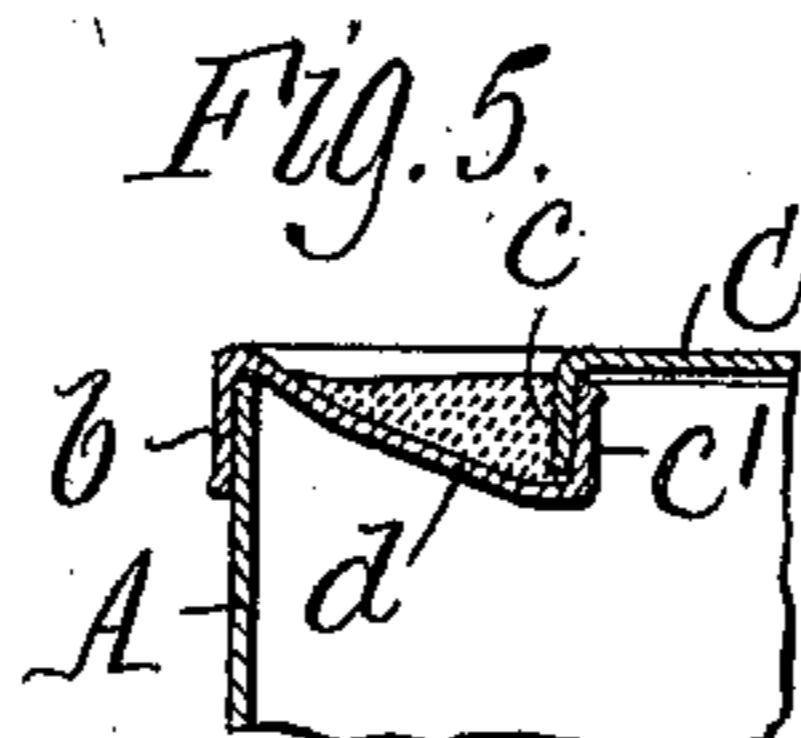
