

A. PIEPER & H. CASE.
 PACKAGE TYING DEVICE.
 APPLICATION FILED JUNE 17, 1911.

1,021,886.

Patented Apr. 2, 1912.

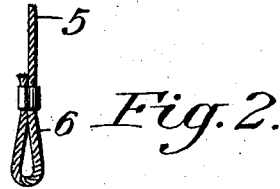
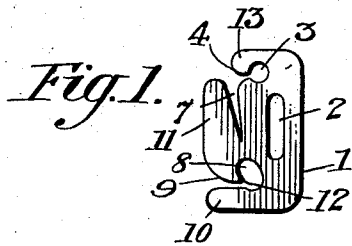


Fig. 3.

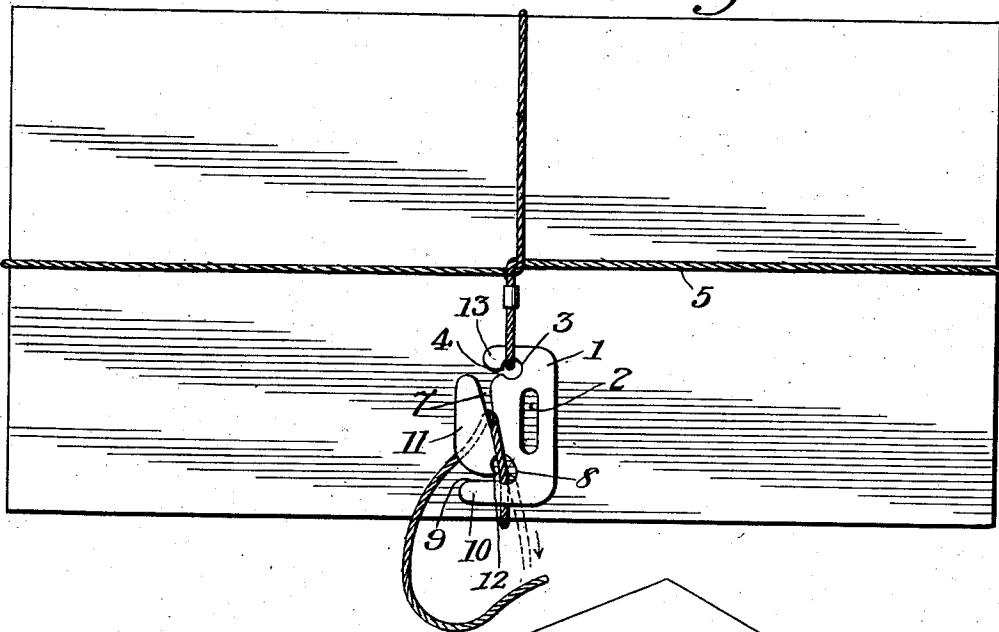
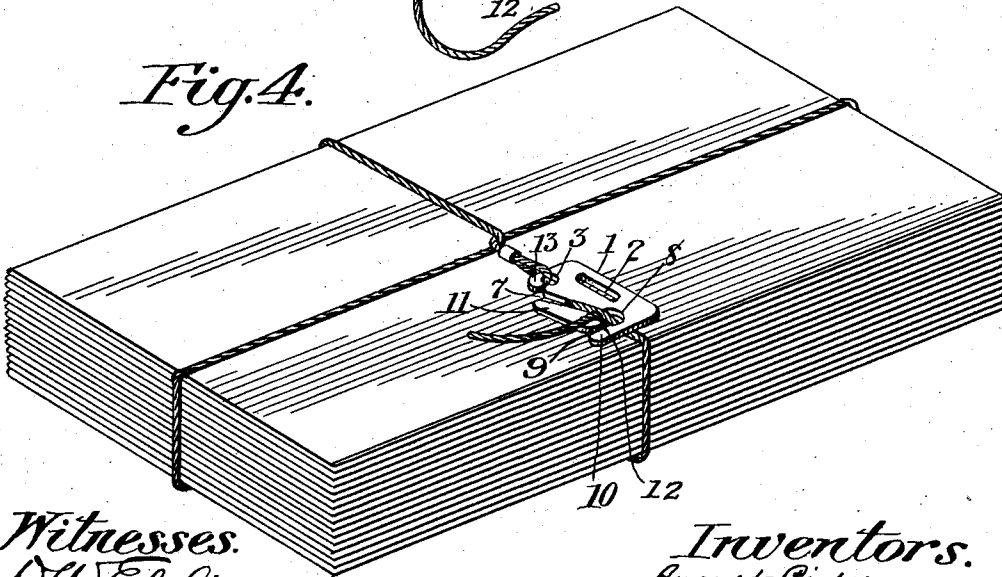


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

AUGUST PIEPER AND HENRY CASE, OF GLOVERSVILLE, NEW YORK; SAID CASE ASSIGNOR OF ONE-HALF OF HIS RIGHT TO ALEXANDER L. JOHNSON AND WILLIAM F. CASE, BOTH OF GLOVERSVILLE, NEW YORK.

PACKAGE-TYING DEVICE.

1,021,886.

Specification of Letters Patent.

Patented Apr. 2, 1912.

Application filed June 17, 1911. Serial No. 633,839.

