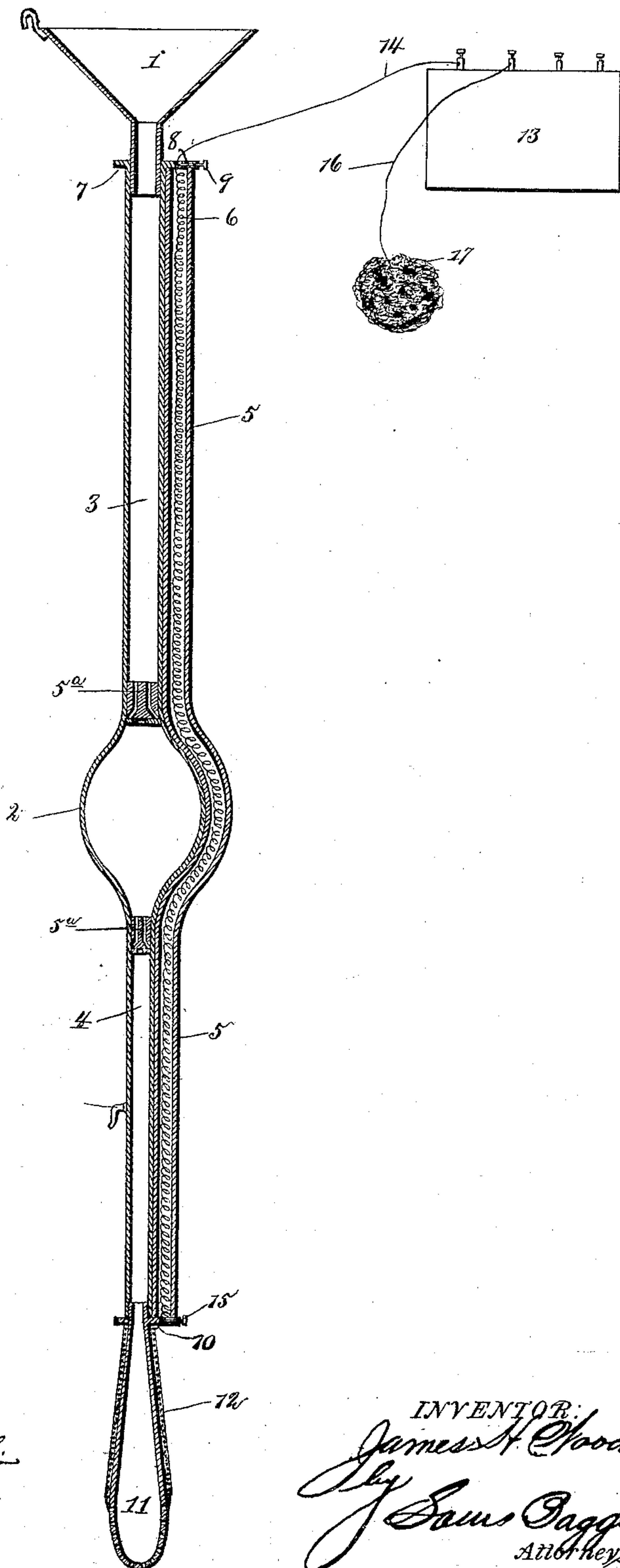


(No Model.)

J. H. WOODWARD.
ELECTRICAL SYRINGE.

No. 433,384.

Patented July 29, 1890.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JAMES HARRISON WOODWARD, OF SEWARD, NEBRASKA.

ELECTRICAL SYRINGE.

SPECIFICATION forming part of Letters Patent No. 433,384, dated July 29, 1890.

Application filed April 7, 1890. Serial No. 346,937. (No model.)

To all whom it may concern:

Be it known that I, JAMES HARRISON WOODWARD, a citizen of the United States, and a resident of Seward, in the county of Seward and State of Nebraska, have invented certain new and useful Improvements in Syringes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in syringes in which the beneficial and therapeutic properties of electricity are combined with the curative effects of water in the treatment of diseases of the human body.

