

(No Model.)

J. DOHERTY.

JAR COVER.

No. 347,095.

Patented Aug. 10, 1886.

Fig. 1

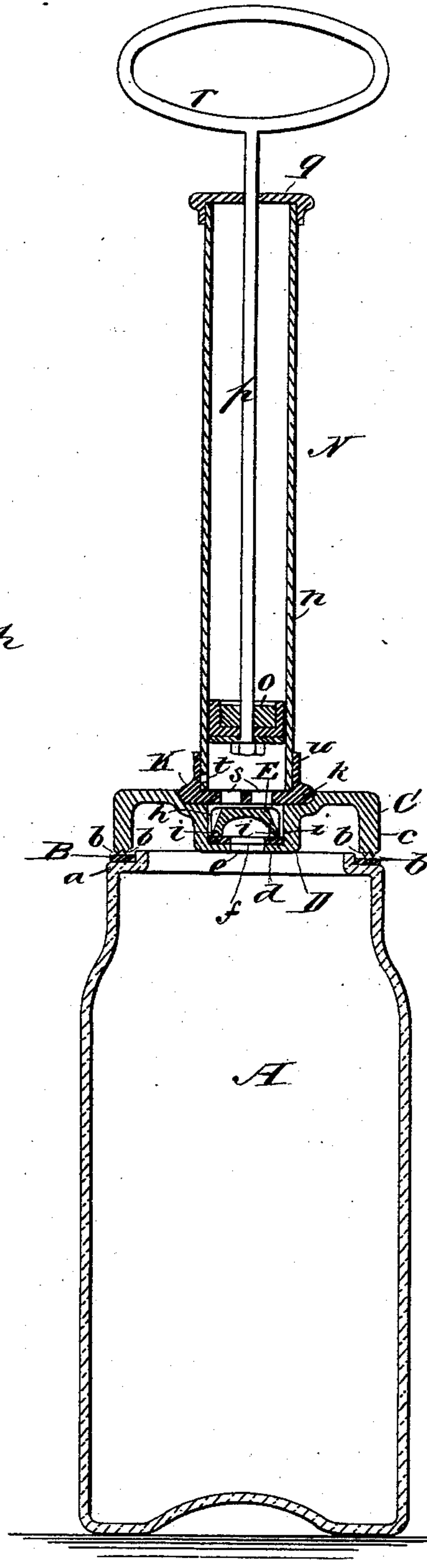


Fig. 2

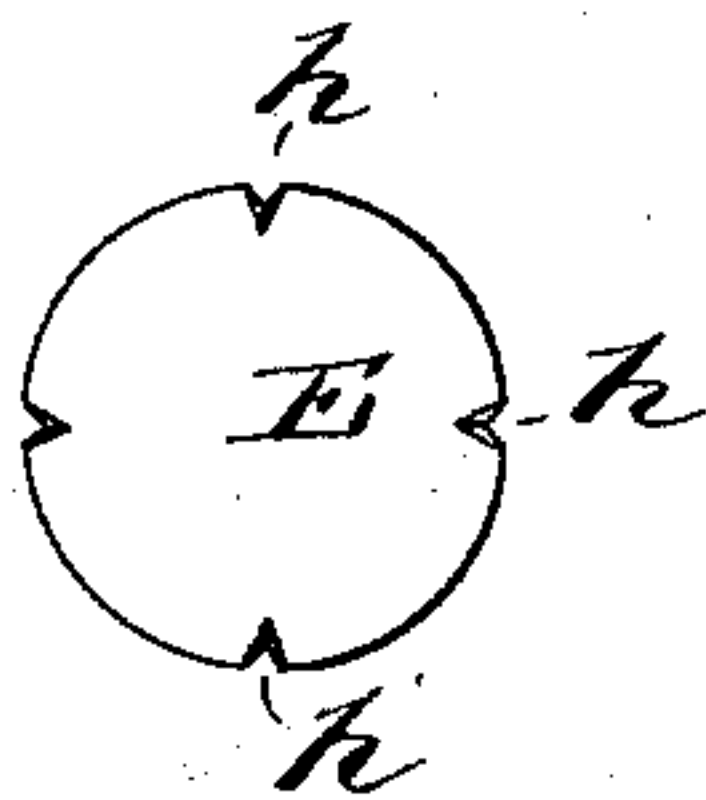
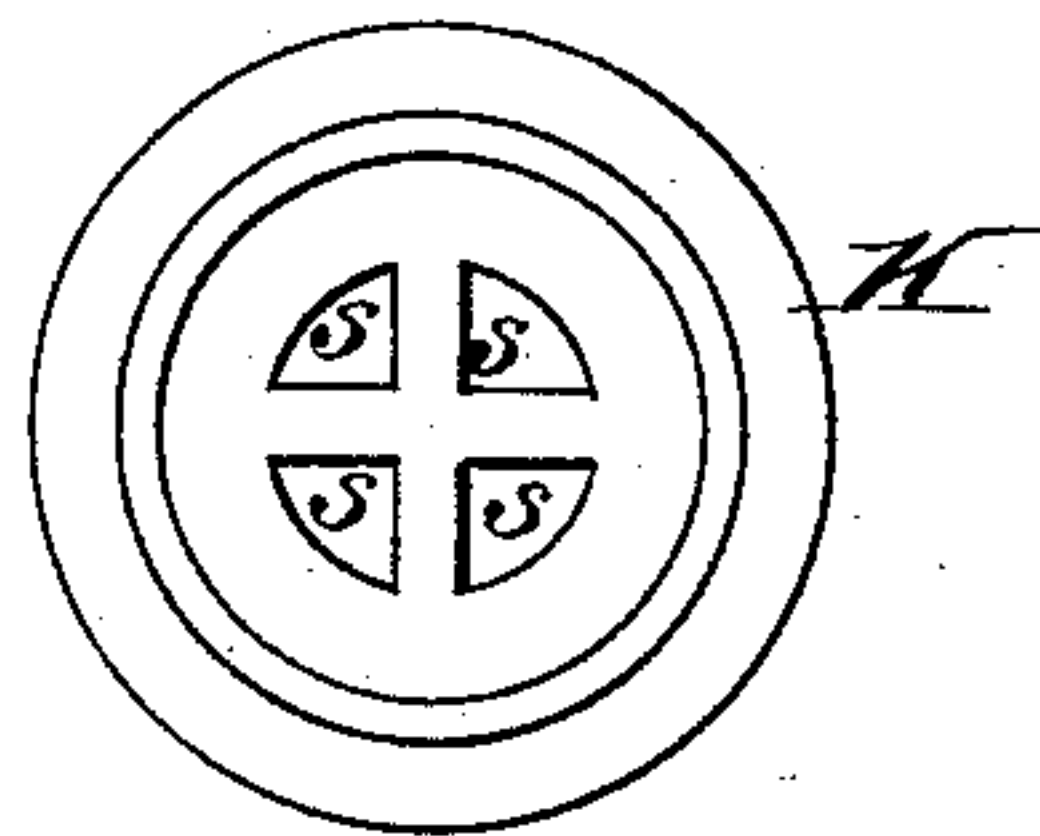


Fig. 3



WITNESSES:

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BY

UNITED STATES PATENT OFFICE.

JOHN DOHERTY, OF LOCKPORT, NEW YORK, ASSIGNOR TO HIMSELF AND
THOMAS CONROY, OF SAME PLACE.

JAR-COVER.

SPECIFICATION forming part of Letters Patent No. 347,095, dated August 10, 1886.

Application filed November 10, 1885. Serial No. 182,346. (No model.)

To all whom it may concern:

Be it known that I, JOHN DOHERTY, of Lockport, in the county of Niagara and State of New York, have invented a new and Improved Fruit-Jar Cover, of which the following is a full, clear, and exact description.

The object of my invention is to provide a fruit-jar and cover, by means of which fruits, vegetables, and other perishable materials which are usually preserved in sealed air-tight cans, after being partially boiled or cooked, may be preserved in the natural state as they are taken from the trees or vines upon which they have grown.

To the end named my invention consists of a cover formed with a downwardly-projecting flange about its outer edge, with a central aperture, about which there is formed an inner flange, upon which the downwardly-projecting edge of the second or auxiliary cover rests.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a central vertical sectional view of the can-cover and operating device. Fig. 2 is a plan view of the central cover. Fig. 3 is a view of the under side of the air-pump employed in connection with my improved form of cover.

