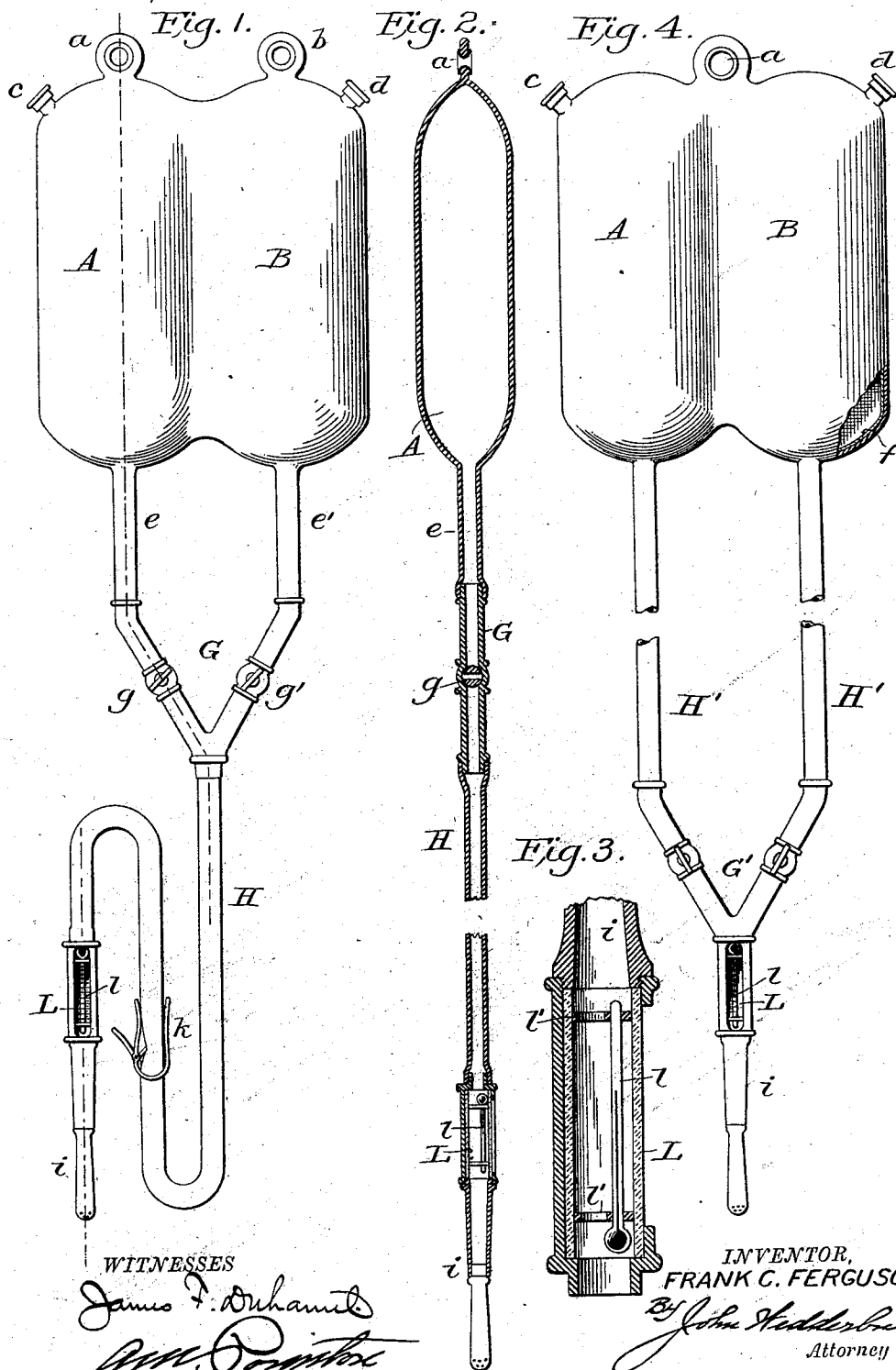


(No Model.)

F. C. FERGUSON.
FOUNTAIN SYRINGE.

No. 605,178.

Patented June 7, 1898.



UNITED STATES PATENT OFFICE.

FRANK C. FERGUSON, OF INDIANAPOLIS, INDIANA.

FOUNTAIN-SYRINGE.

SPECIFICATION forming part of Letters Patent No. 605,178, dated June 7, 1898.

Application filed February 2, 1897. Serial No. 621,654. (No model.)

To all whom it may concern:

Be it known that I, FRANK C. FERGUSON, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Fountain-Syringes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in fountain-syringes, the object being to provide an improved construction of syringe from which either hot or cold water or tepid water and antiseptics and other medicinal solutions differing from each other may be instantly mixed and ejected at any desired temperature and in any proportion and the exact temperature of the ejected water or solution be easily regulated and quickly read, so that the water or solution at the temperature desired may be instantly supplied.

To this end my invention consists in a syringe provided with two chambers or compartments, one for hot water or hot solutions and the other for cold water or cold solutions, means for regulating the passage of the hot and cold water or solutions independently or together into the discharge-tube of the syringe, and a thermometer of novel construction interposed in the said tube between the said chambers or compartments and the eduction-nozzle, whereby the temperature of the water or other fluids may be easily and quickly ascertained.

