Sept. 6, 1938. H. J. MILLER 2,128,953

CONTAINER

Filed Jan. 11, 1936

Fig. 1

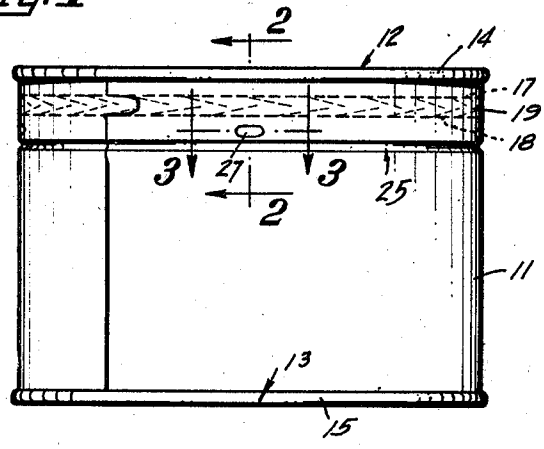


Fig. 4

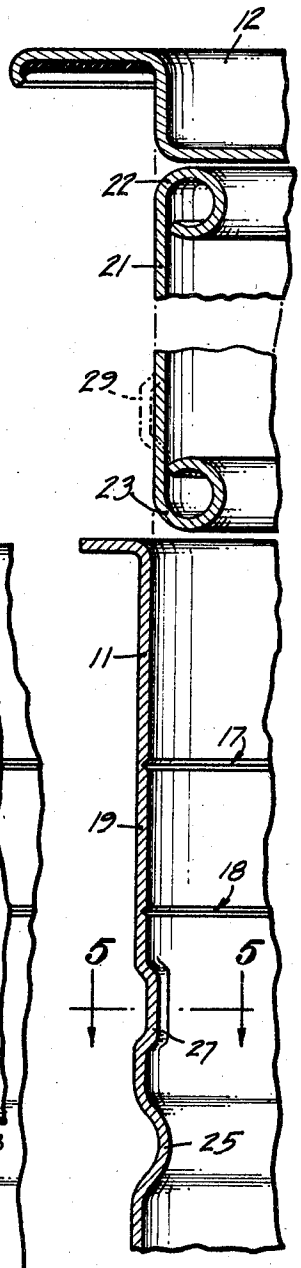


Fig. 2

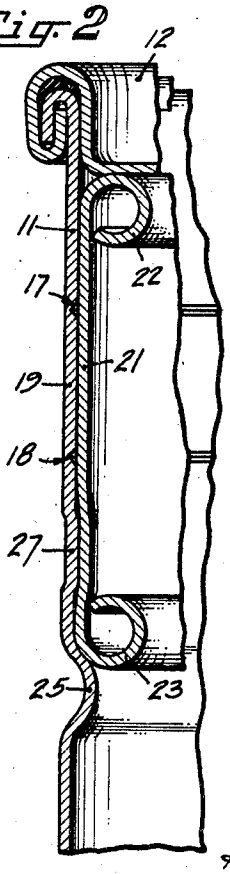


Fig. 5

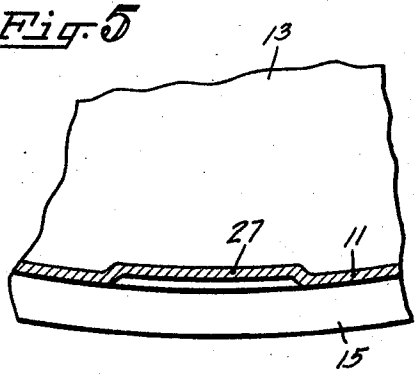
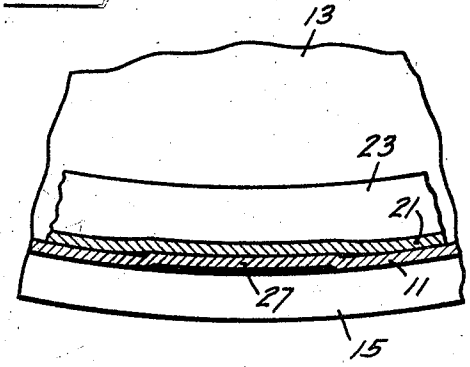


Fig. 3



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2,128,953

CONTAINER

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Application January 11, 1936, Serial No. 58,731

3 Claims. (Cl. 220—54)

The present invention relates to a sheet metal container or can adapted to be opened by the removal of a tearing strip and having an annular collar band which is inserted into the can, the invention having particular reference to and having as an object the provision of such a container having protuberances originally formed in either the can wall or in the collar band wall which are partially ironed out and are made practically undiscernible by the insertion of the collar into the can, but which after such ironing out hold the collar against shifting when it is later utilized as a friction base for the reclosure member produced by removal of the tearing strip.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

Referring to the drawing:

Figure 1 is a side elevation of a sealed, tearing strip can embodying the instant invention;

Fig. 2 is an enlarged fragmentary vertical section of the upper end of the can shown in Fig. 1, the view being taken substantially along the line 2—2 in that figure;

Fig. 3 is an enlarged fragmentary horizontal section taken substantially along the line 3—3 in Fig. 1;

Fig. 4 is an enlarged vertical section of fragments of unassembled can parts which when assembled make up the can shown in Fig. 1, the view illustrating the parts in superimposed and separated position; and

Fig. 5 is a horizontal section taken substantially along the line 5—5 in Fig. 4 and illustrating one form and location of a protuberance before it is ironed out.

