April 16, 1957 M. G. SHIFRER 2,788,894

SEPARATOR AND COVER FOR CYLINDRICAL OBJECTS

Filed Dec. 14, 1954

FIG. 1.

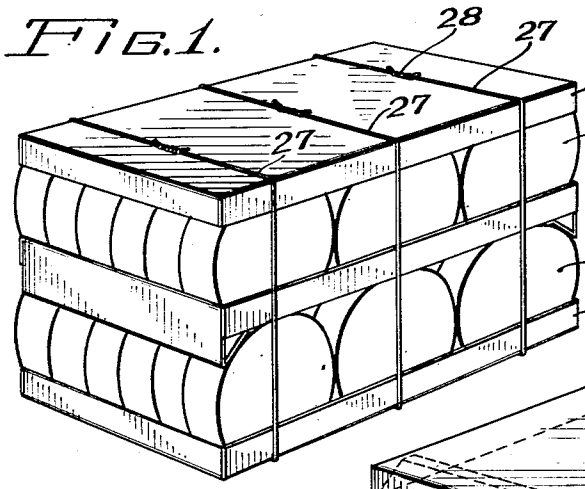


FIG. 2.

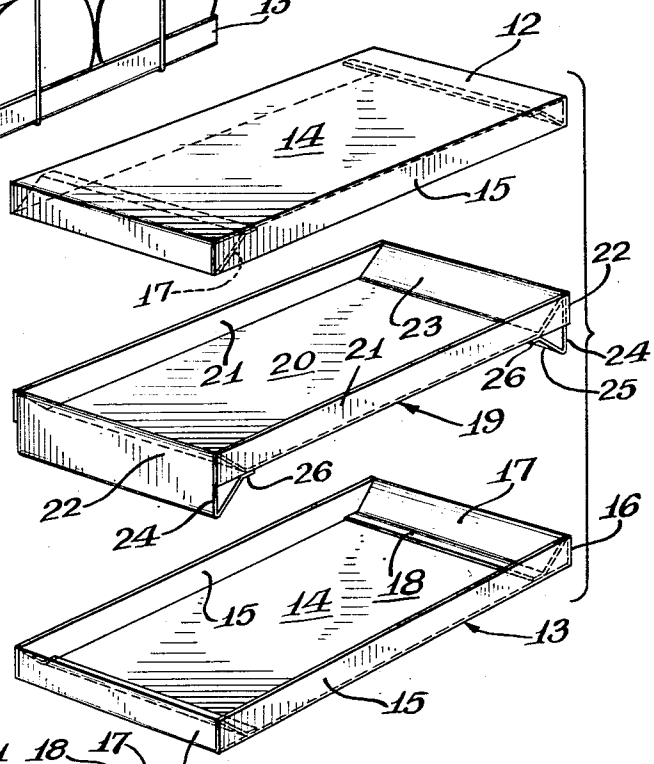
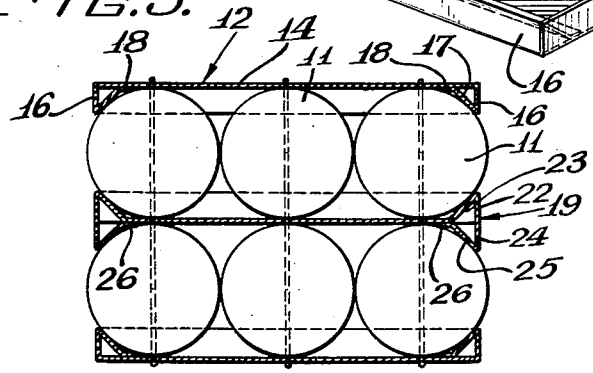


FIG. 3.



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2,788,894

SEPARATOR AND COVER FOR CYLINDRICAL OBJECTS

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1 Claim. (Cl. 206—65)

This invention relates to a packing device or container. More specifically the invention relates to a packaging unit particularly adapted for packaging and shipping cylindricail or circular objects.

It is a prime object of this invention to provide an improved packaging and shipping device for cylindrical objects, the device being inexpensive and expendable after the objects have reached their destination.

Still another object is the provision of an improved packaging device for containing a plurality of cylindrical objects stacked in tier-like relation.

A still further object is to provide an improved cover and base assembly for transporting cylindrical objects stored in tier-like manner, the container including an improved type of separator adapted to receive the cylindrical objects in nesting relation for securely retaining said objects during shipment.

These and other objects will become more readily apparent from a reading of the specification when examined in connection with the accompanying sheet of drawing.

In the drawing:

Figure 1 is a perspective view of an assembled shipping or packaging device containing a plurality of cylindrical objects to be shipped;

Figure 2 is a perspective view of the elements of an improved shipping container, the said elements being separated to position them in the approximate relation they normally occupy during use; and

Figure 3 is a cross sectional view through a packaging device, the said view being taken substantially along the line 3—3 of Figure 1.

