Oct. 5, 1926. 1,602,215

C. H. SMITH

DOUCHE NOZZLE

Filed April 8, 1926

Fig. 1.

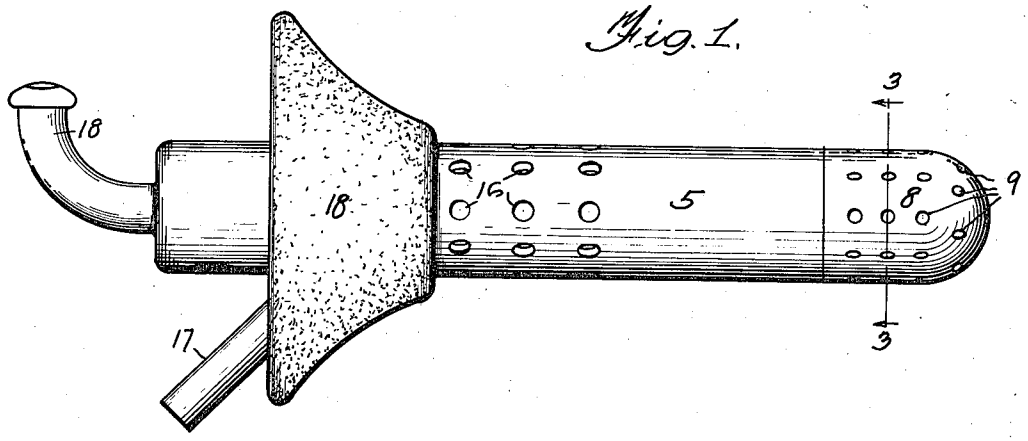


Fig. 2.

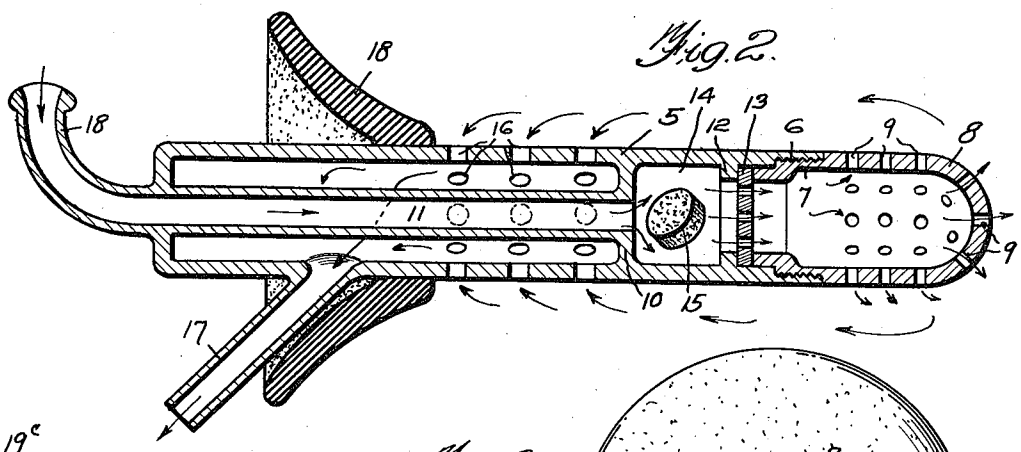
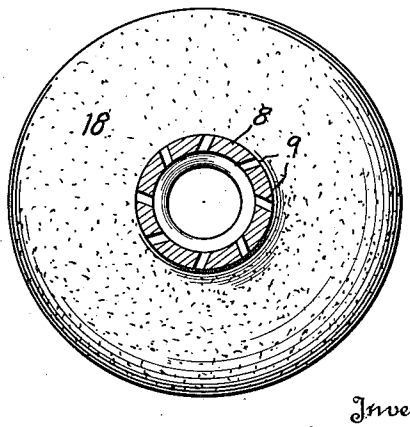


Fig. 3.



