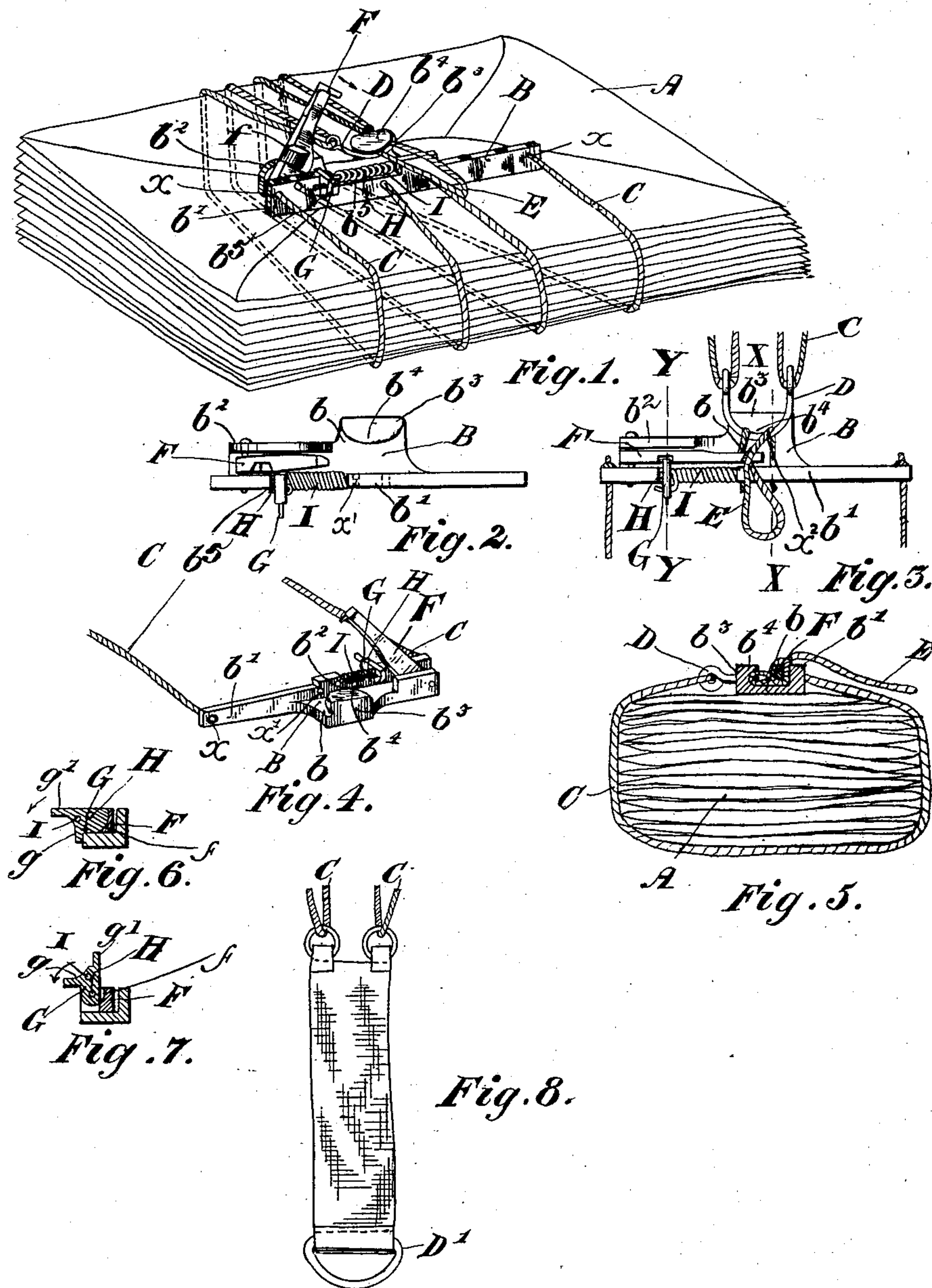


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D. J. McLEAN.
PACKAGE FASTENER.
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NO MODEL.



Witnesses.

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PACKAGE-FASTENER.

SPECIFICATION forming part of Letters Patent No. 753,727, dated March 1, 1904.

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To all whom it may concern:

Be it known that I, DUNCAN JOHN McLEAN, mail clerk, of the town of Bridgeburg, in the county of Welland, Province of Ontario, Canada, have invented certain new and useful Improvements in Package-Fasteners, of which the following is a specification.

My invention relates to improvements in devices for securing the ends of string used to fasten packages of various kinds, and more particularly the device is adapted for securing together a number of letters in a post-office for transmission together; and it consists, essentially, of a device having a body portion provided with a holdfast projection at one side, suitable holes for the connection of the ends of the fastening-string, a locking-lever spring held in position, and a further device or metal loop designed to carry the looped ends of the string in eyes formed in the same, such loop being designed to be passed over the holdfast projection, and the parts being otherwise constructed and arranged in detail as hereinafter more particularly explained.

