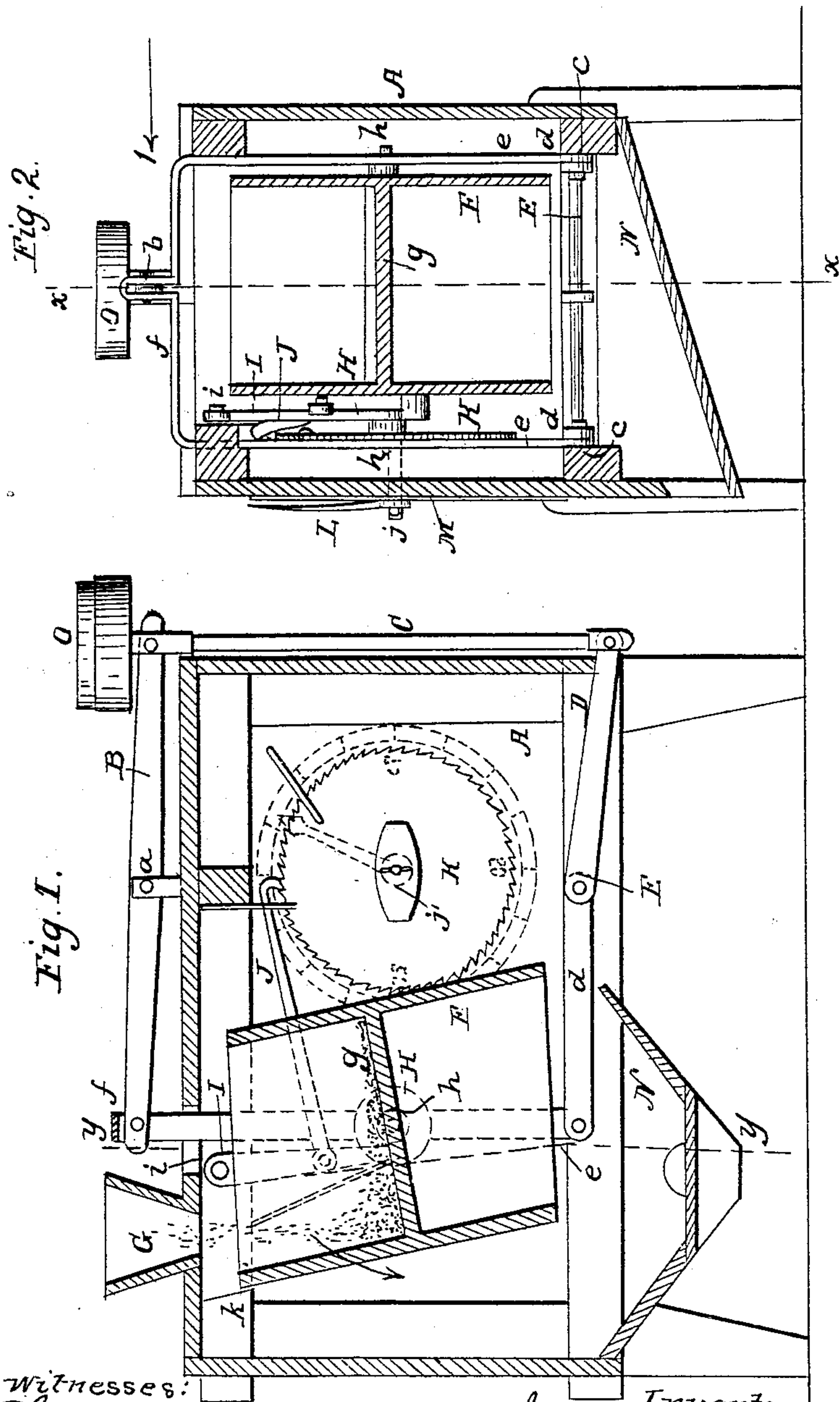


J. B. MOHLER.

Grain Meter.

No. 30,491.

Patented Oct. 23, 1860.



Witnesses:
J. H. Coombs
R. D. Spencer

Inventor:
J. B. Mohler
per *Munn & Co.*
attys.

