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A. S. SKLAR

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DETACHABLE BLADE KNIFE

Filed Aug. 16, 1924

Fig. 1

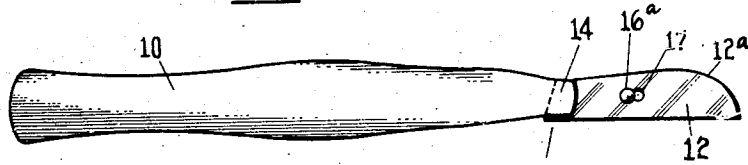


Fig. 2

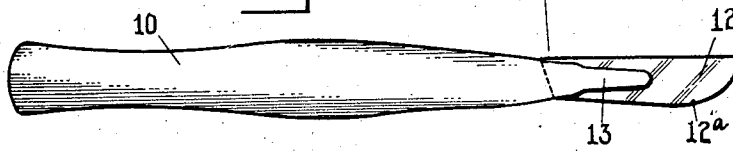


Fig. 3

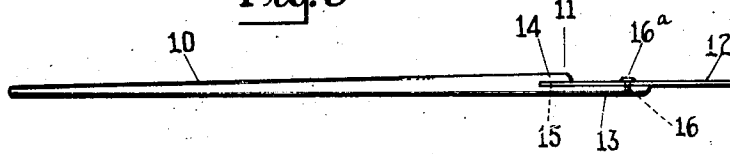


Fig. 6

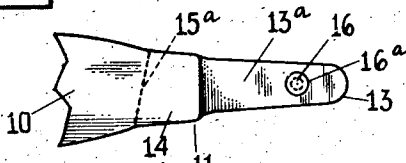


Fig. 7

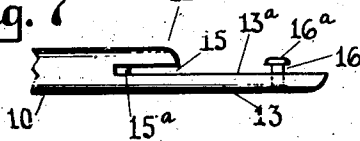


Fig. 4

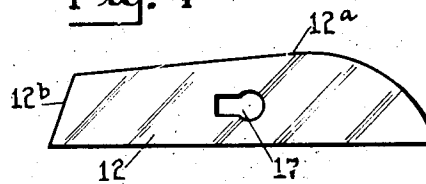
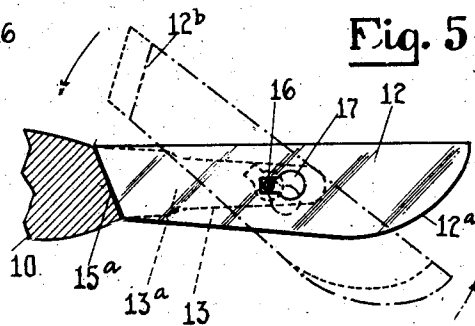


Fig. 5



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DETACHABLE-BLADE KNIFE.

Application filed August 16, 1924. Serial No. 732,392.

This invention relates to knives, and more particularly to knives having detachable blades, such as scalpels or other like instruments adapted for use by surgeons.

5 An object of the invention is the provision of a knife of the character described which permits easy and quick interchanging of blades without the hazard of cutting the operator and which is constructed of few and
10 simple parts, is relatively inexpensive to manufacture, exceedingly simple and easy to manipulate and efficient in operation to a high degree.

Other objects of this invention will in
15 part be obvious and in part be hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which
20 will be exemplified in the construction hereinafter described and of which the scope of application will be indicated in the following claims.

In the accompanying drawing, in which is
25 shown one of the various possible illustrative embodiments of this invention,

Fig. 1 is a view in side elevation of the knife embodying the invention;

Fig. 2 is a side-elevational view of the opposite side of the knife shown in Fig. 1;

Fig. 3 is a top plan view of the knife shown in Fig. 2;

Fig. 4 is an enlarged view of the blade removed from the handle;

Fig. 5 is an enlarged fragmentary view, partly in section, of the blade shown mounted on the fastening and supporting
35 portion of the handle;

Fig. 6 is an enlarged fragmentary view in side elevation showing the blade fastening and supporting portion of the handle; and

Fig. 7 is an enlarged fragmentary plan view of the blade fastening and supporting portion of the handle shown in Fig. 6.

Referring in detail to the drawing, 10 indicates a handle or holder of suitable form or shape having at one end a blade supporting and fastening portion 11 on which is detachably mounted a blade 12. The portion
45 11 comprises a long prong 13, a shorter prong 14 parallelly disposed thereto and separated therefrom by a slot 15. A button-head pin 16 is secured to and upstands

from the side of prong 13 on the side facing the prong 14 and is spaced from the latter
55 as shown in Figs. 3 and 7.

