(No Model.)

W. B. SWAN.

DRAW SHAVE.

No. 448,464. Patented Mar. 17, 1891.

Fig. 1.

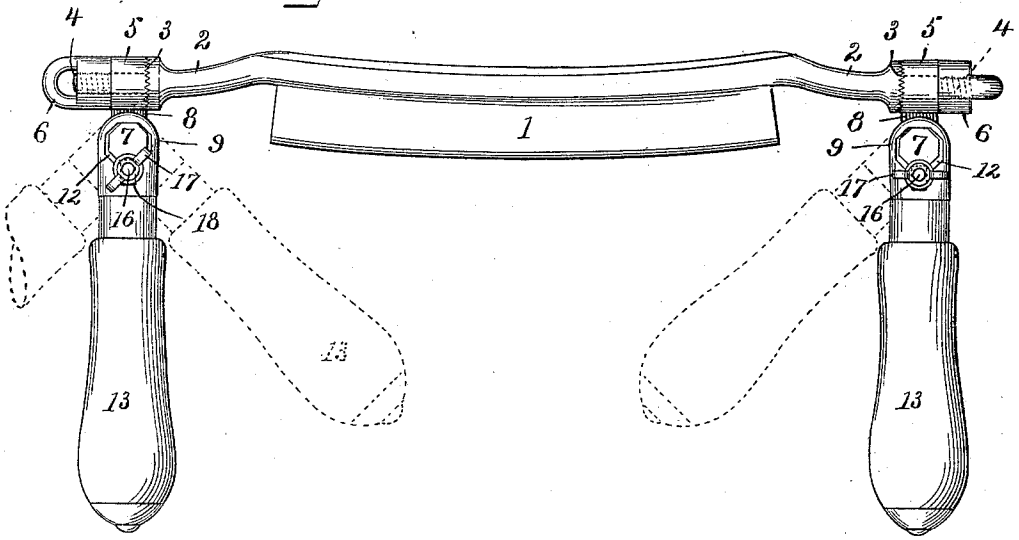


Fig. 2.

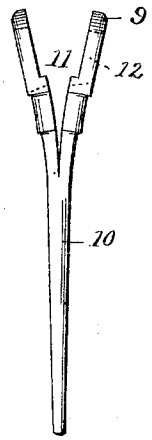


Fig. 3.

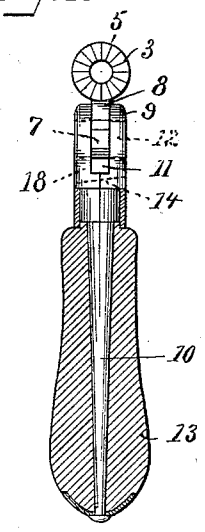
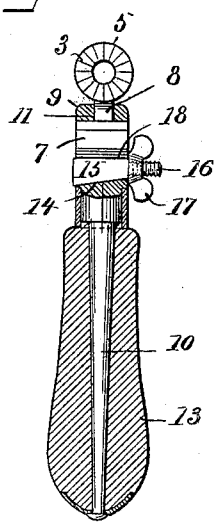


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

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DRAW-SHAVE.

SPECIFICATION forming part of Letters Patent No. 448,464, dated March 17, 1891.

Application filed November 28, 1890. Serial No. 372,855. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. SWAN, a citizen of the United States, residing at Seymour, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Draw-Shaves; 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 it appertains to make and use the same.

My invention relates to the class of draw-shaves illustrated and described in patents to W. B. Swan, No. 386,855, and J. Swan, No. 386,903, dated July 31, 1888, and has for its object to provide a simple, durable, and inexpensive locking device which shall be so constructed as to practically obviate wear in use and to lock the handles rigidly in any required position by the engagement of plane surfaces.

With these ends in view I have devised the simple and novel construction, of which the following description, in connection with the accompanying drawings, is a specification, numerals being used to denote the several parts.

Figure 1 is an elevation of my novel draw-shave, different adjustments of the handles being indicated by full and dotted lines; Fig. 2, a view of the shank and ears before the ears are sprung together; Fig. 3, a view of one of the handles detached, the shank and ears being in elevation, the wedge removed, and the hand-piece in section; and Fig. 4 is a view of a handle detached, the ears being in section to show the engagement of the wedge with the polygonal block carried by the collar.

1 denotes the blade, and 2 the blade-shanks, each of which is provided with a set of ratchet-teeth 3, facing outward, and is screw-threaded at its outer end, as at 4. (See dotted lines.)

5 denotes collars adapted to turn freely on the shanks and provided with ratchet-teeth, which engage teeth 3, and 6 thumb-nuts, which engage threads 4 to lock the collars in position, this being the adjustment by which the handles may be locked in any desired position relatively to the plane of the blade, as in the patent of J. Swan referred to.

7 denotes polygonal blocks, which are formed integral with or rigidly secured to the collars, said collars and blocks being connected by necks 8. The handles consist of the usual hand-pieces denoted by 13, which are provided with ears 9 at their upper ends. In practice the ears are preferably formed integral with shanks 10, which extend through the hand-pieces and are riveted at the lower ends thereof. The shanks and ears may be made of malleable iron and cast as in Fig. 2, the shank being split some distance down from the ears. In assembling the two portions of the shank are sprung together, leaving the ears parallel with each other and an opening 11 between them to receive the neck, as is clearly shown in Fig. 3.

12 denotes a transverse polygonal opening through the ears, which receives block 7 loosely, the planes bounding the opening corresponding with the planes of the block, said block and opening being in the present instance made octagonal.

18 denotes a transverse opening through the ears below opening 12 and leading into it, the sides thereof being parallel and the bottom consisting of an incline 14.

15 denotes a wedge lying in opening 18, said wedge having an inclined side to correspond with incline 14 and a straight side to correspond with the planes of the block, and being furthermore provided with a threaded shank 16, which is engaged by a thumb-nut 17. In order to adjust the handles in or out relatively to the cutting-edge, it is simply necessary to loosen the thumb-nuts on the shanks of the wedges, leaving the latter loose in openings 18, and consequently leaving the polygonal blocks loose in openings 12, so that the handles may be swung in or out freely. Having placed the handles at the required adjustment, the thumb-nuts are tightened up, causing the inclined sides of the wedges to engage inclines 14 and the straight sides of the wedges to engage the polygonal blocks, forcing the latter against the upper portions of the polygonal openings through the ears and locking the handles rigidly to the blocks, the wedges being approximately the width of the planes of the blocks and the entire back of each wedge being in engagement with one of the planes, so that the handles are locked per-

fectly rigid by the engagement of plane surfaces instead of by friction.

Having thus described my invention, I claim—

1. The collars having polygonal blocks 7, in combination with the handles having ears with transverse polygonal openings through them to receive the blocks loosely, and transverse inclines, and wedges adapted to engage the inclines and the planes of the blocks, whereby the handles may be locked at any desired adjustment relatively to the cutting-edge.

2. The handles having ears with transverse polygonal openings through them and inclines at the bottoms of said openings, in combination with polygonal blocks upon the blade-shanks engaging said openings loosely, and wedges in said openings adapted to engage the inclines and the planes of the polygonal blocks.

3. The combination, with the handle having ears 9, with polygonal transverse openings through them, and inclines 14, of collars upon the blade-shanks having polygonal blocks engaging said openings loosely, and wedges adapted to engage said openings and the planes of the blocks and provided with threaded shanks, and nuts on said shanks whereby the wedges may be drawn inward to lock the handles at any desired adjustment.

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

WILLIAM B. SWAN.

Witnesses:
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