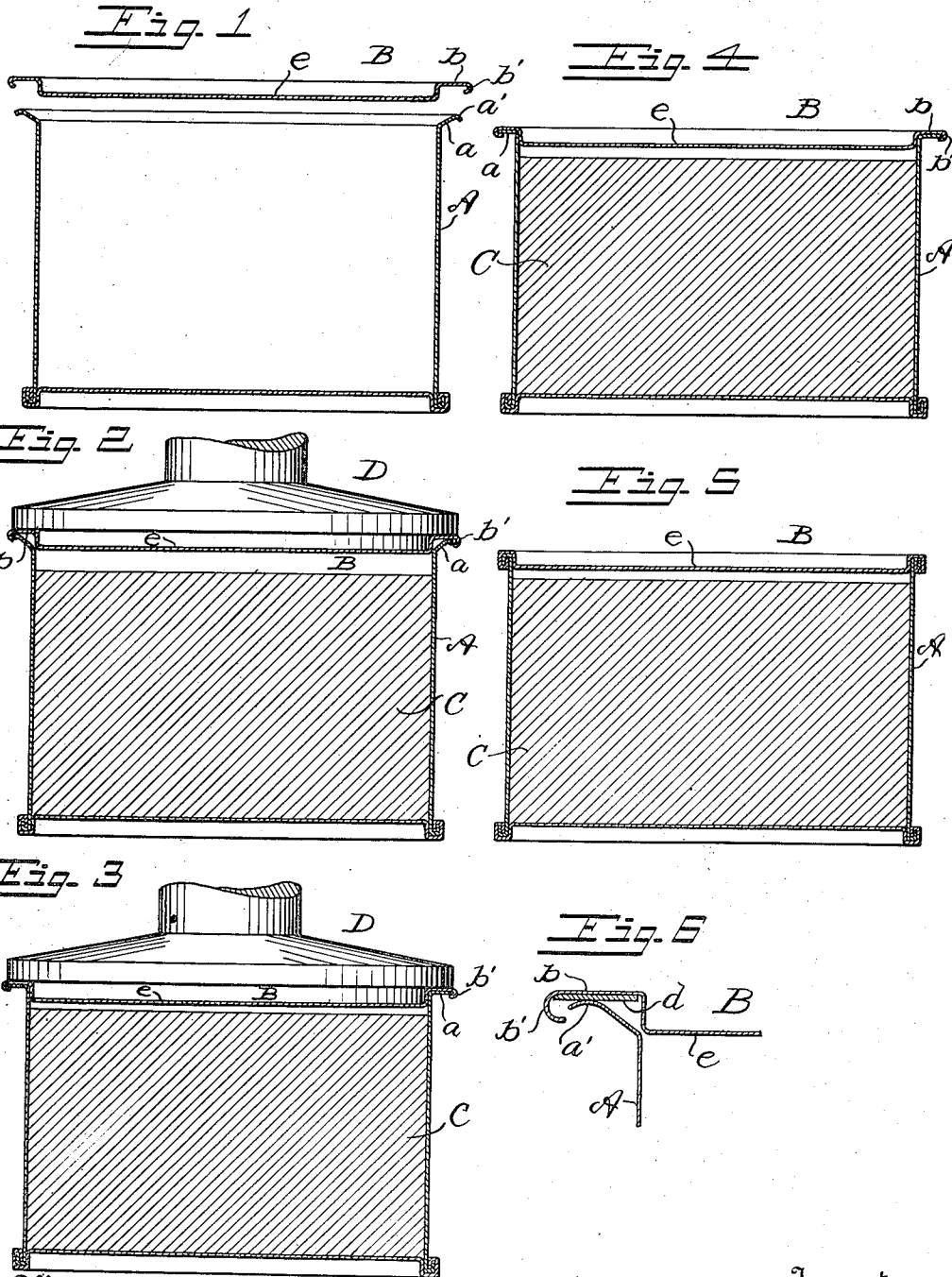


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CAN FOR PROCESSING AND OTHER PURPOSES.
APPLICATION FILED FEB. 5, 1916.

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Patented Nov. 14, 1922.



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UNITED STATES PATENT OFFICE.

PAUL W. FLEISCHER, OF WEST HOBOKEN, NEW JERSEY, ASSIGNOR TO AMERICAN CAN COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

CAN FOR PROCESSING AND OTHER PURPOSES.

Original application filed August 27, 1913, Serial No. 786,849. Divided and this application filed February 5, 1916. Serial No. 76,343.

To all whom it may concern:

Be it known that PAUL W. FLEISCHER, a citizen of the United States, residing at 370 West St., West Hoboken, in the county of Hudson and State of New Jersey, has invented certain new and useful Improvements in Cans for Processing and Other Purposes, of which the following is a specification.

This invention relates to an improved form of can or container, for carrying out the improved method of packing food products which is set forth in my application therefor, Serial #786,849, filed August 27, 1913, and the present application is a division of the said former application, in which the can is also set forth.

The present improvement has for its objects to facilitate the rapid and accurate partial closure of the can so as to leave escape vents between the cover and body of the can, the cover, however, being permanently locked in position ready for the final double seaming and hermetic closing operation.

With such objects in view, as well as other advantages which may be incident to the use of the improvements, the invention consists in the parts and combinations thereof hereinafter set forth and claimed, with the understanding that the several necessary elements constituting the same may be varied in proportions and arrangement without departing from the nature of the invention.

In order to make the invention more clearly understood there is shown in the accompanying drawings means for carrying the same into practical effect, without limiting the improvements, in their useful applications, to the particular constructions which, for the purpose of explanation, have been made the subject of illustration.

