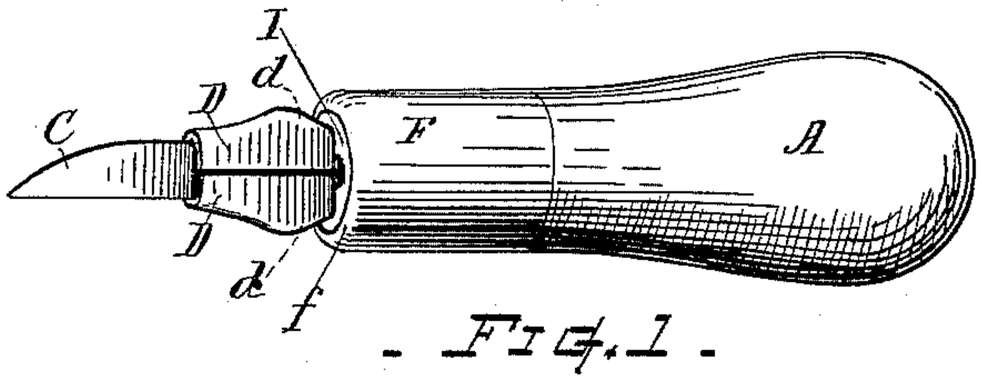
(No Model.)

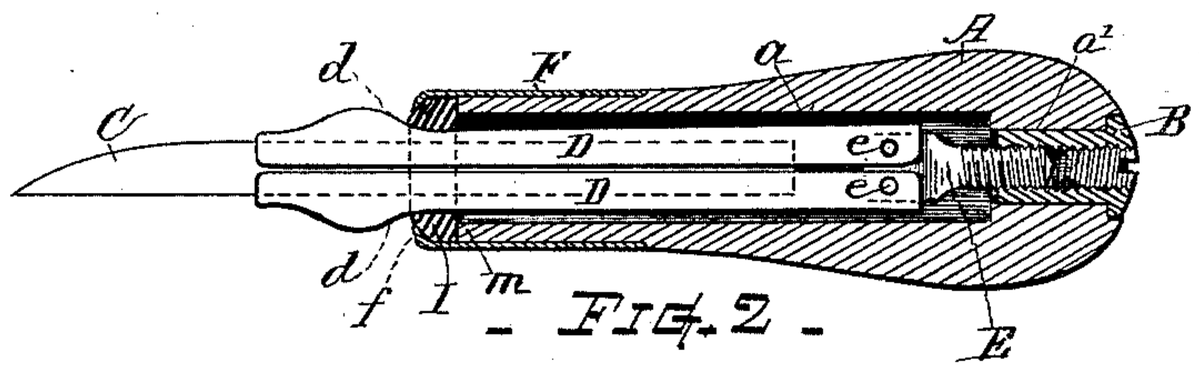
W. WEBSTER.

SHOE KNIFE.

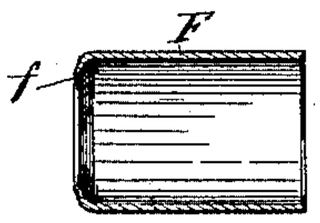
No. 431,424. Patented July 1, 1890.



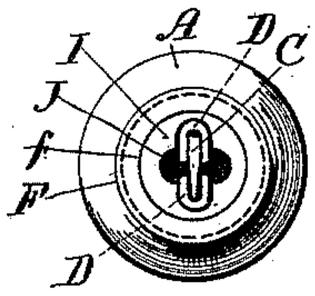
- FIG. 1 -



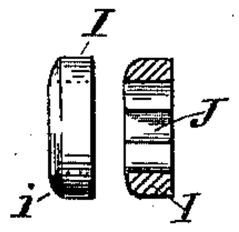
- FIG. 2 -



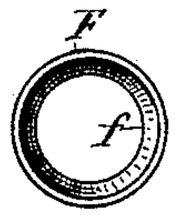
- FIG. 4 -



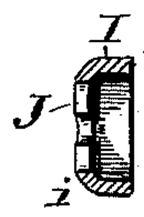
- FIG. 3 -



- FIG. 6 -



- FIG. 5 -



- FIG. 8 -

- FIG. 7 -

Witnesses.

Ella P. Blemus.

Simon & King.

Inventor.

Wilbur Webster

By Chas. H. Dulleigh.

Attorney

UNITED STATES PATENT OFFICE.

WILBUR WEBSTER, OF JAFFREY, NEW HAMPSHIRE.

SHOE-KNIFE.

SPECIFICATION forming part of Letters Patent No. 431,424, dated July 1, 1890.

Application filed January 6, 1890. Serial No. 336,028. (No model.)

To all whom it may concern:

Be it known that I, WILBUR WEBSTER, a citizen of the United States, residing at Jaffrey, in the county of Cheshire and State of New Hampshire, have invented certain new and useful Improvements in Knife-Blade Holders, of which the following, together with the accompanying drawings, is a specification sufficiently full, clear, and exact to enable persons skilled in the art to which this invention appertains to make and use the same.

This invention relates to an improvement in that class of knives in which an extensible blade is retained within the handle or blade-holder by clamps or jaws that embrace the opposite edges of the blade and are tightened and loosened by means of inclined surfaces on said jaws, and a screw-threaded tang to which the jaws are connected; and the object of my present invention is to provide a knife-blade holder that can be manufactured with economy and facility, and which shall be efficient, convenient, and durable for use.

