

G. L. MERRILL & O. F. SOULE.

APPARATUS FOR FILLING CANS.

No. 175,371.

Patented March 28, 1876.

Fig. 1.

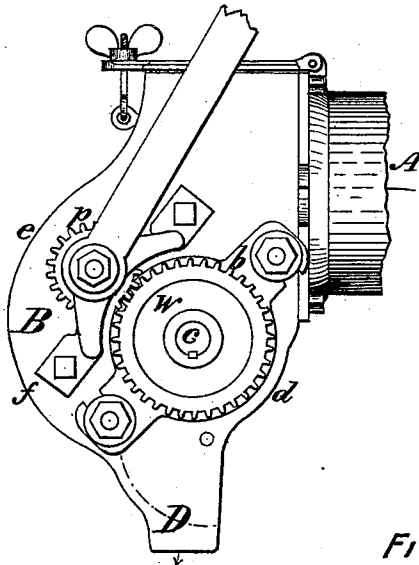


Fig. 2.

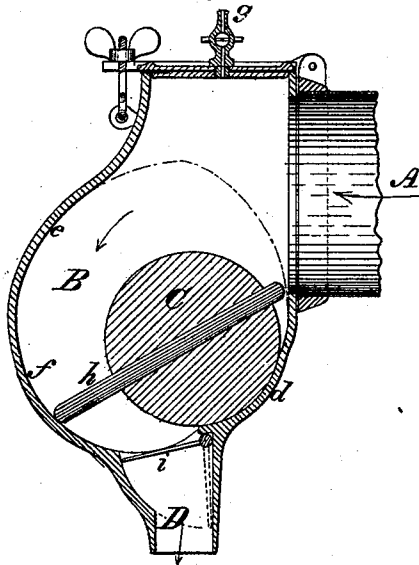


Fig. 3.

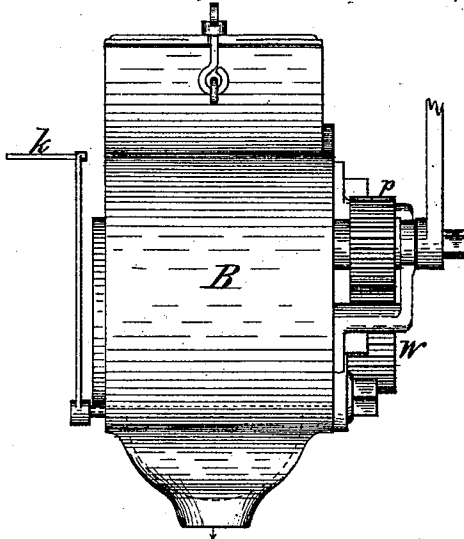
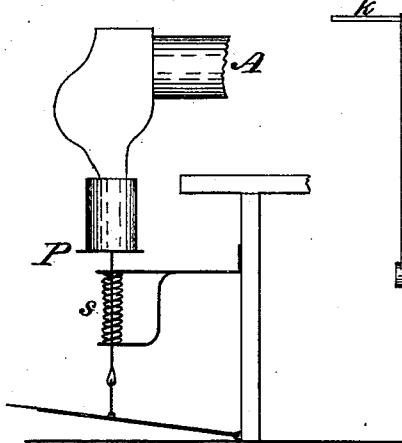


Fig. 4.



WITNESSES.

W. Gardner
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by J. J. Greenough Atty

UNITED STATES PATENT OFFICE.

G. LEWIS MERRILL AND OSCAR F. SOULE, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN APPARATUS FOR FILLING CANS.

Specification forming part of Letters Patent No. **175,371**, dated March 28, 1876; application filed January 26, 1876.

To all whom it may concern:

Be it known that we, G. LEWIS MERRILL and OSCAR F. SOULE, of Syracuse, Onondaga county, New York, have invented a new and useful Improvement in Filling Cans, &c., in canning vegetables and other articles of food, of which the following is a specification:

In canning corn and other vegetables, it becomes necessary to employ an apparatus to properly fill the cans, as appears in our patent dated December 16, 1873, and reissued 17th March, 1874, No. 5,797, in which there is a cylinder and plunger-filler. The new apparatus we now desire to patent is designed as a substitute for our previous device to fill cans, &c., with any material desired, and it can be used with a cooking apparatus, or separately. This filler consists of the following parts, as seen in the drawing hereto annexed, in which—

Figure 1 is a side elevation. Fig. 2 is a vertical section parallel to the sides. Fig. 3 is a front elevation. Fig. 4 shows the can-holder, &c.

