W. S. RODGERS & J. SEIN.

INJECTION APPARATUS.

APPLICATION FILED AUG. 28, 1909.

963,731. Patented July 5, 1910.

Fig. 2.

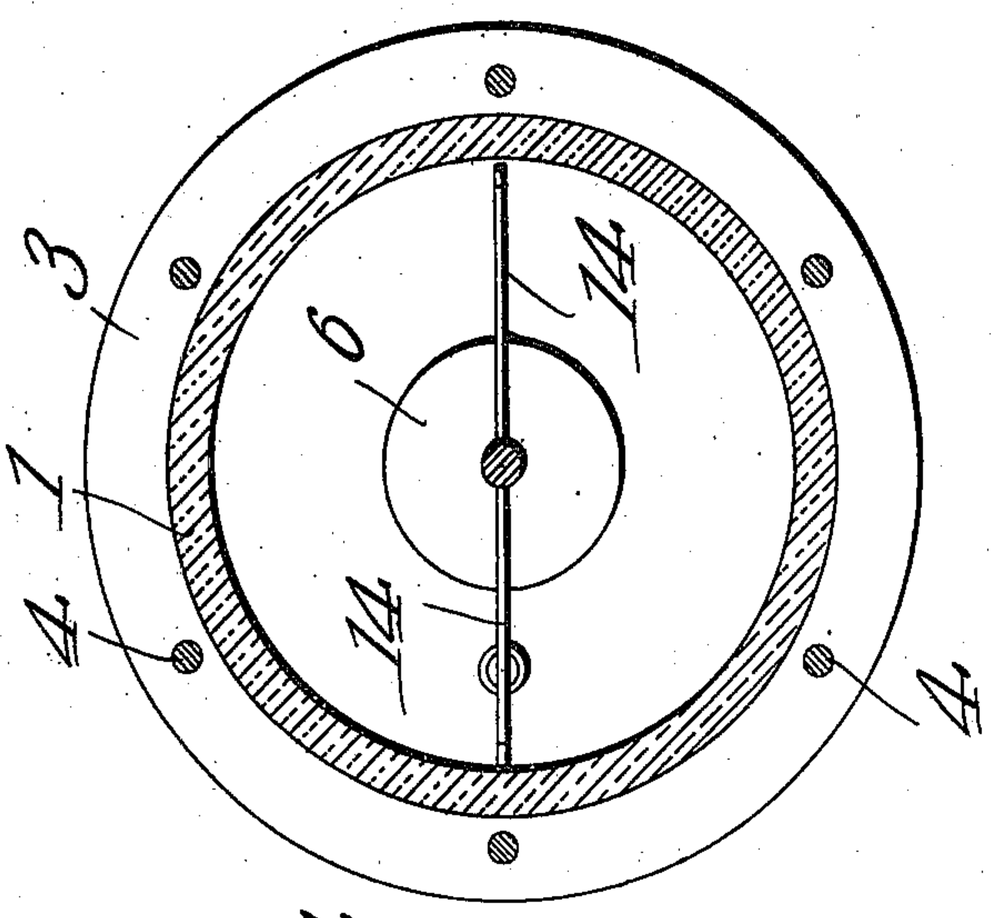
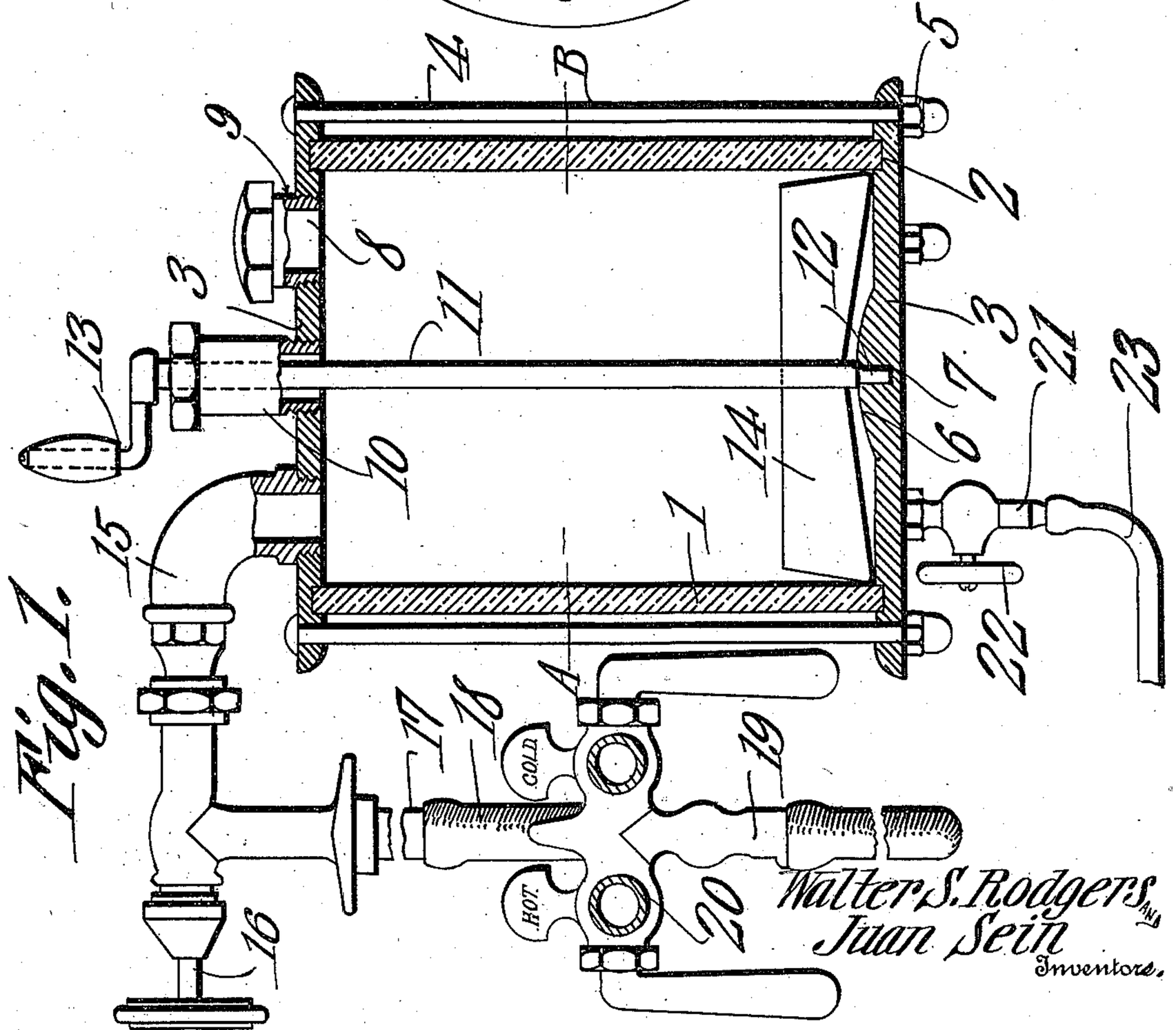


