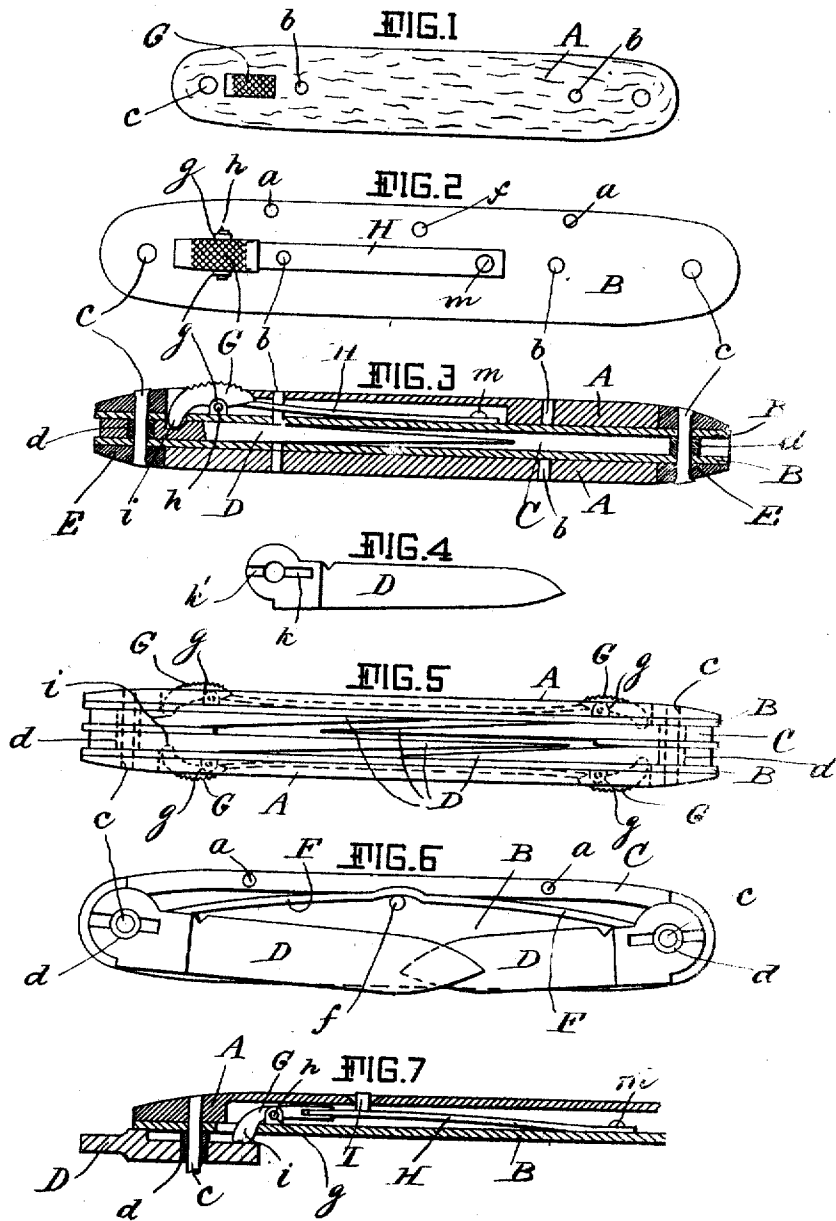


No. 845,130.

PATENTED FEB 26, 1907.

G. SCHRADE.
POCKET KNIFE.

APPLICATION FILED SEPT. 30, 1906.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE SCHRADE, OF WALDEN, NEW YORK.

POCKET-KNIFE.

No. 845,130.

Specification of Letters Patent.

Patented Feb. 26, 1907.

Application filed September 30, 1905. Serial No. 280,736.

To all whom it may concern:

Be it known that I, GEORGE SCHRADE, a citizen of the United States, residing at Walden, in the county of Orange and State of New York, have made certain new and useful Improvements in Pocket-Knives; and I hereby declare the following to be a full and clear description of the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to that class of knives in which the blade automatically opens when released, the blade being locked in position both when open and when closed.

The present improvements comprise novel means for releasing the blade and locking it when open or shut.

The different features of the invention will be more particularly described hereinafter by reference to the drawings, in which—

Figure 1 is an exterior side view. Fig. 2 is the same as Fig. 1 with the outer covering removed. Fig. 3 is a longitudinal section through the center of Fig. 1. Fig. 4 is a detached view of the blade. Fig. 5 shows the invention embodied in a four-bladed knife. Fig. 6 is a side view of the knife with two blades, having the lining removed; and Fig. 7 is an enlarged longitudinal sectional view showing a modification in which the trigger may be concealed by the cover.

