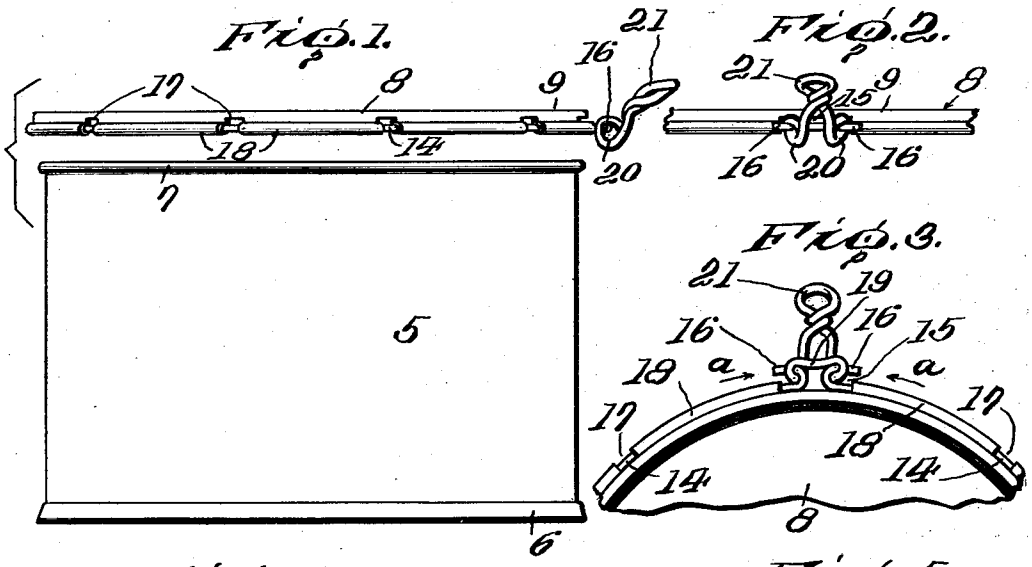
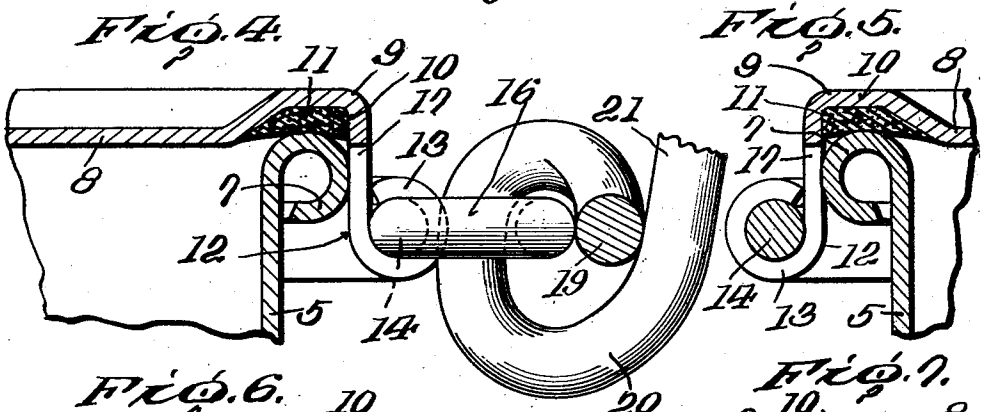
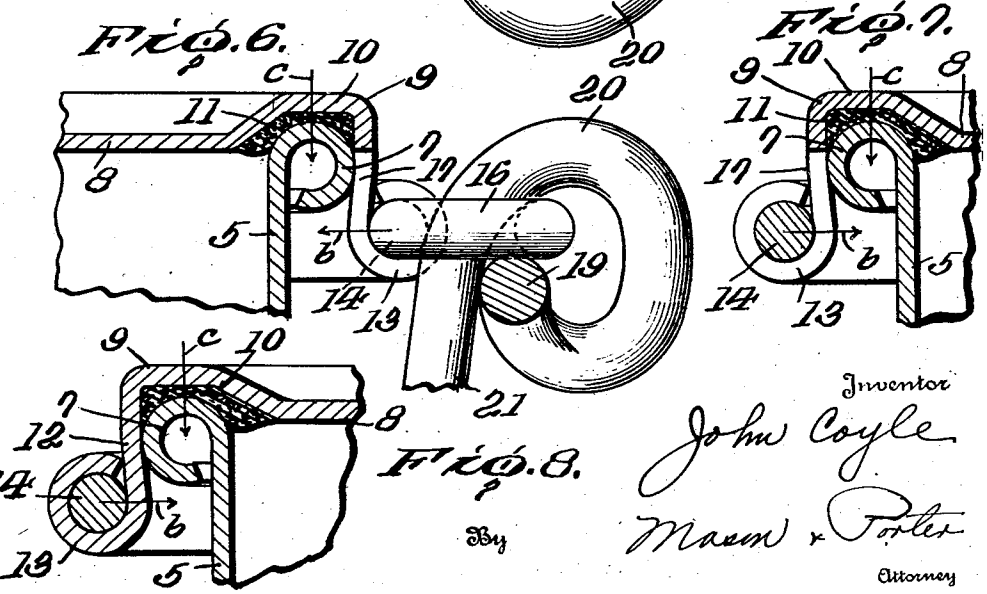
March 4, 1941. J. COYLE 2,233,518

