No. 746,815. PATENTED DEC. 15, 1903.

D. GHIRARDELLI.

SHEET METAL CAN.

APPLICATION FILED NOV. 25, 1902.

NO MODEL.

Fig. 1.

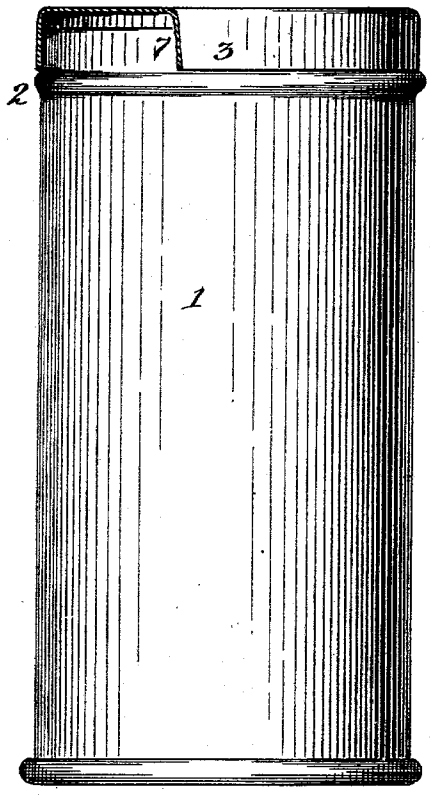
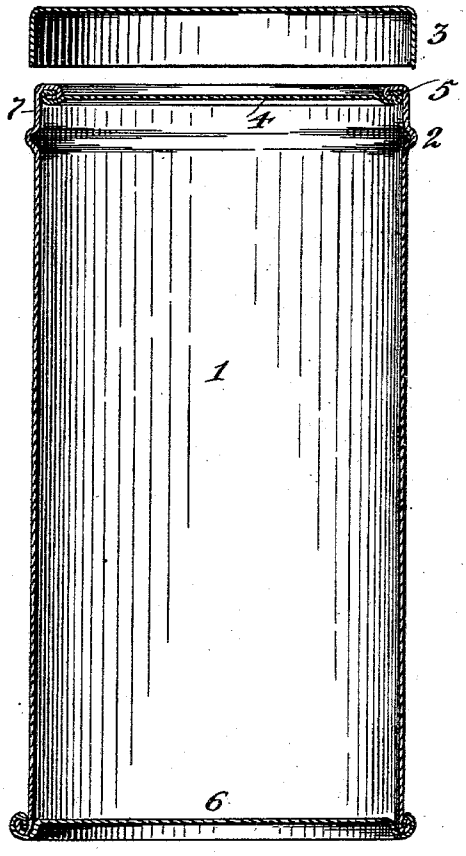


Fig. 2.



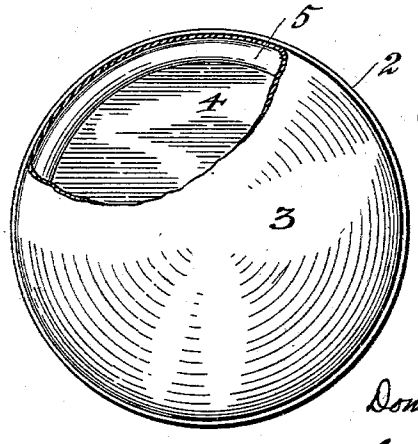


Fig. 3.

Witnesses.

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 746,815. Patented December 15, 1903.

UNITED STATES PATENT OFFICE.

DOMINGO GHIRARDELLI, OF SAN FRANCISCO, CALIFORNIA.

SHEET-METAL CAN.

SPECIFICATION forming part of Letters Patent No. 746,815, dated December 15, 1903.

Application filed November 25, 1902. Serial No. 132,778. (No model.)

To all whom it may concern:

Be it known that I, DOMINGO GHIRARDELLI, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Sheet-Metal Cans, of which the following is a specification.

My invention relates to sheet-metal receptacles, such as cans.

The object of my invention is to provide a can for holding ground substances, such as chocolate or coffee, which shall be sealed hermetically without a solder-joint and which will preserve the material contained during comparatively long periods of storage, shipment, and transportation.

