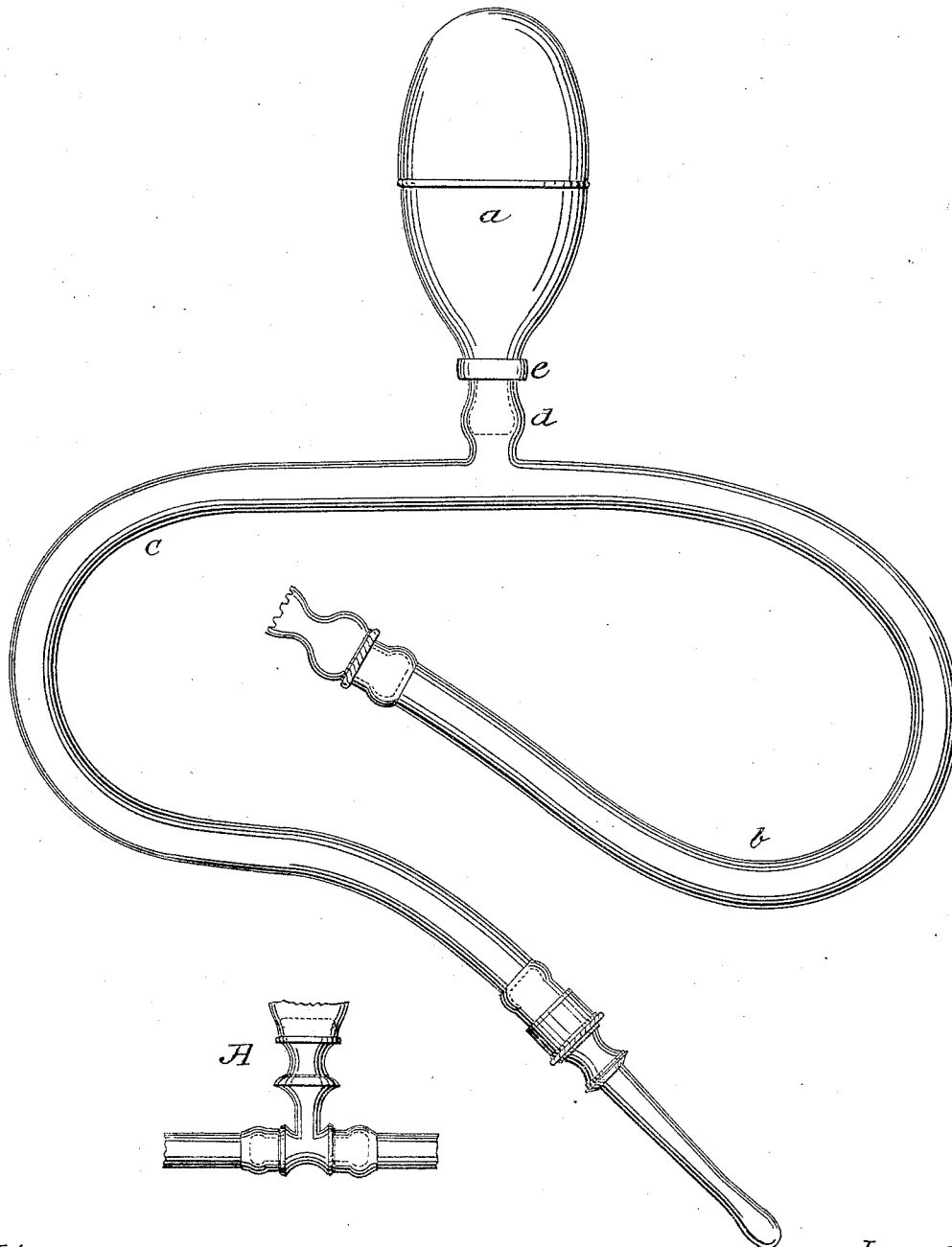


*H.D. Lockwood.*

*Syringe,*

*No. 49,900,*

*Patented Sep. 12, 1865.*



*Witnesses*

*Francis Gould*  
*W. B. Gleason*

*Inventor*

*H. D. Lockwood*  
*by his Atty*  
*W. B. Crosby*

# UNITED STATES PATENT OFFICE.

HAMILTON D. LOCKWOOD, OF CHARLESTOWN, MASSACHUSETTS.

## IMPROVEMENT IN SYRINGES.

Specification forming part of Letters Patent No. 49,900, dated September 12, 1865.

*To all whom it may concern:*

Be it known that I, HAMILTON D. LOCKWOOD, of Charlestown, in the county of Middlesex and State of Massachusetts, have invented an Improved Syringe; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

In the manufacture of such elastic bulb-syringes, having flexible induction and eduction pipes, as have the bulb arranged out of the general line of such respective pipes, the practice has been to connect these pipes to each other and to the bulb by a T-shaped metallic coupling. Such construction, however, is objectionable, because a series of joints is necessary, in each of which joints leakage is more or less liable to take place, which, in connection with the change in the condition of the rubber around such joints, tends to render the instrument inefficient and unreliable. This objectionable construction I obviate to a great degree, if not entirely, by dispensing with the metallic coupling heretofore used and constructing the flexible induction and eduction pipes (made as one tube) with a flexible extension integral therewith, to which extension the elastic bulb is attached. It is this construction which constitutes my invention.

A syringe embodying the improvement is represented in elevation in the drawings, the detail at A showing the common construction.

*a* denotes the elastic bulb; *b* and *c*, the flexible induction and eduction tubes.

There being nothing new in the valvular arrangement or in the manner of operating the syringe, no description need be made thereof.

The induction and eduction tubes are made as one pipe, and have leading from them where they join a short lateral tube, *d*, which is not an attachment to the induction and eduction pipes, but is a lateral extension of the line of tubing forming the said pipes. The mouth of this pipe *d* is slipped over the neck of a metallic socket-piece, *e*, which is permanently attached at its other end to the bulb *a*, as in some other syringes of this nature.

The advantage of this construction will be clearly seen from inspection of the detail drawing, (seen at A,) which shows the common arrangement. It will be seen that there are three joints there besides the permanent connection of the socket-piece to the bulb—namely, two for the attachment of the eduction and induction pipes to the metallic connector and one for the attachment of the bulb to said connector—whereas by my construction only one of these joints is used—namely, that connecting the eduction and induction pipes, or the integral extension therefrom, directly to the socket-piece *e* of the bulb.

I claim—

An elastic bulb-syringe in which the flexible induction and eduction pipes are connected to the elastic bulb by a lateral pipe extending from and integral with said induction and eduction pipes, substantially as set forth.

In witness whereof I have hereunto set my hand this 30th day of May, A. D. 1865.

HAMILTON D. LOCKWOOD.

Witnesses:

FRANCIS GOULD,  
W. B. GLEASON.