Aug. 26, 1930. L. MICHAEL 1,773,926

DECORATED CONTAINER

Filed Sept. 19, 1928

Fig. 1

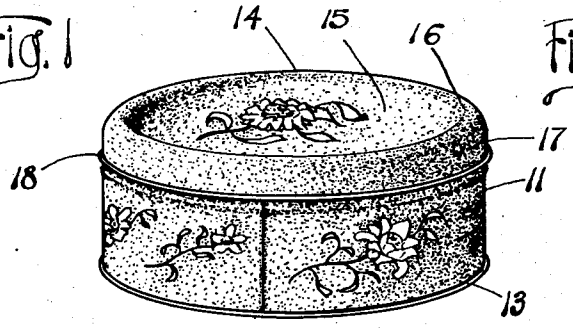


Fig. 2

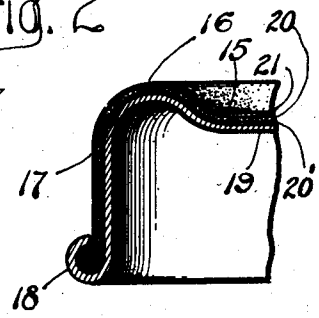


Fig. 3

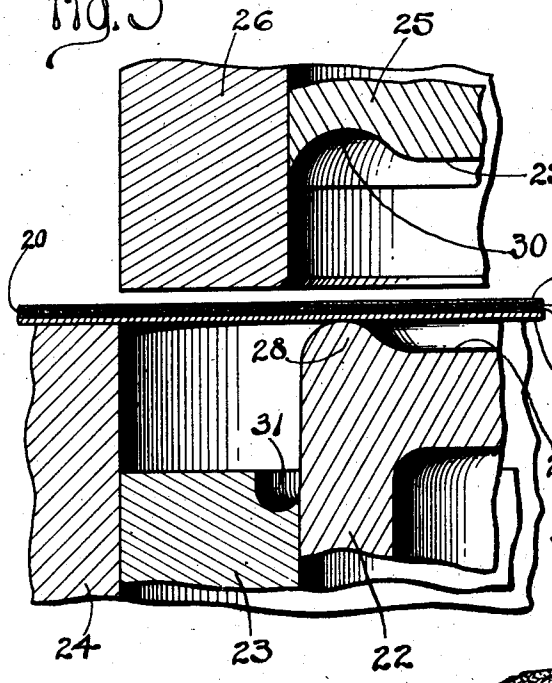


Fig. 4

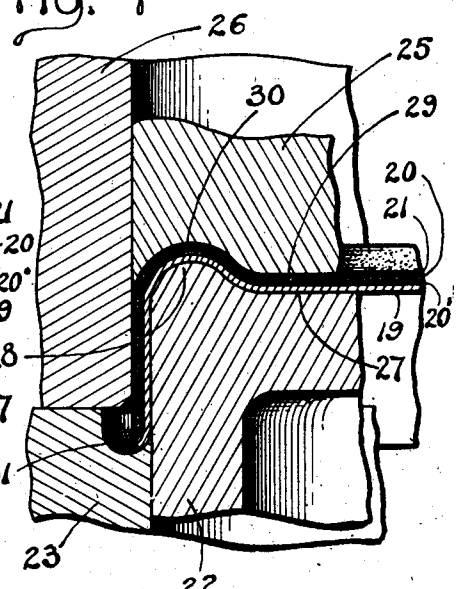
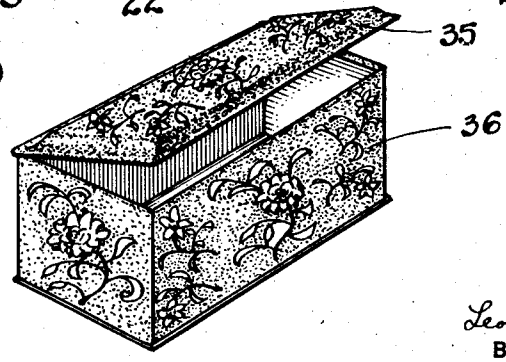


Fig. 5



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UNITED STATES PATENT OFFICE

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DECORATED CONTAINER

Application filed September 19, 1928. Serial No. 307,041.

