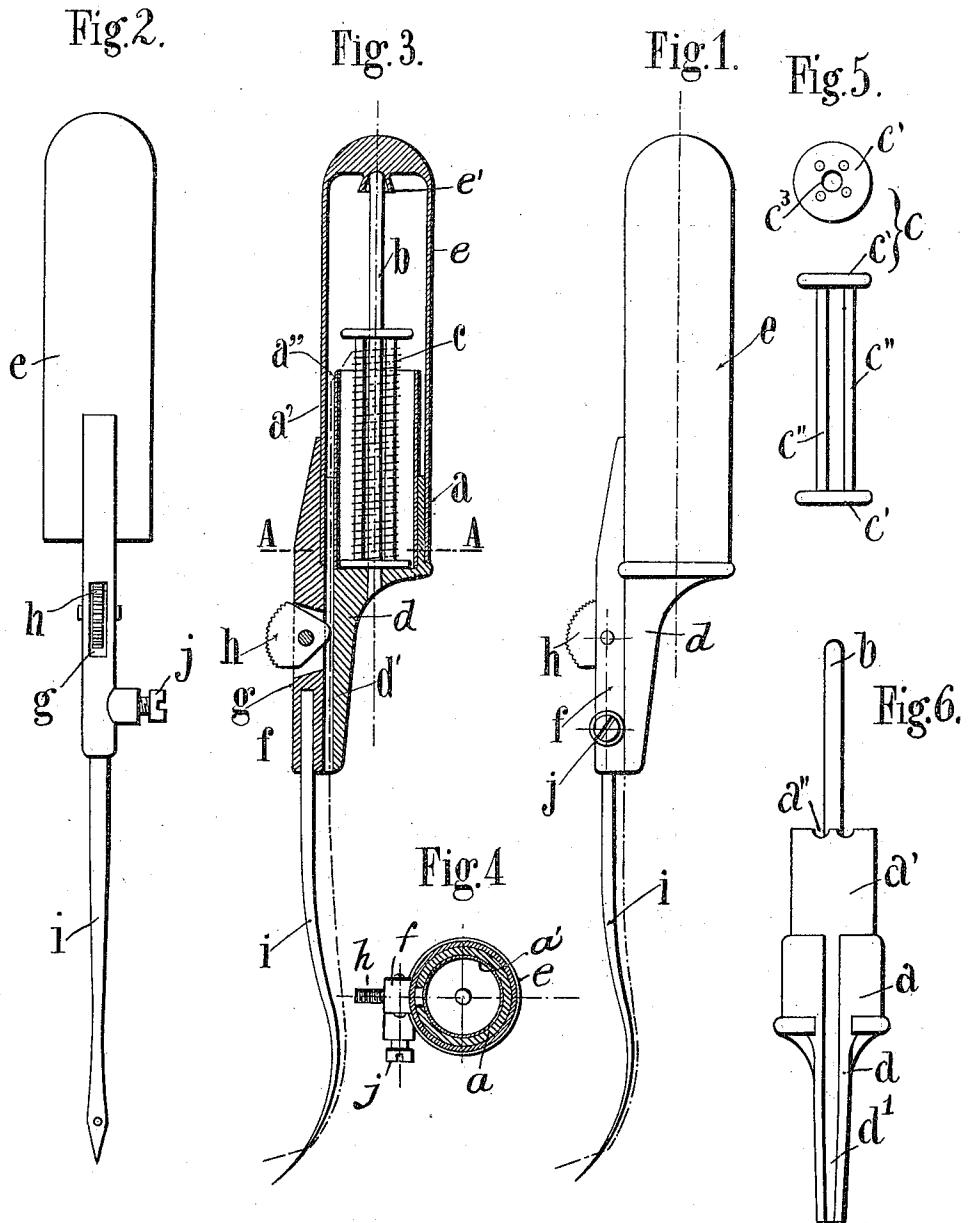


M. G. HEITZ-BOYER.
 ASEPTIC NEEDLE THREAD HOLDER FOR SURGICAL USE.
 APPLICATION FILED OCT. 25, 1907.

962,218.

Patented June 21, 1910.



WITNESSES:

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MAURICE GEORGES HEITZ-BOYER, OF PARIS, FRANCE.

ASEPTIC NEEDLE-THREAD HOLDER FOR SURGICAL USE.

962,218.

Specification of Letters Patent. Patented June 21, 1910.

Application filed October 25, 1907. Serial No. 399,081.

To all whom it may concern:

Be it known that I, MAURICE GEORGES HEITZ-BOYER, a citizen of the Republic of France, residing at Paris, in said Republic, have invented certain new and useful Improvements in Aseptic Needle-Thread Holders for Surgical Use, of which the following is a specification.

