

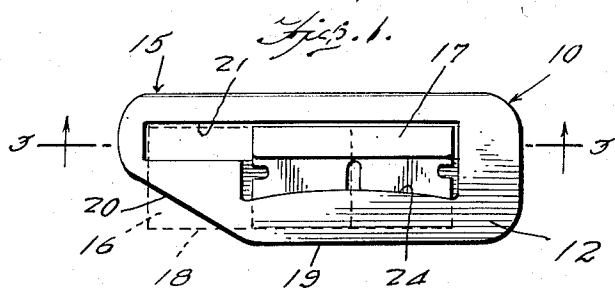
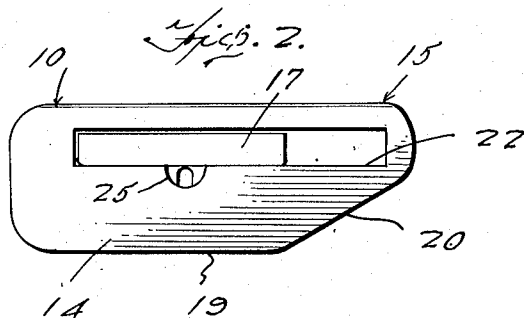
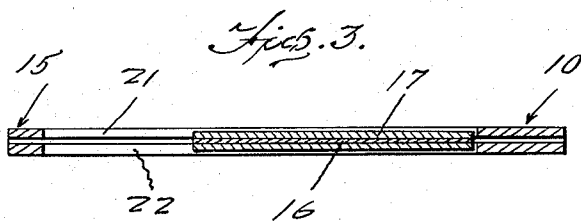
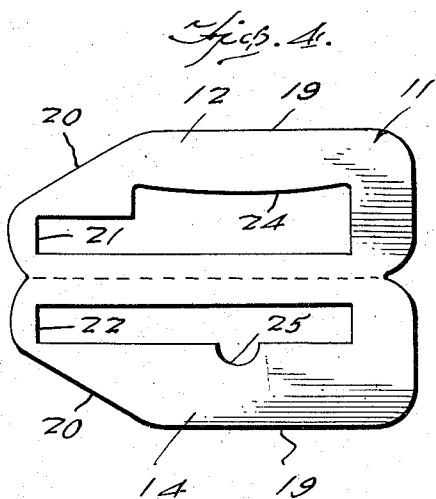
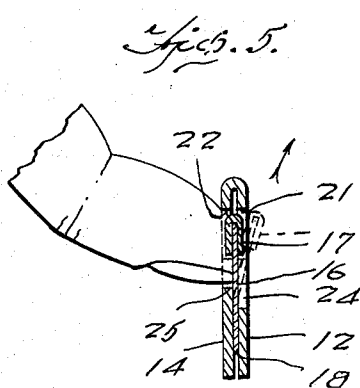
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RAZOR BLADE HOLDER FOR CUTTING CARDBOARD BOXES

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RAZOR BLADE HOLDER FOR CUTTING
CARDBOARD BOXES

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4 Claims. (Cl. 30-162)

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This invention relates to cutting tools and more particularly to a razor blade holder for cutting cardboard boxes and the like.

It is an object of this invention to provide a razor blade holding implement of the kind to be more particularly described hereinafter which is formed for enclosing a razor blade in a manner to expose one corner having a cutting edge for cutting engagement with a cardboard box. The length of the cutting edge not being used the main blade portion of the razor blade is adapted to the supported between the side wall to prevent any undue bending or twisting strain from breaking the blade.

Another object of this invention is to provide a razor blade holder within which a razor blade may be slidably supported for extending a corner of the blade when the device is used for cutting, the holder constituting a housing for entirely concealing the cutting edge in the retracted position of the blade. The holder is formed for securely gripping the razor blade while the blade is enclosed therein, and formed for slidably removing the blade by sliding the blade transversely out of the holder. The formation of the holder is such that the razor blade will not accidentally slide from the holder in any position of the blade.

Yet another object of this invention is to provide a cutting instrument of this kind which may be readily and efficiently manufactured at a very low cost, being formed of a single piece of flat sheet metal or the like stamped and bent to the desired shape.

