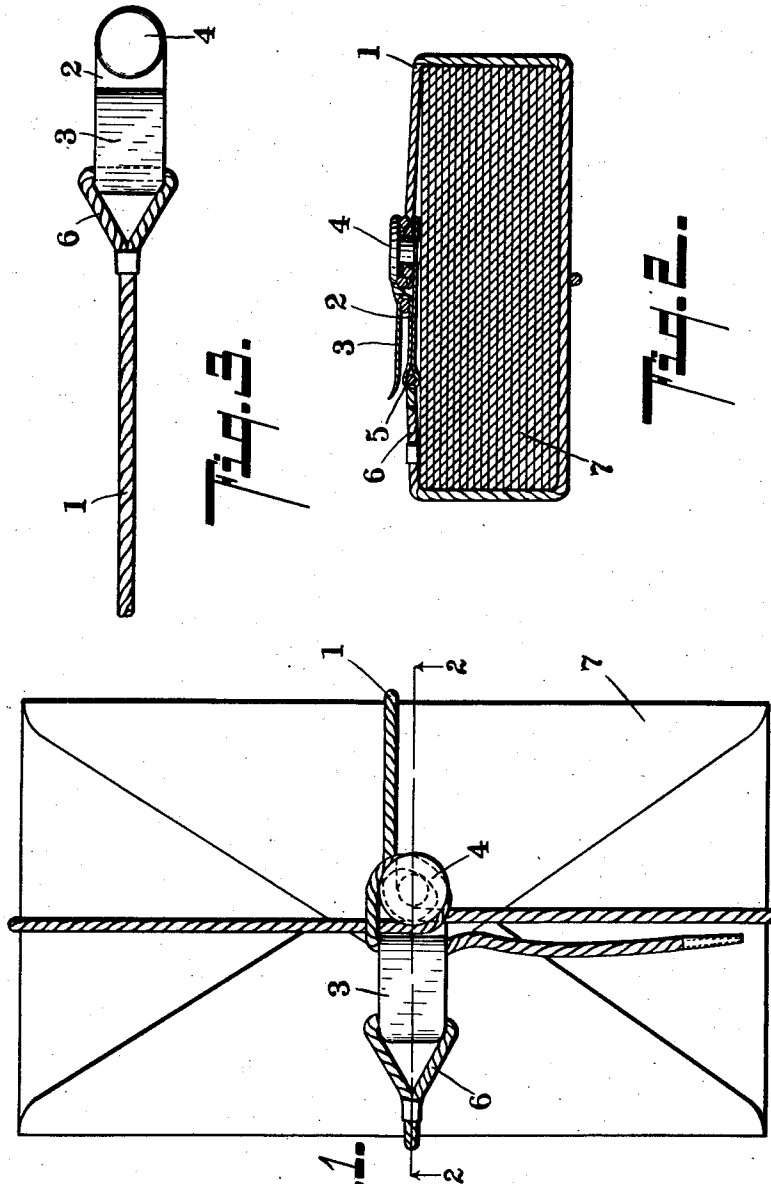


T. F. MILLER.
PACKAGE TIE.

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1,022,964.

Patented Apr. 9, 1912.



Witnesses

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PACKAGE-TIE.

1,022,964.

Specification of Letters Patent.

Patented Apr. 9, 1912.

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To all whom it may concern:

Be it known that I, THOMAS F. MILLER, a citizen of the United States, residing at the village of Richland, county of Kalamazoo, State of Michigan, have invented certain new and useful Improvements in Package-Ties, of which the following is a specification.

This invention relates to improvements in package ties.

The main object of this invention is to provide an improved package tie which may be very quickly applied, and one which holds securely, and at the same time one which may be quickly detached or disengaged and used repeatedly, if desired.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claim.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which,

Figure 1 is a plan view of a package of envelopes secured with my improved tie; Fig. 2 is a cross section taken on a line corresponding to line 2—2 of Fig. 1, looking in the direction of the little arrows at the ends of the section lines; Fig. 3 is a detail plan view of my improved tie removed from the package.

In the drawing, similar numerals of reference refer to similar parts throughout the several views.

Referring to the drawing, 1 represents the cord of my improved tie. To one end of this cord is secured the fastening device, consisting of a base portion 2, preferably formed of sheet metal, the hook 3 and the stud 4. The base is provided with an eye 5 formed by a fold of the metal on itself at its forward end through which the cord is passed, the end of the cord being in the form of a loop 6. The hook 3 is formed integrally with the base by folding the material rearwardly and thence forwardly upon itself, as clearly appears in Fig. 2. This folding also forms the eye 5. The stud 4 is arranged at the rear of the hook and is preferably formed of metal and secured to

the base by inserting therethrough and riveting.

In applying the tie, the cord is passed around the package, as the bundle of letters 7, engaged over the stud and is then passed 60 around the package in the opposite direction, looped over the stud and the end engaged under the hook. The hook is so formed as to engage the cord with some friction, which, in connection with the hitch 65 over the stud effectively secures the cord. When it is desired to release the tie, it is only necessary to pull the end of the cord from the hook. It is found in practice that the package may be drawn down very 70 tightly before securing the cord, as it readily slips over the stud, particularly when it is engaged on the stud only, as in the passing around the bundle the first time. The stud is provided with a flange-like head, and 75 it thereby forms a secure holder for the cord. The second hitch of the cord under the head of the stud serves to clamp the first hitch and effectively prevents its slipping.

My improved package tie is especially designed by me for holding bundles of articles, such as letters, although it is adapted for use as will be obvious in tying wrapped packages. It may be very quickly applied, and, when adjusted, is very secure. Also, it 85 may be quickly released and may be used over and over again.

It will be observed that the structure comprises merely a comparatively narrow strap of sheet metal folded on itself to form an eye and an outwardly pointing hook with a stud secured at the base of the hook to coact therewith. Neither the hook nor the stud alone is sufficient. However, a light hold on the string is all that is required of the hook 95 when the string has been passed around the neck of the stud and consequently the flat hook, which holds the cord without a sharp bite, is sufficient.

I am aware that studs have been made use 100 of in connection with hooks punched up from sheet metal, but these are objectionable and ineffective, as the sharp edges soon cut the string and make the fastener useless. A further objection to these structures in 105 which the hook has been struck up from metal is that if the same become accidentally stepped upon or pressed, the point of the hook is depressed back into the piece from which it is struck up, and the device is use- 110

less until it has been repaired. Further than that, such structures are difficult to manufacture, and require special care, whereas, my device, which consists, as before stated, 5 of a narrow strip of sheet metal with a stud on the end and the metal folded upon itself, is very easy to manufacture, requiring no special dies, merely an effective device for folding the strap into place after the stud 10 has been riveted on. When the stud is riveted on and the strip of metal folded upon itself they present a structure which is practically indestructible under ordinary use.

Having thus described my invention, 15 what I claim as new and desire to secure by Letters Patent, is:

A package tie, comprising a flat strap of spring metal folded on itself to form an eye, the end of such strap being further folded 20 on itself to form a hook, the bill of which

points outwardly toward the end of said strap; a stud with a broad head and short and narrow neck to engage a cord when wrapped therearound, riveted to said strap at the opposite end from said hook, a cord 25 secured to said eye and adapted to engage the said stud and wrap under the bill of said hook and be engaged thereby, whereby the pressure of said hook supplements the action of said stud and returns the cord by 30 pressure, and thus avoids the cutting of the cord, as specified.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

THOMAS F. MILLER. [L. S.]

Witnesses:

L. G. GREENFIELD,
CLORA E. BRADEN.

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