J. C. HUNT
Grain-Meter.

No. 202,172. Patented April 9, 1878.

Fig. 1.

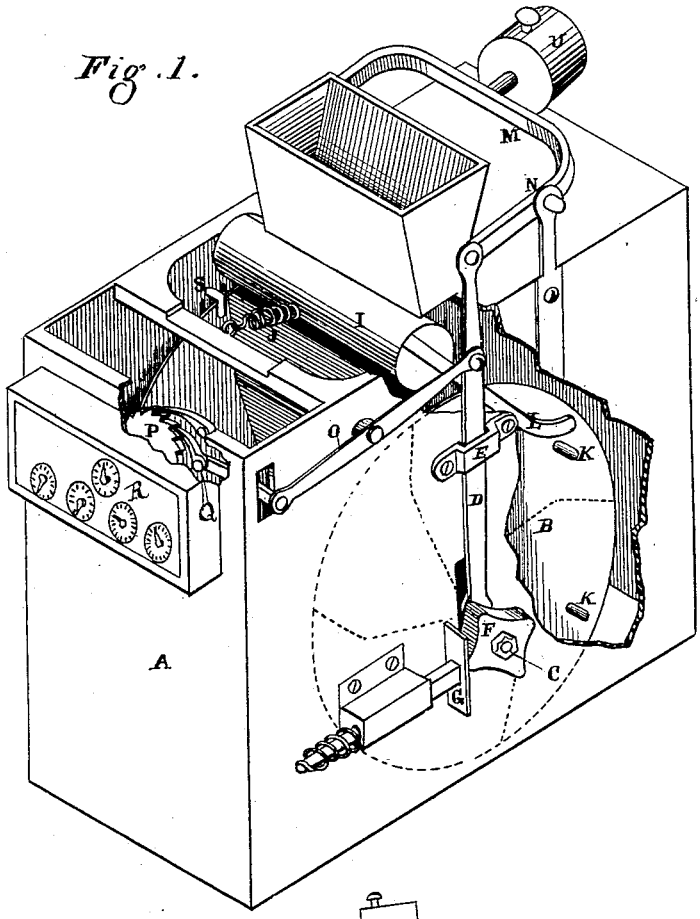
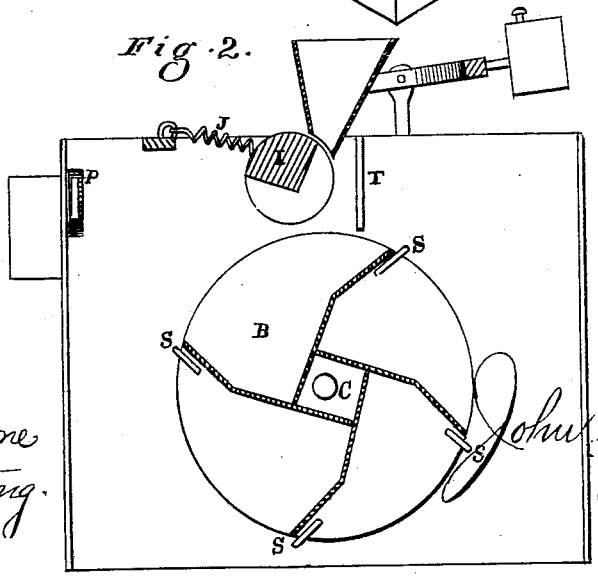


Fig. 2.



Witnesses
Jno. L. Boone
Geo. H. Strong.

Inventor
John C. Hunt
by Dewey & Co
Attys

UNITED STATES PATENT OFFICE.

JOHN C. HUNT, OF SHERIDAN, CALIFORNIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO DANIEL CLICK, OF SAME PLACE.

IMPROVEMENT IN GRAIN-METERS.

Specification forming part of Letters Patent No. **202,172**, dated April 9, 1878; application filed February 6, 1878.

To all whom it may concern:

Be it known that I, JOHN CARPENTER HUNT, of Sheridan, Placer county, State of California, have invented an Automatic Weighing Device and Register; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention without further invention or experiment.

