

March 27, 1934.

E. RICHARDS

1,952,607

URETHRAL IRRIGATOR

Original Filed July 9, 1931

2 Sheets-Sheet 1

Fig. 1.

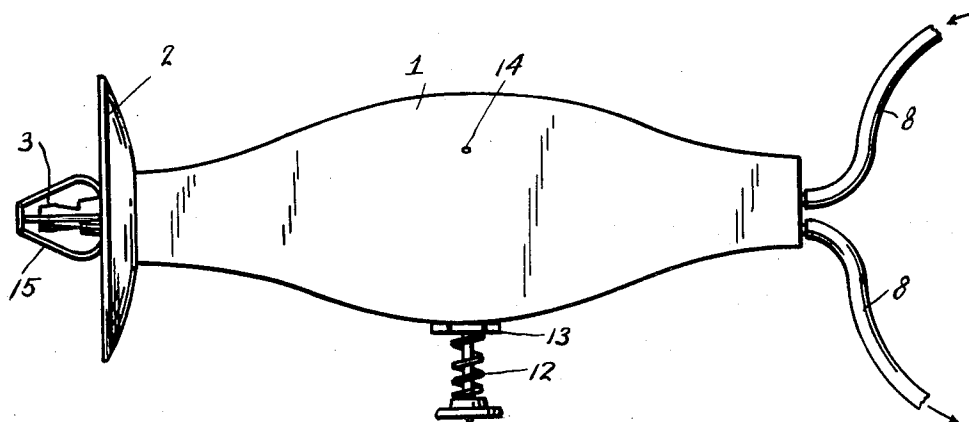
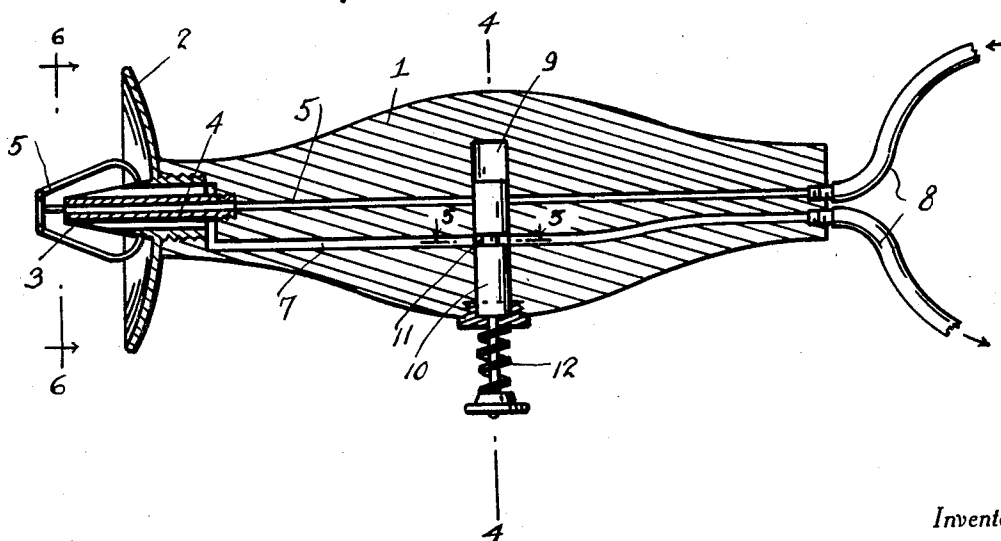


Fig. 3.



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Fig. 2.

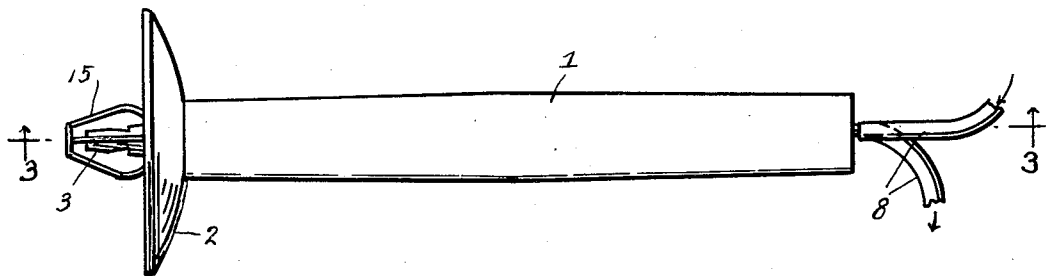


Fig. 5.

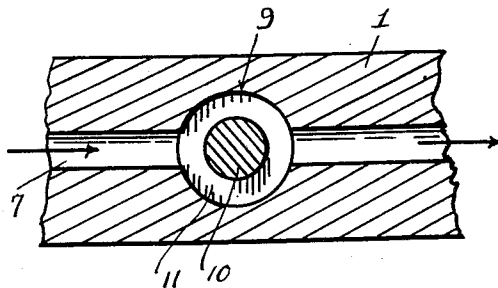


Fig. 4.

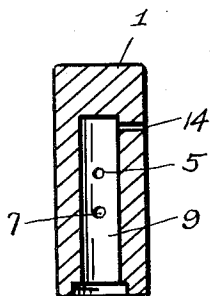
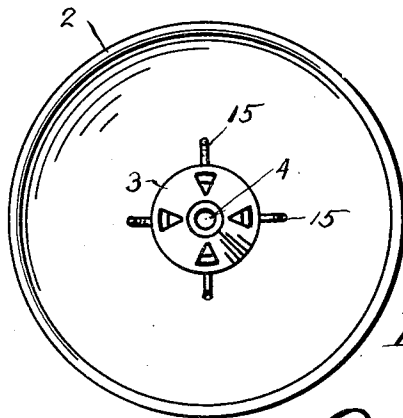


Fig. 6.



