

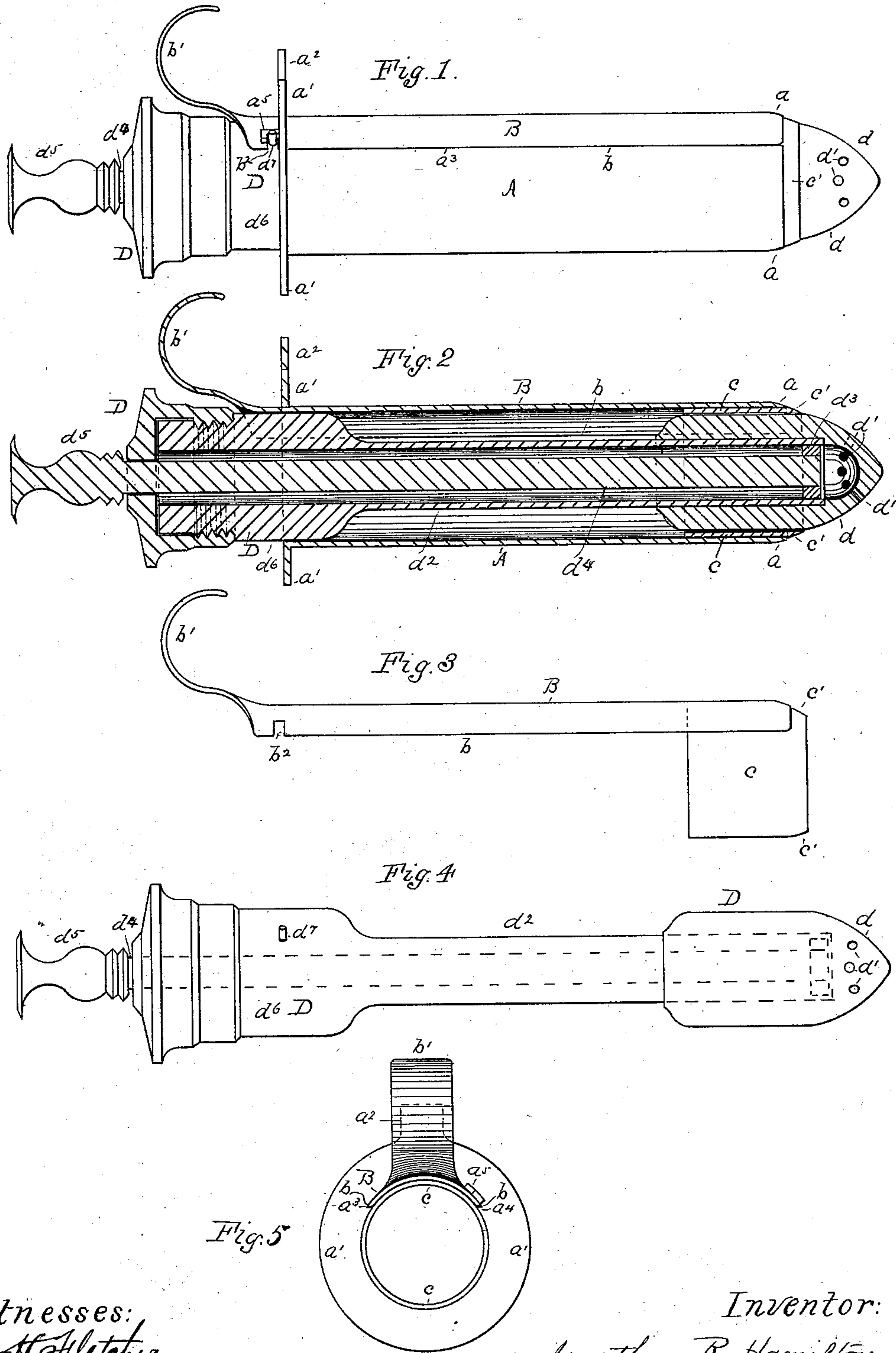
(Model.)

J. R. HAMILTON.

SPECULUM.

No. 373,361.

Patented Nov. 15, 1887.



Witnesses:
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UNITED STATES PATENT OFFICE

JONATHAN R. HAMILTON, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR OF
ONE-HALF TO LYMAN R. PALMER, OF SAME PLACE.

