

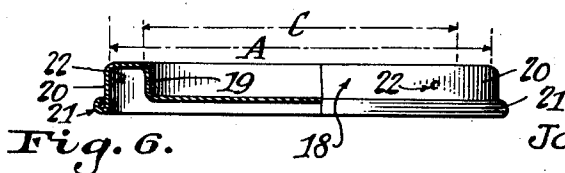
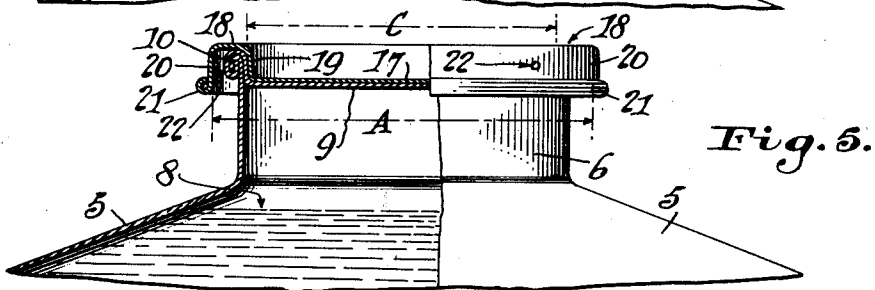
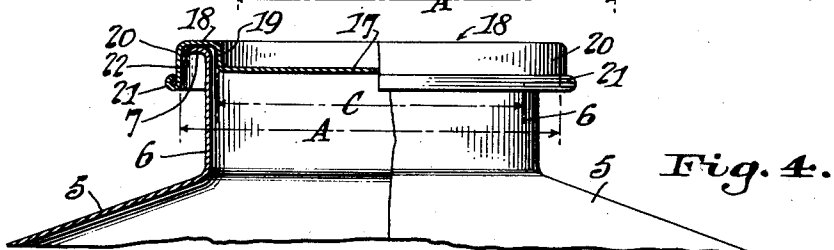
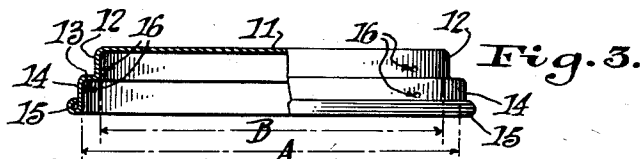
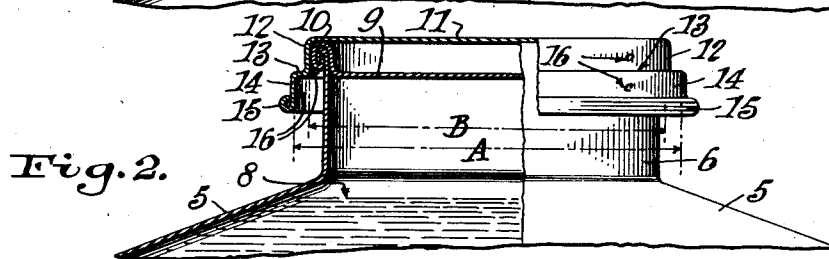
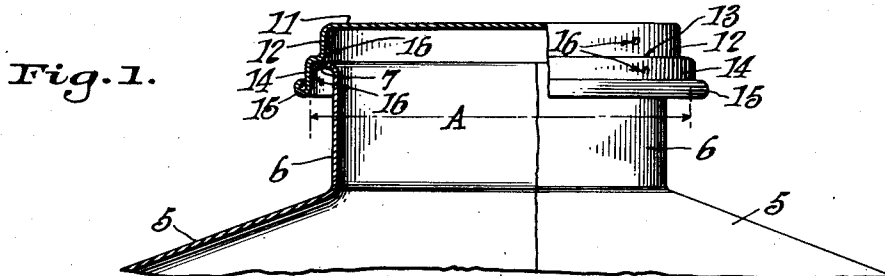
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J. HAYCOCK

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CONTAINER AND CLOSURE STRUCTURE

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Inventor

John Haycock

By

Mason & Porter
Attorneys

UNITED STATES PATENT OFFICE

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CONTAINER AND CLOSURE STRUCTURE

John Haycock, New York, N. Y., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

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3 Claims. (Cl. 220—42)

The invention relates to containers adapted for the packaging of beverages or the like, and primarily seeks to provide a novel combination container and closure structure in which is included a dust cap closure member mountable upon the container before it is filled and sealed or after it has been filled and sealed and opened for use.