This invention relates to decorated containers of a type which is used for the packaging of candy and a variety of other products. It has more particular reference to the method of drawing or otherwise forming such decorated containers or container parts from a flat blank which is covered with decorated cloth or other fabric or other suitable material.

An object of my invention is the provision of an ornamental container of beautiful appearance and improved construction, the outside of which is coated with decorated cloth, or other fabric or suitable material which has been proofed with a substance which fills up the interstices of the material and renders the same more tractable, pliant, smooth and glossy and incidentally in most cases water and moisture proof.

Another object of my invention is the provision of a method for making such cloth or fabric surfaced containers or parts thereof by a drawing or forming operation which entails a minimum amount of friction between the cloth or fabric surface and the die or other forming parts and thus avoids damage to the cloth or fabric covering.

Still another object of my invention is the provision of a method for drawing or otherwise forming the aforementioned cloth or fabric decorated container or container part, which utilizes the proofing substance of the decorated covering of the container or container part as a lubricant for the drawing dies or other forming devices.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, when taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

Referring to the drawings,

Figure 1 is a perspective view of one form of a container to which the principle of my invention is applicable;

Fig. 2 is an enlarged fragmental vertical section of a container cover produced by die action such as is shown in Figs. 3 and 4;

Figs. 3 and 4 are fragmental vertical cross-sectional views showing the relative position of the die parts and the container cover blank at the beginning and termination of the die action; and

Fig. 5 is a perspective view of an oblong container illustrating application of the principle of my invention to other types of containers.

To illustrate a preferred application of the principle of my invention, I have shown in Fig. 1 a container of the candy box type comprising a cylindrical body 11 of low height and large diameter and having a side seam 12 and a bottom end 13 permanently secured thereto in any preferred manner. The container body 11 is closed by means of a slip cover 14 fitting over the top part of the body. This slip cover comprises a sunken central top or panel 15, the material of which is gradually curved upwardly to form a rounded annular ridge 16 and then downwardly to form a depending flange 17 terminating in an outward curl 18. It is the drawing of this slip cover 14 as shown in Figs. 3 and 4 which furnishes an illustration of a practical application of my invention.

The composite blank out of which this cover 14 is made is clearly shown in Fig. 3. It comprises a flat piece of sheet metal 19 forming the bottom layer of the composite blank. A layer of cloth or other fabric or suitable material 20, preferably of ornamental design, is applied to the sheet metal 19 in the flat and is glued, cemented, or otherwise secured thereto. Reference numeral 20′ designates a layer of glue, cement or other suitable binding agent. The layer of material 20 is coated or impregnated with a suitable proofing material or compound 21 before it is applied to the blank 19.

This proofing substance 21 fills the interstices of the cloth sheet 20, making it smoother, more tractable and pliant, more glossy, and bringing out the color scheme of the design to best advantage. The proofing substance is preferably of a character to render the cloth sheet 20 moisture and water proof and also of a character to provide lubrication for the dies accomplishing the drawing operation. Untreated cloth or fabric is comparatively rough and presents a fric-

tional surface which is liable to tear or become frayed when it is stretched by the action of the drawing dies. My invention contemplates a proofing material, which, when applied to such cloth covering, will render the same water and moisture proof, and which will provide a smooth frictionless surface lubricating or facilitating the action of the forming dies. Such a material may be pyroxylin, collodin, linseed oil, paraffin and compositions of them. Such material not only renders the cloth water and moisture proof but makes it smooth and pliant and the proofing acts as a lubricant for the drawing dies or other forming devices reducing the friction between the dies or forming devices and the article to be drawn, preventing tearing and fraying and producing a smooth, glossy, neat appearing surface even around sharp corners. This proofing also protects the design or decoration of the cloth 20 and permits the ready washing off of foreign substances which would penetrate untreated cloth and cause stains and unsightly appearances.

Referring now to Fig. 3, the die mechanism for drawing the cover 14 from the composite blank consists of the lower die members 22 and 23, a lower die ring 24, and upper die member 25, and an upper die ring 26. The face of the lower die member 22 has a depressed part 27 and a rounded raised part 28 corresponding exactly in contour to the parts 15 and 16 of the cover 14 and the die face of the upper die 25 has parts 29 and 30 which are complementary to the parts 27 and 28, respectively, of the lower die 22. The lower die part 23 has a rounded recess 31 of the exact contour of the curl 18 of the cover 14, and the function of the recess 31 is to assist in the formation of this curl 18 in cooperation with the other parts of the die mechanism shown in Figs. 3 and 4.

