

(Model.)

G. E. ALLEN.  
SPECULUM.

No. 379,553.

Patented Mar. 20, 1888.

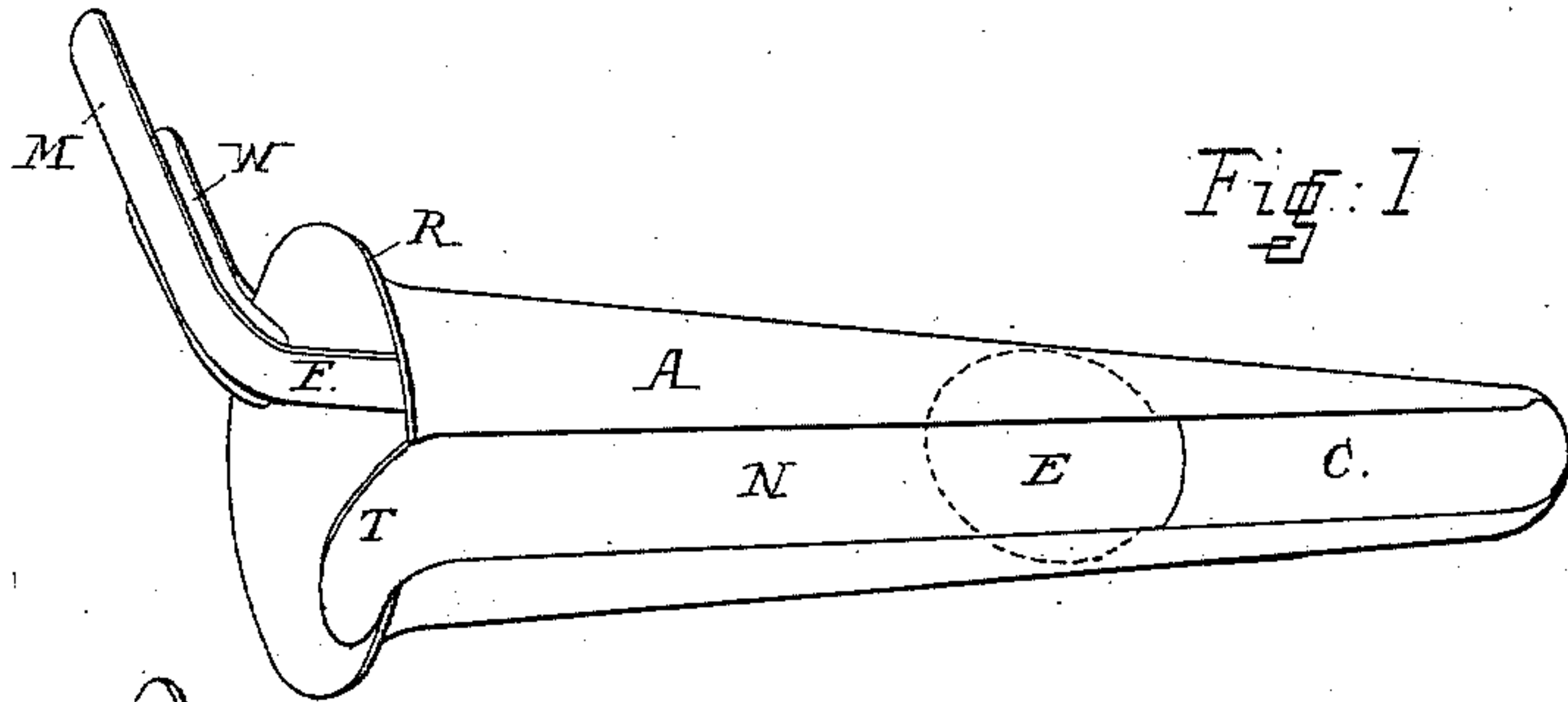


Fig: 1