Figure 1 is a perspective view of a package of letters secured together by my fastening device, the lever clamping device being in the act of descending to grip the string. Fig. 2 is a plan view of the device, the strings being removed therefrom and the lever being shown in the open position. Fig. 3 is a view of the device with portions of the strings shown and the lever in the closed position. Fig. 4 is a perspective view of the device looking at it from the rear. Fig. 5 is a section through a package secured by the device, the body of the device being sectioned on the line X X, Fig. 3. Fig. 6 is a section through the device on the line Y Y, Fig. 3, when the clamping-lever is down. Fig. 7 is a section on the line Y Y, Fig. 3, when the clamping-lever is down, but the locking device is open. Fig. 8 is a view of a band which might be employed in place of or in addition to the binding-strings.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is a package which is to be secured together by the fastener.

B is the body of the fastener, which consists of a base or horizontal portion b , the vertical

side b' , which extends from end to end of the body at one side of the base b , the upright portion b^2 , and the projection b^3 at the rear of the body. The projection b^3 has an overhanging portion b^4 , which extends toward the front of the body, a rounded groove being formed therein.

Any suitable cord, tape, or bands may be provided for surrounding the parcel to be secured; but the preferable form I employ is a single string C. The ends of the string C are fastened in holes x in the ends of the vertical portion b' , and thereby a loop is formed of the string. The string is then carried around the parcel into the form of two loops at the opposite side, which are connected or extend through the eyes of the U-shaped metal loop or hook D, the string having been previously threaded through such eyes before the ends of the string are fastened in the bar. The free end or loop of the string extending from the eyes passes around the opposite side of the parcel and is carried through holes x' in the bar B, and this loop is passed to the inside of the metal loop, as shown at x^2 , Fig. 3.

By pulling upon the free end of the looped string it necessarily draws the metal loop or hook D toward the projection b^3 , and by continuing to draw forwardly on it the string is tightened and at the same time the metal loop pulled forwardly until it passes over the projection b^3 , as indicated in Figs. 1 and 3. The end of the string is secured from being unloosened by a locking or clamping lever F, around which the looped end of the string is preferably wound when such lever is thrown down, as indicated in Fig. 3.

The clamping-lever F is pivotally mounted between the vertical side b' of the body and the vertical portion b^2 and is designed to be forced down in such a position as to grip the string E between the lever and the vertical side b' . The lever is then locked down by any suitable device which will prevent its working loose until it is released when the package is to be unfastened.

The device which I have invented for this purpose consists of a catch G, which is mounted on a spindle or rod H, which is located in a notch or recess b^5 , formed in the vertical side

piece *b'*, the ends of the rod being held in suitable holes formed in the side piece. The rear portion of this catch when the lever is down and locked is formed substantially in the shape of an arc of a circle having its center in the center of the rod *H*. A correspondingly-curved notch *f* is formed in the side of the lever. (See Figs. 6 and 7.) When the catch is in the open position, its rear face is vertical and is designed to be clear of the lever. A spiral spring *I* surrounds the rod or spindle *H*, the end of this spring being passed through the outside portion of the catch *G* and the spring being adapted to press the catch in such a direction as to give it a tendency to turn in the direction indicated by the arrow in Figs. 6 and 7. When the catch is in the position shown in Fig. 6, it will be seen that the projection *g*, which abuts the side of the body, will prevent the catch from turning except in the direction opposite to that indicated by the arrow. It will thus be seen that the lever *F* cannot possibly slip out so long as the catch is in this position, as any pressure from the lever will be in the upward direction, which will only press the projection *g* against the side of the body. When, however, it is desirable to raise the lever and release the cord, the catch may be turned in the direction opposite to that indicated by the arrow by any suitable means; but it is found most convenient to pass the loose end *e* of the cord underneath the projection *g'* and give the catch an upward pull. This will immediately release the lever, which may then be raised, and the cord will also be released, thus permitting the package to be unfastened.

When the catch *G* is raised to the position shown in Fig. 7 to allow the lever *F* to be moved up to release the cord, the spring *I* as soon as the lever is lifted forces the catch back into its locking position. (Shown in Fig. 6.) When the lever is pressed down again to hold the cord, its lower edge will cause the catch to rotate on its axis, so as to permit the lever to pass down to its full extent, when the spring will cause the catch to spring into the notch in the lever, and thus securely hold the same.

It will now be seen that I have devised a simple means of fastening together packages of various kinds.

My device may be used in a great many ways; but the principal object for which it has been invented is to secure together bunches of letters intended for the same destination. A number of the fasteners may be kept in the post-office or on the train where the letters are sorted with the strings already secured thereto. When a number of letters are sorted out, they may be placed together and by simply pulling the looped string *C* around them and gripping such string with the lever the package may be securely fastened together, thus saving a considerable amount of time which is generally wasted in tying the packages.

