Jan. 13, 1959 F. E. WARNES 2,867,901

CUTTER

Filed Jan. 14, 1958

FIG. 1.

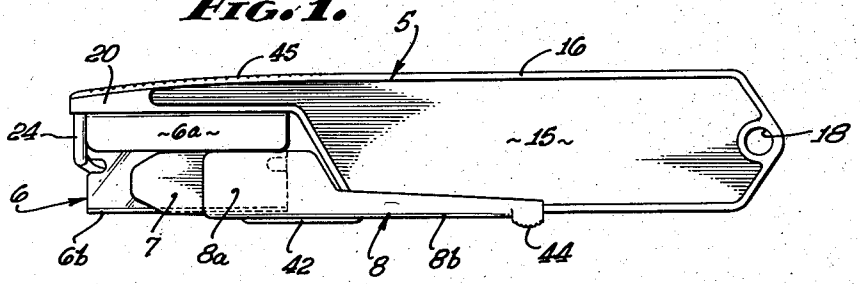


FIG. 2.

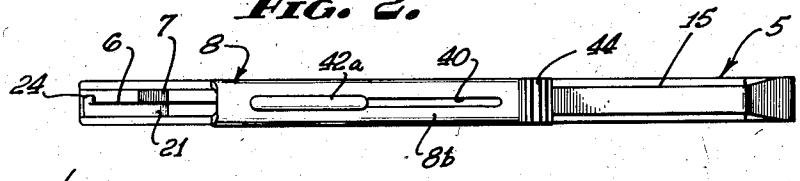


FIG. 4.

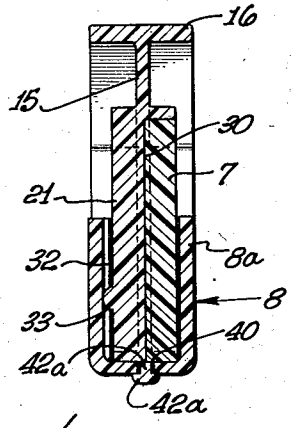


FIG. 3.

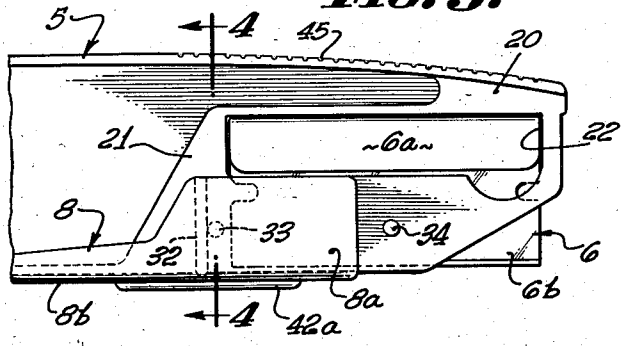


FIG. 6.

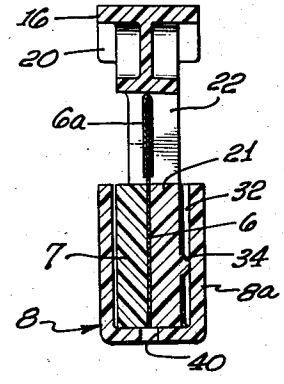
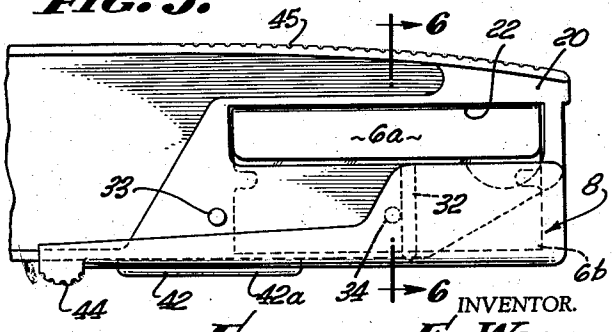


FIG. 5.



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2,867,901

CUTTER

Frederick E. Warnes, Anaheim, Calif.

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2 Claims. (Cl. 30—151)

This invention relates to improvements in cutting devices of the type which employ a conventional safety razor blade as the cutting element. In its more particular aspects, the invention relates to devices of this character incorporating a safety guard to so conceal the cutting edges of the blade when the device is not in use as to prevent a person from accidentally cutting his finger by contact with the blade.

I am aware that various attempts have been made to effect, in such a device, safety means for shielding the razor blade when the device is not in use, but those prior devices of which I am aware have been ineffective for this purpose or else their inherent construction has rendered them so difficult of operation, and cumbersome that they have been impracticable.

It is an object of my invention to provide a cutting device constructed to retain a conventional razor blade for use as the cutting element, and which incorporates a novel blade guard or shield which is extremely simple and easy to operate and which effectively and positively shields the cutting edge of the blade when the device is not being used as a cutter, and which may be used and operated by the use of one hand.

Another object of the invention is to provide a device of this character which is capable of being produced with substantial economy.

More specifically, it is an object to provide a device of this character wherein the blade holder carries a slidable guard or shield element which is mounted on the holder in a novel manner to be manually moved between a position exposing an appropriate portion of the cutting edge of the blade and a position covering or shielding the cutting edge of the blade.

