(No Model.)

C. E. BILLINGS.

POCKET KNIFE.

No. 470,777. Patented Mar. 15, 1892.

Fig. 1

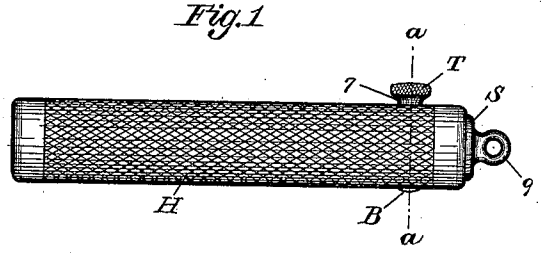


Fig. 2

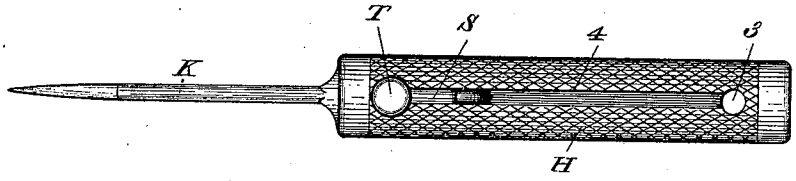


Fig. 3

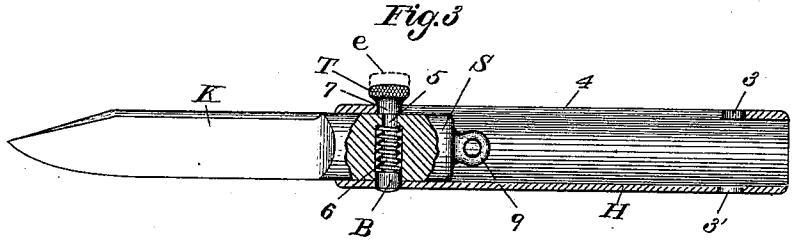


Fig. 4

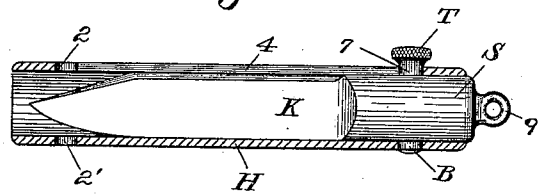


Fig. 5

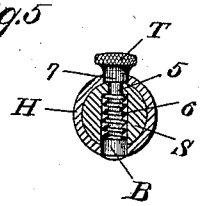
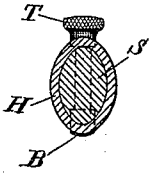


Fig. 6



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UNITED STATES PATENT OFFICE.

CHARLES E. BILLINGS, OF HARTFORD, CONNECTICUT.

POCKET-KNIFE.

SPECIFICATION forming part of Letters Patent No. 470,777, dated March 15, 1892.

Application filed December 18, 1891. Serial No. 415,451. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. BILLINGS, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Pocket-Knives, of which the following is a specification.

This invention relates to that class of pocket-knives having hollow handles and sliding blades arranged to be slid into the handle when the knife is not in use, the object being to furnish a knife of that class which shall be strong and reliable in construction and operation with effective blade-locking means.

In the drawings accompanying and forming a part of this specification, Figure 1 is a side view of my improved pocket-knife with the blade retracted. Fig. 2 is a plan view of the knife with the blade extended in working position. Fig. 3 is a sectional side elevation showing the manner of and means for locking the blade in working position. Fig. 4 is a view similar to Fig. 3, showing the blade retracted within the handle, as in Fig. 1. Fig. 5 is a cross-sectional view in line *a a*, Fig. 1. Fig. 6 is a view similar in part to Fig. 5 and illustrates a modified cross-sectional form of the blade-shank and handle.

Similar characters designate like parts in all the figures.