My invention also consists in certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter more particularly described, and specifically set forth in the appended claims.

In the accompanying drawings, Figure 1 is a top or plan view of my improved fountain-syringe. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a detail sectional view showing the construction of the thermometer and the transparent chamber thereof. Fig. 4 shows a top or plan view of a modified form of syringe.

Referring to the drawings, A B designate two chambers or compartments, each provided

at one end thereof with hook-eyes *a b* for suspending the same, an opening or induction-passage *c d*, closed by a screw cap or plug for the supply of water or other fluids to said chambers or compartments, and eduction-nozzles *e e'*, through which the fluids may pass out. The two fountain compartments or chambers may be constructed of soft rubber, wood, metal, or vulcanized rubber, but preferably of soft rubber. For hospital use the fountain chambers or compartments may be made of metal—such as tin, copper, or iron—lined with suitable non-corrosive material *f*, preferably a sheeting of aluminium. One of the chambers is intended to contain hot water and the other cold water or any other antiseptic or medicinal solutions desired.

The two branches of a Y-shaped coupling-piece *G* are connected with the said nozzles *e e'*. These branches of the Y-shaped piece are each provided with a valve or cock *g g'* to regulate the passage therethrough of the hot and cold water or other fluids coming from the fountain-chambers.

The eduction-tube *H* of the syringe has its inner or proximal end connected with the shank or single portion of the Y-shaped connecting-piece and is provided at its outer or distal end with an eduction-nozzle *i*, which may be perforated for spraying purposes or constructed to discharge the water in any desired way. A cut-off device *k* of well-known construction in surgical instruments may be provided in addition to the said valves or cocks to regulate the flow of the water through the tube.

In order to correctly measure the mean temperature of the fluids when mixed, a thermometer is placed in the eduction-tube and is arranged so that the current comes immediately in contact therewith, while it may be readily seen in order to ascertain the temperature of the flowing water or fluid. This thermometer *l* is contained within a glass chamber *L*, supports *l'*, of soft rubber, being provided to maintain it in position in the center of the glass chamber, while readily permitting the water to flow around the same. The glass chamber is provided at each end with a tubular projection *m*, through which the ends of tube are connected. By this construction the thermometer is contained within a casing and

protected, but is so arranged that it may be easily and quickly consulted for ascertaining the temperature of the fluids passing through the tube.

- 5 In practice the fountain-syringe is hung upon the wall, bed, or some other object suitable for the purpose by means of its eyes *a b*. One compartment—*A*, for instance—is then filled with hot water and the other with cold.
- 10 *A* suitable antiseptic or medicinal material may be added to either the hot or cold water. The valves or cocks in the ejection portion of the fountain-chambers are then opened to allow the water to pass out by gravity, and may
- 15 be tempered as desired by suitably regulating the passage of the hot and cold currents relatively to each other. If desired, a heater may be applied to the hot-water fountain-compartment *A*.
- 20 My invention provides a simple and effective construction of fountain-syringe for either medicinal, surgical, household, or hospital purposes and is adapted to supply either hot or cold water, or warm water, or any desirable medicinal or antiseptic solution of any
- 25 desired temperature.

In Fig. 4 a slightly-modified form of syringe is shown. In this construction the *Y*-shaped coupling-piece *G'* is located about midway of the length of the discharge-tube, and said discharge-tube has two connections *II'* between the compartments and said *Y* coupling-piece. The syringe in this construction also is provided with a single suspending-eye *a* only.

- 35 While I have shown in the accompanying drawings certain means for carrying my invention into practical effect, I desire it understood that I do not limit my invention to the specific construction and arrangement of parts which for the sake of illustration I have
- 40 set forth.

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

1. A fountain-syringe consisting of a chambered bag, each chamber having at its upper portion an induction-opening and at its lower portion an eduction or discharge tube, a branched, or *Y*-shaped discharge-tube coupled to the eduction-tubes depending from the bag, a pair of turn-valves, one of each located in the upper branched portion of the *Y*-shaped tube, a transparent cylinder or tube connected with and depending from the discharge end of said tube, a thermometer located in said transparent tube or cylinder and a discharge-nozzle connected with the lower end of said cylinder, as and for the purpose set forth.

2. A fountain-syringe consisting of a divisional or chambered receptacle having induction and eduction nozzles or posts connected with the respective divisions or chambers, a discharge-tube having a *Y*-shaped branched portion connected with said eduction-nozzles and having a valve in each branch, a transparent tube or cylinder connected at its inner end with the lower, or outer, end of said discharge-tube, a pair of transversely-bored soft-rubber disks contained and frictionally held within said transparent tube, a thermometer passed through and flexibly supported by said rubber disks within said transparent tube, and a discharge-nozzle connected with the lower, or outer, end of said transparent tube, as and for the purpose set forth.

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

FRANK C. FERGUSON.

Witnesses:

GEORGE W. SULGROVE,
JNO. T. PLUMMER.