METAL CONTAINER

Filed March 2, 1938







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METAL CONTAINER

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1 Claim. (Cl. 220—61)

The invention relates generally to metallic receptacles and primarily seeks to provide a simple and economically constructed can or metal container having a full open pouring throat from which the whole of the contents of the can may be poured, which is devoid of raw metal edges, and which includes a readily mountable and removable sealing closure including a resilient securing bead and clamp wire and lever equipment.

In its more detailed nature, the invention resides in the provision of a cylindrical can body having a full diameter discharge opening defined by an outwardly rolled resilient edge bead, and a generally flat cover having a sealing compound equipped peripheral groove for receiving said bead and a depending beaded flange which is slotted to form resilient sectors and equipped with a clamping wire and a clamp lever operable to contract the wire and the resilient sectors which carry it so as to grip the resilient bead and draw the sealing compound equipped portion of the cover down into tight sealing contact with said bead.

With these and other objects in view which will more fully appear, the nature of the invention will be more clearly understood by following the description, the appended claim, and the several views illustrated in the accompanying drawing.

In the drawing:

Fig. 1 is a side elevation of the improved container, the cover being shown separated from the body;

Fig. 2 is a fragmentary edge view of the container cover at the position of the cam lever;

Fig. 3 is a fragmentary plan view showing a cover portion including the cam lever;

Fig. 4 is an enlarged detail vertical cross section showing a fragment of the container with cover loosely applied thereon, the section being taken at the position of the cam lever.

Fig. 5 is a view similar to Fig. 4, the section being taken at a point diametrically opposite the position of the cam lever;

Figs. 6 and 7 are views respectively similar to Figs. 4 and 5 illustrating the cover tightly secured in the container sealing position;

Fig. 8 is a view similar to Fig. 7, the section being taken through a solid body portion of one of the resilient cover flange sectors.

My improved container includes a cylindrical sheet metal body 5 and bottom closure 6, these parts being of conventional form except for the provision, at the open upper end of the body, of an outwardly rolled resilient bead 7. The container body thus formed is devoid of exposed raw metal edges, both inside and outside, and includes a full open pouring throat, that is its top portion is wholly open and free of obstruction throughout the entirety of its diameter, enabling removal of the whole of the contents of the container with great facility.

