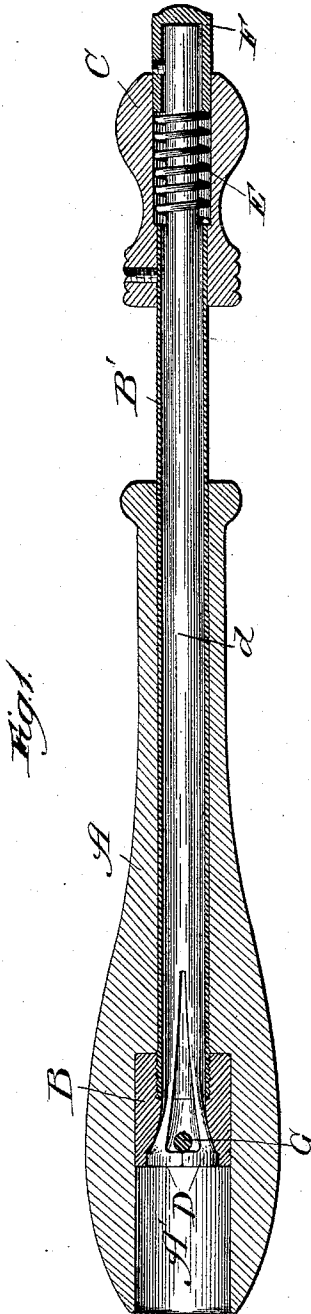


(No Model.)

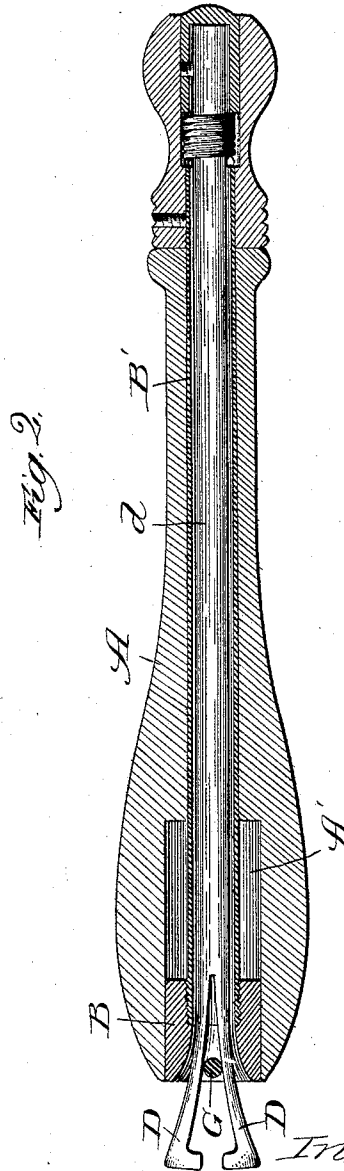
F. W. GROTH.
SURGICAL FORCEPS.

No. 430,849.

Patented June 24, 1890.



Witnesses:
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UNITED STATES PATENT OFFICE.

FREDERICK W. GROTH, OF CHICAGO, ILLINOIS.

SURGICAL FORCEPS.

SPECIFICATION forming part of Letters Patent No. 430,849, dated June 24, 1890.

Application filed April 3, 1890. Serial No. 346,431. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. GROTH, a citizen of the United States, residing at Chicago, Illinois, have invented a new and useful Improvement in Surgical Applicators and Forceps, of which the following is a specification.

The object of my invention is to provide an instrument by means whereof poultices or medicinal applications may be applied to the interior of the vagina or uterus, and provided with forceps or tongs grasping and removing such applications or other matter that it may be desired to extract; and the invention consists in the features and details of construction.

In the drawings, Figure 1 is a central longitudinal section of my improved applicator and forceps, showing the plunger and forceps retracted and the latter closed; and Fig. 2, a similar view with the plunger pushed and the forceps extended and open.

A is the tube or cylinder of the applicator; A', an enlarged cavity in the end thereof; B, a plunger; B', the operating-rod; C, a knob or handle; D D, forceps or tongs; *d d*, the handle thereof; E, a spring; and F, a knob on the end of the handle *d*. The tube A is made of any suitable material—such as hard rubber—and preferably in the form shown in the drawings. At one end thereof the bore is enlarged to form a chamber A', and in this chamber is placed a plunger B. To this plunger is fastened a rod B', provided with a knob or handle C, for convenience in moving the plunger back and forth. The plunger and rod are made in a tubular form, as shown, and in them is placed a pair of forceps or tongs. These consist of a rod *d*, of any suitable material, split at one end, as shown, to form the jaws of the tongs D D. A bar G is fastened across the end of the plunger, passing between the tongs, and spreading or opening them as the rod is pushed forward, as hereinafter described. To the other end

of the rod *d* is secured a knob F. Around this rod is placed a coiled spring E, abutting, as shown, against the knob F at one end, and against the end of a cavity formed in the knob C at the other. When pressure is applied to the knob F, the spring will be compressed and the rod *d* pushed forward, carrying with it the tongs D D. As these move forward, they will be opened by means of the bar G. If the pressure be taken off, the rod and tongs will be carried back by means of the resiliency of the spring, the tongs being closed by contacting with the interior of the plunger.

In using the device, any medicine, poultice, or other application is placed in the cavity A', and the instrument having been inserted into the vagina, the plunger is pushed forward, expelling the poultice, &c., leaving it in the place desired to be reached. To remove the poultice, &c., or any other matter that may be necessary to extract from the vagina or uterus, the instrument is inserted, and pressure being applied to the knob F, the forceps will be pushed out and opened, as above described. The matter or substance may be grasped by the forceps, and the knob being released, the forceps will hold firmly, and the poultice or other substance may be drawn out.

I claim—

In an instrument of the class described, the combination of a tube A, provided with a cavity to receive an external application, a tubular plunger and rod, means for moving the same back and forth in the tube A, a pair of forceps inside of such plunger and rod, and means whereby such forceps are moved forward and opened and then retracted and closed, substantially as described.

FREDERICK W. GROTH.

Witnesses:

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