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PACKAGE FOR THREAD CONES

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Fig. 1.

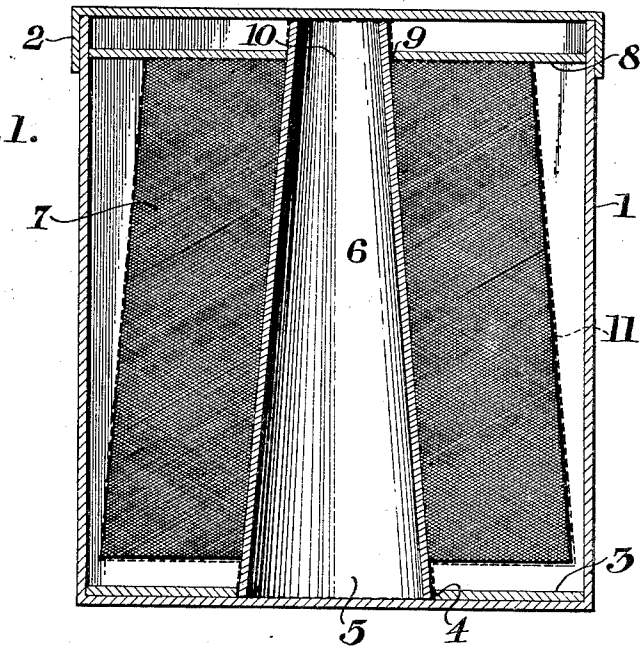
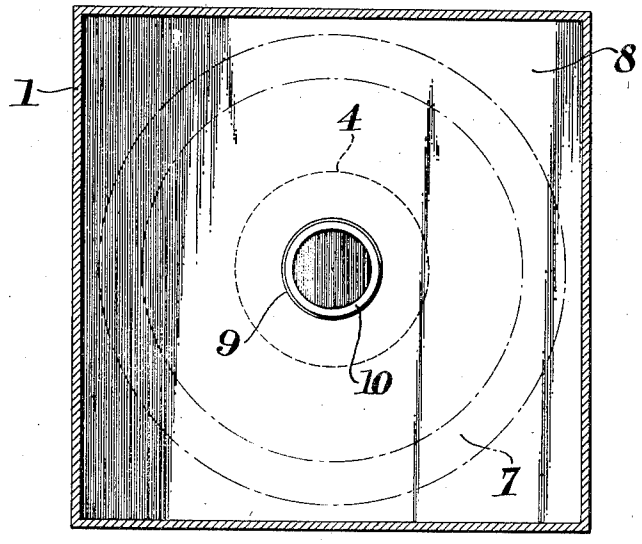


Fig. 2.



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PACKAGE FOR THREAD CONES

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2 Claims. (Cl. 206—52)

Our invention relates to packing cases and more particularly to boxes for packing thread cones.

One object of our invention is to provide a packing case for thread cones which will protect said cones during shipping and storing.

Another object of our invention is to provide a box having means to rigidly support thread cones therein.

The nature of the invention and its distinguishing features and advantages will appear when the following specification is read in connection with the accompanying drawing, in which like reference characters indicate like parts throughout.

In the drawing:

Fig. 1 is a section taken vertically through the center of a packing box containing a thread cone;

Fig. 2 is a plan view of a packing box containing a thread cone with the cover of said box removed.

Though our type of box may be used for cones of any kind of thread, yarn, or similar material, it is especially designed to use in packing rayon thread, yarn, and the like.

One of the difficulties encountered in the rayon industry is the packing of rayon cones for shipping so that said cones will be fully protected during transit. It has been found that unless the cones are so protected they will rub against their casings, thereby marring or spoiling the outer convolutions of thread as the friction raises a fuzz on the surface of said thread and thereby weakens it.

We have surmounted this difficulty by providing a packing box having a means to hold each cone rigid, centrally therein, the top and bottom of the box being flush with the ends of the bobbin and the walls of the box being slightly spaced from the outside of the cone, thereby preventing any rubbing of the thread or yarn. A covering of any desired sort, for instance wax paper, may be wrapped around the cones, if desired, for further protection from dampness or other of the elements. The cones may be packed in the above-described manner individually as shown in Figs. 1 and 2.