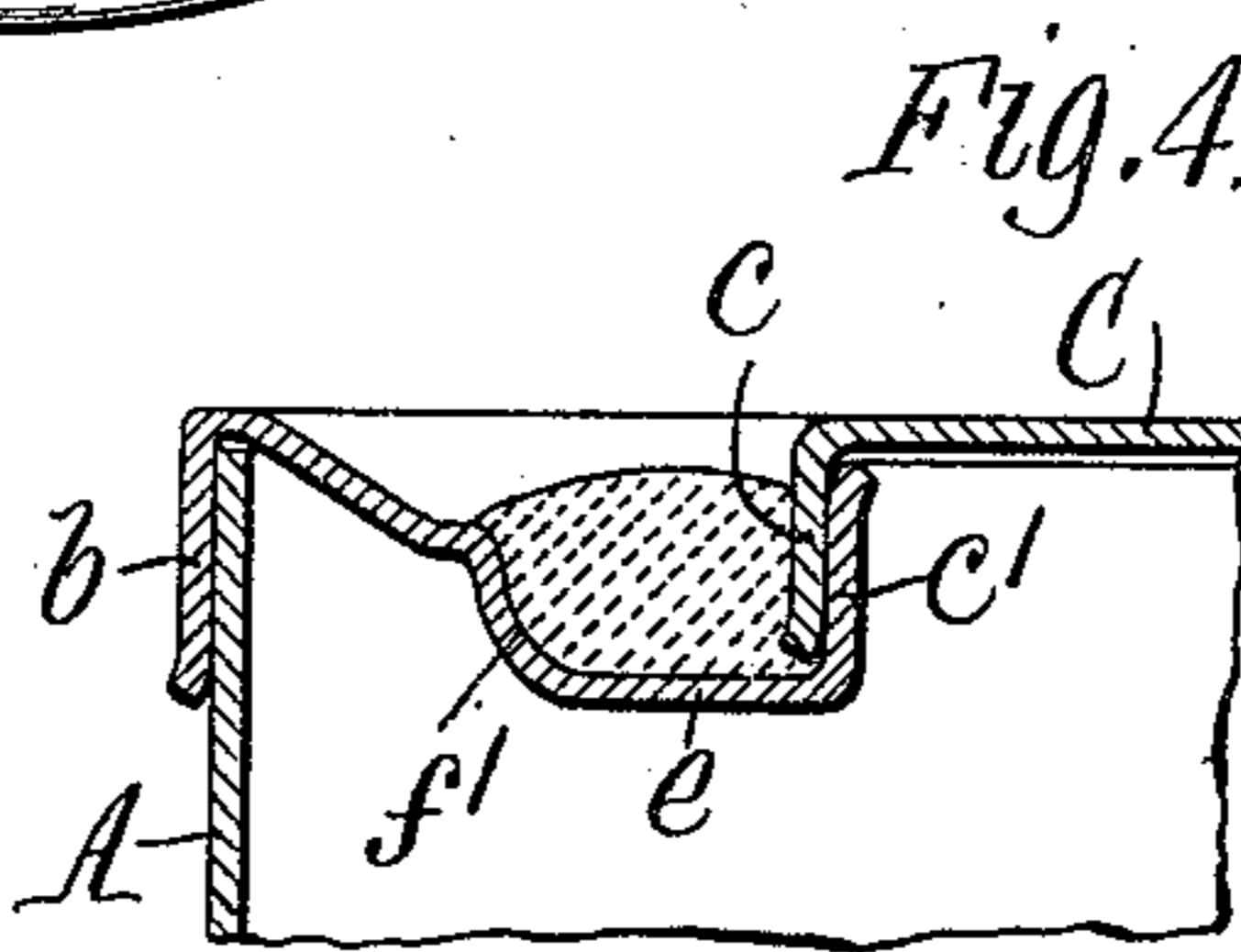
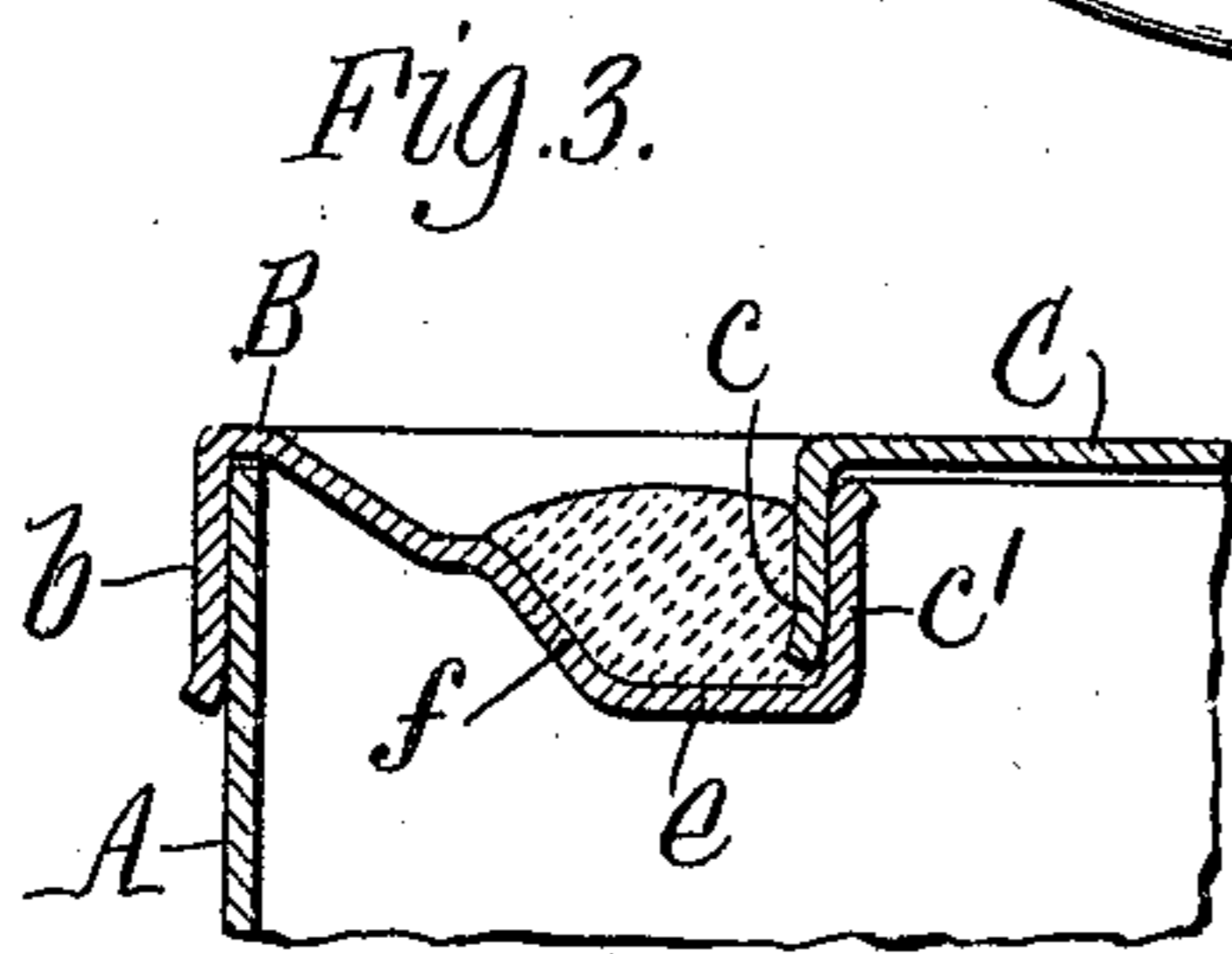