To all whom it may concern:

Be it known that we, AUGUST PIEPER and HENRY CASE, citizens of the United States, residing at Gloversville, in the county of Fulton and State of New York, have invented a certain new and useful Improvement in Package-Tying Devices, of which the following is a full, clear, and exact description.

The object of this invention is to provide a device for use in connection with a string or cord for tying packages, such as bundles of letters or papers, and in which the tying string is reeved through openings made in a metal plate in such way that the string is held against peradventure of accidental disconnection, without the necessity of knotting it.

We are aware that numerous devices having this object in view have been proposed, and yet we are unaware of any that will securely hold the cord in tied position, as in our invention.

The invention consists of a flat metal plate having a hole to receive a fixed end of the cord, and a throated hole to receive two thicknesses of the free end of the cord, and a wedge notch to engage the cord; a finger-hold being provided for convenient manipulation of the device; the relations of the holes and the slit being such that when the free end of the cord is reeved through them it is impossible for such free end to become detached, excepting by actual intentional effort on the part of the operator, all as we will proceed now more particularly to set forth and finally claim.

In the accompanying drawings illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 is a plan view of the tying device detached. Fig. 2 shows the looped end of the tie-cord. Fig. 3 shows the device applied to a bundle or package with the free end of the cord in process of being secured. Fig. 4 is a perspective view of the device applied to a package and the free end of the tie-cord held.

The tying device 1, by preference, is a plate of flat metal, having a portion 2 cut away to form a finger-hold for convenience of the user in manipulating the device. In one end of this plate is a circular hole 3

preferably having a laterally disposed throat 4 through which one end of the tie-cord may be entered into the hole 3 and therein held against accidental escape. We prefer to supply the tie-cord 5 with a permanently placed loop 6, which is slipped into the hole 3 through the throat 4, to remain in said hole until worn out or replaced. Adjacent to the hole 3 is a longitudinally disposed wedge shaped notch 7, and below this notch 7 is an obliquely arranged hole 8 having a laterally disposed contracted throat 9, which extends substantially at an acute angle relatively to the hole 8. Below the hole 8 and throat 9 is the tongue 10, and alongside of the notch 7 is the tongue-like portion 11 of the plate.

The tie-cord being applied to the device 1, as shown in Figs. 2 and 3, by means of loop 6, the tie-cord is passed lengthwise about a bundle and then crosswise, and then placed in the hole 8 by a lateral movement of the cord through the throat 9, and then the cord is turned backwardly as indicated by the dotted lines in Fig. 3 and tightened up by drawing on the cord in the direction of the arrow, and then the plate being held by the operator, the cord is passed over into the notch 7 and brought beneath the portion 11 so as to come opposite the throat 9, and then it is drawn into said throat and thence into the hole 8 and interposed in such hole between the length of cord first inserted in said hole and the adjacent left-hand wall of the hole 8, thus serving to lock the cord in said hole against peradventure of accidental escape. As a matter of fact, it is absolutely necessary to use force to withdraw the free end of the tie-cord from the hole once it has been properly placed therein, and then it can be withdrawn only by taking its free end and slipping it back through the throat 9 with a pull toward the back of the plate. The interlocking of the bends of the tie-cord within the hole 8 is so secure that the package may be dangled from the free end of the tie-cord in a most violent manner without in the least affecting the stability of the tie.

It will be seen that the obliquely arranged cord-fastening hole 8 has its entrance throat 9 arranged near one end, thereby leaving the hook-like projection 12, against

which the last entered portion of the free end of the cord is pulled and held by the strain of the package, thereby serving to effectively lock the cord against escape. It
 5 will also be noticed that the laterally disposed throat 4 is located beyond the center of the hole 3 so that the portion 13 of the plate overhangs the hole and to that extent assists in preventing the escape of the loop
 10 6; or the throat may be made so small as to preclude the escape of the loop, excepting by a very forcible direct application of power that hardly ever will be met with in the exigencies of service.

15 What we claim is:—

1. A package tying device, comprising a plate having a tie-cord receiving-hole at one end, a tie-cord tightening and engaging hole provided with a contracted lateral throat at
 20 the other end, and a wedge-like tie-cord engaging notch intermediate said tie-cord receiving and tightening and engaging holes.

2. A package tying device, comprising a metal plate having a hole in one end adapted
 25 to fixedly engage one end of a tie-cord, an obliquely arranged hole at the opposite end having a contracted lateral throat arranged substantially at an acute angle to said hole and flanked by a laterally extending tongue,
 30 and a wedge-like notch extending longitudi-

nally of the plate and arranged between the two holes.

3. A package tying device, comprising a tie-cord, and a metal plate having a hole therein at one end for the application of the
 35 tie-cord, a wedge-shaped notch for engaging the free end of the tie-cord, a cord tightening and fastening hole arranged obliquely at the opposite end and below said wedge-shaped notch and having substantially at
 40 one end a contracted laterally disposed throat, and a hook-like projection next to the throat extending into the hole, whereby the free end of the tie-cord when passed into the hole and thence into the wedge notch
 45 and back again into the oblique hole, the last entered portion of the tie-cord will cross the first entered portion of the cord between such portion and the hook-like projection and lock the cord against itself and
 50 against accidental escape.

In testimony whereof we have hereunto set our hands this 15th day of June A. D. 1911.

AUGUST PIEPER.
 HENRY CASE.

Witnesses:

MAUDE HAMMOND,
 JEREMIAH WOOD.

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