June 14, 1955 R. R. CARR 2,710,694

COMBINATION HOLDER AND CLOSURE FOR CONTAINERS

Filed March 27, 1952

Fig. 1.

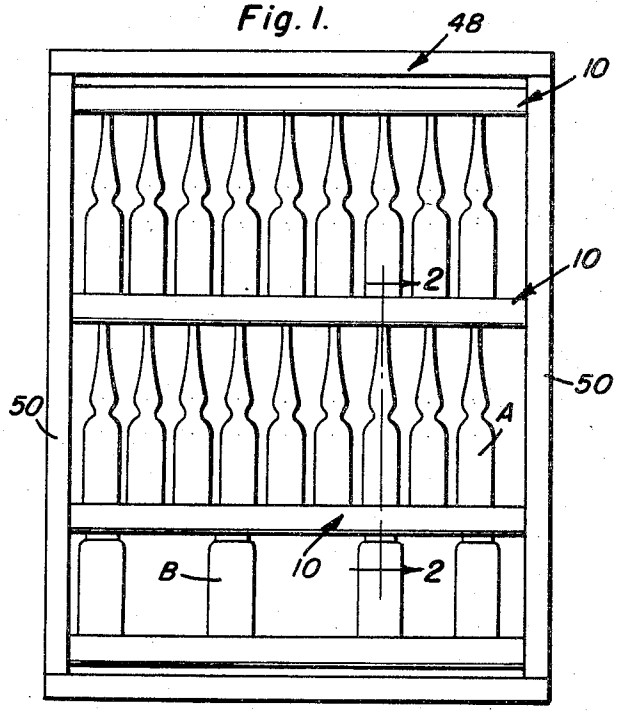


Fig. 3.

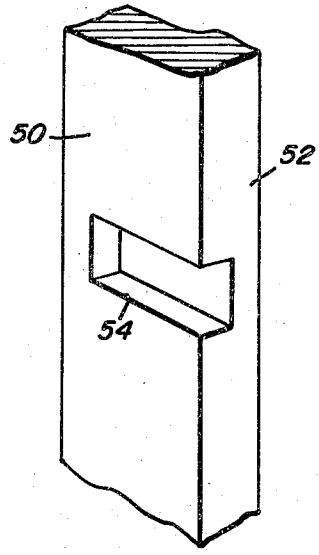


Fig. 2

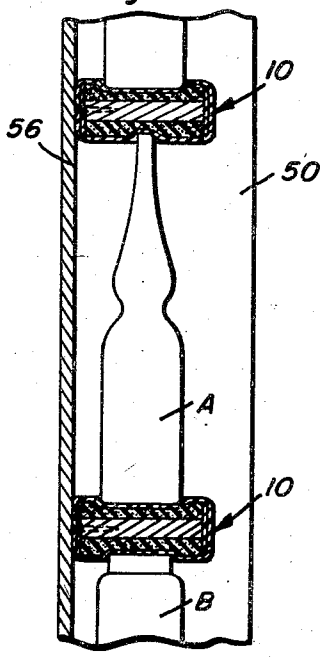


Fig. 4.

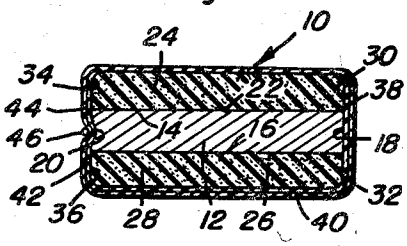
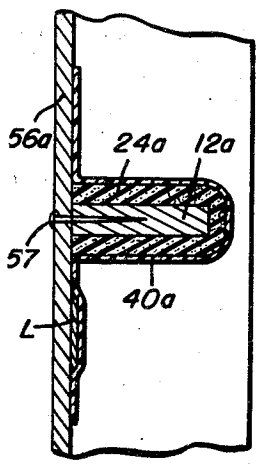


Fig. 5.



Roman R. Carr

INVENTOR.

BY Thomas A. O'Brien and Harvey B. Jacobson

Attorneys

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COMBINATION HOLDER AND CLOSURE FOR CONTAINERS

Roman R. Carr, Minneapolis, Minn.

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1 Claim. (Cl. 211—76)

This invention relates to new and useful improvements in holding devices and the primary object of the present invention is to provide a combination holder and closure for ampules, bottles and the like.

Another important object of the present invention is to provide a container holding and closing means involving a pair of co-acting shelf members each of which is provided with a resilient portion to yieldingly receive the container therebetween and to permit closing of the open end of the container by the resilient portion of the uppermost of the pair of shelf members.

A further object of the present invention is to provide a combined holder and closure means for ampules, bottles and the like, consisting of a shelf member having a rigid core, a foam or sponge rubber strip secured to the core and covered by a plastic sheet that will effectively seal and close the open end of a container, in order to retain the container in a sanitary condition.

