C. W. HAMILTON.

STRING OR CORD FASTENER.

APPLICATION FILED JAN. 27, 1908. RENEWED JULY 30, 1909.

951,114. Patented Mar. 8, 1910.

Fig. 1.

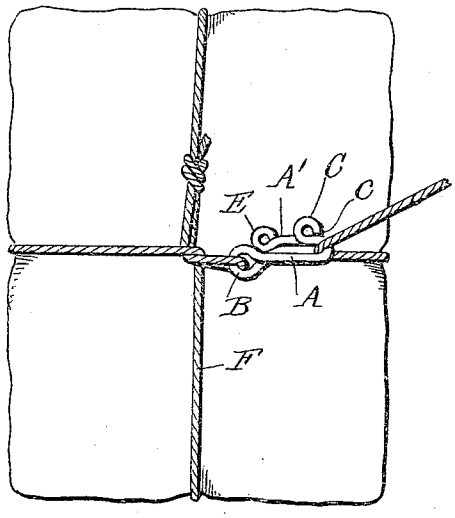


Fig. 2.

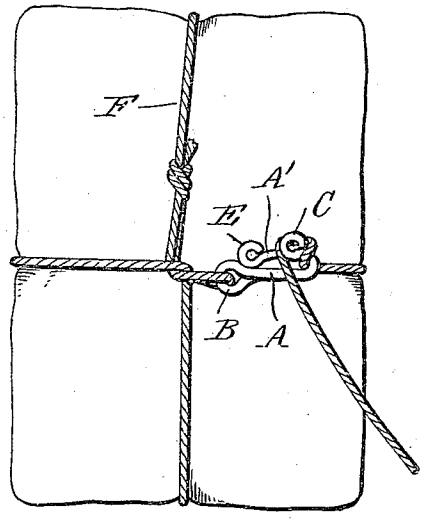


Fig. 3.

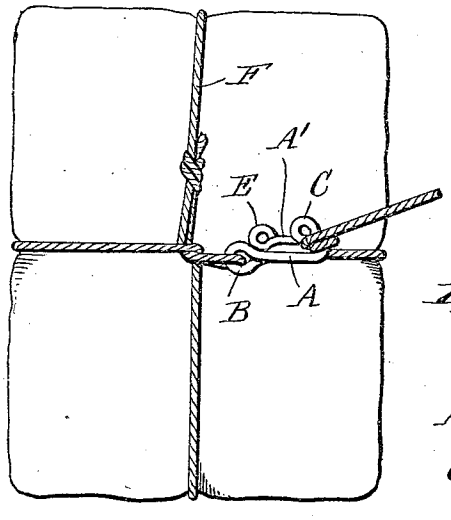


Fig. 4.

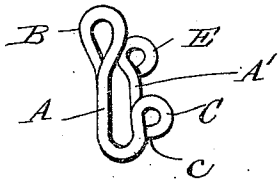


Fig. 6.

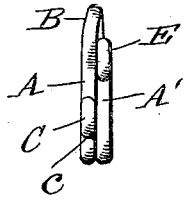


Fig. 5.

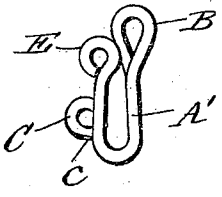
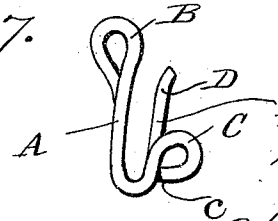


Fig. 7.



Witnesses

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UNITED STATES PATENT OFFICE.

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STRING OR CORD FASTENER.

951,114. Specification of Letters Patent. Patented Mar. 8, 1910.

Application filed January 27, 1908, Serial No. 412,915. Renewed July 30, 1909. Serial No. 510,413.

To all whom it may concern:

Be it known that I, CLARENCE W. HAMILTON, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in String or Cord Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

The present invention relates more particularly to devices for securely fastening the ends of a cord or string employed to confine a package or bundle, and while this particular field of usefulness will be referred to in the following description, it will be understood that the device may be employed wherever it is desired to fasten the ends of a cord or pliant tie.

The objects of the invention are to provide a device requiring no particular knowledge or skill in its use, and with which the cord may be drawn tight about the package and its ends connected securely with the least possible number of movements on the part of the person performing the work.

Another object of the invention is to provide a device which will lie flat on the package, offer no points or projections liable to injure other packages, and which will not tangle or catch in other devices and cords when thrown loosely into a receptacle or pile.

