

1,165,320.

I. W. CLARY,
TIER,
APPLICATION FILED NOV. 17, 1914.

Patented Dec. 21, 1915.
2 SHEETS—SHEET 1.

Fig. 1.

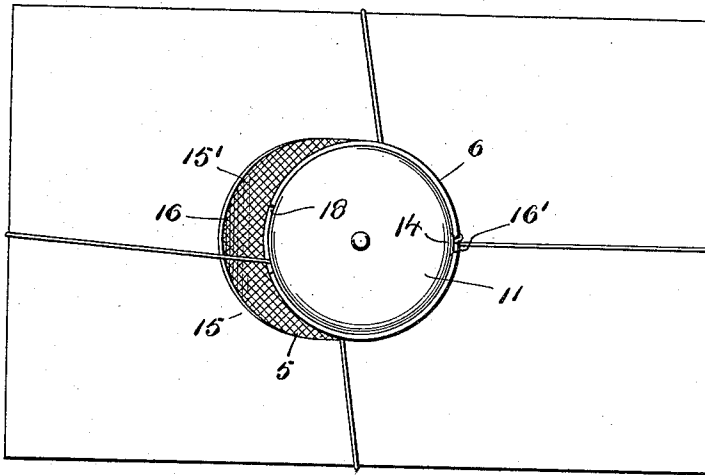


Fig. 2.

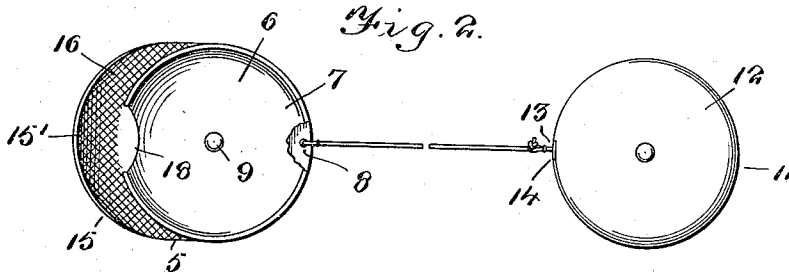


Fig. 3.

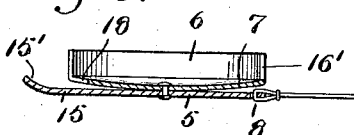


Fig. 5.

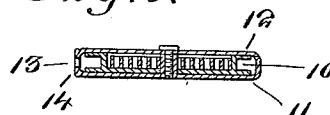


Fig. 4.

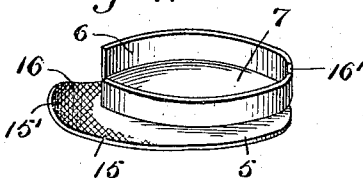
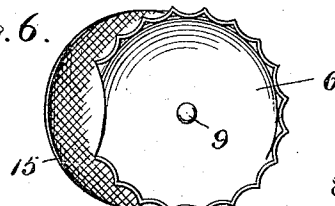


Fig. 6.



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2 SHEETS—SHEET 2.

Fig. 7.

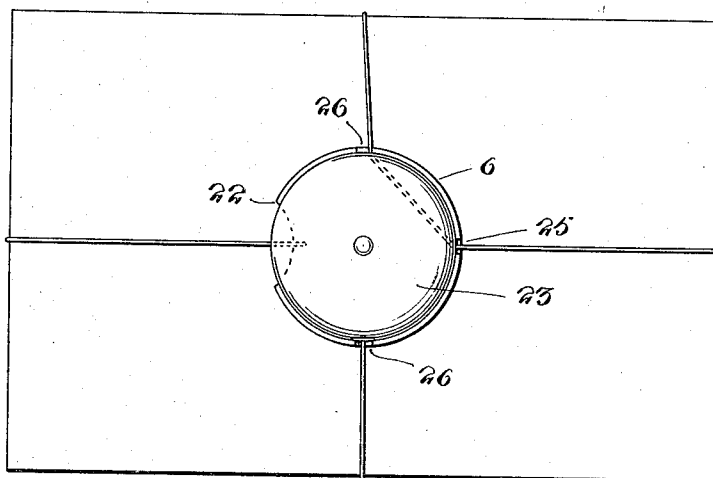


Fig. 8.