In the said drawings:—

Fig. 1 is a sectional view of the empty can and its cover.

Fig. 2 is a sectional view of the filled can with its cover applied and shown in the act of being provisionally secured by the downward pressure of a suitable instrumentality.

Fig. 3 shows the completion of the act of the step started in Fig. 2.

Fig. 4 shows the filled can with its cover provisionally secured thereto as in Fig. 3 as when passed into the sterilizing chamber.

Fig. 5 shows the filled can after the same

has been sterilized and the seam between the cover and can body completed by double-seaming rolls.

Fig. 6 is a vertical sectional view on an exaggerated scale, designed to show the formation of the can flange in its relation to the ring liner, and the cover, the parts being in the position which they assume just before the preliminary or partial closing operation is begun.

In the use of the modern sanitary can it has been customary to temporarily secure the flanged, curled and packing-charged cover to the flanged filled can by snapping the cover upon the can, or by passing the can and cover through the first operation of forming the double seam, or by pinching the cover and can flange together at several points in its circumference, the purpose being always to secure the cover to the can in such manner as to permit the escape of the expanded vapors and gases from the can during the sterilizing heat or processing operation, while at the same time the solid contents of the can are kept from exuding or escaping. The present invention, relating as it does to this particular feature of packing of food products, contemplates the securing of the cover to the can without snapping, without preliminary roller operation, and without pinching the preliminary seam but by a simple downward pressure upon the cover so exerted as to bend outward and expand in diameter the can flange and thus cause said flange to interlock with the incurled edge of the cover. The special advantage of this method lies in the circumstance that it may be applied without change to the ordinary sanitary can and its cover as now largely made, and further in the circumstance that this manner of assembling together and uniting the filled can and its cover is one that lends itself to rapid operation and to the employment of automatic machinery, and to the further circumstance that when the filled can and its cover are thus united, and after passing through the sterilizing process, the provisional union between the can and cover is left in such form that the ordinary double-seaming rolls for finally closing and sealing the joint can operate perfectly in the ordinary manner. In the said drawing, A represents an ordinary sanitary can having the flange a

adapted to be made of greater diameter at its edge by bringing it more nearly into horizontal alinement with the top of the can body. B represents the ordinary sanitary can cover having the flange *b* and incurled peripheral projecting fold *b'* which, as is well known, is placed upon the outer edge of the can cover to guard the packing material, with which this part of the cover is coated, said packing material consisting usually of some flexible adhesive coating and which may be of many kinds. The edge-to-edge or interior diameter of the said incurled flange *b* is not less and may be a little greater than the edge to edge diameter of the body flange *a* before the latter has been pressed down. The preserved food contained in the can is represented at C. D represents a suitable instrument for pressing the cover upon the can.

The operation is as follows: First, the can A is supplied with the contents C to be preserved; second, the cover B is placed loosely upon the can with the flange *a* of the can resting upon the flange *b*; third, in this condition the cover is pressed smartly down upon the can flange, causing the latter to bend from its inclined position toward the horizontal and thus to expand outwardly into the condition shown in Fig. 3 and Fig. 4 of the drawing, or sufficiently so that the can and cover are locked together in such manner that the vapor contents and gases expanding may find their way out through the joint but the solid contents will be retained; fourth, the filled can and its provisionally locked cover are subjected to the sterilizing or processing heat; fifth, finally the filled can fully sterilized and its provisionally locked cover are sealed together by forming the provisional seam into the hermetic final seam illustrated in Fig. 5, by the application of the ordinary double-seaming rolls or operation.

It sometimes happens that the packing material is not sufficiently set to resist the scraping action of the flange *a* upon the under surface of the cover flange *b*. In such case the scraping action can be quite overcome by slightly rounding or curling the upper edge of the outstanding can body flange *a*, as shown at *a'*. The curvature need be so slight in actual practice that in its least form it could hardly be indicated in the drawing. The shape and mode of opera-

tion of the rounded edge *a'* is shown on an enlarged scale in Fig. 6, in which figure the packing material is indicated at *d*. A paper ring liner is a known form of such packing, and the said rounded shape of the body flange will prevent such a paper liner from being abraded, torn or crumpled out of shape, any of which injuries would be likely to result in a seam of non-hermetic character.

The cover has or may have the usual depressed portion *e* to fit closely within the mouth of the can, and to facilitate the operation of the double seaming devices.

What is claimed is:

1. A sheet metal container for processing and subsequent hermetic sealing, comprising a body and a cover adapted to be first loosely secured to the body after the can is filled and to be thereafter hermetically double seamed to the body, said body having its edge formed with an upwardly and outwardly extending flange which becomes of greater diameter when it is flattened down, and said cover having a vertical shoulder to enter within and engage the vertical wall of the body and a flat flange extending outwardly from said shoulder and terminating in a downwardly and inwardly extending curled edge of an internal diameter greater than the external diameter of the said body flange before it is flattened down, and having a packing on the under side of said flat flange, whereby the cover may be secured to the body by downward pressure without producing a hermetic seal.

2. A sheet metal container for processing and subsequent hermetic sealing, the open end of the body of which is formed with an upwardly and outwardly extending flange, combined with a cover having a flange adapted to be pressed down upon the said flange of the body, and having at its edge a downwardly and inwardly bent curl arranged to pass the edge of the body flange with which curl the edge of the said body flange interlocks loosely when the cover is pressed against the body flange, the body-engaging side of the cover flange having applied thereto a packing of relatively soft and hermetic-sealing material, and the body flange having a rounded edge for engaging said packing.

In testimony whereof I affix my signature.

PAUL W. FLEISCHER. 110