Preparatory to the drawing operation the flat composite blank is placed upon the lower die mechanism with its lower surface resting upon the faces of the parts 22 and 24. The lower and upper die parts are then brought together and the composite blank is first drawn to the shape shown in Fig. 4 and by means of a subsequent upward movement of the die parts 23 and 26 the substantially straight edge of the cover flange 17 is bent into the outward curl 18 so that the final result of the completed drawing operation is shown in Fig. 2.

As will be readily apparent, the lubricating quality of proofed cloth is not only of benefit where the forming of the blank into a box part is accomplished by drawing the blank in dies as shown in Figs. 3 and 4, but also where the forming is accomplished in other ways and with other equipment. For instance, the body 11 (shown in Fig. 1) is not drawn by means of dies but is beaded, side seamed and a bottom double seamed thereto upon another type of machine and the presence of the fabric coating and the proofing substance not only does not interfere with these forming operations but helps to make the forming operation more smooth and speedy. Fig. 5 shows another type of container having a drawn hinge cover 35 and a rectangular body 36, the straight sides of which are connected by interfolding the end portions of the side walls in any suitable manner. Here again the folding operation is greatly facilitated by the presence of the proofing substance upon the fabric coated composite blank.

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. The method of producing fabric coated decorated containers and parts thereof, which comprises adhesively applying decorated and proofed fabric to a container blank in the flat, drawing said blank into the shape of a container part and utilizing the inherent lubricating quality of the proofing to reduce friction between the drawing or forming dies and the fabric coated blank.

2. The method of producing cloth decorated containers and parts thereof, which comprises adhesively applying decorated and proofed cloth to a container blank in the flat, drawing said blank into the shape of a container part and utilizing the inherent lubricating quality of the cloth proofing to reduce friction between the drawing or forming dies and the cloth decorated blank.

3. The method of producing decorated containers and parts thereof, which comprises treating a decorated coating material with a proofing substance to make said coating more tractable and water and moisture proof, adhesively applying said proofed coating material to a container blank in the flat, forming said blank into the shape of a container part and utilizing the inherent lubricating quality of said proofing to reduce friction between the forming dies and the said blank.

4. The method of producing cloth decorated containers and parts thereof, which comprises providing a flat container blank with a waterproofed cloth covering, subjecting said blank to a drawing operation to form a container part and utilizing the waterproofing material as a lubricant during the drawing operation to reduce friction between

the forming dies and the blank to avoid tearing of the cloth.

5. A blank of sheet metal adapted to be formed into a container part and provided with a sheet of cloth adhesively affixed thereto, said sheet of cloth carrying a die lubricant which permits the smooth drawing or bending of the sheet of metal with the cloth secured upon it.

6. A blank of fabric surfaced sheet metal adapted to be formed into a container part, said fabric being adhesively affixed to said metal while in the flat, and carrying a waterproofing material which also serves as a die lubricant and permits smooth drawing and bending of the blank.

7. A drawn decorated sheet metal container part, the decoration thereof consisting of a fabric adhesively affixed to the metal base, said fabric carrying a material which lubricates the drawing bending dies in the drawing and forming operation and which contributes to the decorative appearance of the finished container.

8. A drawn decorated sheet metal container part, the decoration thereof consisting of a cloth permanently affixed to the metal base, said cloth carrying a material which waterproofs said cloth and which also lubricates the drawing and forming dies in the drawing or forming operation.

9. A composite blank adapted to be formed into a container part and provided with a sheet of fibrous material adhesively affixed thereto, said sheet carrying a die lubricant which permits the smooth drawing or forming of said blank.

10. The method of producing coated containers and parts thereof, which comprises adhesively applying a proofed coating to a container blank in the flat, drawing, or forming, said blank into the shape of a container part and utilizing the inherent lubricating quality of the proofing to reduce friction between the drawing or forming mechanism and the coated blank.

LEONARD MICHAEL.