Nov. 14, 1950 E. C. ERICKSON 2,530,236

POCKET KNIFE

Filed July 27, 1948

Fig. 1.

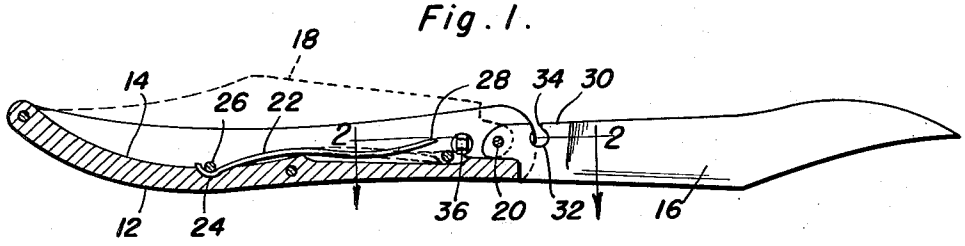


Fig. 2.

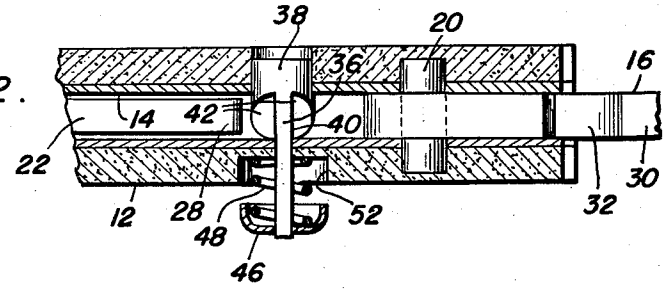


Fig. 3.

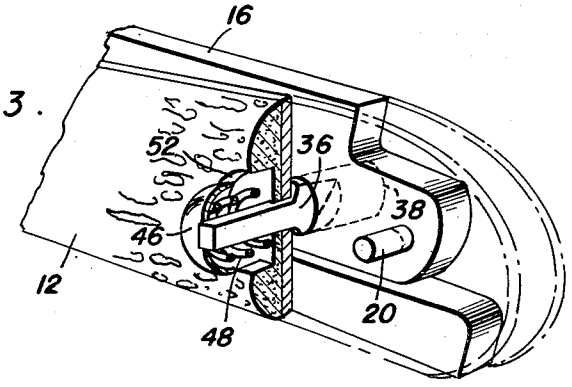
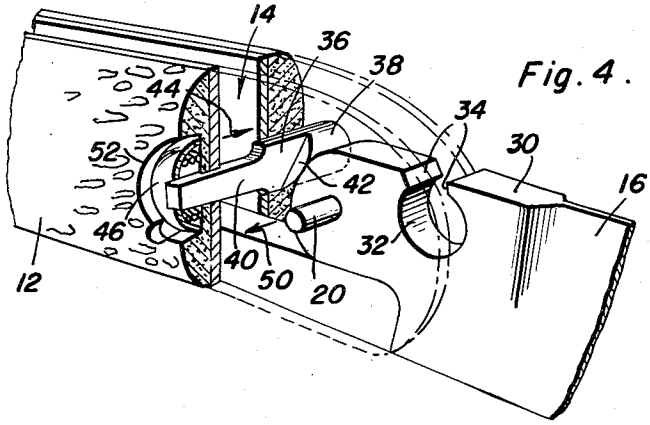


Fig. 4.



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Patented Nov. 14, 1950

2,530,236

UNITED STATES PATENT OFFICE

2,530,236

POCKET KNIFE

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Application July 27, 1948, Serial No. 40,800

1 Claim. (Cl. 30—159)

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This invention relates to new and useful improvements and structural refinements in pocket knives, and the principal object of the invention is to facilitate "opening" of such knives in a convenient and expeditious manner by a simple depression of an actuating button.

This object is achieved by providing resilient means for urging the knife blade to its "opened" position.

An important feature of the invention resides in the provision of means for releasably locking the blade in its closed position.

An important advantage of the invention lies in its simplicity of construction, convenience of manipulation, and in its adaptability to economical manufacture.

With the above more important objects and features in view, and such other objects and features as may become apparent as this specification proceeds, the invention consists essentially of the arrangement and construction of parts as illustrated in the accompanying drawings, in which:

Figure 1 is a longitudinal cross sectional view of the invention, showing the same in its opened position;

Figure 2 is a fragmentary cross sectional view, taken substantially in the plane of the line 2—2 in Figure 3;

Figure 3 is a fragmentary perspective view, partially broken away, showing the invention in its closed position, and

Figure 4 is a fragmentary perspective view, similar to that shown in Figure 3, but illustrating the invention in its opened position.