As a preferred embodiment of the invention the drawing discloses a sheet metal can which comprises a tubular member or body 11 (Fig. 1) having top and bottom end closures 12, 13 secured thereto by suitable top and bottom seams 14, 15. In the body wall adjacent its upper end there are spaced and parallel score lines 17, 18 (Figs. 1, 2 and 4) which define a tearing strip 19 adapted to be removed in the usual manner in opening the can and for producing the usual reclosure member or cover.

An annular member or collar band 21 (Figs. 2 and 4) having upper and lower curled edges 22, 23 is located in the can and frictionally engages the body wall adjacent the tearing strip and provides a friction base for the reclosure cover when the tearing strip is removed. The lower curled edge 23 of the collar seats against an inwardly projecting annular bead 25 formed in the body wall below the tearing strip for properly locating the collar.

It is to the holding of the collar band 21 against turning or vertical displacement relative to the body 11 of the can that this invention is particularly directed. When the tearing strip is removed and a reclosure cover is formed the collar is used as a base for this reclosure cover and it is advantageous that the collar band be held against turning and against vertical displacement. This holding of the collar band according to the instant invention is effected through the added friction afforded by one or more projections formed in a wall part of the completed can.

These projections may be formed in either the can proper or in its collar and are formed in a wall part before the collar band is inserted. During the insertion of the collar into the body the projections are partially ironed out and only sufficient projection remains after the inserting act to sufficiently and to frictionally augment the engagement of the collar and the can wall to hold these parts in exact position relative to each other and to permit the desired use of the collar as a base for the reclosure cover. As a matter of fact these projections may be almost entirely obliterated while still performing their holding function and there is preferably left only a mere trace of the projection after the collar has been finally seated.

When the can body wall is utilized to contain the holding projections the latter take the form of inwardly extending protuberances 27 (Figs. 2 and 3) which are preferably equally spaced from one another, four being indicated in the drawings, and these are formed in the body wall intermediate the tearing strip 19 and the bead 25. In this form the stiff lower curled edge 23 of the collar rides against, presses outwardly and reforms the protuberances 27 as the collar band is brought into its seated position within the can wall, the frictional engagement of the protuberances 27 with the collar holding the latter against circumferential or vertical displacement relative to the can body wall. The results of this seating and ironing out action are shown in Figs. 2 and 3.

When the protuberances are placed in the wall of the collar band they are preferably located just above the lower curled edge of the collar band as indicated by dot and dash lines at 29 in Fig. 4. The curved corner or edge of the mouth of the can during the insertion of the collar is first engaged by these outwardly extending pro-

jections 29 and the projections are ironed out as they are forced down along the can body wall. This action it will be seen is the same as that described for the projection 27 formed in the body wall, as well as the frictional holding function of the projections.

In either event the same result obtains, namely, the collar band is firmly seated in position within the can and is prevented from turning or from displacement by the frictional engagement of the ironed out projections, this ironing out feature fairly obliterating any distinct projections so that they are hardly discernible. Yet, as stated before there is just enough added holding action to accomplish the desired purpose.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A sheet metal container, comprising a tubular body member having a side wall, a cooperating member having a wall frictionally engageable with said body member side wall and terminating at one end in an inwardly curled reenforcing portion, and a protuberance located in said side wall and which is engaged by the wall of said cooperating member for frictionally and tightly holding the body and the cooperating member in assembled position, said inwardly curled reenforcing portion holding the wall of said cooperating member outwardly against said protuberance to insure against relative displacement between said body and cooperating members, said protuberance being partially ironed out substantially beyond detection by its engagement with said engaged wall.

2. A sheet metal container, comprising a tubular body having a side wall, an annular collar band insertable in said body and having a wall engaging said body side wall and terminating at one end in an inward curl, and a protuberance located in said side wall and engaged by the wall of said band for frictionally and tightly holding the body and the collar band in assembled position, said inward curl holding the wall of said band outwardly against said protuberance to insure against relative displacement between said body and band members, said protuberance being partially ironed out substantially beyond detection by its engagement with said engaged wall.

3. A sheet metal container, comprising a tubular body having a plurality of protuberances formed in a side wall thereof, and an annular collar band insertable into said body and engageable with its side wall, said collar band terminating at its inner end in an inwardly turned reenforcing curl holding said collar band outwardly against said protuberance with a tight frictional engagement, whereby relative displacement of said collar band and container body is prevented.

HARRY J. MILLER.