

E. WALDEN.
 BALE OR PACKAGE TIE.
 APPLICATION FILED SEPT. 18, 1909.

980,136.

Patented Dec. 27, 1910.

2 SHEETS-SHEET 1.

Fig. 1.

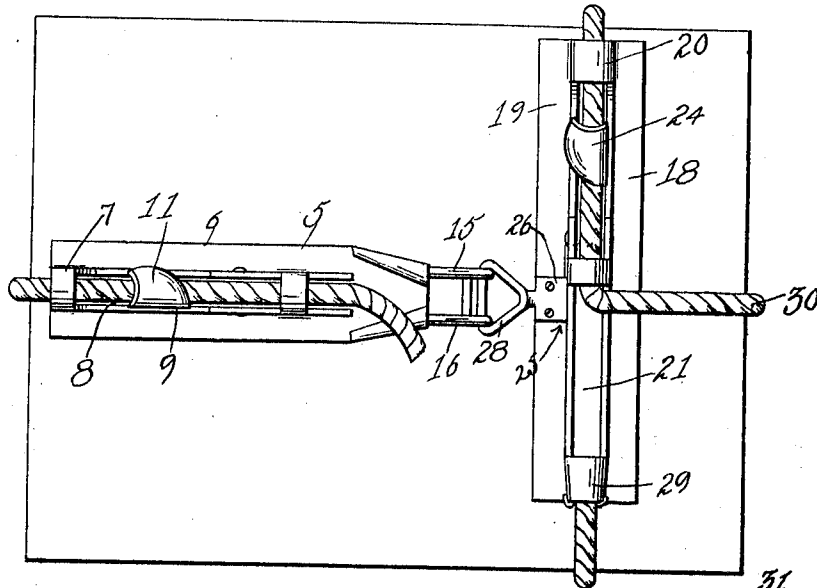


Fig. 2.

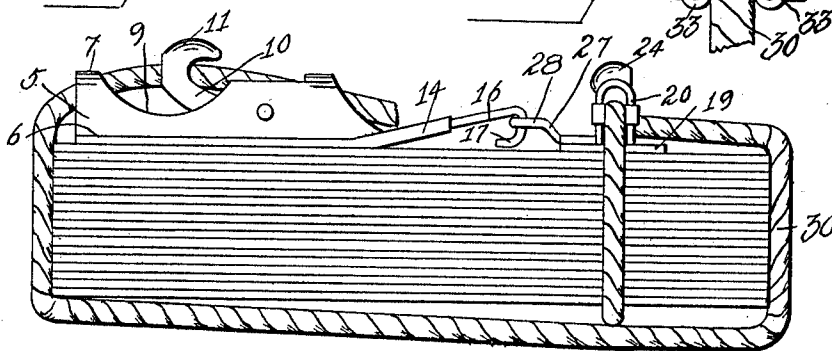
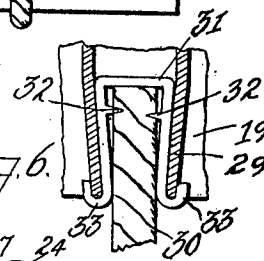


Fig. 6.



Witnesses

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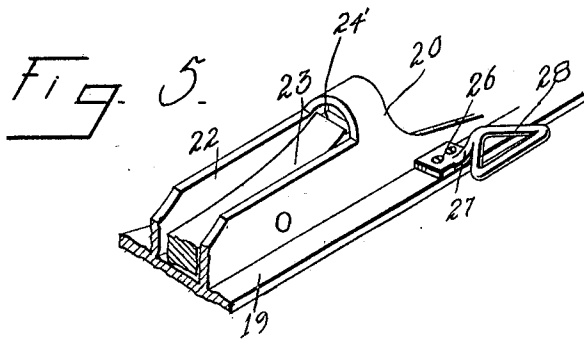
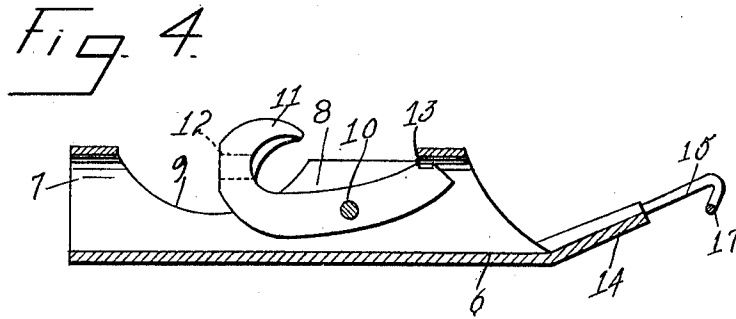
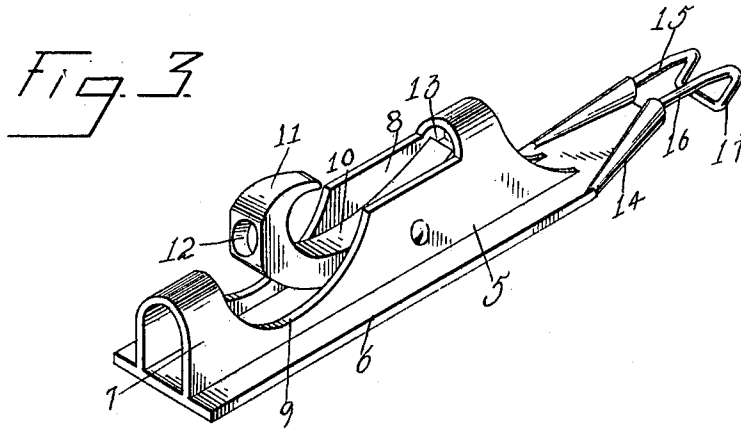
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2 SHEETS-SHEET 2.



