Feb. 4, 1936. G. T. HYNES ET AL 2,030,040

SHIPPING CONTAINER

Filed Dec. 8, 1934

FIG. 1

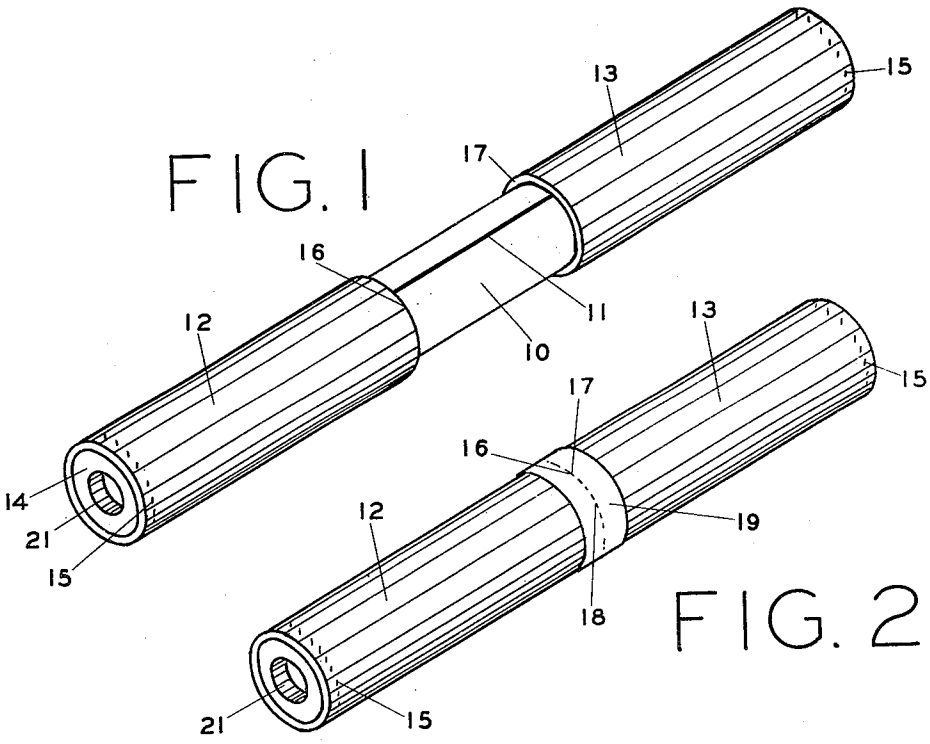


FIG. 2

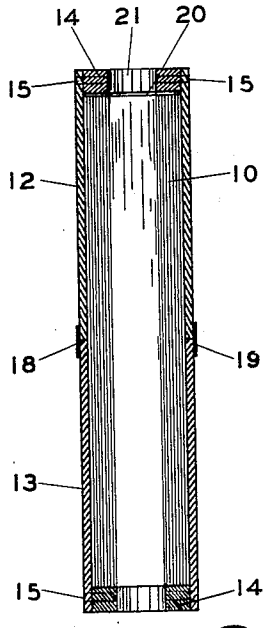


FIG. 3

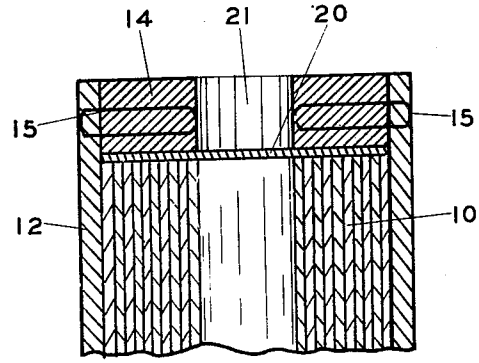


FIG. 4

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SHIPPING CONTAINER

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7 Claims. (Cl. 206—59)

Our invention relates to an improved shipping container.

A principal object of the invention is to provide a container for rugs, piece goods or other merchandise that is shipped in rolled form, and requires a container that will withstand the strains and abuse incident to the handling, shipment and storage of this type of merchandise, and also be of light weight and low cost.