In the accompanying drawings: Figures 1, 2 and 3 are plan views showing the manner of using a fastener embodying the present improvements. Figs. 4, 5 and 6 are respectively a front, a rear and an edge elevation of a fastener embodying the present invention. Fig. 7 is a front elevation of a fastener in which the terminal eye of one hook has been omitted.

Similar letters of reference indicate corresponding parts in all the views.

The fastener is preferably formed or bent up from wire which is somewhat resilient, but stiff enough to resist any strains likely to be encountered in use, without liability of becoming set out of shape. The wire is bent to form two parallel hooks A, A′ lying side by side and with a connecting eye B between the shanks, which eye extends in the general plane of the hooks, or has its axis substantially perpendicular to the planes of the hooks, thus adapting the device to lie flat against the package or object to which the string is being applied. The end or terminal of one hook, preferably the upper or outer hook A, is formed into an eye C, which eye is in the plane of the hook, and lies on the outer side but close down to the bend of the hook itself. The eye is of such shape as to form a shoulder *c*, around which a bight of the cord wraps to facilitate the tying operation, as will be presently explained. The terminal or free end of the other hook may extend past the eye C in the form of a plain end D, as in Fig. 7, but in the preferred construction it is also formed into an outwardly turned eye E which lies in the plane of the hook A′, extends well above the eye C and at one point approaches very closely to the shank eye B. It may even pass slightly beneath or overlap one of the sides of the shank eye as shown. With this construction it will be seen that there are no open hooks and no recesses or passages in which other fasteners, cords or papers can accidentally catch or which will cause the fasteners to snarl or tangle with the cords and each other when thrown loosely together.

The cord F may be permanently secured through the shank eye B, of the fastener, and to effect a firm fastening of the opposite end of the cord after it has been passed around the package in the conventional way, the end is caught or drawn back through both hooks, as shown in Fig. 1, until the desired tension has been put on the cord; then a bight is taken around the eye C, as shown in Fig. 2, and a straight pull on the end of the cord brings the bight down around one hook below the eye, as shown in Fig. 3. Any strain on the body of the cord draws the two hooks together more tightly, thereby pinching the reach passing between the hooks, thus the resistance to any yielding increases in proportion to the strain tending to slip the cord, and the latter is locked firmly under all conditions. The wire of which the fastener is formed is preferably of rather heavy section and clamps the cord drawn between the hooks with considerable pressure, but owing to the torsion set up as the cord is passed into and out of the hooks the entry and release of the cord is comparatively easy and a fastener of one size is well adapted for use with heavy or light cord.

While the particular way of applying the

cord illustrated in the drawings, is preferred owing to the fact that the tying is effected in such a simple and natural manner that no one could fail, still it will be understood that the fastener will hold with perfect security if the cord be carried through both hooks and then a bight caught in either direction around one hook and drawn down below the eye, and hence I do not wish to be restricted in the application of the cord to the fastener in any particular way.

It will be noted that the hooks are both bent or curved in the same direction, and consequently the shanks and bends of the hooks may be made substantially parallel throughout.

Having thus described the invention, what I claim and desire to secure by Letters-Patent, is:

1. A string fastener embodying a pair of hooks both bent in the same direction, lying in substantially parallel planes and united by an eye having its axis substantially perpendicular to the planes of the hooks and the free end of one hook being longer than the other to facilitate the entry of the cord between the hooks.

2. A string fastener embodying a pair of hooks both bent in the same direction, lying in substantially parallel planes and having their shanks connected by an eye having its axis substantially perpendicular to the planes of the hooks and one hook having its free end shorter than the other and formed into an eye lying in the plane of the hook to facilitate the entry of the cord between the hooks.

3. A string fastener embodying a pair of hooks lying in substantially parallel planes and having their shanks formed into a connecting eye and their free ends formed into eyes lying in the planes of the hooks, and one of said end eyes being located in proximity to the shank eye whereby accidental engagement of the hook is prevented.

4. A string fastener embodying a pair of hooks lying in substantially parallel planes and having their shanks formed into a connecting eye having its axis substantially perpendicular to the planes of the hooks and their free ends formed into eyes, one located in proximity to the bend of its hook and the other located in proximity to the eye connecting the shanks of the hooks.

5. A string fastener embodying a pair of hooks both bent in the same direction, lying in substantially parallel planes and having their shanks formed into a connecting eye having its axis substantially perpendicular to the planes of the hooks and their free ends formed into eyes lying in the planes of the hooks and projecting beyond the contour lines of the hooks, one of said eyes being in proximity to the shank eye and the other in proximity to the bend of the hooks.

CLARENCE W. HAMILTON.

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