

Nov. 22, 1960

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2,960,769

SCALPEL HANDLE

Filed July 10, 1959

Fig. 1

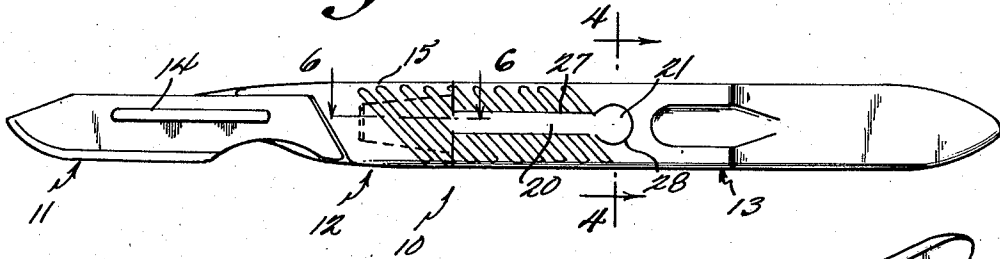


Fig. 2

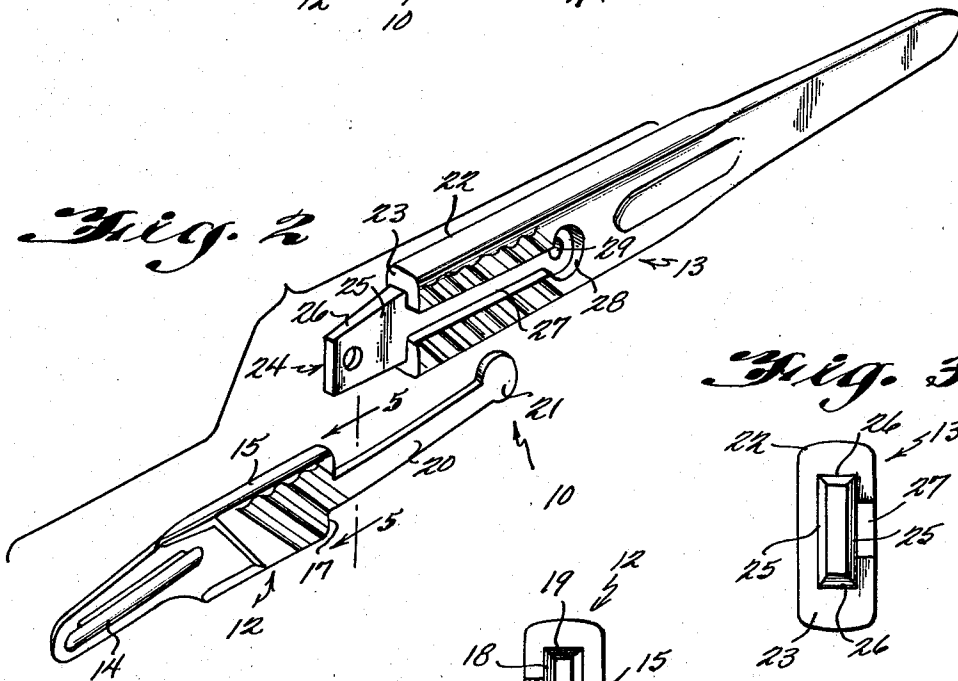


Fig. 3

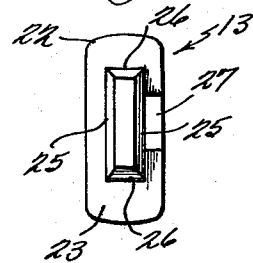


Fig. 5

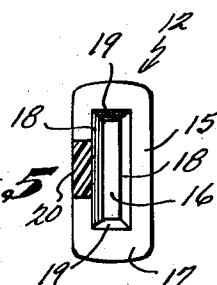


Fig. 4

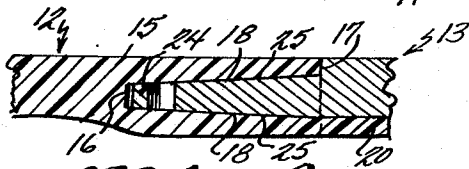
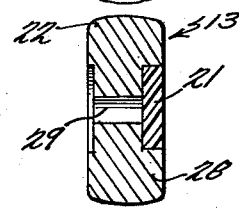


Fig. 6

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2,960,769

SCALPEL HANDLE

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Filed July 10, 1959, Ser. No. 826,300

4 Claims. (Cl. 30—340)

The present invention relates to a scalpel handle and particularly to a scalpel handle of the type used with replaceable scalpel blades.

