

A. BERGER.
Syringe.

No. 196,417.

Patented Oct. 23, 1877.

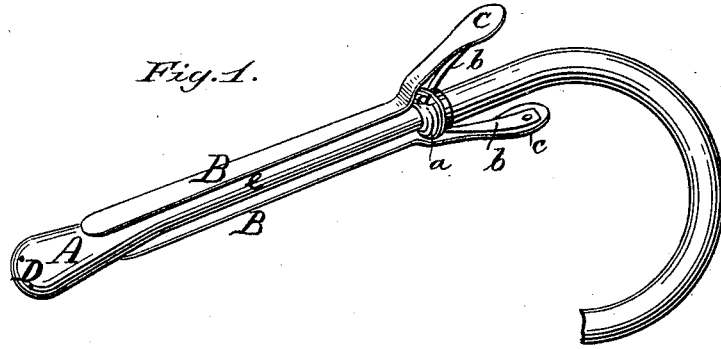


Fig. 2.

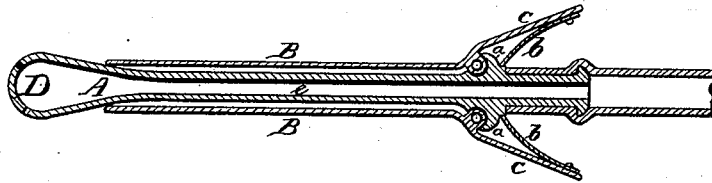


Fig. 3.

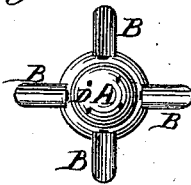
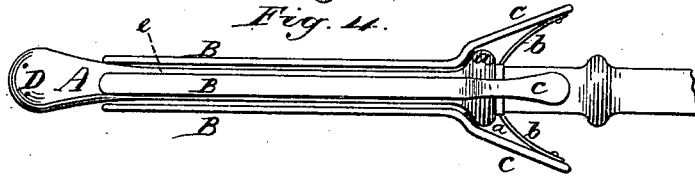


Fig. 4.



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UNITED STATES PATENT OFFICE.

AUGUST BERGER, OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN SYRINGES.

Specification forming part of Letters Patent No. **196,417**, dated October 23, 1877; application filed September 24, 1877.

To all whom it may concern:

Be it known that I, AUGUST BERGER, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Syringes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view. Fig. 2 is a longitudinal section. Figs. 3 and 4 show a modification of my invention.

Similar letters of reference indicate corresponding parts in both figures.

This invention relates to that class of surgical syringes which are provided with wings or leaves for dilating the cavity of the body into which an injection is to be forced; and it consists in the construction and arrangement of parts hereinafter more fully shown and described.

In order to get the entire benefit of medical injections it is necessary that such injections shall reach, and come in contact with, the whole of the inner surface of the vagina, rectum, or other cavity of the body into which they are forced. Owing to the nature of these cavities this is difficult, and, at times, impossible to accomplish, when syringes of the ordinary construction are used. As a consequence, such injections are often very ineffective. In order to overcome these difficulties, syringes have been constructed with a pair of pivoted wings, which may be expanded by a simple pressure of the thumb and finger; and my invention consists in shaping the nozzle of such syringes with a bulb at the end, so that the dilating-wings, which reach only as far as the contracted portion of the nozzle, shall not be in the way when the syringe is used.

Referring to the drawings hereto annexed, A is the head or nozzle of a syringe, which consists of a tube, *e*, expanded at the end so as to form a bulb, D. The lower end of head A has suitable bearings *a a* for two flat wings or leaves, B B; pivoted on opposite

sides, as shown. The rear ends of said wings form handles *c c*, and are forced outward by suitable flat or coiled springs *b b*, thus causing the body of each wing to lie flat upon the contracted portion of the nozzle.

The operation of my invention will be easily understood. After inserting the nozzle with the wings B B into the vagina or other cavity, the rear ends of the wings are depressed with the thumb and finger, thus causing the forward ends to expand to the position shown in the drawing, the result of which is to expand or dilate the cavity, when the injection may be made, reaching every part thereof.

In Figs. 3 and 4 of the drawings I have shown a modification of my invention, which consists in pivoting four, instead of only two, wings, B, upon the nozzle. This I find sometimes to be preferable. I do not, therefore, wish to be understood as limiting myself to two wings, as three, four, or even a greater number may sometimes be employed.

Owing to the bulb D, the wings or levers B B will not interfere with the ready insertion of the nozzle of the syringe.

My invention, besides simplicity and cheapness of construction, has this advantage, that it may be easily and conveniently used by the person using the injection without assistance.

I am aware that it is not new to provide a surgical syringe with dilating leaves or wings. I therefore do not claim such arrangement, broadly; but,

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination of the nozzle A, having bulb D, with the pivoted dilating wings or leaves B B, extending only so far as the contracted portion of the nozzle, and springs *b b*, substantially as and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

AUGUST BERGER.

Witnesses:

JAMES W. CORNING,
WALTER G. COWLES.

750 words