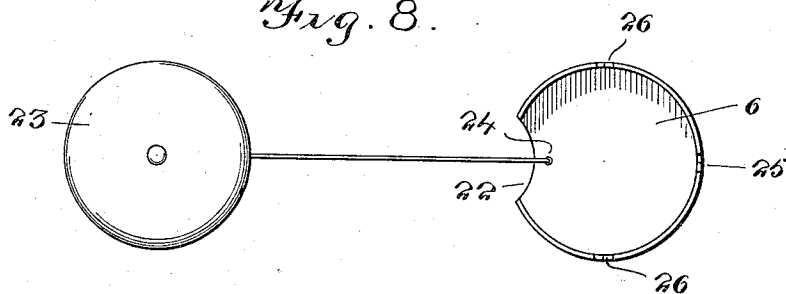
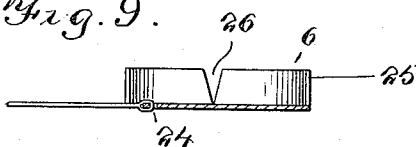


Fig. 9.



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Specification of Letters Patent.

Patented Dec. 21, 1915.

Application filed November 17, 1914. Serial No. 872,605.

To all whom it may concern:

Be it known that I, IRVIN W. CLARY, a citizen of the United States, residing at El Paso, in the county of El Paso and State of Texas, have invented new and useful Improvements in Tiers, of which the following is a specification.

This invention relates to improvements in package ties and has for its object the provision of a device of this character including a receptacle wherein the cord employed in tying the package is wound and adapted to be withdrawn during the act of passing the cord about the package whereby no more cord is drawn than is necessary, thus preventing dangling of any surplus cord after the package has been tied.

Another object of the invention is the provision of a device of this character wherein the cord is automatically rewound within the receptacle when untied to permit of repeated use of the same.

To these ends the invention essentially consists of a cord retaining receptacle and a member adapted to be placed upon the package and constructed to receive the receptacle subsequent to the passing of the cord about the package.

Other objects of the invention will appear as the following description is read in connection with the accompanying drawings wherein like numerals of reference indicate similar parts in the several views, and in which:—

Figure 1 is a plan view of a package showing the improved device applied thereto. Fig. 2 is a view of the device with the receptacle removed. Fig. 3 is a sectional view through the device with the receptacle removed. Fig. 4 is a detail view of the cup-shaped member. Fig. 5 is a sectional view through the receptacle. Fig. 6 is a view of a modified form of one of the cup-shaped members. Fig. 7 is a plan view of a package showing a still further modified form of the invention applied thereto. Fig. 8 is a view of this modified form with the receptacle removed. Fig. 9 is a sectional view through the cup-shaped member.

In one embodiment of the invention as shown the device essentially consists of a disk 5 adapted to lie flat upon the top of the package, and a cup-shaped member 6 having a concave bottom 7, the latter being riveted or otherwise secured to the disk 5 and slightly spaced therefrom to provide an

entrance passage for the cord as well as serving to grip the same therebetween. The cord has one of its terminals secured in an opening 8 adjacent the periphery of the disk 5 or the same may be fastened to the rivet 9. The opposite end of the cord is secured to a spring operated drum 10 arranged within the receptacle 11, the latter being closed by a cover 12 which may be detachably secured thereto in any suitable manner with a view of permitting the removal of the drum when desired. The cord passes from the receptacle through an opening 13 having a rounded edge 14 to reduce the friction and wear upon the cord to a minimum. While it has been stated that the cord may be secured to the drum in any suitable manner it is preferred that the cord be looped about an inch or two distant from the drum, while one end of the cord used in tying the package be secured by a loop as shown in Fig. 2. With this arrangement it is never necessary to open the receptacle 11 when it is desired to change the cord, thus requiring but little time for this operation.