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UNITED STATES PATENT OFFICE

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URETHRAL IRRIGATOR

Emrys Richards, Wilkes-Barre, Pa.

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Renewed September 20, 1933

2 Claims. (Cl. 128—239)

This invention relates to an irrigating instrument for irrigation of the urethral canal and bladder and can also be used for the rectum, the general object of the invention being to provide means whereby the fluid can be readily introduced into the canal or passage, and held therein for any desired length of time, after which by releasing the valve, the fluid will be discharged without removing the nozzle, so that the canal may be irrigated as many times as desired, without removing the device in order to discharge the fluid.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is an elevation of the device.

Fig. 2 is an edge view.

Fig. 3 is a section on line 3—3 of Fig. 2.

Fig. 4 is a section on line 4—4 of Fig. 3.

Fig. 5 is a section on line 5—5 of Fig. 3.

Fig. 6 is a section on line 6—6 of Fig. 3.

In these views, the numeral 1 indicates the body of the device which is preferably of the shape shown, and said body has at one end the shield 2 which is of concavo-convex shape and having an opening therein through which passes the nozzle 3, which is threaded in the body 1 and may have a slip joint therein. If desired, the shield can be formed with the nozzle, but detachably connected therewith.

A second nozzle 4 passes through the first nozzle as shown, and said nozzle 4 is also detachably connected with the body and is in communication with the inlet passage 5 which passes through the body and is adapted to be connected by a hose 6 to a container which may be elevated in order to cause the fluid to flow through the device by gravity.

The nozzle 3 is in communication with an outlet passage 7 and which also passes through the body and its outer end is in communication with a hose 8 which leads the discharging fluid to a basin or other receptacle. These two passages are intersected by a transversely arranged cylinder 9 formed in the body and extends through one end thereof, and a piston valve 10 is slidably

arranged in the cylinder and has a groove 11 therein for registering with either passage.

A spring 12 at the stem of the valve normally holds the valve with its groove registering with the discharge passage 7, but when the valve is pushed inwardly, this groove 11 will register with the passage 5 so that the fluid from the container will pass through said passage 5 through the inner nozzle 4 and thus enter the canal of the body through which the nozzle assembly is placed.

When it is desired to discharge the fluid, the valve is released so that the spring will return it to the position shown in Fig. 3, so that the inlet passage will be cut off and the outlet passage opened so that the fluid will pass into the canal through the passage 7 into the receptacle through which the hose leads. A packing gland 13 closes the outer end of the cylinder and the valve stem passes through said gland.

A vent 14 is formed in the body and opens into the inner cylinder to prevent pressure returning this end of the cylinder to interfere with the inward movement of the valve. A substantially conical guard 15 of wire or the like is formed at the outer end of the nozzle assembly as shown. It will of course be understood that the nozzle parts 3 and 4 may be formed inwardly or separately as desired.

From the foregoing it will be seen that the device is in position and the valve 10 pushed inwardly, fluid will pass from its container to which the hose is connected, through the passage 5 and the nozzle 4 into the canal of the body and as soon as sufficient fluid has entered the canal, the valve is released and moved to the position shown in Fig. 3 so that the fluid can escape through the passage 7.

Of course, by holding the valve in its intermediate position, the fluid can be retained in the passage.

As before stated, this device will permit the canal to be irrigated several times without removing the device which is often painful and injurious, and it permits effective ballooning of the valve so that every part of the walls of the canal is disposed to the influence of the solution. The device also eliminates splashing of the solution on the outside and no parts of the solution is visible from the time it leaves the container until it comes out of the exit of the instrument. There is a complete control of pressure and every drop of the solution is applied to the diseased tissues or membranes.

It is thought from the foregoing description

that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination
5 and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

Having thus described my invention, what I claim as new is:—

- 10 1. An irrigator of the class described comprising an elongated solid body having an enlarged central portion gradually decreasing in size to the ends thereof and said body having a recess in
15 one end thereof and provided with longitudinally extending inlet and discharge passages opening out into the recess, a nozzle member composed of inner and outer parts fitting in the recess with the inner part in communication with the inlet
20 passage and the outer part in communication with the discharge passage, said body having a transverse passage therein intersecting the inlet and discharge passages, a piston movably arranged in the lateral passage and having
25 a groove therein, which in one position of the piston will be in alinement with one of the longitudinal passages, with a part of the piston closing

the other passage, and in another position of the piston, the groove will be in alinement with said other longitudinal passage with a part of the piston closing the first passage, means for operating the piston, and a shield connected with the nozzle end of the body. 80

2. An irrigator of the class described comprising an elongated body having a relatively large threaded recess in one end thereof with a threaded smaller recess in the bottom of the first-mentioned recess and said body having a longitudinally extending inlet passage passing therethru with one end opening out into the small recess, said body also having a longitudinally extending outlet passage therein having one end opening out into the large recess, an inner nozzle member threaded into the small recess and receiving the liquid from the inlet passage, an outer nozzle member threaded in the large recess and discharging into the outlet passage, the inner nozzle member having its outer end extending beyond the outer end of the outer member, and a disk connected with the nozzle end of the body and thru which the nozzle members pass. 95 100

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