

(No Model.)

J. S. MARVIN.
TWINE CUTTER.

No. 490,078.

Patented Jan. 17, 1893.

Fig. 1.

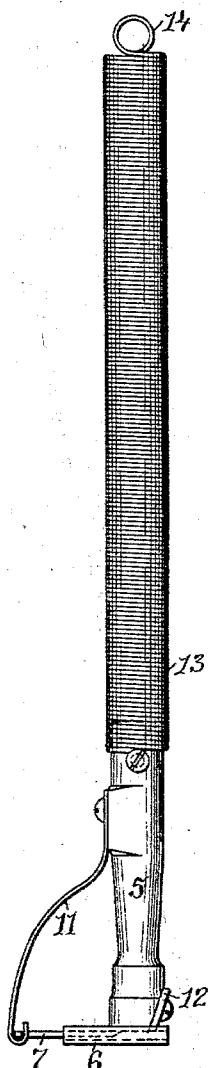


Fig. 2.

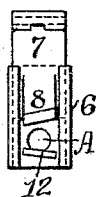


Fig. 3.

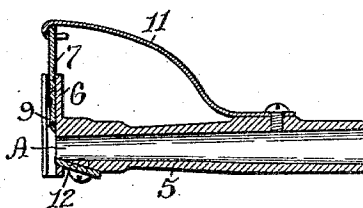


Fig. 4.

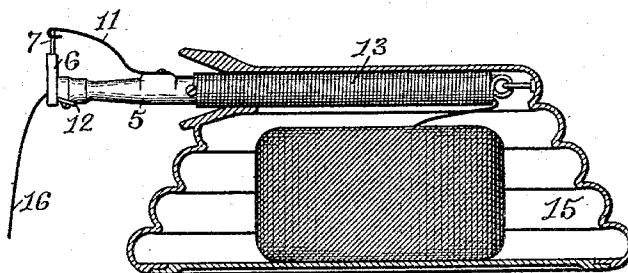
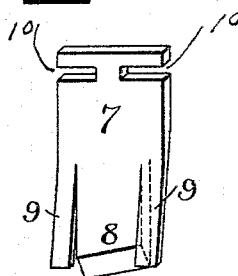


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JULIUS S. MARVIN, OF PROVIDENCE, RHODE ISLAND.

TWINE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 490,078, dated January 17, 1893.

Application filed July 5, 1892. Serial No. 438,967. (No model.)

To all whom it may concern:

Be it known that I, JULIUS S. MARVIN, of the city of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Twine-Cutters; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in devices for cutting twine.

The object of the invention is to produce a twine-cutter which will be simple in operation and more effective than those heretofore constructed.

The further object of the invention is to provide a twine-cutter, of the nature described, with means for automatically returning the cutting-device to its original position after use.

The invention consists in the novel construction of the twine-cutter and in the combination therewith of an automatic returning-device, together with other novel features of construction and combination of parts, which will hereinafter be more fully described and pointed out in the claims.

Figure 1 represents a view of the improved twine-cutter provided with a coiled-spring returning-device. Fig. 2 represents a front view of the twine-cutter. Fig. 3 represents a vertical sectional view of the same. Fig. 4 represents a cross-sectional view of a twine-box formed in the shape of a coiled-snake, the spring-returning device being contained within the representation of the snake's neck and the cutter protruding from the mouth. Fig. 5 is an enlarged view of the main cutting-blade.

Similar numbers of reference designate corresponding parts throughout.

Twine-cutters, as heretofore constructed, have been of such a nature as to require the movement of the bundle to the location of the cutter when the binding twine was to be cut, or the great waste of the twine,—where unsecured twine-cutters are used, they are liable to misplacement, or are continually in the way of clerks when doing up bundles. The cutting-devices of these twine-cutters have not been substantial, or of such a nature

as to retain their cutting qualities, the blades being soon bent out of shape, or otherwise destroyed; my improved device is designed to obviate these difficulties and I will now proceed to more fully describe the construction and operation of the same.

In the drawings 5 indicates the shank of the cutter which is tubular throughout and at the forward end is furnished with the guide 6 secured thereto or formed in part therewith. The sliding-plate 7 is freely movable in the guide 6 in a direction at right angles to the shank 5,—at the lower end the plate 7 is furnished with the diagonal-cutter 8 which is pressed against the open end of the shank 5 by the spring-arms 9—9 formed in part with the plate 7 and bearing under the side lips of the guide 6,—at the upper end the sides of the plate 7 are cut away to form openings 10—10 through which the bent-over ends of the spring 11 extend, the base of this spring being secured to the shank 5.

Immediately below the orifice A formed by the open end of the shank 5 is secured the supplemental-cutter 12, which is secured to the shank and extends but slightly from the face thereof, so that the cutter 8 will readily pass over this cutter on the downward stroke, the twine being thus cut in two directions, the cutter 8 giving the greater cut. The shank 5 of the twine-cutter I secure to an extensible-support 13 which may have a suspending-ring 14; this support may be formed of a coiled-spring, as shown in the drawings, or may be of any construction which will automatically return the cutter to place when released. The extensible-support 13 may be secured in a twine-box 15, the shank 5 of the cutter extending through an opening in the side of the box through which opening the support may be extended, or the extensible-support may be covered by any other suitable casing. The twine 16 is threaded through the coils of the support 13 and through the tubular-shank 5,—when a bundle is to be tied up, the twine is drawn from the ball in the usual manner and passes through the support 13 and shank 5,—after the package, or bundle, has been tied up the operator seizes the cutter, his thumb ordinarily resting on the upper end of the spring 11 and the shank 5 being grasped by his fingers,—the cutter is now

drawn toward the bundle and when the desired point has been reached the spring 11 is depressed by the operator, thus forcing the plate 7 downward and cutting the twine between the blades 8 and 12,—the cutter may now be released and will be automatically returned to its original position by the extensible-support. The extensible-support is preferably formed from a coiled-wire spring, as shown in the drawings, in order that when extended the loose twine will drop in short loops between the open spirals and, when the cutter is released, these loops of twine will be grasped by the closing together of the spirals and the loose twine will be carried back to the twine-box or drawn upward from the counter sufficiently to be out of the way until again drawn down for use.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a twine-cutter, the combination with a tubular-shank provided with a guide extending at right angles therewith, of a spring-lifted plate movable in said guide and having a diagonal cutting-blade, as described.

2. In a twine-cutter, the combination with a tubular shank provided with a guide extending at right angles with said shank, and

a stationary cutter secured near one end of the shank, of a spring-operated cutter movable in said guide and having a diagonal cutting-edge, as described.

3. In a twine-cutter, in combination, the tubular-shank 5 having the guide 6, a plate 7 having the cutting-edge 8, and the spring-arms 9—9 movable in said guide, the spring 11 for operating said plate, and the supplemental cutter 12 secured to the shank, as described.

4. The combination, in a twine-cutter, with the tubular-shank 5, a guide 6 secured thereto, and a spring-lifted blade 7 having the cutter 8 and spring-arms 9—9 movable in the guide, of an extensible-support adapted to return the twine-cutter to place, when released, as described.

5. The combination with a twine-cutter having a tubular-shank and a cutting-device carried thereby, of an extensible-support adapted to return to place when released, as and for the purpose described.

In witness whereof I have hereunto set my hand.

JULIUS S. MARVIN.

Witnesses:

HENRY J. MILLER,
M. F. BLIGH.