

J. DETWEILER.

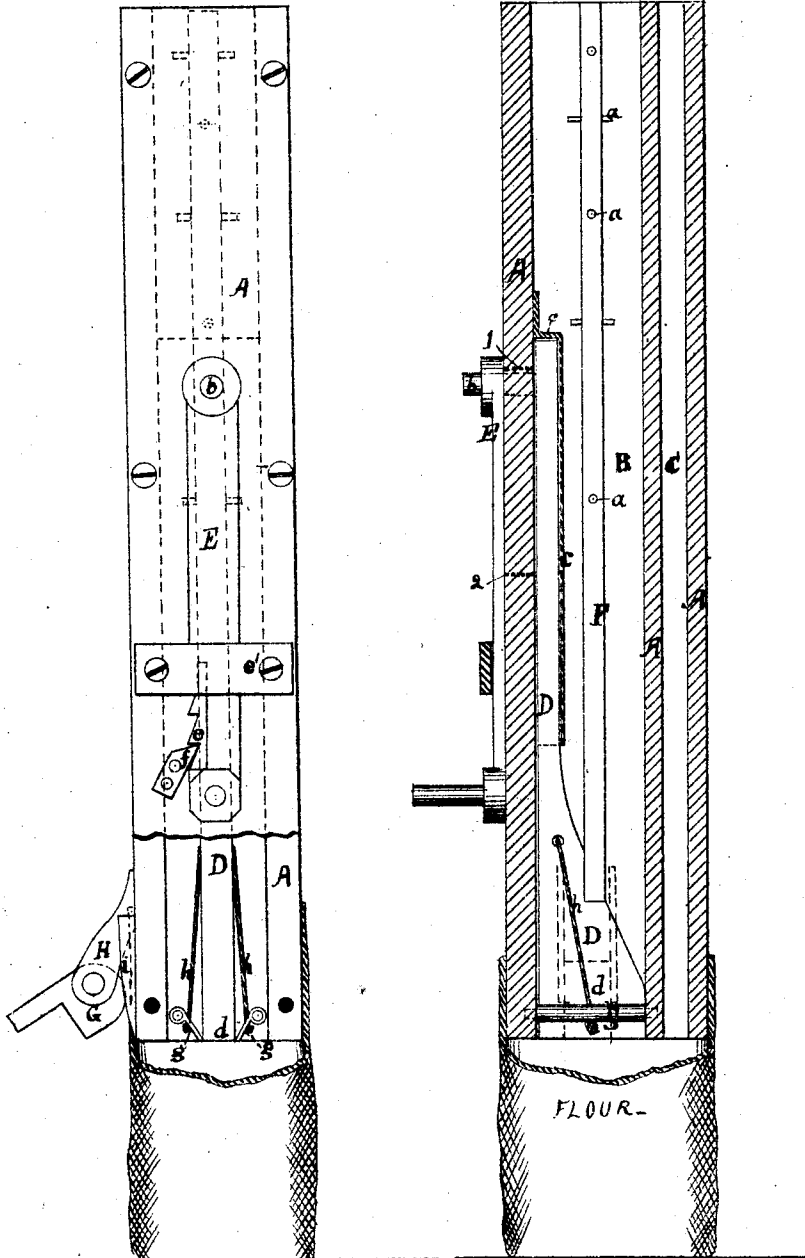
Improvement in Hand Flour Sack Packers.

No. 123,000.

Patented Jan. 23, 1872.

Fig. 1.

Fig. 2.



Witnesses:

G. Mathey.

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UNITED STATES PATENT OFFICE.

JOHN DETWEILER, OF WEST LIBERTY, OHIO.

IMPROVEMENT IN HAND FLOUR-SACK PACKERS.

Specification forming part of Letters Patent No. 123,000, dated January 23, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, JOHN DETWEILER, of West Liberty, in the county of Logan and in the State of Ohio, have invented a certain new and useful Hand Flour-Sack Packer; and I do hereby declare that the following is 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 constructing a tunnel with two vertical compartments, in one of which is a rammer working in guides and connected with a handle for the operator, and provided with a rod with spurs, by means of which the flour which is poured in this compartment is loosened so as to flow freely, and in the lower end of said compartment are placed two valves, one on each side of the rammer, operated by cords connected with the rammer. The other compartment is to serve as the exit for the air from the flour as it is packed in the sack; all of which will be more fully hereinafter set forth.

To enable those skilled in the art to make and use my invention, I will now proceed to more specifically describe its construction and operation.