My invention relates to certain improvements in devices for automatically weighing and registering grain and other substances; and it consists in a rotating self-discharging weighing-scale having a vertical movement, by which its position is changed when full or empty; and this alternate change of position is made the means of operating a gate or valve to shut off and admit the material to the scale, and also to operate the registering device.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view of my machine. Fig. 2 is a longitudinal section.

A is a frame-work, having a wooden or any other suitable casing. A weighing-pan, B, that is divided into several compartments, is supported within the frame, and rotates upon journals C C working in slots. These journals are held on the outside by vertical standards D, that are movable, and are kept in position by clasps E E. Upon the outer end of one or both of the journals a block, F, is placed, having as many angles and sides as there are compartments in the weighing-pan B. A spring-plate, G, or any other suitable spring, presses against the block F, and acts as a brake, preventing the weighing-pan from turning too rapidly, and assisting to bring it into the proper position for filling.

Upon the top of the frame A is a hopper, into which the material to be weighed is fed. At the bottom of this hopper a rotating gate or valve, I, is placed. When the weighing-pan is in position to receive material, this gate is kept open by means of a spring, J, attached to one of its edges, and extending to a cross-bar on the frame-work. When this gate is to be closed, the weighing-pan rotates, and pins K K, projecting from the weighing-pan, operate against a lever, L, that projects downward from one end of the gate, thus rotating it far enough to close the opening below the hopper.

Upon the top of the frame A is a forked lever, M, having fulcrums N projecting above the frame-work. The shorter ends of the lever are attached to the vertical standards D. At the other end is an adjustable weight, U, kept in place by a set-screw.

A compound lever, O, is placed on one side of the machine, one end being attached to one of the vertical standards D. At the other end is a pawl working in a ratchet, P, which also has an additional pawl, Q, that prevents any backward movement. This ratchet operates the registering device R, that is placed at the end of the machine.

Every time the weighing-pan rotates, a vertical movement of the standards D causes the compound lever O to operate the pawl and ratchet connected with the registering device, causing a record to be made of each and every load weighed.

In order to prevent the weighing-pan from rotating backward, a series of pins, S S, &c., on one of its ends, alternately rest against a projection, T, on the inside of the frame-work, and, when rotating forward, the vertical movement of the weighing-pan allows each pin to pass the projection alternately.

The operation of my machine will be as follows: The grain or other material to be weighed is allowed to flow into one of the compartments of the weighing-pan, which, when full, drops by force of gravitation until the pin S, corresponding with that compartment, has passed the projection T. This releases the pan, and it then rotates on its axis, so as to discharge its contents. As soon as this discharge commences the counter-balance overcomes the remainder of the weight, and raises the arms and standard D, thus bringing the weighing-pan up, so that in its further revolution the next compartment of the pan is brought into position, and, being stopped by its pin S, it is held in place until filled by the counter-balance mechanism, as described. When in the act of rotating, after a compartment is filled, one of the pins K will come in

contact with the lever L and slide along its edge, thus closing the gate or valve I, shutting off the flow of grain from the weighing-pan. When it has discharged its contents, the pin K will have reached the end of the lever, and dropped it, allowing the spring L to act, thus opening the gate or valve to permit another load to flow into the next compartment. At the same time the vertical standards D will operate the compound lever O, working the ratchet attached to the registering device.

By these means it will be seen that the operation of continued weighing, discharging, and recording automatically will continue as long as material is supplied to the machine.

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

1. In combination with the rotating compartment-pan B for weighing and discharging, the block F and the spring-plate G, to steady and bring the parts into position at each rotation, substantially as herein described.

2. The semi-rotating gate or valve I, with its spring J and lever-arm L, in combination with the pins K K upon the weighing-pan, to open and close the gate automatically, substantially as herein described.

In witness whereof I have hereunto set my hand and seal.

JOHN C. HUNT. [L. S.]

Witnesses:
GEO. H. STRONG,
FRANK H. BROOKS.