

S. Richard,
Shoe Knife,
No. 2,537, Patented Apr. 26, 1864.

Fig. 2.

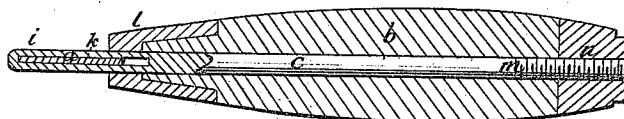


Fig. 3.

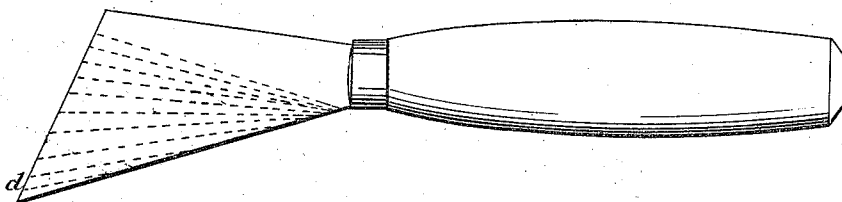
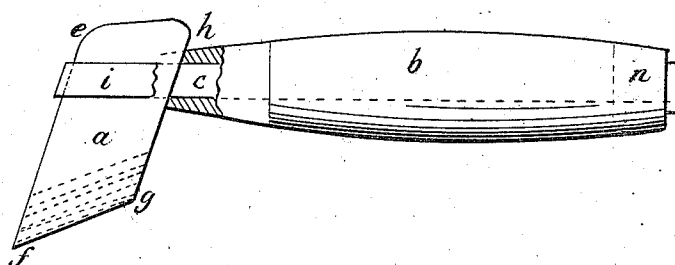


Fig. 1.



Witnesses
S. M. McIntire
W. Gould.

Inventor
S. Richard,
By his Atty. W. B. Crosby.

UNITED STATES PATENT OFFICE.

S. RICHARD, OF SOUTHBRIDGE, MASSACHUSETTS, ASSIGNOR TO HIMSELF
AND W. C. BARNES, OF SAME PLACE.

SHOE-KNIFE.

Specification forming part of Letters Patent No. 42,537, dated April 26, 1864.

To all whom it may concern:

Be it known that I, S. RICHARD, of Southbridge, in the county of Worcester and Commonwealth of Massachusetts, have invented an Improved Shoe-Knife; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

This invention relates to the construction of that peculiar form of knife known to shoemakers as the "clicker knife," used principally in cutting out stock for shoe vamps or uppers by the aid of patterns laid upon the stock. For this purpose the knife-blade is made with its cutting-point considerably beyond the end of the handle and the plane thereof, the cutting-edge and front end of the blade meeting at an acute angle, so as to narrow the point and allow the blade to be easily guided around and against the pattern.

My invention consists in a new construction or form given to the knife-blade whereby certain important advantages are obtained, as will be hereinafter described; also, in the manner of applying the knife to the handle.

In the accompanying drawings, Figure 1 shows a side view, and Fig. 2 a central longitudinal section, of my improved knife. Fig. 3 is a view of the common form of clicker knife now in use.

In Figs. 1 and 2, *a* denotes the blade of my knife, *b* the handle, and *c* the shank running through the handle and confining the blade thereto. In Fig. 3 the blade is shown as made triangular and in the direction of its cutting-edge. It is very long, while a great width is necessary at or near the bearing-point *d* to impart the necessary stiffness to the blade, such width decreasing to the handle to give the desirable inclination to the cutting-edge. In sharpening this knife as its cutting point and edge become dull the blade assumes the form denoted by the red lines. Instead of making the knife in this shape I give to it the trapezoidal form shown in Fig. 1, the two sides *e f* and *g h* being made parallel or about parallel, and the side *e f* and cutting-edge *f g* retaining the same, or substantially the same, angle to each other and with respect to handle

a as in the old form of knife. By this construction I am enabled to bring the cutting edge or point very much nearer to the handle, where the force is applied, and I can also sharpen the knife to much better advantage, as the blade can be ground parallel to its edge, keeping the angle the same and the cutting-edge of the same length.

In order to facilitate the operation of sharpening the knife, and to allow its cutting edge or point to be adjusted to a greater or less distance from the axial line of the handle, or kept at the same distance therefrom as the knife becomes worn, and to better sustain and keep in position the blade, I apply it to the handle as follows: The shank-piece *i* is made with a slit or opening, *k*, (seen in Fig. 2,) of width corresponding to the knife-blade *a*, and so that said blade can slide freely therein. The end of the ferrule *l* is also slit down, so that the edge *g h* of the blade *a* can slip therein, as will be understood from Fig. 1. The rear end of the shank is provided with a screw-thread, *m*, upon which fits a nut, *n*. By tightening the nut the blade *a* is drawn into the ferrule slit and securely fastened in position by the slit of the shank, and by loosening the nut the position of the blade can be adjusted as may be desirable; or the blade may be removed to be sharpened or replaced by another. By causing the shank to extend across the blade as shown it sustains the rigidity of the blade and helps to keep it from twisting when a very thin blade is used.

In the old form of knife, as the blade is sharpened and worn away the angle is so changed that the position of the hand has to be constantly varied to correspond until, when the knife is worn quite narrow, as denoted by the upper red lines, the position of the hand and wrist is nearly upright, and it is then very tiresome to use the knife; but in my knife, as the sharpening is parallel to the edge, the same inclination of the blade is maintained as denoted by the dotted lines in Fig. 1. The old form of knife is so wide and long and of such irregular width that it is difficult to temper it evenly, and if it twists the temper has to be drawn to straighten it by hammering; but the uniform and narrow width of my knife admits of its being readily constructed with very even cutting temper

throughout. The strength of the hand is much better applied in cutting with the new knife, as the force is so much nearer the cutting-point and the finger does not have to be carried forward onto the top edge of the blade to force the knife down, or the thumb and finger placed on opposite sides of the blade to keep it from twisting, as has often to be done in using the old knife. By confining the blade by the shank, as described, I am enabled to employ a very thin blade, which is quite desirable with this kind of cutting-tool.

I claim—

1. The improved form of knife-blade, substantially as shown and described.

2. The manner of confining the knife to the handle and allowing it to be adjusted or removed by means of the slotted shank, as set forth.

In witness whereof I have hereto set my signature this 4th day of March, A. D. 1864.

S. RICHARD.

Witnesses:

GEORGE EDDY,
GEORGE F. FISKE.