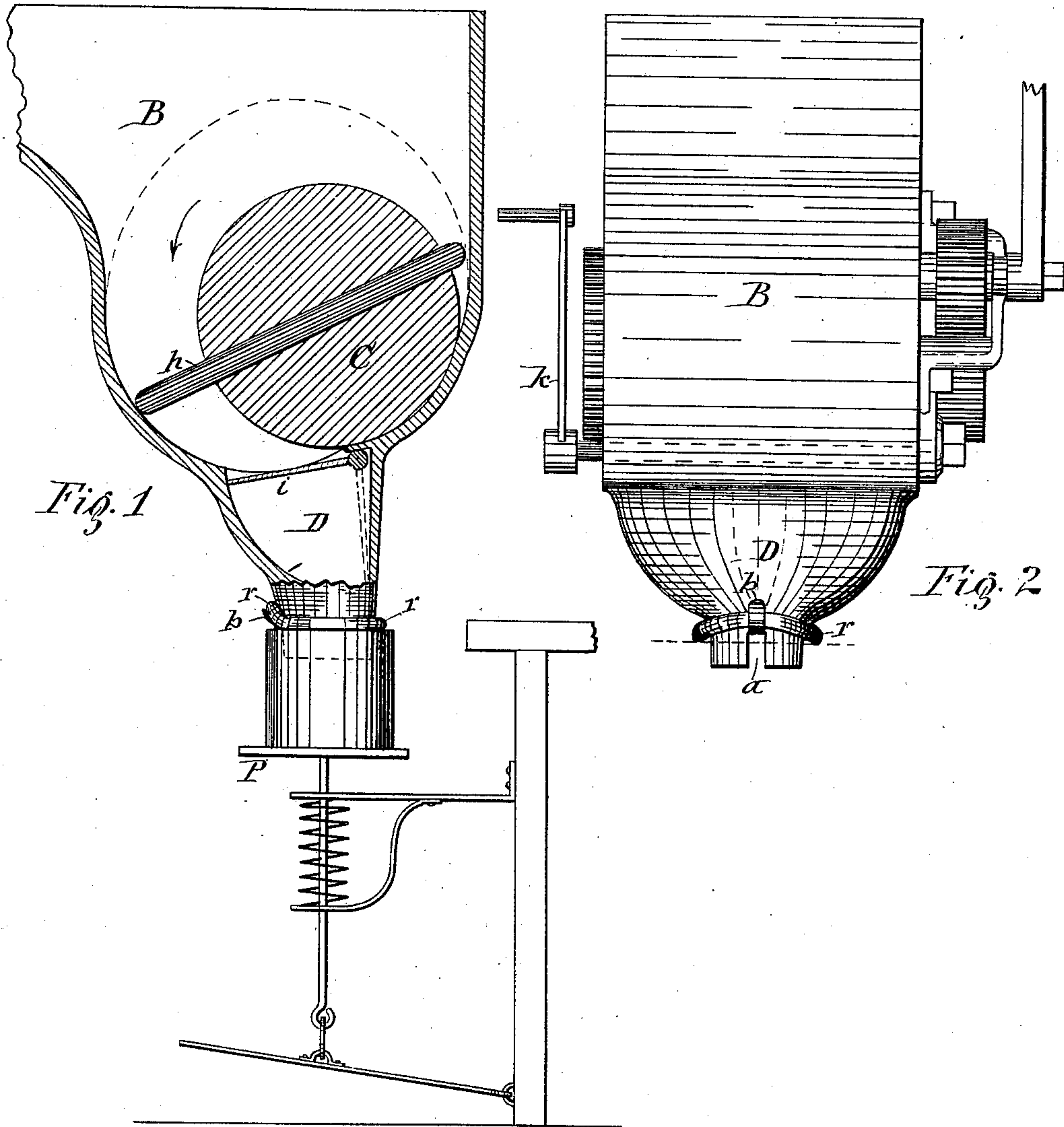


(No Model.)

G. L. MERRILL.
APPARATUS FOR FILLING CANS.

No. 361,177.

Patented Apr. 12, 1887.



WITNESSES:

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G. LEWIS MERRILL, OF SYRACUSE, NEW YORK.

APPARATUS FOR FILLING CANS.

SPECIFICATION forming part of Letters Patent No. 361,177, dated April 12, 1887.

Application filed November 18, 1886. Serial No. 219,253. (No model.)