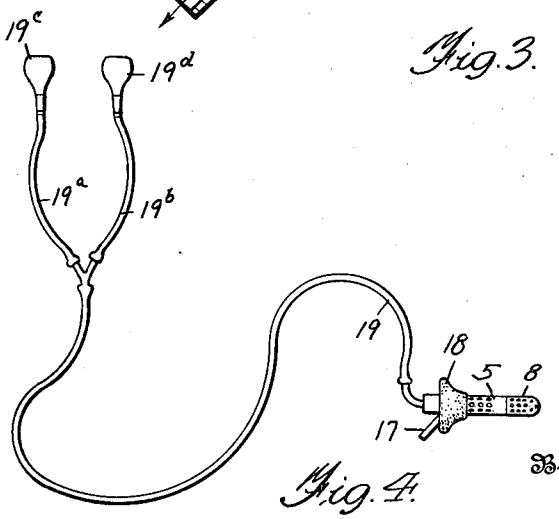


Fig. 4.

Inventor

Chester H. Smith.

By Shepherd & Campbell

Attorneys

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UNITED STATES PATENT OFFICE.

CHESTER H. SMITH, OF PITTSBURG, KANSAS.

DOUCHE NOZZLE.

Application filed April 8, 1926. Serial No. 100,567.

This invention relates to douches and more particularly to a douche nozzle, and it has for its object to provide an improved device of this character of such a nature that medicated fluid, usually water, may be supplied to affected parts, over any desired period of time at varying pressures and at any desired temperature by virtue of which most important therapeutic effects are obtained, as will be hereinafter set forth.

In the accompanying drawing:

Fig. 1 is a side elevation upon an enlarged scale, of a douche nozzle constructed in accordance with the invention,

Fig. 2 is a longitudinal, sectional view of the structure of Fig. 1,

Fig. 3 is a transverse, sectional view upon line 3—3 of Fig. 1, and

Fig. 4 is an elevation of the complete douche, showing the separate connections for application to hot and cold water faucets.

Like numerals designate corresponding parts in all of the figures of the drawing.

The douche nozzle of the present invention comprises a barrel 5 of any suitable material. It is preferably made of hard rubber. The barrel is internally threaded at its forward end, at 6, to receive the male threaded extension 7, of a tip or nozzle 8. This nozzle is provided with a plurality of discharge openings 9 and these openings are preferably disposed at varying angles to thereby discharge several streams in varying directions to set up a whirling action. The forward portion of the barrel 5 is separated from the rear portion thereof by a partition 10, and a tube 11 opens through this partition and passes out of the rear end of the barrel. This tube constitutes the inlet tube through which water is conducted to the nozzle 8. The interior of the barrel 5 is provided with an internal shoulder 12, and a perforated trap plate 13 is held in place by being bound between said shoulder and the rear end of the nozzle 8, when said nozzle is screwed into place. The cavity 14, which lies between the trap plate 13 and the partition 10, is adapted to receive a medicated tablet 15. This tablet may be of an anesthetic, an antiseptic or any other medicinal nature, and since it is located at a point materially in advance of the discharge orifices 9, the entire stream, which passes from the inlet tube 15, is impregnated and permeated with and by the material of the tablet to such an extent that the whole stream is rendered medicinal in its nature when such effect is desired. It is of course apparent that the tablet may be omitted in those cases where no medication is indicated. That portion of the interior of the barrel 5, in the rear of the partition 10 and outside of the tube 15, is pierced by a plurality of discharge openings 16, and is in communication with a discharge duct 17. A soft rubber shield 18 fits snugly upon the barrel 5 and may have sliding movement thereon. This shield is of concavo-convex form and its concave side partially houses the discharge duct 17.

The inlet tube 15 terminates in an end 18, of a nature to receive an end of a supply tube 19, in a usual and well known way. This supply tube 19 may receive its supply of water, or other liquid, from any suitable source, such, for example, as from a bottle, a bag, a can, or the like.

However, I find that the device of the present invention attains its greatest utility when the tube19 is connected to two separate branches 19^a and 19^b, having elastic terminal ends 19^c and 19^d, respectively, adapting them to be readily slipped upon separate hot and cold water faucets, in a well known way, common in connection with shower baths for example, and when supplied with these separate branches and connected to separate hot and cold water faucets, it is possible to start the flow at a very moderate temperature and gradually increase the temperature, as the patient becomes used to the heat.