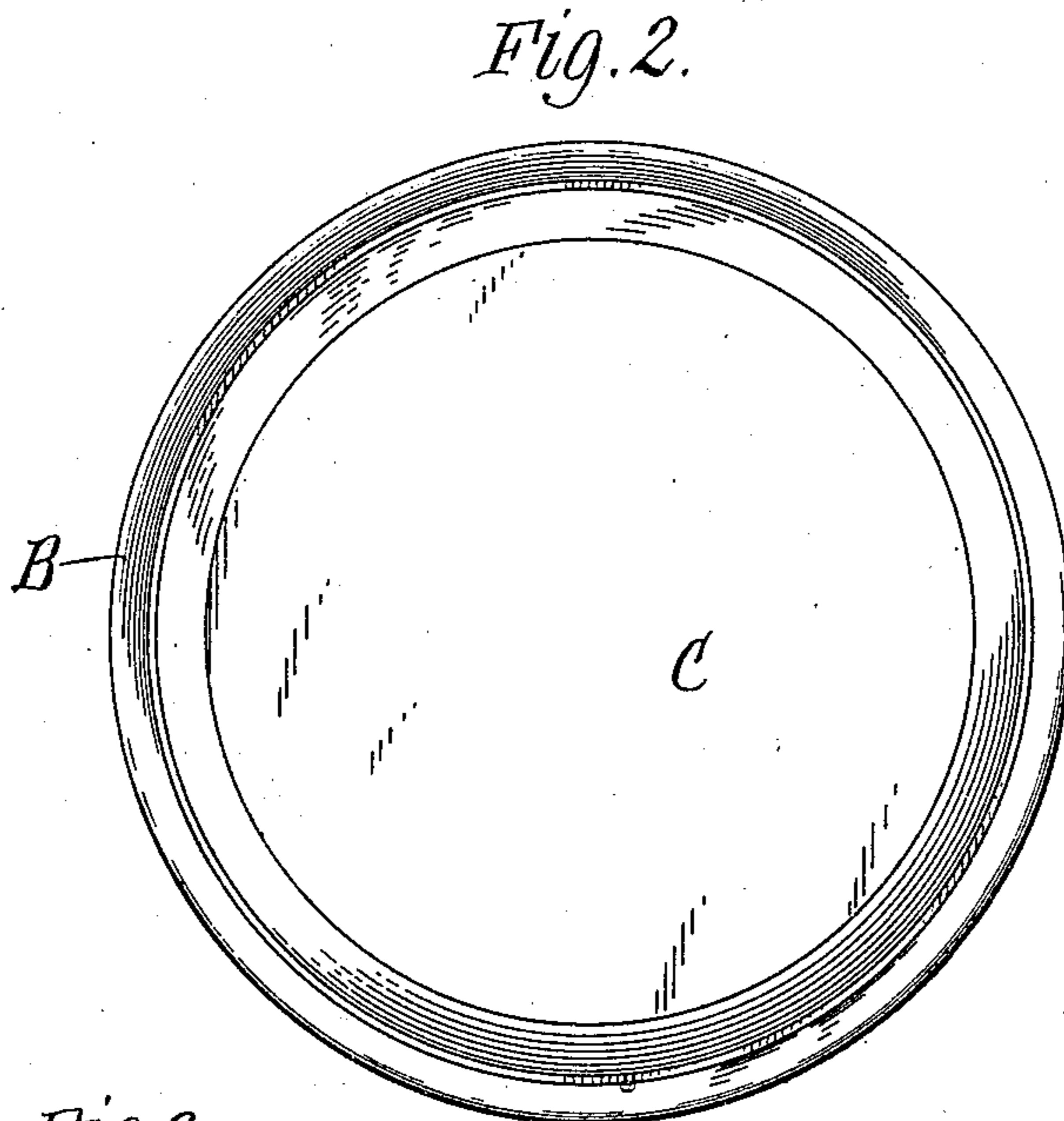