With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claims.

In the drawings:

Figure 1 is a side elevation of a razor blade holder constructed according to an embodiment of my invention.

Figure 2 is a side elevation of the other side of the holder.

Figure 3 is a longitudinal section taken on the line 3-3 of Figure 1.

Figure 4 is a top plan view of the blank from which the holder is formed.

Figure 5 is a vertical transverse section showing, in full lines, the razor blade in its retracted position, and in dotted lines, the razor blade bent for removal from the holder.

Referring to the drawings, the numeral 10 designates generally a razor blade holder constructed according to an embodiment of my invention, for supporting a razor blade to be used as a cutting instrument for cutting cardboard boxes and the like. The holder 10 is designed to hold a razor blade, and particularly a single edged razor blade, for sliding movement from a retracted to an ex-

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tended position. In the retracted position of the razor blade within the housing 10 the entire cutting edge of the razor blade is protected so that the cutting edge will not engage any articles or material by the inadvertent use of the holder. In the extended position of the razor blade, one corner of the razor is exposed from one end of the holder so that a cutting edge of the razor blade thus exposed may be engaged with a cardboard box or other work which is desired to be cut with the razor.

The razor blade holder 10 is formed of a single blank of material, designated generally by the numeral 11, in Figure 4. The blank 11 is adapted to be folded intermediate the width thereof to provide a pair of overlying flat plates 12 and 14. When the flat plates 12 and 14 are disposed in overlying relation, shown in Figures 1, 2, 3 and 5 of the drawings, the flat plates constitute a housing open at the ends and along the bottom edge thereof. The housing 15 constitutes the razor blade holder, the panels 12 and 14 forming the side walls of the body.

The holder 10 is particularly designed for a single edged razor blade 16 having a re-enforcing strip 17 along one longitudinal edge thereof opposite from the cutting edge 18.

The housing 15 is formed with a longitudinal horizontal flat lower edge 19 which extends along the major portion of the length of the body at the bottom thereof and an upwardly and forwardly inclined corner edge 20. Each of the side walls 12 and 14 is similarly formed to provide the edges 19 and 20. The width of the housing 15, and the side walls or panels 12 and 14 is substantially greater than the width of the razor blade 16, as noted in Figure 1, for entirely enclosing the razor blade in its retracted position in the housing.

Both of the side walls, 12 and 14, are formed with longitudinally extending grooves 21 and 22, respectively. The grooves 21 and 22 extend through the thickness of the plates 12 and 14 and substantially along the length thereof, at the upper edge of the body 15. In the conforming position of the side walls 12 and 14, the longitudinal slots 21 and 22 are disclosed in confronting alignment for transverse registration. The slots 21 and 22 are of a width slightly greater than the width of the reenforcing strip 17, fixed on the upper edge of the razor blade 16. The reenforcing strip or bead 17 is adapted to be slidably engaged on the lower edge of the grooves 21 and 22, for slidably supporting the razor blade in the holder 10.

One side wall, as 12, is formed with a downwardly offset recess or notch at the rear end thereof, the opening or cut-out portion 24 at the rear end of the wall 12 is in communication with the longitudinally extending slot 21, and is of a length at least the same as the length of the

razor blade 16. The combined width of the slots 21 and 24 is less than the total width of the razor blade, including the re-inforcing strips 17.

The enlarged opening 24 is provided for the insertion of the razor blade 16 into the holder 10, and for the removal of the blade by slightly distorting the razor blade in the holder 10 and sliding it transversely out through the groove 21.

In the use of operation of the razor blade holder 10, the original blank 11 formed with the cut-out portions 21, 22, and 24 is folded transversely along a center line extending between the longitudinally extending grooves or openings 21 and 22. The plates or panels 12 and 14 are then disposed in overlying relation and connected at the upper end thereof. The grooves 21 and 22 are disposed in transverse registry with each other, and the downwardly offset recess 24 is disposed on one side of, and at one end of the body 15.

