E. A. MARTIN.

SACK SCALES.

No. 190,346. Patented May 1, 1877.

Fig. 1.

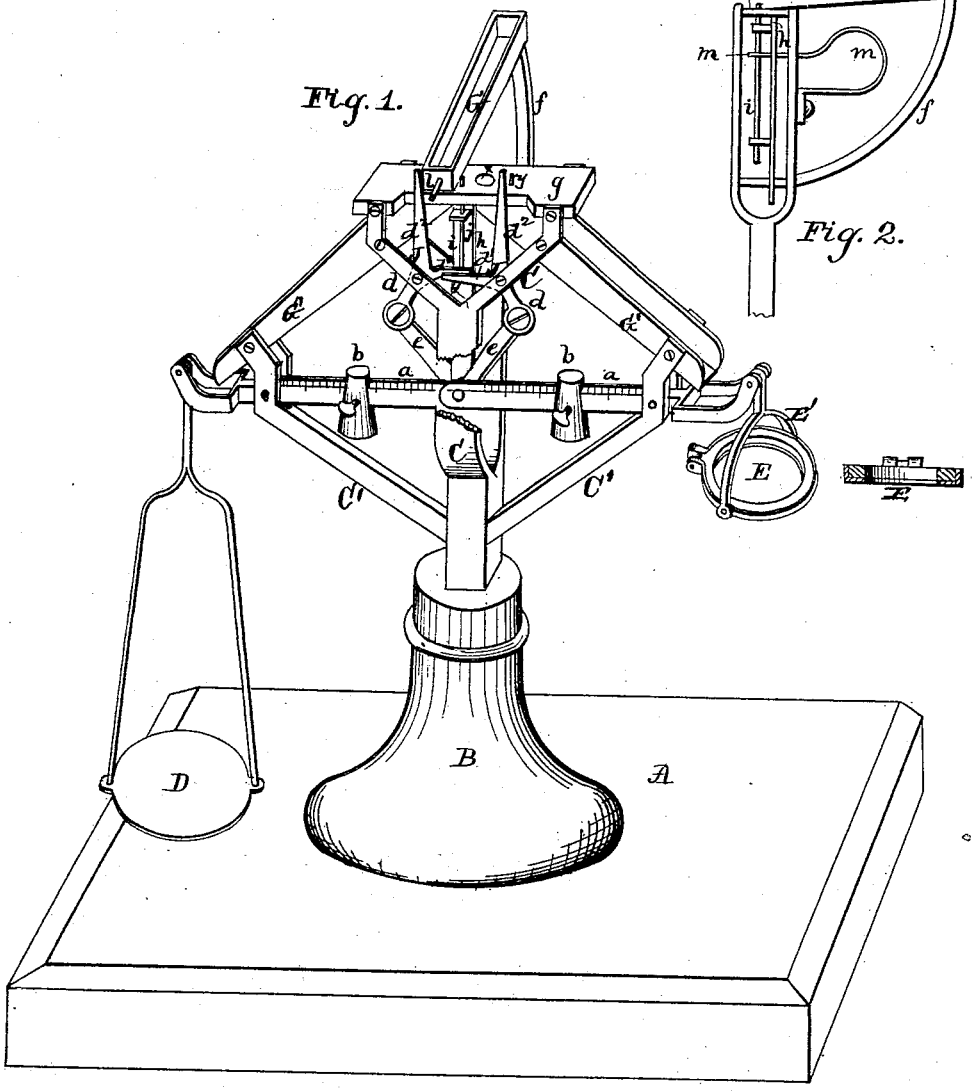
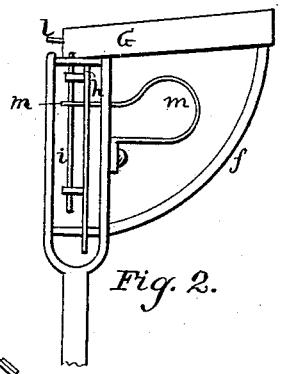


Fig. 2.