Witnesses

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BALE OR PACKAGE TIE.

980,136.

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To all whom it may concern:

Be it known that I, EDWARD WALDEN, a citizen of the United States, residing at Ardmore, in the county of Carter, State of Oklahoma, have invented certain new and useful Improvements in Bale or Package Ties; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in bundle and package ties.

It has for its object the provision of a device of that kind especially designed for tying bundles of mail and the like.

One object of the invention is the provision of a device in which the ends of the cord need not be tied together in order to hold the bundle intact.

Another object is the provision of a device which may be readily disengaged from the bundle of mail without the employment of a knife or similar instrument to cut the cord.

With these and other objects in view as will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings and more particularly pointed out in the appended claims; it being understood that various changes in the form, proportion, size and minor details of the device may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings forming part of the specification:—Figure 1 is a plan view of a bundle of letters and showing my improved device applied thereto. Fig. 2 is a side elevation of the same. Fig. 3 is a detailed perspective of the attaching member. Fig. 4 is a longitudinal sectional view of the same. Fig. 5 is a fragmentary perspective of the intermediate portion of the engaging member. Fig. 6 is a sectional plan view of the forward end portion of the engaging member and showing the means for securing one end of the cord thereto.

Similar numerals of reference are employed to designate corresponding parts throughout.

What will subsequently be termed an attaching member is designated in general by

the numeral 5. This member is preferably formed of metal and consists of a flat oblong bearing plate 6, from the upper face of which rises an inverted U-shaped casing 7. The upper side of this casing is cut away to points adjacent its opposite ends, whereby an oblong opening 8 is provided and formed in the upper edges of the sides of the casing are semi-circular depressions 9. Pivoted between the opposite sides of the casing is a locking lever 10. This member is preferably formed of metal and has one end portion curved upwardly as shown at 11 and provided with a transverse opening 12, the axis of which is parallel with the longitudinal central line of the casing. The upwardly curved portion 11 extends between the semi-circular depressions 9 while the opposite end of the lever curves slightly upward and extends to a point adjacent the opposite end of the casing and on its upper side is provided with a plurality of spaced teeth 13, which are adapted, when the curved portion 11 of the lever is depressed, to bear against the upper side of one end portion of the casing 7.

It might here be stated, that one end of the casing 7 terminates at a point adjacent one end of the bearing plate 6 and that portion of the latter extending in advance of the end of the casing is flexed upwardly as shown at 14. The opposite side portions of the upwardly flexed portion 14 are curved upwardly and downwardly, whereby openings are presented for the reception of a hook. The latter is preferably formed of a single piece of stout steel wire or the like bent to substantially a U-shape, the opposite limbs 15 and 16 of which are inserted into the openings formed by the curved side portions of the portion 14, and are suitably secured therein. The opposite or connected ends of the limbs 15 and 16 extend to points considerably in advance of the flexed portion 15 and terminate in a downwardly curved bill 17, the function of which will appear later.

What will subsequently be termed an engaging member is designated by the numeral 18. Like the attaching member this engaging member consists of a bearing plate 19 corresponding in size and shape to the bearing plate 6 and from the upper face of which rises a casing 20, similar to the casing 7. The casing 20 extends throughout the length of the bearing plate 19 and oblong openings

21 and 22 are formed in its upper side and extend from points adjacent the opposite ends of the casing to points on either side of its intermediate portion. Pivoted between the side walls of the casing and located in the opening 22 is a locking lever 23 similar to the locking lever 10, and like the latter is provided with an upwardly curved end 24 having an opening the axis of which is parallel with the longitudinal central line of the casing while its opposite end is provided with a plurality of teeth 24' adapted to bear on the intermediate portion of the upper side of the casing when one end of the lever is depressed.

Fixedly secured to the middle portion of one side of the casing is a keeper 25. This member is formed of a single piece of metal having an angular shaped base portion 26, fixedly secured to the plate 19 and side of the casing 20 and extending from the intermediate portion of the base is an upwardly and outwardly extending shank portion 27, the latter terminating in a loop 28 arranged above the plane of the bearing plate 19.

