No. 637,981. Patented Nov. 28, 1899.

A. L. WEISSENTHANNER.

CLOSURE FOR JARS, BOTTLES, &c.

(Application filed Sept. 28, 1899.)

(No Model.)

Fig. 1.

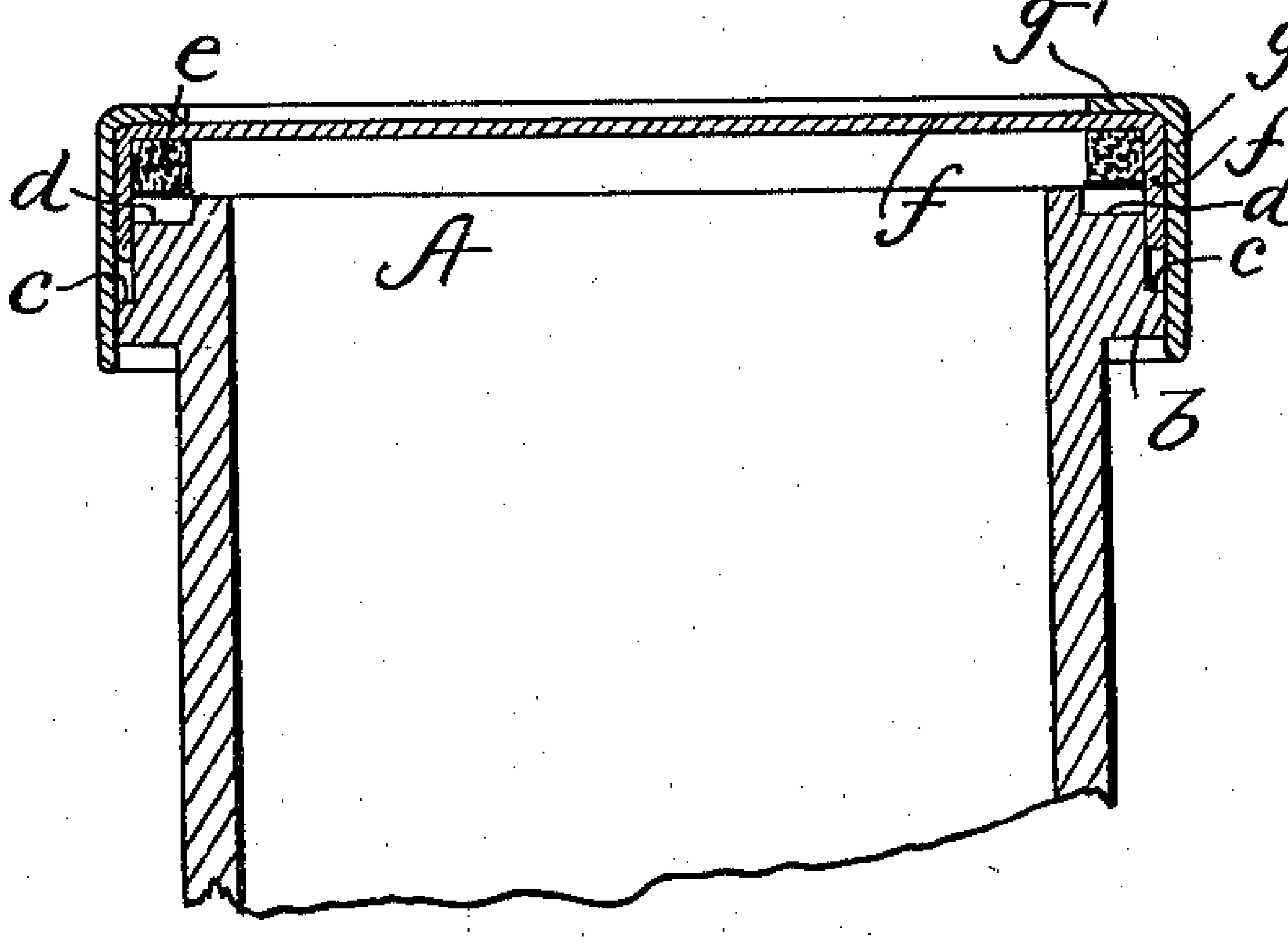


Fig. 2.

