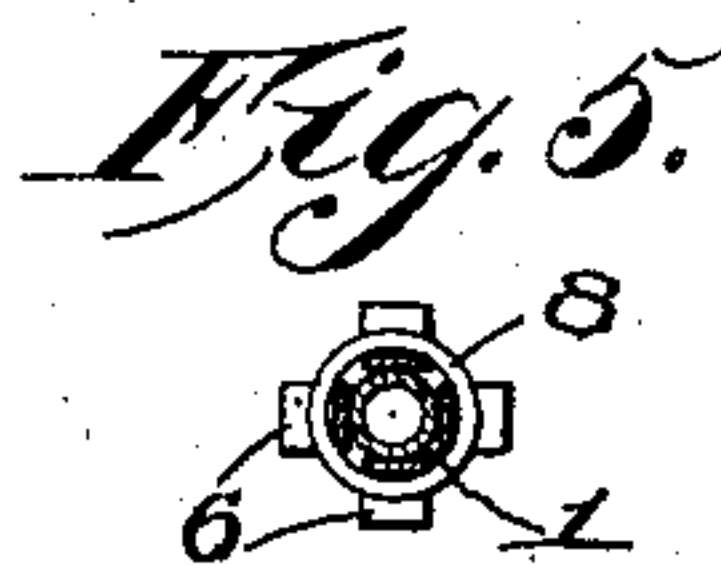
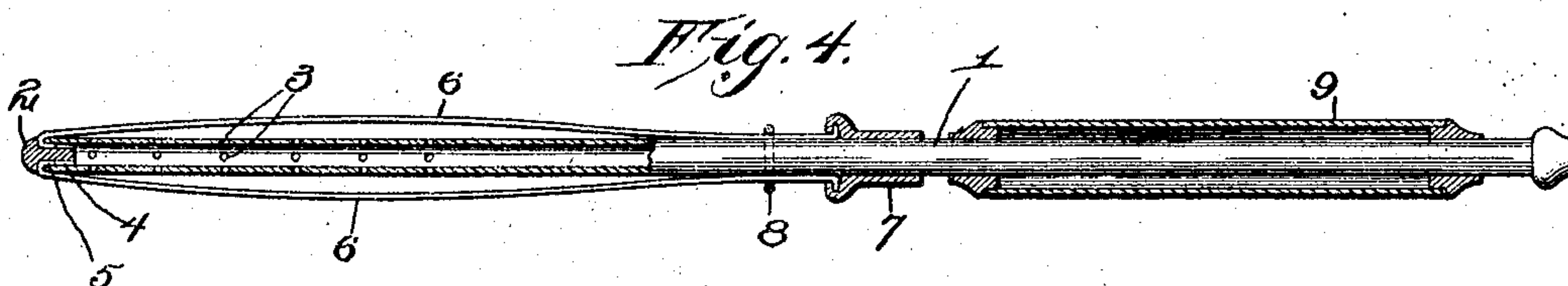
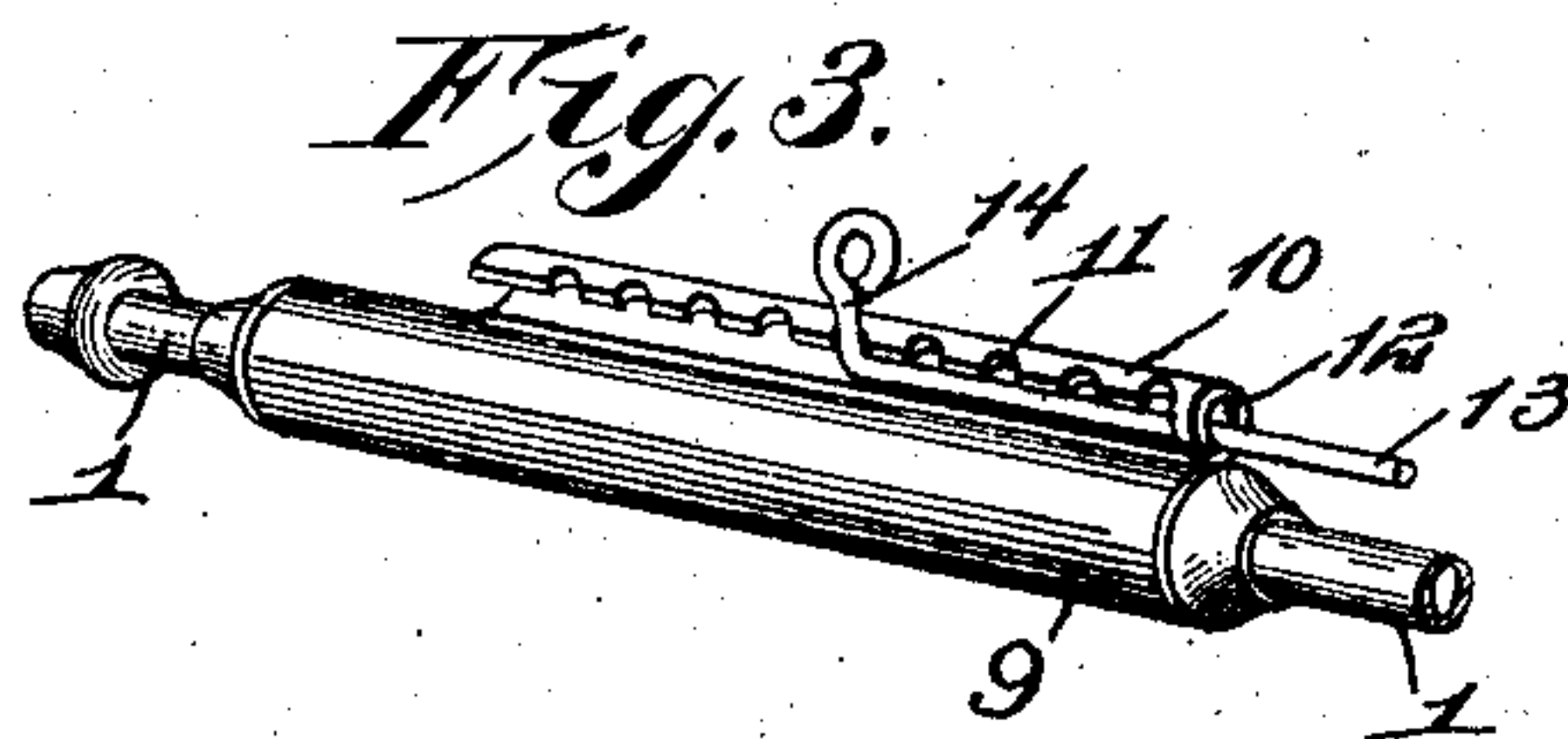
