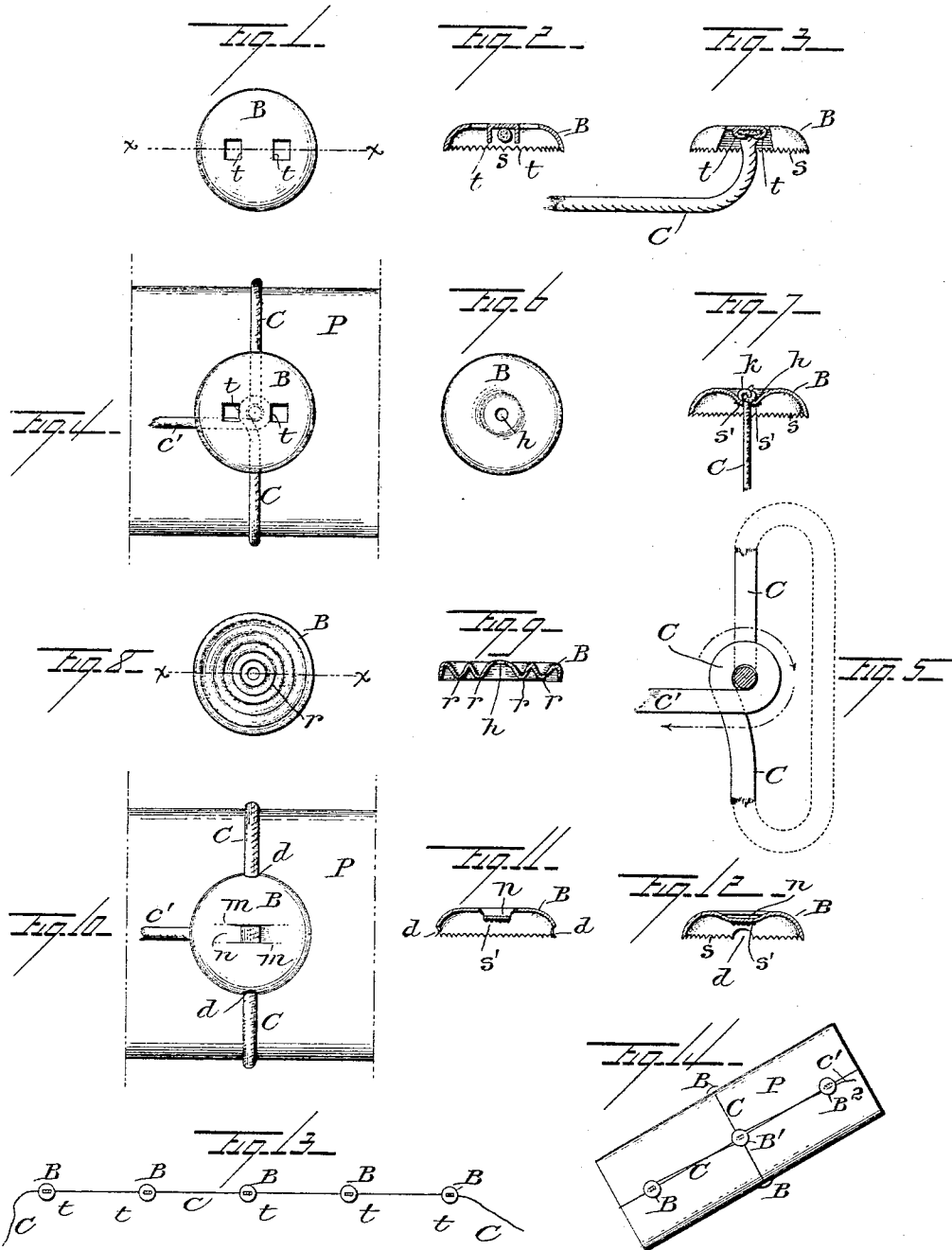


(No Model.)

J. PUSEY.
PACKAGE TIE.

No. 573,700.

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WITNESSES
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PACKAGE-TIE.