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UNITED STATES PATENT OFFICE.

EDWIN A. MARTIN, OF LICKING COUNTY, OHIO.

IMPROVEMENT IN SACK-SCALES.

Specification forming part of Letters Patent No. **190,346**, dated May 1, 1877; application filed August 12, 1876.

To all whom it may concern:

Be it known that I, EDWIN A. MARTIN, of the county of Licking, in the State of Ohio, have invented certain new and useful Improvements in Scales for Weighing and Sacking Grain, Flour, and other Articles; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The nature of my invention consists in the construction and arrangement of a machine designed principally as an attachment to thrashing-machines for weighing and sacking grain, 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 perspective view of my machine, and Fig. 2 is a detailed view of a part thereof.

A represents the base or platform, upon which is a standard, B.

In this standard is secured a metal framework, C, provided near its base with inclined side arms C′ C′, the outer ends of said arms being forked, as shown.

In the outer forked end of each arm is pivoted, or otherwise hung, a scale-beam, *a*, provided with an ordinary poise or weight, *b*.

To the outer end of one of the beams *a* I have shown suspended a common scale-bottom, D, to show that the machine can be used for weighing articles the same as any ordinary scale. At the outer end of the other scale-beam is a bag-holder, E, made of two rings, hinged together at one side, and the lower ring provided with a pivoted bale, to hang the bag-holder on the beam when weighing grain in sacks, the grain passing through the openings of the arms C′ C′ into the bags from the spouts above.

G and G′ G′ are the spouts for conveying the grain. The spout G is pivoted on an arm, *f*, and rests upon a cap-board, *g*, so as to allow it to slide from hole to hole in said cap-board. This board is secured to the top of the frame C, as shown.

The inner ends of the scale-beams work in the main portion of the main frame C, one on each side of an upright, *h*, formed in or attached to the same. Each scale-beam *a* is, at its inner end, by a link, *e*, connected with one arm, *d*, of a three-armed lever, J, the levers J J being pivoted in the upper part of the frame C.

The fingers d^2 d^2 of the levers J J operate on a pin, *l*, projecting from the end of the spout G, to move the same on the cap-board *g* from one hole *x* to the other.

On the upright *h* are suitable guides, in which is placed a vertical latch, *i*, projecting up through the cap-board *g*. *m* is a spring, attached by one end to the frame, and then bent so that its other end projects through a slot in the frame, and through a hole in the latch *i*, the tendency of the spring being to hold the latch up. On this projecting end of the spring *m* rest the arms d^1 of the levers J, so as to withdraw the latch by the action of the scale-beams.

The object of the latch *i* is to hold the spout G in place over the holes *x* on the cap-board, in connection with stop-pins *y*, as shown in Fig. 1.

In operating this machine as designed, especially for the delivery of grain in warehouses or from thrashing-machines, the mouths of the bags are placed in the holders E, and hung on the ends of the beams under the spouts G′.

The gravity of one bag when filled will carry up the end of that beam, and operate the corresponding lever J, which, by its arm or finger d^1, draws down the latch, and, by means of its arm or finger d^2, moves the spout G over to the opposite grain-hole, and then delivers the grain into the empty bag on the opposite beam, and so on alternately.

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

1. The pivoted levers J J, each formed with three arms or fingers, d d^1 d^2, and connected to the scale-beams *a a*, for operating the spout G

and latch *i*, substantially as and for the purposes herein set forth.

2. The combination of the scale-beams *a a*, provided with weights *b b*, and bag-holders E E, the connecting-links *e e*, three-armed levers J J, and spout G, with pin *l*, substantially as and for the purposes herein set forth.

3. The combination of the spout G, cap-board *g*, latch *i*, spring *m*, and arms d^1 of the levers J, operated by the scale-beams *a*, all substantially as and for the purposes herein set forth.

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