Nov. 20, 1956 J. R. LEWIS 2,771,213

STACKING CAN

Filed Nov. 25, 1953

Fig. 1.

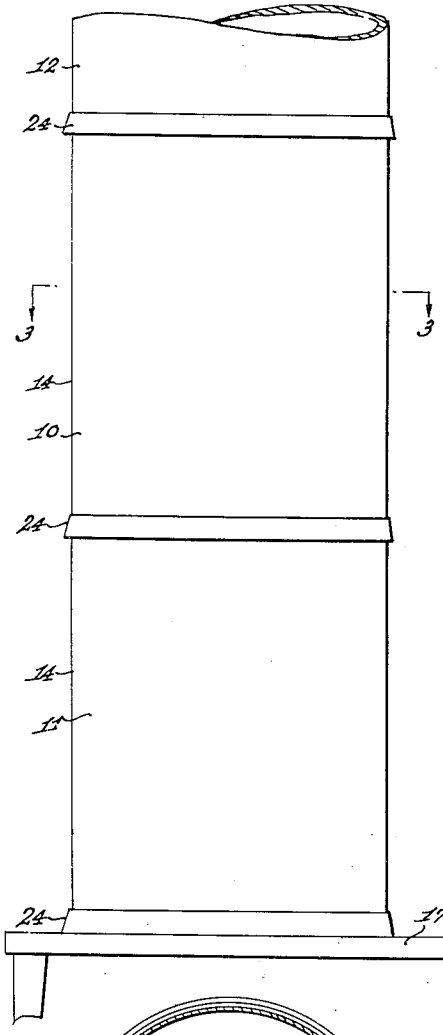


Fig. 2.

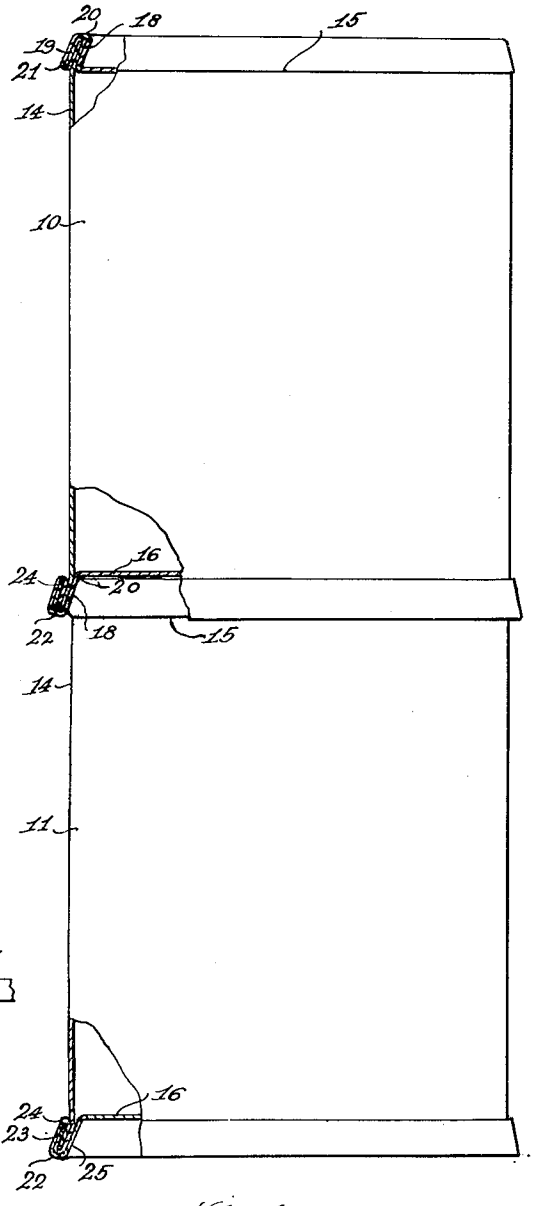


Fig. 3.

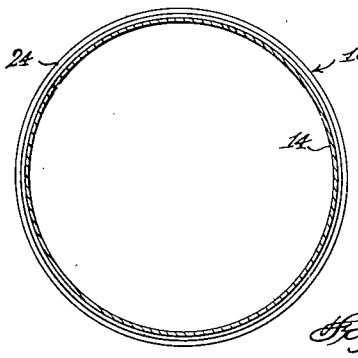
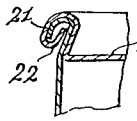


Fig. 4.



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2,771,213

Patented Nov. 20, 1956

2,771,213

STACKING CAN

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Application November 25, 1953, Serial No. 394,309

1 Claim. (Cl. 220—97)

The present invention relates to containers and specifically to sheet metal cans that are used for packaging food and the like. In the display of canned goods in stores, canned oil in garages and gas stations and other merchandise, where it is desired to stack one can upon another, difficulty has been found in that cans having the same size top and bottom will not stack readily and are easily upset from their towered display.