This invention relates to surgical needles which are provided with means for inclosing and protecting the thread which is to be used, this thread being wound upon a spool or bobbin within the needle-holder.

The object of the invention is to provide a device of this kind in which the thread is properly protected and its aseptic condition preserved, and in which means are provided whereby the movement of the thread from the bobbin or spool to the needle can be easily controlled by the surgeon.

A further object of the invention is to furnish a surgical needle of which the parts can be readily assembled and detached, so that the device may be thoroughly cleansed.

With these ends in view the invention consists in the novel features and combinations of parts to be hereinafter described and claimed.

In the accompanying drawing, in which the same reference characters denote the same parts throughout the views, Figure 1 is a side-elevation of a device constructed in accordance with the invention, Fig. 2 is a front-elevation of the same, Fig. 3 is a central longitudinal section, Fig. 4 is a transverse section on line A, A, Fig. 3, Fig. 5 shows the spool in elevation and in plan, and Fig. 6 is a detail view of the body of the device upon which the spool is supported.

In the drawing *a* denotes the body of the instrument, which is of tubular shape, as shown in Figs. 3 and 6, and closed at one end at which an extension *d*, provided with a longitudinal groove *d'*, is formed. Mounted within the tubular part of said body is a spindle *b* upon which a spool *c* is mounted to turn.

Fitting snugly within the body *a* is a sleeve *a'* extending around the spool and provided at its upper edge with guide-recesses *a''* by means of which the thread is guided from the spool into the groove *d'*. The spool is inclosed by a tubular sheath or cap *e* which fits frictionally over the wall of the body *a*, as shown in Fig. 3. The cap is closed at its upper end and there provided

with a socket *e'* into which the spindle or post *b* extends. At its lower part the cap carries an extension *f* which, when the cap is placed in position on the body, lies over the extension *d* of the latter and over the groove *d'*. The groove is thus inclosed by said extension *f* and a closed guide-passage for the thread is formed. At its end the extension *f* carries the needle *i*, which is secured thereto by means of a screw *j*, or in any other suitable manner. This screw can also be used for securing the free end of the thread when it is desired, as in a double thread ligature or seam, so that the thread can be unwound in its center and form a loop. For arresting the movement of the thread to the needle a thread-controlling device *h* is employed. This preferably takes the form of a cam which is pivoted in a recess extending through the extension *f* to the groove *d'*. By acting upon the outer edge of the cam its inner part can be caused to impinge against the thread and hold it against movement in its guide-groove.

A preferred form of spool is illustrated in Fig. 5. Said spool is formed of two disks *c'* connected by rods *c''*. Each disk is provided with a central hole *c'''* enabling the spool to be placed on the post *b*. The sterilized thread is preferably secured to the upper disk.

When the spool *c* is placed in position in the body *a* its end is conducted over the recessed edge of the sleeve *a'* and through the guide-groove *d'*. The cap *e*, with its extension *f* and the needle *i*, is then placed on the body, as shown in Fig. 3. The needle is threaded by means of a pair of pincers, so that the aseptic condition of the parts is preserved. When the device is used the cap *e* serves as a handle by which the needle is manipulated.

It is obvious that as the cap, the spool and the sleeve surrounding the latter are readily detachable from the body of the device, all the parts can be readily cleaned and sterilized. The groove *d'* is rendered accessible for cleansing by the removal of the extension *f* with the cap. The simple manner in which the parts can be detached and assembled is an important feature of the invention.

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

1. In a surgical needle, the combination of a spool-holding body provided with an

extension having a guide-groove, a cap-member fitting over said body and inclosing said groove, a needle inserted into the end of said extension, and means carried by said
5 cap-member and adapted to bear upon the thread in said groove and arrest the movement of the same.

2. In a surgical needle, the combination
10 of a body having a bracket-shaped extension with a thread-guiding groove, a cap fitting over said body and having an extension overlying said groove, a needle inserted in
said overlying extension, and manually operated means carried by said overlying extension
15 and projecting into said groove and adapted to bear upon said thread and arrest its movement through the groove.

3. In a surgical needle, the combination of a tubular body provided with a longitudinal grooved extension, a spool in said body 20 from which the thread is conducted through the groove in said extension, a cap fitting over said body and provided with a needle-carrying extension overlying said groove, and a cam pivoted in a recess in said last- 25 named extension and coacting with said groove.

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

MAURICE GEORGES HEITZ-BOYER.

Witnesses:

EMILE LEDRET,
H. C. COXE.