The present invention is an improvement on my prior Patent No. 2,877,553, dated March 17, 1959, entitled "Scalpel."

The primary object of the invention is to provide a scalpel handle having a plastic blade supporting portion and a metallic portion detachably coupled together in end-to-end relation so as to form a scalpel handle having the feel of a conventional metal handle and the advantages of the plastic blade supporting portion of the handle.

Scalpels of the kind to which this invention relates, as ordinarily known and used, are generally comprised of a handle and a removable blade which interlocks with the handle. These commonly known handles are usually of metal and require skilled machine finishing for production of the portion thereof which interlocks with the blade. In the present invention the portion of the handle which interlocks with the blade is formed of plastic with the remaining part of the handle formed of metal. In this manner the entire handle can be produced at a very minimum of cost since the plastic portion can be produced in finished condition by molding same and the metal portion can be formed by die casting. A further advantage obtained with this structure is that the handle has sufficient weight to have the proper "feel" and strength, while requiring no machine work to finish. Furthermore, by reason of the novel interlocking means between the blade supporting portion and the metal portion of the handle, assembly can be quickly made without the use of special tools. The portions of the handle may be disassembled for sterilization or any other desired purpose, by use of a relatively thin probe of a conventional nature.

Another object of the invention is to provide a handle of the class described above in which the interlocking structure of the portions thereof are spring biased into interlocking contact.

A still further object of the invention is to provide a handle structure of the class described above formed of an integral blade supporting portion and a separate integral handle forming portion which are formed for interlocking connection without requiring additional separate interlocking members.

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

Figure 1 is a side elevation of the invention;

Figure 2 is an exploded perspective view of the invention;

Figure 3 is an enlarged end elevation of the handle extension;

Figure 4 is an enlarged transverse vertical cross-section

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taken along the line 4—4 of Figure 1, looking in the direction of the arrows;

Figure 5 is an enlarged transverse vertical cross-section taken along the line 5—5 of Figure 2, looking in the direction of the arrows; and

Figure 6 is an enlarged fragmentary longitudinal cross-section taken along the line 6—6 of Figure 1, 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 10 indicates generally a scalpel handle constructed in accordance with the invention.

The scalpel handle 10, as illustrated in Figure 1, supports a detachable cutting blade, generally indicated at 11, in the manner more fully disclosed in my aforementioned prior patent. The handle 10 includes a blade supporting portion, generally indicated at 12, formed of plastic material, and a metallic shank, generally indicated at 13, formed of metal.

The plastic blade supporting portion 12 is normally formed in any well known plastic mold and the shank 13 is normally formed in any well known die casting apparatus.

The blade support 12 has an elongated boss 14 formed thereon to support the blade 11 and is provided with a body 15 extending oppositely therefrom. The body 15 has a socket 16 opening through the end 17 thereof oppositely of the blade 11. The socket 16 has a pair of flat inwardly converging side walls 18 arranged in spaced apart opposed relation and a pair of inwardly converging flat end walls 19, arranged in spaced apart opposed relation. The end walls 19 extend between and connect the side walls 18, as is clearly shown in Figure 5.

A longitudinally extending bar 20 is integrally formed with the body 15 and extends outwardly from the end 17 thereof on one side of the socket 16. As can be seen in Figure 2, the bar 20 curves inwardly toward the center line of the body 15 and terminates in an enlarged circular head 21 integrally formed on the end thereof opposite the end wall 17.