Blades for the holder 10 are formed preferably of thin sheet metal and can be easily and cheaply stamped out of a sheet, by any conventional well known method. In Fig.
60 4 is shown a blade 12 having a cutting edge 12^a and a central eyelet button-hole opening 17 positioned longitudinally in the mid-section thereof with the larger end of the said opening 17 toward the pointed or forward
65 end of the blade.

From Fig. 5, where the knife blade is shown in a position for cutting downwardly, it will be seen that the rear end 12^b of the blade 12 slides downwardly and forwardly
70 being formed so as to correspond to the shape of the bottom 15^a of the slot 15 in portion 11.

In the blade attaching operation, the blade 12 is placed against flat surface 13^a of the
75 long prong 13 with the enlarged portion of opening 17 fitted over the button-head 16^a of pin 16 and with the longitudinal axis of blade 12 positioned at an angle with the longitudinal axis through the portion 11 as
80 shown in dotted lines in Fig. 5. By sliding the blade 12 forward to the position shown in the dot and dash lines, the pin 16 is moved into the narrow portion of the opening 17 and the button head 16^a interlocks the blade
85 12 with the prong 13. The blade 12 is then pivotally swung in the direction indicated by the arrows, until the rear end portion of blade 12 occupies the slot 15 with the side
90 12^b of the blade abutting the bottom 15^a of the slot, whereby the holder portion 11 securely fastens and rigidly supports the blade 12 in place on the handle 10. The slot 15 is made to snugly embrace the said rear portion of the blade.
95

To detach or replace the blade 12 the above described operations are reversed.

It will be noted that the rear end 12^b of the blade by reason of its sloping construction co-acts with the bottom 15^a of the slot, the surface 13^a of the large prong, and the
100 pin 16 to form a wedging supporting and fastening structure of substantial and simple design.

It will thus be seen that there is provided
105 a device in which the several objects of this

invention are achieved and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

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

1. A knife handle having a blade supporting and fastening portion comprising a long prong, a short prong parallelly arranged with respect thereto with a slot between said prongs and a button head pin secured centrally of said long prong at a spaced distance from the end of the short prong in combination with a detachable blade having a central button-hole opening in the mid-section portion thereof for interlocking with said pin, a longitudinal cutting edge on said blade and a rear end extending upwardly and outwardly with respect to said edge, said slot adapted to receive the rear portion of said blade and the bottom side of said slot being shaped to co-operate with said rear end of the blade to securely wedge the latter in position.

2. A knife having a blade supporting and fastening portion comprising two parallelly arranged rigid prongs of unequal length with a slot between, a button head pin secured to central of the longer of said prongs at a spaced distance from said shorter one, a blade having a central button hole opening for detachably interlocking with said pin and for swinging the blade into position into said slot to be embraced by said prongs.

3. A knife having a blade supporting and

fastening portion comprising two parallelly arranged rigid prongs of unequal length with a slot between, a blade, a longitudinal cutting edge on said blade, a rear end extending upwardly and outwardly with respect to said edge, and means for detachably interlocking the longer of said prongs with the blade and for swinging the latter into position into said slot to be embraced by said prongs, said slot adapted to receive the rear portion of said blade and the bottom side of said slot being shaped to co-operate with said rear end to securely wedge the blade in position on said portion.

4. A knife having a blade supporting and fastening portion comprising two parallelly arranged rigid prongs of unequal length with a slot between, a pin secured to the longer of said prongs and a detachable blade having means thereon for slidingly interlocking with said pin, the rear end portion of said blade adapted to swing into position into said slot to be embraced by said prongs.

5. A knife handle having a blade supporting and fastening portion comprising two parallelly arranged rigid prongs of unequal length with a slot between, and a pin secured in the longer of said prongs, in combination with a detachable blade having a longitudinal cutting edge, a rear end extending upwardly and outwardly with respect to said edge and means on said blade for slidingly interlocking with said pin, the rear portion of said blade adapted to swing into position into said slot to be embraced by said prongs, and the bottom side of said slot being shaped to co-operate with said rear end of the blade to securely wedge the blade in position on said handle.

In testimony whereof I affix my signature.

ALBERT S. SKLAR.