By reference now to Figs. 1, 2 and 6 it will be seen that one end portion of the casing 20 remote from the curved end 25 of the locking lever is tapered as shown at 29 and one end of the cord employed for tying the bundle fits into a U-shaped stop or securing member 31. This securing member 31 is of a size to nicely fit within the untapered portion of the casing. The diameter of the cord employed is considerably less than the width of the casing and spaced between the opposite limbs of the stop or securing member and the said opposite limbs of the latter are on their inner faces provided with spurs 32. In assembling the parts one terminal of the cord 30 is placed between the opposite limbs of the stop or securing member, it being understood that said limbs are spread apart sufficiently far to let the cord clear the spurs 32; after which the limbs are brought together until the spurs embed in the cord. When the parts are so positioned the free terminal of the cord is first passed through the tapered end of the casing and thence pulled until the ends of the limbs of the securing member are at the beginning of the inclined end of the casing. By now applying suitable pressure to the end of the securing member the latter will be partly through the tapered end of the casing until the terminals of the limbs extend in advance of the terminals of the side of the casing after which the end portions of the said limbs are curved outwardly and rearwardly over the end edges of the casing as shown at 33. When the parts are so positioned it is evident that the cord will be securely held against disengagement from the member to which it is attached and it can be readily seen that the ordinary

strain to which a device of this character is subjected, will be insufficient to disengage the cord from the engaging member.

In the use of the device one end of a cord is fixedly secured in one end of the oblong opening 21 formed in the upper side of the casing 20 of the engaging member. The opposite terminal of the cord is then inserted through the opposite end of the casing and through the opening of the locking lever 23 and thence between the upper face of the latter and intermediate portion of the casing, after which the end is turned laterally from the casing, the arched middle portion of the casing forming means about which the cord may be easily turned from the casing and then directed through that end of the casing of the attaching member remote from the end from which the hook projects. The terminal of the cord is thence directed through the opening 12 in the locking lever 10 of the attaching member and thence between the upper face of the locking lever and upper side of the casing. It is evident when the parts are positioned as just described, that the loop formed by the cord passing through the opposite ends of the attaching member may be adjusted to any size by simply raising the upwardly curved end of the locking lever and then pulling on the cord until the loop is of the required size to receive the end of the bundle to be tied. After the loop has been so adjusted the engaging member is placed transverse the bundle and positioned adjacent one end thereof with the keeper 25 extending toward the opposite end of the bundle after which the cord is pulled until it tightly binds on the bundle. It will be evident that pulling the cord so as to tighten the same will not be prevented since it can be readily seen that a pull in this direction will have a tendency to raise the upwardly curved end of the locking lever, whereby the cord will be permitted to pass between its opposite end and upper side of the casing. After the cord has been sufficiently tightened the upwardly curved end of the locking lever is depressed, whereby the teeth on its opposite end will bind on the cord and prevent movement of the latter. The cord is then turned at right angles and directed over the adjacent end of the bundle and thence under and over the opposite faces of the bundle until the hook on one end of the attaching member is brought into position to engage the keeper 25. It will be evident when the parts are so positioned that by pulling the free end of the cord that portion of the latter passed over the opposite faces of the bundle will be tightened to the required degree and slipping movement of the cord will positively be prevented since it can be seen after the cord has been sufficiently tightened the teeth 13 will be embedded into the cord.

Thus it can be seen that a bundle of mail may be quickly and effectively tied and the adjustment of the cord accomplished in less time than it would require to secure a bundle by simply wrapping cord around the same. It will be observed that the same cord may be used over and over again since it will not be necessary to cut or mutilate the latter in any way to disengage it from the bundle.

From the foregoing it can be seen that I have provided a device which is exceedingly simple in structure and comparatively inexpensive to manufacture, embodying few parts and these so arranged that the danger of derangement will be reduced to a minimum.

What is claimed is:—

1. A bundle tie comprising a cord and an engaging member provided with a cord clamping lever, a means for positively engaging one end of the cord, a means about which the cord turns and passes laterally from the member, and further provided with a loop upon that side opposite to the

side from which said cord extends, said loop being approximately in alinement with the cord turning means, and an attaching member having a cord clamping member, and a hook engaging said loop.

2. A bundle tie comprising a cord an engaging member provided with a base, a means for positively engaging one end of the cord, a cord clamping member on said base, means about which the cord turns and passes laterally from one side of the base, a loop upon the opposite side of said base disposed approximately in alinement with said means, and an attaching member provided with a base and a cord clamping member on said base, and further provided at one end of its base with a hook engaging said loop.

In testimony whereof, I affix my signature, in presence of two witnesses.

EDWARD WALDEN.

Witnesses:

M. T. MILLER,
GEO. H. CHANDLEE.