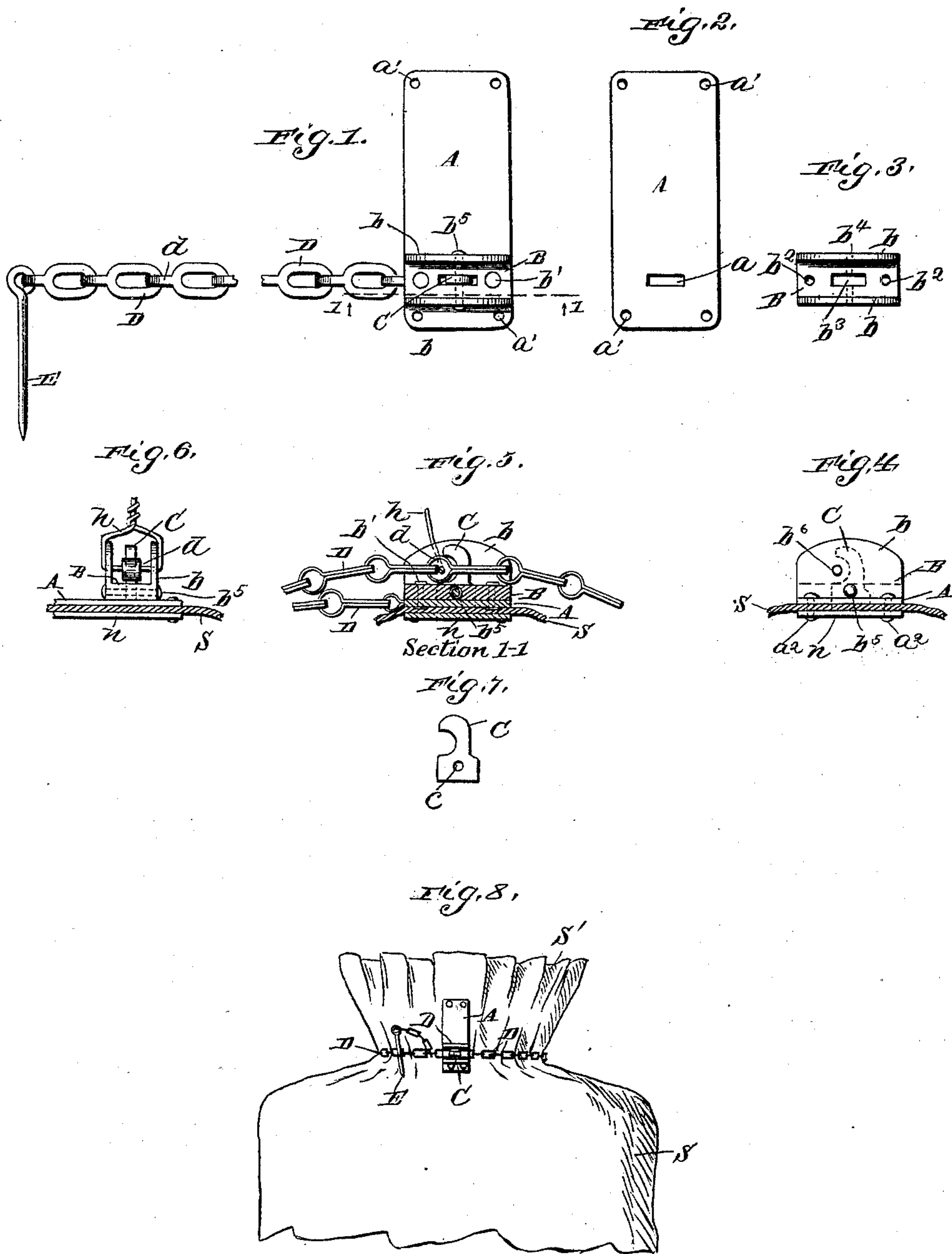


(No Model.)

D. E. LADD, Dec'd.
E. Z. CARPENTER, Executor.
TIE FOR BAGS, BALES, AND BUNDLES.

No. 473,822.

Patented Apr. 26, 1892.