The invention is adapted for use in knives having one, two, three, or four blades. The same construction is duplicated in order to provide for the increased number of the blades. I have shown for convenience in Figs. 1, 2, and 3 a knife with a single blade.

The letters of reference in the drawings refer to the same parts in all the figures.

The outer portions or covers of the knife are designated by the letter A. These covers may be of any desired material, such as wood, celluloid, ivory, pearl, or metal. The covers rest on a lining B, which I preferably make of thin sheet-brass. The linings are secured to the back C by rivets at a and are provided with small rivets b, by means of which the covers are secured to the linings. The large rivet c passes through the end of the knife and acts as a pivot on which the blade D turns. The shank or tang of the blade is bored larger than the rivet c and provided with a bushing d. This bushing d is made slightly longer than the thickness of the tang of the blade, so the linings B will rest on the bushing and will not bind against

the tang. This construction permits an easy and free movement of the blade on the pivot, the only friction being where the linings rest on the bushing. If desired, the large rivet c may be also used to secure caps E at the ends of the handle, as shown in Fig. 3.

F is an actuating-spring, one end of which presses on the under side of the tang and is arranged to throw the blade when released from a closed to an open position. The spring F is held in place by a rivet f, which passes through the linings.

On the linings B are two ears g g, between which is pivoted a trigger G, turning on a pin h. The ears g g may be formed by turning up a portion of the lining B or made separate and secured to the lining.

On the outer face of the lining is secured a spring H, one end of which comes in contact with the trigger G and exerts a lifting pressure thereon, which throws one end toward the tang of the blade and tends to thrust the end of the trigger G, which terminates in a finger i, into the cavities k and k' in the tang. The cavities k and k' are located in positions to receive the finger i when the blade D is fully open or closed, so it will be automatically locked in either position.

The outer face of the trigger G may extend slightly beyond the cover A and be serrated in such manner that considerable pressure can be exerted on it by the thumb or finger. When so constructed, a downward sliding movement of the thumb or finger will overcome the resistance of the spring H, causing the trigger to rock on the pivot and raise the finger i, thereby releasing the blade. The inside of the cover A is cut away to provide space for the operation of the spring H and the lever or trigger G.

I have shown the flat spring H secured to the lining as a means for actuating the trigger G, as I have found such style of spring conveniently answers the purpose; but it is apparent that other means or kinds of springs may be employed for thrusting up the inner end of the trigger—such, for instance, as a spiral spring.

When the knife is closed, a sliding pressure on the roughened face of the trigger or lever G causes it to turn on the center pin h and press down the spring H, thereby withdrawing the finger i from the slot or hole k in the tang, which frees the blade and permits it to be thrown open by the spring F, and when the blade has swung fully open the hole or

slot *k* in the tang will register with and receive the finger *i*, and thereby hold the blade open. By the same operation of pressing down the spring *H* the trigger is raised from the blade when open. The blade is then readily closed, when the finger *i* automatically enters the hole *k* and retains the blade in a closed position.

It will be readily seen that various modifications of the device may be made without departing from the spirit of my invention. If desired, the spring *H* may be connected with the lever *G* and operated by a very small button resting thereon at some convenient point along its length, the trigger being entirely concealed by the knife-cover, as shown in Fig. 7. The spring *H* is secured to the lining by the rivet *m* at one end and should have a slight amount of play where it connects with the trigger *G*.

What I claim as my invention is—

1. In a pocket-knife, automatic blade-opening mechanism comprising a spring-actuated locking-trigger, substantially as described, rocking on a pivot resting in supports secured to the lining, said trigger being provided with a finger at one end, adapted to register and enter slots in the tang of the blade when said blade is open and closed.
2. A pocket-knife comprising a handle having a lining and cover, a blade mounted in the handle, a spring for actuating said

blade, a trigger pivoted in supports secured to the linings, means for holding one end of said trigger in engagement with the tang of the blade in its closed or open position, said trigger projecting outward through the cover and adapted to be manipulated by the thumb or finger substantially as shown and described.

3. In a pocket-knife having a blade-opening spring device, a lever pivoted between ears formed from the lining at a point adjacent to the tang, said lever forming part of a device for locking the blade open or closed substantially as shown and described.

4. A pocket-knife comprising a handle having a lining and cover, a blade and actuating-spring mounted in said handle, a trigger pivoted in supports secured to the lining, a spring secured to the lining and operating said trigger and means for depressing said spring and rocking the trigger substantially as shown and described.

5. In a pocket-knife provided with automatic blade-opening mechanism, a tube lining the rivet-hole in the tang, said tube extending past the face of the blade-tang substantially as and for the purpose shown and described.

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Witnesses:

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