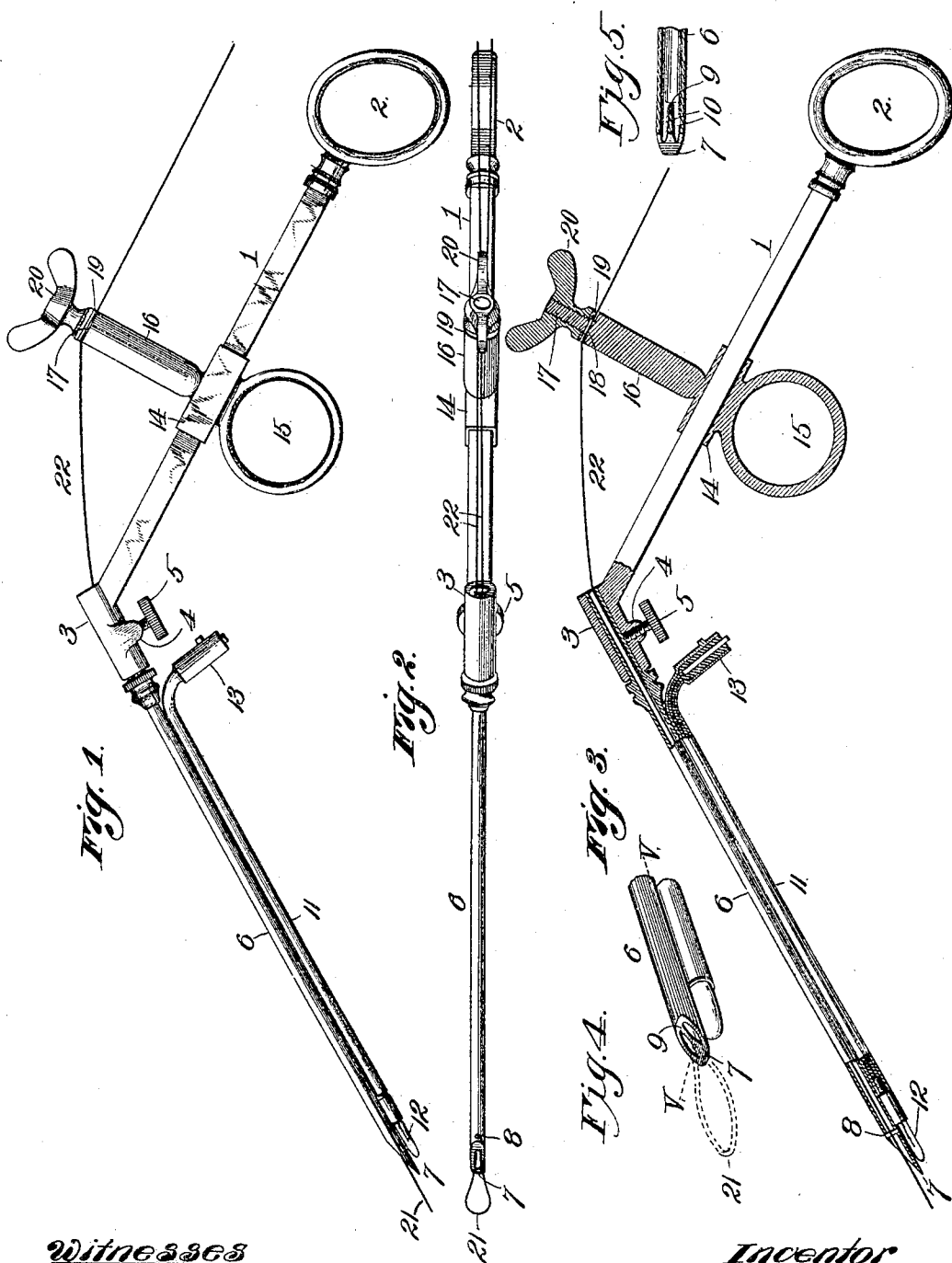


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PATENTED SEPT. 5, 1905.

C. W. STOWE.
ILLUMINATED SNARE.
APPLICATION FILED MAY 21, 1904.



Witnesses
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UNITED STATES PATENT OFFICE.

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ILLUMINATED SNARE.

No. 798,839.

Specification of Letters Patent.

Patented Sep. 5, 1905

Application filed May 21, 1904. Serial No. 209,126.

To all whom it may concern:

Be it known that I, CHARLES W. STOWE, a citizen of the United States, residing at Salina, in the county of Saline and State of Kansas, have invented certain new and useful Improvements in Illuminated Snares, of which the following is a specification.

This invention relates to surgical instruments, and more especially to that class for removing growths from cavities of the body, my object being to produce what I term an "illuminated snare," whereby the cavity from which the growth is to be removed may be illuminated to enable the operator to more easily, efficiently, and quickly snare and remove the growth.

A further object is to produce a device of this character by which the growth is cut cleanly, so as to leave no ragged bleeding surfaces.

