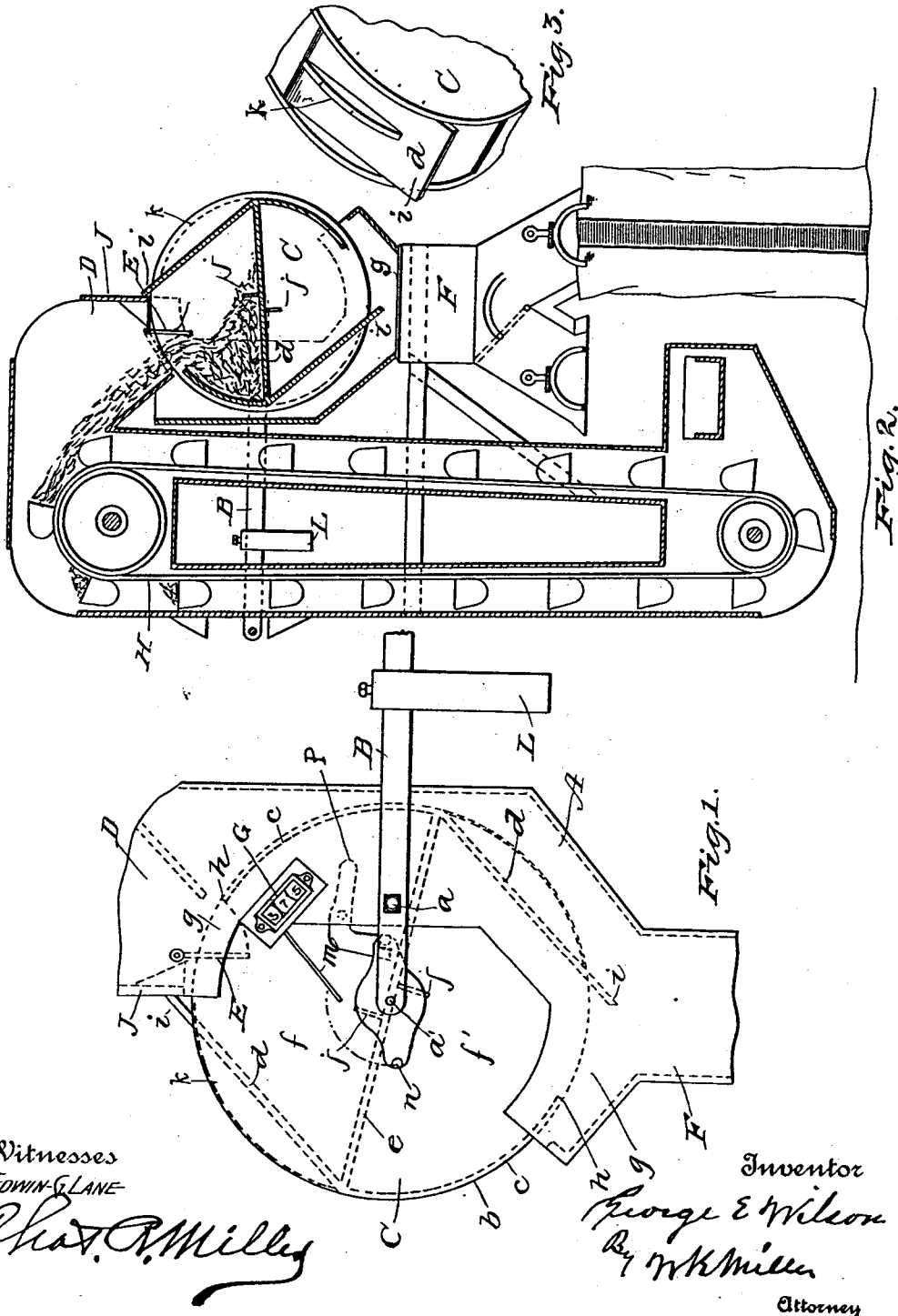


(No Model.)

G. E. WILSON.
ROTATING GRAIN METER.

No. 484,691.

Patented Oct. 18, 1892.



Witnesses
EDWIN G. LANE

Chas. A. Miller

Inventor

George E. Wilson
By W. H. Miller

Attorney

UNITED STATES PATENT OFFICE.

GEORGE E. WILSON, OF STILLWATER, MINNESOTA, ASSIGNOR TO THE MINNESOTA THRESHER MANUFACTURING COMPANY, OF SAME PLACE.

ROTATING GRAIN-METER.

SPECIFICATION forming part of Letters Patent No. 484,691, dated October 18, 1892.

