A. R. SILVER.

Meat-Stuffers.

No. 133,342. Patented Nov. 26, 1872.

Fig. 1

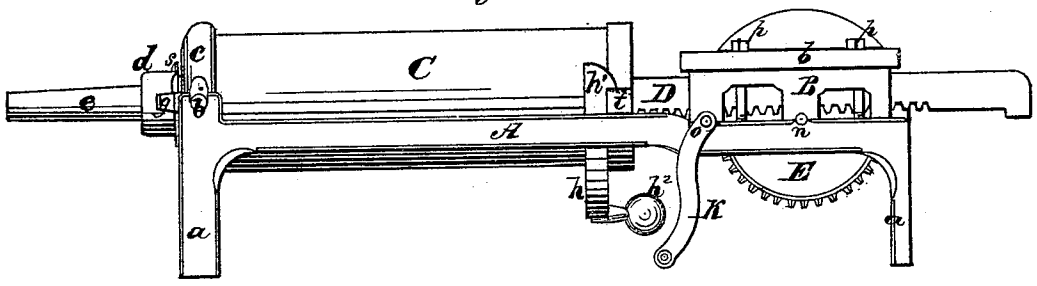


Fig. 2

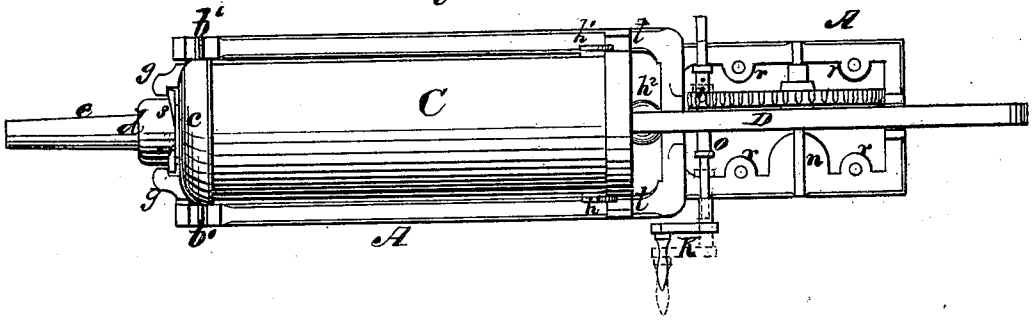


Fig. 3

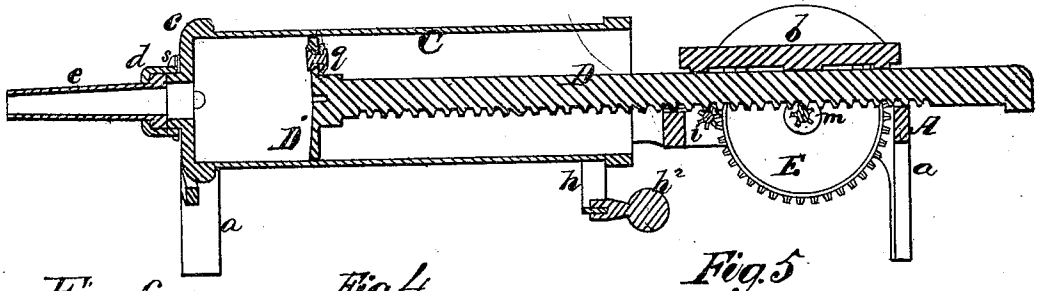


Fig. 6

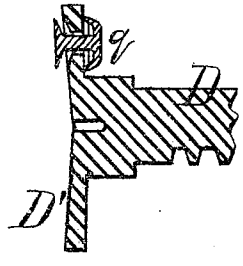


Fig. 4

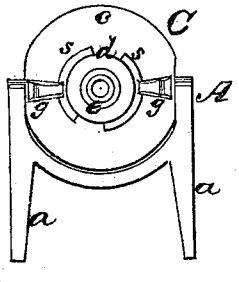
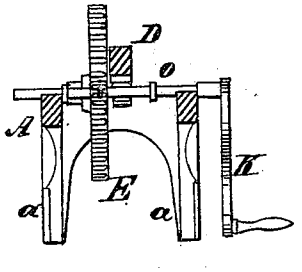


Fig. 5



Witnesses.
R. H. Campbell.
J. H. Campbell.

Inventor
Albert R. Silver
by his Attys
Mason Fenwick & Lawrence

UNITED STATES PATENT OFFICE.

ALBERT R. SILVER, OF SALEM, OHIO, ASSIGNOR TO A. R. SILVER AND JOHN DEMING, OF SAME PLACE.