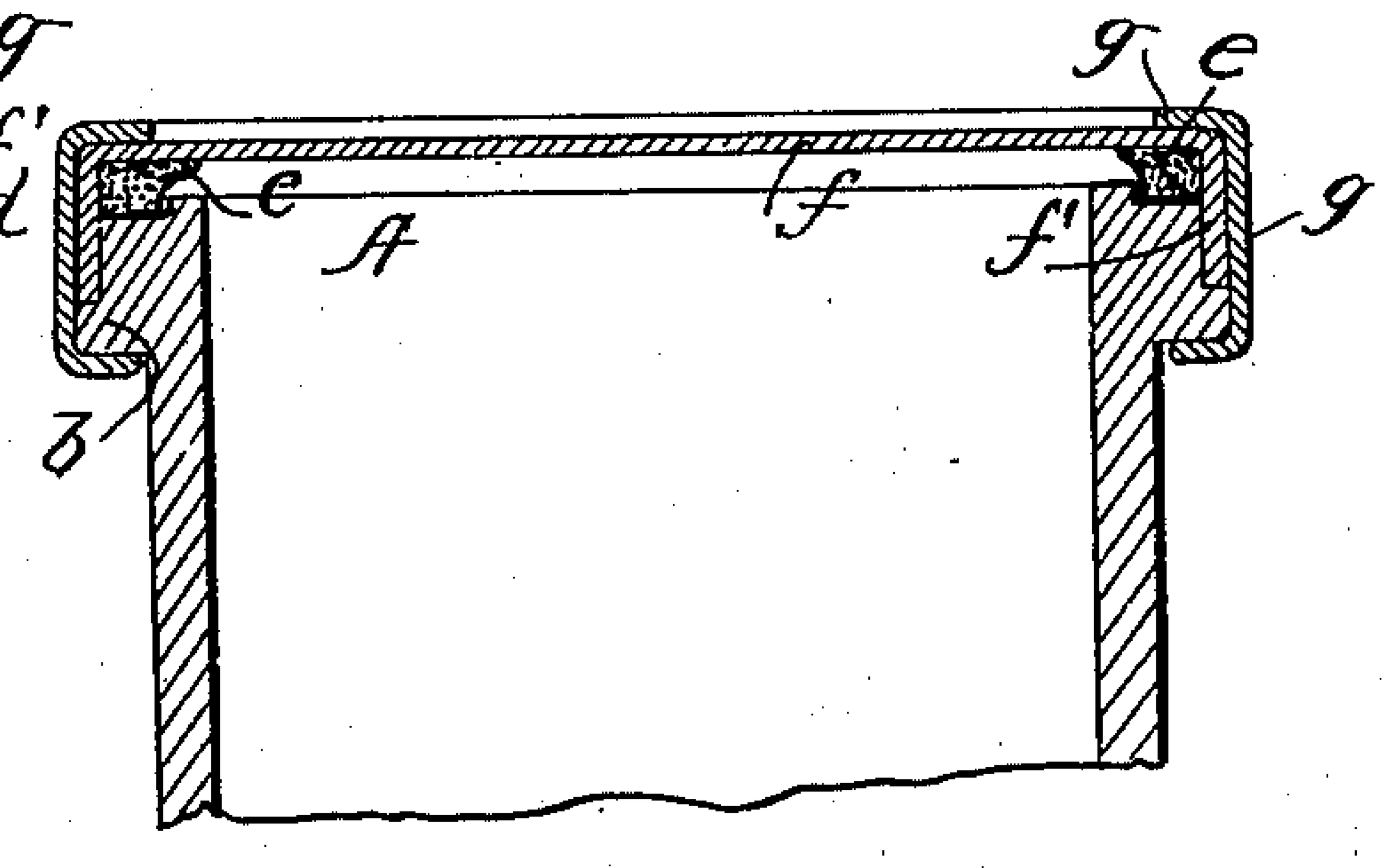


Fig. 3.

