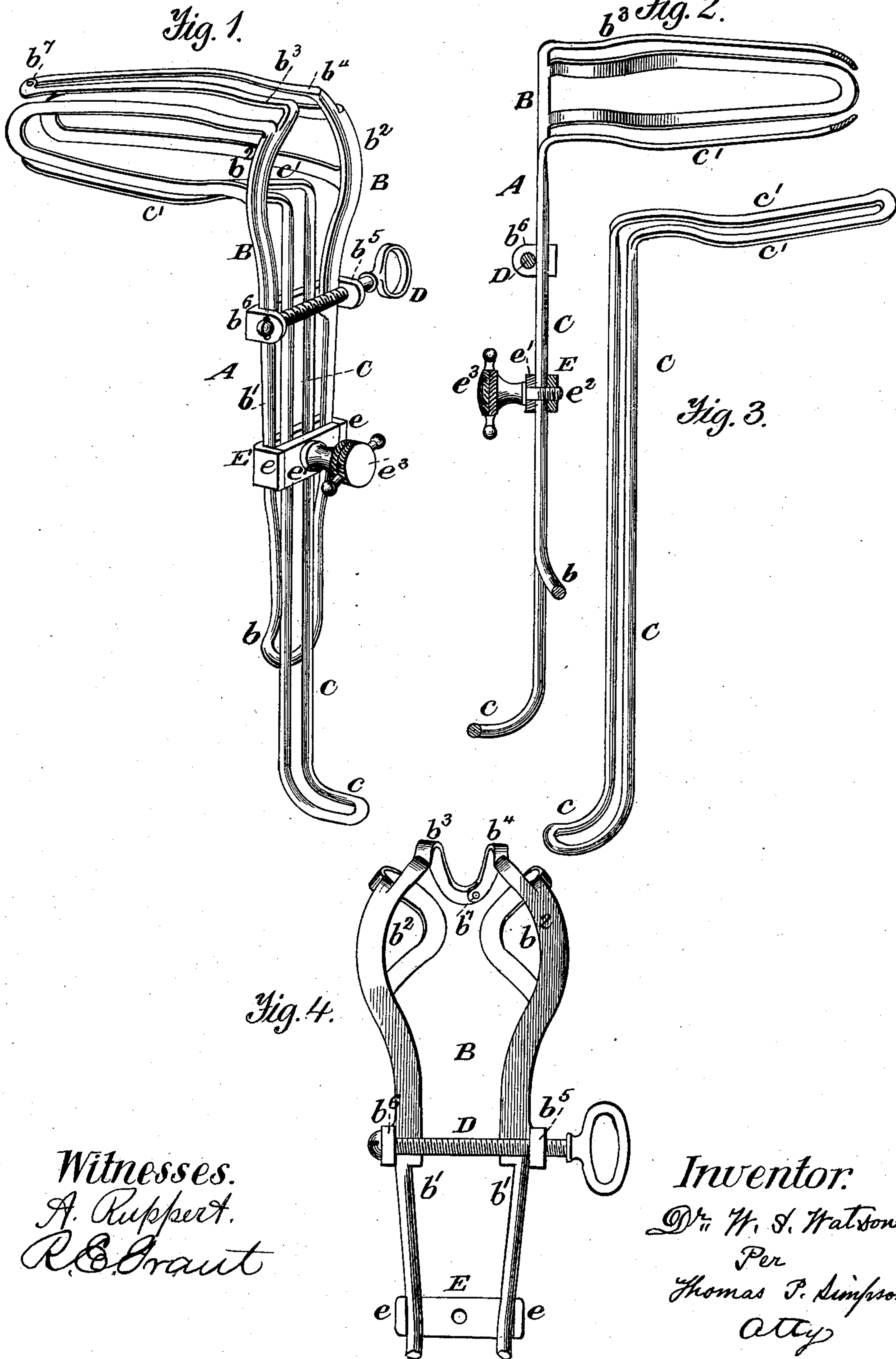


(No Model.)

W. S. WATSON.  
SPECULUM.

No. 351,548.

Patented Oct. 26, 1886.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

WILLIAM SETH WATSON, OF MATTEAWAN, NEW YORK.

## SPECULUM.

SPECIFICATION forming part of Letters Patent No. 351,548, dated October 26, 1886.

Application filed February 10, 1886. Serial No. 191,490. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM SETH WATSON, a citizen of the United States, residing at Matteawan, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Speculums; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The invention has for its object to improve the construction of the speculum used by surgeons and physicians for dilating certain cavities or openings of the human body, so that light may be thrown upon the inside and careful examinations made.

Figure 1 of the drawings is a perspective view of my speculum; Fig. 2, a longitudinal median vertical section; Fig. 3, a detail view in perspective of the retractor, and Fig. 4 a similar view of the laterally-expanding part.

In the drawings, A represents the speculum as an entirety; B, the retracting, and C the laterally-expansible, part. The part B has a bottom wire,  $b$ , folded, slightly turned down, and made elastic at the middle,  $b'$ , while it is bowed and enlarged in front to form two opposite arcs,  $b^2 b^2$ , which support the fingers  $b^3 b^4$ , rising therefrom at right angles. The two fingers  $b^3 b^3$  rise from the ends of the arcs  $b^2 b^2$ , and connect on a curve at the top with or without a joint, and may be spread apart from each other for the purpose of dilatation, while the pairs of side fingers are at the same time carried correspondingly apart.

D is a transverse screw working in a fixed nut,  $b^5$ , and swiveled in a stud,  $b^6$ , directly opposite to the nut. By this means the fingers  $b^3 b^4$  may be expanded or contracted to suit each particular case.

The part C of the speculum is curved and turned down at the rear end,  $c$ , so that it may be conveniently manipulated, while in front the two parts of the wire are bent at right angles and carried up to form two fingers,  $c' c'$ , that connect on a curve at the top. These fingers, at the top, are joined on a curve, so as to exert as little friction as possible on the parts with which they come in contact. After the fingers  $c' c'$  have been adjusted at the desired distance from the opposite fingers,  $b^3$ , they are made fast in a metallic clamp, E, between whose opposite flanges,  $e e$ , is placed a movable plate,  $e'$ , holed and threaded in the middle to receive a screw,  $e^2$ , which extends up through plate  $e'$ , and is provided with a thumb-nut,  $e^3$ . It will thus be seen that I may clamp the part C of the speculum at any adjustment, as well as the fingers of part B, so as to form a group of adjustable fingers, which taper toward a common center at the top, and, being flat as well as elastic, cause the smallest possible pain or annoyance to the patient.

Having thus described all that is necessary to a full understanding of my invention, what I claim as new, and desire to protect by Letters Patent, is—

1. In a speculum, the piece B, made elastic and one half adjustable laterally with respect to the other half, in combination with a piece, C, having blades  $c' c'$ , and longitudinally adjustable with respect to the piece B, whereby the blades on both pieces may be brought closer together or carried farther apart, as described.

2. In a speculum, the front blades,  $b^3 b^4$ , having a joint,  $b'$ , at the top, as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM SETH WATSON.

Witnesses:

D. W. DOUGHERTY,  
R. V. SCHUTZ.