

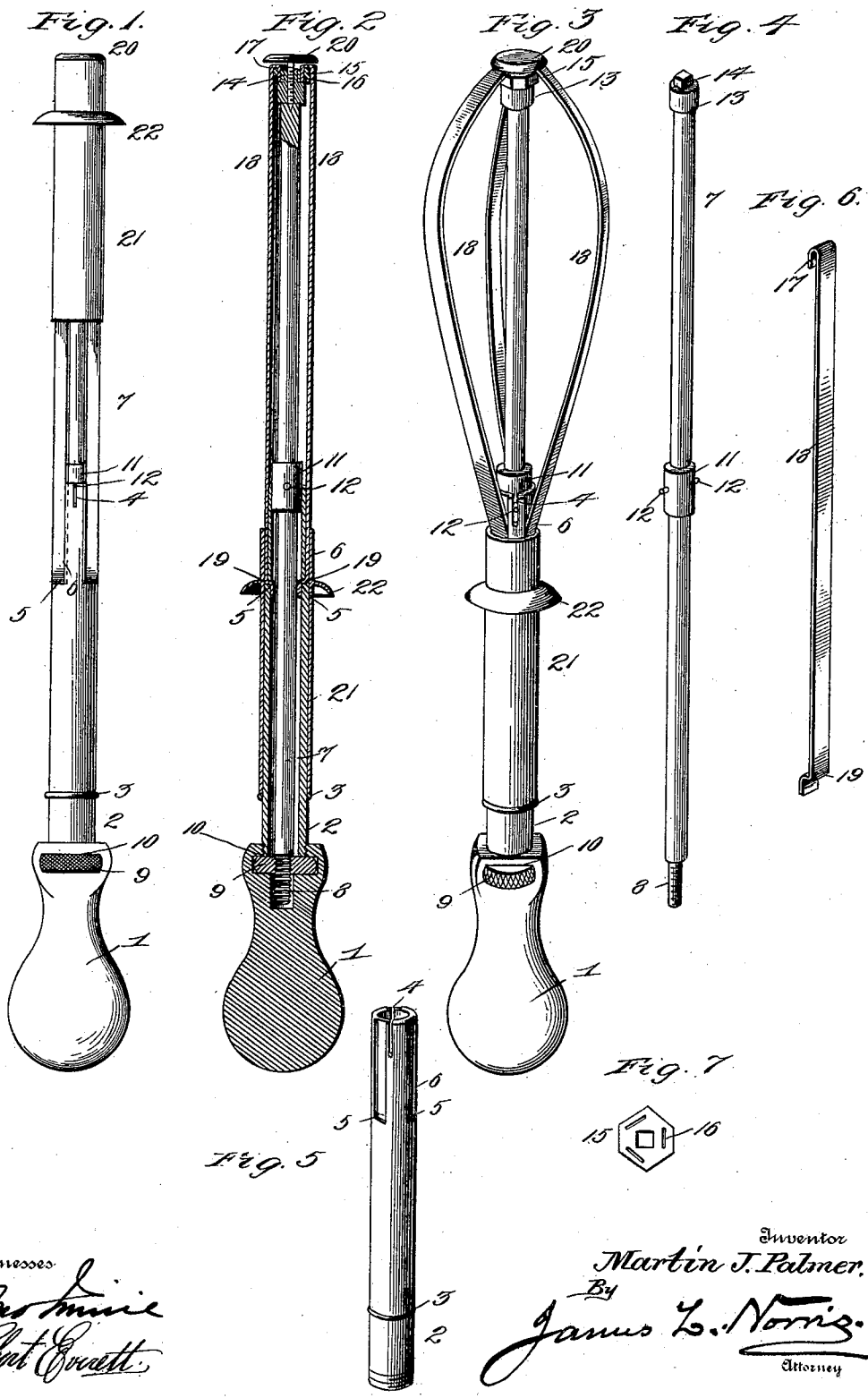
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Patented Jan. 31, 1899.

M. J. PALMER.
UTERINE CURETTE.

(Application filed Apr. 7, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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UTERINE CURETTE.

SPECIFICATION forming part of Letters Patent No. 618,521, dated January 31, 1899.

Application filed April 7, 1898. Serial No. 676,770. (No model.)

To all whom it may concern:

Be it known that I, MARTIN J. PALMER, a citizen of the United States, residing at Arcadia, in the county of Morgan and State of Illinois, have invented new and useful Improvements in Uterine Curettes, of which the following is a specification.

