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J. J. MATWIJCOW

2,877,553

SCALPEL

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Fig. 1

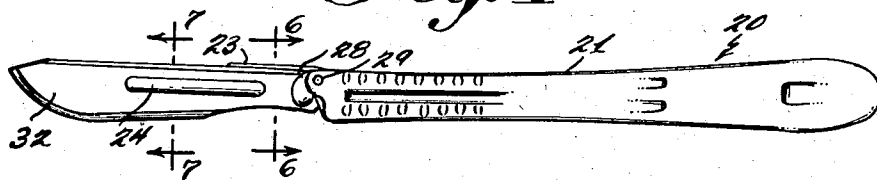


Fig. 2

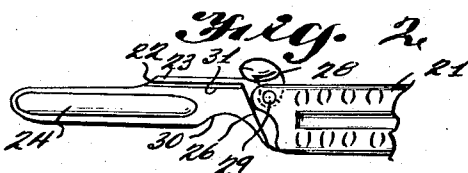


Fig. 3



Fig. 4



Fig. 5

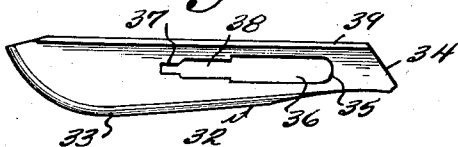


Fig. 6 *Fig. 7*

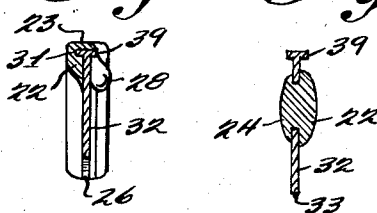


Fig. 8

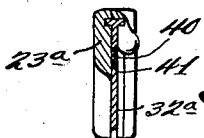
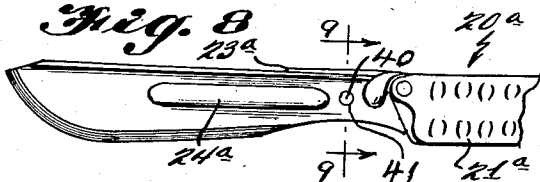


Fig. 9

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5 Claims. (Cl. 30—339)

The present invention relates to scalpel handles, and more particularly to handles for holding replaceable scalpel blades.

The primary object of the invention is to provide a scalpel blade handle having means thereon for positively locking the scalpel blade in position for use.

Another object of the invention is to provide a scalpel handle to which standard scalpel blades can be detachably secured.

A further object of the invention is to provide a combined scalpel handle and detachable scalpel blade therefor having cooperating means for positively restricting the scalpel blade against displacement from the handle.

A still further object of the invention is to provide a scalpel handle which is inexpensive to manufacture, simple to use, and one in which a scalpel blade can be fastened without the use of special tools.

Other objects and advantages will become apparent in the following specification when considered in the light of the attached drawings, in which:

Figure 1 is a side elevation of the invention with the scalpel blade positioned therein.

Figure 2 is a fragmentary side elevation, similar to Figure 1, with the scalpel blade removed.

Figure 3 is a fragmentary side elevation taken from the side opposite to Figure 1, with the scalpel blade in position.

Figure 4 is a fragmentary top plan view of the invention with the scalpel blade removed.

Figure 5 is a side elevation of one of the scalpel blades used with the invention.

Figure 6 is an enlarged fragmentary transverse cross-section taken along the line 6—6 of Figure 1, looking in the direction of the arrows.

Figure 7 is an enlarged fragmentary transverse cross-section taken along the line 7—7 of Figure 1, looking in the direction of the arrows.

Figure 8 is a fragmentary side elevation of a modified form of the invention illustrated in Figure 1.

Figure 9 is an enlarged fragmentary transverse cross-section taken along the line 9—9 of Figure 8, looking in the direction of the arrows.

Referring now to the drawings in detail wherein like reference characters indicate like parts throughout the several figures, the reference numeral 20 indicates generally a scalpel handle constructed in accordance with the invention.

The scalpel handle 20 includes an elongated generally flat shank 21 having an offset blade supporting extension 22 laterally offset from the longitudinal center line of the shank and integrally extending from one end thereof. A horizontal flange 23 is integrally formed along the upper edge of the blade support 22 adjacent the shank 21.

The blade support 22 has a longitudinally extending elongated boss 24 formed thereon. The boss 24 and the blade support 22 have an elongated slot 25 formed therebetween along the upper and lower edges thereof and at the end thereof opposite the shank 21. The slot 25 adja-

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cent the end thereof opposite the shank 21 is relatively deep and has a shallower portion extending toward the shank 21.

