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PAPER SPUTUM CUP

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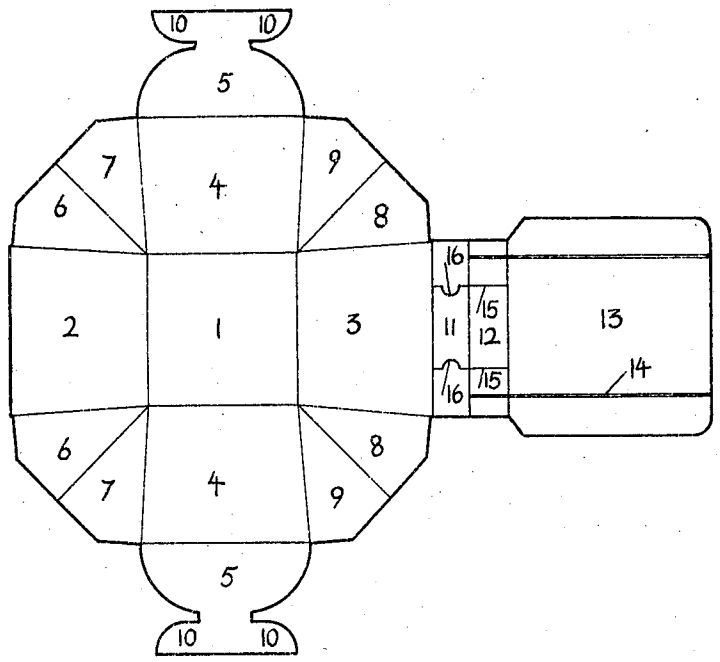


fig. 1

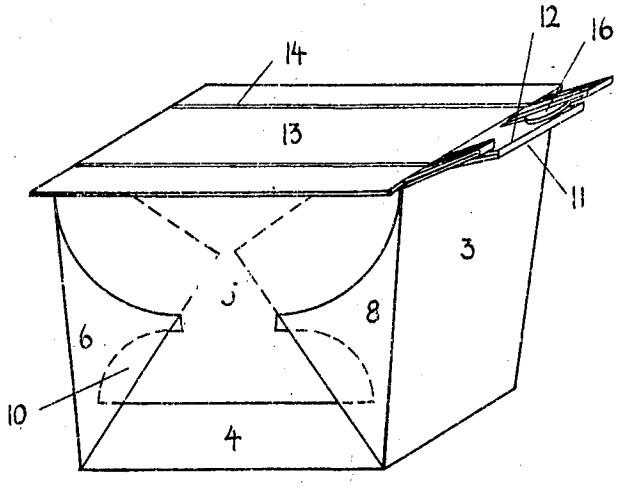


fig. 2

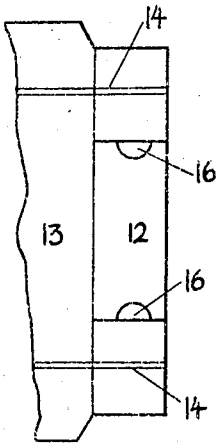


fig. 3

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PAPER SPUTUM CUP

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5 Claims. (Cl. 4—271)

This invention relates to a container or receptacle made of cardboard, paperboard or any other material having similar pliability, stiffness and elasticity. Such receptacles are useful, for example, as portable sputum boxes.

An object of the invention is to provide a container of said type which has a cover or lid hinged to the upper edge of one of the side walls of the container.

Other objects are to make said cover self-closing, easily to be lifted and to provide self-closing means of proper resiliency and which do not require additional material, and can be easily assembled.

Further objects are to provide a hinge connecting the cover with a side wall of the box and acting as a spring exerting a slight pressure which tends to close the cover, to form said hinge from an integral part of the sheet material forming the cover, to avoid the need for a width of the material for said hinge exceeding the width of the cover or of the side wall, to provide spring action by parts cut from the inner portion of the hinge material, and to make the resilient hinge so that it can be quickly and easily assembled.

Still further objects are to make the box and the cover so that they can be made from a single integral sheet of flat material, to avoid waste of material, and to make the box and the cover inexpensive, reliably operating and light of weight.

These and other objects are achieved as will be apparent from the illustrative embodiment described in the following description and illustrated in the accompanying drawing in which:

Fig. 1 shows a plan view on a reduced scale of a flat sheet from which the embodiment is assembled.

Fig. 2 shows a perspective view of the assembled embodiment.

Fig. 3 shows a view of the hinge and the adjacent part of the cover, seen from above, the remaining part of the cover being shown broken off.