This invention has for its object to provide an improved obstetrical instrument that I shall term a "uterine curette," and which is designed for use in facilitating removal of the placenta and membranes after an abortion or miscarriage occurring up to and including the fourth month of gestation.

The invention consists in features of construction and novel combinations of parts in an instrument for removal of membranes, the placenta, or foreign bodies from the uterine cavity, as hereinafter more particularly described and claimed.

In the annexed drawings, illustrating the invention, Figure 1 is an elevation of my uterine curette in closed position, ready for insertion into the vagina. Fig. 2 is a longitudinal section of the instrument, showing the unexpanded blades pushed forward through and beyond the sheath, as in entering the uterus. Fig. 3 is a perspective of the instrument with the blades expanded, as after entering the uterine cavity. Fig. 4 is a view of the rod or stem of the instrument detached. Fig. 5 is a view of a tubular portion of the instrument detached. Fig. 6 is a view of one of the blades detached. Fig. 7 is a view of a washer by which the outer ends of the expansible blades are connected with the rod.

The reference-numeral 1 designates a handle that may be made from hard rubber or any other suitable material such as usually employed in the manufacture of surgical and obstetrical instruments, and its shape should be such that it may be firmly and conveniently grasped for proper manipulation of the implement. Into an aperture in one end of this handle there is detachably screwed a tube 2, Figs. 1, 2, 3, and 5. This tube 2 is preferably provided near its lower end with a collar or annular shoulder 3, and in its upper end there are two longitudinal slots 4, located opposite each other. At a suitable distance below the upper end of the tube 2 there are, say, three transverse slots 5, equidistant from

each other, and in the same plane around the tube. A channel or depression 6 is extended upward from each transverse slot 5 to the top of the tube. Each channel 6 has a width that is about equal to the length of the slot 5 at its lower end.

Within the tube 2 and extending beyond the same there is a rod 7, having a lower screw-threaded end 8, Fig. 4, on which is placed a thumb-nut 9, that is housed in a transverse slot 10 of the instrument-handle. By turning this thumb-nut a longitudinal movement can be imparted to the rod. On the rod 7 there is a swell or circumferential enlargement 11, that fits closely, but not tightly, within the tube 2, and this enlargement of the rod 7 is provided with lateral pins 12, engaged in the longitudinal slots 4 of the tube 2, so as to prevent rotation of said rod in adjusting it lengthwise. The upper end of the rod 7 is formed with a slight enlargement 13, having a squared projection 14 thereon, as shown in Fig. 4. This squared projection 14 is for engagement of a washer 15, Fig. 7, of preferably hexagonal form. Vertical slots 16 are provided in alternate sides of the washer 15 to receive the hooked upper ends 17 of elastic steel blades 18, Fig. 6, the lower ends of which are bent at right angles inwardly and downwardly to form on each blade a shouldered projection 19 for engaging in a transverse slot 5 of the tube 2, thus connecting the said blades and tube. The upper ends of the blades 18 are secured by means of a set-screw 20, screwed into an aperture in the top of the squared projection 14 of the rod 7, the enlarged head of said screw serving to hold in place the washer 15 and engaged hook ends 17 of the blades 18; but the screw 20 is not seated tightly, there being left a sufficient space between the hooked ends of the blades and the under side of the screw-head to prevent binding and permit a necessary degree of flexibility in expanding and collapsing the steel blades. When the blades 18 are collapsed or parallel with the rod 7, their lower end portions are seated in the longitudinal channels 6 of the tube 2 and are flush with its periphery.

Before the set-screw 20 is attached there is slipped onto and over the blades 18 a tubular sheath 21, having a peripheral collar 22

near its outer end. The set-screw 20 may then be attached, and its enlarged head will serve as a shoulder or stop to prevent the tubular sheath 21 from slipping off when moved outward onto or around the blades. When moved onto and around the tube 2, the inner end of the tubular sheath 21 will rest against the collar or annular shoulder 3, and the outer end of said sheath will then cover the lower portions of the blades 18 and assist their shoulders 19 in preventing disengagement of the blades at that end. The head of the set-screw 20 is preferably rounded or convexed, as shown, to avoid any sharp edge. The blades 18 are preferably three in number, as being most convenient and effective for the work required.

The various parts of the implement can be made from steel, aluminium, or other metal or alloy that can be readily cleansed and rendered aseptic. As already stated, the handle may be composed of hard rubber, if preferred.

