March 2, 1948. A. A. OHLER 2,436,935

FASTENER FOR TYING ELEMENTS

Filed Sept. 7, 1945

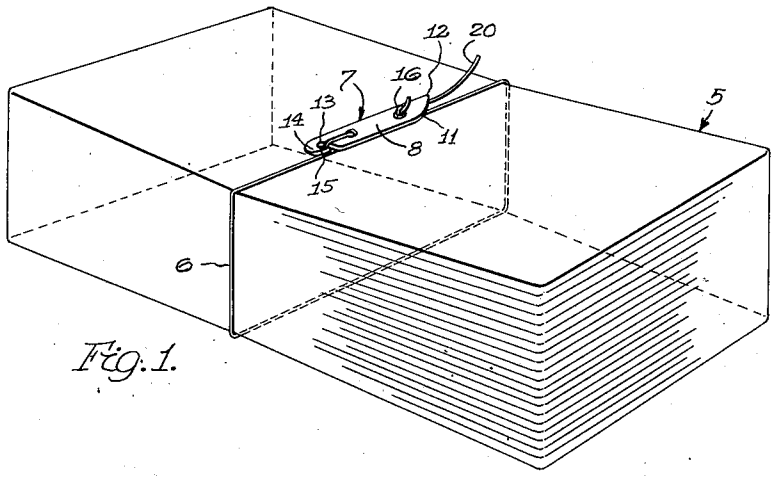


Fig. 1.

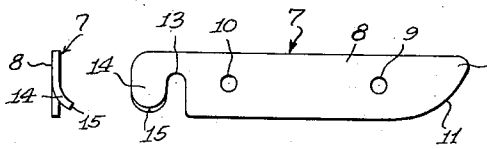


Fig. 3. Fig. 2.

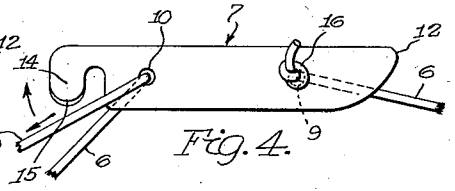


Fig. 4.

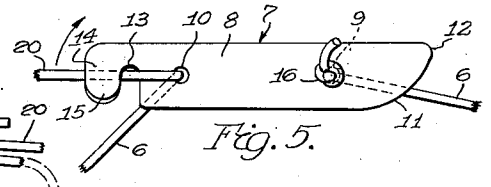


Fig. 5.

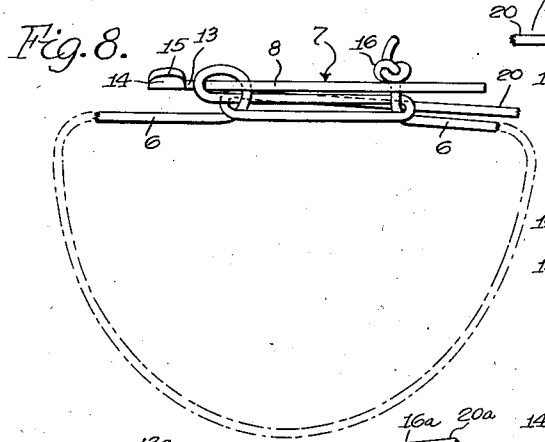


Fig. 8.

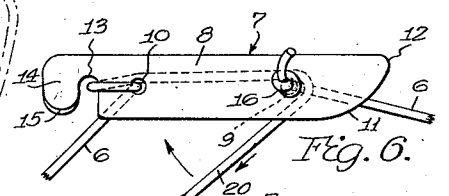


Fig. 6.

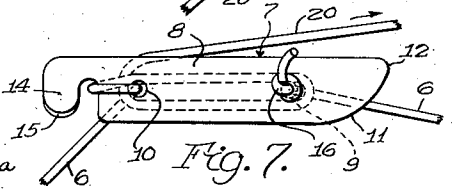


Fig. 7.

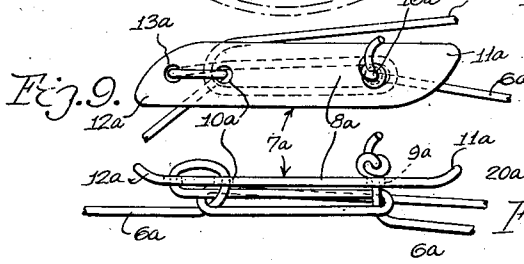


Fig. 9.

Fig. 10.

