



# UNITED STATES PATENT OFFICE.

FRANCIS B. RICHARDSON, OF BOSTON, MASSACHUSETTS.

## ELASTIC ENEMA-SYRINGE.

Specification of Letters Patent No. 26,204, dated November 22, 1859.

*To all whom it may concern:*

Be it known that I, FRANCIS B. RICHARDSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in India-Rubber Syringes, and that the following description, taken in connection with the accompanying drawings hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my improvements by which my invention may be distinguished from all others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The figures of the accompanying plate of drawings represent my improvements.

Figure 1 is a central vertical section of my improved syringe. Fig. 2 is a detail section taken in the plane of the line A B Fig. 1.

In the use of india rubber syringes, which are those now most commonly in vogue, great inconvenience is experienced from the fact, that a basin of water or other fluid to be injected, has to be employed, and in many cases there are no convenient rests upon which to place the basin, while also the liability of upsetting it and spilling its contents is very great. In water closets, especially where a syringe is very commonly used, there are ordinarily no advantages for the use of a basin.

The present invention consists in combining a flexible india rubber or gutta percha bag, with the suction end of an india rubber syringe, the bag being the receptacle for the matter to be injected, and being so attached to the syringe, that by the usual manner of using it, the contents of the bag may be exhausted and injected into the part destined to receive it. The advantages of this apparatus over the ordinary syringe will be obvious, as by my improvement the receptacle for the fluid of which the injection

is composed, instead of being, as heretofore, an independent and separate vessel, forms a part of the syringe itself, and from the nature of the material of which the bag is composed, the whole apparatus is rendered portable, while the liability of spilling the contents of the vessel is entirely prevented, and the necessity of a rest or support obviated.

*a a* in the drawings represent the elastic air vessel of an ordinary rubber syringe. *b b* the suction pipe and *c c* the discharge pipe, having a proper nozzle *d*. On the suction pipe *b b* is a screw cap *e* which screws into the mouth of a flexible rubber or gutta percha bag *f*, the extreme end of the suction pipe *b b* extending nearly to the bottom of the bag, and having a valve *g* in it, which opens upwards. The bag *f* being filled with the liquid to be injected and screwed on to the suction pipe *b b*, the air-vessel *a a* is compressed by the hand which forces out the air in the pipe *c c*, (the return of which being prevented by a ball valve *h*,) and creates a vacuum in the pipe *c c*, the liquid in the bag on releasing the pressure from the air-vessel *a a* opens the valve *g* in the end of the suction pipe *b b* and is forced through the tubes *b b* and *c c* in the same manner as in the ordinary syringe.

Having thus described my improvements, I shall state my claim as follows:

What I claim as my invention and desire to have secured to me by Letters Patent, is—

The improvement in india rubber syringes, as an article of manufacture, which consists in combining the india rubber or gutta percha or other water proof bag, with the suction end of the syringe, in the manner, substantially as described.

FRANCIS B. RICHARDSON.

Witnesses:

JOSEPH GAVETT,  
ALBERT W. BROWN.