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To all whom it may concern:

Be it known that I, JOSHUA PUSEY, a citizen of the United States, residing at Lima, in the county of Delaware and State of Pennsylvania, have invented certain new and useful Improvements in Package-Ties, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

10 Figure 1 is a plan view of the plate or button. Fig. 2 is a section on the line $x x$, Fig. 1, before the cord is fastened. Fig. 3 is a side elevation, partly broken off, showing the cord secured to the button. Fig. 4 represents the device as applied to a package, the part of the cord underneath the button being indicated by dotted lines. Fig. 5 shows the position of the cord when the package is tied, the button having been removed. Fig. 6 is a plan of a modification. Fig. 7 is a transverse section. Figs. 8 and 9 are respectively plan view and transverse section through the middle of a modification of the button. Fig. 10 is a plan, and Figs. 11 and 12 sectional views, 25 respectively, of another modification, wherein the edge of the button is provided with opposite vertical slots for a purpose hereinafter explained. Fig. 13 represents a cord having a series of the buttons attached at intervals thereto. Fig. 14 shows a package tied with such cord.

The object of this invention is to provide a simple, inexpensive, efficient, and durable device for tying up packages, as a substitute, 35 more especially, for rubber bands, which, as is well known, are not durable and, especially when large packages are to be secured, are very expensive.

The invention consists in a dished plate or 40 button, preferably roughened or serrated on its under edge or periphery, having fastened thereto at or near the center of the button a cord or tape, whereby when the device is suitably applied, as hereinafter described, to the package to be secured the cord is drawn or 45 hitched around itself adjacent to the point of its connection with the button and tightened, and its free end is fastened by the pressure or friction of the cord upon itself and also by 50 the pressure or friction of the button.

In carrying out my invention in the usually preferred form I strike out from sheet metal,

such as brass or tin, by means of suitable dies, a disk or button B, dished, as shown, and with serrations s on the under edge. I 55 also strike out of the top of the button tongues t , at the same time bending them down about at right angles, as seen in Fig. 2. I then insert between these tongues the end of a cord or tape C, Fig. 2, of any desired length, and 60 then bend the tongues toward each other firmly down upon the cord, which is thereby secured, as seen in Fig. 3. The device is now complete, ready for use in the following manner, reference being had more especially to 65 Fig. 4, which represents a package tied with my invention.

The cord C is passed around the package P, Fig. 4, once, (or more if desired, if the cord be too long for the size of the particular pack- 70 age,) the button being placed in a convenient location for the next step, which is to bring the cord around underneath the button. It is then drawn taut upon itself, the free end or portion c' being pulled substantially in 75 line or parallel with the part around the package, and finally it, the cord, is carried on around beneath the button, say, at right angles to itself or farther around, if desired, and then released. The dotted lines in Fig. 4 80 show the position of the cord beneath the button. The arrangement of the cord is also seen in Fig. 5.

It will be observed that the cord will be securely held by its friction upon itself where it is hitched around, which friction is the greater 85 by the pressure of the button and also by the pressure and consequent friction upon the free end of the cord of the edge of the button.

Although I have used the device with a 90 dished button, more or less smooth on the under edge, it is obviously not so reliable as when roughness or serrations are employed. It is usually necessary in the former case to carry the end of the cord around an entire 95 turn or more in order to secure a sufficient hold. Besides, the serrations by catching into the part of the cord around the package where it comes under the edge of the button, and also sometimes to a certain extent into 100 the surface of the package itself, prevent the button from accidental turning and thus tending to release the cord. It may also be added that the serrations, penetrating the adjacent

part of the cord encircling the package, enable the button to come closer down to the package and thereby, of course, causing it, the button, to bite more firmly into the locked end of the cord. I also sometimes provide the under side of the button, adjacent to the point where the cord is secured thereto, with a roughened or serrated surface s' , Figs. 7, 11, and 12, for the purpose of increasing the hold or friction; but this is not necessary or usually desirable where the button is provided with the serrations on its periphery. By making the button dished space is given around the point where the cord is secured thereto for the double thickness of the cord when it passes around itself, and thus prevents the edge of the button from being elevated so high above the surface of the package as to prevent the edge of the button from pressing firmly against the free end of the cord. It is advisable, however, that the depth of the dish of said button shall be somewhat less than twice the thickness of the cord when it is brought around itself, so that that portion of the cord will be more or less compressed between that part of the button and the face of the package after the cord has been drawn taut around itself, as described.

My device securely holds the package. The tendency is to hold the cord more firmly the more tightly it is drawn upon, for such drawing causes the button to press the more firmly upon the cord and package. The cord may be readily released and the package untied by taking hold of the free end c' and turning it in a reverse direction to that in securing the cord.