For cooperation with the resilient bead 7, I provide a novel cover which can be mounted or removed with great facility, and which, when mounted, is capable of effectively sealing the container. The cover includes a generally flat body 8 mainly of frusto-conical shape terminating peripherally in an upstanding rib 9 which provides a downwardly directed groove 10 dimensioned to overlie the can body bead 7 and which is filled with a suitable sealing compound 11 intended to engage in sealing relation with said bead. The outer wall of the frusto-conical portion of the cover constitutes the inner boundary of the groove 10 and it is located adjacent to the inner side of bead 7 so as to force the sealing means outwardly upon clamping the lid or cover to the body. The cover also includes a depending flange 12 for embracing the body bead 7, and the lower edge of this flange is rolled outwardly and upwardly as at 13 about a clamping wire 14. A clearance or recess 15 is provided in the edge roll or bead 13, and the free ends of the wire 14 extending into this clearance are shaped in the form of oppositely or outwardly directed hooks 16, see Figures 1 to 3. It will be noted also by reference to these figures that the roll or bead 13 is notched or slotted at equidistantly spaced points, as at 17, so as to provide a plurality of resilient cover edge sectors 18 which will be contracted whenever the hooked ends 16 of the wire 14 are drawn together, and which will expand whenever the tension in the wire is relaxed.

For suitably manipulating the wire 14 and the resilient sectors 18 in which it is encased, I provide a cam lever formed of a single piece of wire shaped to include a bridge piece 19 merging with a pair of laterally spaced, angularly disposed cam eyes 20 each encircling one of the wire hooks 16 and which in turn merge into a finger piece or handle portion 21.

My improved container is adaptable to use in the packaging of numerous products, examples of which are syrup, oysters, crab meat, paint, candy, peanuts, pastes and polishes. The provision of the resilient, outwardly turned bead not only facilitates mounting and replacement of the cover, and the attainment of an efficient

seal, but it entirely eliminates the presentation of raw metal edges and provides a full open discharge or pouring throat through which the entire contents of the container can be removed with facility.

In the use of the container, the cover is placed on the body with the cam lever in the position shown in Figs. 1 and 4, that is with the wire 14 in the tension relaxed state and with the resilient cover edge sectors 18 expanded. See Figs. 4 and 5. It will be noted that in this condition of the parts the sealing compound ring 11 rests lightly upon the resilient bead 7 and the axis of the wire 14, or of the resilient sectors 18, lies in a plane below that occupied by the axis of the resilient bead 7. By now turning the cam lever down to the position shown in Fig. 6, the hooks 16 will be moved toward each other, placing the wire 14 under tension and contracting the resilient cover sectors 18 beneath the resilient bead 7. The cover is thus firmly secured in place and is drawn down tightly upon the bead 7 so as to compress the sealing compound about the bead and effect a perfect seal.

The novel relation of the bead 7, the sealing compound equipped groove 10 and the resilient sectors 18 assures perfect sealing of the container and enables mounting and removal of the cover with great facility. The resilient quality of the bead 7 constitutes a major factor in the provision and maintenance of the seal since it aids materially in attaining and maintaining conformity of the sealing surfaces. It will be noted that the flange slots 17 do not extend above the base plane of the cover body 8 and thus do not disrupt the continuity of the sealing compound receiving groove 10.

What I claim is:

A container of the character described comprising a sheet metal body terminating at its upper end in an outwardly rolled resilient bead, a cover comprising a generally flat body portion terminating peripherally in a raised rib forming a groove positioned to overlie the body head and a depending flange of a diameter for embracing said body bead and terminating in an outwardly rolled cover bead having a clearance at one portion thereof, a clamp wire encased in said cover bead and having free ends disposed in said clearance, sealing means disposed in said groove, the inner boundary of said groove being positioned adjacent the inner side of the first mentioned bead and comprising a downwardly and inwardly sloping frusto-conical wall coacting with the bead on the body and with the said sealing means to force said sealing means outwardly upon clamping the cover to said body, said cover flange depending to an extent serving to dispose the cover bead axis in a plane spaced only slightly below that in which the body bead lies whereby the upper limit of the cover bead is disposed in a plane above that occupied by the lower extremity of the body bead, and lever means secured to said ends and movable between cover clamping and releasing positions in which the wire is tensioned or relaxed respectively to grip the cover bead about the body bead and draw the cover down upon the body bead in clamped position so as to compress the sealing means about the body bead or release said cover bead from gripping relation with said body bead.

JOHN COYLE.