A further object of the invention is to provide a container constructed to afford particular protection to the ends of the rolled rugs or merchandise and will, by reason of the strength and rigidity obtained, protect against bending, cracking or chipping of the ends, as well as against abrasion that might be caused by relative movement between the layers of the rolled material.

A further object of the invention is to provide a container that is constructed in two sections, each completely fabricated in a permanent manner at the plant of the container manufacturer, and requires only the taping of a single joint at the plant of the merchandise shipper to assemble the container about the merchandise.

A still further object of the invention is to provide a container, of great strength and convenience of use, that can be readily opened and resealed without impairing its strength.

Our improved container is particularly adapted for the shipment of linoleum type rugs, and though the invention is not limited or confined to such particular use, we have shown in the annexed drawing, and specified, the details of construction and manner of use when applied to this service.

The container comprises two relatively inverted sections telescoped over opposite ends of the rolled rug and joined together by means of a gummed tape overlapping the circumferential joint between the sections. A permanent "load ring" is fixed within the outer end of each section and is conterminous with the annular edge of the rolled rug at each end of the container.

The improved container is preferably constructed with a body formed of spiral wound tubing and either spiral or straight wound load rings. The material used for these parts is preferably paperboard or fibreboard. The discs which may be used at the ends of the container to keep out dust can be cut from sheet fibreboard. The load rings are preferably fixed within the tube by wire stitching, but may be riveted in place. We prefer to use cloth tape for the joint between the sections, but other suitable fastening means may be used.

In the drawing, in which like reference numerals designate like parts in the different figures:

Fig. 1 is a perspective view of the two sections of our improved container partially telescoped on a rolled rug.

Fig. 2 is a perspective view of the two sections of the improved container in adjoining relation and united by gummed tape over the joint between the sections.

Fig. 3 is a cross section on a central plane of our improved container and of a rolled rug therein.

Fig. 4 is a cross section, to an enlarged scale, of one end of the container shown in Fig. 3.

Referring to Fig. 1, reference numeral 10 designates the rug or other roll of merchandise terminating at an edge 11. Partially telescoped over one end of the roll 10 is the container section 12 and partially telescoped over the opposite end of the roll 10 is the container section 13. The load ring 14 is fixed in the end of the container section 12 by means of the wire stitches 15. A similar load ring is fixed in the outer end of the container section 13 by means of the wire stitches 15. The inner end of the section 12 is shown at 16 and the inner end of the section 13 is shown at 17.

Referring to Fig. 2, the container sections 12 and 13 have been moved inwardly, on the roll of merchandise, until their inner edges 16 and 17 contact along the circumferential joint 18. A suitable length of gummed tape 19 is affixed around the joint 18 and engages the container sections 12 and 13 to hold the same in contact.

When the container is assembled as shown in Fig. 2 it is ready for shipment.

Referring to Fig. 3 and Fig. 4, the container sections 12 and 13 are telescoped over the rolled rug 10 and contact at the joint 18. The tape 19 serves as a splicing means to join the two sections of the container as described above. The load rings 14 are fixed in the outer ends of the container sections by means of the wire stitches 15.

It will be noted that the load rings 14 are conterminous with the roll of material within the container and the direct support thus given to the container load is one of the important features of our invention. A flat disc 20 may be used, if desired, between the edge of the rolled rug and the load ring to act as a dust guard.

The inner diameter of the container conforms closely to the outer diameter of the rolled rug. The inside length of the combined sections of the container between the load rings is just sufficient to permit the inner edges of the sections to make contact at the central joint.

It is pointed out that the rolled rug provides

great strength in itself to resist flexure and therefore the lifting of the loaded container by the ends, places no undue strain upon the taped joint between the sections of the container. The function of the tape is to hold the sections in contact and since the glued surface of the tape is solely in shear in performing this function, a very great resistance is inherent in the joint to any force tending to separate the sections.

The anvil of a power stitching or riveting machine may be entered within the central opening 21 of the load ring 14. Because of this fact the load rings 14 can be fixed within the ends of the container sections so securely that for practical purposes they become integral therewith. It will be understood that our improved containers are often used, and are particularly adapted for the shipment of large and heavy rugs. One of the common sizes of rug requires a container 108" long inside. The advantage of permanently fixing the load rings in half length container sections of this size, prior to loading, will be obvious.