In the drawing, Figure 1 is a front elevation of my invention, showing the mode of attaching a sack to fill and hold it while the flour is packed, and, by a breaking off of one side of the lower end of the tunnel the head of the rammer and the valves of the cords that operate them are shown. Fig. 2 is a vertical section of my invention, showing the two compartments of the tunnel and the ramming apparatus.

A is the frame of the tunnel, of a square or other suitable shape, in cross-section, to suit the shape of the sack to be filled and packed, and of a convenient length. It may be made of wood or other suitable material. The tunnel is divided, by a partition of like material to that used in constructing the frame A, into two vertical compartments, marked B and C. The latter compartment is very narrow, and serves as a flue for the escape of the air from the flour when it is being packed in the sack. Compartment B contains the rammer D, which is secured so that its head *d* shall be in the cen-

ter of this compartment. (See Fig. 1.) The upper part of the rammer works in a guide, *e*, secured to one side of the compartment B. (See Fig. 2.) By means of a suitable bolt or pin, *b*, the upper end of the rammer is connected and made fast with rammer-handle E on the outside of the frame A. This bolt or pin *b* works in a vertical slot in the frame A as the handle E is worked up and down. This vertical slot extends from the dotted line 1 to the dotted line 2, shown in Fig. 2. Handle E is provided with a rack, *e*, which supports the handle on catch *f* when the handle or rammer is not in use. *e'* is a guide for the handle E. (See Fig. 1.) A rod, F, secured firmly to the rammer D and extended from the rammer up through the center to the top of compartment B, and provided with spurs or spikes *aa*, serves to loosen up the flour when flowing through this compartment. *gg* are two valves at the bottom of compartment B, having pivots in two of the opposite sides of said compartment, (see Fig. 2,) and operated by cords *h h*, which connect the valves with the rammer. These valves serve to check the flow of flour and prevent its filling the sack faster than is consistent with the proper degree of packing when the invention is in operation, and serve to entirely cut off the flow of flour when a sack that has been filled is removed to give place to an empty one. G is a cam-like catch working on its journals in the standard or support H secured to the side of the frame A, and, by turning this catch down and toward frame A, the upper part of the sack, which is between the catch G and frame A, is secured and held in proper position with the rest of the sack, as shown in Fig. 1. Close to one side of the catch G there is a lug or projection, *i*, which assists catch G in holding the sack.

Having constructed my packer as above described, the sack is properly adjusted and secured, as just described, when it is desired to operate my invention. The several parts of my invention are then to be as shown in the drawing. Pour the flour in at the top of compartment B and the flour will fall through onto the valves *g*. The operator then takes hold of the handle E, disengages its rack *e* from catch *f*, and pushes the handle downward, carrying with it rammer D. As the rammer descends the cords *h*

are relaxed and the valves *g* are permitted to open, when the flour falls into the bag or sack in a quantity convenient for packing with one stroke of the rammer, and, falling more rapidly than the rammer is pushed, gets into position to receive and receives the stroke of the rammer. The handle and rammer are then lifted, and, as they ascend, the spurs *a* on rod *F* stir and loosen the flour in compartment *B*, and the rammer assumes its first position. This movement is repeated until the sack is full of packed flour, and then the rammer is lifted up and its handle caught by its rack *e* on catch *f*, the same movement securing the valves *g* so that no flour can fall from the apparatus. The catch *G* is then turned up, and the sack can then be readily removed and another sack be put in position to be filled.

The invention is a very simple and efficient means for packing flour in sacks by hand, and can be readily secured in any convenient place where it is desired to use, and at but little cost.

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

1. The tunnel or packing-box *A*, composed of packing-chamber or compartment *B* and air-chamber or compartment *C*, when constructed substantially in the manner and operating as and for the purposes set forth.

2. The valves *g* and rammer *D* with rod *F*, in combination with tunnel *A*, when constructed and operating substantially in the manner and for the purposes set forth.

3. The rack *e*, handle *E*, and catch *f* for operating the rammer *D*, in combination with the tunnel *A*, when constructed and operating substantially in the manner and for the purposes specified.

4. I claim the cam *G*, cleat *i*, and holder *H* in combination with the packing-box *A*, substantially as described, and operating as and for the purposes set forth.

In testimony that I claim the above-described certain new and useful hand flour-sack packer I have hereunto signed my name this 29th day of August, 1871.

Witnesses: JOHN DETWEILER.

R. N. JORDAN,
MORGAN EDDY.