The shank 21 at the juncture thereof with the blade support 22 is provided with an upwardly and outwardly sloping shoulder 26, for reasons to be assigned. The shank 21 at the end thereof carrying the blade support 22 is longitudinally slotted at 27 and has a cam lock 28 positioned therein and pivotally secured therein by a pin 29.

The lower edge of the blade support 22 is upwardly recessed at 30, as seen in Figures 2 and 3, for reasons to be assigned. The blade support 22 is provided with a longitudinally extending horizontal groove 31 positioned adjacent to the flange 23.

A flexible scalpel blade, generally indicated at 32, is provided with a sharpened edge 33 and an upwardly and forwardly tapering rear edge 34. An elongated slot 35 has a relatively wide portion 36 adjacent the rear edge 34 of the blade 32 and a relatively narrow portion 37 adjacent the opposite end of the groove 35 with the central portion 38 of the groove 35 having a width intermediate the width of the opposite ends 36, 37 thereof. The blade 32 has the upper edge thereof provided with a T-shaped flange 39 to provide strength for the blade 32 and to engage in the groove 31, as is best seen in Figure 6.

In installing the blade 32 onto the handle 20, the blade 32 is brought into contact with the blade support 22 and the portion 36 of the slot 35 is engaged over the boss 24 with the edges of the blade 32 surrounding the slot 35 engaging in the groove 25. The contact of the blade 32 with the blade support 22 serves to guide the blade 32 into the groove 25.

The blade 32 is then pushed rearwardly on the handle 20 until the rear edge 34 thereof contacts the shoulder 26 whereupon the cam lock 28 is pivoted on the pin 29 so as to engage over the rear edge of the blade 32, locking the flange 39 in contact with the flange 23 as well as in the groove 31, and simultaneously locking the rear edge 34 of the blade 32 against the shoulder 26.

Referring now to the modifications illustrated in Figures 8 and 9, a handle 20a having a blade support extension 23a is constructed substantially identical to the handle 20 with the exception that a cylindrical boss 40 is carried on the blade support 23a between the boss 24a and the shank 21a. The blade 32a is provided with a bore 41 to engage over and tightly contact the cylindrical boss 40 to assist in holding the blade 32a on the handle 20a.

In the removal of the blades 32 and 32a from the respective handles 20 and 20a, the cam lock 28 is swung upwardly out of contact with the blade 32 and a finger of the user extending through the recess 30 engages the edge of the blade 32 adjacent the shank 21 swinging it outwardly away from the shoulder 26 to remove the rear edge of the slot 35 from contact with the boss 24. After the blade 32 is unseated it is slid forwardly off of the boss 24 and out of contact with the handle 20.

It should be noted that the bosses 24 and 24a slope inwardly on approaching the shank 21 to prevent the blade 32 from binding while moving through the slot 25.

Having thus described the preferred embodiments of the invention, it should be understood that numerous structural modifications and adaptations may be resorted to without departing from the scope of the appended claims.

What is claimed is:

1. A scalpel comprising a shank, a blade support extending integrally forwardly from one end of said shank in laterally offset relation to the longitudinal center line of said shank, a forwardly and upwardly sloping shoulder formed integrally on said shank at the juncture of said shank with said blade support, an elongated boss inte-

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grally formed on said blade support in aligned relation with said shank and provided with generally parallel upper and lower edges, said elongated boss tapering with decreasing thickness from the forward end portion thereof toward the opposite end thereof, said boss having a slot 5 formed in each of the parallel upper and lower edges thereof adjacent said blade support, and a flexible blade having an elongated slot formed therein removably engaging over said boss in the slots therein, said blade having a rear edge engaging against said shoulder, said tapered boss permitting the rear end portion of said blade 10 when flexed to move freely forwardly detaching the edges of said blade slot from the slots in said boss to detach said blade from said boss.

2. A device as claimed in claim 1 wherein movable 15 locking means is provided on said shank for engaging over the rear end portion of said blade to releasably lock said blade in engagement with said blade support.

3. A device as claimed in claim 1 wherein said blade support is provided with a longitudinally extending perpendicular flange formed on the rear end portion of one edge thereof adjacent said shank for engagement with the rear end portion of one edge of said blade. 20

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4. A device as set forth in claim 1 wherein said blade support extends beyond said boss vertically and longitudinally to provide a guide surface for guiding said blade into the slots in said boss.

5. A device as set forth in claim 1 wherein said blade support is provided with a cylindrical boss on the side thereof carrying said elongated boss between said elongated boss and said shank, and said blade is provided with a cylindrical bore spaced from said slot therein for engagement with said cylindrical boss to releasably lock 10 said blade on said elongated boss.

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