No. 886,011. PATENTED APR. 28, 1908.

J. W. NICHOLS.

PAIL SEAL.

APPLICATION FILED DEC. 26, 1906.

Fig. 1.

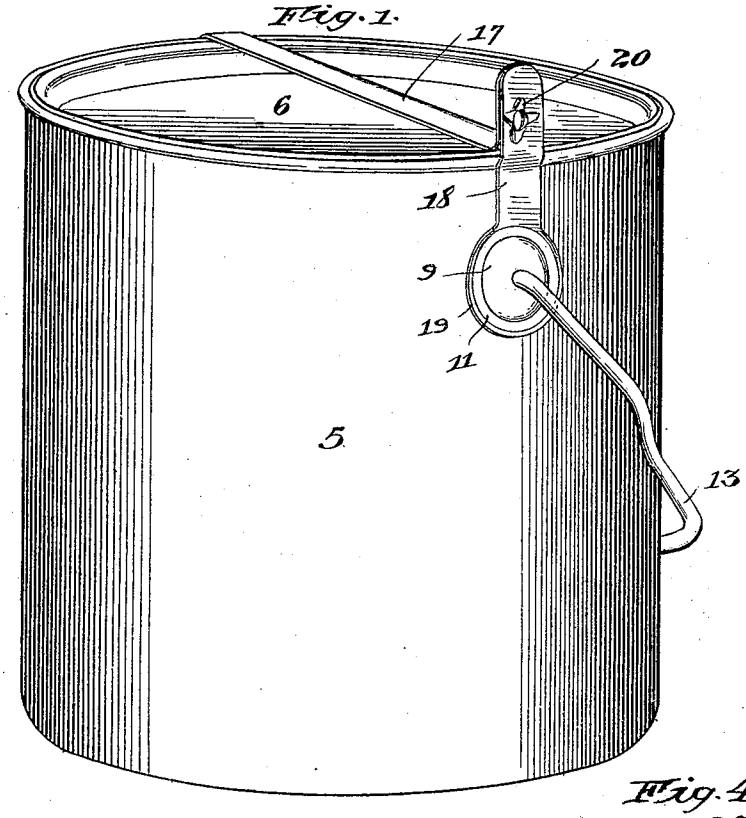


Fig. 2.

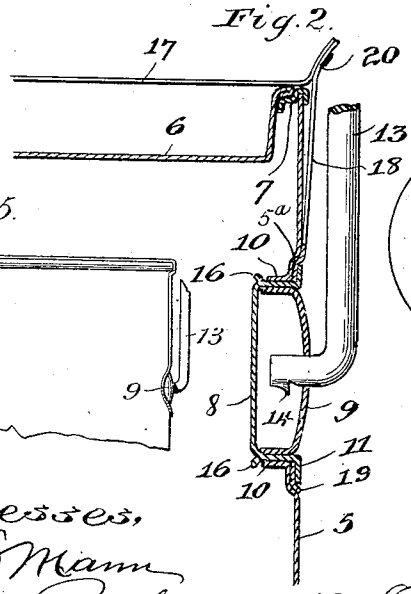


Fig. 3

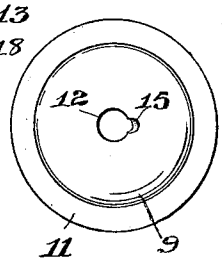


Fig. 4.

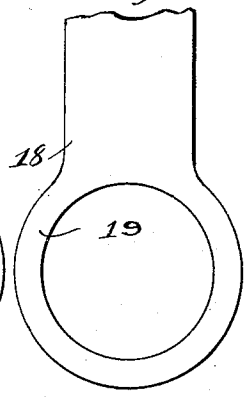


Fig. 5.

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PAIL-SEAL.

No. 886,011. Specification of Letters Patent. Patented April 28, 1908.

Application filed December 26, 1906. Serial No. 349,391.

To all whom it may concern:

Be it known that I, JESSE W. NICHOLS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Pail-Seals, of which the following is a specification.

This invention relates to sealing devices, and has reference more particularly to a seal for buckets, pails, firkins, and similar receptacles ordinarily provided with a cover at the top.

The primary object is to prevent the refilling of such receptacles with goods inferior to or other than the original contents, and the subsequent marketing of the same under the dress and label of the original manufacturer; and to the carrying out of this end the invention consists of a device in the nature of a seal so constructed and applied that the cover of the pail or other receptacle cannot be removed to get at the original contents without breaking or destroying said seal, the latter being further of such a nature as to render it impossible to fill the receptacle with other or inferior goods and re-apply the seal so as to simulate in all respects the original package.

The device of the present invention operates independently as a seal, as distinguished from devices in which the cover or bail is so modified or specially constructed as to likewise perform sealing functions.

To the above ends the invention, more specifically, resides in a sealing strip of material, such as tin, sufficiently strong and tough to resist accidental breaking in handling, but readily cut or broken by a suitable tool, as a pair of shears, which strip is securely anchored at both ends to the pail ears of the receptacle and extends above and across the cover, locking the latter against removal except by first breaking the sealing strip; and in the preferred embodiment of the invention herein shown, for convenience in applying the sealing strip, it is made in two parts or sections each of which is anchored at one end to one of the pail ears, while the other ends are brought together above the cover after the latter has been applied and securely united by any suitable means, such as an eyelet tool operating to punch out and clamp together adjacent parts of the material of the strip sections.