Witnesses:
Richard W. Jones
Edwin G. Day

Edwin Z. Carpenter
Executor of
Daniel E. Ladd, dec'd.
Inventor:
by
Edward W. Rankin
attorney

UNITED STATES PATENT OFFICE.

EDWIN Z. CARPENTER, OF GLENVILLE, EXECUTOR OF DANIEL EDGAR LADD, DECEASED, ASSIGNOR TO CHARLES H. C. MORRIS, JARUS WHEELER, AND EARL G. WHEELER, OF AMSTERDAM, NEW YORK.

TIE FOR BAGS, BALES, AND BUNDLES.

SPECIFICATION forming part of Letters Patent No. 473,822, dated April 26, 1892.

Application filed November 23, 1891. Serial No. 412,890. (No model.)

To all whom it may concern:

Be it known that DANIEL EDGAR LADD, now deceased, in his life-time a citizen of the United States, and a resident of the city and county of Schenectady, in the State of New York, did invent a new and useful Improvement in Ties for Bags, Bales, and Bundles, of which the following is a specification.

The invention relates to the class of fastenings using a flexible tie around the packet, or in case of bags about the gathers of the mouth thereof. The combination of elements used forms a tie or fastening with advantages of ready adjustment, security when adjusted, facility in opening, cheapness of construction, and adaptability to many kinds of service.

It was found that a fastening could be made by the use of a looped or slotted tie, in combination with a hook to catch in one of the links or loops thereof. That this combination should give satisfactory results it was necessary to secure an upright position for the hook and put guards about it. The object of keeping the hook upright was that it might be always in a position ready to catch in the loop or link of the tie and to prevent it from turning over and letting this slip off, or, on the other hand, holding it so tightly as to make unfastening difficult. The guards serve to protect the hook from rough usage and breaking and from catching into other adjacent material, and they may serve as guides to the tie in making the fastening. In the invention of said LADD these objects are attained in the following manner: The flexible tie is made with slots or loops to catch and hold on the hook. A slotted chain is preferred. One end of this may be secured to the package to which it is applied or to the contrivance containing the hook. The hook is made of any suitable metal. It has its curved upper end or crook of a size to slip easily into any of the slots or loops of the tie. Two guards are arranged, one on each side of said hook. These extend parallel with the crook thereof and beyond, and they are of about the same height as the top of the hook. The hook and its guards are secured to a plate beneath, and this in turn may be attached to the outer cover of the package or placed

thereon, and should be of sufficient size to maintain the contrivance in position.

To obtain the best results, the inventor adopted the following detail of construction, which is also shown in the accompanying drawings: The lower plate is of metal and larger in surface than the space occupied by the contrivance upon it. This prevents it from turning over. It may be of an oval or oblong shape and have rivet-holes to secure it to the package or to a plate below the material of the same, as in the case of a bag. The part of this plate not occupied by the hook and its guards may be conveniently used as a space for a name or address. Through this lower plate is cut an opening to fit the lower end of the shank of the hook. Upon this lower plate and riveted or otherwise secured to it are placed the guards. These are best made of a single piece or plate of metal with the sides turned up or a deep groove or channel cut in it to leave the guarding sides for the hook. An opening is also cut in the bottom of this plate to fit the shank of the hook, corresponding with the similar opening in the plate below. The bottom or bed of this upper plate should be of sufficient thickness to permit of a rivet or pin passing transversely through it and through the shank of said hook when in position to hold it firmly in place, and an opening or hole for this purpose is made. The upturned sides form the guards above referred to, and, extending beyond the hook both ways and made parallel thereto, serve, also, to guide the tie in drawing it up over the hook and help to keep it in its place when the fastening is made. They are arranged sufficiently far apart to permit the tie being drawn up between them, but not so far as to permit it to diverge greatly from a straight line. The upturned sides have their upper corners rounded or beveled off to prevent them catching into anything. Through each of these sides or guards a small hole is cut about opposite the opening under the crook of the hook. When the tie is in place with the fastening made, these serve to permit a wire or other suitable sealing or locking device passing through them and a link or loop of the tie, preventing the tie from being opened without

breaking the seal or unlocking, as the case may be. The lower end of the shank of the hook is made of greater width than thickness. Through it is cut a hole for the rivet or pin passing through the upper plate to hold it firmly in place. At the loose end of the flexible tie it serves a useful purpose—to put a pin or to twist up the end to a tapering point, either of which can be tucked under the tie when fastened and prevent the loose end from dangling.

