Jan. 9, 1951 J. C. DUNN 2,537,184

CLOSURE FOR THE END OF A TUBULAR BODY

Filed Oct. 19, 1948

Fig. 1.

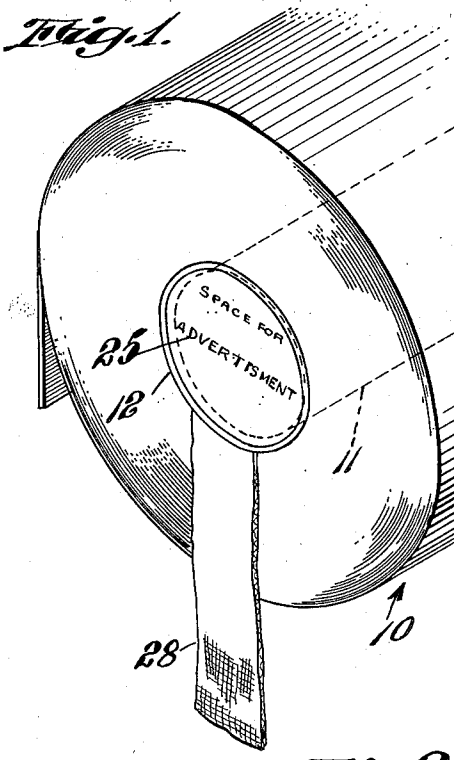


Fig. 2.

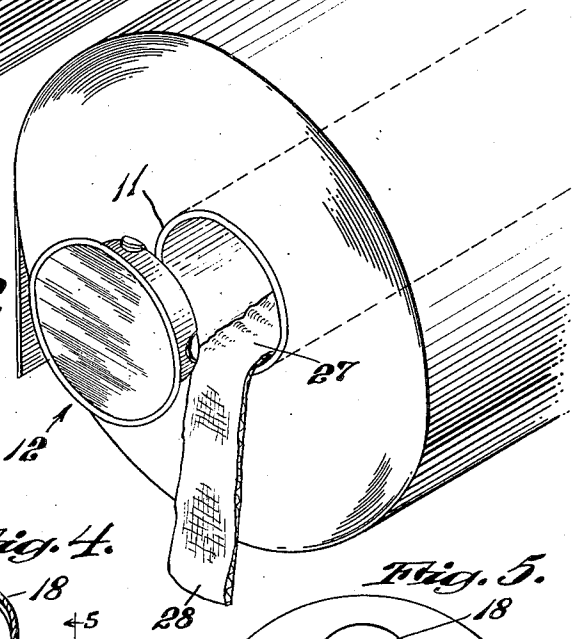


Fig. 3.

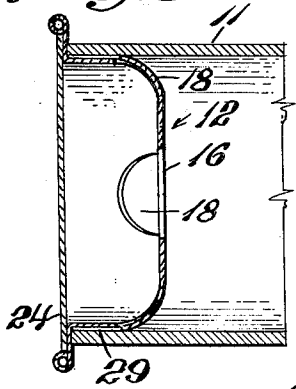


Fig. 4.

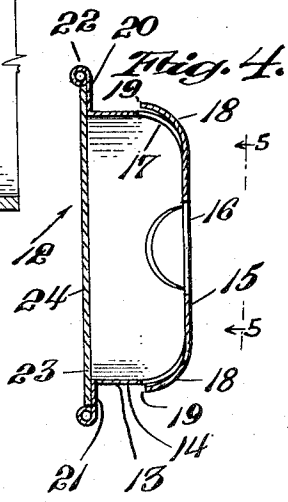


Fig. 5.

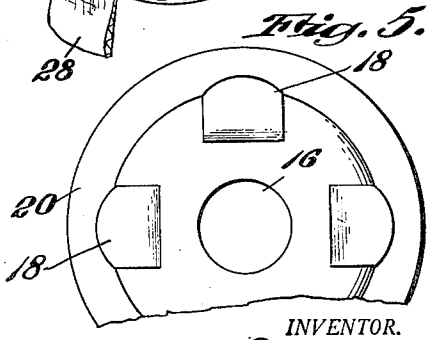
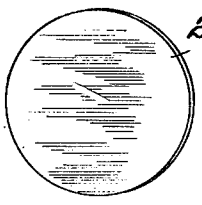


Fig. 6.



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CLOSURE FOR THE END OF A TUBULAR BODY

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2 Claims. (Cl. 206—50)

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This invention relates to a closure for the ends of a core for a paper tube, particularly a tubular core about which cloth and the like material is wound to package the same.

It is usual to wind a bolt of cloth about a tubular paper core, the ends of which are provided with a closures which are received over the outer surface of the end portions of the core. The use of such a closure requires the core to be made longer than the width of the material to be wound thereon so as to provide a space for the flange of the closure to engage. The ends of a bolt of cloth thus wound when placed on end in shipping oftentimes slips axially in somewhat of a cone. This so-called coning at the end of the cloth bolt is objectionable.

An object of the invention is the provision of a removable closure for closing the ends of a paper tube core which is so constructed as to be held assembled with the core in a manner to permit making the length of the core substantially equal to the width of the material wound thereon.

Another object of the invention is the provision of a removable closure for closing the ends of a paper tube core which is so constructed as to be held in place in a manner whereby a space is provided between the walls of the cap and the tube so as to adapt the core to additionally function as a dispensing device for samples of the material wound on the core.

Another object of the invention is the provision of a closure for closing the ends of a paper tube core which is so constructed as to provide for the manufacturing tolerances in the diameter of the tube.