A represents the inlet from the steaming-chamber, in which vegetables, &c., are cooked and prepared for canning, to the case or pressing-chamber B of the filling apparatus. This case B is formed with two straight, parallel sides, with an eccentric curvature in its cylindrical portion, as clearly seen in Fig. 2, in which the revolving cylinder C is located, with its bearings in the sides thereof. The curved part of the case at *d* is concentric, and in contact with cylinder C, and opposite to this curve, at *e*, the case is also concentric with the cylinder, and at a sufficient distance therefrom to afford the proper space for the passage of the material to be canned. The two concentric surfaces *d* and *e* are joined by the eccentric curve *f*. The upper part of the case projects upward far enough for the inlet orifice A, above named, to be inserted, and the top has a hinged cover with a vent and stop-cock, *g*, in it. This cover can be fastened down tight or opened, and a feed-hopper placed thereon to feed through, the opening at A being closed, to shut off the steaming apparatus. The cylinder C has a radial slot through the plane of its axis, in which a slide, *h*, works. This slide *h* projects far enough beyond the

surface of the cylinder C to fill the space between it and the curved surface of the case B at *e*, when its other edge, even with the surface of the cylinder, bears upon the curved surface *d*, above named. This slide is thrown out on one side as it is retracted on the other as the cylinder C revolves.

At the bottom of the case B there is an outlet-opening, which can be closed by a valve, *i*, opening downward, as clearly shown in Fig. 2. This valve is opened and closed by a hand-lever, *k*, outside the case. (See Fig. 3.) Below the valve *i* there is an outlet-chamber, D, that is gradually contracted from the whole width of the case into a circular orifice or tube, as is clearly represented in the several figures, which should be about the size of the openings in the cans to be filled, so that they will fit tightly over it.

Below the spout D there is a movable platform, P, upon which the can to be filled is placed, while the platform is withdrawn by means of a treadle or otherwise. The can being put upon the platform, (see Fig. 4,) they are thrown upward by a spring, *s*, or other convenient device, until the can fits properly over the spout, ready to be filled, which is done by revolving the cylinder C, the necessary requirement in this part of the operation being to bring the can up to the spout by any convenient device, and hold it to be filled, and then readily and quickly remove it.

To remove the cylinder C from the case B, for cleaning or any other purpose, we make an opening in the case the size of the cylinder, and cover it with a cap-plate, *b*, which is removable, and is tightly screwed to the side of the case. The journal *c* of the cylinder passes through this plate, and has a crank-arm affixed thereto, by turning which it is revolved; or, instead thereof, a gear-wheel, W, is affixed to said journal *c*, into which a pinion, *p*, works, as seen in Fig. 1, on which the crank is put, a well-known device, to increase the power upon the pressing-cylinder C.

The operation is as follows: When the material to be canned is prepared, it enters the case B, and is, by the revolution of the press-cylinder C, forced down through the spout D into the can, which has been previously brought and held up to the spout. The can

is thus instantly filled, and the operation is repeated.

Having thus fully described our improvement in filling cans, what we claim is—

1. The apparatus for filling cans, consisting of the revolving winged cylinder C, in a tight case, B, as described, with an inlet from the preparing-reservoir, and a contracted outlet, D, to fit the can-opening.

2. The valve *i* in the discharge-spout D, in combination with the revolving cylinder C, provided with the slide *h*, as and for the purposes described.

3. The tight covered case B, having a vent therein, as herein specified, in combination with the filling apparatus described.

4. The elevating spring-platform, for holding the cans up to the filling-spout, as herein specified, in combination with the filling apparatus.

G. LEWIS MERRILL.
OSCAR F. SOULE.

Witnesses:

J. J. GREENOUGH,
A. MOORE.