

(No Model.)

A. T. HOLT.
SYRINGE.

No. 468,877.

Patented Feb. 16, 1892.

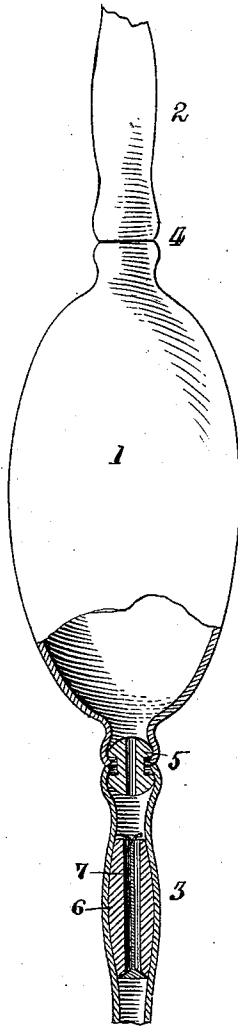


Fig. 1.

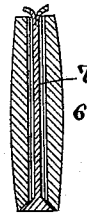


Fig. 2.



Fig. 3.

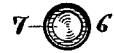


Fig. 4.



Fig. 5.

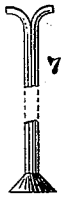


Fig. 6.

Witnesses
J. W. Peterson
C. E. Humphrey

Inventor
Albert T. Holt.
By his Attorney
C. E. Humphrey

UNITED STATES PATENT OFFICE.

ALBERT T. HOLT, OF AKRON, OHIO, ASSIGNOR TO THE B. F. GOODRICH COMPANY, OF SAME PLACE.

SYRINGE.

SPECIFICATION forming part of Letters Patent No. 468,877, dated February 16, 1892.

Application filed October 5, 1891. Serial No. 407,696. (No model.)

To all whom it may concern:

Be it known that I, ALBERT T. HOLT, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented a certain new and useful Improvement in Valves and Valve-Cases for Syringes, of which the following is a specification.

My invention has relation to improvements in valve-seats and valves for flexible syringes, including both siphon and bulb syringes; and it has for its object the production of the valve-seat susceptible of being inserted in the flexible valve-tube and a valve adapted to be inserted therein.

The object of my invention is to produce a new and improved form of valve-seat and valve for flexible-tube syringes that may be inserted in the flexible tube of the syringe and retained there by the elasticity of the valve-tube without further appliances.

To the aforesaid purpose my invention consists in the peculiar and novel construction, arrangement, and combination of parts hereinafter described, and then specifically pointed out in the claim, reference being had to the accompanying drawings, which form a part of this specification.

In the accompanying drawings, in which similar reference-numerals indicate like parts in the different figures, Figure 1 represents a bulb of a valve-syringe with accompanying parts, the lower portion and the flexible tube extending therefrom shown in central section; Fig. 2, a central longitudinal section of a valve-case and a valve embodying my invention; Figs. 3 and 4, a top and bottom view of this valve-case and valve; Fig. 5, an outside ele-

vation of the valve-case, and Fig. 6 a side elevation of the valve and stem.

Referring to these drawings, 1 is the bulb of a syringe, connected with pipes 2 3 by intermediate connections 4 5. In the lower tube 3 is inserted my improved valve-case 6, which contains valve 7. This valve-seat consists of a rigid longitudinal tube, usually of hard rubber, preferably larger in the center than at the ends, and having through its center an orifice in which is inserted a valve-stem 7, one end of which fits a valve-seat at the lower end of the valve-case, the opposite end being forked or otherwise arranged so as not to draw through the valve-case. This valve-case is inserted in the flexible tubes of the syringe, and by reason of its peculiar shape is retained there without other appliances by means of the elasticity of the flexible tube.

I claim as my invention—

An improved valve-case and valve for tube-syringes, consisting of a rigid elongated tube adapted to be inserted in the flexible tube, larger at some exterior point than the internal diameter of the flexible tube, having a central orifice with a valve-seat at one end, combined with a valve-stem resting in said orifice, having at one end a valve to fit said seat, the other end being forked to prevent retraction, substantially as shown and described.

In testimony that I claim the above I hereunto set my hand.

ALBERT T. HOLT.

In presence of—

C. P. HUMPHREY,
C. E. HUMPHREY.