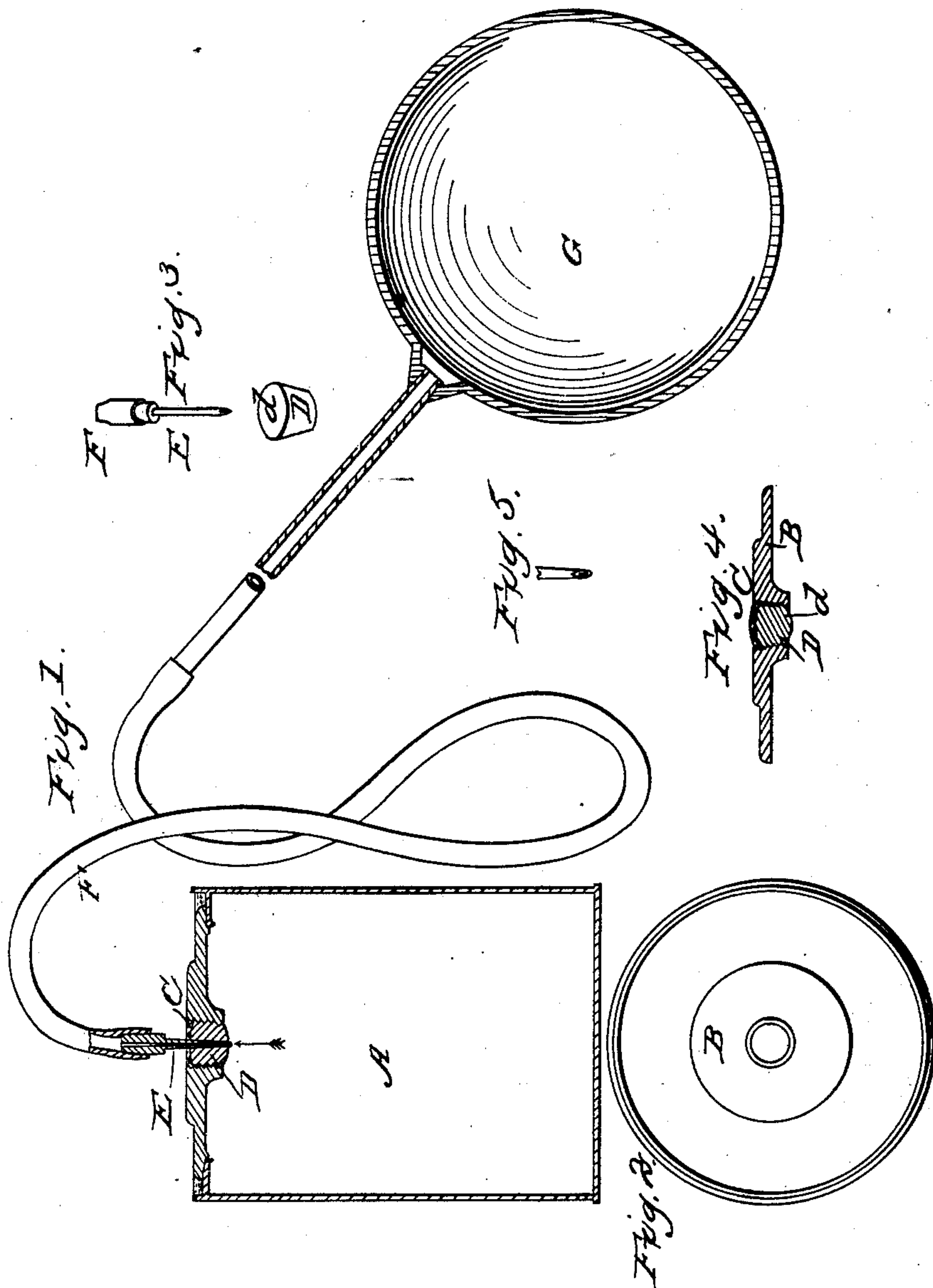


O. N. WEAVER.
Extracting Air from Fruit Cans.

No. 24,770.

