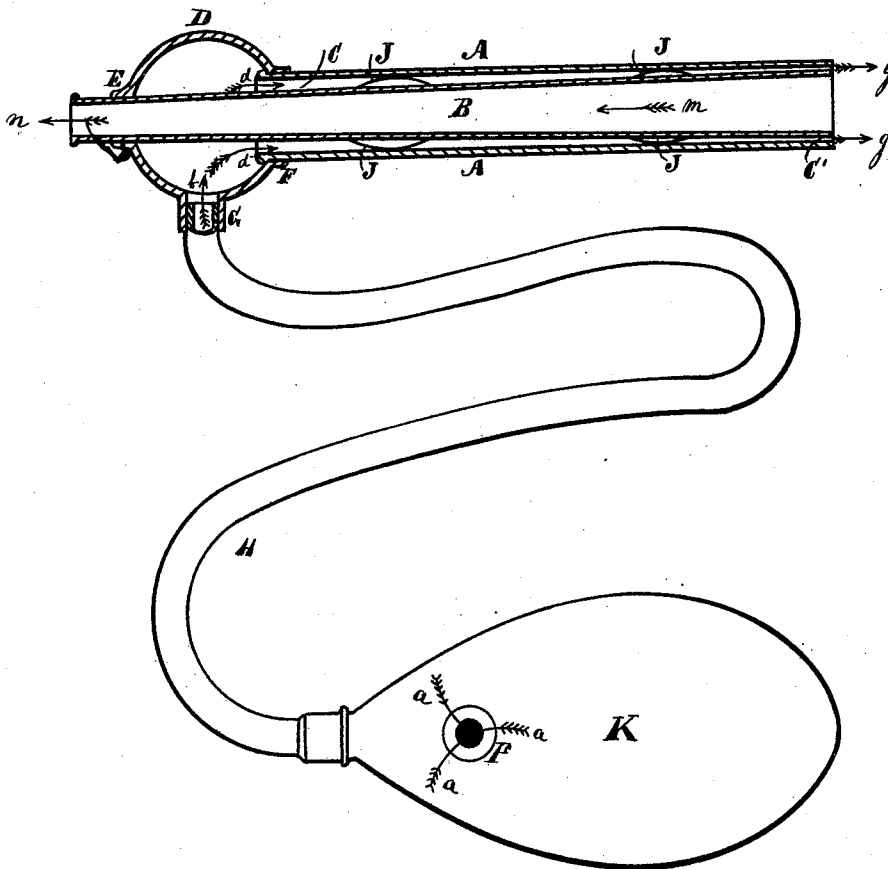


J. S. PARSONS.
 SYRINGE.

No. 179,950.

Patented July 18, 1876.



Witnesses:
J. S. Long
E. B. Whitney

Inventor
John S. Parsons
 Per E. D. Whittier
 his Atty.

UNITED STATES PATENT OFFICE

JOHN S. PARSONS, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO HIMSELF AND
JOSEPH H. YUNDT, OF SAME PLACE.

IMPROVEMENT IN SYRINGES.

Specification forming part of Letters Patent No. **179,950**, dated July 18, 1876; application filed
June 14, 1876.

To all whom it may concern:

Be it known that I, JOHN S. PARSONS, of Indianapolis, county of Marion, State of Indiana, have invented a new and useful Improvement in Syringes, of which the following is a description, reference being had to the accompanying drawings.

In the drawings I represent my improved syringe in section, showing the internal construction, and having attached thereto a flexible tube and bulb.

My invention consists of the construction and arrangement of the outer and inner tubes of the syringe; the manner in which the inner tube is supported at equal distance from the outer tube at all parts thereof, and made adjustable endwise; the manner in which the two tubes are united by the flexible bulb, leaving the interior tube projecting beyond, for the purpose of discharging all fluids that are injected through the annular space that is between the inner and outer tubes, as fully set forth in the claims hereunto annexed.

The outer tube A is made of any material, but by preference of hard rubber, and is designed to be perfectly straight, or, if curved, of a uniform diameter. The inner tube B may be of the same material, and is formed tapering, the longest end being located at the nozzle end of the outer case A, with an annular space, C, all around, to allow the discharge of the fluids. The rear end of the central or inner tube B extends beyond the case A, and is united thereto by the flexible bulb or rubber band D, so that all fluids that are injected into the bulb D from bulb K, as shown by the arrows *a b*, pass down the annular space between the two tubes A and B, in the direction of the arrow *d*, and are discharged through the annular space at the nozzle, as at *g g*.

The central or inner tube B is supported in the center of the outer tube A by means of springs J J J J, properly spaced, and at-

tached to the tube B, as shown; and, by means of the flexible band or bulb D, the inner tube can be adjusted beyond the end of the case A, so as to diverge the fluids; or it can be adjusted so as to be inside of end of case A and allow the fluids to converge. All fluids that pass through the nozzle or end of the syringe, as at *g g*, into any receptacle, are allowed to freely pass out through the inner tube B, in the direction of the arrows *m* and *n*, as shown. Thus a constant supply of fresh fluids can be injected and allowed to pass out of the syringe without its removal and without removing the bulb K from the supply-vessel. The valve P is merely an induction-valve for the fluids to the bulb K.

What I claim as new, and wish to secure by Letters Patent, is—

1. The combination of the outer tube A, the inner tube B, and the uniting elastic bulb or band D, in the manner and for the purposes set forth and described.

2. The combination of the springs J J J J and tubes A and B, in the manner and for the purposes set forth and described.

3. The inner tube B, formed tapering, so as to leave a very narrow annular space at the nozzle, between it and the outer case A, and extended beyond the other end of the case A, in such a manner as to allow the two tubes to be united by the band D and to allow fluids to pass out of the syringe at the nozzle C, and to return said fluids through the interior of the inner tube B, in the manner set forth and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN S. PARSONS.

Witnesses:

E. O. FRINK,
E. C. WHITNEY.