In use the disk 5 is placed upon the center of the package and held in position by the thumb extension 15 which is curved upwardly as at 15' and has its upper surface roughened as at 16 which gives the thumb a better hold when pressure is applied to the cord. The cord is then wrapped lengthwise around the package, then passed between the disk 5 and member 6, then transversely around the package, thence between the disk 5 and the member 6, the cord as will be understood feeding from the receptacle 11 held in the palm of the right hand, and the receptacle subsequently placed within the cup-shaped member 6 as shown in Fig. 1. If desired the wall of the cup-shaped member may be provided with a cleft 16' for the reception of the cord after the tying operation has been performed, prior to the placing of the receptacle within the cup-shaped member. The cup-shaped member is to be of the proper depth to wholly receive the receptacle 11, the cup-shaped member being constructed from resilient material so that the receptacle 11 will snap into place when pressed within the cup-shaped member thus securely holding the members operatively associated. The wall of the cup-shaped member may if desired be corrugated as shown in Fig. 6 for this purpose. As shown the cup-shaped member

6 has a portion of its bottom and wall cut away as at 18 to allow the receptacle to be grasped in removing the same from the member 6. Manifestly by reason of this construction and operation no more cord than is necessary is drawn from the receptacle in tying the package, and consequently dangling of any surplus cord after the package has been tied is obviated. When the package is untied the cord is automatically re-wound upon the spring operated drum arranged within the receptacle 11 to permit of repeated use of the same.

In Fig. 6 I have shown a modified form of the invention which consists in the use of a cup-shaped member of a construction similar to the cup-shaped member 6, having its bottom and wall cut away as at 22 to facilitate the removal of the receptacle 23 therefrom when desired. The bottom of the cup-shaped member adjacent the cut away portion is provided with an opening 24 for the purpose of securing one end of the cord thereto. Directly opposite the cut away portion 22, the wall of the cup-shaped member is provided with a cleft 25, while at diametrically opposite points the wall is further provided with the clefts 26. In use of this form of the invention the cord is passed lengthwise around the package and through the cleft 25, and thence transversely around the package passing through the other two clefts 26 on the opposite sides, then secured in the cup-shaped member, the cords lying in the bottom of the cup-shaped member and the receptacle subsequently snapped in position within the cup-shaped member over these cords.

By reason of the fact that with my device the cord is withdrawn during the act of passing the latter about the package, the force necessary to bind the package securely does not fall upon the delicately constructed inside works, as in the case with tiers where the cord must all be drawn out of the recep-

tacle before beginning to tie the package, but on the metal disk that forms the base, which cannot be injured by any amount of force applied thereto, thus enabling you to bind the package as securely as the strength of the cord will permit.

From the foregoing description taken in connection with the accompanying drawings it is believed that the nature and advantages of the invention will be readily understood without requiring a more extended explanation and therefore the same has been omitted. However, I desire to have it understood that I do not limit myself to the precise construction and arrangement of parts herein illustrated as various changes may be made when desired as fall within the scope of the appended claims.

What I claim is:—

1. A package tie comprising a cup-shaped member, a receptacle, a flexible element wound within the receptacle and having its free end connected with said member, said receptacle being adapted to be removably fitted within said cup-shaped member, and the wall and bottom of said cup-shaped member being cut away to provide a finger receiving opening to permit said receptacle to be grasped for removing the same from the cup-shaped member.

2. A package tie comprising a disk having an upturned thumb extension, a cup-shaped member secured thereto, said member having a concaved bottom, a receptacle, a flexible element wound within the receptacle and having its free end secured to said disk, and said receptacle being adapted to be removably fitted within said cup-shaped member.

In testimony whereof I affix my signature in presence of two witnesses.

IRVIN W. CLARY.

Witnesses:

PHIL. J. HOLZMAN,
B. B. RONAHE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."