E. A. MARTIN.

GRAIN-SACKING SCALES.

No. 193,768. Patented July 31, 1877.

Fig. 1.

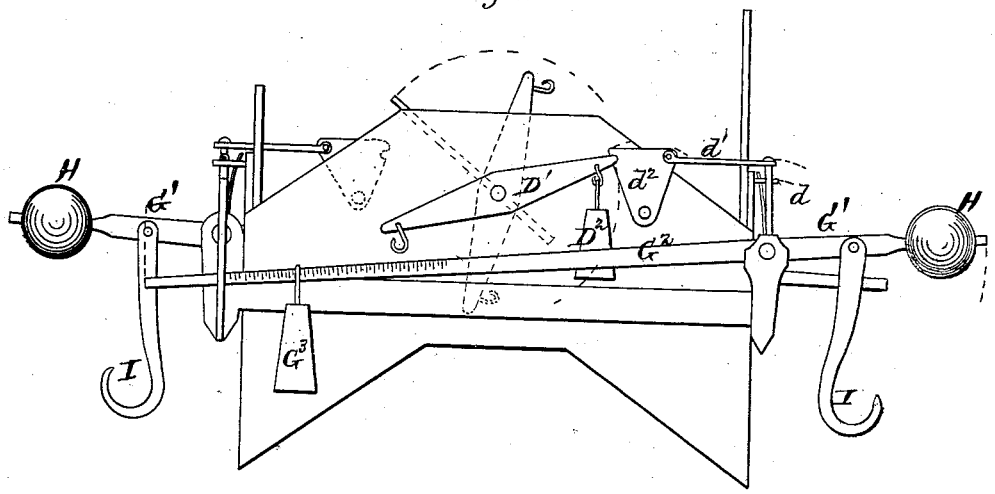
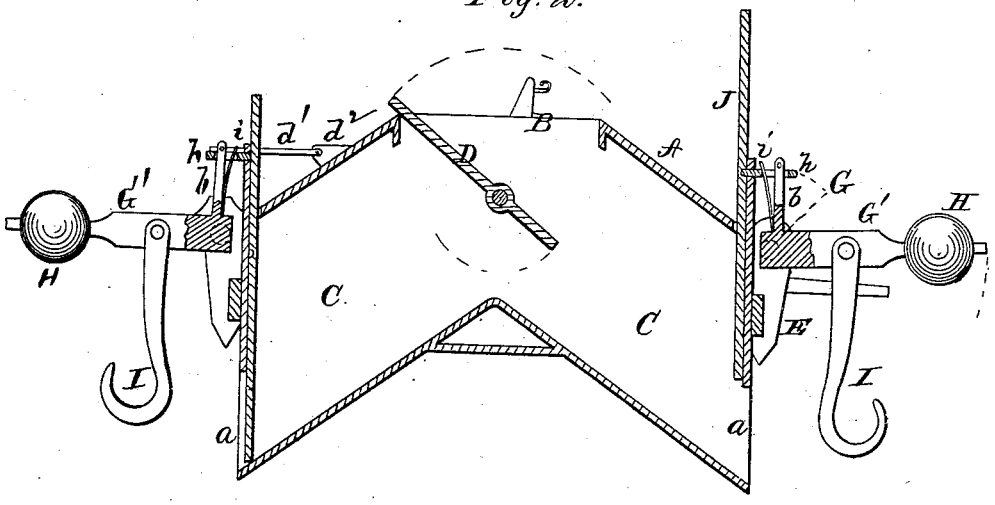


Fig. 2.



WITNESSES

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EDWIN A. MARTIN, OF THORNVILLE, OHIO.

IMPROVEMENT IN GRAIN-SACKING SCALES.

Specification forming part of Letters Patent No. **193,768**, dated July 31, 1877; application filed April 28, 1877.

To all whom it may concern:

Be it known that I, EDWIN A. MARTIN, of Thornville, in the county of Perry and in the State of Ohio, have invented certain new and useful Improvements in Grain-Sacking Scales; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a grain-sacking scale, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation, and Fig. 2 a longitudinal vertical section, of my invention.

A represents the box to which all the working parts are attached. This box has an opening, B, at the top, through which the grain is poured in, and below the same the box divides into two inclined passages, C C, with openings *a a* at the bottom—one at each end of the box.

The mechanisms attached to the ends of the box are precisely the same at both ends, and hence a description of one will answer for both.

There is, however, a valve or gate, D, pivoted in the sides of the box A, below the mouth B, which valve is to be thrown over from side to side, to direct the flow of grain alternately into the passages C C. The journals of this valve project through the sides of the box, and upon each one is secured a lever, D′, having both ends pointed, as shown.

At the end of the box A is secured a frame, E, and in the same upon suitable knife-edges is hung a cross-bar, G.

From the center of this cross-bar extends forward a beam, G^1, having poise H on its end, and a hook, I, suspended from it. From one end of the bar G extends a scale-beam, G^2, backward along the side of the box, and on this scale-beam is an adjustable weight, G^3. It is, however, evident that a spring may be used instead of this weight.

From the cross bar G further project two arms, *b* and *d*, vertically upward. The arm *b* extends upward into a slotted latch, *h*, which, by means of a spring, *i*, is forced into a notch or recess in the gate J when the same is raised, said gate when down closing the opening *a*.

The arm *d* is at its upper end, by a rod, d^1, connected to a latch, d^2, pivoted to the side of the box A.

The valve or gate D being thrown over, as shown in Fig. 1, to conduct the grain into the right-hand passage C, one end of the lever D^1 is locked in the latch d^2, and from this end of said lever is then suspended a weight, D^2, or a suitable spring may be used in place of such weight.

At that end of the box the gate J is then raised, and the sack is by means of a holder to be suspended from the hook I in such a manner that the grain will flow into the same. Now, when the desired quantity of grain has flowed into the sack the beam G^1 tips down. This movement of the beam G^1 at and by means of the arm *b* releases the latch *h*, and the gate J falls of its own weight, closing the opening *a*.

At the same time the arm *d* by means of the rod d^1 withdraws the latch d^2 from the end of the lever D^1, and the weight D^2 turns the valve D over to direct the flow of grain into the other passage C, at the mouth of which another sack is arranged in similar manner. The filled and weighed sack is then removed, an empty one attached, and the gate J raised ready for the next time. The weight D^2 will have to be changed by hand from one side to the other at each movement of the valve D.

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

1. The combination, with the gate J, of the latch *h* and spring *i*, with the arm *b* on the scale cross-bar G, for withdrawing the latch, substantially as herein set forth.

2. The combination of the box A with pas-

sages CC, having automatically-closing slide-doors at their ends, the shifting-valve D with levers D^1 and weights D^2, latches d^2, rods d^1, scale-beams G G^1 G^2, having arm d, and the weights H C, all [illegible] substantial, as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of April, 1877.

EDWIN AVERY MARTIN.

Witnesses:
S. E. MOORE,
PETER BURIFF.