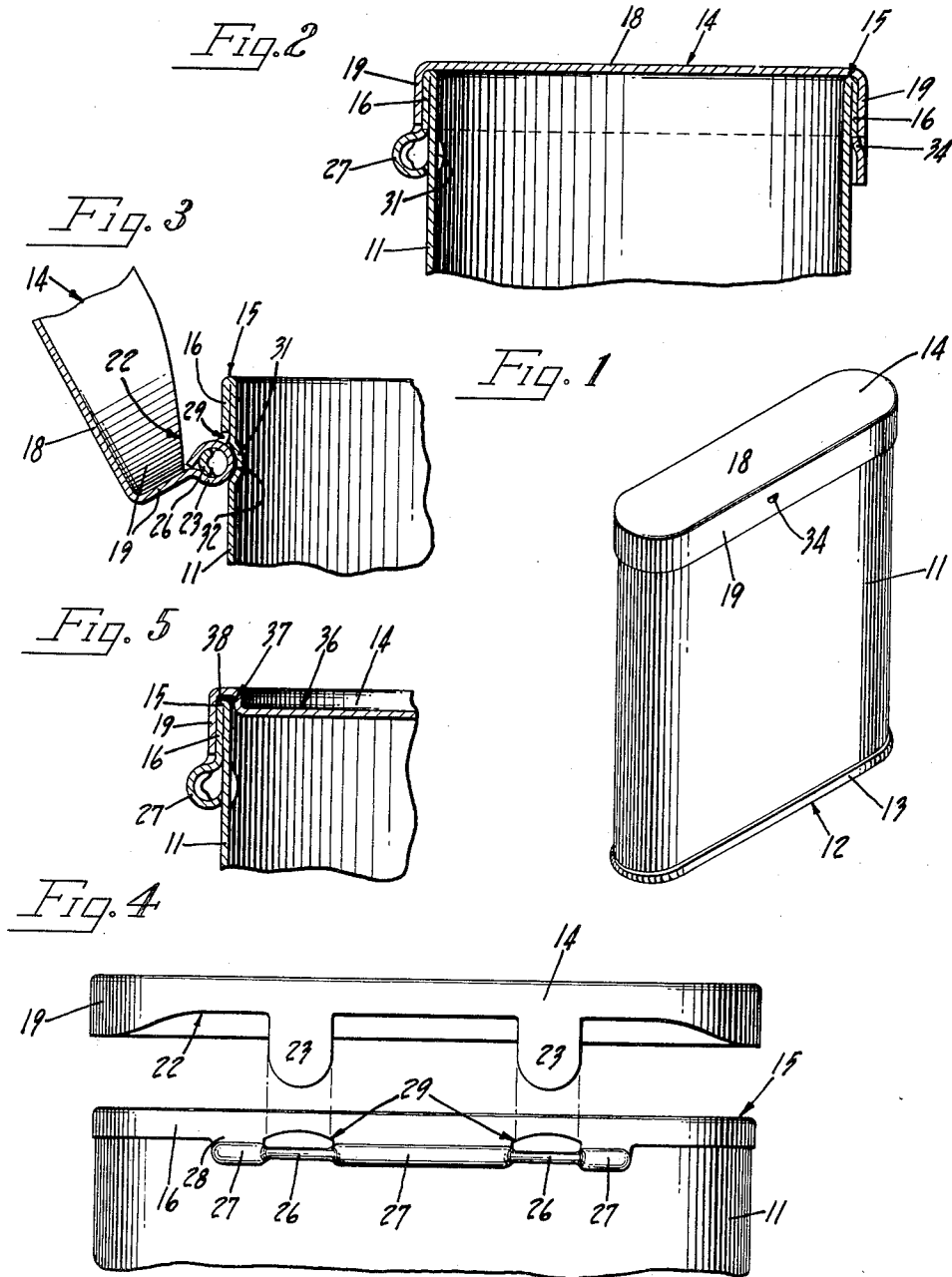


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INTEGRAL HINGE FOR CONTAINERS

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INTEGRAL HINGE FOR CONTAINERS

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1

The present invention relates to containers or cans and has particular reference to improvements in sheet metal cans having hinged covers.

An object of the invention is the provision of a sheet metal can having a hinge cover wherein the cover end of the can is formed with a depending flat hem surrounding the outside of the can and setting off a reenforced smooth and uniform seat edge for receiving the hinge cover to make the can more hermetic and to prevent danger of cutting the fingers of the user.

Another object is the provision of such a can wherein a novel wireless hinge element is formed integrally with the hem for attaching the cover to the can and for hinging it into and out of closed position on the can.

Another object is the provision of such a can wherein the cover is provided with a sealing gasket for engagement against the hemmed edge of the can to hermetically seal the can when the cover is in closed position.

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 drawings, discloses a preferred embodiment thereof.

Referring to the drawings:

Figure 1 is a perspective view of a sealed can embodying the instant invention;

Fig. 2 is an enlarged transverse section taken through the upper end of the can shown in Fig. 1;

Fig. 3 is a view similar to Fig. 2 taken through the hinge portion of the can and showing the cover in an open position, with parts broken away;

Fig. 4 is an enlarged back view of the can and its cover arranged in separated position prior to assembly, with parts of the can broken away; and

Fig. 5 is a fragmentary view similar to Fig. 2 and showing a modified form of the invention.

As a preferred embodiment of the invention the drawings illustrate a sheet metal tobacco can made preferably of tin plate or the like material. This can comprises an oblong shaped tubular body 11 having at one end a bottom closure member 12 (Fig. 1) secured thereto in a suitable seam 13 and at its opposite or upper end a hinged slip cover 14.