In Fig. 8 I have shown a band to which the intermediate looped ends of the string *C* may be secured, this band having a suitably-shaped ring or loop *D'* at its end to take the place of the loop *D*. The object in using the band would be to avoid cutting the paper of the envelops; but this might be dispensed with in the majority of cases.

It is to be understood that I do not wish to be limited to the exact form and construction of the various parts of the device as shown, as considerable changes might be made in the form of the device without departing from the spirit of my invention.

What I claim as my invention is—

1. A package-fastener comprising a bar or body portion, a looped string having the ends fastened in the ends of the body portion, a metal loop threaded on the string and forming intermediate of the length of the looped string a loop with a metal end and looped string sides, the free end of the main loop being designed to be passed through the metal loop, so as to tighten the same toward the main bar, and means on such main bar for retaining the metal loop in place after being brought into position as and for the purpose specified.

2. A package-fastener comprising a bar or body portion, a looped string having the ends fastened in the ends of the body portion, a metal loop threaded on the string and forming intermediate of the length of the looped string a loop with a metal end and looped string sides, the free end of the main loop being designed to be passed through the metal loop, so as to tighten the same toward the main bar, and a projection extending upwardly from the main bar for retaining the metal loop in place after being brought into position as and for the purpose specified.

3. A package-fastener comprising a bar or body portion, a looped string having the ends fastened in the ends of the body portion, a metal loop threaded on the string and forming intermediate of the length of the looped string a loop with a metal end and looped string sides, the free end of the main loop being designed to be passed through the metal loop, so as to tighten the same toward the main bar, means on such main bar for retaining the metal loop in place after being brought into position, and means for locking the free end of the looped string after the metal loop has been brought into position as and for the purpose specified.

4. A package-fastener comprising a bar or body portion, a looped string having the ends fastened in the ends of the body portion, a metal loop threaded on the string and forming intermediate of the length of the looped string a loop with a metal end and looped string sides, the free end of the main loop being designed to be passed through the metal loop, so as to tighten the same toward the main bar, means on such main bar for retaining the metal loop in place after being brought into position, and

a clamping means for locking the free end of the looped string after the metal loop has been brought into position.

5. A package-fastener comprising a bar or body portion, a looped string having the ends fastened in the ends of the body portion, a metal loop threaded on the string and forming intermediate of the length of the looped string a loop with a metal end and looped string sides, the free end of the main loop being designed to be passed through the metal loop, so as to tighten the same toward the main bar, means on such main bar for retaining the metal loop in place after being brought into position, and a clamping-lever pivoted on the body portion and designed to be brought down over the free end of the loop of the string, and means for holding such lever in the lowered position as and for the purpose specified.

6. A package-fastener comprising a bar or body portion, a looped string having the ends fastened in the ends of the body portion, a metal loop threaded on the string and forming intermediate of the length of the looped string a loop with a metal end and looped string sides, the free end of the main loop being designed to be passed through the metal loop, so as to tighten the same toward the main bar, means including a clamping-lever on such main bar for retaining the metal loop in place after being brought into position, and spring-actuated means for holding such lever in position as and for the purpose specified.

7. A package-fastener comprising a bar or body portion, a looped string having the ends fastened in the ends of the body portion, a metal loop threaded on the string and forming intermediate of the length of the looped string a loop with a metal end and looped string sides, the free end of the main loop being designed to be passed through the metal loop, so as to tighten the same toward the main bar, means including a clamping-lever on such main bar for retaining the metal loop in place after being brought into position, and a catch pivotally supported at right angles to the lever and adapted to engage in a notch

therein when the lever is in the closed position and spring means for preventing such catch from disengaging said lever as and for the purpose specified.

8. In a device of the class described the combination with the body having upwardly-extending side flanges and a clamping-lever pivotally supported between said flanges, said clamping-lever having a curved notch formed in one of its sides, of a catch pivotally supported at right angles to the lever and adapted to engage said notch in the lever when the lever is in the closed position, and means for preventing said catch from rotating in the direction in which it would be forced by the tendency of the lever to work loose as and for the purpose specified.

9. In a device of the class described the combination with the body, having lateral upwardly-extending flanges, and the gripping-lever pivotally supported between said flanges, said lever having a curved notch formed in one of its sides of a catch pivoted at right angles to said lever, said catch having a curved portion corresponding with the curve of the notch in the lever, means whereby the lever in being forced downwardly will rotate the catch on its axis in such a manner as to permit the lever to pass, a spring-actuating means adapted to cause the catch to spring into the curved notch when the lever has been pressed to the full extent of its downward motion as and for the purpose specified.

10. A package-fastener comprising a bar or main portion, a looped string having the ends fastened in the ends of the body portion, and forming a double loop intermediate of its length, and means on the main bar for engaging the double loop and retaining it in place after being brought into position as specified.

Signed at the city of St. Thomas, in the Province of Ontario, this 3d day of March, 1903.

DUNCAN JOHN McLEAN.

Witnesses:

JOHN HENRY HULL,
ALEXANDER MARTIN.