The invention will be readily understood when considered in connection with the accompanying drawings showing a practical and preferred form thereof, in which,—

Figure 1 is a perspective side view of a lard pail closed and sealed by the device of my invention; Fig. 2 is an enlarged fragmentary vertical section through the upper portion of the side wall and the pail ear of the receptacle; Fig. 3 is an enlarged detail side view of the outer face of the pail ear; Fig. 4 is a detail enlarged view of the ear-engaging end of one of the sections of the sealing strip, and Fig. 5 is a reduced side elevation, with parts broken away, of a pail equipped with a modified form of sealing strip.

Referring to the drawings, 5 designates a tin pail adapted to contain lard or any other substance commonly put up for the market in such a receptacle, and 6 designates the top cover or closure thereof herein shown as a flanged disk adapted to be pressed down to a snug fit with a countersunk bead or flange 7 on the upper end of the pail body. The pail ear, as herein shown, is of the hollow type adapted to seat snugly in opposite openings in the side walls of the pail and comprising two inversely disposed interfitting cup-shaped members 8 and 9, the former of which seats within an inturned flange 10 surrounding the ear-receiving opening in the pail body, and has a marginal flange 11 on its open end; while the latter has a tight fit within the member 8 and is provided with a central aperture 12 adapted to receive the bent end of the bail 13. To retain the latter in the ear, its bent end is preferably formed with a small barb 14 which, when the bail end is inserted, bends inwardly the metal of the ear member 9, as indicated at 15 in Fig. 3, but in such a manner as to prevent accidental removal of the bail end from the ear by virtue of the barb 14. The metal of the ear member 8 is indented or punch-pricked as indicated at 16 in such a manner as to lock the ear in place against the inner edge of the flange 10.

Referring now to those parts and features wherein the present invention more particularly resides, 17 and 18 designate the two sections of the sealing strip. This latter is a thin sheet metal strip, preferably of a soft grade of tin which may be readily cut or broken without requiring any special tools for such purpose, but has sufficient strength and toughness to resist danger of accidental breakage in handling and shipping. The lower end of each of these sections terminates

in an integral annular or ring-like member 19 (Fig. 4), which latter, when the pail ear is inserted and secured in place, is snugly clamped between the flange 11 and the body of the pail immediately surrounding the ear, for which purpose the metal of the body of the pail is preferably slightly countersunk or inset, as indicated at 5ª. This renders impossible the removal of the strip sections without either breaking the latter or removing the ear. The former destroys the seal beyond the possibility of re-establishment, while the removal of the ear is practically impossible without injuring or destroying the latter to such an extent as to render its re-use impossible. The pail having been filled and the cover applied, the two free ends of the sealing strip sections are brought together and united by rivets or eyelets or in any other suitable manner. I have found in practice that these sections can be united with sufficient security for all purposes of the invention by simply punching a hole through the two juxtaposed sections in a manner to bend the metal displaced by a punch wholly to one side of both sections, and subsequently flattening or mashing down such metal in the manner indicated at 20. However, in the broader aspect of the invention, the particular manner or means of uniting the sections of the sealing strip is immaterial; and I may also add that the strip may be made in a single integral piece connected as described to the pail ears, if desired, within the purview of the invention, as shown in Fig. 5; but such a construction would necessitate the filling of the pail and the application of the cover before at least one of the pail ears is applied and secured to and in the pail body, which latter mode of applying the sealing strip is less practicable than to make the strip in sections and unite them after the pail has been filled and the cover applied.

Fig. 1 of the drawings shows but a single pail ear and attachment of the sealing strip thereto; but it is to be understood that the pail ear on the opposite side of the pail and the structure and manner of connection of the strip section 17 therewith is identical in all respects with that illustrated in connection with the strip section 18.

While I have described the lower end of the sealing strip as terminating in annular or ringlike members, it will be understood that this does not necessarily imply that the ends of the strip terminate in complete circular rings and the word "ring" as used in the claims is intended to include not only such a construction but any equivalent construction which will perform the same function.

It will thus be seen that the device of my invention provides an effective seal for the purposes stated which does not depend upon the engagement of the bail with the ear for its retention, and which is also structurally independent of the cover.

Variations and modifications in respect to minor details of the device to accommodate it to various kinds and classes of receptacles may readily be made without departing from the principle of the invention, and without sacrificing any of the benefits and advantages secured thereby. Hence, the invention is not to be understood as limited to the exact and precise construction and relative arrangement of the parts as shown and described, except to the extent indicated in specific claims.

I claim:

1. A seal for pails, comprising a sealing strip formed of breakable metal extending entirely across the cover of the pail and having downwardly turned end portions terminating in rings adapted to be clamped between the pail ears and the body of the pail, substantially as described.

2. The combination with a pail cover and pail ears seated in the side walls of the pail, of a sealing strip formed in two sections directly and non-detachably united above the cover, the lower ends of said strip sections terminating in ring-shaped members embracing said pail ears, substantially a described.

3. The combination with a pail having a cover and pail ears non-detachably secured in the side walls of the pail, of a sealing strip formed in two sections directly and non-detachably united above the cover, the lower ends of said strip sections terminating in ring-shaped members embracing said ears and clamped between the latter and the side walls of the pail, substantially as described.

4. The combination with a pail having a cover, and pail ears non-detachably secured in the side walls of the pail, of a sealing strip formed in two sections, the lower ends of said sections being non-detachably secured to said pail ears, and their upper ends extending above the cover and directly and inseparably interlocked with each other, substantially as described.

5. The combination with a pail and its cover, of a seal therefor comprising a sealing strip formed in two sections, the lower ends of said sections being permanently secured to the body of the pail and the upper ends of said sections extending above the cover and being directly and permanently interlocked with each other.

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