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H. L. CARPENTER

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SECTIONAL CONTAINER AND COUPLING

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Fig. 1

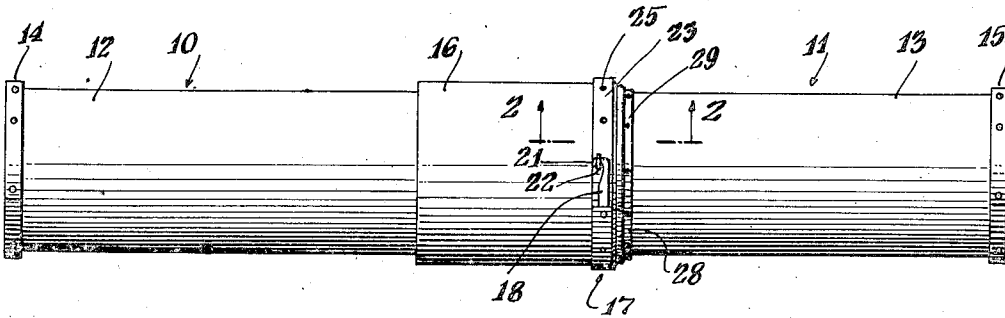


Fig. 3

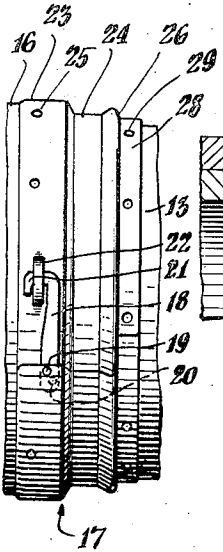


Fig. 2

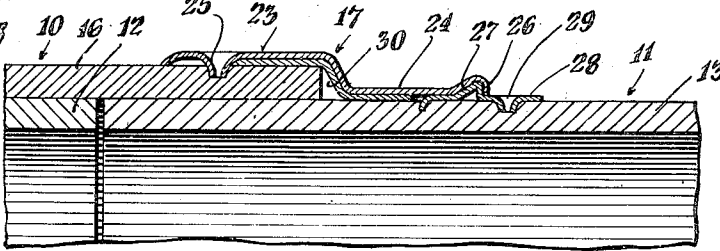
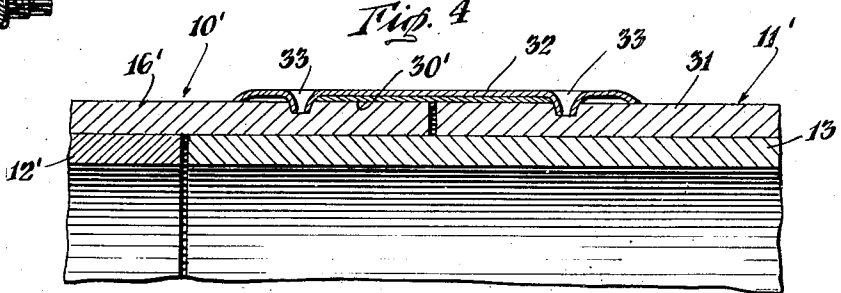


Fig. 4



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SECTIONAL CONTAINER AND COUPLING

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123,414. Divided and this application June 19,
1945, Serial No. 600,319

2 Claims. (Cl. 285—129)

1

This invention relates to improvements in containers.

It is frequently desirable to provide a container of unusual length. Thus, where it is desired to pack a rug, linoleum, or similar material, it is necessary for the container to be at least equal in length to the length of the material. The manufacturing and handling of a container of this length is inconvenient and difficult and presents problems which increase the cost of the container.

It is an object of the present invention to overcome this difficulty and to provide an improved container formed of multiple sections which may be of convenient size and which may be coupled together to provide a complete container of unusual length.

A further object of the present invention is the provision of an improved container formed of multiple complementary sections which may be readily assembled together to form a completely enclosed casing or container and which may also be readily opened when desired to expose the contents thereof.

Among other objects is the provision of a container of the above character which is of inexpensive but nevertheless durable construction and which may be used and re-used over a long period of time with comparative freedom from wear.

This application is a division of my co-pending application Serial #123,414 filed February 1, 1937, now Patent No. 2,382,858 for Container.

In the accompanying drawing

Fig. 1 is a side view of a container embodying my invention.

Fig. 2 is a detailed sectional view in the direction of the arrows on line 2—2 of Fig. 1.

Fig. 3 is a view showing details of the locking mechanism that may be used in connection with my invention, and

Fig. 4 is a detailed sectional view similar to Fig. 2, showing a modified form of my invention.

Referring to the first three figures of the drawing the container consists of multiple sections suitably assembled and secured together adjacent the central portion of the container in the manner shown.

In the illustrated embodiment I have shown two sections 10 and 11 formed of cylindrical body members 12 and 13 made of suitable material such as fibre, plastic material, metal or the like. The outer ends of the sections are preferably provided with closures (not shown) which may be permanently secured in position as by means of

2

the metal rims 14 and 15. The specific manner of securing these closures in position forms no part of my present invention and any suitable arrangement may be employed such as, for instance, that shown and described in my co-pending application Serial #123,414 filed on February 1, 1937, now Patent No. 2,382,858.