The device is adapted to be used with packages of any ordinary shape or size. It is particularly useful for lawyers, conveyancers, and others for holding papers which have to be frequently taken out and examined and additional papers filed in the same package. If the cord or tape should not be of sufficient length to accommodate the growing size of the package, it may be lengthened as desired by tying a piece of cord or tape to the free end.

As the buttons need to be, for general purposes, but small, say from one-fourth to one-half inch in diameter, and may be made of thin brass or refuse tin, the cost of the device, with the cord attached, need be but a trifle greater than that of a cord of the same length.

In Figs. 6 and 7 the button is substantially similar to that shown in the preceding figures, except that a different means of securing the end of the cord is employed; this consisting in simply providing the button with a central hole h , through which the cord C , with a knot k , Fig. 7, on the end, is passed. These buttons may be supplied to the public without the cord, so that any one may use such color or style of cord as he may fancy.

In Figs. 8 and 9 the button is made with concentric depressions or rings r , the under edges of which may also be serrated or rough-

ened, for the purpose of securing greater friction of the button and cord.

In Figs. 9, 10, and 11 the side of the dished button is provided with opposite vertical slots d , the purpose of which is to receive that part of the cord which passes around the package, as indicated in Fig. 9. This construction is more especially useful when comparatively thick cords are used, as it enables the serrated edge of the button to press more closely or firmly upon the free end of the cord. I also show in these figures another way of securing the cord to the button. This consists in cutting parallel transverse slits m in the top of the button and depressing the strip of metal n between the slits. The end of the cord is inserted through the opening thus formed, (see Fig. 10,) and the strip is then forced against the cord, thereby pinching the latter between the said strip and the contiguous under side of the button.

When it is desired to use my device for tying up bundles where their sizes continually vary, and consequently variations in the lengths of cord required, as in retail stores, I attach, by means of mechanism adapted for the purpose, to a long or continuous cord C , Figs. 7 and 8, a series of the tongued buttons B , like those of Figs. 1, 2, and 3, and in like or other suitable manner at intervals apart, say eighteen inches, more or less, and wind the cord thus provided into a ball or upon a spool for convenience of handling.

When the length of cord required is greater than the length between the string of buttons, the cord is passed around the package without regard to any of the buttons, except the particular one or ones that may be used for securing the cord, as illustrated in Fig. 14, wherein the strip is passed twice around the package at right angles, being drawn around the middle button B' when passed around the bundle once, then carried around at right angles, the free end being secured by the most convenient button, such as the end one marked B^2 .

I am aware of the fact that prior to my invention package-ties were described and patented in which a cord was attached to a plate having a cleat or spring thereon for securing the end of the cord after it had been drawn around the package; also a cardboard disk or button fastened to an envelop by means of an eyelet, one end of the cord being secured to the disk or eyelet and its free end passed around the eyelet and held by being, so to say, jammed in between the disk and the underlying part of the envelop. These devices, however, differ from my invention in that in the latter the cord may be drawn taut around or upon itself at the point of attachment to the button, at or adjacent to the center thereof, and its free end securely held not only by the pressure and the friction of the cord upon itself, but also by the pressure upon the cord between the under side or edge of the button and the surface of the package,

the parts, to wit: the button, the cord, and the package, all simultaneously coöperating to retain the cord firmly around the package; nor do I broadly claim a package-tie consisting of a plate having a cord attached thereto, such a device having been described in the expired patent of Maxon, No. 24,133, of May 24, 1859.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A package - fastener, consisting of a dished plate or button, and a cord attached thereto, at or adjacent to the center of said button, and extending from the under side thereof, the peripheral edge of said button being arranged when in use to bear directly upon the package and upon the free portion

of the said cord, which is retained in fastening position solely by friction and the pressure of the button, substantially as specified.

2. A fastening device for package-ties, comprising a dished plate or button having means at or near its center for the attachment of the cord thereto, and having also a serrated peripheral edge adapted, in use, to bear directly upon the package and the cord, substantially as specified.

In testimony whereof I have hereunto affixed my signature this 25th day of October, A. D. 1890.

JOSHUA PUSEY.

Witnesses:

JOHN R. NOLAN,
HECTOR T. FENTON.