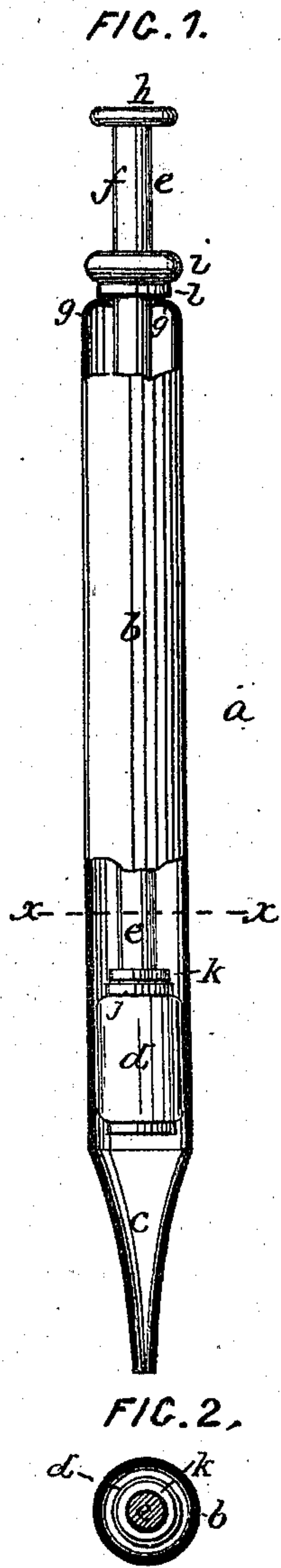


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Improvement in Syringes.

No. 131,697.

Patented Sep. 24, 1872.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

PATRICK J. McELROY, OF EAST CAMBRIDGE, MASSACHUSETTS.

## IMPROVEMENT IN SYRINGES.

Specification forming part of Letters Patent No. 131,697, dated September 24, 1872.

*To all whom it may concern:*

Be it known that I, PATRICK J. McELROY, of East Cambridge, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Enema-Syringes; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying plate of drawing.

The present invention relates more particularly to glass enema-syringes, although it is applicable to others, but more especially those made of a fragile material.

The invention consists of yielding or elastic washers or cushions, (by preference made of India rubber,) located either upon the piston or plunger-rod, or upon the closed head to syringe, or upon both, one washer, at least, being within and one without the syringe-body. The washers obviate the liability of breaking the syringe should the plunger be moved to the full length of its stroke, for in the one or inward movement the outer washer, and in the other or outward movement the inner washer, abut, respectively, against the head of the syringe body or case, in lieu of, as heretofore, the hard and unyielding material of which the plunger, its rod, and its case, are made.

In the accompanying plate of drawing, my improvement in enema-syringes is illustrated—Figure 1 being a side view of an enema-syringe having it applied, the body of the syringe being shown as broken away at points, for a more perfect illustration of this invention; and Fig. 2, a cross-section in plane of line *x x*, Fig. 1.

*a* in the drawing represents a glass enema-syringe, of which *b* is the body or case, *c* the spout or nozzle, and *d* the plunger or piston; *e* operating-rod to piston *d*. The rod *e* by one end *f* passes out of the closed head *g* to body *b*—said end *f* being provided with a knob, *h*, for convenience in operating the rod, and a shoulder or collar, *i*, forming the limit to the inward movement of the plunger. The head *j* to the plunger *d* forms the limits of the outward movement of plunger. *k* and *l*, two washers or rings surrounding plunger-rod *e*. These washers are both made of a material

(by preference India rubber, although other materials may be employed,) which is elastic and susceptible of yielding freely to compression, and in their location upon the rod *e* one, *k*, is within the syringe-body *b*, against the head *j* of plunger *d*, and the other, *l*, is without the body against the collar *i*, between it and the body-head *g*. Drawing out the plunger to the full length of its stroke the washer *k* abuts against the head *j*, and, pushing in the plunger to the full length of its stroke, the washer *l* abuts against the head *j*, and as both washers are elastic and yielding they serve to prevent, in a great measure, if not entirely, the possibility of fracture of or other injury to either the body or its plunger and operating-rod, or both and all, however carelessly the syringe may be thus used.

Although herein the washers *k* and *l* have been described as being upon the operating-rod *e*, it is obvious they might be both located in the body-head *g*, one inside and the other outside, or the inner washer upon the rod *e*, and the outer within the head *g*, or vice versa, or both within the head *g* and upon the rod *e*, and yet the same results be attained. It is preferable, however, to locate them as described, as it is most simple and entirely practical, requiring no special fitting; and although this invention has been herein particularly described in connection with glass enema-syringes, it is applicable to other enema-syringes, and therefore it is not intended to limit the invention to any one particular kind of syringes—the greatest advantages, however, being secured with those made of glass.

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

An enema-syringe, provided with washers *k* *l*, substantially as and for the purpose described.

The above specification of my invention signed by me this 9th day of September, A. D. 1872.

PATRICK J. McELROY.

Witnesses:

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