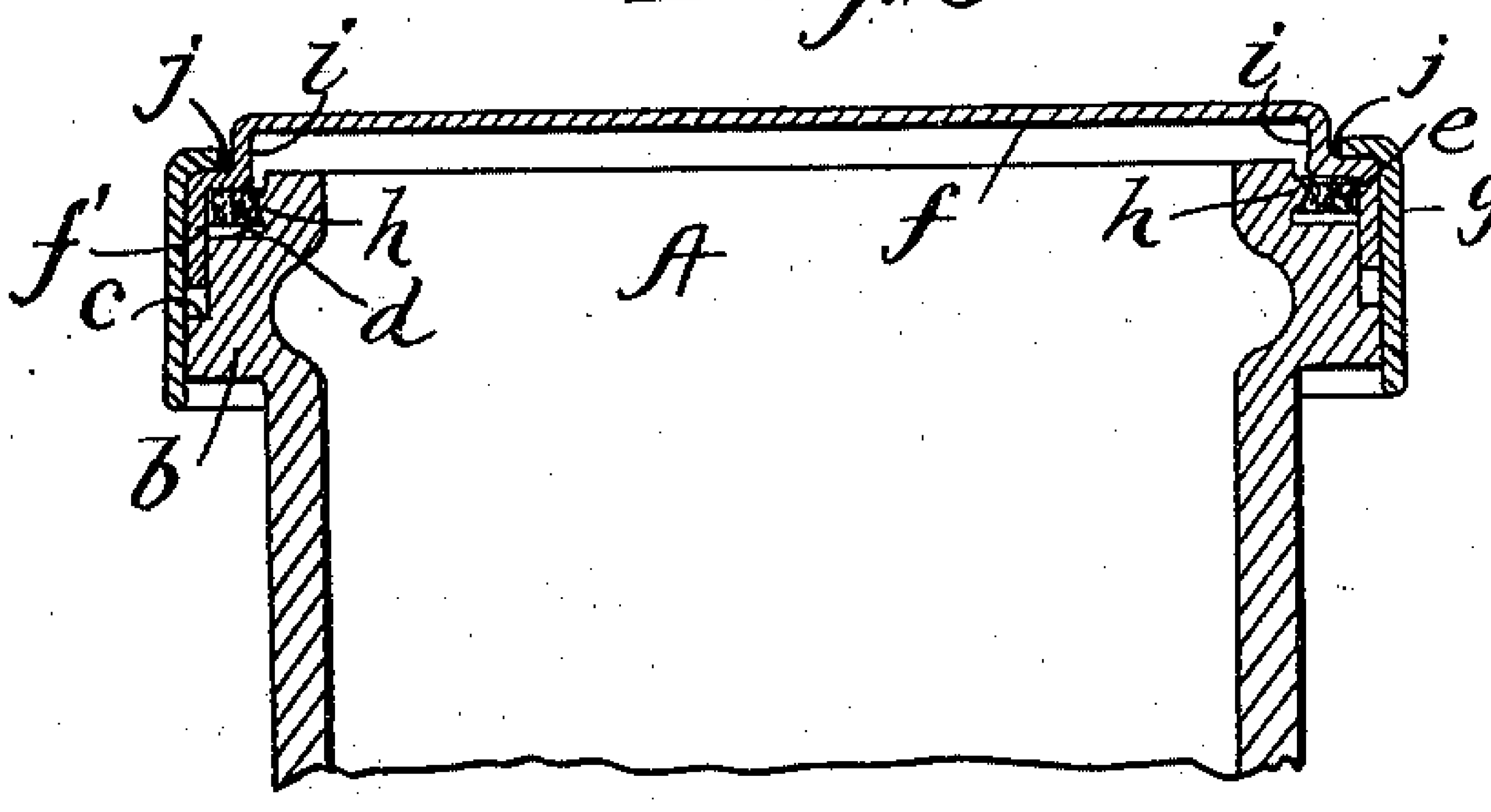


Fig. 4.

