

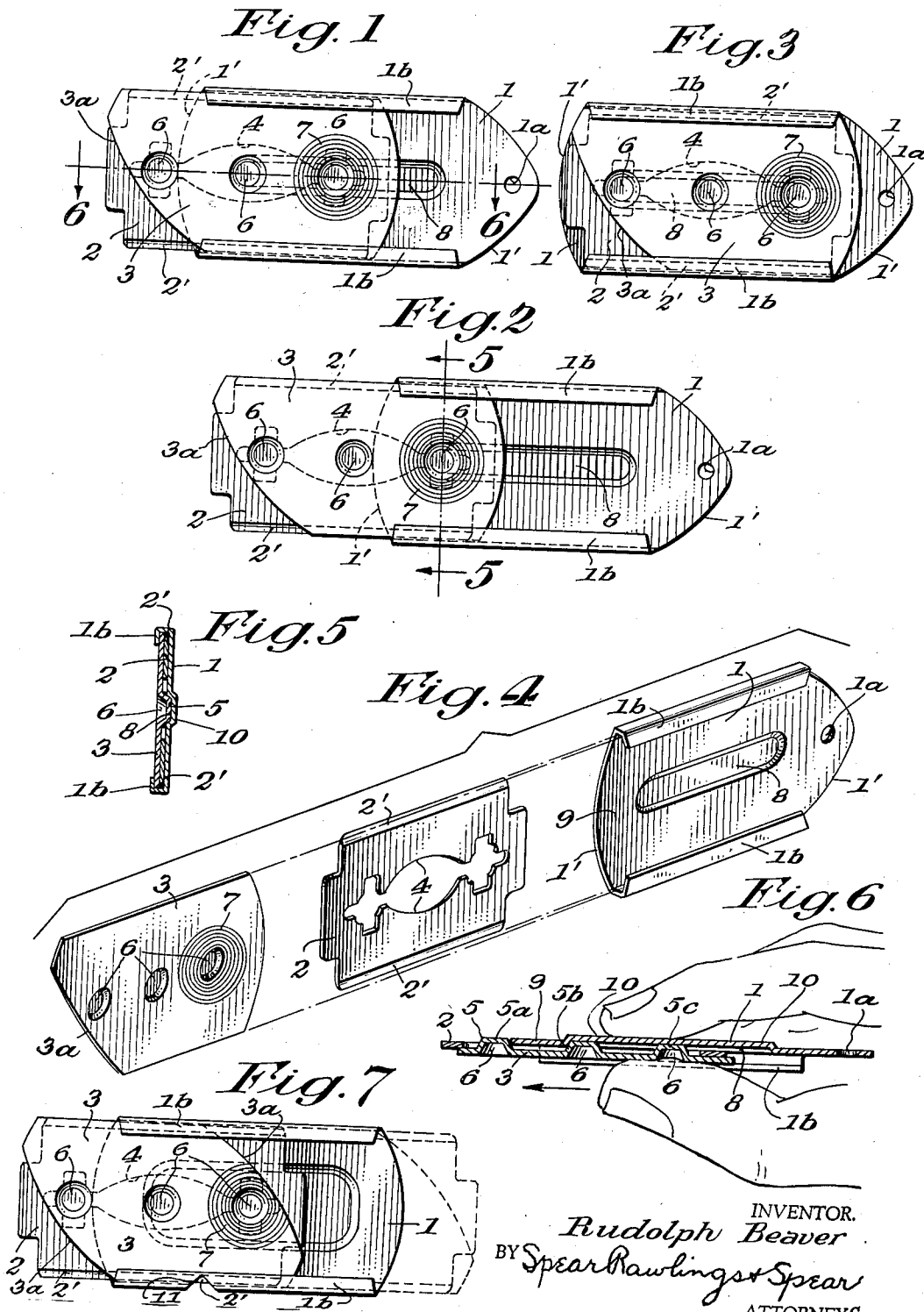
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CUTTING IMPLEMENT

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CUTTING IMPLEMENT

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3 Claims. (Cl. 30—162)

This invention relates to cutting implements of the class in which a safety razor blade or the like is employed as the cutting element, and for which blade a sheath is provided within which the cutting edges of the blade are protected and concealed when not in use, and which sheath may be utilized as a handle for the blade when in use upon simple and easy manipulation involving merely the application of suitable manual pressure to a suitable guiding member without the necessity of any loosening or rearrangement of parts.