SPECULUM.

SPECIFICATION forming part of Letters Patent No. 373,361, dated November 15, 1887.

Application filed April 28, 1887. Serial No. 236,415. (Model.)

To all whom it may concern:

Be it known that I, JONATHAN R. HAMILTON, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Rectal Speculums; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings.

My invention relates to speculums having a tubular body with a longitudinal opening and a sliding door therefor; and the object of the invention is, mainly, to combine with such speculum-body a lubricating-syringe that can be inserted and withdrawn at pleasure, and which, when in place, serves to form the head of the speculum.

The improvements are illustrated in the drawings, in which—

Figure 1 is a side elevation of the speculum-body, and lubricator in place. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a side elevation of the sliding door detached. Fig. 4 is a side elevation of the lubricator, and Fig. 5 is a rear view of the speculum-body and sliding door.

In the drawings, A designates the speculum-body, composed of a cylindrical tube open at both ends, and having its front end, *a*, slightly rounded or beveled, and having a circular flange, *a'*, around its rear end. The flange *a'* has a lip, *a''*, to enable the speculum to be firmly held in place by a suitable clamp while in use.

In the side of the body A is a slot, *a³*, extending its full length, and having its sides *a⁴* flattened to form flat ways for the door to slide on.

B is the door, having the under surfaces of its edges *b* flattened to slide freely on the flat ways at the sides of the slot. On the forward end of the door is a ring, *c*, secured to the under surface of the door and fitting snugly within the walls of the body A. The ring prevents the door from tilting upward at its forward end, and the sides of the slot prevent depression of the door. The door is made somewhat longer than the slot, and its rear end is turned up to form a curved handle, *b'*,

by means of which the door can be easily operated.

D is a lubricating-syringe or lubricator made of hard rubber or other suitable material of proper length to extend through the speculum-body and project from its ends. The head *d* of the lubricator is made tapering or suitably rounded, and its widest portion fits in the ring *c*. The projecting portion *c'* of the ring is beveled correspondingly to the bevel of the body end *a*, and the tapering end of the lubricator should conform somewhat with the slope of this bevel, so that there may be no abrupt surface at the head of the speculum. The head of the lubricator has orifices *d'*, for the discharge of the lubricant or medication. The body of the lubricator may be a comparatively narrow tube, *d²*, and the head *d* may be a separate piece, having a central opening or socket adapted to receive the end of the tube *d²*, and be thus held in place. The tubular body of the lubricator is provided with the usual piston, *d³*, and rod *d⁴*, having a handle, *d⁵*. The portion *d⁶* of the lubricator, which is in the rear end of the speculum, should be of proper diameter to hold it from lateral movement, and it is held from longitudinal displacement by a lug or pin, *d⁷*, provided on the surface of the part *d⁶*, which pin, by suitably rotating the lubricator, is made to enter slots *b²* in the side of the door B and in a lug, *a⁵*, extending backwardly from the flange *a'* close to the surface of the door B.

Obviously, in use the lubricator can be utilized to lubricate the walls of the canal as the instrument is being inserted, as well as after its insertion, for the introduction of any desired lubricant or liquid, and it can be withdrawn whenever desired without removal of the speculum-body.

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

1. A combined speculum and lubricator consisting of a tubular speculum-body having open ends and a lubricating-syringe having a perforated head adapted to be inserted therein to form the speculum-head and inject a fluid in advance thereof and to be withdrawn therefrom at pleasure.

2. In combination, a tubular speculum-body having an open end and a slot in the side, a sliding door carrying a ring, and a lubricator adapted to fit said ring and complete the speculum-head, substantially as set forth.

3. The combination, with a tubular speculum-body having open ends, an opening in its side, and a sliding door therefor, of a lubricating-syringe fitting in said body and suitably closing the front end thereof, substantially as described.

4. In combination, a speculum-body having open ends, a slot in its side, and a sliding door

therefor, and a lubricator adapted to be inserted in said body and having a rounded head provided with orifices for closing the front end of said body, substantially as set forth.

5. In a combined speculum and lubricator, a slotted projection on the body, a slot in the sliding door, and a lug on the lubricator engaging in said slots, as set forth.

JONATHAN R. HAMILTON.

Witnesses:

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