Heat is one of the oldest medical remedies known for the treatment of disease and the relief of pain and from the standpoint of widespread applicability and the importance of the results flowing from its use, it is probably the most valuable therapeutic agent known to the medical profession. Many elaborate and expensive devices have been made for the purpose of getting the heat to the part to be treated. Other expedients, not so expensive or complicated, have been resorted to, such as hot applications by hot towels, hot water bottles, hot bricks, etc. However, heat, when applied to the skin in too intensive form causes the vasomotor nerves to function and forces the blood through the capillaries, thereby carrying away the heat to other parts of the body. This is not desired, as the heat does not get below the capillaries of the skin. Heat, for good therapeutic effect, must be ap-

plied very gradually, and so gently increased as to not cause irritation of the vasomotor nerves, which would counteract the desired results. Thus, heat improperly applied, does more harm than good. That is why many elaborate electrical machines have been designed for use only by physicians in their offices. They are very dangerous and are capable of killing a patient if not in the hands of one who has been especially trained in the work of electrical therapeutics.

Heat, properly applied, is recognized as one of the greatest fibrosed tissue solvents known. It acts by increasing the amount of arterial blood that is supplied to the diseased part or tissues. Fibrosed tissue soon becomes normal tissue when well nourished with good arterial blood supply.

Further, heat when applied to a part causes the blood to become warm. When we warm a phagocyte, the scavenger of the body, we increase its destroying power about five times. Thus, when we heat a part that is diseased and has all the cardinal symptoms of inflammation, we bring the greatest therapeutic agent into use that is known to mankind and rapidly restore the tissues to their normal state by greatly increasing what nature has provided each individual with for protection against infection, viz, arterial blood. Further, this arterial blood has been heated making it five times as powerful as it would be at body temperature.

By pressing the shield 18 firmly up against the orifice of the cavity being treated, I am able to prevent the escape of any of the liquid, except through the desired path, viz, out of the discharge orifices 9, through the outlet orifices 16, and thence through the discharge tube 17.

The extent to which liquid is retained in the cavity being treated may be controlled by pressing the finger against the outlet of the discharge tube 17. Since the orifices 9 are so shaped and directed as to set up a whirling action, it follows that the cavity is thoroughly cleansed and all foreign matter, including medication, mucus or pus, is carried with the stream and discharged. By starting the luke-warm water and gradually increasing the proportion of hot water in the stream, I am able to gradually heat up the affected part. It is to be noted that the present structure is of such a nature that the water pressure, particularly if the discharge outlet 17 be choked as indicated by the pressure of the finger thereagainst, will serve to balloon out the folds of the vagina, when that cavity is being treated, without any of the danger that is present when mechanical devices are resorted to for this purpose.

The device of the present invention can be used in a sitting, squatting or lying position, without the water or medicine getting on the outside of the body. Since the supply tubes are adapted to be connected to any water faucet, it follows that the treatment may be continued for long periods of time, when that is deemed desirable. The internal pressure may also be regulated by properly controlling the water supply or by partially withdrawing the instrument.

It is to be understood that the invention is not limited to the precise construction set forth but that it includes within its purview whatever changes fairly come within either the terms or the spirit of the appended claims.

Having described my invention, what I claim is:

1. A device of the character described comprising an elongated body having a nozzle at its forward end, there being a discharge cavity in the body rearwardly of the nozzle and separated therefrom by a transverse wall, ports formed in the wall of the body within the length of the discharge cavity for permitting the passage of fluid from the exterior to the interior of the body, a discharge tube leading from said discharge cavity adjacent the rear end of the body, a compartment formed in the body rearwardly of the nozzle for receiving a medicating element and connections for supplying water at varying temperatures, continuously to the nozzle and through the compartment carrying the medicating element.

2. A structure as recited in claim 1 in combination with a shield slidably mounted upon the exterior of the body.

3. A structure of the character described comprising an elongated hollow body spanned transversely by a wall intermediate its ends, an inlet tube of smaller diameter than the body extending centrally therethrough and opening through said wall, a nozzle tip threaded in the outer end of the body, a trap plate bound in position by said nozzle tip, the space between said trap plate and said wall constituting a compartment for the reception of a medicating agent, the space within the body rearwardly of said wall and about the inlet tube constituting a discharge cavity, there being ports formed in the wall of the body and establishing communication between the exterior thereof and the discharge cavity, a discharge duct leading from the discharge cavity, a shield mounted upon the body rearwardly of the discharge ports and connections for maintaining a continuous supply of water at varying degrees of temperature past the medicating agent, through the nozzle and back through the discharge port, discharge cavity and discharge duct for the purposes set forth.

In testimony whereof I affix my signature.

CHESTER H. SMITH.