The blade which I preferably employ is of the double-edged type having either a continuous longitudinal opening medially therethrough or a plurality of equivalent longitudinally spaced apertures. The combined handle and sheath for the blade is a longitudinally flanged backing member adapted to cover and protect the cutting edges of the blade when not in use. A guide plate is positioned over and positively engaged with the blade through its central opening or openings, which plate is slidable within the sheath to carry the blade into and out of cutting positions and to lock the blade in desired operating position with reference to the sheath which then serves as its handle.

The means which unite the blade and the plate, and also carry the same so united into and out of the sheath, also act to positively and rigidly hold the blade in either of its operating positions, thus avoiding any need for other locking means; and such movements are effected when manual force is suitably applied as by the thumb of the user on the outer surface of the plate. Thus my invention includes the minimum of parts.

My device is adapted particularly to such uses as the ripping of seams, sharpening of pencils, cutting of paper or string, or wherever a sharp cutting edge of the size provided is required.

Throughout the specification and drawing like reference numerals are employed to indicate corresponding parts.

In the drawing:

Fig. 1 is a front elevation of a cutting implement in accordance with my invention and showing the cutting blade projected from the combination handle and sheath member into one of its cutting positions.

Fig. 2 is a similar back elevation with the blade further projected from the combination handle and sheath member into a second cutting position.

Fig. 3 is a view similar to Fig. 1 with the blade within its combination sheath and handle member.

Fig. 4 is a perspective view disassembled.

Fig. 5 is a section on the line 5—5 of Fig. 2.

Fig. 6 is a section on the line 6—6 of Fig. 1 illustrating how the device is operated.

Fig. 7 shows a modification of my invention.

My cutting implement comprises a sheath or holder member 1 which also serves as a handle when the cutting member or blade 2 and the guide plate 3 are projected therefrom into cutting position as shown in Figs. 1 and 2. The cutting member or blade 2 may be any of the common types which are provided with a longitudinally extending opening 4 or an equivalent plurality of longitudinally disposed spaced apertures. It may have a cutting edge 2' on one or both sides.

The sheath or holder 1 is a flat member slightly longer than the blade 2. It may have rounded or curved open ends 1' one of which, if so desired, may be perforated as at 1^a to receive a ring, chain or other retaining device. Both longitudinal edges of the sheath are provided with relatively narrow intumed flanges 1^b beneath which lie the cutting edges 2' of the blade 2 and the edges of the guiding plate 3 with which plate the blade is engaged so that independent movement of the blade relative to the sheath 1 is prevented.

This plate 3 serves both as guard and guide for the blade 2 and is a flat piece of metal from one surface of which, medially and longitudinally thereof, extend a plurality of protuberances or lugs 5. On the other side of the plate, about one or more of the depressions 6, which are opposite the lugs 5, may be provided roughened finger gripping areas 7.

The sheath or holder member 1 is provided with a longitudinally extending channel 8 which protrudes from the lower face thereof as a panel 10, and which channel 8 is of suitable design to provide a slideway within which lie the lugs 5 when the blade 2 and the plate 3 are in retracted position within the sheath 1, and within which slide the lugs 5 as the blade 2 is carried by the plate 3 out of the open end of the sheath to cutting position, the lugs 5 extending through the opening 4 of the blade into the channel 8, the plate and blade thus being locked together and moving as a unit as the lugs slide in the channel 8.

The lugs 5 are spaced from each other a slightly greater distance than the ends of the slideway or channel 8 in the sheath member are spaced from the outer edges of the open ends of the sheath as in the area 9, it being intended that when the blade is in cutting position, two adjacent lugs will straddle this portion 9, one abutting each side thereof, thus providing a means of limiting the extent which the blade may be projected from the sheath and of locking the same rigidly in such position. In the first of such cutting positions the outer lug 5^a on the plate 3, which extends through and abuts the end of the longitudinal opening 4 in the blade 2, lies just beyond the outer edge of the open end of the sheath while the second lug 5^b abuts the end of the slideway 8, one on each side of the

area 9, these two lugs thus locking the plate 3 and attached blade 2 in this first cutting position.

The blade is carried to this cutting position simply by exerting on the outer face of the plate 3 the necessary pressure to force the first lug 5^a forward in the channel 8 and up, over and beyond the sheath portion 9.

If it is desired to provide a longer handle for the cutting member, further similar forward pressure may be applied to the plate member 3, and the second lug 5^b, which in the first cutting position engaged the forward end of the slideway 8, is carried up and over the sheath portion 9, and the third lug 5^c assumes the locking position in the end of the slideway formerly occupied by the second lug 5^b.