In the accompanying drawings similar letters refer to similar parts throughout the several views.

Figure 1 is a top view of the whole contrivance. Fig. 2 shows the lower plate on which the hook and upper plate with guarding sides is fitted. Fig. 3 shows the upper plate with its upturned sides. Fig. 4 is a vertical sectional view of the contrivance, except the tie. Fig. 5 is a similar view with the tie in place. Fig. 6 is an end view showing the sealing device. Fig. 7 shows the hook. Fig. 8 shows the application of the invention to a bag.

Fig. 1 is a top view of the entire contrivance. A represents the lower plate to be secured to or placed upon the material of the package. This is conveniently done by means of rivets, holes for which are shown at a' . Upon this plate A and secured to it by means of rivets b' is the upper plate B. The guarding or guiding sides b are also shown. C is the hook to catch in the slot or link of the flexible tie and is held in place by the rivet or pin b^5 . D is the flexible tie—in this figure a slotted chain—having the slot or link designated at d . E is a pin at the loose end of the tie. This figure, as well as Figs. 2 and 8, show the preferable method of making said plate A oblong in shape, having the plate B at or near one end. This method secures stability and leaves space on the plate A for stamping a name or address thereon. The end of the flexible tie D is here shown as fastened to the plate A. Fig. 2 shows the said plate A separately, with the rivet-holes a' cut therein to secure said plate to the package or bag and having an opening a therein cut for the shank of the hook.

Fig. 3 shows the upper plate B separately, having rivet-holes b^2 to fasten it to said plate A, and also the opening b^3 , made for the shank of the hook. It shows, also, the side pieces or plates for guards b . Dotted thereon, also, appears the hole b^4 for the rivet or pin b^5 (see Fig. 1) to hold the shank of the hook.

Fig. 4 shows a vertical sectional view of the invention. In this the plate A appears riveted through the outer material of the package to an under plate n by the rivets a^2 . The upper plate B is shown above A with one of

the sides b ; also the pin or rivet b^5 , passing through the shank of the hook C, which said hook C is here shown by dotted lines. The hole in the side plate or guard b for the insertion of a sealing device is shown at b^6 .

Fig. 5 represents a vertical sectional view of the invention with the flexible tie D in place. In this figure, as in Fig. 4, the plate A is shown secured to the package by rivets through to an under plate n ; also, as in Fig. 1, the tie D has its end fastened to the plate A. The hook C is represented with slot d caught thereon.

Fig. 6 shows a vertical sectional end view of a part of the invention. The hook C is shown with the slot or link d thereon and a sealing device h passing through the guards b and through slot d .

Fig. 7 shows the hook C with the hole c passing through its shank for the rivet or pin b (see Figs. 4 and 5) to hold it in place.

Fig. 8 shows said tie applied to a bag S, with the tie or fastening in place around the gathers of its mouth. The pin E at the loose end of the tie D is here shown tucked in under said tie to keep the loose end from dangling.

In putting this invention into practical use on a package or bag to which the improved tie is applied the flexible chain or cord is drawn up between the guards and over the hook between them. When drawn sufficiently tight a slight pressure downward and relaxing the hold of the end of the tie serves to catch the link or loop on the hook. The loose end may be tucked under the chain or cord, so as to be out of the way, and a sealing or locking device may be applied, if desired. To open again, it is only necessary to pull the tie forward or tighten it a little and the link or loop may be lifted off the hook without difficulty.

Having thus described the invention made by said LADD, what is claimed, and desired to be secured by Letters Patent, is the following:

1. The combination of a flexible tie, with slots or loops therein, with a hook and guarding or guiding side pieces firmly secured to a plate beneath said hook and side pieces, substantially as described.

2. The combination of a flexible looped or slotted tie with a hook having guards or guides on either side thereof and secured thereto and holes through said guards or guides for a sealing or locking device, substantially as described.

EDWIN Z. CARPENTER,
Executor of the last will and testament of
Daniel Edgar Ladd.

Witnesses:

EDWIN G. DAY,
EDWARD W. REINLEIN.