To all whom it may concern:

Be it known that I, JAMES E. FULLER, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Locking Means for Pivoted Tools, of which the following is a specification.

This improvement relates to improvements in means for locking a tool, which is pivoted to a handle, in its open position so that it cannot be accidentally closed but may be easily unlocked for the purpose of closing said tool in the handle.

Some of the objects of the invention are to produce such means as will be automatic in action, which will securely hold the tool in its open position and which may be cheaply constructed.

With these and other objects in view the invention consists of the construction and arrangement of parts hereinafter set forth.

The invention is shown as applied to a pocket knife although it is apparent that it may readily be applied to tools of other kinds.

Referring to the drawing which forms a part of this application and in which the same reference character indicates the same part in the several views: Figure 1 is a view of one side of a pocket knife with the improvement applied thereto. Fig. 2 is a view of the back of the knife. Fig. 3 is a cross section on line 2 on an enlarged scale showing the position of the parts just before the blade is fully open. Fig. 4 is a similar view showing the position of the parts when the blade is open and locked against closing. Fig. 5 is a view of the inner face of one of the sides of the handle at the blade end. Fig. 6 is a side view of a locking member, in this case a spring plate. Fig. 7 is a view of the front edge thereof. Fig. 8 is a side view of the knife blade.

The part marked 10 represents the blade having the usual shank 11 and a hole 12 in the shank through which passes the rivet 13 to pivot the blade to the handle.

14 is a projection or pin extending from one side of the shank.

15 is the knife handle having the usual metal sides 16 and 17 and the back spring 18. The inner face of one of the sides, 16, for example, at the blade end thereof is recessed or cut away at 19, forming a shoulder 20 at the end. This side is also beveled at 21, which with the cut-away portion 19 forms another shoulder 22.

23 is a locking member consisting of a piece of a sheet spring metal of substantially the same size and shape as the shank of the blade. Through this member extends the hole 24 and this member is also provided with a slot 25 dividing said member or plate into two parts 26 and 27, the former of which is provided with a recess or hole 28. The part 27 is bent out of the plane of the part 26, as more clearly shown by Fig. 7 of the drawing.

In assembling the parts the locking member 23 is placed against the shank of the blade with the pin 14 projecting through the opening 28, and the openings 12 in the shank and 24 in the said member registering. The rivet 13 on which the blade is pivoted is passed through said openings 12 and 24. As thus assembled the locking member 23 is between the shank of the blade and the side 16 of the handle and moves with the blade.

When the blade is in its closed position the part 27 of the locking member 23 bears against the inner surface of the side 16 of the handle and is held in the same plane as the part 26 so that the blade in the act of opening or closing may be moved without any obstruction.

Fig. 3 shows the position of the parts when the blade is being opened or closed.

When the blade is open to its full extent the part 27 springs into the recess or beveled portion 21 and the cut-away portion 19 of the side 16 with the edge a thereof under the shoulder 22, and thus the blade is held in its open position. Fig. 4 shows the position of the parts when the blade is in said position.

To close the blade, the free end of the part 27 is pressed by the thumb against the shank of the blade, when the edge a will be moved from under the shoulder 22. In this position the blade may be turned on its pivot. As soon as the blade is moved so that the edge a is within the inner surface of the side 16, as shown in Fig. 3, the said free end of the part 28 can be released, when the blade can be closed in the usual manner.

As many changes could be made in the above construction and many apparently widely different embodiments of the invention could be made without departing from the scope thereof, I intend that all matter
contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense. I desire it also to be understood that the language used in the following claims is intended to cover all of the generic and specific features of the scope of the invention herein described and all statements of the scope of the invention, which, as a matter of language, might be said to fall therebetween.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a device of the class described, a blade, a locking member having a longitudinal slot, the section of the locking member on one side of the slot being fixedly secured to the blade and the section on the other side of the slot being resilient and tending to assume a position in which its longitudinal edge bounding the slot protrudes beyond the plane of the fixed section approximately throughout its length, and a handle having a longitudinal shoulder so disposed that when the blade is open it will be engaged by said longitudinal edge of the resilient section and will cooperate therewith in locking the blade in open position, the parts being so correlated that the before mentioned longitudinal edge of the resilient section may be forced toward the plane of the fixed section, and the handle having a portion adjacent to its shoulder adapted to hold the resilient section in its latter position until the blade has been opened.

2. In a device of the class described, a handle and a blade, the handle having a longitudinal shoulder, a transverse recess at one end and its wall adjacent to the inner end of the recess beveled inwardly from the back of the handle to the shoulder, and a longitudinally slotted locking member having a fixed section secured to the blade and a resilient section at the side of the slot opposite the fixed section, the longitudinal edge of the spring section adjacent to the slot being adapted to engage under said shoulder when the blade is open, to thereby lock the blade in open position.

3. In a device of the class described, a handle having sides, the inner face of one of said sides being beveled and formed with a shoulder, a blade pivoted to the handle between said sides and provided with a pin, and a locking member having a slot dividing it longitudinally into two parts, one of said parts having apertures, through one of which the pivot which secures the blade to the handle passes and into the other of which said pin extends, the other part of the locking member being bent out of plane with the former part, the bent-out part bearing against the inner surface of the recessed side when the blade is closed and adapted to spring into the recess and engage the shoulder when the blade is opened.

4. A blade having a shank provided with a locking member disposed on the side thereof and conforming in shape thereto, said locking member having a longitudinal open-ended slot and its section on one side of the slot fixedly secured to said shank, while its section on the other side of the slot is yieldable and so disposed that its longitudinal edge adjacent to the slot tends to stand out beyond the plane of the fixed section, combined with a handle to which the shank is pivoted, said handle having means adapted to retain the yieldable section of the locking member in approximately the plane of the fixed section when the blade is closed and means cooperating with the longitudinal edge of said yieldable section in locking the blade in open position.

In witness whereof I have hereunto set my hand at the city, county and State of New York, this 4th day of June 1910.

JAMES E. FULLER.

In presence of—
R. M. BARTHOLOMEW,
D. NELSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."