The blade 2 may be returned into the sheath 1 simply by reversing the direction of pressure applied to the plate 3. This pressure first carries the second lug 5^b back over the end of the holder into the slideway 8, and if it is continued, next carries the first lug 5^a back into its former position in such slideway, at which time the blade is entirely sheathed in the holder 1 with its cutting edges lying beneath the flanges 1^b so that the device may safely be put in the owner's pocket or elsewhere as desired.

The shape and amount of the cutting edge of the blade 2 to be exposed in cutting position is determined by the contour of the plate 3. As shown at 3^a, this is a curved diagonal but this may be modified in the event that more or other cutting surfaces are to be exposed when the blade is withdrawn from the sheath into cutting position. The plate 3 may be so designed that a cutting edge of the blade can be exposed at either end upon suitable movement of the plate and interengaged blade within the sheath, as shown in Fig. 7. If desired, portions of the flanges 1^b may be removed to expose other or additional portions of the cutting edges of the blade, as shown at 11 in Fig. 7.

Blades may be removed or replaced in the holder 1 by simply forcing the plate with its attached blade completely out of either end of the holder.

Although only a nominal amount of pressure is required to move the blade and the plate into cutting position, nevertheless, the spacing of the lugs 5 and the contact of the same with the end and the bottom of the channel 8 as well as on either side of the area 9 hold these members in such position in rigid interengagement with the combination sheath and handle member 1. The flanges 1^b on the sheath 1 prevent any possibility of lateral movement or twisting of the blade within or with reference to the same.

My device is very easily operated. The same is simply held between the forefinger and thumb and pressure applied to the plate with the thumb until the same is pushed with the attached blade to the position of Fig. 1. Further pressure will carry it to the position of Fig. 2. If the blade is to be changed, still further pressure will carry the last of the lugs 5 over the portion 9 of the sheath between the end of the slideway 8 and the end of the sheath and free of the side flanges 1^b. The used blade may be removed from the plate and another substituted and the assembled plate and new blade positioned in the sheath by inserting their edges beneath the flanges 1^b and applying suitably directed pressure by the thumb

on the top of the plate until all of the lugs 5 are in the channel 8 and the blade edges entirely covered by the flanges.

It will be apparent that the lugs 5 and channel 8 are so correlated that when in retracted position, one of the lugs contacts each end of the channel so that there is no free longitudinal movement between the two. It will also be apparent that the guide plate in projected position lies over all but the selected cutting edge of the blade so that the user is protected from such edges by the plate as well as by the sheath.

When not in use the device is always locked and can be safely carried in a pocket, sewing box, or on a chain without any danger of the sharp edges becoming exposed.

What I therefore claim and desire to secure by Letters Patent is:

1. A cutting implement capable of single-handed longitudinal adjustment and comprising a blade having a plurality of aligned apertures longitudinally thereof, a combination sheath and handle therefor having a back portion and overturned edges of slightly greater length than the length of the cutting edge of said blade, and a single-member guard, the edges of said guard being adapted to lie beneath the overturned edges of said sheath, the outer surface of the portion intermediate said edges being exposed to pressure applied by the thumb of the user to slide said guard within said sheath, said guard having a plurality of lugs projecting from its inner surface and adapted to extend through said apertures to lock the blade against longitudinal movement independent of said guard, said sheath having a longitudinally extending countersunk channel medially of its back portion and of such length that its ends are releasably engaged with the two outer lugs of said guard to prevent accidental longitudinal movement of said combined blade and guard relative to said sheath, said forward pressure on said outer surface of the guard releasing one of said end lugs from said channel to project said combined blade and guard beyond said sheath into cutting position.

2. The implement of claim 1, the distance between the end of said channel and the end of the sheath being substantially the distance between two of said lugs, which two lugs engage said ends to lock said members together in said cutting position.

3. A cutting implement capable of single-handed longitudinal adjustment and comprising an apertured blade, a combination sheath and handle overlying one side of said blade, and a single-member guard, said guard having a plurality of lugs projecting from its inner surface and adapted to extend through said blade aperture to lock the blade and guard together as a unit, said blade and guard unit being connected to said sheath for longitudinal movement relative thereto, said sheath having a longitudinally extending channel aligned with said lugs and of such length that in the closed position of the parts its ends are releasably engaged with the two endmost lugs of said guard to prevent accidental longitudinal movement of said blade and guard unit relative to said sheath, forward pressure on said unit releasing one of said endmost lugs from said channel to project said unit beyond said sheath into cutting position.

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