Application filed April 20, 1892. Serial No. 429,852. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. WILSON, a citizen of the United States, and a resident of Stillwater, county of Washington, State of Minnesota, have invented a new and useful Improvement in Grain-Meters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to an improvement in devices for automatically weighing and registering grain; and it consists in providing a rotary self-discharging weighing cylinder or scale, divided diametrically into two equal parts, each of which is adapted to receive a larger amount of grain on one side of the line of rotation than on the other side, whereby the cylinder is rotated to discharge and register the grain.

With these ends in view my invention relates to certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

Figure 1 of the accompanying drawings is a side elevation illustrating my invention; Fig. 2, a vertical section showing the weighing device in connection with an elevator and bagger. Fig. 3 is a perspective of a fragment, showing a portion of detail.

Referring to Fig. 1, A represents the trunk or body portion of the machine, to which the weighing-beam or steelyard is pivotally secured, as shown at *a*. At the short end of the lever or beam B is journaled (see *a'*) a revolving weighing and self-dumping cylinder C, formed by the circular end boards *b*, circular sides *c*, diametrically opposite, the straight sides *d*, diametrically opposite, and the centrally-located dividing-board *e*, extending from side to side through the line of rotation, the ends of said board to connect with the sides *c* and *d* at a point or points diametrically opposite, by which the weighing-cylinder is divided into two equal compartments *f f'*, extending from side to side of the axis of rotation. Between the outer ends *i* and *h* of the sides *c* and *d* is provided an opening *g*, through which grain is admitted to the compartments *f f'*.

It will be noticed that the space or holding capacity of that side of the compartment *f f'*

between the center of rotation and the circular sides *c* is larger than the space opposite and between the same line and the side board *d*, thus providing room for a greater weight of grain on the inside of the axis of rotation than on the outer side, by means of which the rotation of the cylinder in the desired direction is assured; and to further contribute to that end strips, as *j*, are placed near to and on a line parallel with the axis of rotation, that extend a distance at right angles to the bottom or dividing board *e*, by which the grain is held to the larger side of the compartment.

At the upper portion of the trunk A is provided a hopper D, having at its bottom portion an aperture and a closing-valve E, hinged to the hopper at one side, the free side to drop into the cylinder when the valve is open to allow the grain to flow from the hopper into the cylinder. To close the valve, a circular rib *k* (shown in Fig. 3 and by the dotted lines in Figs. 1 and 2) is placed on the outside and about midway between the circular sides *c* and extending from the circular sides *c* to the outer edge of the side *d*. The outer edge of the rib *k* serves to raise up and hold the valve E in closed position when the cylinder is rotated to discharge the grain into the bagholder F or other receptacle.

At the side and secured to the trunk A is provided a registering device G, which may be of any of the well-known and approved forms, having an actuating-lever *m*, that is engaged and moved a distance by the pin *n* on the side *b* of the cylinder. The swinging movement of the lever serves to move the dial-wheels of the register. To hold or lock the cylinder against reverse rotation, a gravity-actuated pawl P is pivotally secured to the side of the trunk A, that will yield to the pressure of the pin *n* on the forward movement, that will catch or engage the pin on the reverse movement, as shown in Fig. 1.

In operation the grain is raised by the elevator H and thrown into the hopper D, from which it falls into the weighing-cylinder C, the quantity to be determined by the weight L on the beam B, as when the amount of grain is sufficient to overbalance and raise the weight L the cylinder will drop a distance to allow the end *i* of the side *d* to pass under the

stop J. The cylinder thus released will be turned by a preponderance of grain on the inside of the supporting-axis one-half of a revolution, and while so moving the grain 5 will be discharged into the bag-holder F, the register operated to tally the measure of grain that has passed from the weighing-cylinder to the bag-holder, the cylinder raised up by the weight L into normal position, when the 10 forward movement will be arrested by the stop J engaging the front edge of the side *d*, and to hold the cylinder against reverse rotation the pawl P will engage the pin *n*, as shown in Fig. 1.

15 Having thus fully described the nature and object of my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with a weighing-beam, of a rotary weighing-cylinder divided into two 20 compartments extending diametrically from side to side, dividing-board *e*, and strips *j*, and

the sides *c* and *d*, substantially as described, and for the purpose set forth.

2. The combination, with the body portion or trunk, a weighted beam, and a gravity-pawl 25 pivoted to said trunk, of a rotary weighing-cylinder pivoted to the inner end of said weighing-beam and divided into compartments, each of greater capacity at one side the axis of rotation than at the other side, and a register- 30 ing device having an operating lever and pins located upon the end of the cylinder diametrically opposite, the said operating-lever and the gravity-pawl being within the path of travel of said pins, substantially as set forth. 35

In testimony whereof I have hereunto set my hand this 7th day of April, A. D. 1892.

GEORGE E. WILSON.

Witnesses:

W. E. F. OGLE,

CHAS. L. DIXON.