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# UNITED STATES PATENT OFFICE.

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## SHOE-MAKER'S KNIFE.

SPECIFICATION forming part of Letters Patent No. 342,985, dated June 1, 1886.

Application filed September 30, 1885. Serial No. 178,659. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM L. VAN METER, a citizen of the United States, and a resident of Vineland, in the county of Cumberland and State of New Jersey, have invented certain new and useful Improvements in Shoe-Makers' Knives; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a longitudinal central sectional view of my improved knife and holder. Figs. 2, 3, 4, 5, and 6 are views of different forms of blades. Fig. 7 is a perspective detail view. Figs. 8 and 10 are transverse sectional views. Fig. 9 is a side view of the heads of the levers B and B, and Fig. 11 is a view of the knife handle or holder.

My invention has relation to shoe-makers' knives; and it consists in the construction and novel combination of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

This class of knives has been heretofore made of straight pieces of steel which it has been necessary to grind out to form the requisite curve to get what is termed the "proper hook" to the blade, which operation has heretofore entailed a loss of time and a waste of material, besides few cutters are sufficiently skilled in the art of grinding edge-tools to grind a knife of this class properly, and they have therefore either been compelled to employ skilled labor for this purpose, or to imperfectly grind the blades themselves. Furthermore, with the old style of blades and handles, the blade, should it have too much curve or hook to suit the workman, could not be set up to give it less hook.

My invention has for its objects to improve both the handle and the blades of cutters' knives in such a manner as to greatly reduce the necessity of grinding the blade after it leaves the manufacturer's hands, to enable the workman to set the cutting-point up or down any necessary degree to give the point of the blade the hook that will best suit the cutter.

Referring by letter to the accompanying

drawings, A designates the improved handle, and B designates one of the blades in place in the handle.

The style or form of the blade can be varied, as I have illustrated in Figs. 2, 3, 4, 5, and 6, the curves and hooks of all of the blades being died out and not ground out, as before, the die fitting up against the curved edge where the previous blade was died out, which is a great saving in both time and labor in preparing the blades.

I may use any of the styles of blades illustrated in the drawings; but the blades shown in Figs. 2 and 3 are the preferred ones.

The blade B, Fig. 4, is a double-pointed nearly-crescent-shape blade, and has two or more "grinds"—that is, it may be sharpened at both ends as often as may be desired or necessary, until worn too short to be properly clamped in or between the jaws of the handle A.

The handle A is formed of wood, and is first bored axially through its entire length. The lower end of the bore is then enlarged for a short distance, as at A', to receive the stem or shank, A<sup>2</sup>, of the elongated nut A<sup>3</sup>, which nut A<sup>3</sup> has an annular milled head, A<sup>4</sup>, which enables the workman to turn the nut with his fingers. This nut A<sup>3</sup> is provided with an axial bore, A<sup>5</sup>, which bore is threaded to receive the fulcrum-screw A<sup>6</sup> at the lower ends of the levers B' B<sup>2</sup>, and also to receive the threaded shank B<sup>3</sup> of an awl-point, B<sup>4</sup>.

The handle A is provided with two internal longitudinal grooves, C C', at diametrically-opposite sides of the longitudinal bore A', and is sawed or kerfed longitudinally and diametrically through from the neck C<sup>2</sup>, to the inner end of the enlarged bore A' in the base of the handle.

The levers B' B<sup>2</sup> are provided with hollow heads B<sup>5</sup> B<sup>6</sup>, which are open at their inner or meeting faces, and the inner edges of said meeting faces have small semicircular recesses D made therein, which, when the levers B' B<sup>2</sup> are in place in the handle, meet and form the seats for the trunnions D' D<sup>2</sup> of the clamps or jaws E E'. In their tops, at their meeting edges, the hollow heads B<sup>5</sup> B<sup>6</sup> are provided with slits D<sup>3</sup> D<sup>4</sup>, through which the knife-blade is introduced when inserted to place. The head B<sup>6</sup> is provided in its back with a



rectangular opening or slot, F, through which a worm-screw, F', loosely mounted on a short journal, F<sup>2</sup>, fixed in said head B<sup>6</sup>, projects and engages the teeth H of the clamp or jaw E.  
 5 The clamp or jaw E has half-trunnions I I', projecting from its faces just above the projection or shoulder I<sup>2</sup> on its lower end, and this jaw E is provided with a slot or slit, I<sup>3</sup>, for the reception of the knife-blade. The jaw  
 10 E' is much smaller than the jaw E, and rests when in place on the projection or shoulder I<sup>2</sup> of the jaw E. This jaw E' has a central vertical or longitudinal slit, K, which, when the jaw E' is in place, meets the slit I<sup>3</sup> of the  
 15 jaw E, and the two slits together form the seat or sheath for the knife-blade.

Below the heads B<sup>5</sup> B<sup>6</sup> the levers B' B<sup>2</sup> are split or separated, so that where a long blade is introduced into the handle the blade may  
 20 pass through the splits in the levers, and if necessary enter the kerfs in the handle. A ferrule or slotted cap, R, is placed on the neck of the handle and the levers B' B<sup>2</sup> are passed into the handle through this slotted cap.

25 One of the knife-blades, Q, has a projection or shoulder, Q', which assists in retaining it in its place in the handle.

Fig. 2 represents a blade having curved points at its ends and opposite curves intermediate of its ends, with the concave sides of all  
 30 of the curves ground to an edge. To fasten it in the handle the levers are removed, the sheath

being removed from the levers, after which the smallest section of the sheath is put in the place in the top of the lever before occupied by the  
 35 largest section of the sheath, the blade being then inserted in the levers and the levers put back in place in the handle. The S-shaped blade is fastened in the same way.

Having described this invention, what I  
 40 claim, and desire to secure by Letters Patent, is—

1. The combination, with the slitted axially-bored and interiorly and longitudinally grooved handle with the slotted cap or ferrule,  
 45 of the split levers having the heads B<sup>5</sup> B<sup>6</sup>, the worm-screw, the toothed shouldered jaw E, with half-trunnions, the jaw E', with half-trunnions, the lever-screw, and the elongated milled tightening-nut, substantially as speci-  
 50 fied.

2. The combination, with the hollow handle and slotted cap, of the split levers with hollow heads, one of which is provided with a worm-screw, the shouldered jaw E, with half-trun-  
 55 nions, the jaw E', with half-trunnions, the worm-screw, and the elongated nut, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM L. VAN METER.

Witnesses:

F. W. FLOVEL,  
 R. F. LESCHKE.