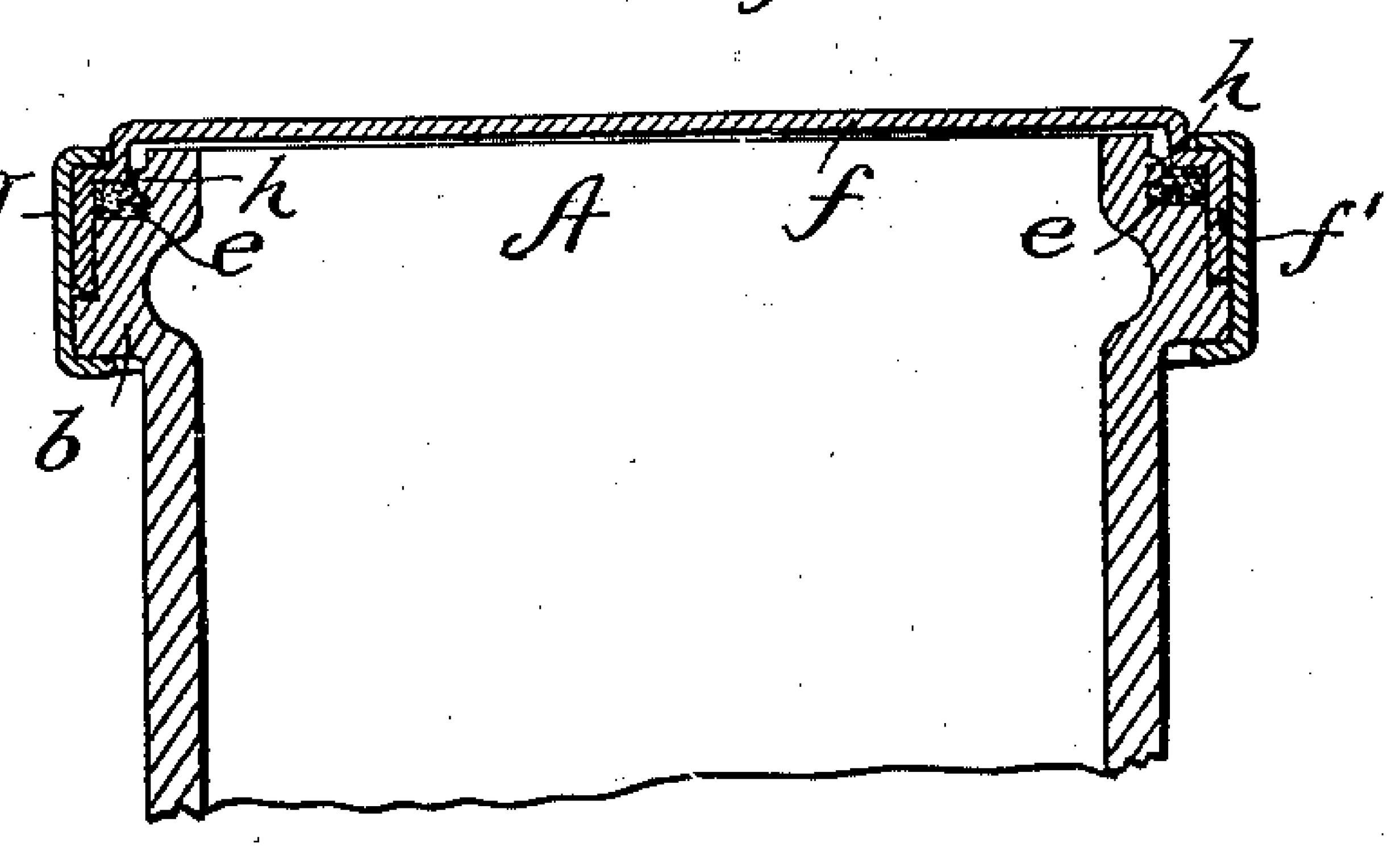