Referring to the drawing, numeral 1 indicates the bottom of the box 2 and 3 are two opposite side walls (left and right side in Fig. 2). The remaining side walls are assembled from several folded portions of the original sheet, one set of portions 4, 5, 6, 8, 9 and 10 being used to form each of said latter walls in the following manner: The portions 6 and 7 are folded together at their separating line, this line going to the outer side. Then 6 and 7 together are folded until 7 touches the outer side of 4 whereby the left edge of 4 comes into contact with the corresponding edge of 2. The portions 8 and 9 are folded in the same way whereby the right edge of 4 comes into contact with the corresponding edge of 3. Then the portion 5 is bent down to the outer side, and the extensions 10 of 5 are slipped under the folded portions 6, 7 and 8, 9, respectively, whereby the wall is assembled. Said four walls together with said bottom form a cup-like receptacle.

The hinge is formed from the portions 11 and 12 as will be described later. The cover 13 is slightly larger than the opening formed by the upper edges of the assembled walls whereby the cover when closed rests upon said edges and covers reliably the content of the box. The hinge and the cover 13 form one extension of the side wall 3. Preferably the entire box is made from one undivided sheet and assembled by mere folding at the lines shown in Fig. 1.

A number of narrow ribs 14, for example two, formed by impressions preferably made from the lower side are running in straight lines across the cover 13 and serve to stiffen the cover and to increase the spring action of the hinge. In the shown embodiment, these ribs extend as far as the line separating the two portions 11 and 12 of the hinge.

Means to effect a spring-like pressure are provided within the hinge in the following manner: Two symmetrical lines or thin slots 15 are cut through the portions 11 and 12. These lines are straight, except at the middle of 11 where each line forms a projection 16 toward the central part of 11. The projections 16 form small tongues of about semi-circular shape. The cut lines 15 divide the hinge into a central part and two symmetrical outer parts.

The hinge is assembled in the following way: The sheet is bent around the line separating the portions 3 and 11 whereby the portions 11, 12 and 13 are brought into an about horizontal position. Then the sheet is bent around the line separating 11 and 12 whereby 11 and 12 are folded together and the cover 13 is brought into a position over the opening of the cup. Then the side parts of the hinge, consisting of two levers, the lower of which has the projecting tongues 16, are slightly lifted until said tongues slip over the central part of the hinge. In this position, the tongues 16 press the central part of the hinge down and the reaction presses the tongues and the lateral parts of the hinge up

whereby the cover is resiliently pressed against the cup.

It will be noted that the means to effect a spring-like pressure are formed exclusively from the inner material of the hinge. This fact avoids any waste of material while such waste would be unavoidable if other pressing means would be used which project over the side edges of the hinge. The described arrangement further results in a relatively strong and lasting spring action and makes possible an easy, quick and proper assemblage.

We desire it understood that our invention is not confined to the particular forms and uses shown and described and that the invention may be carried out in other ways without parting from the spirit of the invention, as it is obvious that the embodiment described is merely illustrative and represents only one of the many ways in which anyone skilled in the art may attain the objects and achieve the results of the invention.

We claim:

1. A container comprising a cup-like part; a cover; and a hinge connecting said cup-like part and said cover, said hinge comprising a longitudinally folded strip of pliable and elastic material divided into sections and pressing means formed by integral parts of said hinge, confined within the length of said hinge not longer than the width of said cover and pressing said sections resiliently against each other whereby said cover is resiliently pressed, toward said cup-like part.

2. A container comprising a cup-like part; a cover; and a hinge connecting said cup-like part and said cover, said hinge comprising a longitudinally folded strip of pliable and elastic material and divided by at least one cross-cut into several sections, at least one section having a projection extending over the adjacent edge of another section and adapted to be slipped beyond said edge whereby said two sections press resiliently against each other and said cover toward said cup-like part.

3. A container comprising a cup-like part; a cover made of flat, pliable and elastic material and having at least one rib crossing the surface of said cover; and a hinge connecting said cup-like part and said cover, said hinge comprising a longitudinally folded strip of the same material as said cover is made of, divided into sections and pressing means formed by integral parts of said hinge, confined within the length of said hinge not longer than the width of said cover and pressing said sections resiliently against each other whereby said cover is resiliently pressed, toward said cup-like part.

4. A container comprising a cup-like part; a cover; and a hinge connecting said cup-like part and said cover, said hinge comprising a longitudinally folded strip of pliable and elastic material divided into sections and pressing means formed by integral parts of said hinge, confined within the length of said hinge not larger than the width of said cover, and pressing said sections resiliently against each other whereby said cover is resiliently pressed, toward said cup-like part, said cover and said hinge being made of one sheet having at least one rib crossing the line separating said cover and said hinge.

5. A container folded from a single sheet of pliable and elastic material and comprising a cup-like part; a cover; and a hinge connecting said cup-like part and said cover, said hinge comprising a longitudinally folded strip divided into sections and pressing means formed by integral parts of said hinge, confined within the length of said hinge not longer than the width of said cover and pressing said sections resiliently against each other whereby said cover is resiliently pressed, toward said cup-like part.

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