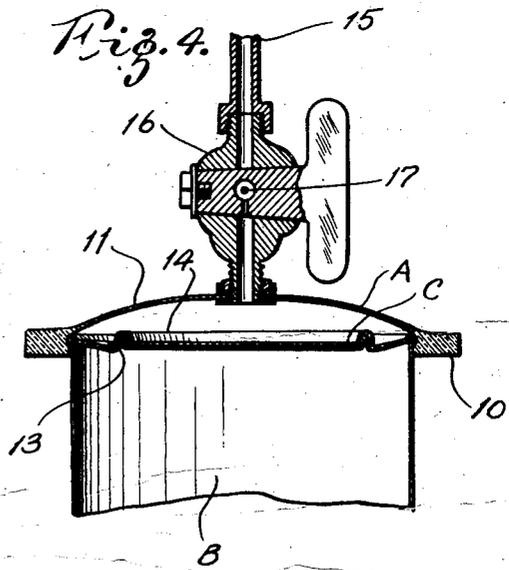
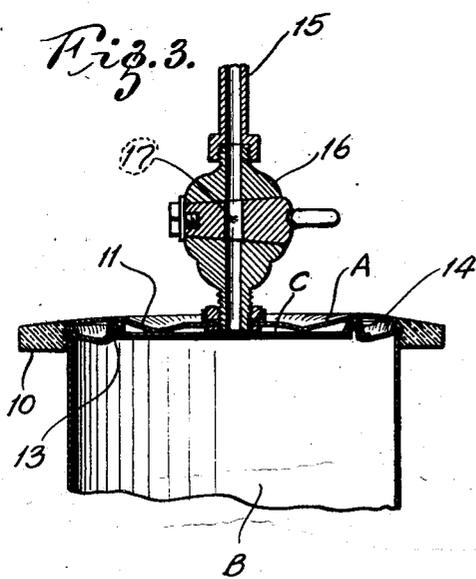
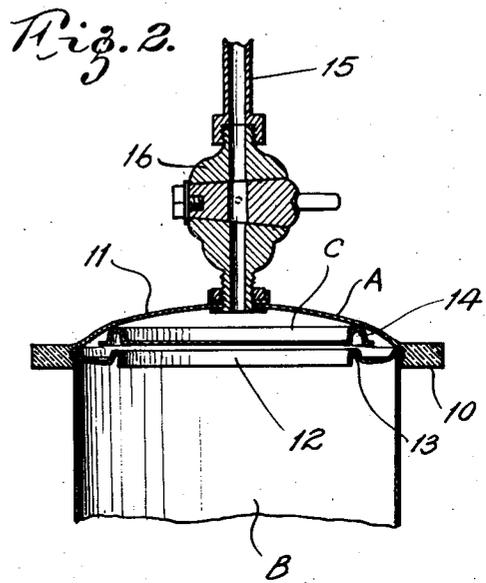
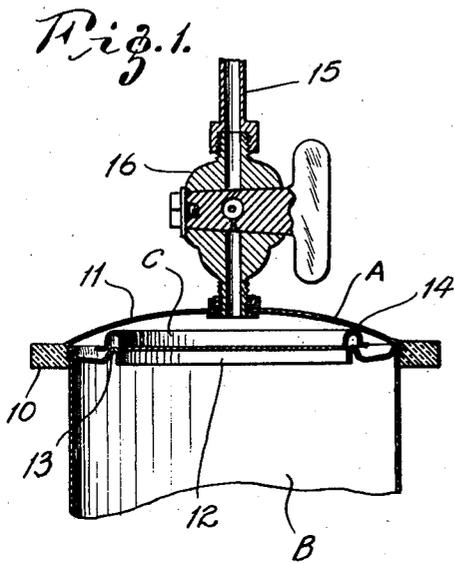


June 7, 1927.

1,631,885

F. W. L. PEEBLES
VACUUM PACKING APPARATUS

Filed June 30, 1926



INVENTOR:
FRANK W. L. PEEBLES.

BY *James L. Hopkins,*
ATTORNEY.

UNITED STATES PATENT OFFICE.

FRANK W. L. PEEBLES, OF ST. LOUIS, MISSOURI, ASSIGNOR TO JAMES L. HOPKINS, TRUSTEE, OF ST. LOUIS, MISSOURI.

VACUUM PACKING APPARATUS.

Application filed June 30, 1926. Serial No. 119,783.

My invention relates to improvements in vacuum packing apparatus, and has for its particular object to provide in such apparatus a manually operated suction head unit, arranged to operate (in conjunction with an exhauster having tubular or like suitable connection with said unit) an exhaust for the interior of a container, as well as means for thrusting into place a slip-top or friction top upon, within, or embracing the flanged mouth of said container.

The substance of my invention resides in said suction head unit, suitably connected to a source of exhaust, and having a suitable valve for cutting off the suction head unit from the source of exhaust and admitting air at atmospheric pressure between the suction head unit and the top of the container, after the operations of exhausting air from the interior of the container, and thrusting the cover or lid of said container in place, have been accomplished.

