N. D. CHASE.
AWL.

No. 601,123.

Patented Mar. 22, 1898.

## United States Patent Office.

NEWTON D. CHASE, OF POKEGAMA, CALIFORNIA, ASSIGNOR OF ONE-HALF TO WILMER HILT AND ALLEN HILT, OF HAMBROOK, CALIFORNIA.

SPECIFICATION forming part of Letters Patent No. 601,123, dated March 22, 1898.

Application filed February 15, 1897. Serial No. 623,423. (No model.)

To all whom it may concern:

Be it known that I, NEWTON D. CHASE, a citizen of the United States, residing at Pokegama, in the county of Siskiyou and State 5 of California, have invented certain new and useful Improvements in Awls; and I do hereby 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 to it appertains to make and use the same.

My invention relates to certain improvements in awls, and particularly to that class used by shoemakers, harness-makers, and the like in sewing leather; and my invention pro-15 vides an awl of this character that can be used by unskilled persons to do their own mending and which is so constructed that different thicknesses of thread may be used with equal facility and whereby the thread may be cut 20 when necessary.

To these ends my invention contemplates by the above and other advantages are gained in a simple, effective, and inexpensive man-25 ner, as will be hereinafter fully described, and specifically pointed out in the appended claims.

In the accompanying drawings, Figure 1 represents a side elevation of an awl embody-30 ing my invention, showing it in the act of passing a thread through a piece of leather; and Fig. 2 is a similar view in the act of withdrawing the thread.

Similar reference-numerals indicate corre-35 sponding parts in both figures of the drawings.

1 represents the shank of the awl, which is preferably, but not necessarily, of diamond shape in transverse section, and this shank 40 is provided with a handle 2 at one end, while its opposite end is brought to a sharp point, which is intended to penetrate the leather or other substance in the usual manner.

I provide open recesses 3 and 4 along the 45 shank 1 and slightly above the point, the one marked 3 being cut into the shank, beginning at a point marked 3a and extending upwardly into the body of the shank, the opposite end thereof terminating in a hook 3b, and this hook 50 in practice engages the thread and carries it through the leather. The recess 4, which is I considerable expense.

formed at the opposite side of the shank, begins at a point marked 4a, whence it extends downwardly, terminating in a similar hook 4b to that, 3b, above described, and the pur- 55 pose of this hook is to withdraw the thread, as I will presently describe.

It will be observed upon reference to the drawings that grooves are formed leading from the inner extremity of the recesses 3 and 60 4, from whence they merge into and become flush with the sides of the shank, and the purpose of these grooves is to provide for the accommodation of varying thicknesses of thread and to avoid all unnecessary resistance to the 65 awl when passing through the material, and the extreme points of the hooks are turned slightly inward, so as to fall below the level of the side edges of the awl-shank and thus avoid contact with the material as the awl is 70 passed through.

Near the upper end of the awl-shank 1 I certain novel features of construction where- | provide a thread-cutter 6, which is formed by cutting a notch in its edge and sharpening the edges thereof, so that the thread may be read-75 ily and easily severed.

> In practice the thread is first inserted into the recess 3 and the awl is forced through the material, after which it is withdrawn, leaving the thread therein in the form of a loop, 80 as clearly shown in Fig. 1 of the drawings. The awl is then forced through another portion of the material, and the hook 4, engaging with the loop in the thread, withdraws it, and this operation is repeated as often as nec- 85 essary to form a succession of stitches.

> In order to form a succession of stitches with a double thread, the thread is first looped in the recess 3 and the awl forced through the material, after which the other end of the 90 thread is looped in the recess 4. Then by removing the awl from the leather or other substance both ends of the thread are ready to draw through, and thus a stitch is formed at each insertion of the awl.

It will thus be seen that my invention provides in a very simple manner an awl which can be readily used by inexperienced persons and by which they can easily do their own work of mending, thus avoiding the employ- 100 ment of experienced workmen, which is often

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An awl, comprising a pointed shank of diamond shape in cross-section, provided in its opposite acute edges with curved slots which are reversely extended to form oppositely-projecting hooks, the flat sides of the shank adjacent to the slots being longitudinally grooved so that the ends of the grooves will coincide with the ends of the slot, substantially as specified.

2. An awl, comprising a shank which is diamond shape in cross-section and provided in

V-shaped recesses, such recesses being arranged in the flat sides of the shank which bounds one of the acute edges and said recesses merging to form an oblique cutting edge, substantially as and for the purpose 20 specified.

In testimony whereof I have signed this specification in the presence of two subscrib-

ing witnesses.

NEWTON D. CHASE.

Witnesses:

R. M. BEAN, ALBERT PANKNIN.