

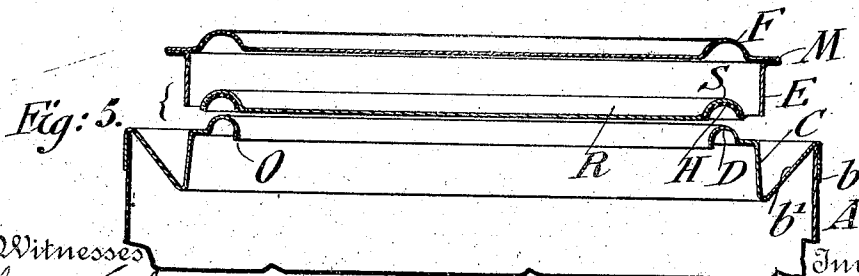
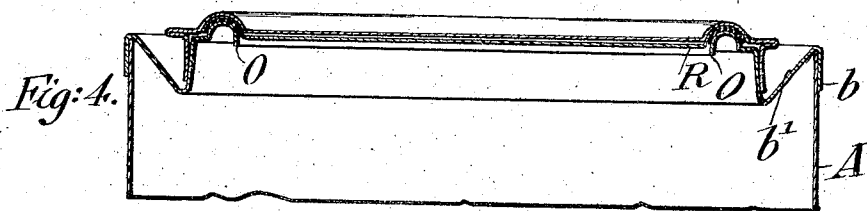
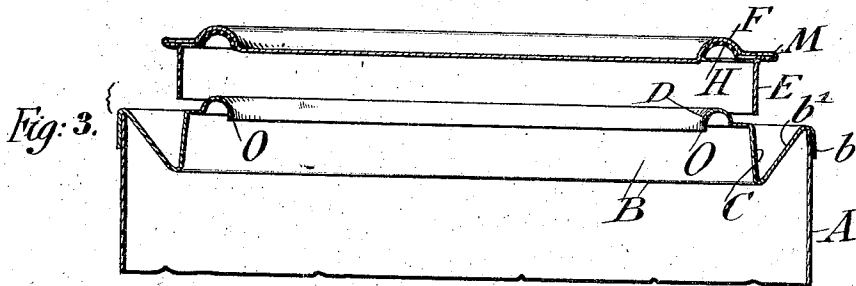
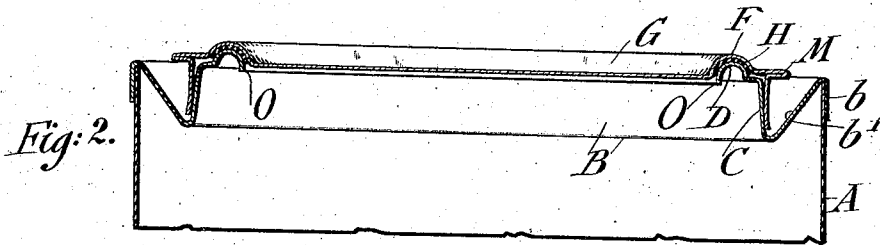
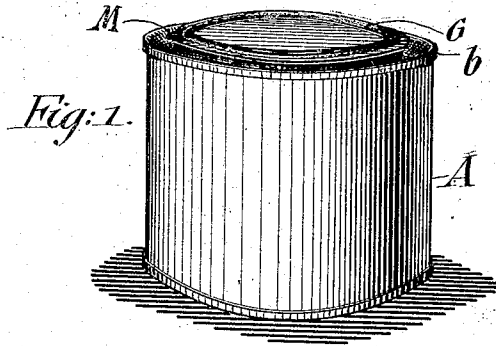
No. 858,902.

PATENTED JULY 2, 1907.

H. N. NORTON.

TIN CAN.

APPLICATION FILED OCT. 25, 1906.



Witnesses
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HORATIO N. NORTON, OF OAK PARK, ILLINOIS, ASSIGNOR TO EXPORT AND DOMESTIC CAN COMPANY, A CORPORATION OF NEW YORK.

TIN CAN.

No. 858,902.

Specification of Letters Patent.

Application filed October 25, 1905. Serial No. 284,405.

Patented July 2, 1907.

To all whom it may concern:

Be it known that I, HORATIO N. NORTON, a citizen of the United States, residing in Oak Park, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tin-Cans, of which the following is a specification.

This invention relates to an improved sheet-metal can which is intended for packing and shipping provisions, paints and similar materials, which require secure closing.

In the tin-cans hitherto in use having a shoulder portion at their upper ends it has been found that the application of the cover thereto having a flange adapted to frictionally contact with the shoulder portion, would not effect a closure sufficient to prevent the egress of material, it being impossible to make a close enough contact, by pressure of one metal against another. This was more especially due to irregularities in the two surfaces of the metal owing to the bending of the material forming said flange portion and consequent expansion of the same after having been so bent. Though such irregularities may be extremely small and hardly apparent to the naked eye, they were sufficient to prevent an efficient closure. These disadvantages became especially apparent in cases where the pressure in the inside of the cans is considerable.