In using this instrument as a means for effecting removal of the separated placenta and membranes the blades 18 must be first brought into collapsed position parallel with the rod 7, so that the sheath 21 can be moved outward over said blades, as shown in Fig. 1. To introduce the instrument, the tubular sheath 21 is inserted into the vagina and partly into the womb, the collar 22 serving as a stop or rest against the os uteri. By means of the handle 1 the collapsed blades 18 will now be pushed gently through the sheath 21, as shown in Fig. 2, and being now fully within the uterine cavity they may be expanded or bowed, as shown in Fig. 3, by simply turning the thumb-nut 9 in a proper direction to draw on the rod 7, so as to move it longitudinally toward the handle of the instrument. The blades 18 being connected at one end to the rod 7 and at the other end to the fixed tube 2, it will be obvious that any longitudinal movement of the rod 7 will expand or collapse the blades 18, according to the direction in which the said rod 7 is operated. As the longitudinally-movable rod 7 is operated by means of a thumb-nut 9, the elastic blades 18 will remain in any position to which they may have been adjusted. After the blades 18 have been thus expanded within the uterus the entire instrument is to be rotated by hand, so as to gather up the placenta and membranes within the blades, and then by means of the thumb-nut 9 the blades will be collapsed or contracted, so as to close down onto the membranes and afterbirth, all of which can be removed with perfect ease by simply withdrawing the collapsed instrument.

The instrument can be quickly and completely taken apart for cleansing and sterilizing, the set-screw 20 being first removed and the sheath 21 then slipped off over the collapsed blades 18. Then the blades will be

detached from rod 7 and tube 2 and then the said rod and tube will be disconnected from the handle. The several parts can be as easily put together after cleaning.

The implement can have any proper dimensions and proportions for its several parts, as best suited to obstetrical requirements.

What I claim as my invention is—

1. A uterine curette, comprising a tube having a handle at one end, a rod extended through said tube into the handle and provided with a screw-threaded end portion, a thumb-nut mounted in the handle and engaged with the threaded portion of said rod to move the rod longitudinally, and a plurality of blades connected at one end to the said tube and at the other end to the said rod and adapted to be expanded and collapsed by longitudinal movement of the rod, substantially as described.

2. A uterine curette consisting of a tube having a handle at one end, a rod extended through said tube into the handle and provided with a screw-threaded end portion, a thumb-nut mounted in the handle and engaged with the threaded portion of the rod, whereby said rod may be moved longitudinally, a plurality of elastic blades connected at one end to the said tube and at the other end to the said rod and adapted to be expanded and collapsed by longitudinal movement of the rod, and a tubular sheath slidably mounted on the said blades and tube, substantially as described.

3. A uterine curette consisting of a tube having a handle at one end and provided at the other end with transverse and longitudinal slots, a rod extended through said tube into the handle and provided with a screw-threaded end portion within the handle and having lateral pins to engage in the longitudinal slots of the tube, a washer mounted on the outer end of said rod and provided with slots, a plurality of elastic blades having hooked ends to engage in the slots of said washer and shouldered ends to engage in the transverse slots of the tube, a thumb-nut mounted in the handle and engaged with the threaded portion of the rod to move said rod longitudinally for expanding and collapsing said blades, and a tubular sheath for the blades, substantially as described.

4. A uterine curette consisting of a tube having a handle at one end and provided with transverse slots at the other end, a rod projected beyond said tube and extended through the same into the handle and provided with a screw-threaded portion within the handle, a thumb-nut mounted in said handle and engaged with the threaded portion of said rod for moving the rod longitudinally, a slotted washer mounted on the outer end of said rod, a plurality of elastic blades engaged at one end in the slots of the tube and at the other end in the slots of the washer on said rod, a set-screw in the end of the rod to secure the

washer and attached ends of said blades, and a tubular sheath for the blades, substantially as described.

5 5. A uterine curette consisting of a tube
having a handle at one end, a longitudinally-
movable rod extended through said tube and
having a screw-threaded portion within the
handle, a thumb-nut engaged with said thread-
ed portion of the rod, a plurality of elastic
10 blades each connected with said tube at one
end and with the rod at the other end, whereby
rotation of the thumb-nut will cause longitu-

dinal movement of said rod to expand or col-
lapse said blades, and a sheath mounted on
said blades and provided with a collar, sub- 15
stantially as described.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit-
nesses.

MARTIN J. PALMER.

Witnesses:

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