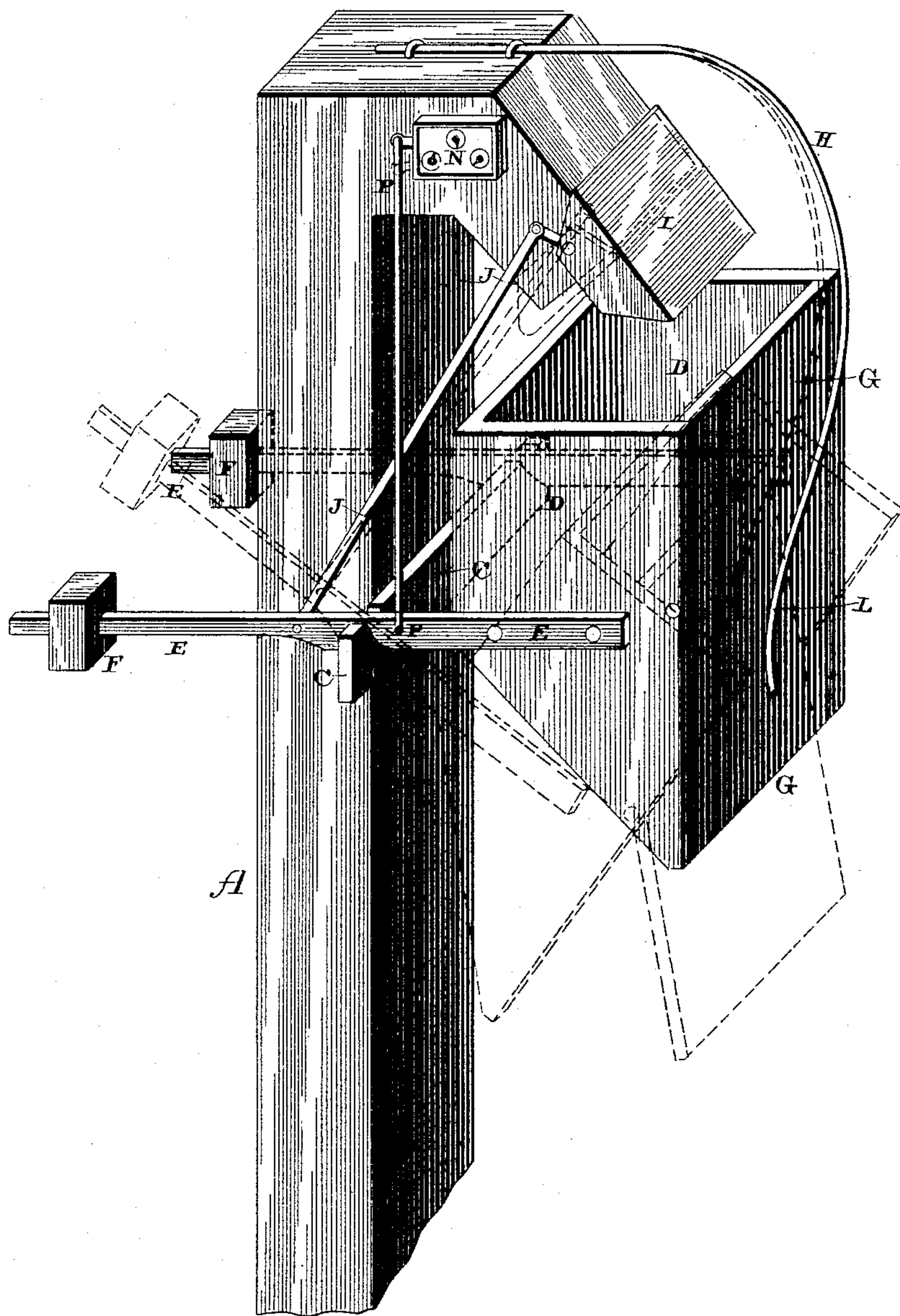


(No Model.)

J. W. GAEDE.
AUTOMATIC MEASURING MACHINE.

No. 448,018.

Patented Mar. 10, 1891.



