No. 679,712. Patented July 30. 1901.

P. E. VENNING.

SPECULUM.

(Application filed Jan. 17, 1901.)

(No Model.)

Fig. 1

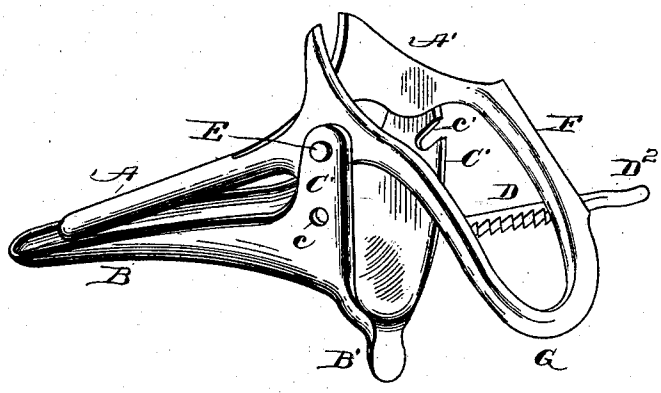


Fig. 2

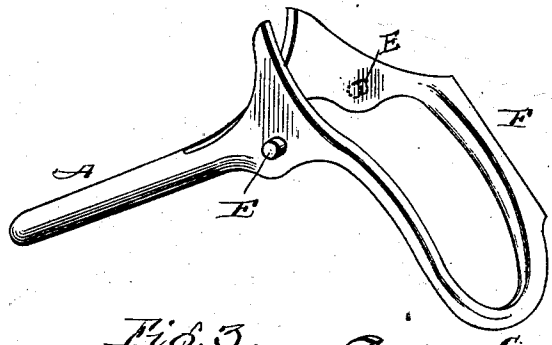
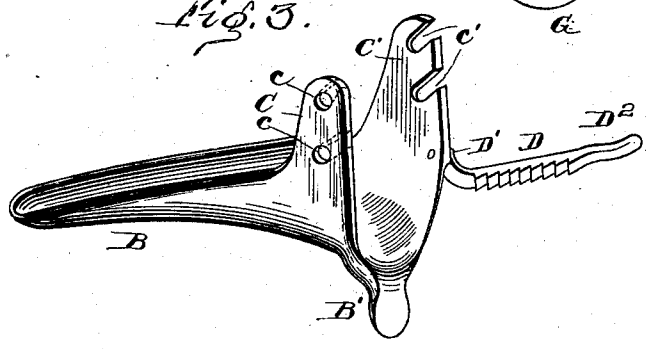


Fig. 3.



Witnesses:
Thomas Durant.
Alexander S. Stewart.

Inventor
Richard E. Venning.
by Church & Church
his Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RICHARD E. VENNING, OF CHARLESTOWN, WEST VIRGINIA.

SPECULUM.

SPECIFICATION forming part of Letters Patent No. 679,712, dated July 30, 1901.

Application filed January 17, 1901. Serial No. 43,644. (No model.)

To all whom it may concern:

Be it known that I, RICHARD E. VENNING, a citizen of the United States, residing at Charlestown, in the county of Jefferson, State of West Virginia, have invented certain new and useful Improvements in Speculums; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention relates to improvements in that class of surgical implements designed to facilitate the examination of the orifices of the body; and it has for its object the production of an instrument which, while capable of adjustment to vary the size of the instrument or the distention of the orifice at will, shall nevertheless be of the utmost simplicity, both in construction and manipulation, and whereby not only is the lodgment and retention of germs of disease avoided, but the ease of cleaning and disinfecting greatly facilitated. Instruments of this character have as heretofore constructed usually been provided with more or less complicated bearings for the articulation of the members and adjusting mechanism—such as screws, nuts, &c.—which form cracks, corners, &c., in which germs and dirt accumulate and are exceedingly difficult to dislodge.

In carrying into practice my present invention, with the objects in view as stated above, the use of complicated joints or screws or other complicated adjusting mechanisms are entirely avoided, and in order that the invention may be more readily comprehended I have in the accompanying drawings shown, in—

Figure 1 an instrument constructed in accordance with my present invention, the members being shown articulated. Fig. 2 is a perspective view of one member, and Fig. 3 is a similar view of the other member.

In said drawings like letters indicate the same parts in the several figures.