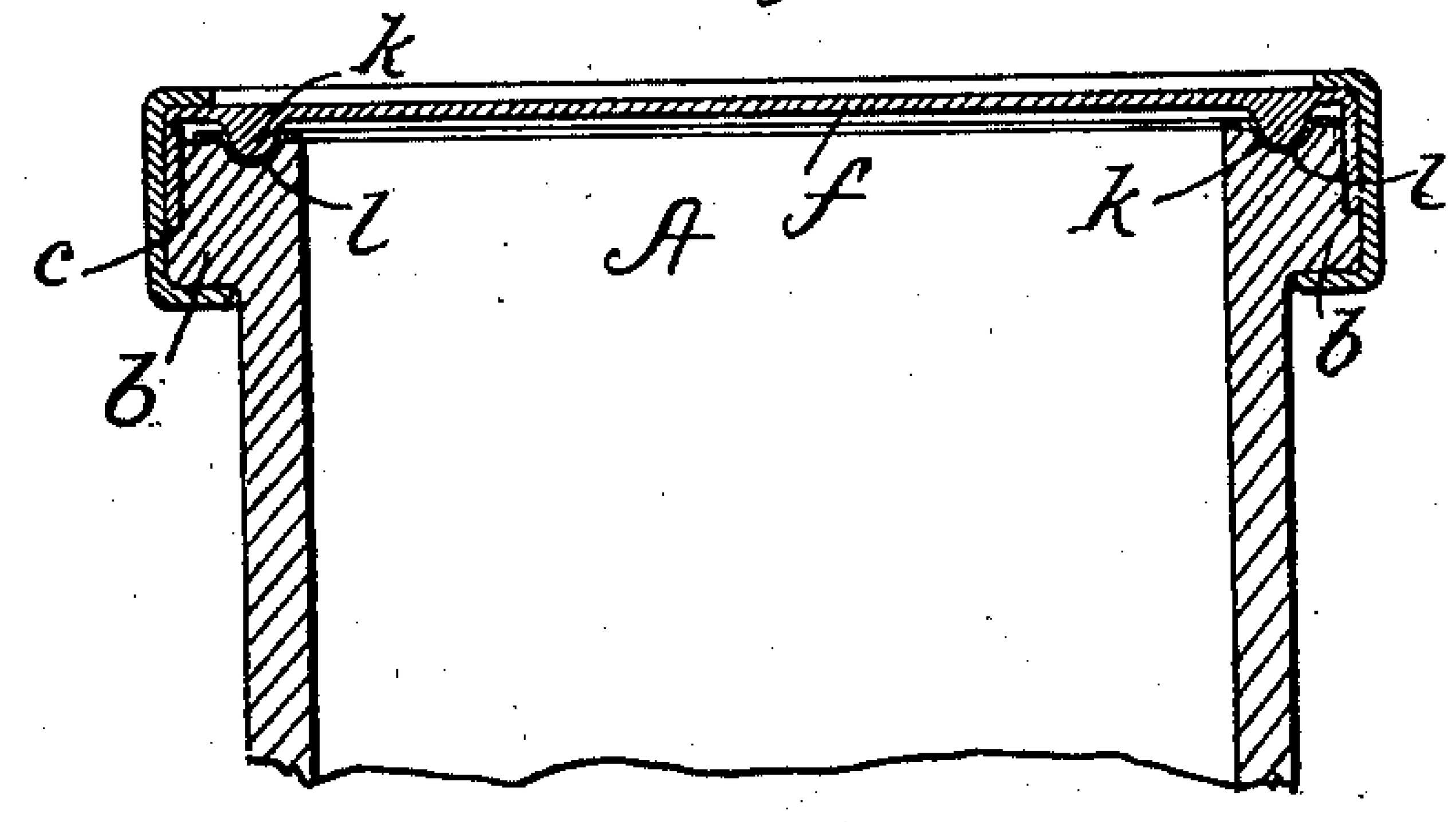