A still further aim of the present invention is to provide a combined holder and closure for containers, such as ampules and bottles, that is simple and practical in construction, strong and reliable in use, efficient and durable in operation, small and compact in structure, inexpensive to manufacture, and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operations as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part thereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a front elevational view of the present invention in use;

Figure 2 is an enlarged detail vertical sectional view taken substantially on the plane of section line 2—2 of Figure 1;

Figure 3 is a fragmentary perspective view of one of the vertical portions of the frame that will support a shaft member;

Figure 4 is an enlarged view of Figure 2 to show the construction of the shelf member; and,

Figure 5 is a view similar to Figure 2 but showing the invention in modified form.

Referring now to the drawings in detail, wherein for the purpose of illustration, there is disclosed a preferred embodiment of the present invention, the numeral **10** represents a shelf member generally, including a rigid core **12** having flat upper and lower faces or surfaces **14** and **16**, and forward and rear edges **18** and **20**.

The lower face **22** of an upper foam rubber strip **24** is adhesively secured to the upper face **14** of the rigid core **12** by a suitable cement and the upper face **26** of a lower foam or sponge rubber strip **28** is adhesively secured to the lower face **16** of the rigid core **12** also by a suitable cement. The strips **24** and **28** are equal in width to the width of the core **12** and include forward edges **30** and **32** that are flush with edge **18** of core **12** and rear edges **34** and **36** that are flush with the rear edge **20** of the core **12**.

The adhesive face of an adhesive tape **38** is applied to the relatively flush edges **30**, **32** and **18** to further bond the juxtaposition layers **12**, **24** and **28** together and cover the exposed edges of the shelf member thus far described.

A pliable plastic sheet **40**, preferably of polyethylene, is firmly wrapped about the strips **24** and **28** to slightly round the exposed corners of the strips **24** and **28**. The overlapping longitudinal edges **42** and **44** of the sheet **40** are disposed at the rear edges of the strips **24** and **28** and the rear edge of the core, and the edges **42** and **44** are secured together and to the rear edge of the core **12** by longitudinally spaced staples or fasteners **46**.

A support or cabinet is provided for a group of the shelves **10** and this support comprises an open substantially rectangular frame **48** having a pair of spaced parallel vertical portions **50** whose rear edges **52** are provided with vertically spaced horizontal recesses **54** for accommodating the ends of the shelf members **10**.

The ends of the shelf members **10** will be yieldingly retained in the recesses **54**, due to the resilient characteristics of the strips **24** and **28**, however, a backing panel **56** is secured to the rear edges of the frame **48** and more particularly the edges **52** of portions **50**, to hold the shelf members in their recesses.

In practical use of the present invention, containers such as ampules A and bottles B are positioned between adjacent shelf members with the bottoms of the ampules and bottles engaging the lower of the pair of adjacent shelf members and with the open tops of the ampules and bottles engaging the upper of the pair of adjacent shelf members. The shelf members will be depressed slightly, as shown in Figure 2, to yieldingly and resiliently hold the ampules and bottles, further, the open tops of the ampules and bottles will be tightly sealed by the action of the rubber strips and sanitarily sealed by the plastic sheet.

Sheet **40** functions as a covering for the core **12** and strips **24** and **28**; a confiner for the core **12** and strips **24**, **28**; a sanitary seal for the open ends of the ampules and bottles; and also as a wearing surface for the shelf members. The core **12** may obviously be of suitable material such as wood or metal but since the simplest fastening means for the sheet **40** comprises staples, the core must be of a material that may be penetrated by the staples.

The co-acting pair of adjacent shelf members are capable of supporting various types of containers, such as paint cans, and the plastic sheet **40**, being very inert to chemical action, would not permit adherence of any paint or chemical in the bottles. Other plastic sheets, resistant to chemical action may be substituted for sheet **40** or the outer faces of the strips **24** and **28** covered with a chemical resistant but sanitary film.

Figure 5 shows the rigid core **12*a*** embraced by a soft rubber strip or channel **24*a***. The rear edge of core **12*a*** is secured to the backing **56*a*** by fasteners **57** and a transparent plastic sheet **40*a*** is adhesively secured to the forward face of panel **56*a*** and covers the channel **24** and is secured to the panel or backing **56*a*** below the core and over labels L to protect the labels which are employed for indicating the contents of containers disposed between two shelves.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as

herein described and the scope of the appended claim.

Having described the invention, what is claimed as new is:

A combined holder and closure for containers, such as ampules, bottles and the like, said combined holder and closure comprising an open substantially rectangular frame including a pair of spaced parallel vertical portions having vertically spaced horizontal recesses, and a plurality of shelf members having their ends removably positioned in said recesses and supported by the vertical portions, each of said shelf members including a rigid core having upper and lower faces, upper and lower foam rubber strips secured to the upper and lower faces of said core, and a plastic sheet embracing the strips and the

core, the ends of said shelf members being yieldingly retained in said recesses by the rubber strips.

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