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CLOSURE FOR PAPER CONTAINERS

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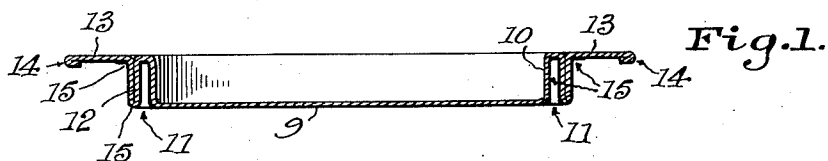


Fig. 1.

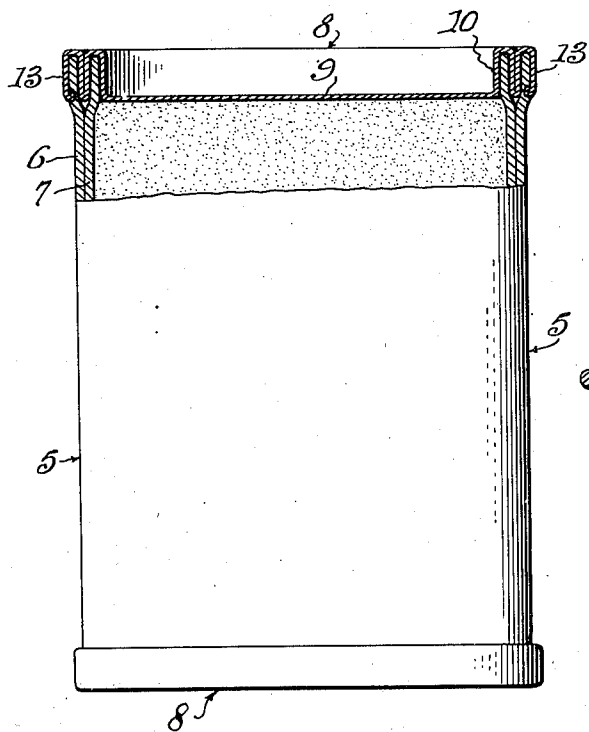


Fig. 2.

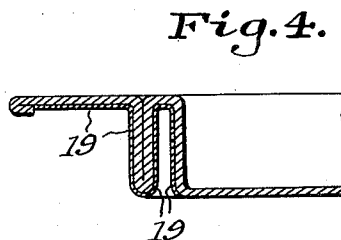


Fig. 4.

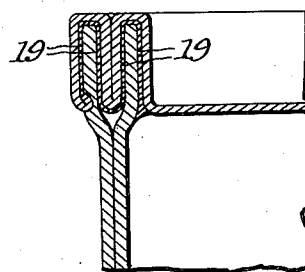


Fig. 5.

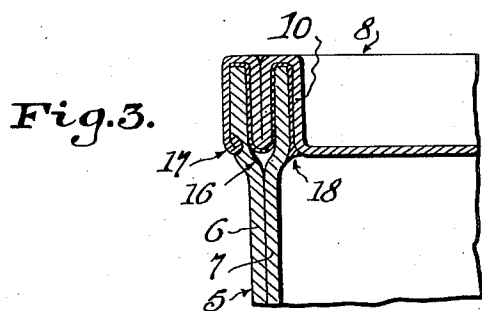


Fig. 3.

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CLOSURE FOR PAPER CONTAINERS

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4 Claims. (Cl. 229-5.6)

The invention relates generally to container structures and primarily seeks to provide a novel form of container and end closure therefor which is sturdy, inexpensive to manufacture and proof against wicking.

Paper containers and metallic end closures therefor have been provided heretofore, but difficulties have been experienced in effecting a union between the container bodies and the end closures which is liquid tight and proof against wicking. It is the purpose of the present invention to provide a container structure in which these difficulties are avoided.

In its more detailed nature the invention seeks to provide a container structure having a double walled body formed of paper, and an end closure of metal shaped to provide two annular channels separated by a wall insertible between the thicknesses of body wall stock at the end of the container body, the individual end walls of the double wall body stock being securely clamped in the individual channels.

An object of the invention is to provide a container structure of the character stated in which a sealing medium is interposed between the container body stock and the end closure in both channels.

Another object of the invention is to provide a container structure of the character stated in which the sealing medium interposed between the container body stock and the end closure is Scotch tape.

With the above and other objects in view that will hereinafter appear, the nature of the invention will be more fully understood by following the detailed description, the appended claims and the several views illustrated in the accompanying drawing.

In the drawing:

Figure 1 is a detail vertical cross section illustrating the improved closure member prior to mounting thereof on the container body.

Figure 2 is a side elevation and part vertical cross sectional view illustrating the complete container.

Figure 3 is an enlarged fragmentary sectional view illustrating the union of the closure member and the container body.

Figure 4 is a fragmentary sectional view illustrating a modified form of end closure in which Scotch tape is employed as the sealing means.