Patented July 12, 1859.



Witnesses:
Abel Shaw
James Willard.

Inventor:
O. N. Weaver.

UNITED STATES PATENT OFFICE.

OLIVER N. WEAVER, OF DOVER, KENTUCKY.

IMPROVEMENT IN PRESERVING-CANS.

Specification forming part of Letters Patent No. 24,770, dated July 12, 1859.

To all whom it may concern:

Be it known that I, OLIVER N. WEAVER, of Dover, Mason county, Kentucky, have invented a new and useful Self-Sealing Apparatus for Preserve - Cans; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the annexed drawings, making part of this specification.

The invention relates to a device by which the aperture through which the gaseous contents of a can are drawn by the act of exhausting closes of itself upon the withdrawal of the exhausting-tube; and it consists in the application of a finely-punctured plug of "gum" (caoutchouc) to a screw-threaded tapering mouth or nozzle of a can or jar, the exhaust being effected through a tube adapted to readily penetrate the plug through said puncture without tearing its substance, and to be as readily withdrawn at the proper moment.

Figure 1 is an axial section of a can and exhaustor. Fig. 2 is a top view of the can. Fig. 3 is a detached view of the exhausting-nozzle. Fig. 4 is an axial section representing the plug in position in the can-top after the withdrawal of the nozzle. Fig. 5 is an enlarged view exhibiting the shape of the lower end of the nozzle.

A represents a can or jar, its top or cover B being provided with a tapering screw-mouth, C.

D is a plug of gum, of the same taper form as the mouth C, but so much larger as to be somewhat compressed by the action of screwing it into the mouth of the can.

d is a slight puncture made entirely through the plug coincident with its axial line.

The essential feature of my exhaustor consists in a finely-tapered tube, E, connected by means of a flexible tube, F, with a suitable exhaustor, which may consist of a large metallic globe, G, whose contained vapor is by turns rarefied and condensed by alternate contact with hot and cold water.

It is obvious that various modifications may be made in the arrangement. Thus, for example, the mouth C may be without a screw-thread, and the plug D *d*, having been forced into it, may be held down by a ring secured to

the top of the can, and the mouth, instead of being tapering, may have a slight lip or projection inward from its lower margin.

Operation: The vessel being filled, the cover, being already supplied with its plug, is secured, and the can and contents having been brought to suitable heat, (about 180°,) the nozzle of the heated exhaustor is inserted through the plug into the vessel, and the exhaustor is then immediately plunged into cold water, so as to create a partial vacuum, into which the greater part of the volatile contents of the can will instantly pass. The nozzle being then removed, the elasticity of the rubber causes it to completely close the hole *d*, so as to exclude the external air. To force the plug into the mouth of the can, a common screw-driver will be found to be effective. When it is desired to seal the top of the plug with wax, the plug is driven down far enough to leave a sufficient cavity to hold the wax. It will be seen that this plan necessitates no airtight surface for the foot of the exhaustor, so that any form or kind of vessel having a suitable mouth for the insertion of the plug (as a common glass bottle) could be made to serve.

In the usual mode of sealing in connection with an exhaust, the small disk of oil-silk used for a valve is extremely liable to displacement, and unless the foot of the exhaustor fits the top of the can a leakage of air will take place, and the wax with which the disk is subsequently sealed is liable to be knocked off. The mode here described avoids all these defects, is extremely simple, cheap, and easily operated, being within the comprehension and ability of a child.

What I claim as new and of my invention herein, and desire to secure by Letters Patent, is—

The perforated elastic plug D *d*, secured in the top of a provision-can, in the described combination with a nozzle, E, and tube F, communicating with an exhausting-chamber, substantially as set forth.

In testimony of which invention I hereunto set my hand.

O. N. WEAVER.

Witnesses:

ABEL SHAWK,

FRANCIS MILLWARD.