

J. R. HARRIS.

SYRINGE.

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914,950.

Patented Mar. 9, 1909.

Fig. 1.

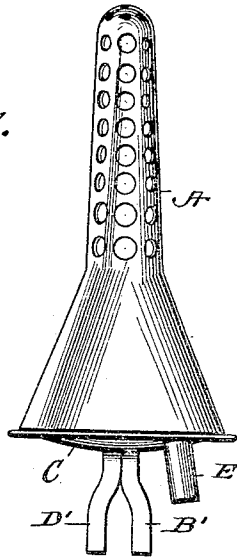


Fig. 2.

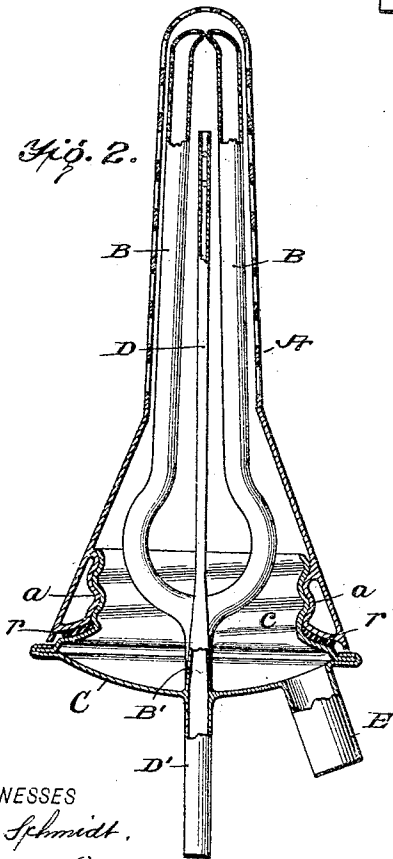
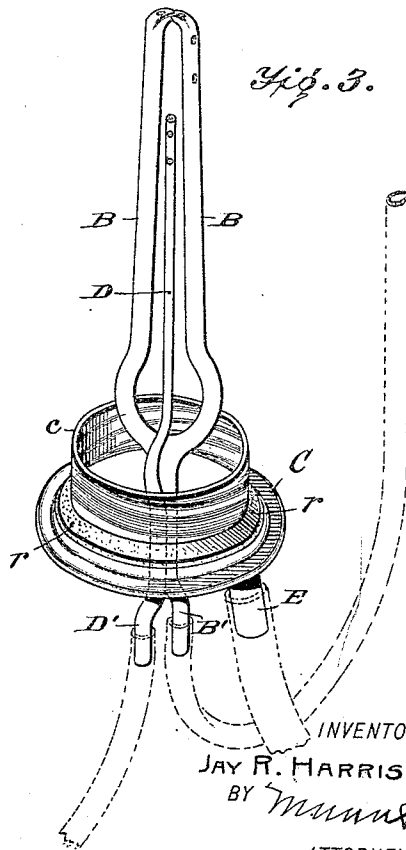


Fig. 3.



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SYRINGE.

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To all whom it may concern:

Be it known that I, JAY R. HARRIS, a citizen of the United States, residing at Raton, in the county of Colfax, Territory of New Mexico, have invented a new and useful Improvement in Syringes, of which the following is a specification.

My invention is in the nature of a novel form of syringe of the class used for irrigating and cleansing the internal cavities of the body, and it consists in the special construction and arrangement of a two-part syringe, with provision for separating the two members and means for introducing a double current of water and draining away the discharges, as will be hereinafter more fully described with reference to the drawing, in which—

Figure 1 is a side elevation. Fig. 2 is a vertical section enlarged and Fig. 3 is a perspective view of the spray nozzle and attached cap and drainage pan.

In the drawing, A represents the outer casing, consisting of a tube with rounded end provided with numerous perforations of large size to which is secured a conical or funnel-shaped base having on the inner side, near its lower edge, large screw threads *a* spun or struck up from some ductile metal.

Within the outer casing, and separable from it, is arranged the spray device and the attached closure cap or drainage pan C, seen in Fig. 3. This constitutes a separable member which may be inserted into or withdrawn from the outer casing at will and it consists of two pipes B B which are joined together at their lower ends and communicate with a tube B' which is fixed in and emerges through the middle of the drainage pan C. The upper portions of the pipes B are nearly parallel and are perforated with holes at the ends and along the sides near the ends. In between these two spray pipes B B is arranged another spray pipe D which extends nearly to the upper ends of pipes B and at the bottom is fixed in the drainage pan and communicates with a tube D' emerging through the drainage pan. This pipe D is also provided with perforations in its sides and is open at its upper end. The two external tube extensions B' and D' furnish connections for rubber tubes which connect with two different sources of water supply. One of the tubes B', which supplies

the double pipe B B, is to be connected with a fountain syringe bag which furnishes a relatively large and constant volume of water to the two pipes B B, while the other tube D' is to be connected with a pumping syringe acting by suction and pressure to inject forceful jets which are more energetic in dislodging the discharge or matter to be eliminated.

The perforations in the outer tube casing A allow entry of the discharge to the interior, so that the combined jets and streams of flowing water may carry the same away, the relatively large size of the outer tube casing serving to dilate the cavity and thus prevent lodgment of matter within the folds of the tissue, and thus promote the entry of such matter into the interior of the casing and its removal.

The spray pipes are all three rigidly fixed in the circular base C which serves the double function of a closure cap for the outer casing and a drainage pan. For this purpose it has an upwardly projecting flange *c* that is fashioned into a screw thread fitting the screw thread of the funnel-shaped bottom of the outer casing. The lower part is extended as a dished pan in the center of which are fixed the spray pipes and connecting tubes and at one side is a relatively large outlet pipe E which may connect with a large rubber pipe leading to any suitable receptacle. Into this drainage pan the water and discharged matter are received and thence they flow out through the outlet pipe E.

On the upper surface of the drainage cap, where the screw threaded flange joins it, there is placed a soft rubber washer or packing ring *r*, which seals the joint when the cap is screwed into the outer casing and thus makes a water tight joint.

In connecting the two separate parts of my syringe, it will be seen that the screw joint is formed with spun threads of large pitch and cross section and extend a considerable distance up into the enlarged conical lower portion of the casing. This enlargement not only gives room for the employment of the large screw threads of the kind described, but also gives a large capacity for the drainage pan. The separable joint of the special form described has especial value in that its threads cannot become obstructed by the wastes of the discharge

and it permits a tight joint to be made in connection with the rubber ring in a simple, cleanly and practical way.

I claim—

- 5 1. A syringe consisting of an outer perforated tubular portion having an enlarged conical lower end with a screw thread extending up along the interior wall of said enlarged conical portion, a combined closure
10 cap and drainage pan having a screw threaded flange extending up into said enlarged conical portion of the case and fitting its screw threads, and a spray device fixed to the drainage pan and extending up into the
15 perforated portion of the casing, said spray device being made as two separate members, with separate fluid inlets, and one member of the spray device being made as two perfo-

rated pipes, and the other as a single perforated pipe extending up between the two
20 pipes of the first named spray member.

2. A syringe made of two separable members, the outer one being perforated and the inner one being constructed as a spray device having an attached closure cap fitting
25 the outer member, said spray device being made as two separate members with separate fluid inlets and one member of the spray device being made as two perforated pipes
30 and the other as a single perforated pipe extending up between the two pipes of the first named spray member.

JAY RUSSELL HARRIS.

Witnesses:

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