The principal object of the invention is to provide a container having a flared outwardly skirt at one end and the other end having an inwardly matching shoulder, and to provide a method of making such nesting or complementary stacking ends on the container.

Another object of the invention is to provide such a design of the component parts of the container that little change would be necessary in the manufacturing equipment of the can companies.

A still further object of the invention is to provide a design for a can which when purchased and opened by the consumer could be opened by the usual rim-engaging rotary wall-type of can opener.

Another object of the invention is to provide a can having nesting ends for convenient stacking which can be filled with food or other material on the present day equipment of can companies with little or no change in the sealing equipment.

Briefly described, the invention consists of a flared bottom on a tin can in which the overlap of the bottom insert is outwardly reversed and enclosing the skirt of the can cylinder, the outward flare exactly matching an inwardly rolled edge of an adjacent can top, the lid of which is struck upwardly and outwardly and reversed to encompass the top skirt of the container. The conventional means of sealing the top and bottom to the cylinder are used namely, that of solder, plastic seal, or pressure, as the case may be.

These and other objects of the invention will be fully apparent from consideration of the following description when taken in connection with the annexed drawings, in which:

Fig. 1 is a plan view in elevation of two cans and a portion of a third as stacked on the shelf.

Fig. 2 is a plan view in elevation and partly in section showing the rolled construction of the top and bottom of two cans.

Fig. 3 is a sectional view showing on line 3—3 of Fig. 1.

Fig. 4 is a fragmental view in section of a top corner of a can.

There is shown at **10**, **11**, and **12**, three substantially identical cans to which this invention has been applied. Each can **10**, **11**, and **12** consists of a cylindrical wall **14** having a top **15** and a bottom **16**.

The invention resides in the manner in which the top **15** and bottom **16** are secured to the cylindrical wall **14**, so as to enable the cans **10**, **11**, and **12** to stack securely on

each other and be supported in a vertical array on a table or shelf **17**. The outer edge **18** of the disc, from which the top **15** is made on conventional can-making machinery in the first of two operations which seal it to the wall **14**, is first bent upwardly at substantially a right angle **19**, then outwardly and downwardly and around to a lip **21** under the top edge of the wall **14** which has been formed into an outwardly facing hook **22**. The second operation compresses the lip **21** within the hook **22** and leaves the corner in a vertically extending bead. The present invention contemplates altering the second step of the operation to the extent of shaping the corner to an inwardly canted bead or edge as shown in somewhat enlarged form in Figs. 2 and 4.

The bottom **16** is formed in a similar manner, except that in the second operation the bead or edge is compressed into an outwardly flared bead or edge of substantially the same degree of flare outward as the degree of flare inward of top **15**. In the similar first operation, bottom **16** is formed into an upwardly and back-in-upon-itself hook at **23** to fit over the upward hook **24** of the wall **14**, and in the second operation and flare outward as at **25** is formed at the same time the parts **23** and **24** are compressed together.

As positioned on the shelf or table **17**, the stacked cans **12**, **10** and **11** are seen to be relatively secure in a vertical position from which they are not easily disturbed and spilled. The advantage of such an array for display purposes and storage is obvious. The cans **10**—**12** will be filled by the usual canning company machiner which generally is through the bottom and the can bottom **16** sealed in the usual manner as aforesaid.

Experimentation has shown that the degree of flare is suitably and preferably between 20° and 30° outwardly from the can axis and that when constructed in this manner only a minor change in the dies and soldering equipment at the canning factory is necessary to accommodate the can of the invention, and that when opened by the consumer the common can opener, such as "Dazey," patented under U. S. Patents Number 2,278,731, and Number 2,244,846, is suitable and effective to open the can so flared without leaving a dangerous sharp edge or other disadvantage.

While a single embodiment of the invention has been shown, it is contemplated that many changes and modifications may be made without departing from the spirit and scope of the invention.

I claim:

In a stacking can construction, a cylindrical container provided with top and bottom flanged closure walls secured to the side wall of the container by double fold seams, the top flange being inwardly and upwardly inclined and extending above said top wall, the bottom flange being outwardly and downwardly inclined and extending below said bottom wall, the inclination of the top flange being the same as the inclination of the bottom flange and the exterior diameter of the top flange being the same as the interior diameter of the bottom flange to facilitate the stacking of a series of cans, said flanges each comprising an extension of the cylindrical wall of the container overlapped by a reverted double fold of a corresponding flange of its associated top or bottom wall.

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