

(No Model.)

W. SCHEERER.
SURGICAL INSTRUMENT.

No. 521,555.

Patented June 19, 1894.

Fig.1. Fig.2. Fig.3. Fig.4. Fig.5. Fig.6.

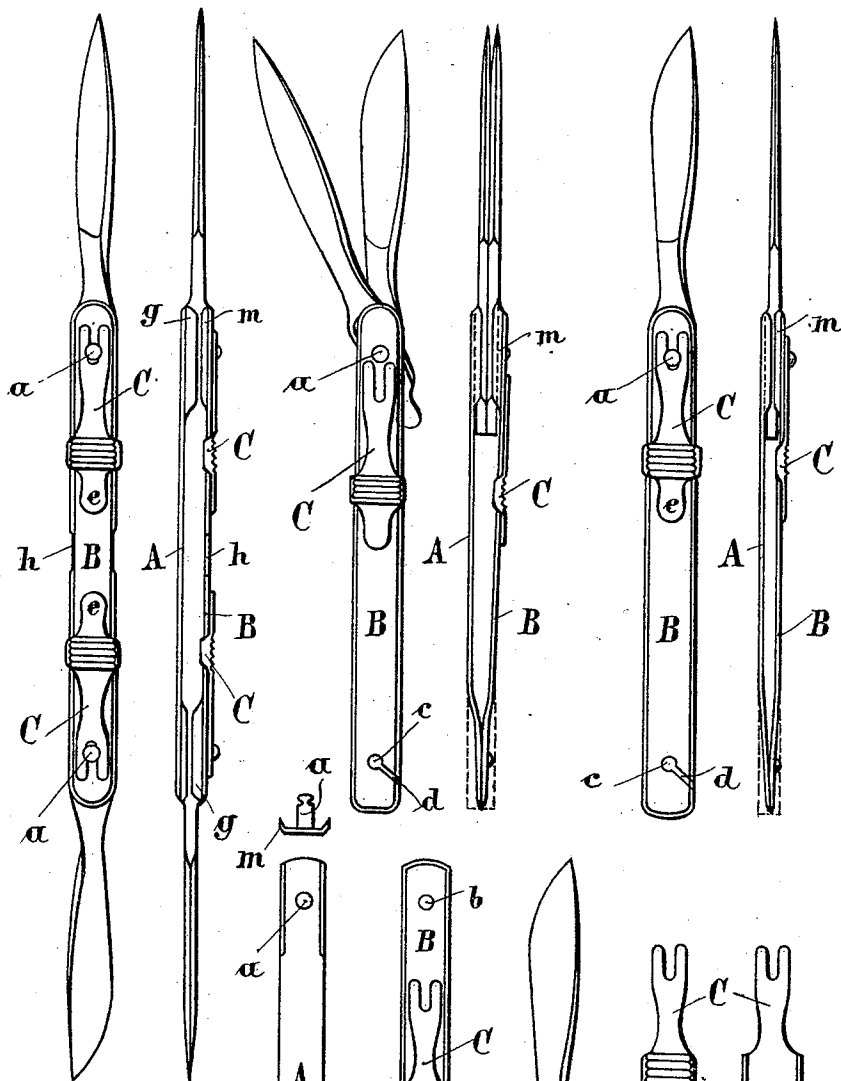


Fig.7.

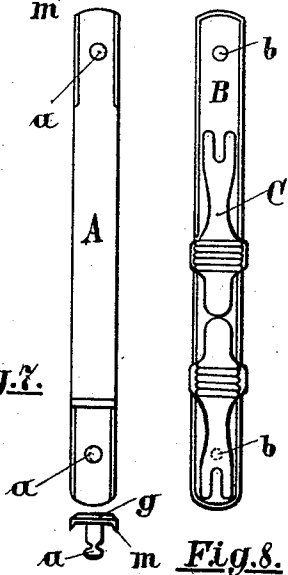


Fig.8.



Fig.9.

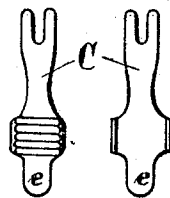


Fig.10.

Attest:

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WILHELM SCHEERER, OF TUTTLINGEN, GERMANY.

SURGICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 521,555, dated June 19, 1894.

Application filed June 3, 1893. Serial No. 476,451. (No model.)

To all whom it may concern:

Be it known that I, WILHELM SCHEERER, a subject of the King of Württemberg, residing at Tuttlingen, Württemberg, in the Empire of Germany, have invented new and useful Improvements in Surgical Instruments, of which the following is a specification.

The present invention relates to separable scalpels, or bistouries, or similar surgical instruments, and its object is to provide an instrument in which the blade shall be securely and firmly locked in position, both in an open and a closed position, and in which the instrument can, at the same time, be readily taken apart for cleaning the same. To attain these objects, an instrument embodying my invention comprises a blade, in combination with a haft or handle composed of two scales which, at their upper ends, are longitudinally flanged or provided with lips adapted to overlap the sides of the tang or talon of the blade. The blade is provided, at its tang, with a perforation, and, when in position, a round pivot-pin from one of the scales of the haft passes through such perforation and through a perforation on the opposite scale. When the scales are made of spring-metal, their resilience would, in many cases, be sufficient to hold the blades in position, but, as an additional measure of security, I provide a slide embracing and adapted to slide on one of the scales, and whose forked end engages lateral notches on the pivot-pin, thereby securely locking the blade.

