

(No Model.)

H. H. THORNTON & W. E. HOYLE.
SYRINGE.

No. 547,047.

Patented Oct. 1, 1895.

Fig. 1.

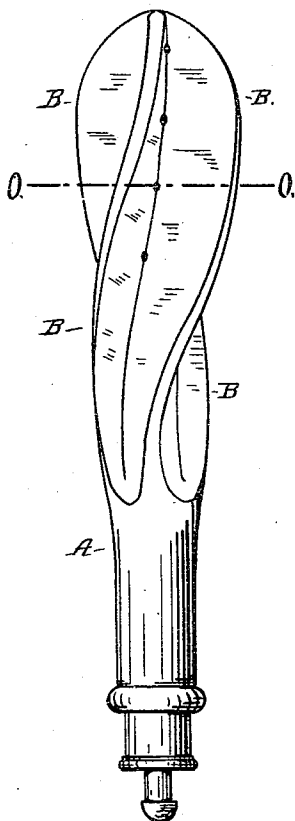


Fig. 2.

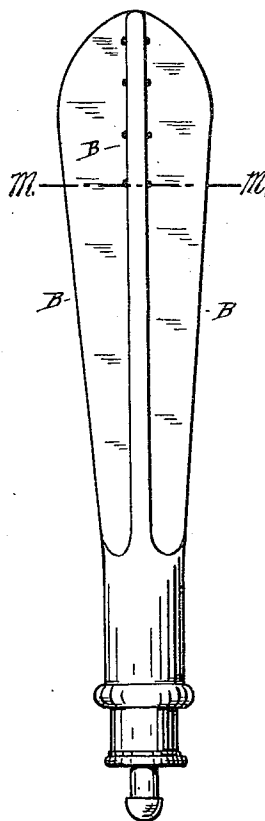


Fig. 3.

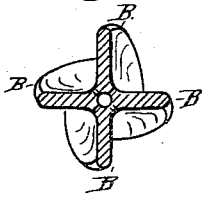
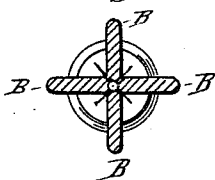


Fig. 4.



Witnesses:
A. E. Macbrine
W. Hathaway

Inventors:
Horatio H. Thornton
William E. Hoyle
by Melvin B. Vincent Atty.

UNITED STATES PATENT OFFICE.

HORATIO H. THORNTON, OF EAST PROVIDENCE, AND WILLIAM E. HOYLE,
OF PROVIDENCE, RHODE ISLAND.

SYRINGE.

SPECIFICATION forming part of Letters Patent No. 547,047, dated October 1, 1895.

Application filed June 1, 1895. Serial No. 551,399. (No model.)

To all whom it may concern:

Be it known that we, HORATIO H. THORNTON, of East Providence, and WILLIAM E. HOYLE, of Providence, in the State of Rhode Island, have made certain new and useful Improvements in Vaginal Syringes; and we do hereby declare that the following specification, taken in connection with the drawings making a part of the same, is a full, clear, and exact description thereof.

Figure 1 is a view of the tip of a vaginal syringe having curved flanges. Fig. 3 is a cross-section on line O O. Fig. 2 is a modification of same with straight flanges. Fig. 4 is a cross-section on line M M.

Our invention relates to the tips or inserting end of a vaginal syringe; and it consists in the construction of the same, as hereinafter described, so that the cleansing or treating liquid may be more easily and diffusively injected and its subsequent outward flow less obstructed than with the syringe-tips now in use. With the tips now in use the principal difficulty has been found to reside in the tendency of the parts to close tightly around it and not only prevent and restrict the free distribution of the injected liquid but also to obstruct its subsequent outflow and arrest the discharge and expulsion of the local impurities.

In our invention the tip A, Fig. 1, is made of hard rubber and has four laterally-extending flanges B. The number of these flanges may be varied, although we believe that four are productive of the best results. Between the flanges are the usual holes for the escape of the liquid. The flanges B, as shown in Fig. 1, wind around the central longitudinal line

or axis of the tip. This formation of the tip keeps the parts expanded after insertion and counteracts the tendency of the muscles to relax and adjust themselves to any regular line, thus permitting the fleshy parts to fill the spaces between the flanges and obstruct the discharge and diffusion of the liquid. This action of the flanges is also increased by making the end of the tip somewhat obtuse and of a greater diameter than the remaining portion.

In Fig. 2 we have shown a modification of our invention having the flanges B made straight instead of winding, as in Fig. 1. This modification is not so effective, but embodies to some extent the advantages of the tips shown in Fig. 1. The flanges in either construction are in no sense elastic or springy, and are sufficient in Fig. 2 to maintain a separation of the parts to some extent without the winding feature.

What we claim as our invention, and desire to secure by Letters Patent, is—

A tip for vaginal syringes provided with a longitudinally perforated central portion and laterally extending flanges arranged spirally thereupon, the central portion being provided with perforations communicating with the longitudinal perforation and terminating between the flanges, the end of the tip being obtuse and of a greater diameter than the remaining portion, substantially as set forth.

HORATIO H. THORNTON.
WILLIAM E. HOYLE.

Witnesses:

WALTER B. VINCENT,
A. E. MACLAINE.