A further object is to provide the can or receptacle with means for receiving a slip-cover independently of the hermetic inside joint, the whole forming a can-body seamed with an inside closure, but having at the same time means for receiving a removable slip-cover. The result of this construction is that the final consumer or purchaser of the can can remove the slip-cover and hermetic-sealing cover in order to obtain access to the contents of the can and can then remove and replace the slip-cover at will while the contents of the can are being used. Thus the quality of the contents of the can is preserved during storage and transportation, while without a soldered joint the can is rendered convenient to the user of small quantities at a time.

An embodiment of my invention is shown in the accompanying drawings, in which—

Figure 1 represents an elevation of a can constructed according to my invention, but having the slip-cover broken away. Fig. 2 is a vertical section of the can with the inside hermetic closure and the slip-cover detached. Fig. 3 is a top plan of the completely-closed can with the slip-cover broken away in order to show the inner hermetic joint.

The can-body 1 is a cylindrical hollow structure of sheet metal formed in any suitable way and on any suitable machine and side-seamed in any preferred manner. The making of such a body is well known in the art and forms no part of my invention. The body, near the top, is preferably formed with an external bead 2, which adds to the appearance of the can and also forms a stop for the slip-cover 3. Within the can-body and near the top is seamed a plate or disk 4, of thin sheet metal, which forms a hermetic internal closure for the can. By terming the material of this disk 4 "thin sheet metal" I mean metal which is thin relatively to the metal of which the body is formed, such as "taggers tin," which is less than half and sometimes less than one-third as thick as the body metal. This enables the disk to be easily opened by cutting.

The parts of the can may be assembled and secured in any suitable way. In practice a mandrel is introduced into the open bottom of the can-body. Then by a suitable seaming-tool the upper edge of the can-body and the edge of the disk 4 are inturned and double-seamed and squeezed together, Fig. 2, so as to make a hermetic joint 5, in which no solder is used. The open bottom of the can now becomes the filling-opening, and the contents of the can are supplied through such opening. Then by any usual or preferred mechanical arrangement the bottom 6 is double-seamed, preferably outwardly to the can-body. I now have a can closed at top and bottom and with its contents hermetically sealed at both ends by double-seamed joints only and without solder; but above the bead 2 on the exterior of the can is a smooth exterior surface 7, which receives the slip-cover 8. When this slip-cover is in place, it fits smoothly the surface 7 above the bead and can be removed from and replaced upon such surface. It will have been understood from the foregoing description that the can with its contents is closed at the bottom by a double-seamed joint and is also closed at the top by another double-seamed joint between the can-body and the thin disk 4, the contents of the can being held in the intermediate space. The can is completed by placing in position the slip-cover, so that the completed package is as shown in Fig. 1. In this condition the can is fitted for shipment and storage, because the integrity of its contents does not depend upon the slip-cover, but upon the double-seamed joints at the bottom and at the top below such slip-cover. These are not soldered joints, and no solder need be used

in making up the package. It is assumed that the contents of the can are of a kind which will be used by degrees, such as ground chocolate or ground coffee. Consequently when the package comes into the possession of the final consumer he receives it hermetically sealed and in a can of such construction as will enable him to use it by degrees in the manner in which such substances are ordinarily used. The consumer can remove the slip-cover, can cut out the disk 4 with an ordinary can-opener or knife, and can then extract the contents of the can according to his necessities. The slip-cover can always be replaced upon the top of the can, since the cutting out of the disk 4 in no way interferes with the seating of such slip-cover.

The advantages of this device lie in the fact that it provides a package hermetically closed for shipment and storage, but provided also with an additional slip-cover, whereby after the breaking of the hermetic closure the final consumer can use the contents as his necessities may require.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A sheet-metal can comprising a substantially cylindrical can-body having an externally-formed bead adjacent to its upper end, a cover of relatively thin metal inwardly double-seamed with the extreme upper edge of said can-body so as to leave a smooth exterior surface between said bead and said extreme upper edge and a slip-cover adapted to fit said smooth exterior surface.

2. As a new article of manufacture, a can and a closure therefor, comprising a can-body of substantially the same diameter at both ends and having an external bead near one end, a relatively thin sheet-metal disk for closing the can, double-seamed directly with the inwardly-turned upper edge of the can-body, whereby a smooth cylindrical surface is left between said upper edge and said bead, and a slip-cover fitting said smooth cylindrical surface.

In testimony whereof I have affixed my signature, in presence of two witnesses, this 14th day of November, 1902.

DOMINGO GHIRARDELLI.

Witnesses:

L. W. SEELY,

F. M. BURT.