My invention, moreover, consists in such further features, details of construction, and combinations of parts as will be hereinafter described and pointed out in the claims.

In the drawings accompanying this specification—Figure 1 represents a side view of a two-blade bistoury embodying my invention; Fig. 2 an edge view thereof; Figs. 3 and 4 a side view and an edge view of a slightly modified form; Figs. 5 and 6 similar views of another modification, viz: a one-blade bistoury; Fig. 7 an inner view and two end views of one of the scales and the bistoury-haft; Fig. 8 a side view of the bistoury closed, one of the locking slides being in engagement with, and the other withdrawn from, the pivot-pin; Fig. 9 a side view and a transverse section of

the bistoury-blade or knife, and Fig. 10 detail views of the locking slide.

The bistoury represented in the drawings is distinguished from those hitherto made, by the form and construction of the scales of the haft or handle and the means for locking the blades. The former are made each of one piece and generally of metal. They may be readily assembled and separated. For this purpose, the scale, A, of the handle is provided, at its top, with the round pivot-pin, *a*, for the blades, the said pivot-pin being riveted to the said scale, A. The scale, B, is provided with a corresponding round opening, *b*. The scale, A, is, moreover, provided, at its lower end, with a second pivot-pin, *c*, whose end is provided with a rounded enlargement, while the scale, B, is provided, at the corresponding end, with an open slot corresponding in width to the diameter of the pin, *c*. The pivot-pin, *a*, having been inserted into the perforations in the tangs of the blades, the scale, B, is slipped onto the pin, *c*, and the scale is then turned until the opening, *b*, is directly over the pivot-pin, *a*. When the scale, B, is now released, its elasticity causes it to bear tightly upon the blade. In order to guard against any accidental disconnection, a forked locking slide, C, is provided, which is adapted to slide forward so that its forked end engages with the lateral notches in the pivot-pin, *a*. The said lateral notches are best shown in Fig. 7. The slide, C, embraces the scale, B, with two jaws or flanges, shown best in Fig. 10, and can only be disengaged by sliding the same downward or toward a cut-away portion, *h*, on the scale, and leaving the width of the flanges so that when the flanges are brought opposite the same, the slide may be readily lifted out. (See Figs. 1 and 2.) At its lower end, it is provided with a spring-tongue, *e*, which, by bearing on the scale, prevents the same from sliding thereon too loosely, and from thereby becoming too readily disengaged or unlocked.

The blades or other tools are locked in position by laterally bending or flanging the upper portions of the beveled edges of the scales, A and B, as shown at *m*, Figs. 2, 4, 6 and 7, and forming the tangs of the blades, so as to accurately fit against the inner faces of the

flanges. (See Fig. 9 which represents the said tang as beveled at its edges, to enable a more ready opening or closing of the blades, when the locking slide, C, is released.) To
5 open or shut the blades, it is, therefore, always necessary to release the slide, C, in order that the bends or flanges, *m*, on the scales, do not interfere with the motion of the blades. The bistouries represented in Figs. 3 and 5 are
10 constructed in this manner. The two-blade bistoury shown in Fig. 3 may readily be converted into a one-blade bistoury, as represented in Fig. 5, by removing one blade, whereupon the slide, C, will grasp another
15 inner pair of lateral notches. The end of the scales may, moreover, be made in the form of a scalpel.

Where two blades are arranged at opposite ends, the scale, A, is provided at its bottom,
20 and the scale, B, at its top with an enlargement or thickened portion, *g*, as shown, in Figs. 2 and 7, whereby a collision of the blades is avoided. This arrangement requires two slides, C, whose length is so ad-
25 justed that they may be removed through the cut-away portion, *h*, only when the scale has been taken off, and when they occupy the position indicated in Fig. 8. The pivot-pins, *a*, are, moreover, necessary under this
30 modification, which permits the arrangement of three, four, or more blades in one bistoury.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

1. In bistouries and similar instruments, 35 the combination, with a blade having a tang provided with beveled edges, of a haft consisting of two scales flanged at their ends, the flanges being beveled and overlapping the beveled edges of the tang, and means for 40 locking the two scales together, substantially as set forth.

2. In bistouries and similar instruments, a haft consisting of a scale provided with a pivot-pin, a second scale provided with a per- 45 foration adapted to receive the pivot-pin, in combination with a locking slide movable on the second scale and adapted to engage the pivot-pin, substantially as set forth.

3. In a bistoury or similar instrument, the 50 combination, with a blade, two haft-scales provided with flanges or lips to hold the knife in position, and a pivot-pin extending from one haft-scale, of a locking slide on the latter adapted to engage the pivot-pin, and pro- 55 vided with a spring-tongue adapted to bear on the haft scale, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILHELM SCHEERER.

Witnesses:

AUGUST B. DRAUTZ,
ALBERT HOFMANN.