Referring, now, to the general construction, as illustrated in the drawings above referred to, A represents a fruit-can of ordinary construction, the only requisite being that the can shall have a shoulder, *a*, upon which there is fitted a rubber or other form of packing-ring, B. The cover proper is shown at C, and is formed with a downwardly-projecting flange, *c*, upon the lower edge of which there are two concentric ridges, *b b*, which rest upon the packing-ring B. A second flange, D, projects down from about the center of the cover, said flange being circular and formed with an inwardly-projecting shoulder or ring, *d*, in which there is a central aperture, *e*. Upon the shoulder *d* there is placed a second packing-ring, *f*, upon which the lower circular edge of the central or auxiliary cover, E, rests, which said lower edge is formed with one or two ridges, *i i*. A number of vertical grooves,

h h, are formed upon the peripheral face of the cover E.

Although the top of the cover C may in some cases be perfectly flat and even, except at the point where the flange D projects down, I prefer to form said cover with a recess, *k*, in order that the rubber cushion K, carried by an air-pump, N, may be fitted therein, and prevented from lateral displacement while the air-pump is being used.

The air-pump N consists of a cylindrical tube, *n*, in which there is fitted a plunger, *o*, that is operated by a rod, *p*, which extends through the guiding-cap *q*, said rod being formed with a manipulating ring or handle, *r*.

The cushion K is fitted over the bottom of the tube *n*, and is formed with a number of central apertures, as *s s*, and an upwardly-projecting ring, *u*, which surrounds the lower end of the tube *n*. The tube *n* is formed with an aperture, *t*, located, as clearly illustrated in Fig. 1, beneath the upper edge of the ring *u*.

The grooves *h h*, formed upon the peripheral face of the cover E, are deep enough to come within the line of the apertures *s s*; or such grooves might be extended inward in radial lines toward the center of the upper face of the cover E.

Such being the general construction of the apparatus, the operation is as follows: The fruit or other material to be preserved having been placed within the jar A, and the ring B being in position on the shoulder *a*, the cover C is placed so that the ridges *b b* will rest upon said packing-ring B. The auxiliary cover E is then placed so that its ridge or ridges *i i* will rest upon the ring *f*. The air-pump N is then placed so that its apertures *s s* will be directly over the cover E, and being so placed the plunger *o* is elevated to the top of the tube *n*. As the plunger is elevated the air beneath it contained in the tube *n* and jar A will be rarefied, and as the plunger is again forced downward the air contained in the tube *n* will be forced outward through the aperture *t*, the cover E at this time being pressed firmly against the ring *f* by atmospheric pressure. The reciprocation is repeated until the air within the jar has been exhausted, or sufficiently rarefied, and during this operation the cover E acts as

the lower valve for the air-pump N, the aperture *t* acting as the upper valve. When the air-pump has been removed, the pressure of the atmosphere will hold the covers C and E in position, and it will thus be seen that all mechanical means of attachment are dispensed with.

With such a jar and cover as I have described fruit may be preserved in a natural state without boiling or otherwise cooking it, and also without pouring on hot sirup; but it will of course be understood that should it be desired to boil the fruit before inclosing it within the can, it could be done and the fruit preserved by means of the can described. It will also be understood that the can could be used for preserving milk, and, in fact, any material which is usually put up in cans, and that the size of the can would vary in accordance with the use to which it was to be put,

and that the cover and can could be made of any suitable material.

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

1. The combination, with the main portion of a cover, said portion being formed with flanges *c* and D, a shoulder, *d*, being formed on the flange D, of packing-rings B and *f*, and an auxiliary cover, substantially as described.

2. A fruit-jar cover formed with the flanges *c* and D, the flange *c* being formed with the ridges *b b* and the flange D having a shoulder, *d*, said cover being provided with an auxiliary cover, E, formed with ridges *i i* and grooves *h h*, substantially as described.

JOHN DOHERTY.

Witnesses:

WASHINGTON H. RANSOM,
JOHN T. JOYCE.