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C. J. AULBACH

CONTAINER

Filed Nov. 15, 1924

Fig. 1.

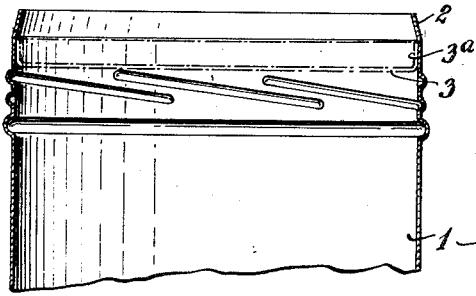


Fig. 2.

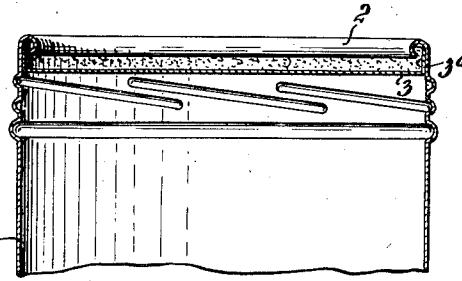


Fig. 3.

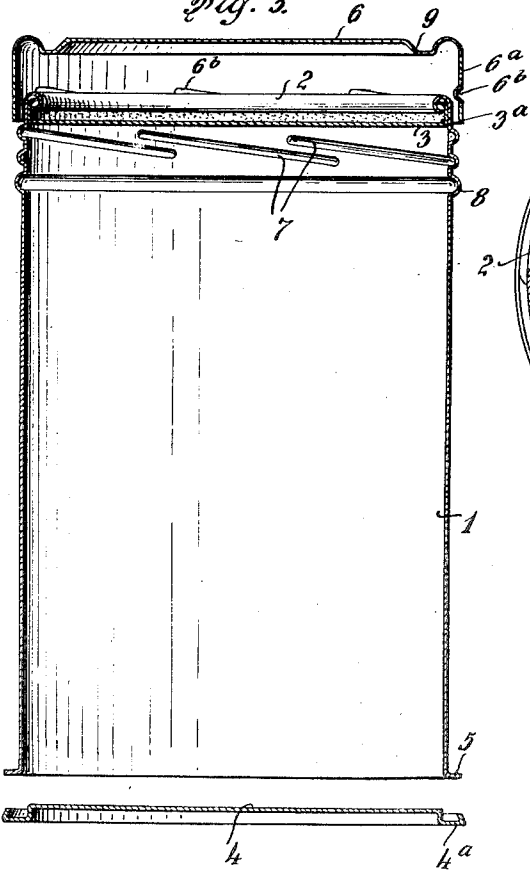


Fig. 4.

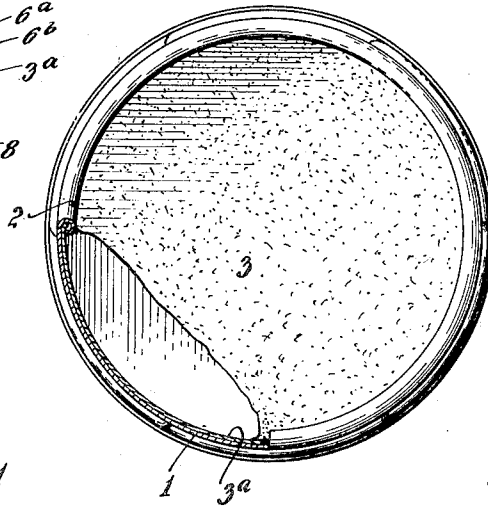
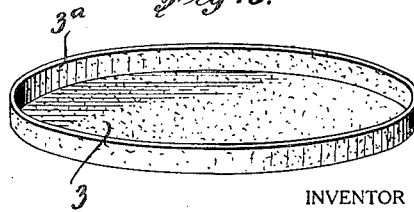


Fig. 5.



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## CONTAINER.

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My invention relates to improvements in means for sealing the ends of containers, particularly of the class commonly called tins, whereby the contents will be securely retained in an air-tight manner and access may be had to the contents by breaking a frangible sealing means.

In carrying out my invention I provide a container, preferably in circular form and of relatively thin sheet metal, and within one of its open ends I insert a sealing member, such as a disk having a flange extending toward the adjacent edge of the container body, such edge having preferably been indented slightly inwardly, and I then curl such edge of the body inwardly against the flange of the sealing member to force such flange tightly against the can body to provide a substantially air-tight or hermetic seal between such body and flange, whereby the flanged sealing member provides a tight closure for the corresponding end of the can body. The opposite end of the body having been left open, permits the contents of the body to be filled through such end and after charging the body a bottom or closure is applied to the body, as by double-seaming the same thereon or in any other suitable way to secure said parts together.

My invention comprises novel details of improvement that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part hereof, wherein

Fig. 1 is a sectional detail of a portion of a container body illustrating steps in the construction of my improvement;

Fig. 2 is a similar view illustrating a further step;

Fig. 3 is a sectional view illustrating another step in producing a container body provided with my improvement;

Fig. 4 is a partly sectional plan view of part of Fig. 3, the cover being omitted; and

Fig. 5 is a perspective view of the breakable sealing means.