A packing unit or shipping device is generally designated by the reference character 10. The device 10 is particularly adapted for the shipment of cylindrical objects such as rolls, harrow disks, etc. Each device 10 includes a cover member 12 and a base member 13. The cover member 12 and the base member 13 are identical in construction and can be interchangeably used. Each of the members 12 and 13 comprise a panel 14. The panel 14 is of rectangular shape and includes side walls 15 and end walls 16 extending perpendicular to the panel 14, the said walls being suitably connected at their corners. Each end wall 16 is provided with an inclined wall portion in the form of a flap 17, the said flap 17 being connected to the free marginal edge of each of the end walls 16, the said wall portions 17 being connected to the panel 14 by means of a flange 18. The flange 18 is suitably fastened to the panel 14 by any conventional adhesive. As best shown in Figure 3, this arrangement of the flaps 17 provides wall portions at opposite ends of the cover and base members so that they in effect form a cradle in which the cylindrical or circular objects 11 are adapted to nestle. Furthermore, the ends of the members 12 and 13 are reinforced since a tubular arrangement is provided by the wall portions 16 and flaps 17.

A separator 19 is positioned between the cylindrical

objects 11 which as shown in Figures 1 and 3 are disposed in lower and upper tiers. The separator 19 comprises a separator panel 20 having side walls 21 extending perpendicular relative to said panel 20. Vertical end walls 22 are connected at the corners to the side walls in conventional manner. Each of said end walls 22 includes a wall portion 23 which is integral with the panel 20 and extends upwardly in inclined or diagonal relation relative to the normal plane horizontal of said panel 20. Each wall portion 23, therefore, provides suitable cradling means wherein the upper tier of cylindrical objects 11 may be nestled in nesting arrangement as indicated. Each wall portion 23 is further provided with an extension 24 to which a flap or wall portion 25 is connected. The flap or wall portion 25 extends from the extension 24 upwardly and inwardly in inclined or diagonal relation relative to the plane of the separator panel 20. As best shown in Figure 3, the flap or wall portion 25 includes a flange 26 which is connected to the panel 20 by any suitable fastening means as adhesive or otherwise. As best shown in Figures 2 and 3, the wall portions 23 and 25 extend in relative diverging and converging relation. Thus in effect the end walls 16 and 22 are so constructed as to provide a suitable cradling means in which the cylindrical objects may be nestled or nested.

During the use of the device 10 the circular or cylindrical objects are suitably nested within the base member 13, the tubular arrangement of the end walls being such as to securely retain said cylindrical members against longitudinal displacement with respect to the base member. After the base member has been filled the separator 19 is placed, as best indicated in Figure 3, over the first tier of cylindrical objects 11. The second tier of objects 11 is then placed in position, these objects again being shown as nesting within the cradle provided by the separator panel 20. Thereupon the cover 12 is placed in inverted position relative to said base 13, the said cover also having its tubularly constructed end wall portions serving to secure the cylindrical objects against displacement. At this point flexible strands 27 are wound about the assembly and rigidity is further secured by the twisting of the wire ends, as indicated at 28.

One material that is excellent for this type of packing device is conventional paper or card-board. By utilizing the novel arrangement such card-board may be inexpensively utilized with maximum service life. Of course, it is understood that other types of materials may be utilized such as for instance, plastics or metal sheeting. Upon tightening of the flexible strands 27 the complete assembly including the cylindrical objects 11 are securely tied or fastened together for purposes of shipment. After the objects have been delivered to their destination, the container elements may be dispenssed with and discarded. This is possible because of the low initial cost of the paper or card-board type of material.

Thus it is apparent that the objects of the invention have been fully achieved and that a new and more effective packaging arrangement has been disclosed. It must be understood that changes may be made in the disclosure without departing from the spirit of the invention or the scope thereof as defined in the appended claim.

What is claimed is:

A package of cylindrical objects and the like stacked in first and second tiers with their axes normally disposed in horizontal relation, comprising a base member and a cover member, each member including a panel, upright side walls connected to said panel, first upright end walls connected to said side walls and to said panel, second end walls connected to said first end walls and extending transversely substantially the width of said panel, the

said second end walls each having a transverse flange connected to said panel, said second end walls extending angularly outwardly in inclined relation relative to the plane of said panel providing a transversely extending cradle which receives the cylindrical objects in nesting relation, a separator disposed between said tiers, said separator comprising a separator panel, upright side walls connected to said separator panel, first upright end walls connected to said separator panels and said last mentioned side walls, said last mentioned first end walls including second end walls connected to said last mentioned first end walls and being disposed on opposite sides of said separator panel, the said latter second end walls extending transversely across the width of said separator panels, being connected thereto and extending angularly outwardly relative to the plane of said separator panel and in inclined and relative diverging relation to provide cradle means on opposite sides of said separator panel,

said base receiving said first tier in nesting relation, said cover member being disposed over said second tier in inverted relation relative to said base, said separator panel being disposed between said tiers and receiving said objects in nesting relation, and flexible means disposed about said members and said separator for retaining said objects in packaged relation.

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