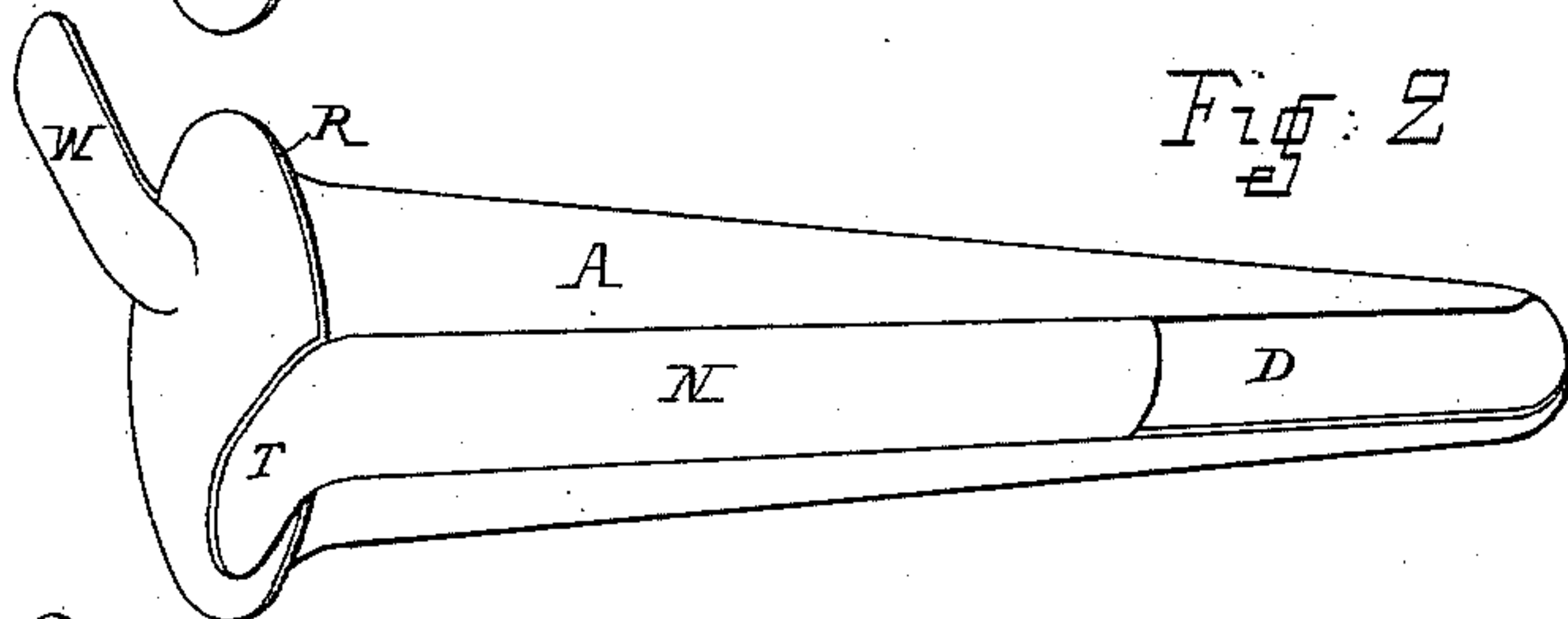


Fig: 2

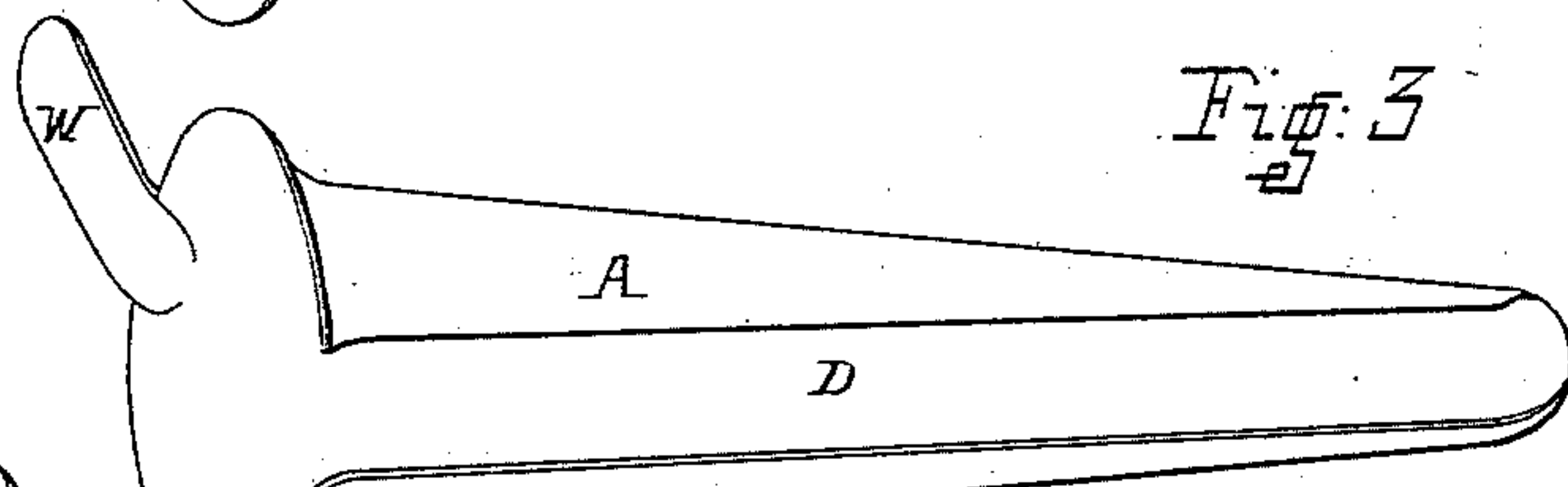


Fig: 3

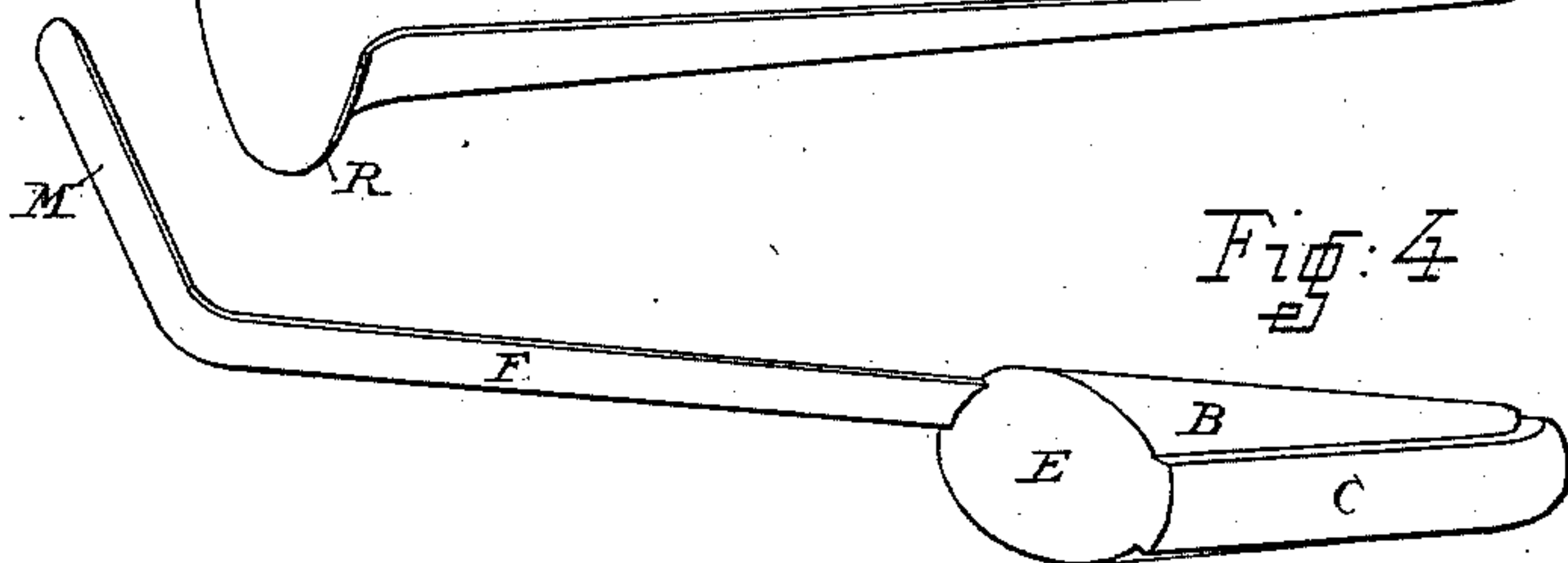


Fig: 4