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FASTENER FOR TYING ELEMENTS

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2 Claims. (Cl. 24—18)

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The present invention relates to improvements in fasteners and tying elements for binding packages and the like, and has reference more particularly to a fastener therefor.

The primary object of the invention is to provide a fastener for package binding tying elements and the like which may be easily manipulated by the use of one hand while the package is held in the other hand, thereby eliminating the necessity of placing the package upon a support or the like while binding the package with the tying element.

Another object of the invention is to provide a fastener for tying elements and package binders which is so shaped and constructed as to permit the winding of the free end of said tying element about the underside of said fastener to thereby insure a tight and firm anchorage for said free end of the tying element and to prevent the same from becoming loose or displaced from the package about which said tying element is wound.

Another object of the invention is to provide a fastener which is easy to manipulate during the fastening and tying of packages with cord tying elements and to provide a fastener which is simple in construction and operation and is easy to remove after being placed in binding relation with a package or the like.

Another object is to provide a fastener for tying cords and package binders which is so constructed as to wobble from side to side when the free end of the tying element or cord is being looped or wound about the ends of the tying element or cord which are connected to the fastener, thus enabling the tying element or cord to be quickly and easily placed about a package or the like and securely fastened in place to bind the package in a tight and compact position.

Another object is to provide a fastener element for tying elements and cords which will enable certain portions of the tying element or cord to be frictionally gripped one with the other by winding the free end of the tying element or cord several times beneath the body portion of the fasetener in looping engagement with the tying cord portions connectiong the fastener.

Other objects and advantages of the invention will become apparent during the course of the following description of the accompanying drawing, wherein:

Figure 1 is a perspective view showing an embodiment of the invention and illustrating the fastener and tying cord in position upon a package of envelopes or the like for the purpose of binding the envelopes together;

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Figure 2 is an enlarged top plan view of the fastening element showing the tying cord removed for the purpose of illustrating various structural details;

Figure 3 is an end elevational view of the fastening element showing the manner in which one end thereof is bent laterally to provide a hooked portion for receiving the tying element or binding cord;

Figure 4 is a top plan view of a fastening element showing the binding or tying cord partly broken away and affixed to one end thereof with the free end of said cord passed through an opening in the other end of said fastening element and indicating the direction for moving the free end of the tying element when binding a package or stack of letters or the like;

Figure 5 is a top plan view similar to Figure 4 with the tying cord partly broken away and further showing the manner in which the free end of the tying cord is moved so as to be passed beneath the hooked portion of the fastening element;

Figure 6 is a top plan view similar to Figure 5 with the tying cord partly broken away and showing the free end of the tying cord as being passed about the point of attachment of the other end of the tying cord;

Figure 7 is a top plan view similar to Figure 6 with the tying cord partly broken away and showing the final position of the free end of the tying element or cord after the same has again been looped under the sliding end of the tying element; and

Figure 8 is a side elevational view of the fastening element illustrating the tying cord in position and the manner in which the same has its free end looped one or more time to frictionally hold the binding or tying cord in position;

Figure 9 is a top plan view of a modified form of the invention with the tying cord partly broken away and showing a package fastener element which is pointed at each end thereof on opposite sides of the center line of said fastener to facilitate easy manipulation of the fastener; and

Figure 10 is a side elevational view of the modified form of the invention shown in Figure 9 with the tying cord partly broken away and showing the manner in which the openings at each of the fasteners are arranged.

In the drawing, the reference character 5 will general be employed to indicate a package of

letters or the like (Figure 1) to be bound together or packaged by a cord or tying element 6.

In order to provide means for fastening the ends of the tying element 6, a fastener is provided and is generally indicated by the reference character 7. The fastening comprises an elongated body portion or plate 8 formed of a piece of flat metal or other suitable material and said body portion is provided with a pair of spaced openings 9 and 10 arranged one at each end of said fastening element 7. One end of the body portion 8 is curved as at 11 to form a pointed end portion 12 which is offset from the longitudinal central portion of the fastener for a purpose which will be hereinafter more fully described.

The opposite end of the body portion is provided with a notch 13 extending inwardly from a side edge thereof to form a hooked portion 14 which has its free end 15 bent upwardly, as clearly indicated in Figure 3. The inwardly extending notch or recess 13 is arranged so that clockwise swinging movement of the free end of the tying element 6 will cause the tying element to slide under the hooked portion 14 when applying the tying element or cord to a package or stack of letters 5.