The type of instrument illustrated is a bivalve vaginal speculum, and the letters A and B indicate the penetrating members or duck-bills, which are of any usual or preferred shape. The member B at its outer end is formed with an outwardly-curved flange or lip B′, constituting a convenient finger or hand piece by which the member may be manipulated, and on each side said flange forms lugs or ears C C′, in which the bearings *c c′* for the coöperating members are located. Two or more bearings are formed in each ear for adjustment, as will presently appear, and the bearings in one ear—preferably, but not necessarily, those *c′* in the right-hand ear C—are open bearings. All the bearings are preferably of large size, so as to permit of the ready insertion of a cleaner. At one side, preferably the right-hand side, of the member B B′ a yielding toothed or notched retainer D is attached. This retainer is preferably attached by having its base D′ formed at right angles to its outer end and the extremity seated in or riveted to the body of the member, thereby forming a spring of the part D′ and permitting of a finishing up of the parts with well-rounded and smooth points of union, as shown. The outer end of the retainer may be smooth and slightly flattened to form a finger or thumb piece, as at D^2, although this is not essential and is a matter of finish to be determined by the manufacturer.

The coöperating member A is at its outer end also somewhat flared or flanged at A′ on each side, and the pivots or journals E for cooperation with the bearings *c c′* are formed on the flanged portions. One of the flanged portions A′ is extended at an angle to the length of the duck-bill and formed into an engaging edge F, which coöperates with the yielding retainer D to hold the articulated members in their adjusted positions.

As a convenient means for manipulating the member A, the part F is extended around in the form of a circular or curved handle G, which may and preferably does join the opposite flange of the member A, but leaves a central opening through which observations may be taken and applications made. Both the handles or hand portions B′ and G extend off at an angle and when the members are articulated are in the most convenient position to be pressed toward each other to separate the duck-bills.

To release the retainer and allow the duck-bills to come together requires simply a slight lateral pressure in opposite directions on the upper end of the retainer and side of the han-

dle G, which operation may be performed instantaneously with the thumb and finger of the right hand.

The form of each of the members of the speculum, it will be noted, is such that every part may be easily and quickly wiped off and rendered aseptic. There are only two parts to the whole device. They may be articulated or separated with the greatest ease, and when articulated the retainer holds them in proper relative position whether adjusted to open or closed position. The members may be articulated with the journals in either set of bearings, according to the size desired and, in fact, other sets of bearings may be formed if intermediate adjustments are desired.

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

1. In a speculum the combination with one member having a flanged outer end forming a finger-piece and bearings formed on opposite sides, one of said bearings being open and the other a closed bearing, of a coöperating member having oppositely-projecting journals for coöperation with the said bearings, a toothed yielding retainer carried by one member and a coöperating edge formed on the opposite member whereby said members may be held in adjusted position; substantially as described.

2. In a bivalve speculum formed of two articulated members with no loose or jointed parts on either member, the combination with one member having a flanged outer end with bearings on opposite sides of said flanged portion, the bearing on one side being open, and a yielding toothed retainer connected at one end to one side of said member, of a coöperating member having oppositely-arranged journals for coöperation with the said bearings, a retaining edge projecting at an angle to the body of the member and adapted to cooperate with the yielding toothed retainer and a hand or finger piece projecting from said retaining edge; substantially as described.

3. In a bivalve speculum the combination with one member having its outer end flanged at an angle to the body of the member, bearings on opposite sides of the outer portion of said member and a yielding toothed retainer of a second member having journals on opposites sides of its outer end for coöperation with said bearings, a curved handle portion connecting opposite sides of its outer end and projecting at an angle to the body of the member and having an opening through which observations may be taken and a retaining edge at one side, for coöperation with the yielding toothed retainer; substantially as described.

4. In a bivalve speculum the combination with one member having its outer end flanged and provided with separate pairs of bearings, one bearing of each pair being an open bearing, of a second member having a single pair of journals for coöperation with said bearings whereby the size of the speculum may be varied, a yielding toothed retainer on one of said members and a coöperating retaining edge on the other member, said retaining edge being of sufficient length to coöperate with the retainer when the members are articulated with the journals in either pair of bearings; substantially as described.

RICHARD E. VENNING.

Witnesses:
THOS. R. MOORE,
C. C. WORTHINGTON.