A smooth and uniform seat 15 (Figs. 2 and 3) is provided on the can body 11 for the cover 14. For this purpose the upper marginal edge portion of the can body is turned outwardly and downwardly against the outer surface of the body, setting off a depending flat hem 16. This hem

2

extends entirely around the upper end of the body and thus reenforce this end of the body as well as providing the smooth seat edge 15.

The cover 14 is formed with a flat top wall section 18 and a continuous surrounding and depending flange 19. When the cover is on the can body as shown in Fig. 2, its flange 19 extends down adjacent the hem 16 on the outside of the body and engages snugly against the hem. The top wall section 18 of the cover rests on top of the smooth seat edge 15 of the body. The seat edge engages the cover uniformly, entirely around the top edge of the body and thus makes the can more hermetic when the cover is closed. This smooth edge also prevents the danger of cutting the fingers of the user when the cover is opened as in case of a tobacco can the finger is sometimes used to pull out the contents.

The cover 14 is hingedly connected with the hem 16 of the can body along its back edge so that it may be readily hinged open, as shown in Fig. 3, and may be returned to closed position as shown in Fig. 2. For this purpose the back portion of the flange 19 of the cover is cut away as at 22 as best shown in Fig. 4 and is provided with a pair of hinge lugs 23 (see also Fig. 3).

The hinge lugs 23 surround a pair of wireless pintles 26 (Figs. 3 and 4) formed on the hem 16. These pintles are produced from portions of a reinforcing bead 27 formed in an extension 28 of the hem 16 along the back of the can body. These bead portions are compressed into cylindrical form and thus provide the pair of hollow pintle members 26 of smaller diameter. Adjacent the pintles the hem is provided with clearance openings 29 for the hinge lugs 23.

The body side wall adjacent the pintles is formed with a pair of spaced inwardly projecting recess sections 31 which set off clearance outside channels 32 for the free movement of the hinge lugs on the pintles. These clearance channels permit the cover hinge elements to closely hug the side of the can body so as to provide a comparatively smooth outer surface on the back of the body.

At the front of the can the flange 19 of the cover 14 is provided with a struck-out locking lug 34 for holding the cover in closed position. This lug engages under the adjacent lower edge of the hem 16. If desired this portion of the hem may be spaced away from the side of the can body to better facilitate this locking action.

In the modified form of the invention as disclosed in Fig. 5, the top wall section 18 of the cover 14 is formed with a sunken panel 35. This

panel sets off an inverted U-shaped channel 37 which extends completely around the cover adjacent its flange 19. The flange 19 forms the outer conforming walls of the channel. The channel carries a resilient gasket 39 of compound lining material or other suitable gasket material.

When the cover is in closed position on the can the gasket 39 engages against the smooth seat edge 15 of the can body. In this position the gasket provides a hermetic seal for the can.

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 terminating at its open end in a depending hem provided with an integral elongated tubular bead having spaced compressed portions of reduced diameter thereon constituting wireless hinge pintles, and a container cover having a flange provided with spaced curved hinge lugs respectively engaging the aforesaid spaced hinge pintles on said bead for hingedly mounting the cover on the container body.

2. A sheet metal container comprising a tubular body terminating at its open end in a depending peripheral hem to provide a smooth reinforced cover seat, an integral part of said hem at the rear of said body terminating in an elongated tubular bead having spaced compressed portions of reduced diameter constituting wireless hinge pintles on said body, spaced portions of said hem at the rear of the body being cut away adjacent said pintles to provide clearance openings, and a container cover having a peripheral flange provided with spaced curved hinge lugs respectively engaging said clearance openings in said hem and embracing the aforesaid spaced hinge pintles of reduced diameter on said body bead for hingedly mounting the cover on the container body for movement towards and away from said seat.

3. A sheet metal container comprising a tubular body terminating at its open end in a depending peripheral hem to provide a smooth reinforced cover seat, an integral extension of said hem at the rear of said body terminating in an elongated tubular bead having spaced compressed portions of reduced diameter constituting hollow wireless hinge pintles on said body, spaced portions of said hem at the rear of the body being cut away adjacent said pintles to provide clearance openings, spaced portions of the rear body wall of the container being depressed adjacent said pintles to provide inwardly curved clearance channels, and a container cover having a peripheral flange provided at its rear

portion with spaced curved hinge lugs respectively engaging said clearance openings in said hem and also embracing the aforesaid spaced hinge pintles of reduced diameter on said body hem bead, said curved cover lugs also movably engaging the aforesaid curved clearance channels in the container body rear wall adjacent said pintles for hingedly mounting the cover on the container body for movement towards and away from said seat.

4. A sheet metal container comprising a tubular body terminating at its open end in a depending peripheral hem to provide a smooth reinforced cover seat, an integral extension of said hem at the rear of said body terminating in an elongated tubular bead having spaced compressed portions of reduced diameter constituting hollow wireless hinge pintles on said body, spaced portions of said hem at the rear of the body being cut away adjacent said pintles to provide clearance openings, spaced portions of the rear body wall of the container being depressed adjacent said pintles to provide inwardly curved clearance channels, and a container cover provided with a countersunk central panel and a surrounding peripheral channel containing a compound gasket lining, said cover further having a peripheral flange provided at its rear wall with a cut away portion having a plurality of integral and spaced curved hinge lugs respectively engaging said clearance openings in said hem and also embracing the aforesaid spaced hinge pintles of reduced diameter on said body hem bead, said curved cover lugs also movably engaging the aforesaid curved clearance channels in the container body rear wall adjacent said pintles for hingedly mounting the cover on the container body for movement towards and away from said seat, said smooth body hem seat engaging said gasket lining in said cover channel for hermetically sealing the container.

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