For engaging the blade 17 into the holder 10, the cutting edge 18 is initially placed between the lower edge of the cut-outs 24, between the side walls 12 and 14. By pressing the re-enforcing edge 17 downwardly, the razor blade will be disposed between the side walls 12 and 14, and the re-enforcing edge 17 will be engaged on one side in the upper end of the recess 24, and on the lower edge of the longitudinal cut-out, or groove, 22. In this position, the razor blade 16 is retracted within the holder 10 so that no cutting edge of the razor blade is exposed. By sliding the razor blade 16 forwardly, the lower edge of the re-enforcing rib 17 will ride on the lower edge of the cut-out grooves 21 and 22 for guiding the razor blade forwardly to its extended position.

The razor blade is moved forwardly by depression of the finger of a user.

In the extreme forward or extended position of the blade 16, the forward lower edge of the blade is exposed at the front end of the holder with the front corner of the cutting blade exposed for use in cutting boxes and the like. The holder is adapted to be moved across a surface to be cut from the forward end to the rear so that the frictional engagement of the razor blade with the material to be cut will press the razor blade to its extended position.

For retracting the razor blade into the holder 10, the holder may be moved in a reverse direction while in engagement with work to be cut by it whereupon the force will move the exposed corner of the razor blade inwardly of the body 15. The further inward movement of the razor blade to the retracted position may be accomplished by the fingers of an operator engaging the re-enforcing strip 17 for moving the blade to its fully retracted position, shown in Figure 1 of the drawings.

For removing the razor blade from the holder 10, the finger, or finger-nail of a user may be applied to the upper end of the razor blade 16 by engaging the finger through a downwardly offset recess 25, intermediate the length of the groove 22. By pressing inwardly on the razor blade 16 through the opening 22, the re-enforcing edge 17 is pressed outwardly, out of engagement with the upper edge of the grooves 21 and 22. With the other hand the operator may then grasp the re-enforced edge of the razor blade for drawing the blade upwardly out of the recess or cut-out portion 24, thereby removing the razor blade from between the side walls 12 and 14 of the holder.

I do not mean to confine myself to the exact

details of construction herein disclosed, but claim all variations falling within the purview of the appended claims.

I claim:

1. A razor blade holder for retractably holding a single edge razor blade having a reenforcing strip along one longitudinal edge comprising a pair of overlying side walls secured together along one longitudinal edge thereof, said walls having an inclined corner for exposing the cutting edge of a razor blade slidably extended from between said walls, said walls being formed with confronting longitudinal slots having a length greater than the length of a razor blade and within which the reenforcing strip of the razor is adapted to be slidably engaged for extending and retracting a razor blade between said walls, one of said walls having a downwardly offset recess at one end of said slot through which the razor blade may be engaged for insertion into and removal from said holder.

2. A razor blade holder comprising a pair of overlying flat plates secured together along one longitudinal edge thereof, one of said plates being formed with a longitudinally extending cut-out portion at one end thereof through which a razor blade is adapted to be engaged upon sliding transversely of said holder, guide means in said plates adjacent said recess engageable with the razor blade for slidably extending and retracting the blade in said holder upon longitudinal sliding movement, and an upwardly and forwardly inclined lower front edge on said plates for exposing one corner of the cutting edge of the extended razor blade in said holder.

3. A razor blade holder comprising a body within which a razor blade may be retractably contained, said body being formed with an open corner at one end thereof through which a cutting edge of the razor blade may be extended in the extended position of the blade, longitudinally extending guide means in said body engaging said razor blade on which said razor blade may be extended and retracted, and one side wall of said body being formed with an enlarged longitudinal opening adjacent said guide means having a length at least as great as the length of said razor blade and a width less than the width of the blade through which said blade may be inserted into and removed from said body upon transverse sliding movement.

4. A razor blade holder for a single edge razor blade having a reenforcing strip along one side comprising a pair of overlying side walls secured together along one longitudinal edge thereof, said walls being open at one corner through which a corner of the blade may be extended, said walls being formed with confronting longitudinal slots within which said reenforcing strip is adapted to be slidably engaged for extension and retraction between said walls, one of said walls having a downwardly offset recess at one end of said slot through which the razor blade may be transversely extended for engagement into and removal from said holder, said recess having a length at least as great as the razor blade and a width less than the blade.

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