Containers of the type stated usually are formed of metal, and before being filled, each includes an outwardly directed flange later to be rolled into the double roll seam by which the sealing closure is affixed to the filled container. These containers are usually shipped from the place at which they are manufactured to other places at which they are to be filled and sealed, and obviously it is desirable that provision be made to prevent the accumulation of dust in the containers following manufacture thereof and prior to filling. It is also desirable to provide means for closing a container which has been filled and sealed and then has had its double seamed closure seal broken to prevent partial use of the contents of the container against ingress of dust or foreign matter.

Therefore, it is an object of the invention to provide a novel closure structure, including a flange portion for embracing and gripping the outwardly directed flange of a container before it has been filled and sealed, for the purpose of protecting the container against ingress of dust, and another flange portion engageable with the double roll seam of the container after it has been filled and double roll seam sealed, so as to be held upon said sealed container and effective to protect the container from ingress of dust and foreign matter after the seal closure has been ruptured to permit partial use of the contents of the container.

Another object of the invention is to provide a closure of the nature stated in which both flange portions are effectively mountable in a single direction of application.

Another object of the invention is to provide a closure of the nature stated in which the flange portions include inwardly pressed retaining dimples.

Another object of the invention is to provide a closure of the nature stated in which the individually effective flange portions comprise the opposed inner and outer walls of an annular up-standing rib.

With the above and other objects in view that will hereinafter appear, the nature of the invention will be more clearly understood by following the detailed description, the appended claims, and the several views illustrated in the accompanying drawing.

In the drawing:

Figure 1 is a vertical cross-section and part

side elevation of a fragment of a non-filled, non-sealed container and a closure or dust cap thereon embodying the invention.

Figure 2 is a view similar to Fig. 1 showing the closure or dust cap applied to a filled and sealed container.

Figure 3 is a detail side elevation and part vertical cross-section of the dust cap shown in Figs. 1 and 2.

Figure 4 is a view similar to Fig. 1 illustrating a modified form of the dust cap.

Figure 5 is a view similar to Fig. 2 embodying the dust cap form of Fig. 4.

Figure 6 is a view similar to Fig. 3 of the form of dust cap embodied in Figs. 4 and 5.

In the drawing two forms of embodiment of the invention are illustrated, and the closure or dust cap included in each of these forms is equipped with two individual flanges effectively engageable in a single direction of application with the outwardly turned flange of an unfilled, non-sealed container or with a diameter of the double roll seam by which the filled container is sealed. Thus it is possible to apply either of these containers or dust caps in both of the positions stated without reversal of the cap. One form of the invention is illustrated in Figs. 1 to 3 of the drawing, and the other in Figs. 4 to 6.

The container generally designated 5 includes a pouring throat 6 which terminates at its upper open end in an outwardly directed flange 7 later to be rolled into the double roll seam by which the container is sealed. The outward diameter of the flange 7 is indicated at A.

After the container is filled with liquid or any other product being packaged, generally designated at 8, it is closed and sealed by a conventional form of closure 9 affixed in the conventional manner by a double roll seam 10. The external diameter of the double roll seam is indicated at B and the internal diameter provided by the double roll seam of the closure 9 is indicated at C. The container thus described is embodied in both forms of the invention illustrated in Figs. 1, 2, 4 and 5 of the drawing.

The dust cover proper includes a body 11 having a depending skirt 12 terminating at its lower end in an outwardly directed step or extension 13 which merges into a second, larger diameter depending skirt 14 terminating at its lower edges in a roll bead 15. The internal diameter of the skirt 14 is substantially the same as the external diameter of the container flange 7 and is indicated at A. The internal diameter of the skirt 12 is substantially the same as the external diameter of the seam 10 and is indicated at B.

The dust cap illustrated in Figs. 1, 2 and 3 of the drawing may be frictionally engaged with the container flange 7 before the container is filled

and sealed, as when it is being shipped from the plant in which it is manufactured to the plant in which it is to be filled and sealed, and will serve to protect the interior of the container against ingress of dust or foreign matter in the manner illustrated in Fig. 1 of the drawing.

After the container has been filled and closed in the manner illustrated in Fig. 2 of the drawing, the dust cap can be applied thereto so that the depending skirt 12 will frictionally grip the double roll seam 10. It is customary in using containers of the type disclosed to punch in or rupture the pouring neck closure 9 so that the contents of the container can be poured. The dust cap 17 also provides an effective closure for the container after rupture of its main closure 9 so as to protect the contents of the container from ingress of dust or foreign particles.