To this end my invention consists in a knife-blade holder having, in combination with the inclines of its blade-holding jaws, a perforated disk or binder that is separate and supported to be rotatable within a ferrule which is rigidly fixed upon the end of the handle, said parts being constructed in the peculiar manner illustrated and explained, the particular subject-matter claimed being hereinafter definitely specified.

In the drawings, Figure 1 is a perspective view illustrating my invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is an end view. Fig. 4 is a separate view of the ferrule, showing a longitudinal section thereof. Fig. 5 is an end view of the ferrule. Fig. 6 shows a side view and a central section of the binder-disk or clamping-collar. Fig. 7 is a front view of the binder; and Fig. 8 shows the binder in modified form, as a cup-shaped disk.

Referring to parts, A denotes the wooden handle, which is externally shaped of the usual or desired form and is internally provided with a cylindrical chamber *a* and a seat *a'* for the threaded nut B, which latter is fitted in the rear end of the handle.

C indicates the cutting-blade, and D D the clamping-jaws, which latter are internally grooved to receive the edges of the blade, and are pivoted at their rear ends *e* to the screw-threaded tang E, which screws into the nut B. The backs of the jaws are provided with swells or inclined surfaces at *d*. The blade C, jaws D, screw-threaded tang E, and nut B are of substantially the same well-known structure as heretofore employed.

F indicates the ferrule, which is formed with a cylindrical or slightly-tapered body and provided with an inwardly-turned lip or flange *f* at the front end thereof. (See Figs. 4 and 5.) Said ferrule is fitted upon and rigidly secured to the handle A, as shown in Figs. 1, 2, and 3.

I indicates a binder, disk, or clamp-collar having a central opening J of suitable shape to pass over the bars of the jaws D and engage the inclined surfaces *d* for pressing said jaws together when the latter are drawn backward into the holder. In accordance with my invention this binder is a separate piece that is rotatable within the ferrule F, which latter is rigidly fixed upon the wooden handle. The external diameter of the binder I is made to correspond with the internal diameter of the ferrule F, and its front corners at *i* are rounded off, so that said binder will fit within the ferrule and against its flange *f*. This binder I is arranged within the ferrule and confined between the flange *f* and the front end *m* of the wooden handle A, whereby it is retained in such manner that it can rotate freely with the jaws D and screw-threaded tang E, but is sustained against endwise movement by the end of the handle and the flange of the ferrule, while the cylindrical part of the ferrule supports it about its periphery and maintains the binder and jaws constantly central and guards against any lateral displacement by pressure on the blade, as when cutting therewith.

The binder I can be punched as a flat disk from thick sheet metal and formed as in Fig. 6, or it can be punched from somewhat thinner metal and then struck up in dies in cup-shaped form, as in Fig. 8, as preferred, the outward form and central opening being substantially the same in either case, so that the binder will fit over the jaws and within the ferrule, as indicated in Fig. 2.

For adjusting the blade, which is inserted between the jaws D D, said jaws require to be

loosened and the blade moved therein and the jaws again tightened. In this the operation is facilitated and simplified by reason of the binder being rotatable within the ferrule, as it permits of the jaws rotating within the handle, and the need of a screw-driver or wrench to turn the nut E is avoided, as said nut being fitted closely acts as a part of the handle. The operator simply takes the projecting ends of the jaws between his thumb and finger and the handle in his other hand. Then the handle, together with the ferrule F and nut B, is rotated about the jaws and binder, (or the jaw and binder are rotated within the handle,) causing the screw-thread of the tang E to run into the nut, thus drawing the inclines *d* of the jaws into the binder I. This forces the jaws inward and clamps them upon the blade. The binder being loose within the ferrule permits this rotation, while another function of said binder is to protect the inwardly-turned edge of the ferrule and afford therein ample bearing-surface to give a firm and efficient support for the blade and its holding-jaws and to prevent much wear on the parts. It also admits the practicability of hardening the binders, which thereby renders the blade-holder more durable. The ferrule gives a full and complete external surface for the hand to grasp and covers and protects the binder and the joint between the binder and wooden body.

It is a well-known method of holding extensible blades by means of two jaws having inclined surfaces which are drawn into a slotted ferrule by a screw-threaded tang. Hence it will be understood that I do not make claim, broadly, to such means irrespective of their construction; but the arrangement of the separate binder supported and rotatable within a flanged ferrule that is fixed upon the handle, as described, is an improved and beneficial construction of my invention.

What I claim as my invention, to be secured by Letters Patent, is—

1. In a knife-blade holder provided with a pair of blade-clamping jaws pivoted to a screw-threaded tang and adapted to be bound together for holding the blade, the binder I, consisting of a disk or circular piece of metal, substantially as described, having a central opening fitted to embrace the inclined portions of said jaws, its periphery fitting the interior of the ferrule within which said binder is rotatably supported, the ferrule rigidly fixed to the handle-body and extending over the binder, and an inwardly-extending flange formed on said ferrule that engages the periphery of said binder and confines it from endwise movement, substantially as set forth.

2. In a knife-blade holder, the ferrule F, fitted tightly upon the handle-body and having the inwardly-turned flange *f* at its outer end, and the binder I, rotatable within the ferrule confined between said flange and the end of the handle, in combination with the handle A, the grooved blade-clamping jaws having inclined portions *d*, screw-threaded tang E, connected to said jaws, and the nut B, fitted within the rear end of the handle-body, all substantially as set forth.

Witness my hand this 2d day of January, A. D. 1890.

WILBUR WEBSTER.

Witnesses:
F. S. PIERCE,
J. MINOT PIERCE.