H. W. YOUNG.

IRRIGATOR.

APPLICATION FILED NOV. 2, 1915.

1,178,898.

Patented Apr. 11, 1916.

FIG. 1.

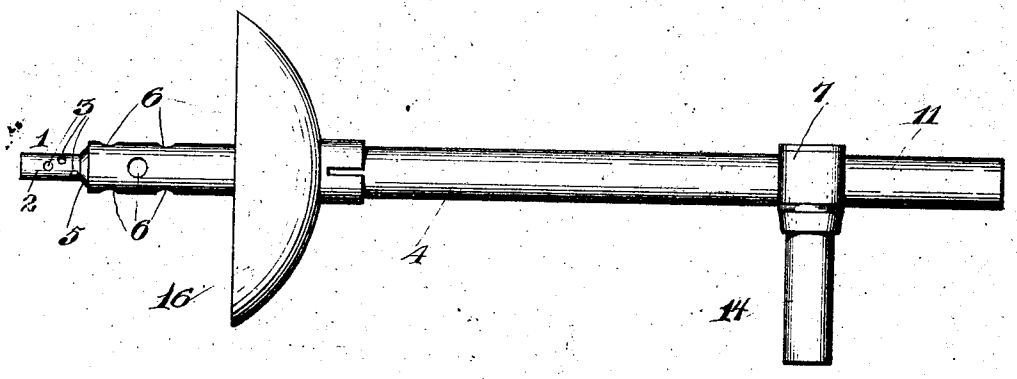
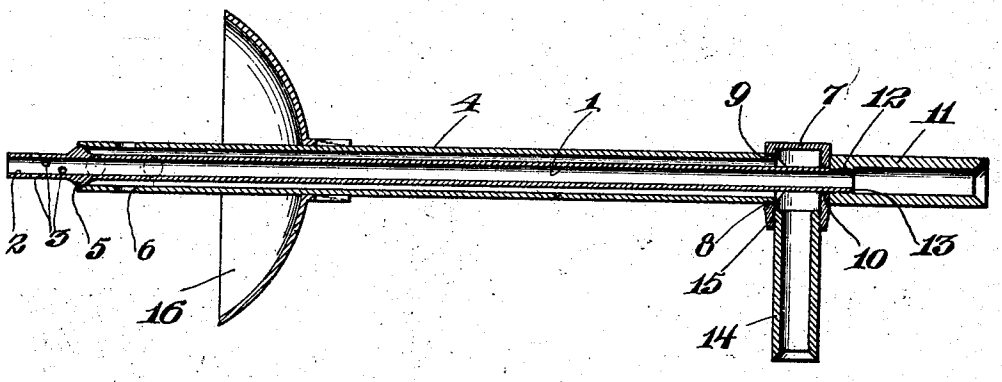


FIG. 2.



WITNESSES:

Wm. Conway.

C. R. Ziegler.

INVENTOR

Harold W. Young,

BY Joshua R. H. Potts.

HIS ATTORNEY

UNITED STATES PATENT OFFICE.

HAROLD W. YOUNG, OF PHILADELPHIA, PENNSYLVANIA.

IRRIGATOR.

1,178,898. Specification of Letters Patent. Patented Apr. 11, 1916.

Application filed November 2, 1915. Serial No. 59,165.

To all whom it may concern:

Be it known that I, HAROLD W. YOUNG, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Irrigators, of which the following is a specification.

My invention relates to improvements in irrigators, the object of the invention being to provide an irrigator which is especially adapted for use in connection with wounds, abscesses, fistulas, and sores of all kinds, directing the cleansing fluid into the wound and permitting a thorough drainage without wetting the patient, his clothing, or the bed clothing.

Heretofore in the use of irrigators as commonly made, it has been practically impossible to thoroughly irrigate a wound without the overflow or drain wetting the body, bed clothes and bedding, necessitating the use of rubber sheets and the like and causing considerable trouble and annoyance. With my improved irrigator, the drainage is cared for, yet the wound is thoroughly irrigated.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts as will be more fully here after described and pointed out in the claims.

In the accompanying drawings: Figure 1 is a view in side elevation illustrating my improvements, and Fig. 2 is a view in longitudinal section.

1 represents a supply tube relatively small in diameter and having at one end a discharge nozzle 2, the latter open at its end, and provided in its sides with perforations 3, so that the liquid not only passes through the end of the nozzle, but also through the sides thereof.

4 is an outer tube of appreciably greater diameter than tube 1, and partially inclosing the latter. On the supply tube 1, adjacent the nozzle 2, an annular enlargement 5 is provided which bears against the end of outer tube 4, and said outer tube at its end adjacent the nozzle is provided in its wall with relatively large perforations 6 through which the water and pus from the wound enters and is carried away as will be hereinafter explained.

7 is a coupling which is provided with a screw-threaded opening 8 in one side which receives the screw-threaded end 9 of outer tube 4. Said coupling 7 is provided in its side opposite to the opening 8 with a smaller opening 10 through which the supply tube 1 projects.

A tube 11 is internally screw-threaded at one end as shown at 12 to receive the screw-threaded end 13 of supply tube 1, and when tube 11 is screwed home, the annular enlargement 5 will be drawn tightly against the end of tube 4, and the parts will be securely clamped together.

14 represents a drain tube which is screwed into a threaded opening 15 in the coupling 7, and communicates with the interior of the coupling and with outer tube 4, so that the drain is cared for.

It is to be understood, of course, that the tubes 11 and 14 will be connected with any suitable flexible hose, not shown, and any suitable means may be employed for forcing the liquid through the irrigator and for caring for the drain.

16 represents a shield of concavo-convex form which slides freely on the outer tube 1, and is adapted to be placed against the body when the nozzle end 2 is projected into the wound. The shield 16 will operate as an inclosure to confine the liquid and compel the same to enter the opening 6 and pass through tubes 4 and 14.

It will be noted that with my improved irrigator, the parts can be readily disconnected, separated, sterilized, and assembled, so that the irrigator can be kept in a sanitary condition and most efficiently perform the functions for which it is intended.

Various slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. An irrigator, comprising an inner supply tube, an outer tube inclosing the supply tube and forming a drain passage around the same, said outer tube having perforations adjacent one end, a drain tube communicating with the outer tube, a coupling connecting the drain tube with the outer

tube, and having an opening therein through which the supply tube projects, and a tube screwed onto the end of the supply tube and bearing against the coupling, substantially as described.

2. An irrigator of the character described, comprising an outer tube, an inner tube projecting through the outer tube and having an annular enlargement thereon bearing against one end of the outer tube, said supply tube having an open end and perforations in its wall beyond the end of the outer tube, said outer tube having perforations therein adjacent the perforated end of the supply tube, means for directing liquid into the supply tube, and means for conveying liquid from the outer tube, substantially as described.

3. An irrigator of the character described, comprising an outer tube, an inner tube projecting through the outer tube and having an annular enlargement thereon bearing against one end of the outer tube, said supply tube having an open end and perforations in its wall beyond the end of the outer tube, said outer tube having perforations therein adjacent the perforated end of the supply tube, a coupling screwed onto the end of the outer tube and having an opening therein through which the supply tube projects, a tube screwed onto the projecting end of the supply tube and against the coupling operating to draw the annular enlargement on the supply tube against the end of the outer tube, and a drain tube communicating with the coupling, substantially as described.

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

HAROLD W. YOUNG.

Witnesses:
C. R. ZIEGLER,
S. W. FOSTER.