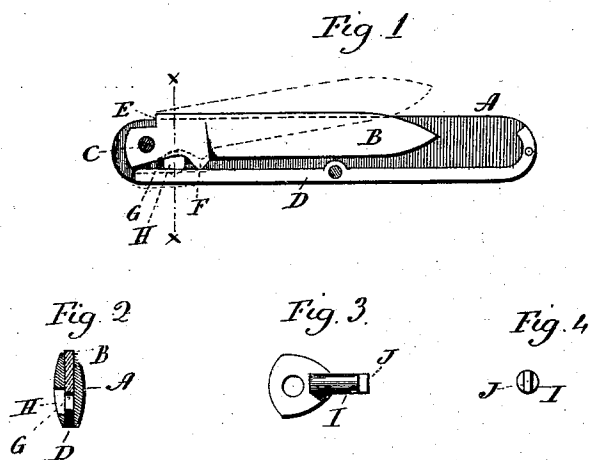


(No Model.)

W. O'HARA.  
POCKET KNIFE.

No. 478,812.

Patented July 12, 1892.



Witnesses  
J. H. Thumway  
Fred W. Peck

William O'Hara  
Inventor  
By atty  
Earle Seymour

# UNITED STATES PATENT OFFICE.

WILLIAM O'HARA, OF MIDDLETOWN, CONNECTICUT.

## POCKET-KNIFE.

SPECIFICATION forming part of Letters Patent No. 478,812, dated July 12, 1892.

Application filed May 31, 1892. Serial No. 434,855. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM O'HARA, of Middletown, in the county of Middlesex and State of Connecticut, have invented a new Improvement in Pocket-Knives; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of a knife, showing one side of the handle removed; Fig. 2, a transverse section through the knife, cutting on line *xx* of Fig. 1; Fig. 3, a side view of the key; Fig. 4, a bit end view of the key.

This invention relates to an improvement in that class of pocket-knives in which provision is made for the opening of the blades without the necessary application of the thumb-nail thereto.

In the various constructions of pocket-knives to avoid the use of the thumb-nail in opening the blade a spring device of some character is employed, which may be operated upon when it is desired to open the blade, and so that upon the depression of such spring or some manipulation of it the blade itself will be started in its opening movement by the action of the main spring; but in all such devices there is more or less liability to accidental partial opening of the blade in the pocket—a serious objection to this class of pocket-knives.

The object of this invention is the construction of a knife so that the blade must be opened by some device or instrument independent of the knife itself and whereby accidental opening or partial opening of the blade is impossible; and the invention consists in the construction as hereinafter described, and particularly recited in the claim.

A represents the handle, within which the blade B is hung upon a pivot C between the two sides of the handle in the usual manner. The spring D is also arranged in the usual manner, and the spring is secured in the handle in the usual manner and so that its free end will rest upon the heel of the blade below the pivot, also in the usual manner, and on the back of the blade near the heel a shoulder E is formed, which will abut against the end

of the spring when the blade is opened, also, in the usual manner.

At a point on the edge side of the blade and forward of the pivot a projection F is formed, which when the blade is closed will bear upon the spring and so that the blade will be held in the closed position by the bearing of the spring upon the projection F and upon the under side of the heel of the blade below the pivot. The projection F leaves a space G between the spring and the blade. Through one side of the handle a transverse opening H is made into this space G, as seen in Fig. 2. The blade is preferably constructed so that it may lie in the pocket of the handle nearly or quite flush or may be so made. To open the blade, a key is constructed, as seen in Fig. 3, the body I of which is cylindrical and corresponds in diameter substantially to the opening H through the side of the handle. The bit J of the key is flat and in substantially a central plane transversely across the end of the key, as seen in Figs. 3 and 4. The thickness of the bit is such that when the key is inserted through the opening H, with its plane longitudinal of the handle, the bit will pass into the space between the blade and the spring; but the width of the bit J is greater than the distance between the spring and the blade. Consequently when the key is introduced and turned the bit operates as a cam between the spring and blade and so as to throw the blade from the spring, as indicated in broken lines, Fig. 1, which opens the blade to such an extent that it may be readily grasped by the thumb and finger for complete opening. Then the key is removed. The blade is closed in the usual manner and is held closed by its own spring without any other locking device or mechanism and can only be opened by the insertion of the key and the turning of the same to raise the blade. Consequently there is no liability of the accidental opening of the blade in the pocket, and the difficulties which attend the automatic opening devices for pocket-knives are avoided, and the expense of manufacture is no greater than that of the ordinary construction of pocket-knife, the key itself being an inconsiderable expense. In the case of two blades hung upon the same pivot there will be a like opening made in the handle upon

the opposite side of the blade, that each blade may be operated through its own independent opening in the handle.

I claim—

- 5 The herein - described improvement in pocket-knives, consisting in the blade constructed with a bearing-point upon the spring below the pivot and a second bearing-point forward of the pivot and so as to leave a space  
10 between the blade and the spring forward of the pivot, the handle constructed with an opening through its side in line with said space, combined with a key adapted to be introduced through said opening, the bit of the  
15 key corresponding in thickness substantially

to the depth of the said space between the blade and spring, but the bit of a greater width than the depth of such space, substantially as described, and whereby by the introduction and turning of the said key the bit will operate as a cam between the spring and the blade to start the blade in its opening movement.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM O'HARA.

Witnesses:

HENRY E. BURTON,  
HARRY LINTON.