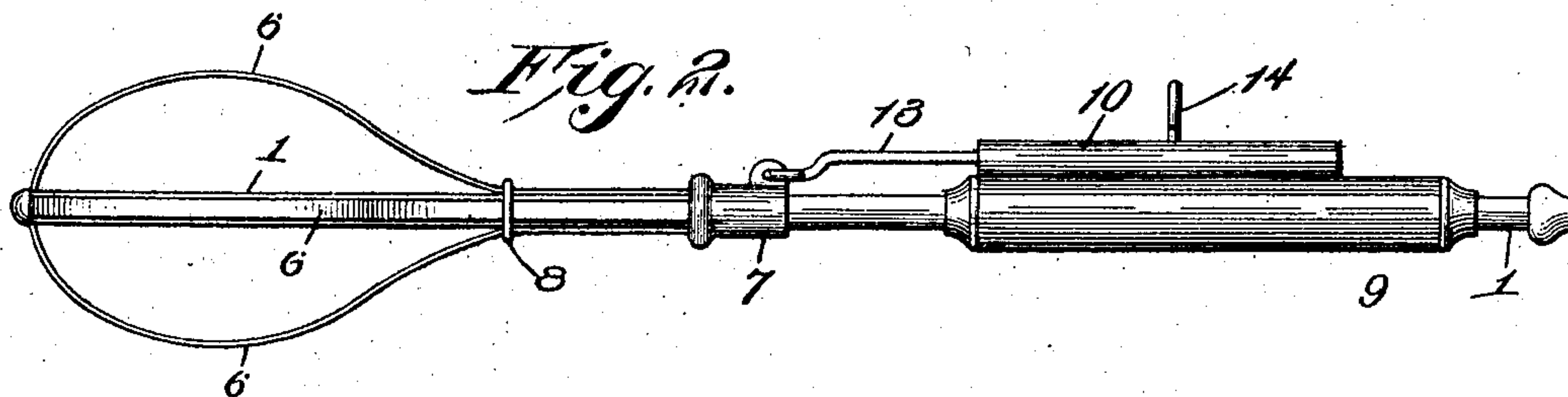
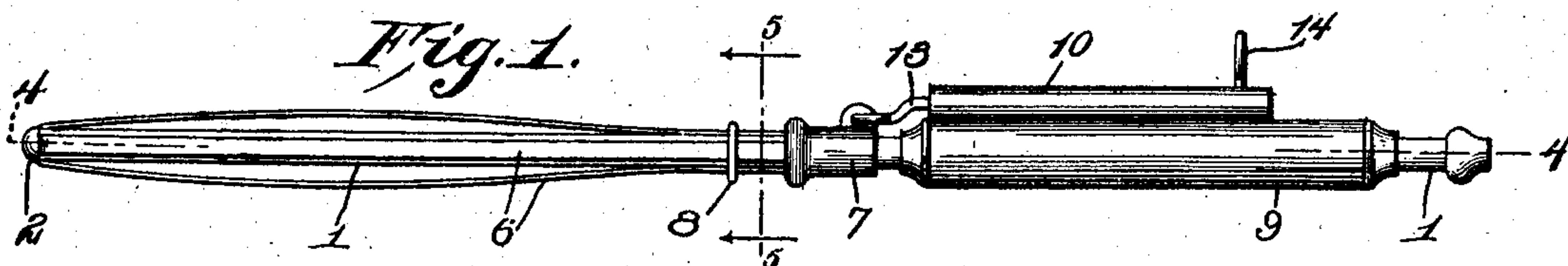