Fig. 5.



Witnesses.
W. R. Edelen.
[illegible]

Inventor.
Alfred L. Weissenthanner
by Philipp Mauro
his attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALFRED L. WEISSENTHANNER, OF NEW YORK, N. Y., ASSIGNOR TO THE PHOENIX CAP COMPANY, OF SAME PLACE.

CLOSURE FOR JARS, BOTTLES, &c.

SPECIFICATION forming part of Letters Patent No. 637,981, dated November 28, 1899.

Application filed September 28, 1899. Serial No. 731,942. (No model.)

To all whom it may concern:

Be it known that I, ALFRED L. WEISSENTHANNER, a resident of the city of New York, State of New York, have invented a new and useful Improvement in Closures for Jars, Bottles, &c., which improvement is fully set forth in the following specification.

My present invention relates to improvements in closures for jars, bottles, and the like composed of three parts—to wit, a cup-like cover fitting over the mouth of the receptacle, a packing-ring interposed between the cover and the receptacle, whereby hermetic sealing is effected, and a securing-band adapted to be bent under a flange in the receptacle for holding the parts of the closure in place under pressure. As ordinarily constructed and commercially employed there have been in closures of this type unoccupied inclosed spaces between the parts of the closure. The unavoidable lodgment of liquid in such spaces during the operation of closing the jar and in the heating or "processing" of the same to insure preservation has been found to be very objectionable, for the reason that said liquid spoils and decays, corroding the metallic parts, and presents an unclean appearance and emits repulsive odors when the securing-band is removed.

It is the object of my invention to avoid such unoccupied spaces in closures of the type mentioned, and the construction whereby this end is accomplished will be best understood by reference to the accompanying drawings, wherein—

Figure 1 illustrates in section one embodiment of my invention, the parts of the closure being shown as loosely applied to the jar. Fig. 2 shows the parts in the position they occupy after sealing has been effected. Figs. 3 and 4 are corresponding sectional views of a modified form of closure. Fig. 5 is a sectional view of still another modification.

Referring to Figs. 1 and 2 of the drawings, A represents a jar having about the mouth thereof an outwardly-projecting flange or enlargement *b*, which is so reduced in diameter above its lower edge as to form offsets or shoulders *c* and *d*, extending entirely about the same.

e is a packing-ring, made of rubber or any suitable material, resting against shoulder *d*.

f is a cover having a depending flange *f'* around its outer edge inclosing the packing-ring *e* and when in place on the jar closely fitting about the flange *b* and resting at its lower edge against shoulder *c*.

g is a securing band or ring having an inwardly-turned flange *g'* about its upper edge overhanging the cover *f*. This band fits closely about the depending flange on the cover and extends downwardly below the lower edge of the flange *a* on the jar, under which it is adapted to be bent for securing the parts of the closure together under pressure. It will thus be observed that in the closure here described no unoccupied inclosed spaces are left between the parts of the closure in which liquid may accumulate.

The closure illustrated in Figs. 3 and 4 is the same as that shown in Figs. 1 and 2, with the exception that the vertical wall of the flange *b* above the shoulder *d* has a ridge *h* extending about the same, which by engaging the packing-ring *e* acts to more securely hold it in place upon the application of pressure in the act of effecting the closure, and, further, the cover *f* is first bent downwardly and then upwardly about its peripheral edge before joining the depending flange *f'*, thus forming a vertical wall *i* and horizontal wall *j*.

In the modification shown in Fig. 5 the flange *b* on the jar has only one shoulder *c*. In this case in order to prevent the displacement of the packing-band *e* a ridge *k* on the under side of the cover *f* depresses the packing-band into a groove *l* formed about the upper horizontal edge of the flange *b* on the jar.

What I claim is—

1. The combination with a jar or the like having a flange about the mouth thereof, the upper part of said flange being of less diameter than the lower part forming a shoulder or offset thereabout, of a cover having a depending flange around its edge, said flange being adapted to closely fit the vertical wall of the flange on the jar above the shoulder and at its lower edge to closely fit against the latter when the parts are secured in place, a packing-ring interposed between the cover and up-

per edge of the jar, and a securing-band having an inwardly-bent flange about its upper edge overhanging the top edge of the cover, said band fitting closely against the outer faces of the depending flange on the cover, and the part of the flange on the jar below the shoulder and being adapted to be bent under the lower edge of the flange on the jar to secure the parts in place under pressure.

2. The combination with a jar or the like having a flange about the mouth thereof, the upper part of said flange being of several different diameters and less than the diameter of the lowermost part of the flange, thus forming two shoulders or offsets one above the other, of a cover having a depending flange around its edge, said flange being adapted to closely fit the vertical wall of the flange on the jar between the shoulders thereof and at its lower edge closely fitting against the lower shoulder when the parts are finally secured in place, a packing-ring engaging about the vertical wall of the flange on the jar above the upper shoulder, and a securing-band having an inwardly-bent flange about its upper edge overhanging the top edge of the cover, said band fitting closely against the outer faces of the depending flange on the cover and the part of the flange on the jar below the lower shoulder thereon and being adapted to be bent under the lower edge of the flange on the jar for securing the parts of the closure in place under pressure.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ALFRED L. WEISSENTHANNER.

Witnesses:
JULES H. DOMMERGUE,
FIMBROOK MOTT.