A still further object is to provide means whereby the ends of the wire forming the loop may be reliably secured to prevent slippage and whereby the wire may be drawn in approximately a straight line, and thereby give better control on the part of the operator.

With these objects in view the invention consists in certain novel and peculiar features of construction and combinations of parts, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 is a side elevation of an instrument embodying my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a view partly in side elevation and partly in vertical longitudinal section. Fig. 4 is a detail perspective view showing a slightly-modified construction of the cutting end of the instrument. Fig. 5 is a horizontal section on the line V V of Fig. 4.

In the said drawings, 1 designates a bar having at its rear end a thumb-ring 2 and at its front end a tubular portion 3, which extends divergently downward from portion 1 and at its under side is provided with a boss 4, through which extends a set-screw 5 for securing firmly in said tubular portion 3 a long slim tube 6. Tube 6 at its front end is tapered downwardly and forwardly to a cutting edge 7 and is partitioned near its front end by the pin 8, or said partition may be in the

form of a short longitudinal rib 9, which increases in width toward the sharpened end of the tube, so as to provide diverging branch passages 10 for the tube-passage for a purpose which hereinafter appears.

Parallel with and secured to the lower side of tube 6 is a tube 11, terminating at its front end in a minute incandescent lamp 12 and at its opposite end in a depending portion 13, to which is adapted to be coupled the wires (not shown) leading from the battery or other source of electric supply. As the lamp and its connections are of the usual or any preferred type, they have not been detailed or minutely described.

14 designates a sleeve mounted slidingly on bar 1 and provided at its lower side with a finger-ring 15 and at its upper side with a post 16, terminating in a reduced threaded stem 17, provided with a cross-passage 18 and carrying a washer 19, a clamping-nut 20 engaging said stem above the washer.

A resilient wire is doubled at its middle to form a loop 21 and the arms 22, and the latter are threaded through tube 6 from its sharpened end, the arms of the wire being disposed at opposite sides of the partition 8 or 9, as the case may be, this partition serving not only as a guard against the loop being drawn wholly within the tube 6, but also as a means for holding the loop in a plane at right angles to the vertical, as without the provision of such partition or its equivalent the loop would at times be drawn at an angle to the cutting edge 7 by the twisting of the wire, and therefore not properly perform its function.

Assuming now that the instrument is coupled to a source of electric supply and that the lamp is lighted, the operator, with his thumb through ring 2, his second finger through ring 15, and his first finger hooked around post 16 below the wire, inserts the instrument into the cavity, the angular relation between the bar 1 and the tubes disposing his hand in such position that his view of the cavity is unobstructed. The operator next slips the loop over the growth to be removed and then with his first and second fingers slides the post and ring rearward, which action draws the loop in the same direction and contracts it at the same time, the clamping of the washer down upon the wire serving to prevent slippage of the same during the operation under consideration. This sliding

movement continues until the growth is brought squarely against the cutting edge of the tube, which serves to sever it cleanly as the contraction of the loop continues, as will
 5 be readily understood. After the growth is thus removed the sleeve is moved forward, the resiliency of the wire being sufficient under such movement to cause its advance through the tube and the consequent reopening of the
 10 loop.

The post 16 is of such height that it effects an almost longitudinal pull on the wire, and consequently gives the operator a perfect control of the instrument and permits him to
 15 contract the loop gradually, so as to observe the growth, in what condition it is, and what relation it bears to the cutting edge before applying the final pressure which severs it.

With this instrument, as will be readily understood, the removal of polypi and other growth is greatly simplified and no tissue is removed below said cutting edge, as is the case where the wire loop is used in conjunction with a blunt or substantially blunt surface, the removal with an instrument of the
 25 last-named character leaving a large ragged surface and in many cases resulting in severe hemorrhages.

From the above description it will be apparent that I have produced a surgical instrument possessing the features of advantage enumerated as desirable in the statement of invention and which obviously is susceptible of modification as regards its form, proportion, detail construction, and arrangement of
 35

parts without departing from its essential spirit and scope or sacrificing any of its advantages.

Having thus described the invention, what I claim as new, and desire to secure by Letters
 40 Patent, is—

1. A device of the character described, comprising a bar, a tube carried by said bar, and terminating in a cutting edge, and provided with a vertically-arranged partition contiguous to its sharpened end, a doubled wire extending through said tube and at opposite sides of said partition and terminating in a loop in juxtaposition to said sharpened end, and means for drawing said wire rearwardly
 45 through the tube so as to retract said loop and cause it to draw a growth extending there-through against said cutting edge to effect the severance of the growth.

2. In a device of the character described, the combination of an intersecting bar and tube, a doubled wire extending slidably through said tube, a post slidably mounted on the bar and projecting upward therefrom and terminating in a perforated threaded stem
 60 through which said wire extends, a washer adjustable on said stem, and a nut engaging said stem to clamp the washer tightly against the wire.

In testimony whereof I affix my signature in
 65 the presence of two witnesses.

CHARLES W. STOWE.

Witnesses:

CHAS. E. BANKER,
 D. R. WAGSTOFF.