Witnesses:

E. P. Ellis,
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Inventor

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per
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UNITED STATES PATENT OFFICE.

JOHN WESLEY GAEDE, OF MAROA, ILLINOIS.

AUTOMATIC MEASURING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 448,018, dated March 10, 1891.

Application filed October 17, 1890. Serial No. 368,378. (No model.)

To all whom it may concern:

Be it known that I, JOHN WESLEY GAEDE, of Maroa, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Automatic Measuring-Machines; 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 pertains to make and use it, reference being had to the accompanying drawing, which forms part of this specification.

My invention relates to an improvement in automatic grain-weighing machines; and it consists in the arrangement and construction which will be fully described hereinafter.

The object of my invention is to provide an automatic weighing-hopper, which is connected to the upper end of the elevator under the outwardly-extending end thereof and which has the construction hereinafter specified for the purpose described.

The accompanying drawing is a perspective of a grain-weighing machine which embodies my invention complete, being shown in one position in solid lines and in another position in dotted lines.

A represents an ordinary elevator, which has its upper end turned outward, as shown. Extending outward from this elevator a suitable distance below its upper outturned end is an arm C, which extends outward from opposite sides, as shown.

Connected rigidly at their outer ends to the hopper D are the beams E, which rest and oscillate upon the arms C, and placed upon the opposite ends of these beams E are the adjustable weights F. Pivoted in the front end of the hopper D is a door G, against which a spring H bears at its lower end, the upper end of the spring being connected rigidly to the upper end of the elevator A. The lower end of the hopper is preferably cut on an incline, as shown, so that the grain will readily slide out of it when the door G is opened.

Pivoted to the upper end of the elevator is a cut-off I, to which is connected a bar J, the opposite end of the bar being connected to one of the beams E inside of the pivotal arm C. When the hopper is standing in a verti-

cal position to receive the grain, the spring H rests upon the outer side of the door G below the pivotal point, so that the door is held closed by the spring against the pressure of the grain within the hopper. When the hopper becomes sufficiently full to overbalance the weights F, the hopper tilts, as shown, and as the spring H is stationary the outwardly-curved lower end L of the spring moves upward above the pivotal point of the door, and thus instantly forces the upper end of the door inward and its lower end outward, thus allowing the grain to escape, and at the same time, through the medium of the arm J, turns the cut-off I across the mouth of the elevator and stops the flow of the grain. As soon as the grain has fallen from the hopper it is brought to a vertical position by means of the weights F and at the same time removes the cut-off I from the mouth of the elevator, which allows the grain to again flow into the hopper. This operation is automatic and continues as long as the grain is flowing from the mouth of the elevator into the hopper. By means of the above construction an automatic weighing-machine is produced which consists of but few parts, is not liable to get out of order, and is cheap to manufacture.

Secured to the upper end of the elevator is a register N, of any suitable construction, and this register is connected by means of a rod P to one of the beams E, so that it is operated every time the hopper tilts, and thus registers the number of bushels or half-bushels that are being measured.

Having thus described my invention, I claim—

1. In a weighing-machine, the combination of the elevator having a pivotal support, the beams resting upon the support, the hopper secured to the outer end of the beams, the weights upon the inner ends of the beams, a door pivoted in the front end of the hopper, and a spring having one end secured to a stationary support and at its opposite end engaging the door, substantially as shown.

2. In a grain-weighing machine, the combination of the elevator, a pivotal support secured thereto, the beams placed upon the support, the weights placed upon one end of the beams, and the hopper secured to their

opposite ends, a cut-off pivoted at the mouth
of the elevator, a rod connecting the cut-off
and one of the beams in the rear of their piv-
otal point, a door pivoted in the front end of
5 the hopper, and a spring which is connected
at one end to a stationary support and has
its opposite end resting against the door be-
low the pivotal point when the hopper is in a
vertical position and above the pivotal point

when the hopper is tilted, for the purpose to
shown and described.

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

JOHN WESLEY GAEDE.

Witnesses:

M. O. RUTHRAUFF,
HARRY WISE.