The frictional engaging surfaces of the dust cover skirts 12 and 14 may be made smooth if desired, but preferably they are equipped with a plurality of inwardly punched dimples 16 which will aid in retaining the cap against inadvertent removal over the container flange 7 or the double roll seam 10.

In the form of the invention illustrated in Figs. 4, 5 and 6 of the drawing, the dust cover includes a body portion 17 and an upstanding annular rib 18 composed of opposed walls 19 and 20, the latter terminating at its lower edge in a roll bead 21. The internal diameter of the wall 20 is substantially the same as the external diameter of the container flange 7 and is indicated at A. The external diameter of the wall 19 is substantially the same as the internal diameter of the container closure member 9 resulting from the formation of the double roll seam 10, and both of these diameters are designated C. This dust cover may also be equipped with retaining dimples 22 at the inner face of the outer wall 20 if desired.

Like the form of cover first described, the dust cover of Figs. 4 to 6 may be applied to the flange 7 of the unfilled, non-sealed container in the manner illustrated in Fig. 4, or to the filled and sealed container as illustrated in Fig. 5. In this form of dust cap also, application to the flange 7 and to the internal diameter of the closure 9 is accomplished in a single direction of application and without reversal of the dust cover.

It will be appreciated that by providing a dust cover which can be applied in either of the position stated without reversal, the outer surface of the dust cover, subject to the collection of dust and foreign matter, always is presented outwardly and therefore contamination of the product contained within the container is impossible.

It is of course to be understood that the details of structure and arrangement of parts may be variously changed and modified without departing from the spirit and scope of my invention.

I claim:

1. A sheet metal container having a laterally projecting flange at its opening which flange is adapted to be rolled into a double seam with the flange of a permanently applied closure member having a chuck receiving recess therein, a dust cover therefor, said dust cover being of larger diameter than the opening of the container and having two cylindrical surfaces of different diameters enclosed by a depending skirt at the pe-

ripheral edge of the container, the cylindrical surface of larger diameter being dimensioned so as to frictionally engage the outwardly projecting flange of the container before a closure is applied thereto for temporarily closing the container and preventing dust from entering same during shipment, the surface of smaller diameter being dimensioned so as to frictionally engage a wall of the double seam formed when attaching the permanently applied closure member to the flange of the container, whereby said cover member may be connected to the container and prevent accumulation of dust in the chuck recess of the closure member and adjacent to a pouring rupture when one is formed in said permanent closure to enable dispensing of contents of the container.

2. A sheet metal container having a laterally projecting flange at its opening which flange is adapted to be rolled into a double seam with the flange of a permanently applied closure member having a chuck receiving recess therein, a dust cover therefor, said dust cover including a top portion of larger diameter than the opening of the container and having a depending skirt at its peripheral edge, the lower portion of said skirt being offset outwardly so as to provide a depending portion of larger diameter, the lower portion of said skirt being dimensioned so as to frictionally engage the outwardly projecting flange of the container before a closure is applied thereto for temporarily closing the container and preventing dust from entering same during shipment, the upper portion of said skirt being dimensioned so as to frictionally engage the outer wall of the double seam formed when attaching the permanently applied closure member to the flange of the container, whereby said cover member may be connected to the container and prevent accumulation of dust in the chuck recess of the closure member and adjacent to a pouring rupture when one is formed in said permanent closure to enable dispensing of contents of the container.

3. A sheet metal container having a laterally projecting flange at its opening which flange is adapted to be rolled into a double seam with the flange of a permanently applied closure member having a chuck receiving recess therein, a dust cover therefor, said dust cover being of larger diameter than the opening of the container and having a downwardly open peripheral channel defined by spaced concentric cylindrical walls, said cylindrical walls presenting cylindrical surfaces of different diameters, the outer wall being dimensioned so as to frictionally engage the outwardly projecting flange of the container before a closure is applied thereto for temporarily closing the container and preventing dust from entering same during shipment, the inner wall of said dust cover being dimensioned so as to frictionally engage a wall of the seam formed when attaching the permanently applied closure member of the flange of the container, whereby said cover member may be connected to the container and prevent accumulation of dust in the chuck recess of the closure member and adjacent to a pouring rupture when one is formed in said permanent closure to enable dispensing of contents of the container.

JOHN HAYCOCK.