Referring more particularly to the drawing of Figs. 1 and 2, 1 represents a box having a cover 2. This box may be of the folding knock-down style or of the glued-up type, similar to the customary shoe boxes, with a removable cover. The cover may be fastened to the box after it is packed by any desired means such as gummed paper, twine, and the like. This box may be square in cross section, as shown in Fig. 2, and is preferably of the exact height of the bobbin 6 upon which the thread or yarn is wound.

In the bottom of the box is placed a removable square sheet 3 of corrugated cardboard, plyboard, or the like. The edges of this sheet 3 fit snugly against the walls of the box to prohibit movement and a circular aperture 4 is provided in the center of said sheet. This aperature 4 is just large enough to admit the insertion of the lower end 5 of the cone or bobbin 6 upon which the thread 7 is wound. Upon locating the base 5 of the bobbin 6 in the aperture 4 of the cardboard 3, said bobbin 6 is centrally located with respect to the box 1 and the walls of the box are spaced an equal distance from the outside convolutions of the cone.

After so positioning the cone, another piece 8 of cardboard, the same size as the sheet 3, is provided, having a centrally located circular aperture 9 to coincide with the top 10 of the bobbin 6 to aid in supporting said bobbin. The aperture 9 of the sheet 8 is just large enough to snugly fit around the top 10 of the bobbin or paper cone 6 and allow piece 8 to contact with the top convolutions of thread 7 so lightly as not to exert pressure. The edges of the sheet 8 also fit snugly against the walls of the box so that lateral movement is prevented. The sheet 8 is supported by the cone and not by the thread.

When a thread cone is positioned as described above, that is, the base of the bobbin upon which the thread is wound being centrally located with respect to the box by an apertured cardboard sheet and the top of said bobbin also being centrally located with respect to the box by a second apertured cardboard sheet, it is held centrally in the box, there being a space between the outer convolutions of thread and the walls.

Whichever way the box is placed in storage, handling and shipment the weight comes on the cone and the thread is free from any direct pressure.

The cover 2 is then positioned and sealed on the box. As the inside walls are the same height as the bobbin 6, the cover 2 comes flush with the top 10 of the bobbin 6, thereby prohibiting any vertical movement of the bobbin and locking of said cone rigidly and centrally with respect to said box.

A covering, indicated by the broken lines 11, may be wrapped around the cone, if so desired, to further protect it. This wrapping may be of any desired material such as paper, cloth and like materials, though wax paper is preferred.

It will be apparent from the foregoing that thread cones, particularly rayon, may be packed in accordance with our invention so that they will be fully protected from wear and tear or from the elements during transit or storage.

It is to be understood that the present invention is not to be restricted to the precise construction and relative arrangement of parts but that changes, alterations, and modifications within the scope of the appended claims may be resorted to wherever it is deemed necessary or desirable.

What we claim and wish to secure by Letters Patent of the United States is:

1. A package for thread cops comprising a conical core, thread wound on a portion of said core and spaced a substantial distance from the ends thereof, a container having walls which are substantially the height of the core, a cover for said container, a sheet located in the bottom of the container, its edges engaging said walls and having a centrally located aperture therein to receive the base of said core and contacting with a portion thereof which is free from thread, and another sheet located near the top of said container, its edges engaging said walls and having a centrally located aperture therein to receive the top of said core and contacting with a portion thereof which is free from thread, said sheet being supported in the container by the conical wall of said core, whereby said thread is spaced from all outside walls of said container and said apertured sheets and said cover retain said core in a rigid and predetermined position with respect to the container so that no weight or pressure is exerted upon the thread.

2. A package for thread cops comprising a conical core, thread wound on a portion of said core and spaced a substantial distance from the ends thereof, a container having top, bottom and side walls, said side walls being substantially the height of the core, means for centrally locating said cop with respect to the side walls of the container comprising a pair of sheets engaging the walls of the container and engaging portions of the core which are free from thread by means of centrally located apertures therein, one of said sheets being located in the bottom of the container and spaced from the thread wound on said core and the other of said sheets being located near the top of the container and being supported by the conical wall of the core in a position adjacent to the thread to retain the thread upon the core, whereby said apertured sheets and said top and bottom walls of said container retain said cop in a rigid and predetermined position with respect to the container so that no weight or pressure is exerted upon the thread.

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