It is well known that electricity properly applied exercises a very beneficial effect in the treatment of certain diseases. It is also well known that in stomachic and other internal disorders water is a very effective remedial agent, and has long been used in syringes to remove such troubles and to give tone to and regulate the action of the different organs of the body.

The object of my invention is to provide a syringe with which there is combined means whereby a current of electricity may be administered simultaneously with the water or other fluid injected into the body.

The invention consists in the combination with a syringe having a metallic nozzle forming an electrode of an electric conductor connected with said electrode or nozzle, as hereinafter more fully set forth.

The invention also consists in certain other novel features of construction and new combinations of parts, which will be hereinafter more fully described, and definitely pointed out in the appended claims.

In the said drawing the figure represents an ordinary fountain-syringe with my improvements applied thereto.

In the said drawing the reference-numeral 1 designates a reservoir for containing the injecting-fluid. This reservoir may be of the usual construction, and is provided with a hook or ring by which it may be fastened to a wall or other support in an elevated position. The syringe shown is what is known as a "vacuum syringe," being composed of a central flexible bulb 2, with flexible rubber

tubes 3 and 4 connected therewith; or said bulb and tubes may be made of a single piece of rubber if found convenient or desirable. Formed with or secured to said tubes and bulb and extending from end to end of the syringe is a tube 5, which incloses the conducting-wire, hereinafter described. The tubes 3 and 4 are provided near the bulb with valves 5^a, and tube 4 may be also provided with an ordinary stop-cock. The reservoir and tube 3 are connected by means of a metallic coupling 7, having a central rim or lug 8, provided with an aperture through which the conductor 6 passes, a thumb-screw 9 being provided in said rim for holding said conductor in place. This conductor passes in a spiral coil through the insulating-tube 5, to the end of tube 4, where it connects with a coupling 10, which connects said tube and the nozzle 11 together. This nozzle is made of metal, electrically connected with coupling 10, and for about two-thirds of its length upon the outside is insulated, as seen at 12, by means of a coating or covering of gum shellac, rubber, or other insulating material.

13 designates the battery to which wire 14 is connected to the positive post of the same, and the other end of wire to rim of coupling 7, with an aperture in said rim through which it passes, and a thumb-screw 9 being provided in said rim for holding the end of said wire 14 in place while syringe and battery are in use, and by turning thumb-screw back loosens the end of wire 14 for removal, which disconnects the battery from the syringe.

16 designates another wire connected with the negative post of the battery, to which is fastened at the other end of said wire a sponge or other electrode 17, which is placed in contact with the body outside while the insulated electrode or nozzle 11 is placed in the vagina, rectum, or in some other internal cavity of the body, so that the electrical current will pass from the positive post of battery through wire 14, coupling 7, spiral-coil wire 6, coupling 10, electrode or nozzle 11, and thence through the body-sponge electrode 17, wire 16, and to negative post battery, completing the circuit, constituting the electrode or nozzle 11 the positive pole, and the sponge or other electrode 17 the negative pole.

The instrument will be found very effective

in treating constipation, diarrhea, and diseases of the stomach in general, and will be found very valuable as a remedial agent in diseases peculiar to women.

5 It is obvious that various forms of nozzles can be used in connection with the syringe, according to the different parts of the body to be treated, and that therefore the shape and dimensions may be changed or varied
10 without departing from the principle of my invention.

Having thus described my invention, what I claim is—

15 1. The combination, with a syringe having a metallic nozzle forming an electrode, of a tube formed with or secured to said syringe and extending from end to end thereof, and

an electric conductor passing through said tube and connecting with said electrode, substantially as described. 20

2. The combination, with a syringe, and a reservoir 1, of the couplings 7 and 10, nozzle 11, tube 5, conducting-wire 6, connected to nozzle 11, and coupling 7, wire 14, connected to battery 13, wire 16, and sponge electrode 25 17, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JAMES HARRISON WOODWARD.

Witnesses:

JACOB S. GOEHRING,
C. W. DIVEN.