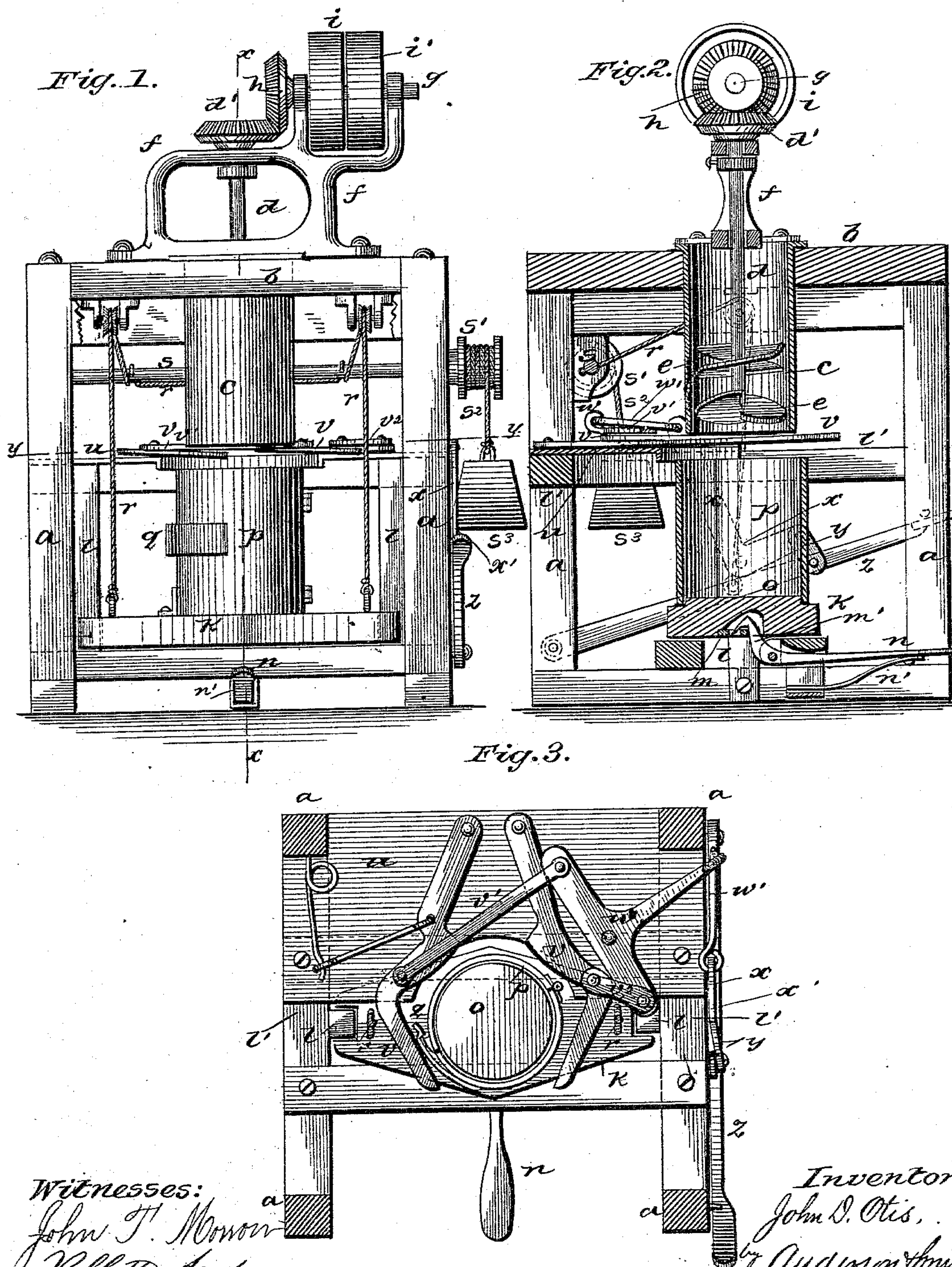


(No Model.)

J. D. OTIS.
BRAN PACKER.

No. 295,420.

Patented Mar. 18, 1884.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN D. OTIS, OF PEORIA, ILLINOIS.

BRAN-PACKER.

SPECIFICATION forming part of Letters Patent No. 295,420, dated March 18, 1884.

