

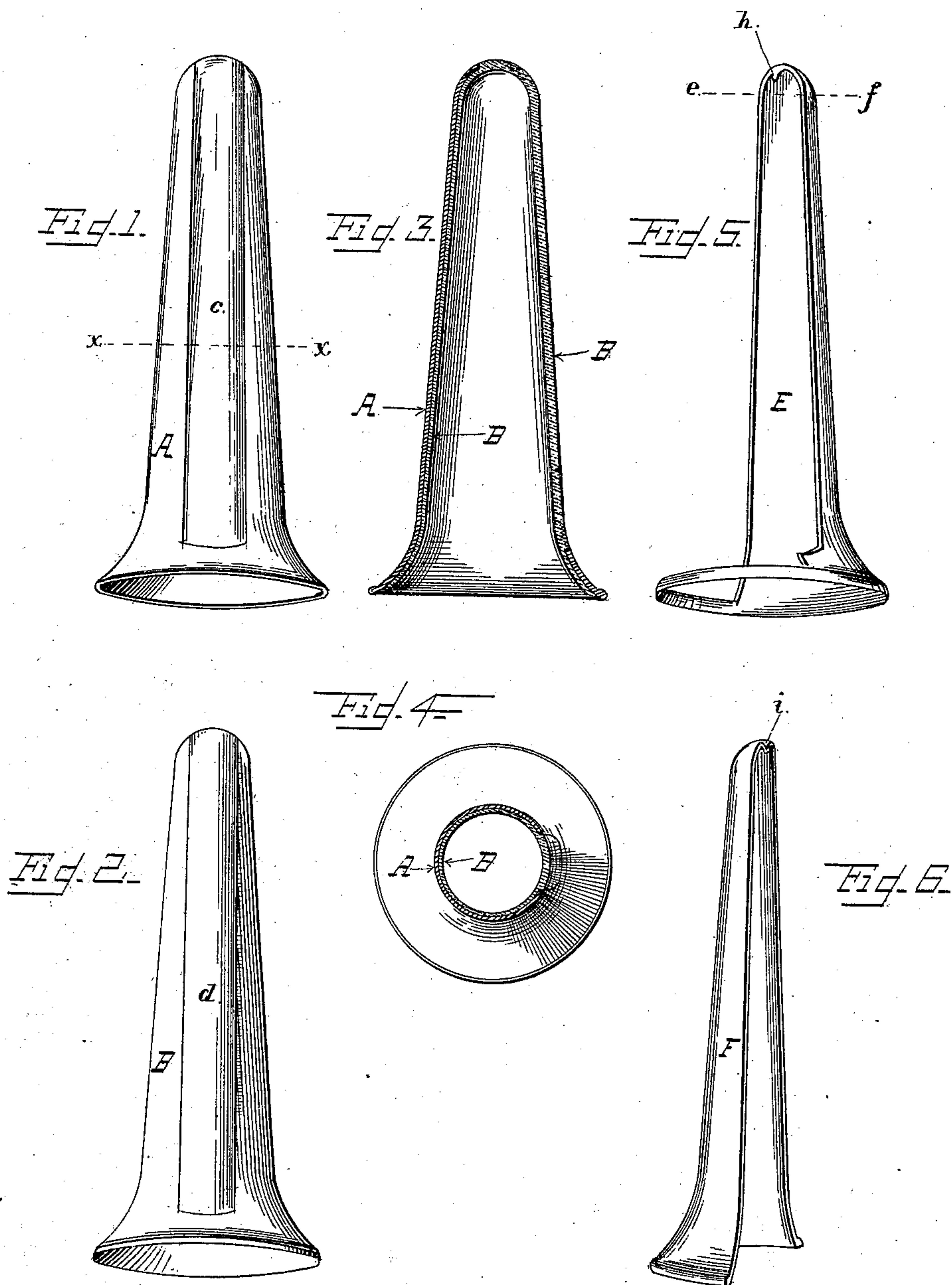
(No Model.)

J. E. WOODBRIDGE.

SPECULUM.

No. 357,163.

Patented Feb. 1, 1887.



WITNESSES

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SPECULUM.

SPECIFICATION forming part of Letters Patent No. 357,163, dated February 1, 1887.

Application filed June 18, 1886. Serial No. 205,521. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. WOODBRIDGE, of the city of Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Rectal Specula to Aid in Diagnosing and Treating Hemorrhoids and other Diseases of the Rectum; and I do 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 pertains to make and use the same.

The object of my invention is to produce a rectal speculum, which with a single insertion can be used to examine the entire surface of the rectum, and be withdrawn without the difficulty attending the withdrawal of the ordinary fenestrated specula now in use. To this end I propose to use a conical tube of highly-polished metal with a slot extending the entire length of the speculum, leaving the smaller end entirely open, a conical glass tube of like contour with the outside metal tube sliding into the metal tube, the glass tube having a raised portion corresponding with the slot of the metal tube, the external surface of the raised part of the glass tube being flush with the outer surface of the metal tube and end of the metal tube. One revolution of my speculum brings to view the entire rectum, thus necessitating but one insertion of the speculum, and the glass portion being flush with the metal and the end of the metal portion being entirely open both portions can be withdrawn with minimum pain to the patient.

In the drawings annexed, Figure 1 shows in perspective the external surface of the metal part and the slot. Fig. 2 is a view in perspective of the glass portion with raised part which slides into the metal portion. Fig. 3 is a view of a longitudinal section of the metal portion with glass portion inclosed. Fig. 4 represents a transverse section of the metal portion with glass portion inclosed. Fig. 5 represents a perspective view of a metal portion provided with the pivot *h*, and Fig. 6 a perspective view of the glass portion complementary of the metal portion shown in Fig. 5.

The outer portion, A, is constructed of highly-polished metal, and is provided with a slot, *c*, extending the entire length of the tube, as shown in Fig. 1.

The inner portion, B, is constructed of glass,

and is provided with a raised part, *d*, which becomes flush with the outer surface of A when the portion B slides into the metal portion A. In this manner a smooth external surface is presented. The raised glass portion being transparent reveals through it in one revolution of the speculum the entire rectum. After the diseased portion is found, the instrument is turned until the diseased part lies directly over the slot *c* and the raised portion of the glass *d*. The glass portion B is then withdrawn, thus giving access to whatever instrument the surgeon may wish to employ through the slot *c* of the portion A.

In Fig. 5 the metal portion A is provided with a lug or pivot, *h*, which is received by the groove *i* in the glass portion represented in Fig. 6. The glass portion F is made with an incline surface, so that the upper part of the incline is flush with the edge of the metal at the points indicated by the letters *e f*, thus allowing the withdrawal of the instrument without difficulty or pain to the patient.

My invention differs from others in this, that there is a glass portion similar in form to the outer portion provided with a raised part which has an external surface flush with the external surface and with the smaller end of the metal portion, a metal portion with the smaller end entirely open, thus allowing its withdrawal with minimum pain to the person treated.

What I claim is—

1. A speculum consisting of the outer portion made of highly-polished metal with slot and the small end entirely open, and the inner portion of glass with raised glass part corresponding with slot in metal case, the glass portion being similar to the metal portion, substantially as and for the purposes set forth.

2. A metal case provided with a pivot, and a glass portion provided with a groove, the pivot and groove being both located in the smaller end of the metal case and glass portion, respectively, the groove and pivot being used in combination, constructed substantially as and for the purposes set forth.

JOHN E. WOODBRIDGE.

Witnesses:

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