(No Model.)

F. B. IVES.

RECTAL SPECULUM.

No. 312,123. Patented Feb. 10, 1885.

Fig. 1.

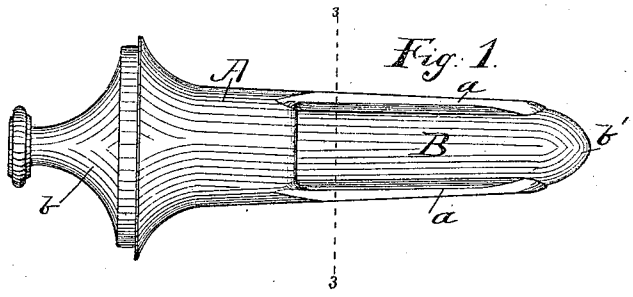


Fig 2.

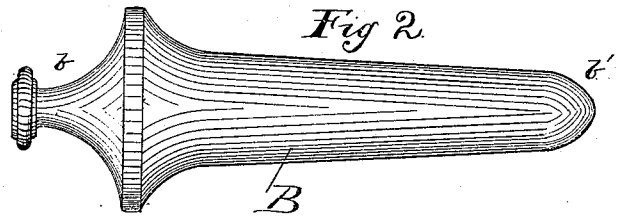
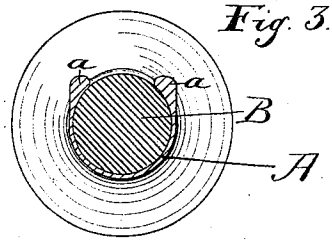


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANKLIN B. IVES, OF CHICAGO, ILLINOIS.

RECTAL SPECULUM.

SPECIFICATION forming part of Letters Patent No. 312,123, dated February 10, 1885.

Application filed October 27, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN B. IVES, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Rectal Speculums, of which the following is a specification.

This invention belongs to that class of speculums which employ a rigid tapering tube provided with a longitudinal slot, of which the "Allingham Speculum," so called, is an example. As heretofore constructed these speculums are objectionable in several respects. They are not readily insertible by reason of the formation of the entering-points. After insertion they cannot be well turned or revolved to expose fresh surface without catching and injuring the membrane, and being slotted their entire length they do not properly support the flesh, but allow it to fall too far within the tube, so that the sight is obstructed and the withdrawal of the instrument attended with pain and injury oftentimes to the patient. To remedy these objections I have devised the present instrument, which consists of a rigid tapering tube, open at its inner end, and slotted longitudinally back from said end a sufficient distance to expose the rectal membrane without allowing it to fall too freely into the tube, the edges of the slots being thickened or raised, and a plug conforming to the tube interiorly, but extending through and beyond the inner end thereof, and provided with a conical point adapted to enter the rectum without injury to the lining thereof. By extending the slot only a portion of the length of the tube, instead of the whole length, as in old art, the sphincter muscle is kept distended and prevented from forcing the flesh into the outer part of the tube and obstructing the view of the inner parts, and the instrument is rendered more easily operable when in position. By thickening the edges of the slot those edges support the flesh so that it does not fall too low in the opening, and the edges themselves are prevented from cutting, tearing, or otherwise injuring the flesh when the tube is moved. The plug extending through the tube and furnished with a conical end forms a penetrating-point well adapted to spread the parts for the entrance of the tube. The plug is also of service when the tube is to be revolved.

In the accompanying drawings, Figure 1 is a plan view of my invention with the plug in place within the tube. Fig. 2 shows the plug detached; and Fig. 3 is a transverse section upon the line 3 3 of Fig. 1, like letters indicating like parts.

In said drawings, A represents the rigid tapering tube forming the speculum. It has a bell-shaped outer end, and is slotted for a portion only of its length, such slot extending backward from its inner end, as shown. The edges of the slot are raised or thickened, as indicated at *a*, and for the purposes specified. The tube is round exteriorly, or as nearly so as the thickened edges *a* will permit, so as to facilitate the turning of the instrument without withdrawal.

B is the plug, having an outer handle, *b*, and conical inner point, *b'*, the latter protruding beyond the tube, as illustrated, Fig. 1. The plug fits the interior of the tube, so that after treating or viewing a portion of the rectum the plug may be reinserted, and such portion lifted or pushed out of the slot, thereby enabling the turning of the speculum for the exposure of fresh surface without withdrawing it and without injury to the already treated or viewed portion. Interiorly the tube is circular, and as the plug is also circular it is rendered a matter of indifference which side of the latter is uppermost, and thus I avoid the injury frequently caused by the Allingham and other plugs having points beveled off to one side, through the accidental turning or careless insertion with the wrong side of the plug registering with the slot.

My speculum has no flanges or elevations which will draw the bowels out when withdrawn, and no crevices or recesses in which fecal matter can lodge, and hence it is easily cleaned and kept clean.

I claim—

1. The rectal speculum consisting of a rigid tapering tube entirely open across the entering end, and slotted back from said end for a portion of its length, the edges of the slot being thickened or raised, substantially as and for the purpose set forth.

2. The rectal speculum consisting of a round rigid tapering tube entirely open across its

entering end, and slotted back from said end for a portion of its length, substantially as and for the purpose specified.

3. The combination, with the rigid tapering circular tube entirely open across its entering end, and partially slotted, as shown, of the circular plug filling the tube, and provided with a conical penetrating-point, substantially as specified.

FRANKLIN B. IVES.

Witnesses:
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