Similar numerals of reference indicate corresponding parts in the several views.

The container or can body is illustrated at 1 and may be of any suitable construction, such as an ordinary so-called tin can having a longitudinal seam or a drawn shell, of one or more pieces, in the usual way. In constructing my improvement both ends of

the can body are open and the open end to be sealed is indented or pressed inwardly slightly, as indicated at 2, commonly called a "ducked edge". When the edge 2 has been bent inwardly or ducked, a sealing member or disk 3, having a laterally disposed flange 3<sup>a</sup>, is inserted in the open end, so that the body of the sealing member or disk extends transversely within the open end of the container body and the flange 3<sup>a</sup> extends along said body, substantially in contact with its inner wall adjacent to the open end thereof with the outer edge of the flange adjacent to the inner portion of the ducked edge of the container, substantially as indicated in dotted lines in Fig. 1. After the sealing member or disk 3 has been inserted in the can body the indented edge portion 2 thereof beyond the sealing member is curled or rolled inwardly, so that the inner edge of the portion 2 will be turned outwardly and will engage the flange 3<sup>a</sup> of the sealing member or disk and force the same tightly against the adjacent inner surface of the container body, as indicated in Fig. 3. A convenient means for curling the portion 2 of the container body against the flange 3<sup>a</sup> of the sealing disk is to first, in a suitable machine, partly curl the portion 2 into place without forcing it tightly against the flange 3<sup>a</sup>, as indicated in Fig. 2, and then the container body is passed to a second station in the machine where a second set of curling rolls engages the edge portion 2 that has been partly curled and forces it tightly against the flange 3<sup>a</sup>, thus locking such flange tightly between the inner edge of the body portion 2 and the adjacent surface of the container body, as shown in Fig. 3.

The construction described provides a substantially air-tight or hermetic seal between the flange 3<sup>a</sup> of the sealing member or disk and the container body. The contents of the container body may be charged into the same through the open end thereof opposite the seal 3, and thereafter a suitable bottom or head 4 may be attached to such charging end of the body in any suitable or well known manner, as by double-seaming the flange 4<sup>a</sup> of said bottom to a flange 5 at the charging end of the body, in a well known way.

When it is desired to extract the contents of the container it is merely necessary to break or cut out the sealing member 3, which

may be of paper, metal, or other frangible, breakable or severable air-tight material. To protect the seal 3 during its transportation, as well as to afford a means to keep the container closed, a suitable cover or cap 6 may be detachably applied to the container body. In the example illustrated the cover 6 has a flange 6<sup>a</sup> provided with threads 6<sup>b</sup> to cooperate with threads 7 on the container body, shown located upon the container body in such a manner that the threads 6<sup>b</sup> and 7 will cause the cover to be retained with a tight fit on the body. The cover may be readily removed by rotating it reversely. An indenture or depression 9 in the cover, adapted to fit against the inner surface of the edge portion 2 of the container body, provides a tight fit to exclude air when the seal 3 has been broken or removed. The construction of the cover with the threads and indenture shown in the drawings is similar to the container disclosed in Letters Patent of Charles Gueritey, No. 1,443,682, issued January 30, 1923. It will be understood that a slip cover or any other desired form of detachable cover for the can body may be provided.

While it will be understood that after the open end portion of the body has been ducked inwardly and the sealing means inserted the top portion of the ducked edge of the body is inverted and squeezed against the flange 3<sup>a</sup> of the sealing member, and I have described several steps to accomplish the purpose specified, my invention is not limited to such steps since the curling in of the ducked edge of the body against the flange 3<sup>a</sup> may be accomplished in any other desired way.

My invention is not limited to applying the seal to a body having both ends open, since the seal may be applied to a body to which the head or bottom 4 has been previously attached, so that after the contents have been charged into the body the sealing member 3 may be applied in manner before set forth, the last named body including one having the bottom attached by seaming, sol-

dering or in any well known way, or one having the bottom produced by suitable drawing tools for drawing a body with its sides and bottom in one piece of material.

Having now described my invention what I claim is:

1. A container comprising a body having an inner non-metallic sealing member adjacent to one end, the sealing member having a flange extending along the inner wall of said body, the container having a portion adjacent to its open end curled inwardly and projecting outwardly against the flange, the flange being substantially uncurled, the container portion having its free edge pressing the flange against said wall of the body.

2. A container comprising a body having an inner sealing member adjacent to one end, the sealing member having a flange extending along the inner wall of said body, the container having a portion adjacent to its open end curled inwardly and projecting outwardly against the flange, pressing the latter against said wall of the body, the sealing member being of paper and the inner edge of the curled portion of the body pressing the flange of the sealing member against the container body.

3. The method of constructing a container having an inner paper sealing member consisting in inserting a sealing member having a flange within the body and indenting an edge portion of the body beyond the sealing member, and curling the indented portion of the body inwardly and turning its edge outwardly against said flange and pressing the latter tightly against the container body.

4. The method of constructing a container having an inner paper sealing member consisting in indenting an edge portion of the body adjacent to an open end thereof, inserting a paper sealing member having a flange within the body, and curling the indented portion of the body inwardly and turning its edge outwardly against said flange and pressing the latter tightly against the container body.

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