Like characters of reference are employed to designate like parts in the specification and throughout the several views.

Referring now to the accompanying drawings in detail, the invention consists of a pocket knife designated generally by the reference character 10, the same embodying in its construction an elongated casing 12 formed with a longitudinally extending pocket or recess 14 so as to accommodate at least the cutting edge portion of a blade 16 when the blade is in its "closed" position, as indicated in Figure 3 and by the phantom lines 18 in Figure 1.

A suitable fulcrum pin 20 pivotally attaches the blade 16 to one end portion of the casing 12, and the "open" position of the blade is clearly illustrated by the full lines in Figures 1, 2 and 4.

A leaf spring 22 is provided in the pocket 14 of the casing 12, this leaf spring having an arcuated end portion 24 which is disposed under a

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pin 26 extending transversely of the casing, whereby the leaf spring is securely held in position. The leaf spring 22 also includes what may be referred to as a free end portion 28 which is engageable with a flat, inner edge portion 30 provided on the blade 16, matters being so arranged that when the blade 16 is closed, the spring 22 is depressed and the resiliency thereof urges the blade to its open position, as will be clearly apparent.

The essence of novelty in the invention resides in the provision of means for releasably retaining the blade 16 in its closed position, these means involving the formation of a substantially circular recess 32 in the inner end portion of the blade 16, this recess being extended to one edge of the blade so as to provide what may be referred to as a pair of spaced, outwardly divergent pressing edges 34, best shown in Figure 4.

A slidable locking pin 36 extends transversely of the casing 12, one end portion of this pin being substantially cylindrical as indicated at 38, while an intermediate portion thereof is flattened and cross-sectionally reduced as indicated at 40, a pair of cam surfaces 42 extending from the intermediate portion 40 to the end portion 38 as is best shown in Figure 4. It is to be noted that the cam surfaces 42 are disposed at the opposite sides of the flattened portion 40, matters are so arranged that when the blade 16 is brought to its closed position, the aforementioned pressing edges 34 slidably engage the cam surfaces 42 and thereby shift the entire pin 36 in the direction of the arrow 44 shown in Figure 4. As a result, the cross sectionally reduced portion 40 of the pin is free to enter through the passageway between the edges 34 into the recess 32. The pin 36 is provided at one end thereof with a depressible actuating knob or button 46 and a compression spring 48 is interposed between this button and the casing 12, so that after the portion 40 of the pin 36 is in the recess 32, the resiliency of the spring 48 urges the pin 36 in the direction of the arrow 50 (see Figure 4). As a result, the substantially cylindrical portion 38 of the pin 36 is brought into the recess 32, and being substantially equal to the diameter of the recess, the portion 38 of the pin 36 thereafter prevents opening of the blade 16 until such time as the pin 36 is again shifted in the direction of the arrow 44 to permit the portion 40 of the pin to pass between the aforementioned edges 34.

Sliding of the pin 36 in the direction of the arrow 44 is, of course, accomplished by simply depressing the button 46, and if desired, the adja-

cent side of the casing **12** may be formed with a suitable depression or recess **52** to accommodate the button **46** when so depressed.

It will be apparent from the foregoing that the pin **36** will normally retain the blade **16** in its closed position, but by simply depressing the button **46**, the resiliency of the aforementioned spring **22** will urge or swing the blade to its opened position. Moreover, after the blade is closed, the pressing edges **34** will slide the pin **36** against the resiliency of the spring **48** to a position where the spring **48** automatically brings the cylindrical portion **38** of the locking pin into the recess **32**, so as to retain the blade in its closed position until such time as the button **46** is again depressed.

It is believed that the advantages and use of the invention will be clearly apparent from the foregoing disclosure and accordingly, further description thereof at this point is deemed unnecessary.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

Having described the invention, what is claimed as new is:

In a pocket knife, the combination of an elongated casing, a blade pivoted at one end thereof

in said casing and swingable outwardly therefrom, said blade being provided adjacent its pivoted end with a circular recess and with a relatively narrow passage extending from said recess to a longitudinal edge of the blade, a keeper pin slidable transversely of said casing and including a cylindrical portion receivable in said recess, and a sectionally reduced portion extending centrally from said cylindrical portion and receivable in said passage, the end of said cylindrical portion adjacent said sectionally reduced portion affording a pair of cam surfaces at the opposite sides of the sectionally reduced portion, and resilient means on said pin for sliding the same to a position wherein said cylindrical portion is in said recess, said passage having inwardly convergent side walls engageable with said cam surfaces to effect sliding of said pin against said spring while the blade is swung into said casing.

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