Apr. 10, 1923. 1,451,607

L. B. BATES

KNIFE

Filed Apr. 13, 1922

Fig. 1.

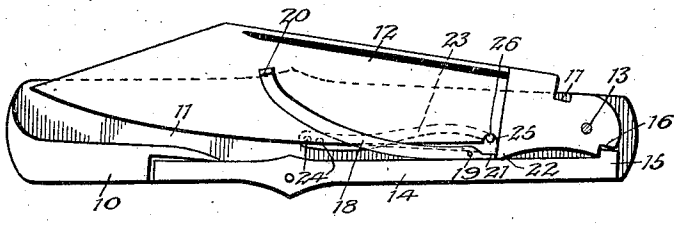


Fig. 2.

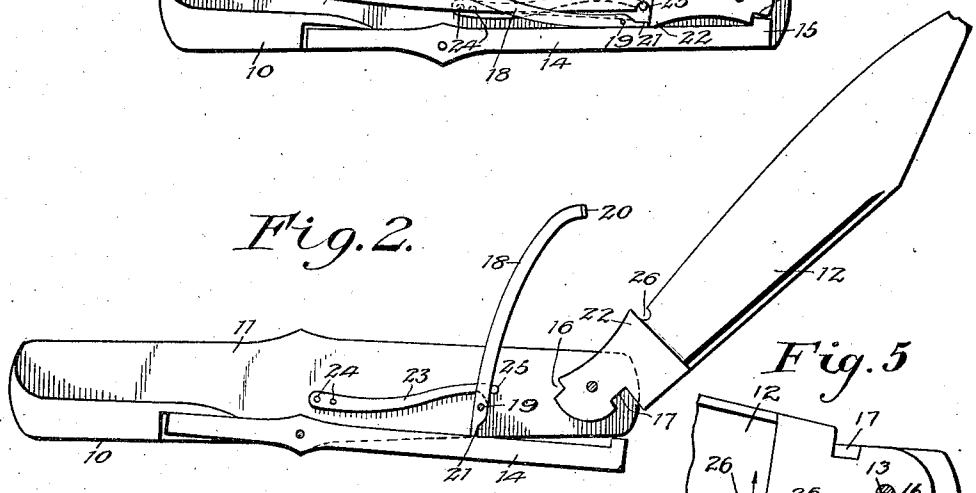


Fig. 5

Fig. 3.

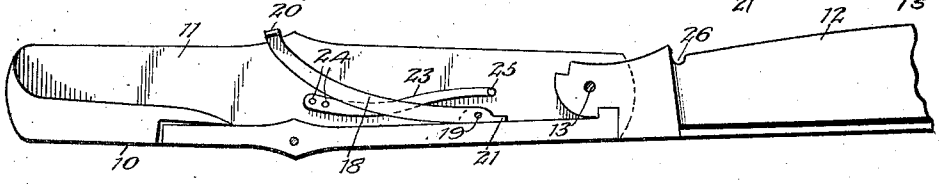
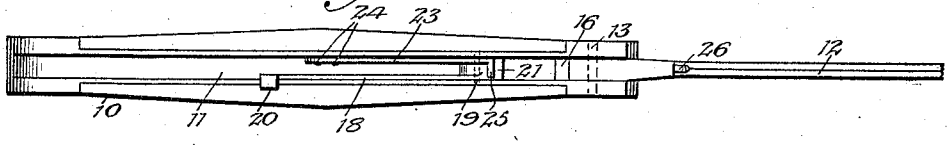


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

LANGDON B. BATES, OF THOMASTON, MAINE.

KNIFE.

Application filed April 13, 1922. Serial No. 552,178.

To all whom it may concern:

Be it known that I, LANGDON B. BATES, a citizen of the United States, and a resident of Thomaston, in the county of Knox and State of Maine, have invented a new and Improved Knife, of which the following is a full, clear, and exact description.

This invention has relation to cutlery and has particular reference to folding knives such as jackknives, penknives, pocket knives, or the like.

As an object the invention contemplates in combination with a folding knife means for positively locking the blade respectively in opened and closed positions, and means for releasing said locking means.

As a further object the invention contemplates in connection with a knife of the character described, means operable upon releasing of the means for locking the blade in closed position, for effecting an initial opening movement of the blade.

As a still further object the invention contemplates a folding knife which is comparatively simple in its construction and operation, inexpensive to manufacture, and strong and durable in its structure.

