No. 615,697. Patented Dec. 13, 1898.

P. GRABLER.

EXPANDING ARM SYRINGE

(Application filed Jan. 26, 1898.)

(No Model.)

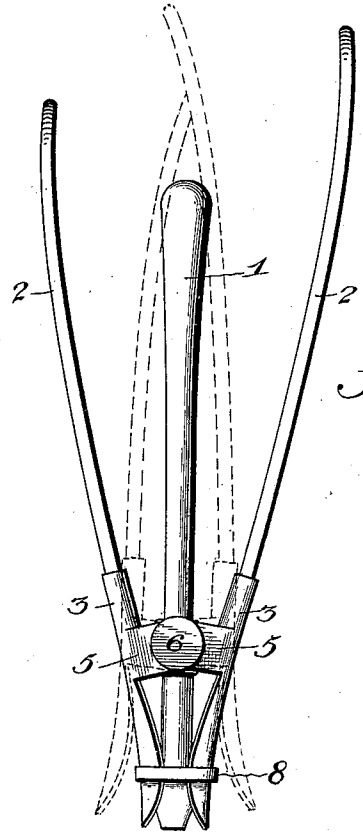


Fig. 1.



Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

PETER GRABLER, OF MANSFIELD, OHIO.

EXPANDING-ARM SYRINGE.

SPECIFICATION forming part of Letters Patent No. 615,697, dated December 13, 1898.

Application filed January 26, 1898. Serial No. 668,010. (No model.)

To all whom it may concern:

Be it known that I, PETER GRABLER, a citizen of the United States of America, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Syringes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in dilating syringe-tubes, and particularly to that class known as "expanding-arm," designed for use in irrigating the vagina, so that the parts may be distended and the cleansing fluid admitted to the entire surface.

A further object of the invention is to produce novel means whereby the fluid flowing from the end of the syringe may be turned in various directions without altering the position of the expanding arms, this being a great advantage where irrigation exists and the manipulation must be minimized.

A further object of the invention is to produce expanding arms which are readily applied to and detached from tubes in common use or to those employed in connection with fountain-syringes.

A further object of the invention is to provide means for adjusting the expanding arms longitudinally of the tubes, so that the forward ends of the arms may open the parts at a greater or less distance in advance of the fluid.

Finally, the object of the invention is to provide novel means whereby the elements composing the syringe may be readily cleansed, making them at the same time comparatively inexpensive, durable, and efficient.

With the above and other objects in view the invention consists in the novel details of construction, as well as in the arrangement and combination of parts, to be hereinafter more fully set forth and specifically claimed.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters of reference denote corresponding parts in both views, in which—

Figure 1 is a view in elevation, showing the expanding arms applied to a tube. Fig. 2 is a view of the arms and the tube, partly in section.

In the drawings, 1 denotes an ordinary syringe tube or end having applied thereto the expanding arms 2 2, each formed of a body 3, having a looped wire 2 with its ends embedded in the body. Each body is also provided with ears 5 5, having screw-threaded apertures to receive the retaining-screws 6, said screws having pointed ends 7 engaging the tube and forming pivotal points on the said tube, whereby it may be swung laterally. The ears of the bodies are curved slightly to conform to the contour of the tube.

In practice I prefer to make one loop slightly longer than the other, as shown, so as to present but a single point of contact as the arms are inserted. The said arms are held in place by the screws, as stated, and it will be seen that the bodies may be adjusted with relation to the ends of the tubes, so that the parts may be opened in advance of the end, thus giving to the stream unobstructed flow until the parts to be acted upon are reached. The arms are held in their distended position by the rubber ring or band 8, which engages the bodies.

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

1. In combination, a syringe-nozzle having an enlargement, arms having ears embracing the enlargement, and screws passing through said ears and having pointed ends engaging with the enlargement, as and for the purpose described.

2. Expanding arms for syringes, each consisting of a loop a body secured to the end of the loop, ears depending from the body, said arms being pivoted together by means of screws passed through said ears, the screws engaging the ball and forming a pivot for the arms, as and for the purpose set forth.

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

PETER GRABLER.

Witnesses:
J. P. HENRY,
J. M. REED.

Correction in Letters Patent No. 615,697.

It is hereby certified that in Letters Patent No. 615,697, granted December 13, 1898, upon the application of Peter Grabler, of Mansfield, Ohio, for an improvement in "Expanding-Arm Syringes," an error appears in the printed specification requiring correction, as follows: In line 20, page 1, the word "irrigation" should read *irritation;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 20th day of December, A. D., 1898.

[SEAL.]

WEBSTER DAVIS,
Assistant Secretary of the Interior.

Countersigned:

C. H. DUELL,
Commissioner of Patents.