Referring to Figs. 1 to 5, inclusive, the handle of my improved pocket-knife consists of a tube H, fitted internally to receive the shank S of the sliding knife-blade K. Said tube is of uniform internal size throughout its length and is shown of uniform thickness throughout its length; but the external form may obviously be modified independently of the internal form of the tube. The handle H is constructed with lock-bolt sockets, which in their preferred form consist in transverse perforations at the opposite ends of said handle. For this purpose the handle has formed therein the holes 2 2′ and 3 3′ to receive the lock-bolt. On one side of the handle this is slotted at 4 between said perforations 2 and 3. The width of the slot 4, as shown in Fig. 2, is equal to or slightly greater than the thickness of the stem 5 of the lock-bolt. In some cases the slot 4 may not be widened at its ends to form the so-called "perforations" 2 and 3, in which case the perforations 2′ and 3′ may be described as located in the handle opposite the ends of the slot 4, as will be understood by comparison of the figures of the drawings.

The shank S of the sliding knife-blade K is bored transversely thereto to receive the lock-bolt B and the bolt-actuating springs 6. The stem 5 of said bolt extends through the upper side of the handle and is furnished with the head or thumb-piece T, whereby said bolt may be retracted. The hub 7 of said head T is shown forming a lock-pin, which engages in the perforations 2 and 3, while the larger lower end of said bolt simultaneously engages the corresponding openings 2′ and 3′ in the lower side of the handle, as will be understood, for instance, from Figs. 3 and 4. The bolt B is therefore a draw-bolt having a bolt-actuating head, whereby it may be withdrawn from engagement with that side of the handle which is opposite to the slot.

In using the knife the lock-bolt is first drawn to the height represented by the dotted line at *e*, Fig. 3, so that it is disengaged from the handle, when the blade may be slid either from the position thereof shown in Fig. 4 to that shown in Fig. 3, or vice versa, as the case may be. The bolt B, when the blade has been shifted from one position to the other, being released is thrown into engagement with the handle by means of the spring 6, as shown in Figs. 3 and 5.

The blade-shank is shown provided with a suitable eye, as 9, to which a cord may be attached for suspending the knife from a belt or otherwise, as may be required.

It will be observed that the holes 2 and 3 are in a sense enlargements of the ends of the slot 4. In some cases these enlargements may be omitted, in which case the blade K will be locked in place only by the lower end of the bolt B engaging in the sockets 2′ and 3′, the bolt being actuated and retracted as before.

In Figs. 1 and 2 the handle is shown knurled externally throughout nearly the whole of its length, so as to enable the user to firmly grasp the same.

The head or button T of the lock-bolt being located at the back of the knife-blade, naturally the user, if hitting said head at all when using the knife, will bear down thereon, thus

preventing the knife-blade from being accidentally unlocked. The knife-blade being locked in position by a cylindrical bolt fitting a corresponding hole in the handle is very securely held in place.

Having thus described my invention, I claim—

1. In a knife, the combination, with the tubular handle transversely perforated at each end thereof and having a slot extending between the two perforations, of the sliding blade having its shank bored transversely to receive the lock-bolt and spring, a draw-bolt, substantially as described, carried in the bore of the blade-shank and adapted to engage in the perforations opposite said slot, the spring carried with the knife-shank for actuating the bolt, and means for retracting the lock-bolt, substantially as described.

2. In a knife, the combination, with the tubular handle having the opposite lock-bolt sockets 2 2′ and 3 3′ and the slot 4, of the sliding blade bored substantially as described, the lock-bolt carried by said blade and fitted to engage in the perforations 2′ and 3′ and having its stem adapted to pass through said slot, and the head on the lock-bolt, adapted to engage in the perforations 2 and 3, whereby the blade-shank is locked to the handle on both the upper and lower sides thereof, substantially as described.

3. In a knife, the combination, with a tubular handle having in one side thereof a slot and in the other side thereof perforations opposite the ends of said slot, of the sliding blade having its shank bored transversely, and a draw-bolt carried in said shank-bore and adapted to engage said perforations, said bolt being extended through the slot and provided with means whereby it may be withdrawn from engagement with the handle, substantially as described.

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