The shank 13 includes a body 22 having a cross sectional shape substantially the same as the cross sectional shape of the body 15. The body 22 has a transverse end 23 extending perpendicularly thereacross and arranged to be brought into contacting relation with the end 17 of the body 15. A tongue 24 extends longitudinally outwardly from the end 23 of the body 22 and is provided with a pair of outwardly converging side walls 25 arranged in spaced apart opposed relation and joined by a pair of outwardly converging end walls 26, also arranged in spaced apart converging relation.

The tongue 24 is formed so that the side walls 25 thereof and the end walls 26 respectively snugly engage the side walls 18 and the end walls 19 of the socket 16 when the end 23 of the body 22 is in contact with the end 17 of the body 15.

The body 22 has a longitudinally extending, generally rectangular slot 27 formed in one side thereof and also opening through the end 23, as is clearly shown in Figure 2. The slot 27 has a circular recess 28 formed at the inner end thereof, as is also clearly shown in Figure 2. The slot 27 has a dimension to snugly receive the bar 20 and the circular recess 28 is formed to snugly receive the circular head 21 when the blade support 12 is mounted on the shank 13 with the end 17 thereof in contact with the end 23 of the shank 13.

The nature of the plastic material from which the blade support 12 is formed is such that the bar 20 tends to resiliently retain its arcuate form so that the head 21 is spring biased into seating relation in the circular re-

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cess 28 to maintain the head 21 in the circular recess 28, while the handle 10 is in use. The bar 20 is flexible so that it can be laterally displaced during the assembly of the blade support 12 to the shank 13. The tongue 24 is somewhat shorter than the bar 20 so that the circular head 21 on the end of the bar 20 can be engaged against the side of the body 22 on opposite edges of the slot 27 before the tongue 24 is moved into the socket 16. With the circular head 21 in engagement with the side of the body 22, movement of the blade support 12 into a position to align the tongue 24 with the socket 16 will flex the bar 20 outwardly away from the center line of the body 15.

The blade support 12 is then pressed toward the shank 13 until the end 17 thereof contacts the end 23 of the body 22 whereupon the circular head 21 will become aligned with the circular recess 28 and due to the inherent springiness of the bar 20 will snap into seated position in the circular recess 28.

The body 22 has a transverse bore 29 extending there-through and opening through the bottom of the circular recess 28 in axial alignment with the circular recess 28. When disassembling the blade support 12 from the shank 13, a probe such as a pencil point, nail, or the like, is moved through the bore 29 into engagement with the underside of the circular head 21 so as to force the circular head 21 laterally outwardly, disengaging the circular head 21 from the circular recess 28 so that the blade support 12 can be slipped off to the shank 13.

Having thus described the preferred embodiment 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 handle for use with detachable blades comprising a blade support, means on said blade support for securing a detachable blade thereto, a shank arranged in longitudinally aligned relation to said blade support, a tongue integrally formed on one end of said

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shank, said blade support having a socket formed therein to receive said tongue, and integral resilient means on said blade support releasably locking said blade support to said shank with said tongue positioned within said socket, said shank having an elongated slot formed in one side thereof, said slot opening through said one end thereof, said shank also having an enlarged circular recess formed therein communicating with said slot at the end of said slot opposite said one end of said shank, said resilient integral means on said blade support comprising an elongated integral bar extending longitudinally of said blade support and an enlarged circular head formed on the end of said bar opposite said blade support, with said blade support assembled on said shank, said bar engaging in said slot and said circular head engaging in said circular recess.

2. A device as claimed in claim 1 wherein said shank has a transverse bore extending therethrough terminating centrally of said circular recess, said bore giving access to a probe to dislodge said circular head from said circular recess when disassembling said handle.

3. A device is claimed in claim 1 wherein the means on said blade support for securing a detachable blade thereto includes an elongated boss formed on the end of said blade support opposite said socket and a pocket including an end wall adapted for engagement with the end of a blade and a pair of flanges extending from said end wall along the edges of said blade support adapted to engage the opposite edges of a blade.

4. A device as claimed in claim 1 wherein said blade support is formed of molded plastic material for simplicity of construction and said shank is formed of metal, to give desired weight to said device.

References Cited in the file of this patent

UNITED STATES PATENTS

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2,650,426	Montelius	Sept. 1, 1953