My invention is intended to overcome these disadvantages and has for its object to provide a securely closed tin-can so that when the top is once applied there is neither an ingress of air nor an egress of material; and for this purpose the invention consists of an improved tin-can, comprising a body-portion having attached thereto a member with a central opening, a shoulder on said member, a bead on said member between the shoulder and the opening, a cover having a projecting edge, a flange on said cover adapted to frictionally contact with the shoulder of the member on the body-portion of the can, a groove in said cover corresponding to the bead of the member, and an elastic packing attached to the cover in said groove.

The invention consists further in providing an auxiliary cover having a bead near its periphery, and interposing the same between the can-cover and the can-body, and securing the elastic packing in the groove-portion of the bead of the auxiliary cover, the main can-cover surrounding the auxiliary can-cover, the bead of the latter being engaged by the groove-portion of the bead of the main can-top.

The novel features comprising my invention will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a perspective view of my improved tin-can, Fig. 2 a

vertical central section of the upper portion thereof, showing the cover as applied to the body of the can, Fig. 3 shows a vertical central section, showing the cover removed from the body-portion of the can, Fig. 4 shows a vertical central section of the upper portion of my improved tin-can having applied thereto the cover and showing an auxiliary cover, especially adapted for closing in vacuum, and Fig. 5 shows the cover, the auxiliary cover, and the upper portion of the can-body in position prior to the assembling of these parts.

Similar letters of reference indicate corresponding parts in the different figures of the drawings.

Referring to the drawings, A represents my improved tin-can, the upper end of which has secured thereto a member B, having a central opening O, and consisting of a downwardly bent portion b, secured to the can-body, a downwardly extending inwardly inclined part b', and an upwardly extending substantially vertical shoulder C, having at its upper end an annular bead D. This is the preferable form of can in which the member B is provided with a downwardly extending inwardly inclined part b', as shown in the drawings. This part b', may however, be either horizontal or upwardly inclined.

The cover G is formed of one piece and so shaped as to form an annular bead F near its periphery of the same diameter and cross-sectional curvature as the bead D of the member B of the can-body. The material forming the cover is bent back on itself at the periphery, so as to form a projecting edge M intended to facilitate the removing of the cover, and the remaining portion of the material is bent to form a flange E, substantially vertical and of a diameter to frictionally contact with the shoulder C so that by said frictional contact the cover is held in place on the can-body. When the cover is so applied, the bead D of the can-body engages the inner or groove portion of the bead F of the cover, the result of such engagement being to form a closure through which no substance, gaseous or material, is intended to pass. However, it has been found that such engagement was not at all times as effective as intended, owing to irregularities in the metal-portions contacting. Due to this fact, the effectiveness of the closure would be materially decreased, and oftentimes leakage caused to occur. To obviate this difficulty inherent in this form of can, a suitable elastic packing H is provided which is interposed between the bead D of the can-body and the bead F of the cover, so that when the cover is applied, and properly pressed down, a secure closure is insured, the elastic packing serving as a sealing layer slightly compressed, which prevents any leakage and insures a perfect seal. This packing is attached to the inner

grooves of the bead of the can-cover, and may be of any suitable material not influenced by the contents of the can.

- When canning materials and closing the cans under vacuum an auxiliary cover R is provided which is of disk form, having a bead S near its periphery, and of the same diameter and cross-sectional curvature as the bead of the body-portion of the can. In this case the elastic packing H is attached to the grooved portion of the bead of the auxiliary cover and serves to rest on the bead of the body-portion of the can, and thereby insures a perfect sealing. With the packing in position between the can-body and auxiliary cover, the main-cover is then applied so as to cause the flange E of the same, to be in frictional contact with the shoulder C of the body-portion of the can, whereupon the bead S of the auxiliary cover R will engage the inner part of the bead D of the main-cover, by which arrangement a securely closed can is provided.
- The use of my improved can insures the safe ship-

ment and preservation of materials contained therein, this result being attained by a means simple, not expensive and efficient.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

An improved tin-can, comprising a body-portion, a member secured thereto having a central opening, a shoulder on said member, a bead on said member between the shoulder and the opening, an auxiliary cover, a bead on said auxiliary cover having a groove, corresponding to the bead of the member, an elastic packing attached to the auxiliary cover in its groove, and a cover inclosing said auxiliary cover, having a bead corresponding to the bead of the auxiliary cover and a flange frictionally contacting with the shoulder of the member of the body portion.

In testimony, that I claim the foregoing as my invention, have signed my name in presence of two subscribing witnesses.

HORATIO N. NORTON.

Witnesses:

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