Figure 5 is an enlarged fragmentary cross sectional view illustrating the end closure of Figure 4 mounted on a container body.

In the example of embodiment of the invention

herein disclosed the container body generally designated 5 preferably is composed of two paper shells, one slipped over the other so as to provide two contacting body walls 6 and 7. The container is completed by affixing end closures thereon in the manner illustrated in Figure 2, said end closures, generally designated 8, preferably being formed of metal.

Each end closure shown in detail in Figure 1 includes a depressed central body 9 merging into a cylindrical heel 10 adapted to fit within the end of the body 5. The heel 10 constitutes the inner one of two walls defining an inner channel 11, the other channel defining wall constituting a part of the end closure metal bent upon itself to form a separator wall 12. The outer wall portion of the separator wall 12 is extended outwardly in the form of a horizontal flange 13 as illustrated in Figure 1, and terminates in an under-turned hem 14. A sealing compound 15 or coating of a suitable oil resistant or water proof material, depending upon the use to which the container is to be put, is applied over the whole surface of the separator wall 12, over the heel 10, and also over at least a portion of the horizontal flange 13.

In completing the container in the manner illustrated in Figures 2 and 3 of the drawing, the separator wall 12 is inserted as at 16 between the walls 6 and 7 at the end extremity of the body structure generally designated 5, and the flange 13 is bent down against the external surface of the body to form a skirt cooperating with the external surface of the separator wall 12 in forming a second of the two channels in which the individual walls 6 and 7 are embraced. In the final setting of the seal the heel 10, the separator wall 12 and the flange skirt are pressed into tight assembly so that the sealing compound in the two annular channels embracing the individual body walls 6 and 7 will form a tight seal, and it will be observed by reference to Figure 3 of the drawing that the end extremity of the flange skirt is indented in the body as at 17. A fillet 18 of sealing compound preferably is applied against the inner body wall 7 and the end closure at the juncture of the heel 10 with the central body 9 of the closure. It will also be observed that the heel 10, the separator wall 12 and the outer skirt are of substantially the same length. The end closure or container seal thus effected is liquid-tight, proof against wicking.

In Figures 4 and 5 of the drawings there is illustrated a slightly modified form of closure in which the end closure is constructed and applied

in the same manner hereinabove described except that Scotch tape 19 is attached to the closure in the manner illustrated in Figure 4 so as to engage both sides of both individual body walls when they are tightly clamped within the two individual annular channels. While other modes of attachment are comprehended within the scope of the invention as defined in the appended claims, the Scotch tape is adhered to the closure by a suitable form of adhesive applied to the closure or to the normally smooth face of the Scotch tape, and the face of the Scotch tape bearing the customary adhesive is presented for adhesive contact with the channel embraced body wall portions and forms a union effective to prevent wicking at the body end.

It is of course to be understood that the details of structure and the arrangement of parts may be variously changed and modified without departing from the spirit and scope of the invention.

I claim:

1. In a container, a double walled body of paper, and an end closure therefor having two deep parallel annular channels separated by a separator wall extending substantially the full depth of said channels and formed by two thicknesses of end closure stock, the inner and outer walls of the annular channels being parallel and the separator wall being inserted between the double walls of the body, each said channel embracing therein one of said double walls, and a sealing medium in each said channel and forming an adhesive union against the individual body wall portion embraced therein.

2. In a container, a double walled body of paper, and an end closure therefor having two deep parallel annular channels separated by a separator wall extending substantially the full depth of said channels and formed by two thicknesses of end closure stock, the inner and outer walls of the annular channels being parallel and the separator wall being inserted between the double walls

of the body, each said channel embracing therein one of said double walls, and a sealing medium in each said channel and covering said separator wall so as to form an efficient adhesive sealing of each of the body wall portions individually embraced in said channels.

3. In a container, a double walled body of paper, and a metallic end closure having a cylindrical heel inserted in the end of said body, a cylindrical skirt bearing parallel concentrically spaced relation to the skirt and embracing the exterior of said body end, and a deep separator wall formed of two thicknesses of the end closure stock engaging in face to face contact centrally between and in parallel concentrically spaced relation to said heel and skirt and inserted between the two walls of the body end, one body end wall being securely clamped in the annular channel formed between the separator wall and the heel, and the other body end wall being securely clamped between the separator wall and the skirt.

4. In a container, a double walled body of paper, and a metallic end closure having a cylindrical heel inserted in the end of said body, a cylindrical skirt bearing parallel concentrically spaced relation to the skirt and embracing the exterior of said body end, and a deep separator wall formed of two thicknesses of the end closure stock engaging in face to face contact centrally between and in parallel concentrically spaced relation to said heel and skirt and inserted between the two walls of the body end, one body end wall being securely clamped in the annular channel formed between the separator wall and the heel, and the other body end wall being securely clamped between the separator wall and the skirt, and Scotch tape secured to the end closure in each said body end wall clamping channel and embracing and sealing the end of each body wall in each of the two channels.

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