(Model.)

L. CUTTING.

Machine for Filling Cans.

No. 232,339. **Patented Sept. 21, 1880.**

FIG 1

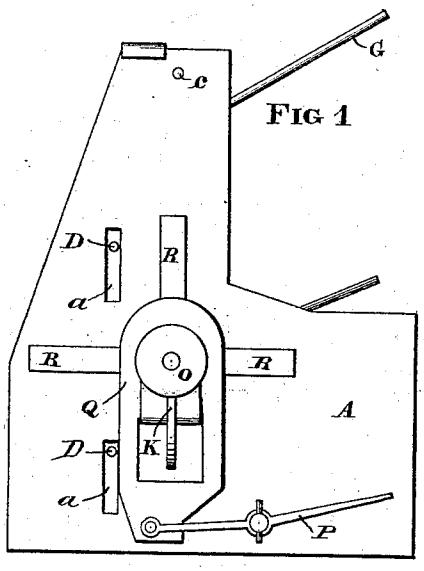


FIG. 2

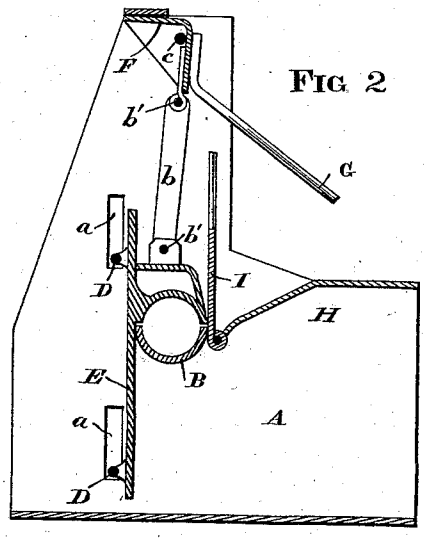


FIG 4

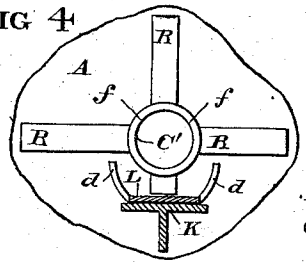


FIG 3

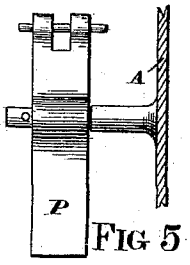


FIG 5

FIG 6

WITNESSES

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LEWIS CUTTING, OF SAN FRANCISCO, CALIFORNIA.

MACHINE FOR FILLING CANS.

SPECIFICATION forming part of Letters Patent No. 232,339, dated September 21, 1880.

Application filed March 10, 1880. (Model.)

To all whom it may concern:

Be it known that I, LEWIS CUTTING, of San Francisco, in the county of San Francisco and State of California, have invented a certain new and useful Invention or Improvement in Machines for Filling or Stuffing Cans with Meat, (Case B,) of which the following is a specification.

My present invention is intended as an improvement upon the machine for which Letters Patent No. 229,590 were granted to me July 6, 1880, and relates more particularly to the means employed for holding the cans to be filled against the machine so that they can be expeditiously filled to the required capacity, and the air which is so incident to this mode of filling cans by means of a piston or plunger be permitted to pass off and not retard the operation.

It consists in extending the feeding-cylinder a little way outward at the filling side of the machine, so that the projecting end will enter the can to be filled, and providing lugs or projections at the side of the machine to allow the air to escape around the end of the cylinder, which is of less diameter than the opening of the can, and around the edge or end of the can in the spaces formed by the lugs.

It also consists of a holding-plate and a wedge for holding the can in position while being filled, operated by suitable mechanism, all of which will hereinafter be more fully described, and distinctly pointed out in the claims.

Referring to the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a side view of a device embodying my improvements. Fig. 2 is a cross-section through the same. Fig. 3 is a front elevation, partly in section, showing the two semi-cylindrical tubes which contain the material to be forced into the can, the plunger or piston, and the can when it is in position to be filled. Figs. 4, 5, and 6 are detail views.

A is the frame, to the sides of which are connected the stationary semi-cylinder B, from one end of which projects a plunger pipe or tube, C.

In each side of the frame, at the rear of the semi-cylinder, are made two vertical slots, *a a*, in which move the cross arms or bars D D, to which is connected the back plate, E, which carries firmly attached to it the upper half or movable part of the cylinder. The said semi-cylinder moves freely up and down between the two sides of the frame. This semi-cylinder is hinged, by arms *b b* and pins *b' b'*, to a plate or bar, F, which is pivoted to the top of the sides of the frame by the rod *c*, and to this plate or bar F, I attach a lever-rod, G, and by the raising or lowering of this rod the movable semi-cylinder is raised or lowered.

