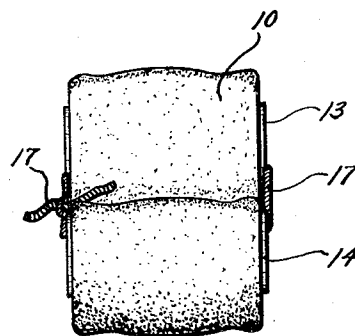
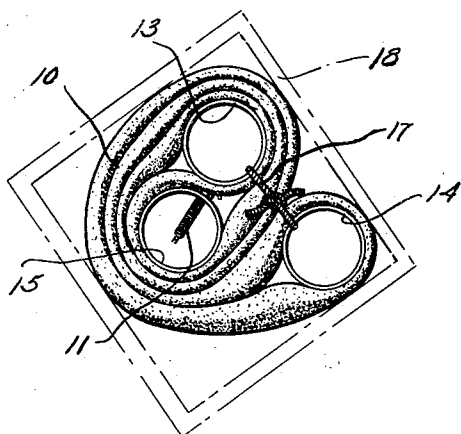
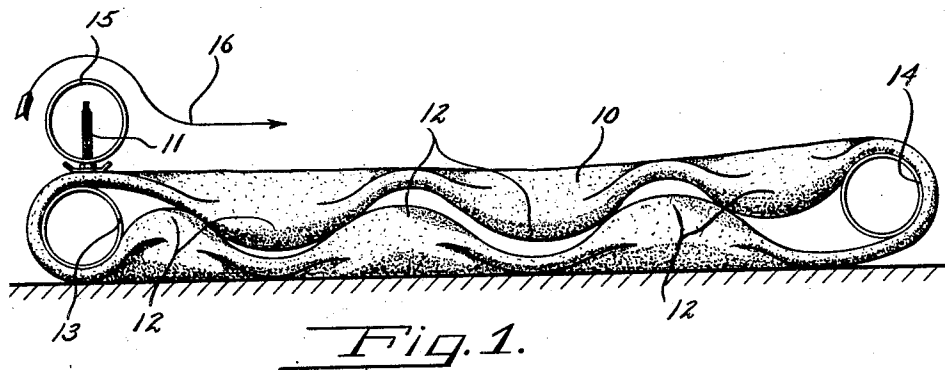


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METHOD OF PACKING TUBES
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METHOD OF PACKING TUBES

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My invention relates to a method of packaging tubes, such as inner tubes for pneumatic tires, for shipment or storage.

Although this invention pertains generally to all inner tubes it is of particular advantage in the handling of heavy gauge tubes and so-called puncture-proof tubes, the latter presenting a cross-section having a substantially thicker section at the crown than at the rim portion. Such tubes are not only difficult to handle with ordinary packing methods, but sharp folds or creases present an extra hazard to tubes of this character.

The object of my invention is to provide a method of packaging tubes which will secure greater ease in handling and which will provide a package in which folds are avoided and in which the valve stem is kept out of contact with the walls of the tube.

Other and further objects will be apparent from the following specification and claims.

In the drawings showing one embodiment of my invention,

Fig. 1 is a view of a tube prepared for packaging according to my invention;

Fig. 2 is a view of the completed package; and

Fig. 3 is an end view of Fig. 2.

Referring to the drawings the tube 10 is first turned inside out, i. e., so that the valve stem 11, instead of extending toward the center of the tube, is extending outward as in Fig. 1. The turning of the tube in this manner will cause the tube to present a series of smooth peaks or humps 12 due to the longer outside tube circumference being brought within the area bounded by the inner tube circumference. The tube is then flattened with the humps 12 interfitting as shown in Fig. 1.

Shells 13 and 14, formed of cardboard or other suitable material, are located within the end folds of the tube and a shell 15 having a suitable hole in its wall is placed over the valve stem 11, all as shown in Fig. 1.

Starting with the tube 10 and shells in position of Fig. 1, they are rolled tightly in the direction of arrow 16. By rolling the tube tightly the peaks 12 will be pressed side-

ways as the rolling progresses and thus caused to disappear entirely. Upon completing the rolling of the tube it is held in that position by looping a cord 17 through the shell 14 and whichever of the other shells is nearest or in the best position to form a tight assembly, and securely tied.

It may thus be seen that the tube is now rolled compactly without wrinkles or sharp folds that may in time cause cracks, and with the stem 11 held safely away from the walls of the tube. A box into which the tube package may be placed is shown by phantom lines 18 in Fig. 2.

While I have described the operation as the "rolling" of shells 15 and 13 toward the shell 14 it will be understood that if desired shells 15 and 13 may be held stationary and shell 14 rotated around shells 15 and 13 to effect the winding of the tube about shells 15 and 13 and that the term winding as used in the claims is used in a generic sense to cover either one or a combination of both of the above procedures.

Having thus described my invention, I claim:

1. The method of packaging an inner tube which comprises turning the tube so that what is normally its tread portion forms the inner circumference of its annulus, flattening the annulus with the valve stem located at one end of the flattened tube, inserting a shell within the fold at either end of the tube, placing a shell over the valve stem, winding the tube about the shell over the stem and the adjacent shell, and securing the remote shell to one of the two other shells.

2. The method of packaging an inner tube which comprises winding the tube about a plurality of shells and securing the shells together to hold the tube convolutions in position.

3. The method of packaging an inner tube which comprises turning the tube inside out, winding the tube about a plurality of shells, and securing the shells together to hold the tube convolutions in position.