IMPROVEMENT IN MEAT-STUFFERS.

Specification forming part of Letters Patent No. **133,342**, dated November 26, 1872.

To all whom it may concern:

Be it known that I, ALBERT R. SILVER, of Salem, in the county of Columbiana and State of Ohio, have invented an Improved Meat-Stuffer; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a side elevation of the improved machine. Fig. 2 is a top view of the same. Fig. 3 is a section taken longitudinally and vertically through the center of the machine. Fig. 4 is a view of one end of the machine. Fig. 5 is a transverse vertical section through the machine, and Fig. 6 is an enlarged section of the plunger with the valve.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to certain novel improvements on machines for stuffing meat, which I will now proceed to describe.

In the accompanying drawing, A represents an oblong rectangular frame, which is supported in a horizontal plane upon four legs, *a*. B represents a cap which is rectangular and mounted upon one end of frame A for the purpose of serving, in connection with a cover, *b*, to house in the gearing that drives the plunger-rod D. The frame B and its cover *b* are secured down upon the rails of frame A by means of bolts *p*, which are tapped into lugs *r* cast on the frame A inside of its rails. C represents the cylinder into which the meat is put, which is open at one end and closed at the other end by a cap, *c*, through the center of which is a hole surrounded by a boss for the escape of meat when forced out by the forward movement of a plunger, D′. To the cap *c* a nozzle, *e*, is secured by means of a coupling-box, *d*, on which wedge-shaped flanges *s* are cast that are received into notches formed in two lugs, *g g*, cast on the cap *c*. The larger end of the nozzle *e* has a circular flange or collar formed on it, so that when the coupling-box is screwed up hard it firmly and tightly secures the nozzle to its place against the circular boss above referred to. The cap *c* is also provided with trunnions *b′ b′*, which support this end of the cylinder upon the frame A in notched bearings, as shown in Figs. 1 and 2. This allows the open end of the cylinder to be turned up for filling it without detaching it from its supporting-frame. The opposite or open end of the cylinder C is supported upon the rails of frame A by means of lugs *t t*, and this end of the cylinder is held down upon the frame A by means of hooks h^1, which take over the said lugs and which are formed on the extremities of a bow, *h*. This bow *h* is pivoted to the frame A on opposite sides of the cylinder C, and to its lower end is attached a weight, h^2, which will keep the hooks in place over the said lugs *t t* when the cylinder is in position for operation. The piston or plunger D′, which works in the cylinder C and forces the meat out of it, is provided with a vent-hole, which, by means of a valve, *q*, will allow air to pass through it on the withdrawal of the plunger, and thus prevent a vacuum in the cylinder. The valve has its corners bent over so as to keep the face of the valve free from the back of the plunger, and thus allow air to pass between the bent corners into the vent-hole. From the center of the plunger D′ a rack, D, extends backward through the frame B, which forms a guide for it, and over the two shafts *n o*. The shaft *n* carries a very small pinion, *m*, and also a large spur-wheel, E, which latter is arranged on one side of the rack D, while the pinion *m* engages with this rack, as shown in Fig. 3. The shaft *o* carries a crank, *k*, and a pinion spur-wheel, *i*, which latter, by giving an endwise movement to the shaft, can be made to engage with the rack D or with the wheel E. The object of changing the pinion from the rack to the wheel E and back again to the rack is to accelerate the backward motion of the rack and plunger after having forced the meat out of the cylinder by means of the slow but powerful motion given to the plunger by the engagement of the pinion *i* with the teeth of the large gear-wheel E. To facilitate the engagement of the pinion *i* with the teeth of the rack and those of the wheel E, the ends of the pinion-teeth are beveled or wedge-shaped, and the ends of the teeth of wheel E on one side of this wheel are correspondingly beveled. By these means the pinion-teeth will readily slip between the teeth of the rack or wheel E.

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

1. The one crank-shaft and one pinion, in

combination with the plunger-rack and wheels E and *m*, for working the plunger with both a fast and slow motion, substantially in the manner described.

2. The coupling-box *d*, constructed with oblique wedge-shaped flanges *s s*, in combination with lugs *g g* on the cylinder-cap *c* and with a flanged nozzle, *e*, substantially as described.

3. The sliding stem-valve *q*, constructed with two heads, one of which has spurs or projections formed on it to form a vent or vents, in combination with the perforated plunger D′ of a stuffing-cylinder C, substantially as described.

4. The hooked swinging bow *h*, loaded and combined with the lugs *t t* on the movable stuffing-cylinder C, substantially as described.

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