UNITED STATES PATENT OFFICE.

JAMES B. MOHLER, OF PEKIN, ILLINOIS.

GRAIN-WEIGHING MACHINE.

Specification of Letters Patent No. 30,491, dated October 23, 1860.

To all whom it may concern:

Be it known that I, JAMES B. MOHLER, of Pekin, in the county of Tazewell and State of Illinois, have invented a new and Improved Automatic Grain-Weighing Device; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side sectional view of my invention, taken in the line x, x , Fig. 2, and looking in the direction indicated by the arrow. Fig. 2 a transverse vertical section of the same, taken in the line y, y , Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

The object of this invention is to obtain by a simple arrangement of means a device which will receive a continuous flow of grain from a hopper, weigh and register the grain and discharge it into any proper receptacle, the whole device working automatically, the gravity of the grain being the only motor.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a rectangular box or case on the upper part of which a scale beam B, is placed, a , being its fulcrum. This beam B, at one end is attached by a pivot to a vertical rod C, the lower end of which is connected by a pivot b , to a rod D, said rod being attached at its inner end to a shaft E, which has its bearings at c, c , in the box A. To the shaft E, there are attached two parallel arms d, d , which project out from the shaft E, and are connected each to a vertical bar e . The upper ends of the bars e, e , are connected by a horizontal bar f , which is attached to the beam B, at the end opposite to that where the rod C, is attached. The shaft E, has its bearings in line with the fulcrum a , of the scale beam as shown in Fig. 1.

F, is a box which is divided into two equal compartments by a partition g . This box is suspended centrally by pivots h, h , between the two bars e, e , and is allowed to turn freely on its pivots. The box F, is of rhomboidal form in its vertical section, and the partition g , at right angles to the sides of the box as shown in Fig. 1, and is directly below a hopper G, on the case A.

On one of the pivots h , of box F, there is placed a cam H, the shape of which is shown by the dotted lines in Fig. 1.

I, is a lever the upper end of which is attached to the interior of the case, as shown at i , and to the lever I, there is connected a pawl J, which engages with a ratchet K, within the case. The axis j , of the ratchet passes through the side of the case and has an index L, fitted on it, said index working or traversing over a graduated plate M, which is attached to the outer side of the case concentric with the ratchet K. N, is a hopper placed below the box F.

The operation is as follows: The weights O, are placed on the top of the rod C, and the grain falls from hopper G, into the uppermost compartment of the box F, which is prevented from turning on its pivots in consequence of its upper end bearing against a step or projection k , in the case. When a sufficient quantity of grain has passed into the uppermost compartment of the box to counterpoise the weights O, the box is depressed and when free from the projection k , the box F, turns on its pivots h, h , until it is inverted or has made a half revolution, the filled compartment depositing its contents in hopper N, and the other assuming an uppermost position the weights O, elevating the empty box so that its upper end will catch against the step or projection k .

At each half-revolution of the box F, the cam H, actuates, the lever I, and the latter moves pawl J, which actuates the ratchet K, and the index L, is moved over the graduated plate M, indicating the weight of the grain discharged from the compartment of the box during the half revolution of the latter. The box being thus turned or semi-rotated and the half revolutions noted by the index L, the weight of all the grain that passes through the machine will be ascertained.

In consequence of having the box F, of rhomboidal form and the partition g , placed in it at right angles, the grain as the compartments fill has its weight preponderating at the outer side of the pivots h, h , and consequently when the box F, is depressed so as to be free from projection k , the former turns in the direction of the arrow.

The device as a whole is extremely simple and efficient and may be constructed and applied very economically. It is well calcu-

lated for an attachment to threshing machines to weigh the grain as it is threshed and in its passage to a bin or cart.

I do not claim any of the parts separately,
5 but

I do claim as new and desire to secure by Letters Patent—

The arrangement of the pivoted, rhomboidal and divided receiving box F, cam H

lever I, and rod J, with the scale beam B, 10 rods C, D, shaft E, ratchet wheel K, index L and plate M as and for the purposes herein set forth and described.

JAMES B. MOHLER.

Witnesses:

M. TACKABERRY,
JOHN H. EYRSE.