Nov. 28, 1939. W. G. PLUMB 2,181,340

METAL CONTAINER

Filed July 20, 1937

FIG. 1.

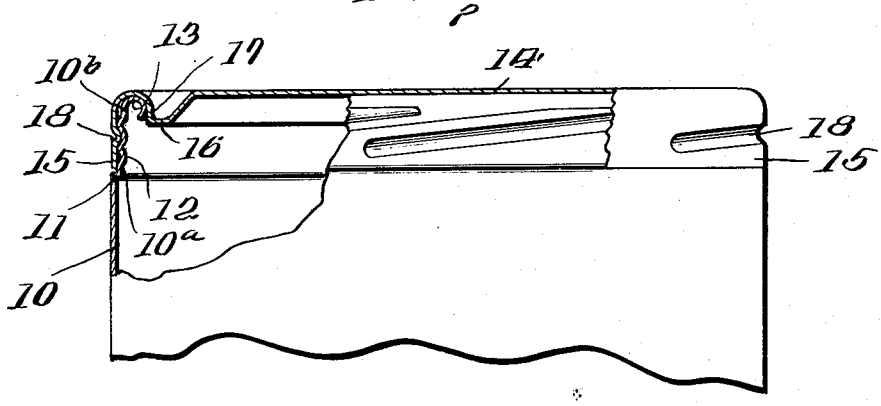


FIG. 2.

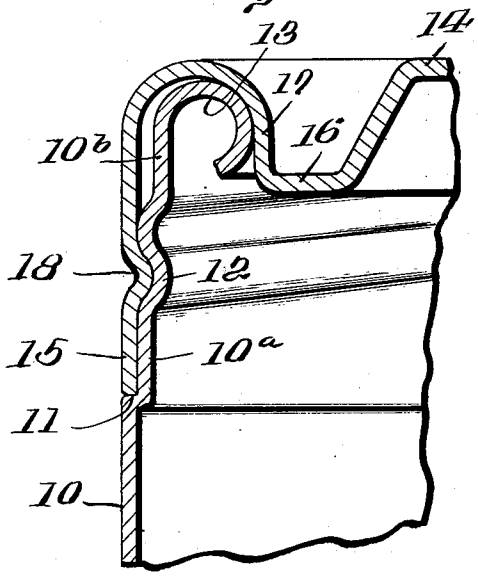
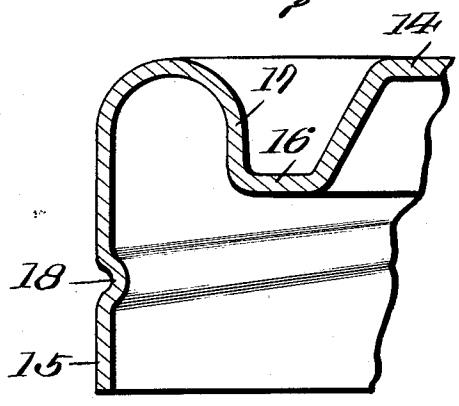


FIG. 3.



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METAL CONTAINER

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Application July 20, 1937, Serial No. 154,640

1 Claim. (Cl. 220—39)

The present invention relates to new and useful improvements in metal containers and more particularly to improvements in a metal container adapted to be closed by a detachable cover which is provided with a depending flange overlying the end of the container.

An object of the present invention is to provide an improved container of the above type wherein the cover flange and the body wall of the container therebelow are in alignment.

A further object of the invention is to provide a container of the above type wherein the body wall of the container within the cover flange is inwardly offset to accommodate the cover flange so that the external diameter of the closed container remains uniform.

A still further object of the invention is to provide a container of the above type wherein the inwardly offset portion of the body wall of the container is provided with inwardly projecting inclined grooves which constitute threads for receiving inwardly projecting ribs on the cover flange.

The above and other objects of the invention will in part be obvious and will be hereinafter more fully pointed out.

In the accompanying drawing:

Fig. 1 is a fragmentary side view, partly in section, of the container body.

Fig. 2 is an enlarged fragmentary view, in section, showing the assembled cover and container body.

Fig. 3 is an enlarged fragmentary view, in section, of the cover.

The invention contemplates generally the provision of a container which is closed by a cover having a depending flange overlying the body wall of the container around the open end thereof and which, when so closed, will present an outer surface of substantially uniform diameter. To this end, the body wall of the container is offset inwardly around the open end thereof to receive the cover flange. The offset is approximately the thickness of the cover flange so that the flange and the body wall of the container therebelow are in substantial alignment. The container is illustrated as being cylindrical and the offset portion of the body wall is curled inwardly to provide a strengthening bead which fits snugly within a recess in the cover. The offset wall portion is provided with inwardly extending inclined grooves which form threads receiving inwardly projecting ribs on the cover flange.

Referring more in detail to the accompanying drawing, the cylindrical body wall 10 of the container is inwardly offset, as at 11, below the open end thereof. The inwardly offset wall portion 10*a* is provided with inclined grooves 12 which extend inwardly and form threads. The upper portion 10*b* of the wall is of a diameter slightly less than the lower portion 10*a* and is curled within the container to provide a strengthening bead 13. The threads formed by the grooves 12 terminate in the upper wall portion 10*b* below the bead 13.

The cover 14 is provided with a depending flange 15, the thickness of which is substantially the same as the offset 11, so that the outer surface of the closed container remains uniform. The cover 14 is shaped to provide an annular depression 16, the outer wall 17 of which forms with the flange 15 a recess. The bead 13 on the container body is adapted to snugly fit with the recess between the flange 15 and the wall portion 17. When the container is closed, the wall portion 17 prevents the bead 13 from moving inwardly, thus strengthening the offset wall portion 10*a*.

The depending flange 15 is provided with inwardly projecting ribs 18 which are inclined symmetrically with respect to the grooves 12 on the wall portion 10*a*. The upper wall portion 10*b*, being of lesser diameter than the lower portion 10*a*, permits the ribs 18 on the cover flange to pass thereover when the cover is placed on the container so that the ribs will fit within and follow the grooves 12 on the container body.

When the cover 14 is screwed down, the bottom edge of the cover flange 15 will abut against the offset 11 and the bead 13 will snugly fit in the recess formed between the portion 17 and the cover flange. The cover flange 15 is thus disposed in alignment with the body wall 10 so that the outer diameter of the closed container is uniform. The outer wall 17 of the recess 16 in the cover serves as an abutment or stop to maintain the bead 13 in position and to thus strengthen the offset wall portion of the container.

It is to be clearly understood that minor changes in the details of construction and arrangement of parts may be made without departing from the scope of the invention as set forth in the appended claim.

What is claimed is:

A sheet metal container comprising a cylindrical body portion having the upper open end thereof rolled inward to form a hollow bead, a cover for said container having a central depression forming a wall adapted to contact with the inner portion of the hollow bead, said cover hav-

ing a depending flange adapted to extend down over the body wall, said body wall being provided with inwardly projecting portions forming inclined thread grooves which terminate below the top of the can body, said cover flange having inwardly projecting inclined ribs fitting within and adapted to follow said thread grooves, said body wall in the region extending from the upper ends of said threads to the lower end of the cover flange being offset inwardly from the body wall therebelow the thickness of the body wall, and said flange being dimensioned so as to fit closely to said threads in the region containing the threads and therebelow so that the outer diameter of the container in the region of the depending cover flange and the body wall therebelow are of substantially the same diameter, said body wall in the region above said threads being further offset inwardly so as to permit the ribs on the cover flange to pass over said portion of the body wall and enter the thread grooves.

WALTER G. PLUMB.