The joining ends of the two sections 10 and 11 are open and are fitted together in the manner shown so that the one section serves as a removable closure for the other. For this purpose section 10 is formed with a collar 16 around the exterior thereof adjacent and projecting beyond its open end as shown most clearly in Fig. 2. The body portion of section 11 is similar in size to the body portion of section 10 with the result that section 11 may be telescoped or fitted into the collar 16 forming a completely enclosed container.

As shown, I also preferably provide suitable means for retaining the sections in assembled relationship and this may take the form of a split clamping rim 17 preferably made of sheet metal and formed into an annular band having overlapping ends, the two ends being so connected that the band may be contracted to clamp the two sections together or expanded to permit the sections to be separated. For this purpose I may use a locking mechanism similar to that shown in my co-pending application Serial #123,414 filed February 1, 1937, and referred to above. This mechanism takes the form of a lever 18 pivotally connected to one end of the locking rim as by means of a pivot 19 and pivotally connected to the other end as by means of a rivet 20. The two rivets preferably being offset when the lever is in locked position in the manner shown so that any force exerted to expand the rim only serves to lock the lever. The lever is retained in locked position by providing it with a projecting hook 21 engaging with a loop 22 formed upwardly from the locking rim 17.

The locking rim is of stepped cross-sectional construction as shown in Fig. 2, the one portion 23 being of greater diameter and being adapted to surround and engage the collar 16 and the other portion 24 being of lesser diameter and being adapted to surround and engage the body portion 13 of section 11. To cause the locking rim to interengage with collar 16 I may provide it with suitable spurs or studs 25 projecting inwardly in the manner shown into collar 16. At its opposite edge the rim is preferably provided with an inwardly turned lip or flange 26 adapted to engage with rib 27 formed on metal band 28

3

permanently secured around section 11 a short distance from the end thereof. Band 28 may be suitably held in position by means of spurs or lugs 29 projecting inwardly into the body section 13.

If desired a suitable strip of sealing material 30 may be wound around the overlapping ends of the two sections beneath rim 17. The sealing strip may be made of any suitable sealing material such as paper treated with water-proofing material or from plastic material such as moisture-proof Cellophane or from metal foil.

It will be seen that in the container illustrated in the first three figures of my drawings the two may be separately manufactured. Thereafter, when it is desired to use the container, the material, for instance a roll of linoleum, is inserted into one of the sections and the other section is assembled over the other end of the material and the two sections are telescopically fitted together. The locking rim is then placed in position so as to overlap the two ends of the sections in the manner shown and locking lever 18 is then closed so as to contract the rim causing it to tightly engage the overlapping ends of the sections and lock them together. The container may be readily opened by pivoting the lever 18 to expand the rim thereby releasing its inter-engagement with the two sections and permitting them to be withdrawn from each other.

In the modified form of my invention shown in Fig. 4 I provide a pair of sections 10' and 11' having body portions 12' and 13' which may be closed at their outer ends in a manner similar to the first form of my invention. The section 10' preferably has a collar 16' around the exterior thereof which projects beyond the open end similar to collar 16. I also preferably provide a collar 31 around the exterior of section 11', the collar 31 being spaced a short distance from the open end thereof, this distance corresponding to the length of the projecting portion of collar 16'. The two sections are assembled together with body portion 13' of section 11' telescopically fitted into collar 16', the two collars 16' and 31 serving to give a smooth exterior surface to the container at the point of connection.

To secure the two sections together I provide a split clamping rim 32 which is made of sheet metal and is formed into a band in a manner similar to clamping rim 17 and has overlapping ends and suitable locking mechanism similar to that shown in Fig. 3 to expand and contract the rim. Adjacent its two edges the rim is provided with inwardly projecting spurs or lugs 33 which project into the collars 16' and 31 forming a positive engagement between the rim and the two sections so as to lock them together when the rim is contracted. The rim is assembled around and overlaps the joint between the two collars 16' and 31.

4

In this form of my invention I may also use a strip of sealing material 30' wound around the container over the point of connection, the said strip corresponding to sealing strip 30 in the first form of my invention.

The container shown in Fig. 4 is similar in function and method of operation to the first form of my invention.

It will thus be seen that I have provided a container made of multiple sections which may be readily assembled together or separated as desired and which is of rugged construction so that it may be repeatedly used without damage or injury thereto. It will be appreciated that modifications may be made in the illustrated and described embodiments without departing from my invention as set forth in the claims.

I claim:

1. A container structure comprising a plurality of separable sections each including a hollow body portion made of fibrous material and cooperable to be joined together end to end, the end of one section being of greater diameter than the end of another section to provide telescopic engagement between the ends, one of said sections being formed with a circumferentially extending relatively thin, separate metal band secured therearound having a continuous projecting rib thereon adjacent the end of said section which joins the other section and means including an expanding metal clamping rim for encircling and overlapping the joining ends of the said sections, the said rim having a portion inter-engageable with the rib on the band of one section and being inter-engageable with the other section whereby the sections are releasably retained in assembled relationship.

2. A container structure as set forth in claim 1 in which the portion of the circumferentially extending metal band which is inter-engageable with the other section of the container structure is formed with inwardly projecting spurs which positively grip and engage the said other section.

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