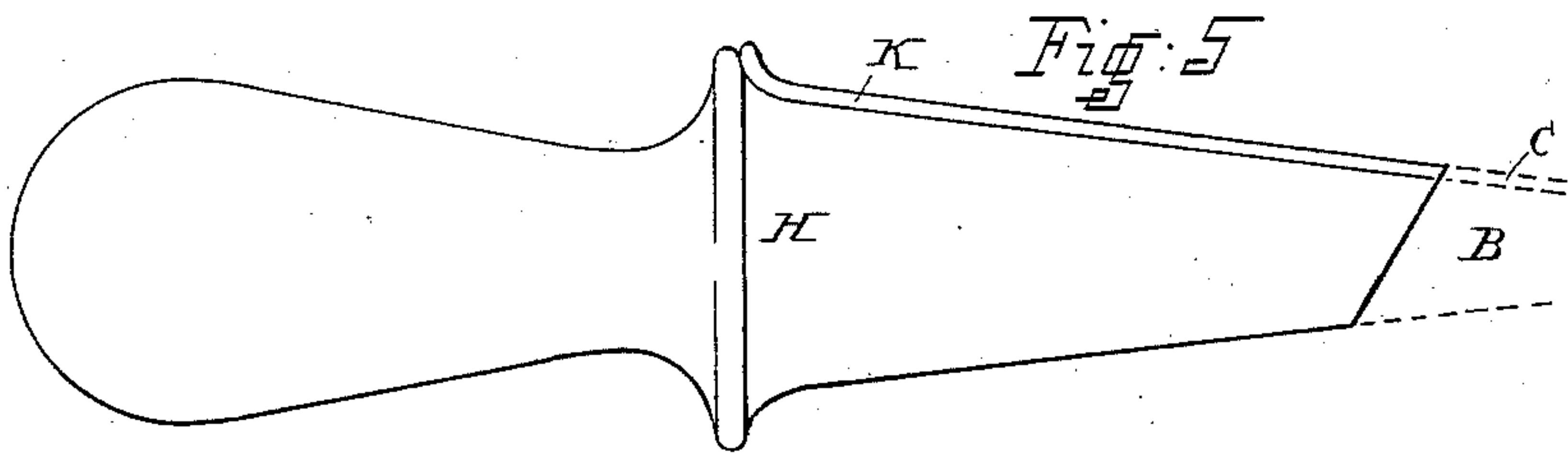


Fig: 5

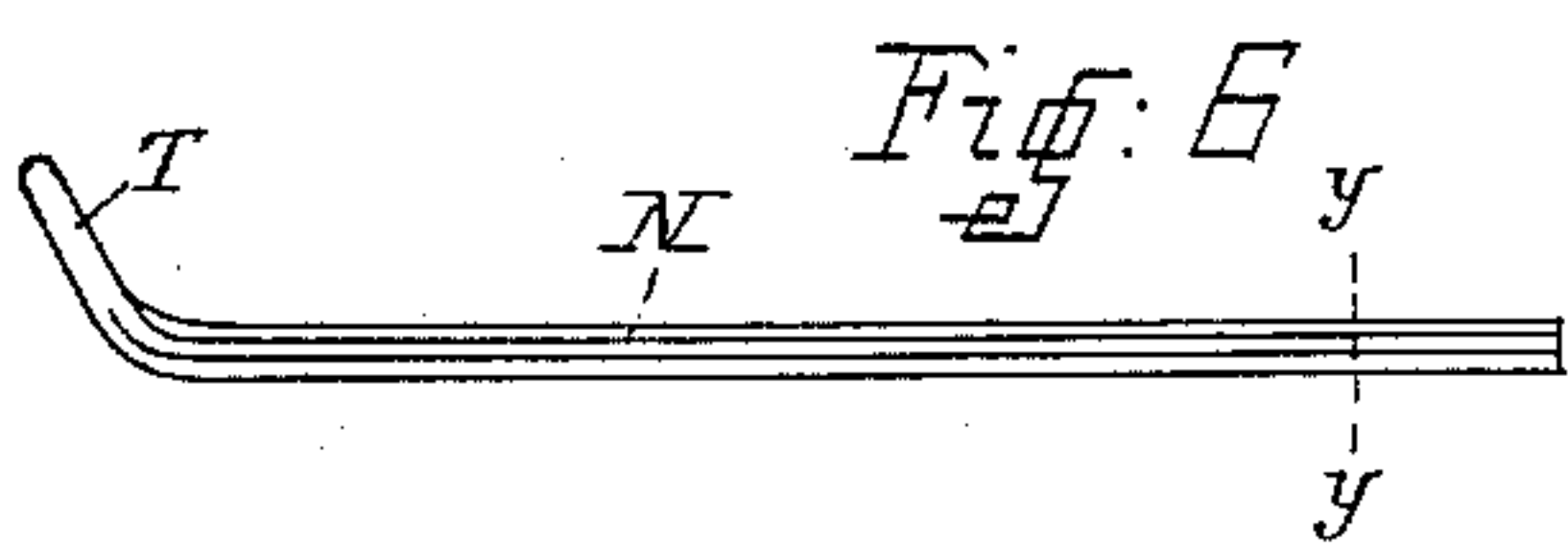


Fig: 6

Fig: 7

Witnesses,

E. A. Clark.  
W. B. Thompson.

Inventor,  
George E. Allen.  
By Edward F. Thomas.  
Attorney

# UNITED STATES PATENT OFFICE.

GEORGE E. ALLEN, OF YOUNGSTOWN, OHIO.