To all whom it may concern:

Be it known that I, G. LEWIS MERRILL, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Apparatus for Filling Cans, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to apparatus employed for filling cans with green corn, tomatoes, or other substances to be preserved in hermetically-sealed cans.

The invention consists, first, in providing the filling-spout with a vent for the escape of surplus substances forced into the spout after the can is filled, which vent extends completely through the side of the spout, from the exterior to the interior thereof, and through the end of the spout, thereby effectually guarding against the clogging of said vent; and the invention also consists in providing the exterior of the spout with a packing, which prevents escape of the substance through the joint between the mouth of the can and spout during the process of filling the can, and also in providing the exterior of the spout with a lug or hook above the aforesaid vent to hold the said packing clear from the vent, and thus allow the excess of substance to escape, all as hereinafter more fully described, and specifically set forth in the claims.

In the annexed drawings, Figure 1 is a vertical transverse section of a can-filling apparatus embodying my improvements, and Fig. 2 is a front elevation of the same.

Similar letters of reference indicate corresponding parts.

B represents a chamber or case for the reception of the substance to be canned. Said case is provided with a discharge-spout, D, through which the substance is forced from the case by a suitable pressing apparatus, which in this instance is represented in the form of a revolving cylinder, C, extending in an eccentric position across the case and pivoted to opposite sides thereof. A plate, *h*, slides diametrically on the said cylinder, and is of a proper width to reach across the interior of the lower portion of the case, and by the contact of the longitudinal edges of the plate with the interior of said case the plate is caused to

reciprocate diametrically on the eccentrically-located cylinder C during the rotation of said cylinder. The cylinder rotating in the direction of the arrow in Fig. 1 of the drawings, causes the projecting portion of the plate *h* to press the substance from the case out through the spout D. A valve, *i*, is arranged across the inner end of the spout D, and has affixed to the outer end of its axis a crank, *k*, by which to turn the valve into its opened or closed position.

Under the spout D is arranged the usual support, P, for the cans to be filled, said support consisting of a platform, which is supported movably vertically, so as to allow the cans to be placed thereon and carried up to enter the filling-spout D into the mouth of the can to be filled. The discharge end or mouth of the spout D is contracted circumferentially to enter into the usual opening in the top of the can. Around the neck of said spout I place a packing-ring, *r*, to prevent the escape of the excessive substance upward around the exterior of the spout. At one side of the spout, preferably at the rear, I provide the same with a port or vent, *a*, and immediately above this vent I provide the exterior of the spout with a hook or lug, *b*, over which I draw that portion of the packing-ring *r* which would otherwise lie across the vent *a* and close the same, said vent being thus maintained open by the support of the packing-ring upon the hook or lug *b*. In raising the can under the filling apparatus, with the spout D entered into the open top of the can, the marginal portion of the top of the can is pressed against the packing-ring *r*, and thus the joint around the greater portion of the opening of the can is effectually closed, the port or vent *a* being the only opening through which air and the excessive substance which may be forced through the spout D can escape. Said escape is thus confined to one point, and, although limited, it gives sufficient warning to enable the operator to close the valve *i* of the spout in time to prevent undue waste of the substance in process of being introduced into the cans.

In order to prevent the vent *a* from becoming clogged, I extend said vent completely through the side of the spout, so as to communicate directly with the interior thereof, and

also extend said vent downward through the extremity of the spout in the form of an open-ended slot, as best seen in Fig. 2 of the drawings. In withdrawing the can from the spout, 5 the substance which has entered the slot is drawn out through the open end of the vent or slot *a*, owing to the exposure of the entire length of the slot at the interior as well as the exterior of the spout, and thus the clogging 10 thereof is prevented.

Having described my invention, what I claim is—

1. In a can-filling apparatus, the combination of the filling-spout provided with a vent 15 through the side thereof, a packing around the spout, and a support for the packing above the said vent, substantially as and for the purpose specified.

2. In a can-filling apparatus, the filling-spout 20 having a vent extending completely through

its side, from the exterior to the interior thereof, and through the extremity of the spout, substantially as described and shown.

3. In a can-filling apparatus, the combination of the filling-spout provided with a vent 25 through its side and extending through the extremity thereof, a packing around the spout, and a lug above the vent to hold the packing clear from said vent, substantially as described and shown. 30

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 13th day of November, 1886.

G. LEWIS MERRILL. [L. S.]

Witnesses:

C. H. DUELL,
N. M. SEAMANS.