The suction head unit is preferably formed as a whole of flexible resilient material, and preferably has an outer depending lip formed to register with and fit upon or about the periphery of the container; the body of said suction head unit within said depending lip being of such degree of resiliency as to normally remain in a plane above the plane of said depending lip, and above the plane of the top of the lid or cover, during the initial operation of exhausting the air from the interior of the container; during which operation the lid or cover will be suspended above and free of contact with the flanged mouth of the container. At the conclusion of the said initial operation of exhaust, and when the degree of exhaust has reached a predetermined point, the said body of the said suction head unit will be forced by atmospheric pressure to collapse downwardly upon the lid or cover, and force said lid or cover to its seat upon the flanged mouth of the container. These two operations having been successively performed, the valve between the suction head unit and the source of exhaust will be manipulated by the operator to cut off the exhaust and to admit air under atmospheric pressure to a point beneath the body of the suction head unit, to loosen said body, and then loosen the depending lip from their seats upon the con-

tainer and cover, in order to free the suction head unit from the container and permit its withdrawal and use upon another container.

Drawings.

In the drawings—

Fig. 1 is a vertical mid-sectional view of a device embodying my invention in its initial position, the container and lid being also shown in vertical mid-section; and the valve being shown in a position closed both to exhaust and to atmosphere.

Fig. 2 is a like view, the valve being open to exhaust.

Fig. 3 is a like view, the valve still opened to exhaust.

Fig. 4 is a like view, the valve being opened to atmosphere.

Description.

In the embodiment of my invention shown in the drawings, the suction-head unit A is shown as having the marginal depending lip 10 formed on the lower face of a sheet 11. The sheet 11 may be of any form necessary to so register with the top of a container B that the lip 10 will be seated upon the periphery of the top of the container B in substantially air-tight contact therewith.

The container B has the mouth 12 preferably surrounded by an upwardly-projecting flange 13 for the reception of the flange 14 of the container-lid or cover C.

A pipe 15 extends from any suitable source of exhaust into and through the sheet 11; said pipe 15 being provided with a two-way valve 16, which serves to permit exhaust through the pipe 15, and when cutting off said exhaust, to admit atmosphere through the port 17 to the lower face of the sheet 11.

Mode of operation.

The lid or cover C being laid lightly upon the flange 13, the unit A is manually placed upon the container B in the position shown in Fig. 1, the valve 16 being closed both against atmosphere and exhaust.

The valve 16 is then opened to exhaust. The air sucked from the interior of the container B first raises the lid C from the flange 13 (as in Fig. 2); when a sufficient degree

of exhaust in the container B has thus been created, the air pressure on the outer surface of the sheet 11 forces sheet 11 downward into contact with the lid C, and continuing, forces the lid C into place upon the flange 13 (as in Fig. 3); in which position the sheet 11 adheres closely to the top surface of the lid C, and the valve 16 is then turned to admit atmosphere through the port 17 to a point beneath the sheet 11, releasing the suction-head unit A and permitting its removal from the container B.

I have thus provided a suction-head unit capable of use by unskilled labor, simple in construction, and incapable of injuring the hands of the operator.

While this disclosure describes what I now believe to be the cheapest and most effective form of my invention, I do not wish to be understood as limiting myself to that particular form, especially as I believe that I am the first to produce a very simple suction-head in an art replete with more complicated mechanisms aiming at the same result.

The degree of partial vacuum to be formed within the container B will largely be governed by the degree of resiliency in the sheet 11, which sheet 11 may be made of material of various resiliency (such as rubber of various degrees of vulcanization), of various thicknesses, or reinforced by other material imbedded in or mounted above or beneath said sheet 11.

It is evident that various embodiments of my invention may be made without depar-

ture from my actual invention as defined in the appended claims.

I claim:

1. In a vacuum-packing apparatus a resilient suction-head unit and an exhaustercornection extending through said unit.

2. In a vacuum-packing apparatus a resilient suction-head unit having a depending marginal lip, and an exhaustercornection extending through said unit to a point within said marginal lip.

3. In a vacuum-packing apparatus a resilient suction-head unit and an exhaustercornection extending through said unit in combination with a two-way valve seated in said exhaustercornection.

4. In a vacuum-packing apparatus a resilient suction-head unit having a depending marginal lip, and an exhaustercornection extending through said unit to a point within said marginal lip in combination with a two-way valve seated in said exhaustercornection.

5. In a vacuum-packing apparatus a resilient suction-head unit arranged to engage with the periphery of a container; an exhaustercornection extending into the interior of said suction-head unit; and a suitable valve seated in said exhaustercornection and arranged to cut the exhaust and admit air under atmospheric pressure to a point beneath the body of said suction-head unit.

In testimony whereof I have hereunto affixed my signature.

FRANK W. L. PEEBLES.