

No. 769,829.

PATENTED SEPT. 13, 1904.

I. K. MOTT.  
SURGICAL INSTRUMENT.  
APPLICATION FILED MAY 4, 1904.

NO MODEL.

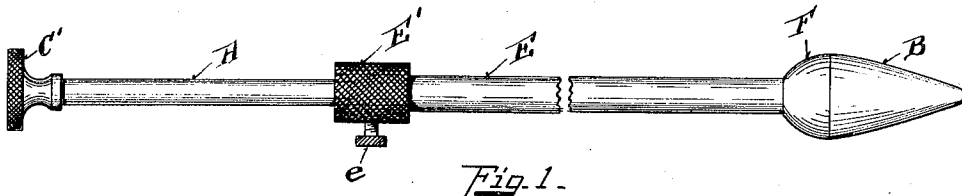


Fig. 1.

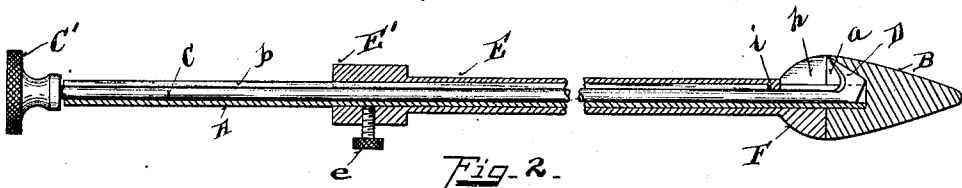


Fig. 2.

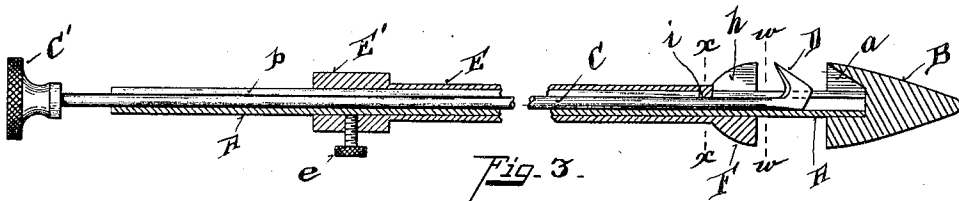


Fig. 3.

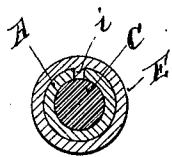


Fig. 4.



Fig. 5.

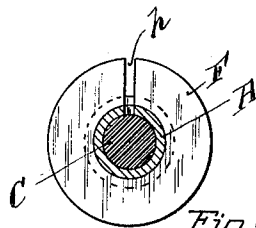


Fig. 6.

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# UNITED STATES PATENT OFFICE.

IRVINE K. MOTT, OF CINCINNATI, OHIO.

## SURGICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 769,829, dated September 13, 1904.

Application filed May 4, 1904. Serial No. 206,310. (No model.)

*To all whom it may concern:*

Be it known that I, IRVINE K. MOTT, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Surgical Instruments, of which the following is a specification.

The object of my invention is to provide an improved surgical instrument for locating and lancing strictures or other obstructions in the normal diameter of passages to internal organs.

The features of my invention will be more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan view of my improved instrument, shown broken in the sleeve portion. Fig. 2 is a central section of the same. Fig. 3 is a similar section showing the parts in open position. Fig. 4 is an enlarged section on line *x x*, Fig. 3. Fig. 5 is an enlarged end view of the knife. Fig. 6 is an enlarged section on line *w w*, Fig. 3.

A represents a tubular sleeve on the forward end of which is a bulb-section B and rigidly secured to the said sleeve. *a* represents a recess for receiving the knife when in the normal non-cutting position. Said sleeve is provided with a longitudinal slot *b* the entire length thereof.

C represents a rod longitudinally sliding within the barrel or sleeve A.

D represents a cutting-knife on the forward end of the rod C, which is adapted to fit and rest in the recess *a* to protect it from cutting except when it is reciprocated.

C' represents a knurl for reciprocating the rod C.

E represents a second sleeve encompassing the sleeve A and the knife-rod C. Said sleeve is provided with a fixed collar E' and a set-screw *e* for locking it to the barrel of the sleeve A. The forward end of sleeve E is provided with a bulb-section F, hemispherical in form and adapted to fit the bulb-section B, so as to make the same tapering in both directions from the joint. The bulb-

section F is provided with a recess *h* of sufficient depth to receive the knife D in the foremost position of knife manipulation. In order to prevent the sleeve E from turning, it is provided with a key *i*, which fits into the slot *h* in the sleeve A.

Mode of operation: The parts are normally closed in the position shown in Fig. 2. When it is desired to remove cicatricial or constricted tissue or other growth in a cavity, the instrument is inserted into the cavity. The sleeve E, carrying the bulb-section F, is adjusted in the sleeve A until the growth or protuberance is located between the two bulb-sections. Then the sleeve F is secured in position by the set-screw. The operator then takes hold of the knurl and withdraws the knife. This operation may be, if necessary, repeated until all the obnoxious growth is removed.

It will be seen that by the use of this instrument having the cooperating bulb-sections housing the knife not only the location, but the extent of the impeding growth and its exact position may be quickly determined and lanced. The cutting-knife is so guarded and protected by the bulb-sections that only the protuberances within the cavity will be brought into the path of the knife.

Having described my invention, I claim—

1. A surgical instrument composed of a main sleeve having a bulb-section, a sleeve sliding thereon having a second bulb-section, a rod carrying a knife at its forward end and lying in recesses formed in said bulb-sections, means for fastening the sleeve-section of one to the sleeve-section of the other, so as to hold the bulb-sections in desired position for operation, substantially as described.

2. A surgical instrument, in combination with a sleeve carrying a bulb-section, a second sleeve having a bulb-section slidable thereon, a knife-rod carrying a knife and slidable between the bulbs when in the open position, substantially as described.

3. A surgical instrument comprising telescoping sleeves and rod carrying respectively cooperating bulb-sections and a knife nor-

mally housed therein and means for independently sliding the same, substantially as described.

4. A surgical instrument comprising telescoping sleeves and rod carrying respectively  
5 cooperating bulb-sections and a knife normally housed therein, means for independently sliding the same, and means for locking

the telescoping sleeve, substantially as described.

In testimony whereof I have hereunto set my hand.

IRVINE K. MOTT.

Witnesses:

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LEO O'DONNELL.