Application filed August 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. OTIS, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Bran-Packers; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a front elevation of a machine embodying my improvements. Fig. 2 is a vertical sectional view on line *x x* of Fig. 1, and Fig. 3 is a horizontal sectional view on line *y y* of Fig. 1.

This invention has relation to bran-packers; and it consists in the construction and novel arrangement of devices, as will be hereinafter fully described, and particularly pointed out in the claims appended.

Referring by letter to the accompanying drawings, *a* designates the frame of the machine, which should be about four feet square and seven feet high, with a platform, *b*, on top to support the packing-tube *c*, the shafting, miter-wheels, and pulleys. In the center of the platform *b* the packing-tube *c* is inserted, and is about three and one-half feet long and twelve inches in diameter. Inside of the tube *c* is the vertical shaft *d*, having the miter-gear *d'* at its upper end and four or more spiral blades, *e*, at its lower end, by which the bran which is spouted into the packing-tube is brought down and packed into a common grain-sack, which is drawn up over the tube *c*.

f designates the casting, which forms the bearings for the shafting.

g indicates a horizontal shaft, having a miter-gear, *h*, which engages the miter-gear *d'* on the shaft *d*. The shaft *g* carries the fixed pulley *i* and the loose pulley *i'*, so that the driving-belt may be shifted to start and stop the machine at will. Directly beneath the tube *c* is an elevator-platform, *k*, recessed in its ends to engage the uprights *l l*, which extend up to cross-beams *l' l'*, just below the level of the bottom of the tube *c*. The elevator-platform is provided in its under face with a keeper, *m*, which

engages the latch-bolt *m'* of a foot-lever, *n*, fulcrumed in a recess in a cross-beam resting on the sills of the frame *a*, and held in its normal position by a spring, *n'*. On the elevator-platform is formed a head, *o*, for a cylindrical sheet-iron case, *p*, which is made in two vertical sections hinged together at two of their adjacent edges, and provided with spring hooks or catches *q*, (one or more,) to hold the case closed while the bran is being packed in the sack, and to permit the case to be open to remove the sack after it has been tied.

r designates the rope by which the elevator-platform is raised when released from the latch-bolt. This rope is passed through perforations in a shaft, *s*, near each end of the shaft, and extends down to and is connected at its ends to the platform in any suitable manner. The shaft *s* has a pulley, *s'*, at one end thereof, and around this pulley *s'* is wound a rope, *s''*, having a weight, *s'''*, at its lower end. The weight *s'''* and rope *s''* operate the shaft *s* and wind the rope *r* thereon, which raises the elevator-platform and carries the case *p*, after it has been closed, up over the grain-sack, which has been previously drawn up over the packing-tube until the bottom of the sack has reached the bottom of the tube. The shifter is then operated to start the machine, and the bran is drawn down in the tube and pressed into the sack, and as the sack begins to fill the elevator-platform and case *p* will be forced down until the latch-bolt engages the keeper, the weight being wound up in the descent, at which time the bag or sack will have been filled.

u designates an intermediate platform, on which is pivoted a pair of hook-clamps, *v v*, which are connected by toggle-arms *v' v''* with the arms of a T-lever, *w*, also pivoted to the intermediate platform. The T-lever is in turn connected by a rod, *w'*, to the long arm *x* of an L-lever, *x'*, pivoted to the outside of one of the uprights *l*, and connected by a short arm, *y*, to a foot-lever, *z*, at that side of the frame *a*.

The object of this system of levers and clamps is to gather and hold the mouth of the grain-sack until it can be tied, after which the case *p* is opened and the packed sack removed. Another sack is then drawn over the packing-tube, the case *p* closed, and the operation re-

peated, the machine being stopped, of course, every time a sack has been filled.

This machine is cheap and simple, and is easily operated.

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

10 In a bran-packing machine, the combination, with the packing-tube and the sectional hinged case *p*, of the hook-clamps pivoted to the intermediate platform, and connected by

toggle-arms to a **T**-lever pivoted to said platform, and connected by a rod to an **L**-lever pivoted to the frame *a*, and connected to a foot-lever at one side of the frame, substantially 15 as specified.

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

JNO. D. OTIS.

Witnesses:

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GEO. A. WILSON.