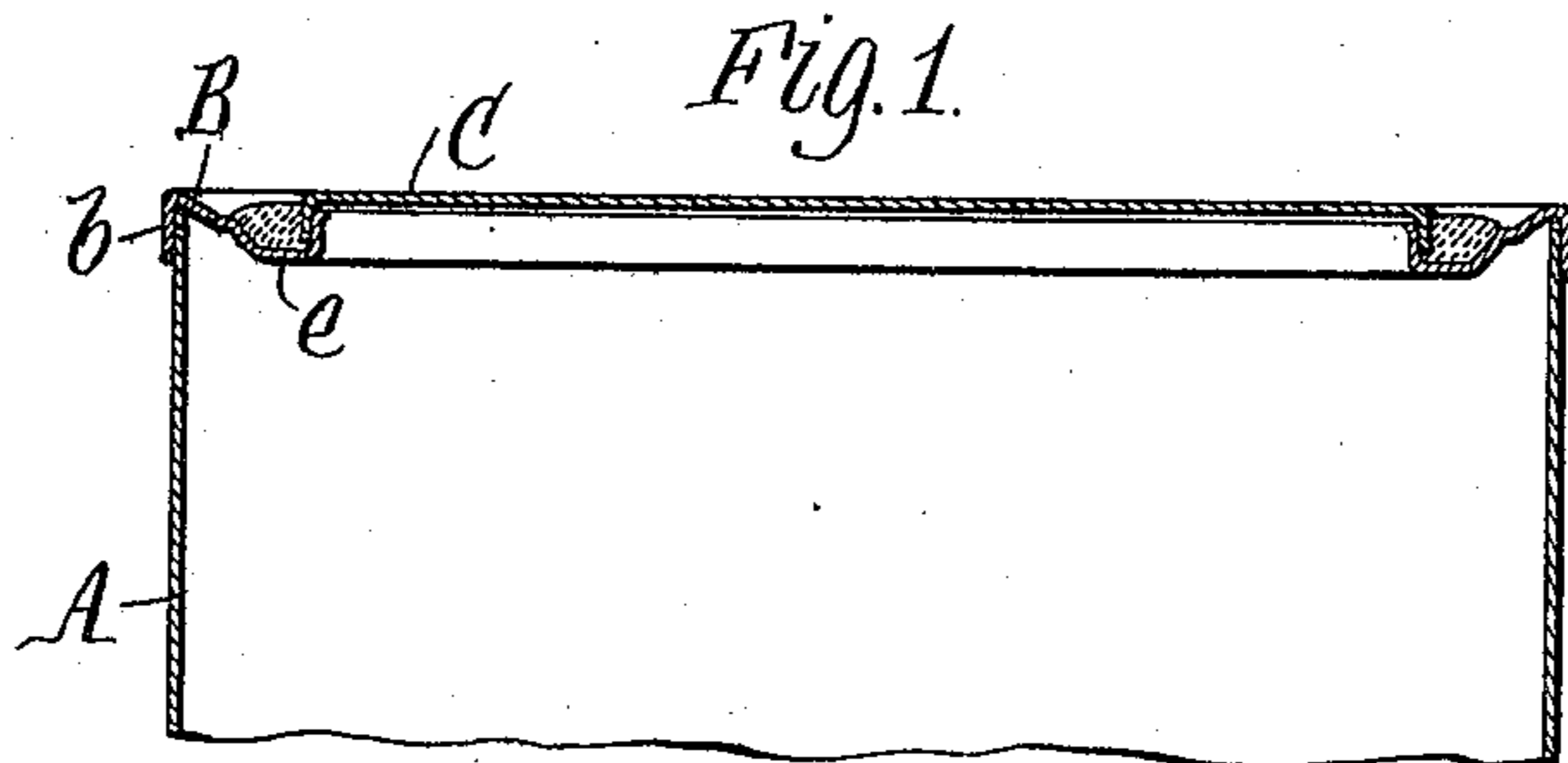