One end of the tying element or cord 6 is passed through an opening 9 and is knotted as at 16 to securely anchor the tying element or cord in position. The free end of the tying element or cord 6 as at 20 is passed through the opening 10 (Figures 1, 4 to 8 inclusive) so that a pull on the free end 20 will tighten the looped portion of the tying element 6 about a package or other parcel. After the free end of the tying element or cord has thus been tightened, the free end is swung in a clockwise direction as illustrated in Figure 4 so that it will pass beneath the upturned free end 15 of the hooked portion 14 as indicated in Figure 5. Upon further swinging movement of the free end 20 of the tying element or cord 6 (shown in Figure 6), said free end may be looped about the portion of the tying element extending through the opening 9 and may be passed therearound so that further swinging movement of the free end 20 in a clockwise direction will cause the free end of the tying element to be looped beneath a portion of the tying element 6 extending upwardly through the opening 10. The free end 20 of the tying element may again be passed under the pointed end 12 of the fastener to provide a second loop extending under the fastener and about the portion of the tying element or cord extending through the opening 9 in said fastener.

While the free end 20 of the tying element or cord is thus being wound clockwise, the body portion 8 of the fastener will rock to and fro so that as the free end of the cord is passed under the hooked portion 14, the upturned free end 15 thereof will be rocked upwardly, and when the free end of the tying element or cord is passed toward the opposite end or pointed portion 12 of the elongated body portion of the fastener, the body portion will rock in the opposite direction so that the pointed portion 12 will be slightly raised from the surface of the package 5 and permit the easy passing or looping of the free end of the tying element therebeneath.

Obviously, the free end of the tying element may be looped two or more times about the portions of the tying cord extending upwardly through the openings 9 and 10 and in doing so, the looped portions of the free end of the tying element are frictionally held between the under side of the fastener 7 and the outwardly extending or encircling portions of the tying element which pass about the package or parcel being bound or wrapped.

In the modified form of the invention shown in Figures 9 and 10, the fastener 7a is formed of a strip of metal including a body portion 8a having openings 9a and 10a adjacent the ends thereof. The opposite ends of the body portion 8a are pointed as at 11a and 12a on opposite sides of the center line of said body portion as clearly shown in Figure 9. The pointed ends 11a and 12a are bent upwardly as illustrated in Figure 10 to facilitate the passage of the tying element in a manner similar to that shown and described in connection with the form of the invention shown in Figures 1 to 8 inclusive.

Formed in the body portion 8a adjacent the pointed end 12a is an aperture 13a and said aperture is spaced from the opening 10a a sufficient distance to form a large looped portion when the tying element is arranged or passed about a package. The tying element 6a has one of its ends passed through the opening 9a and is knotted as at 16a to securely anchor one end of the tying element in place and to the end of the body portion 8a. The other end of the tying element 6a is adapted to be passed upwardly through the aperture 10a after the tying element is wrapped about a package or the like and is then threaded downwardly through the aperture 13a. The extreme free end of the tying element indicated by the reference character 20a may then be wound around the body portion of the fastener 7a in much the same manner as was pointed out in connection with the form of the invention shown in Figures 1 to 8 inclusive. First, the free end 20a after being passed through the aperture 13a is wound around the knotted end of the tying element 6a and is further wound so as to position the looped portion thereof between the previously coiled portion and the end of the tying element 6a entering the aperture or opening 10a. In this manner, the free end of the tying element is frictionally gripped between the parallel strands of the tying element on the under side of the fastener and after the free end of the tying element has been wound as shown in Figure 9, it may again be passed around the knotted end of the tying element beneath the body portion of the fastener to reduce the length of the free end of the tying element, thereby presenting a neat and compact fastening means for the package.

It is to be understood that the forms of the invention herewith shown and described are to be taken as preferred embodiments thereof and that various changes may be made in the shape, size and arrangement of parts without departing from the spirit of the invention or the scope of the subjoined claims.

What I claim is:

1. A cord fastener comprising an elongated plate having first and second longitudinal edges and having a pair of end cord apertures spaced apart from one another near the opposite ends of said plate and a third cord aperture intermediate said end apertures and located nearer one end aperture than the other end aperture, one end of said plate being tapered obliquely from said first edge toward said second edge and the other end of said plate being tapered obliquely from said second edge toward said first edge.

2. A cord fastener comprising an elongated

plate having first and second longitudinal edges and having a pair of end cord apertures spaced apart from one another near the opposite ends of said plate and a third cord aperture intermediate said end apertures and located nearer one end aperture than the other end aperture, one end of said plate being upturned and tapered obliquely from said first edge toward said second edge and the other end of said plate being upturned and tapered obliquely from said second edge toward said first edge.

ALBERT A. OHLER.

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