(No Model.)

L. SCHWAB.

SURGICAL BLADE AND HANDLE.

No. 366,432. Patented July 12, 1887.

Fig. 1.

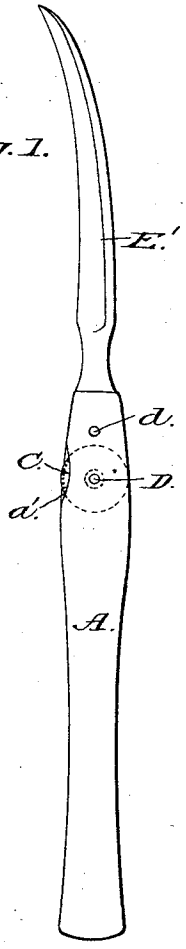


Fig. 3.

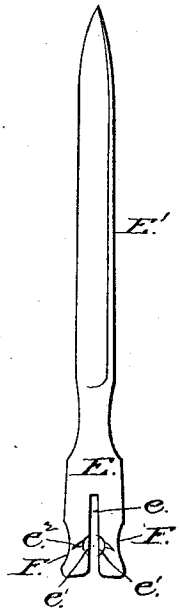


Fig. 2.

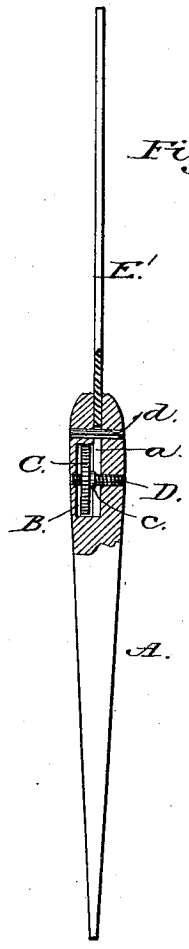


Fig. 4.

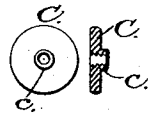
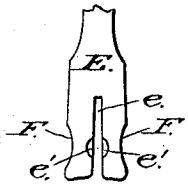


Fig. 5.



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UNITED STATES PATENT OFFICE.

LEONHARD SCHWAB, OF BROOKLYN, NEW YORK.

SURGICAL BLADE AND HANDLE.

SPECIFICATION forming part of Letters Patent No. 366,432, dated July 12, 1887.

Application filed April 11, 1887. Serial No. 234,441. (No model.)

To all whom it may concern:

Be it known that I, LEONHARD SCHWAB, of Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Surgical Instruments, of which the following is a full, clear, and exact description.

My invention relates to an improvement in surgical instruments whereby various instruments—such as scissors, hooks, saws, and lancets, or various forms of blades—may be readily, quickly, and alternately inserted in one handle, and wherein the instruments will be held safe and firm and be found perfectly reliable when used in an operation, and whereby, also, the various instruments may be easily kept clean.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a handle having a blade inserted; and Fig. 2 is an edge view, partly in section. Fig. 3 is a side elevation of a detached blade. Fig. 4 is a side elevation and central section of the thumb-nut; and Fig. 5 is a partial elevation of a blade, illustrating the opposite side of the shank to that shown in Fig. 3.

In carrying out the invention the handle A, which may be constructed of any suitable material, is provided with an upper longitudinal slot, *a*, extending the width of said handle, and an intersecting recess, B, at one side of said slot adapted to extend from the base above the center of slot *a*.

Within the recess B a thumb-wheel, C, is held to travel upon a threaded pin, D, projected through the handle from side to side. The said thumb-wheel is provided centrally on the side facing the slot *a* with an annular projection, *c*, and the handle above the thumb-wheel is provided with a rivet, *d*, projecting through from side to side, preferably in alignment with and in similar manner to the threaded pin D, which pin serves as a brace and also as a means for retaining the instrument in position. In one edge of the handle A a concave surface, *a'*, is produced, whereby the milled periphery of the thumb-wheel C may be readily engaged by the operator.

The shank E of the instrument E', adapted for use with the handle, is made flat and of a width equal to the width of said handle, being provided with a central longitudinal slot, *e*, and aligning semicircular recesses *e'* upon each side of said slot and upon each face of the shank, the recesses upon one face being immediately over those upon the other. One face of the shank is provided with a transverse semicircular groove, e^2, to facilitate the withdrawal of the instrument from the case.

In operation the thumb-wheel is turned upon the threaded pin away from the slot *a*, which is accomplished by a partial revolution of said wheel, and the shank of the instrument is inserted in the handle, the slot *e* in said shank passing over the threaded pin and the rivet, whereby the said shank is permitted to come in contact with and rest upon the bottom of the handle-slot *a*. As the shank is provided with opposite concave edge surfaces, F, no matter how the instrument stands in relation with the handle one concave surface F will register with the concave surface *a'* of the handle. The wheel may therefore be given a slight turn with dispatch and ease, bringing the projection thereon in close and rigid contact with one set of concaved recesses *e'* in the shank. The instrument may now be used and relied upon in use as though the said instrument and handle were integral.

It will be observed that a number of instruments may be alternately inserted in and released from the handle with great dispatch and ease, and that but little space will be required to transport a number of instruments of various kinds.

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

The combination, with a surgical instrument provided with a shank having a central longitudinal slot, and semicircular align-

ing depressions upon opposite faces of said shank and at each side of said slot, of a detachable handle provided with a vertically-slotted head, a recess intersecting the base of said slot, and a thumb-wheel held to travel in said recess, provided with a central circular convex surface upon one face adapted to engage the aligning depressions in one face of said shank, substantially as herein shown and described, and for the purpose herein set forth.

LEONHARD SCHWAB.

Witnesses:
FREDK. L. MAYER,
ALEX. KOPPEL.