O. J. JOHNSON.
WAX SEALED CAN.
APPLICATION FILED FEB. 5, 1910.

982,070.

Patented Jan. 17, 1911.



Witnesses:
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UNITED STATES PATENT OFFICE.

OLIVER J. JOHNSON, OF WHEELING, WEST VIRGINIA.

WAX-SEALED CAN.

982,070.

Specification of Letters Patent.

Patented Jan. 17, 1911.

Application filed February 5, 1910. Serial No. 542,366.

To all whom it may concern:

Be it known that I, OLIVER J. JOHNSON, a citizen of the United States, residing at Wheeling, in the county of Ohio and State of West Virginia, have invented a new and useful Improvement in Wax-Sealed Cans, of which the following is a specification.

This invention relates to tin cans of that sort in which the cap or cover is secured in place over the filling opening or mouth of the can so as to produce a hermetic closure by sealing wax or analogous material which is poured around the edge of the cap while in a fluid condition and is allowed to harden. In these cans, as heretofore made, the top, head or upper end of the can has an upwardly projecting lip surrounding its mouth over which the cap fits and from the base of which the top slopes upwardly at a gradual inclination toward the outer edge of the top, thus forming around the lip a depression or groove having a gradually sloping bottom in which the sealing wax is molded. With a groove or depression of this form no wall or part is provided at the outer edge of the groove which can serve to confine or retain the sealing wax intact around the edge of the cover, and the sealing wax, which is friable, is apt to be, and frequently is, broken away or dislodged so as to make a leak in the cover joint.

The object of this invention is to produce a can in which the cover is adapted to be secured with sealing wax or analogous sealing material, and in which the groove for the sealing material is made of a shape which will securely retain the sealing material and positively prevent it from being dislodged by the rough handling or jarring of the can, and will, at the same time, confine the sealing material in a mass of regular, well defined shape, thereby greatly improving the appearance of the sealed can.

In the accompanying drawings: Figure 1 is a section of the upper portion of a sealed can embodying the invention. Fig. 2 is a plan view thereof. Fig. 3 is a fragmentary section thereof, on an enlarged scale. Fig. 4 is a similar view of a can having a sealing groove of slightly different form. Fig. 5 is a similar view of a can of the construction heretofore used.

Like reference characters refer to like parts in the several figures.