A more specific object of the invention is the provision of a closure for the ends of a tubular body which is so constructed as to be removably held in position by frictioning the inner wall of the tubular body.

Another object of the invention is the provision of a closure for the ends of a paper tubular body which will be frictionally held in place in a manner to resist its removal by a force applied axially thereon, but which may be removed by a combined twisting and axial movement applied thereto.

Another object of the invention is the provision of a closure of the above character wherein means will be provided for removably attaching a card thereon on which there may be displayed advertising data and the like.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described and

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particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is a perspective view of a bolt of cloth embodying my invention;

Figure 2 is a similar view but showing the closure of the core of the cloth bolt removed therefrom;

Figure 3 is a central section view of a fragmental portion of the core with the closure in position thereon;

Figure 4 is a sectional view taken diametrically through the closure;

Figure 5 is an end view of the closure looking in the direction of the arrows 5—5 in Figure 4; and

Figure 6 is a perspective view of an element forming part of the closure.

The invention comprises in general providing a closure for the ends of the usual tubular core of a bolt of cloth. The closure is constructed such that the same may be inserted within the core and is provided with resilient means for engaging the inner surface of the core to hold the closure in place thereon. The resilient means are raised from the stock of the body of the closure in such a manner that an axial pull on the cap in a direction to remove the same from the closure will tend to move the fingers into firmer engagement with the walls of the core. These resilient fingers are so arranged that a combined radial and axial force applied thereto such as would result from a twisting or turning of the cap will move these fingers inwardly to permit outward movement of the closure to remove the same from the core. The invention also contemplates utilizing the core for the storing of sample material which may have been previously cut from the bolt into strip form and so that the same may be drawn from the core in the space provided between the body of the closure and the walls of the core.

Referring to the drawings for a more detailed description of the invention, 10 designates generally a bolt of cloth wound upon a tubular paper core 11, the ends of which are closed by means of a closure designated generally 12. The closure 12 is preferably made of sheet metal in a general cup formation providing a body portion 13 having a cylindrical wall 14 and a bottom wall 15 with a centrally disposed opening 16 therein. The walls 14 and 15 are connected by a curved wall section 17 from which are severed and raised resilient fingers or tabs 18. These are equally spaced about the section 17 with the lower end of the tab extending in continuation of the

wall 15 and providing sharp curved or arcuate edges 19 to be resiliently moved into engagement with the inner surface of the core 11.

A flange 20 extends substantially at right angles to the wall 14 providing an annular shoulder 21. The peripheral edge of the flange is provided with a rim 22 providing a recess 23. A disc 24, one side of which may carry data 25 of an advertising nature, is received in the recess 23 and frictionally held in place by the inner edge of the rim 22 which is, in the present instance, cylindrical in cross section. This disc 24 may be readily removed by inserting a finger through the opening 16 to push the disc 24 out of the recess.

The closure 12 is inserted into the ends of the core 11 by pushing the same therein a distance sufficient to engage the shoulder 21 with the edge of the core. In inserting the closure 12 in the core 11, a force is applied to the tabs 18 in a direction to move the same inwardly of the core. The resiliency of the tabs 18 will tend to move the tabs outwardly to position the sharp edges 19 into engagement with the surrounding wall of the core 11 to frictionally retain the closure 12 in the core. A direct pull on the cap in the opposite direction will tend to move the tab 18 outwardly to position the edges 19 into more secure engagement with the walls of the core; thus resisting the removal thereof by an axial pull on the closure. In order to remove the closure 12 from the core, the closure 12 is turned and at the same time moved axially.

In the retail merchandising of cloth material, the prospective buyer often requests and receives a small sample of the cloth. To this end, a strip of cloth is usually cut from the bolt to be thereafter severed into smaller lengths on request. Such sample cloth strips are attached to the bolt in various manners by improvised means and often become mislaid and lost. In order to prevent such losses of sample cloth strips, I utilize the core 11 as a dispensing container wherein a sample cloth strip 27 may be stored. The end of the strip 28, is shown in Figure 1, is made to extend outwardly of the closure 12 and is positioned to be in the space 29 between the tabs 18 of the closure and the wall of the core and may be drawn outwardly as demanded. When a request for a cloth sample is made, the portion of the sample 28 may be pulled upon to provide a sufficient length to be severed to furnish the sample requested. Thus, I provide a dispenser container integral with the bolt for sample cloth strips.

I have shown the closure 12 and described the same as particularly adapted for the end of tubular cores of bolts of cloth; however, the cap may be advantageously employed for the ends of many other tubular bodies such, by way of example, as mailing tubes or other types of containers wherein a closure is required.

I claim:

1. A package comprising a tubular core providing a chamber, cloth wound thereon, a closure for the end of said core having a body portion of less diameter than the inner diameter of the core providing a space between the said body and inner wall of the core when said cap is inserted therein and circumferentially spaced resilient tabs carried by said body for frictionally holding said cap in said core, strips of material of the cloth located in said chamber and extending outwardly in the space between said tabs to be drawn from said core through the said space between the inner wall of the core and the said body.

2. A closure for a fiber tube including an inner bottom wall having a curved portion extending outwardly therefrom, said curved portion merging into a cylindrical portion from the larger diameter of the curved portion, an annular circumferential flange at the outer extremity of the cylindrical portion, a plurality of tongues formed from the stock of the curved portion and united at their bases with the bottom wall and each having its free end terminating in an arcuate shaped edge that extends outwardly and beyond the periphery of the cylindrical portion.

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