UNITED STATES PATENT OFFICE.

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PAPER AND TWINE CUTTER.

1,134,500.


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To all whom it may concern:

Be it known that we, FRANK L. ANTTLA and AUGUST I. LILIUS, subjects of the Czar of Russia, residing at Lowell, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Paper and Twine Cutters, of which the following is a specification.

This invention relates to new and useful improvements in paper and twine cutters and particularly to those adapted for cutting envelopes.

The object of the invention is to provide a simple, inexpensive cutter which may be carried in the pocket or placed upon the end of a pencil.

The invention consists in the combination and arrangement of parts whereby the above object and certain other objects hereinafter appearing may be attained, as set forth in the following specification and particularly pointed out in the claims.

Referring to the drawings: Figure 1 is an enlarged front elevation of a device embodying my invention. Fig. 2 is a longitudinal sectional elevation taken on line 2—2 of Fig. 1. Fig. 3 is a section taken on line 3—3 of Fig. 1 and viewed in the direction of the arrows on said line.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 5 is a holder provided with a groove 6 extending transversely thereof adjacent the upper end, while a groove 7 extends from said groove 6 to the rear face of the holder. A cutter blade 8 is adjustably mounted in a recess 9 formed in said holder, said recess extending longitudinally of said holder for a portion of its length to the transverse groove 6.

The sides of the recess 9 constitute guides for the cutter blade 8 permitting said blade to be moved toward and away from the groove 6. The cutting edge 10 of said blade is adapted to project into said groove 6 and substantially engages the periphery of a grooved roller 11 mounted in a recess 12 formed upon the opposite side of the groove 6, said roller being arranged to rotate in a plane containing the cutting edge of said blade, in conjunction therewith and upon a stud 13.

A plate 14 is secured to the front of said holder and adapted to inclose said blade within the recess 9, while a screw 15 extends through said plate and into engagement with said holder. Means are also provided to clamp said cutter blade in said recess, said means consisting of a piece of resilient material 16, preferably of rubber, which is inserted between said blade and said plate 14 and as said plate is clamped against said holder by the screw 15 said rubber will be compressed and thereby firmly maintain the blade in its proper relation to the roller 11.

To adjust the cutter blade 8 relatively to the roller 11 I have provided a cam 17 which is pivotally mounted on said screw 15 and engages the lower end of said blade, said cam projecting outwardly between the plate 14 and said holder and into a position to be engaged by the finger of the user, and may, upon the releasing of said screw, be rotated to force said blade toward said roller 11, thus taking up for any wear which may be caused by the grinding or sharpening of said blade.

The holder 5 is provided at its lower end with a recess 18 which may, if desired, receive the end of a lead pencil and be carried around therewith, while the upper end is provided with an eraser.

To cut an envelop or a piece of paper with the device herebefore specifically described the edge of said envelop is inserted in the groove 6 between the cutting edge of said cutter blade and said roller and drawn therebetween, thus cutting off the portion of said envelop between said cutting edge and the inner wall of said groove.

To sever a piece of twine with said device the twine is inserted in the groove 7 extending transversely of the cutting edge 10, said groove 7 extending through the holder 5 to a point substantially beyond the axis of the pivot for the roller 11, thus permitting said twine to be engaged by said roller and forced thereby against said cutting edge whereupon said twine will be severed.

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

1. A device of the class described having, in combination, a holder having a groove extending transversely of one end, a stationary cutter blade movably arranged in said holder with its cutting edge projecting into said groove, a rotatable cam adapted to move said blade toward said groove, and a roller mounted to rotate in conjunction with the cutting edge of said blade.

2. A device of the class described having,
in combination, a holder, a stationary cutter mounted in said holder, a cam arranged beneath and adapted to move said cutter in said holder, a roller pivotally arranged in said holder with its periphery arranged to revolve in close proximity to the cutting edge of said cutter blade and in a plane containing said cutting edge, said holder having a groove extending transversely of the cutting edge of said cutter blade to a point substantially beyond the center of said roller, said groove alining with the contacting portions of said cutter blade and said roller.

3. A device of the class described having, in combination, a holder provided with a groove extending transversely thereof, a cutter blade movably arranged in said holder with its cutting edge projecting into said groove, and a cam adapted to adjust said cutter blade relatively to said groove.

4. A device of the class described having, in combination, a holder provided with a groove extending transversely thereof and a recess arranged longitudinally of said holder and opening into said groove, a cutter blade adapted to adjustably fit said recess with its cutting edge projecting into said groove, a roller arranged in said holder to rotate in conjunction with the cutting edge of said blade, a plate adapted to inclose said cutter within said recess, a screw to secure said plate to said holder, and a cam pivoted on said screw adapted to be operated to engage said cutter and move the same toward said roller.

5. A device of the class described having, in combination, a holder provided with a groove extending transversely across one end, an adjustable cutter blade mounted in a recess formed in said holder, the cutting edge of said blade projecting into said groove, a plate secured to said holder over said cutter blade, and a piece of resilient material interposed between said plate and said cutter blade adapted to position said blade relatively to said roller.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

FRANK L. ANTTLA.
AUGUST I. LILIUS.

Witnesses:
MARGARET E. HORN,
SYDNEY E. TAFT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."