A stationary plate, H, is connected to the sides of the frame, and to the rear edge of this is hinged the feeding-table I, which hinged connection permits this feeding apron or table to be moved up and down to close up the aperture which may remain between the movable and stationary semi-cylinders when the upper part is borne down over the lower part. This is accomplished after the cylinder has received a sufficient quantity of the material with which the can is to be filled from the inclined chute or table.

The plunger or piston is formed of a piece of wood or other suitable material, cylindrical in cross-section and of a suitable length, and is provided at its outer end with a pin or stop to prevent its being passed too far through the feeding-cylinder.

At the filling side, or that side of the machine which is opposite to the plunger pipe or tube C, I place my can-holding device, which consists of the following-described parts, to wit: The projecting tube or extended cylinder C', a shelf or bracket, K, upon which is placed the plate L, having upwardly-projecting arms *d*, which embrace the can and prevent any lateral movement thereof while the same is being filled.

The upper portion of the bracket K is provided with a suitable sleeve or bearing, through which passes the stem of a piston, and the outer end of this stem is provided with a head or button, O. Secured to this button is one end of a coiled spring, *e*, which has its opposite end secured to the sleeve upon the bracket K.

Near the bottom of the side of the machine is pivoted a treadle, one end of which is hinged to a wedge, Q, which is slotted in such a manner as to embrace the bracket K, and also permit of the free passage through it of the stem of the piston-plate N, the plate L being secured to the bracket K in such a position as to pro-

vide a space at its outward end, in which the lower part of piston-plate N has a limited movement.

Upon the side of the frame A, I place thin flat ribs or lugs R R, whose converging ends abut against the meat-containing cylinder, which projects outwardly from the side of the machine a distance equal to the thickness of the rib R and the thickness of the metal of which the head of the can is composed, so as to form a space or spaces for the air to escape between the feeding end of the can and the side of the machine.

Between the converging ends of the ribs R there will be left the projecting end of the cylinder C′, and small air-spaces *f′* and *f′* around it, which will admit of the entrance of air to the space between the head of the can and the side of the frame A, so as to prevent any suction or sticking that otherwise might take place at the end of the plunger after the meat had been forced into the can.

The tube being of such diameter as to enter the can a little distance and permit the air to pass around it and the space between it and the end of the can, and prevent the piston from sticking by suction or atmospheric pressure, and also provide a means whereby the material can be fed to the can without being forced out of the mouth of the can while it is being filled, the operation of my machine will be as follows, to wit: The movable semi-cylinder being raised up and the feeding-table being allowed to rest upon the inclined portion of the stationary plate H, a sufficient quantity of the meat or other material to be canned is placed upon it and a portion passed into the stationary semi-cylinder. The hinged feed-table I is then raised, forcing the material to be canned under the upper cylindrical half of the receptacle, in which the plunger works, previous to said upper half being lowered, by means of the lever-rod G, which act compresses the material to be canned into a cylindrical and more compact form. The plunger resting in the extended tube at the side of the machine is then pushed forward and forces the material before it in a compact form into the can, which is placed and held securely in position opposite to the plunger at the opening of the frame.

It should here be remarked that after the can has been filled the treadle P is depressed by the foot of the operator raising the wedge Q, when the expansion of the spring *e* will release the piston-plate N from contact with the bottom of the can, and permit of its easy withdrawal. An empty can is then placed within the arms *d d*, and the button O pressed in, which forces the head of the can into close contact with the ribs R. The wedge Q will then drop by reason of its gravity and fill the space between the end of the bracket K and the piston-plate N, and thus hold the can firmly in position till it be filled and ready to be withdrawn.

In this machine the plunger can be operated rapidly, as no suction or sticking to the meat is had by reason of the air-spaces between the top of the can and the tubular projection C′.

By this means meat or other material can be easily and rapidly canned, and in a much better condition than when packed by hand or by means of a vertical plunger.

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

1. In a can packing or stuffing machine provided with a feeding-cylinder formed of semi-cylindrical sections, the combination of a can-supporting device consisting of the bracket K, can-supporting arms *d*, piston-plate N, provided with a suitable stem and coiled spring, *e*, wedge Q, and treadle P, all constructed and operating substantially in the manner and for the purpose specified.

2. In a can packing or stuffing machine, the combination of a can-supporting device, constructed substantially as herein described and shown, with the projecting end of the cylinder C′ and ribs R, so as to form air-spaces between the head of the can and the side of the machine, all constructed and operating substantially as herein set forth and specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 21st day of February, 1880.

LEWIS CUTTING. [L. S.]

Witnesses:
C. W. M. SMITH,
J. ERASTUS LESTER.