With the above recited and other objects in view, the invention resides in the novel construction set forth in the following specification, particularly pointed out in the appended claims and illustrated in the accompanying drawings, it being understood that the right is reserved to embodiments other than those actually illustrated herein to the full extent indicated by the general meaning of the terms in which the claims are expressed.

In the drawings—

Figure 1 is a longitudinal sectional view through a knife constructed in accordance with the invention, illustrating the blade locked in closed condition.

Fig. 2 is a similar view illustrating the blade released and partly opened.

Fig. 3 is a similar view illustrating the blade locked in open position.

Fig. 4 is a top plan view thereof.

Fig. 5 is a fragmentary enlarged detail longitudinal sectional view.

Referring to the drawings by characters of reference, 10 designates the handle of a jackknife which is provided with a central longitudinally extending recess 11 within one end of which the blade 12 is pivoted by means of a pivot pin 13. A leaf spring 14 is mounted within the recess and is provided at its free terminal with a finger 15 which coacts respectively with the notches 16 and 17 of the blade to retain and lock the same respectively in its closed and opened positions. In order to provide means for flexing the leaf spring 14 to disengage the finger 15 from the notches 16 and 17 whereby to release the blade for opening or closing movement, a lever 18 is employed which is pivoted within the recess by means of a pivot pin 19, the free terminal of said lever being bent laterally to provide a manipulating portion 20. The opposite terminal is provided with an extension 21 which when the knife is closed is normally disposed in the path of movement of the lug or projection 22 formed on the blade whereby to perform the dual function of an auxiliary lock against opening of the blade and at the same time to engage with and flex the leaf spring 14 for the purpose of releasing or disengaging the finger 15 from the notches 16 and 17. In order to provide means for automatically effecting an initial opening movement of the blade upon release of the extension 21 from the lug or extension 22 and the finger 15 from the notch 16, a second spring 23 is employed which is secured at one extremity by the rivets 24 within the recess and is provided at its opposite end with a laterally bent terminal 25 which receives and engages the notch 26 in the blade.

In use and operation when the knife is closed as illustrated in Fig. 1 the finger 15 engages the notch 16 to lock the blade against opening. Simultaneously the extension 22 of the lever 18 is disposed in the path of movement of the lug or extension 22 of the blade. In this position the terminal 25 of the spring 23 engaged by the notch 26 of the blade places the spring 23 under tension. When it is desired to open the knife the operator engages the thumb or finger nail under the manipulating portion or terminal 20 of the lever 18 which overlies the handle and by moving the same away from the handle throws the extension 21 out of the path of movement of the lug or extension 22 of the blade, at the same time flexing the leaf spring 14 to disengage the finger 15 from the notch 16 of the blade. The spring 23 will then function to effect an initial opening operation of the blade to inform the operator the blade is free to be swung to entire open position. When the blade has been

swung to its extreme open position, the finger 15 will engage and coact with the notch 17 to retain and lock the blade against closing until the operator manipulates the lever 18 for the purpose of flexing the spring 14 to disengage the finger 15 from the notch 17.

I claim:

1. The combination with a folding knife including a handle and a blade pivoted thereto having notched portions therein, of resilient means having a locking extremity adapted to respectively engage with the locking notches for positively retaining and locking said blade in opened or closed positions, and means carried by said handle and engageable with the locking means for effecting the release thereof, said releasing means having an element thereof normally disposed in the path of movement of a portion of the blade when in closed position to constitute an auxiliary means for locking the same in closed position.

2. The combination with a folding knife including a handle and a blade pivoted thereto having notched portions therein, of resilient means having a locking extremity adapted to respectively engage with the locking notches for positively retaining and locking said blade in opened or closed positions, means carried by said handle and engageable with the locking means for effecting the release thereof, said releasing means having an element thereof normally disposed in the path of movement of a portion of the blade when in closed position to constitute an auxiliary means for locking the same in closed position, and means engageable by the blade when in closed position adapted upon release of the locking means to effect an initial opening movement of the blade.

3. The combination with a folding knife including a handle and a blade pivoted thereto, of means for positively locking and retaining said blade in opened and closed position comprising notched portions in the pivoted end of the blade, a leaf spring having a finger respectively engageable in said notched portions, means for flexing said spring to disengage the finger from said notches to release the blade for free pivotal movement, and a lever pivotally associated with said handle and adapted upon manipulation to flex the spring for releasing the finger from said notches, an extension on said blade constituting together with the lever an auxiliary locking means when the lever is in normal position for retaining the blade in closed position.

LANGDON B. BATES.