Other subordinate objects and advantages of the invention will become obvious from the ensuing description of a presently preferred embodiment thereof, for which purpose I shall refer to the accompanying drawing wherein:

Fig. 1 is a side elevational view showing part of the cutting edge of the blade exposed for cutting use;

Fig. 2 is a bottom plan view;

Fig. 3 is a fragmentary enlarged side elevation of the device as viewed from the right-hand side, or the side opposite to that shown in Fig. 1;

Fig. 4 is an enlarged sectional view taken on line 4—4 of Fig. 3;

Fig. 5 is a view similar to Fig. 3 except that the guard is shown in a position concealing the cutting edge of the blade, and

Fig. 6 is an enlarged section taken on line 6—6 of Fig. 5.

The details of the construction now to be described may be modified within the broader scope of the invention as defined by the appended claims.

Referring now to the drawings, I illustrate an embodiment of the invention wherein the numeral 5 denotes the body portion which is so designed and constructed that it may be readily molded of any suitable plastic material. The cutting element is denoted by the numeral 6 and may comprise a conventional safety razor blade; 7 denotes the blade retaining plate which is preferably fixed to the body by a suitable adhesive; and 8 denotes the slidable guard or shield element.

The body is shown as having a flattened portion 15 providing a handle, and has a flanged portion 16 which partially surrounds the body and projects beyond each side surface of the flattened portion as a stiffening member. A hole 18 is provided in the inner end of the handle portion by which to hang the device from a nail, hook or the like.

The outer end portion of the body presents a relatively thickened portion 20 from which depends a laterally offset wall portion 21 against which the blade 6 bears, the latter wall being provided with a rectangular window 22 to facilitate manually flexing the blade for purposes of removing it from the holder, a portion 6a of the blade being disposed in said window. The outer end of the body presents a flange 24 against which the outer end of the blade is disposed. Said flange terminates at a point spaced above the bottom edge of the body, and beneath the flange 24 the bottom edge portion of the body extends diagonally downwardly so that the cutting edge portion 6b of the blade may be exposed for cutting and so as to limit the depth of the cut. The outer end portion of the body thus provides on its left-hand side (Fig. 1) a recess 30 in which the retainer plate 7 fits, so that the blade is removably sandwiched between plate 7 and wall 21 (Fig. 6).

The blade may be removed from or inserted in that position by flexing the outer end of the blade outwardly beyond the flange 24, which latter flange acts as a stop or abutment to prevent the blade from escaping longitudinally.

The guard 8 is U-shaped in cross section having a relatively wide outer end portion 8a and a relatively narrow inner end portion 8b, the inner surface of the right-hand leg of the U having an inwardly disposed rib 32, while the right surface of the outer portion of the body has longitudinally spaced lateral projections 33, 34, the projections being spaced apart a distance equal to the sliding movement of the guard 8. Said projections insure proper frictional engagement of the guard with the body to prevent the guard from having such free sliding movement as to allow it accidentally to be moved.

The guard has in its bottom wall a longitudinal slot 40 through which extends a boss or guide member 42 formed integral with the body and having an outer end portion 42a of increased width so as to prevent the guard from escaping from the guide while permitting longitudinal movement of the guard relative to the body. The length of the slot 40 determines the length of travel of the guard during its sliding movement. The guard 8 is made of material such as plastic having sufficient resiliency to permit assembly of the device by forcing the enlarged outer end 42a of the guide member through the slot by temporarily flexing the side walls of the slot to expand the width of the slot, after which the side walls of the slot return to normal positions by virtue of their resiliency.

In the positions of Figs. 1, 2 and 3, the guard is shown in its retracted or inner position, exposing the edge portion 6b of the blade, so that it is in position to be used in a cutting operation; while in the positions of Figs. 5 and 6, the guard is shown in its outer position, in which it covers or shields the edge portion 6b of the blade.

To facilitate manually moving the guard between those positions, I provide a knurled knob 44 on the bottom surface of the guard, and to facilitate pressing the outer end of the body downwardly during a cutting operation,

the body is provided with a knurled or roughened top surface portion **45** adjacent its outer end.

Thus, when the device is not being used, the guard is manually moved to its outer position (Fig. 5) in covering or shielding relationship to the edge portion *6b* of the blade. However, when the device is to be used, the user manually slides the guard to its retracted position (Fig. 3) to expose the blade portion *6b*. Thus the device may be fully operated by the user employing only one hand.

I claim:

1. A cutter comprising an elongated body whose inner end portion provides a handle and whose outer end portions defining a laterally opening recess, a flexible cutting blade mounted in said recess, said recess having a length substantially equal the length of said blade whereby the body portions defining the ends of said recess provide end abutments for said blade, a blade retaining plate carried by said body in position opposed to and spaced from the portion of said body which defines the bottom of said recess, said plate being of a length and width less than the length and width of said recess whereby to enable said blade to be flexed into and out of said recess, and the bottom outer end portion of said body being cut away to expose a portion of the cutting edge of said blade, and guard means slidably carried by said body for movement into and out of shielding relationship to said exposed portion of the cutting edge of said blade.

2. The cutter of claim 8 wherein said guard means comprises a guard member of U-shaped cross section having a longitudinal slot in its bottom portion, wherein said body has a guard retaining boss depending from its bottom edge and projecting through said slot, and wherein said boss is of a length less than the length of said slot.

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