In the commercial embodiment of our invention, at present, the tubular body of the containers range from 5 to 12 inches in diameter and up to 108 inches inside length of the combined sections. The tube walls range ⅛ to ½ inch in thickness depending on the load requirements. The load rings are of suitable dimensions in each container to support the entire load under all conditions. The dust discs can be cut from fibreboard $\frac{1}{16}$ of an inch or less in thickness. Standard weight and width of container stitching wire is preferably used to fix the load rings in the container.

The importance of the load ring being co-extensive with the load has been pointed out. In a shipment of rugs made of linoleum, whether of cork or printed felt-base type, it is imperative that no deflection of the rug edges or relative movement between the layers of the rolled rug take place, otherwise damage to the rug will result. Heretofore, heavy, bulky and expensive wooden boxes were quite universally used for this service.

The tape sealing means employed to join the container sections permits of the ready inspection of the merchandise and the replacing of the container in its original condition by either using a new piece of tape or re-gluing the original piece. In either case the container may be opened and closed a great number of times without damage to it.

We claim:

1. A package of merchandise comprising a piece of merchandise in rolled form and two relatively inverted container sections that telescope the oppositely disposed ends of said roll of merchandise and make contact at their inner edges so as to inclose the said roll within the said container; each of said container sections consisting of a tubular body and a load ring permanently fixed in the outer end of said tube, by means of metallic elements passing through said tube and load ring and clinched within said load ring; said load rings being substantially conterminous with the annular edges of the roll of merchandise and adapted to directly support said merchandise during all positions of said container; a pair of relatively thin discs, capable of withstanding compressive stress alone, positioned transversely of said container between said load rings and said merchandise, to prevent entry of dust; and a gummed tape overlapping the circumferential joint between said container sections to hold said sections in contact with each other.

2. A package of merchandise comprising a piece of merchandise in rolled form and two relatively inverted container sections that telescope the oppositely disposed ends of said roll of merchandise and make contact at their inner edges so as to inclose the said roll within the said container; each of said container sections consisting of a tubular body and a load ring permanently fixed in the outer end of said tube, by means of metallic elements passing through said tube and load ring and clinched within said load ring; said load rings being substantially conterminous with the annular edges of the roll of merchandise and adapted to directly support said merchandise during all positions of said container; and a gummed tape overlapping the circumferential joint between said container sections to hold said sections in contact with each other.

3. A shipping container for a rug comprising two relatively inverted sections to inclose a rolled rug within said sections; each section having at its outer end a load ring substantially co-extensive with the annular edge of the rolled rug; metallic elements passing through said section and said load ring and clinched within said load ring to effect a permanent junction between said section and said ring; a disc positioned transversely of said section to prevent entry of dust; and a gummed tape overlapping the circumferential joint between said sections to hold said sections in contact with each other.

4. A shipping container for a rug comprising two relatively inverted sections to inclose a rolled rug within said sections; each section having at its outer end a load ring substantially co-extensive with the annular edge of the rolled rug; metallic elements passing through said section and said load ring and clinched within said load ring to effect a permanent junction between said section and said ring; and a gummed tape overlapping the circumferential joint between said sections to hold said sections in contact with each other.

5. A shipping container for a roll of merchandise comprising two relatively inverted sections to inclose a roll of merchandise within said sections; each section having a load ring substantially conterminous with the annular edge of the roll of merchandise, permanently fixed in the outer end of said section, by means of metallic elements passing through said section and load ring and clinched within said load ring; and means to hold said sections in contact with each other.

6. A shipping container for a roll of merchandise comprising two relatively inverted sections to inclose a roll of merchandise within said sections; each section having a load ring permanently fixed in the outer end thereof, by means of metallic elements passing through said section and load ring and clinched within said load ring; and means to hold said sections in contact with each other.

7. A structure to protect and support the end of a rug rolled for shipment comprising a tube telescoped over the end of said rug and a load ring substantially conterminous with the end of said rug, said load ring being permanently fixed within said tube by means of metallic elements passing through said tube and load ring and clinched within said load ring.

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