No. 827,193.

PATENTED JULY 31, 1906.

G. THRASH.
SURGICAL INSTRUMENT.
APPLICATION FILED SEPT. 8, 1905.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE THRASH, OF HOMINY, NORTH CAROLINA, ASSIGNOR OF ONE-
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SURGICAL INSTRUMENT.

No. 827,193.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed September 8, 1905. Serial No. 277,604.

To all whom it may concern:

Be it known that I, GEORGE THRASH, a citizen of the United States, residing at Hominy, in the county of Buncombe and State of North Carolina, have invented certain new and useful Improvements in Surgical Instruments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to surgical instruments; and its object is to provide in one instrument a dilator, curette, and douche which can be used for dilating and thoroughly scraping and cleaning or treating cavities.

The invention consists of certain novel features of construction and combination of parts, which will be hereinafter more fully described in the claims.

In the accompanying drawings I have shown the preferred form of my invention.

In said drawings, Figure 1 is a side elevation showing the normal positions of the parts. Fig. 2 is a similar view showing the springs extended. Fig. 3 is an enlarged view of the lock of the dilator. Fig. 4 is a section through the device; and Fig. 5 is a section on line 5 5, Fig. 1.

Referring to the figures by numerals of reference, 1 is a tube open at one end, while its other end is closed by a tip 2 and constitutes a nozzle. Apertures 3 are formed adjacent this tip and constitute outlets for liquid adapted to be fed in a suitable manner to the open end of the tube. The tip 2 extends into the tube and has grooves 4, in which are located the inwardly-bent ends 5 of spring-strips 6. These strips extend longitudinally upon the tube 1 and normally lie flat thereon, their other ends being bent at right angles and extending into engagement with a sleeve 7, slidably mounted on the tube. A ring 8 surrounds the tube and the spring-strips 6 and is for the purpose hereinafter set forth.

A handle consisting of a cylinder 9 is suitably secured upon the tube 1 near its inlet end, and secured to this handle is a channeled strip 10, having notches 11 in one edge and an eye 12 at one end. A non-rotatable spring-rod 13 is slidably mounted in the eye and is secured at one end to the sleeve 7,

while its other end has a lateral extension 14, which normally engages one of the notches 11.

In using this instrument the same is first connected to a liquid-supply by means of a tube, (not shown,) and the sleeve 7 is slid toward handle 9. The spring-strips 6 are thus drawn taut and caused to lie flat upon the tube 1. After this adjustment the end of the tube is inserted into the cavity to be treated, and sleeve 7 is then slid forward. This causes the spring-strips 6 to bend, as shown in Fig. 2, and they will dilate the walls of the cavity. The sleeve is slid by means of the rod 13, which extends close to the inlet end of the tube 1. After the proper adjustment of the sleeve the rod is sprung into engagement with the nearest notch 11, and the parts are thus securely locked. The device can then be rotated so as to cause the strips 6 to scrape or cut away any accumulations or growths upon the walls, after which suitable liquid is directed through the nozzle and into the cavity. The spring-strips 6 can be adjusted to cavities of different sizes by means of ring 8. By sliding this ring forward the bowed portions of the springs can be diminished, and by moving it in an opposite direction said bows are increased in size.

It will be understood that the device can be used either as a dilator, curette, or douche or can be utilized for all three purposes simultaneously. I attach importance to the particular means for adjusting and locking the sleeve, as said means are at all times within convenient reach of the operator.

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

1. The combination with a nozzle having a tip in one end; of spring-strips secured at one end by said tip, a non-rotatable sleeve upon the nozzle and secured to the strips, a notched locking-strip, a spring-actuating rod secured to the sleeve and extending into and guided by the locking-strip, and an extension on said rod adjustably engaging the notched locking-strip.

2. The combination with a nozzle; of dilating devices secured to the nozzle, a non-rotatable sleeve mounted on the nozzle and secured to the dilating devices, a handle connected to the nozzle, a notched locking-strip disposed upon the handle, and an actuating-

rod secured to the sleeve and extending into and guided by the locking-strip, said rod adapted to be engaged and locked by the strip.

- 5 3. The combination with a nozzle, of dilating devices secured to the nozzle, a non-rotatable sleeve upon the nozzle and secured to said devices, a notched locking-strip, a rod secured to the sleeve and slidably mounted

within the locking-strip, and an extension 10 upon the rod adjustably engaging said strip.

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

GEO. THRASH.

Witnesses:

J. B. CAIN,

J. D. PENLAND.