## SPECULUM.

SPECIFICATION forming part of Letters Patent No. 379,553, dated March 20, 1888.

Application filed September 20, 1887. Serial No. 250,215. (Model.)

*To all whom it may concern:*

Be it known that I, GEORGE E. ALLEN, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Rectal Specula; and I do hereby declare the following to be a full, clear, and exact description of my invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in rectal specula in which a conical tube with slot extending the entire length of the tube with small end open is used with a point-plug which fills the small end of the speculum, the point-plug being provided with a ridge filling slot and small end of tube and a suitable mirror to aid in operations, together with a breech-plug filling the large end of the tube, provided with a ridge filling slot from point-plug to large end of tube; also, in lieu of breech-plug, a slide filling slot and extending from point-plug to the large end of speculum.

The object of my invention is to produce a speculum which will avoid the defects of specula now in common use, especially in the following particulars: to enable the operator to examine every part of the rectum with but a single insertion of the instrument; to render it possible to use small end of tube as fully as any other portion of the speculum; to prevent the protrusion of parts near the large end of speculum when the parts near the small end are under examination; to provide a suitable mirror or reflecting-surface which will best reflect the light upon the parts to be treated and reflect an image of the parts to be treated to the operator, and, generally, to provide a speculum which can be so used that will cause minimum pain and inconvenience to patient and operator. I attain these objects by the construction illustrated in the accompanying drawings.

Figure 1 is a perspective view of my speculum having point-plug and slide in position, showing location of handles. Fig. 2 is a perspective view of the same with slide, the point-plug removed, showing location of handles. Fig. 3 represents tube and handle and slot ex-

tending entire length of the tube and open small end. Fig. 4 shows point-plug with ridge, and stem-handle and mirror. Fig. 5 shows breech-plug with ridge and handle. Fig. 6 shows slide, and Fig. 7 shows sectional view of slide through the line *yy*.

I propose to use a conical metal tube, A, with a bright and smooth exterior and interior surface, with the small end entirely open, and a slot, D, extending the entire length of tube. Fitting the small end of the tube is a point-plug, B, made of wood or metal, provided with a raised part or ridge, C, which completely fills the open end and the portion of the slot near the small end.

The large end of the point-plug B is provided with a mirror, E, arranged at a proper angle to the axis of the tube to reflect the light advantageously upon the part to be treated and reflect an image of the parts treated to the operator. The point-plug is provided with the stem-handle F, for manipulating the same. The breech-plug H is provided with a raised part or ridge, K, which extends from the end of the ridge C to the large end of the tube A. The point-plug B is manipulated by the handle M. Instead of the breech-plug and ridge, the slide N is used, accurately fitting the slot D and extending from the end of ridge at the large end of B to the large end of tube, and is provided with the handle T. Around the large end of the tube A is a flange, R, which serves to prevent the entrance of membrane or skin, which might interfere with examination of parts to be treated, and the tube is provided with the handle W.

If upon examination the part to be treated is near the large end of the tube, the point-plug is retained in place and serves to keep the parts from protruding into the slot, and the mirror on the end of the point-plug reflects light where needed and furnishes an image of the part to be treated to the operator. In case the part to be treated is near the small end, the point-plug is removed and the parts near the large end are kept from protruding by the slide, thus leaving uninterrupted view to the small end of the speculum. When an examination of a different part of the rectum is desired, the speculum is withdrawn until the large end of point-plug reaches the verge



of the anus, the slide replaced, and the instrument pushed up the rectum to the desired place, and further examination made, as already set forth.

5 My invention differs from others in this, that while in others the small end of the speculum is solid and cannot be removed, the point-plug, the breech-plug, and slide, used interchangeably in my speculum, enable the  
10 operator to use entire length of slot and open end or any portion thereof, at the same time securing the advantages gained by the use of mirror and handle.

What I claim is this:

15 A conical metallic tube with slot extending the entire length of tube, forming an open point, in connection with a point-plug filling small

end of tube, having mirror and handle, as described, upon point-plug filling slot, and a breech plug with flange accurately filling the  
20 large end of metallic tube up to and flush against point-plug and ridge filling slot from the end of ridge on point-plug to the large end of tube, also having a slot on the side of the  
25 breech plug to enable it to pass over the handle F of the point-plug, an ordinary slide, N, being used interchangeably with the breech-plug, all substantially as and for the purposes set forth.

G. E. ALLEN.

Witnesses:

E. A. CLARK,  
W. N. ASHBAUGH.