A represents the body of a can, B the top, head or upper end thereof, and C the can

cap or cover. The body of the can may be of any ordinary construction, and the top, head or upper end B is preferably made, as usual, of a separate ring or piece having a flange *b* at its outer edge which embraces and is soldered to the upper end of the body. The cap or cover C is also of the ordinary form used with these wax-sealed cans and has a depending edge flange *c*, Figs. 3 and 4, which surrounds and fits tightly on the upright lip *c'* which projects upwardly from the top around the mouth of the can.

In the wax sealed cans heretofore made, as shown in Fig. 5, the top slopes gradually upward at *d* from the base of the lip *c'* practically to the outer edge of the top, the inclination being substantially the same from the lip to the outer edge of the top. A wide recess for the wax is thus formed around the lip *c'*, which recess has a sloping bottom and gradually decreases in depth toward its outer edge. In this construction there is no provision for confining the sealing wax, and it will spread out on the top of the can in an irregular mass, having a thin fragile outer edge, so that the sealing wax will be readily broken away from the cover in the event of the can being dropped or accidentally knocked against an object.

In the improved construction embodying this invention, the top is formed with a groove for the sealing wax or material which has a substantially horizontal or non-sloping bottom *e* and a steep or abrupt outer wall for confining the sealing wax or material. This outer wall can be straight with a steep inclination, as shown at *f* in Fig. 3, or it can be of somewhat different shape, for instance, concaved or rounded, as shown at *f'* in Fig. 4, but the groove should be deep at its outer edge to insure that the molded body of sealing wax will have a thick, strong outer edge, and the outer wall of the groove should be abrupt enough to securely confine the body of sealing wax or material and prevent it from being broken away from the cap. If this outer wall of the groove were made perpendicular it would be very difficult to remove the sealing wax or material for opening the can, and the outer wall is therefore preferably made with a steep inclination, or rounded as shown in Figs. 3 and 4. As the cap fits tightly on the lip *c'* it is held firmly in place by friction and cannot shift its position on the can. The sealing wax is therefore confined be-

tween a rigid upright inner wall formed by the flange *c* of the cap and the opposite abrupt outer wall *f* or *f'* of the wax groove so that it is not possible to break the sealing wax loose by jarring the can, as in the old construction in which there is no confining wall for the wax and the outer edge of the body of wax is relatively thin and fragile.

The closure construction described differs essentially from that employed in packers' cans, in which the caps are soldered in place, for in these cans the cap and the lip are of different shape and the cap rests loosely over the lip so that the solder will sweat properly in between the cap and lip to make the joint. Such a cap and lip construction would not do for a wax sealed can, even if the groove surrounding the lip were made more or less similar in shape to that herein described.

I claim as my invention:

1. A metal can having a head provided with a mouth surrounded by an upright lip, and a cap which has a flange surrounding and fitting said lip to frictionally retain the cap on the can, the head of the can having a relatively deep groove for plastic sealing material surrounding said lip and provided with a substantially horizontal bottom and a relatively abrupt outer wall between which and the flange of the cap the sealing material is confined, substantially as set forth.

2. A metal can having a head provided

with a mouth surrounded by an upright lip, and a cap having a flange which surrounds and fits said lip to frictionally retain the cap on the can, the head of said can having an annular depression surrounding said lip and provided with an outer wall having a relatively abrupt lower portion and a less abrupt upper portion, the portion of said depression between the abrupt lower portion of said outer wall thereof and the flange of the cap forming a confining groove for plastic sealing material, substantially as set forth.

3. A metal can having a separate piece head secured to the upper end of the can body and provided with a mouth surrounded by an upright lip, and a cap having a flange which surrounds and fits said lip to frictionally retain the cap on the can, said head having a relatively deep annular groove for plastic sealing material surrounding said lip and spaced inwardly from the side walls of said body and provided with a substantially upright outer wall between which and the flange of the cap the sealing material is confined, substantially as set forth.

Witness my hand, this 28th day of January, 1910.

OLIVER J. JOHNSON.

Witnesses:

J. F. BYCOTT,
J. O. PARK.