Fig. 1.



Witnesses

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UNITED STATES PATENT OFFICE.

WALTER S. RODGERS AND JUAN SEIN, OF EL PASO, TEXAS.

INJECTION APPARATUS.

963,731. Specification of Letters Patent. **Patented July 5, 1910.**

Application filed August 28, 1909. Serial No. 515,079.

To all whom it may concern:

Be it known that we, WALTER S. RODGERS and JUAN SEIN, citizens of the United States, residing at El Paso, in the county of El Paso, State of Texas, have invented a new and useful Injection Apparatus, of which the following is a specification.

This invention relates to apparatus for use in douching or injecting with chemically treated fluids and one of its objects is to provide a simple form of apparatus designed to be connected to an ordinary hot and cold combination faucet, whereby water of a predetermined temperature can be directed into a container prior to being discharged to a nozzle connected thereto.

Another object is to provide a container having simple means whereby the contents thereof can be thoroughly mixed prior to their discharge therefrom.

Another object is to provide an arrangement of valves for controlling the supply and discharge of the fluid.

With these and other objects in view, the invention consists of certain novel details of construction and the combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings: Figure 1 is a view partly in vertical section and partly in elevation, of the apparatus, a portion of the faucet to which it is connected being shown. Fig. 2 is a section on line A—B, Fig. 1.

Referring to the figures by characters of reference, 1 designates a tubular body preferably formed of heavy glass and the ends of this body are seated within circular grooves 2 formed within heads 3 which can be made of porcelain, metal, or any other material which will not corrode. These heads extend beyond the body 1 and are tied together and held firmly on the ends of the body by means of rods 4 on which are mounted adjusting nuts 5. The lower head 2 is preferably thickened at the center, as shown at 6 and has a socket 7 therein. The other head has an inlet opening 8 designed to be closed by means of a screw cap 9 and a centrally disposed gland 10 is mounted on this head and has a shaft 11 extending therethrough. The lower end of the shaft is reduced in diameter, as shown at 12, and is seated in the socket 7, while the upper end has a crank 13 attached to it to facilitate the rotation thereof. Blades 14 extend laterally from the lower portion of the shaft and lie close to the lower head 3. An inlet pipe 15 opens through the upper head 3 and has a valve 16 therein for controlling the supply of liquid to the container made up of body 1 and heads 3. One end of the inlet pipe has a nipple 17 thereon from which extends a flexible tube 18, which, as shown in Fig. 1, may be detachably secured to the outlet portion 19 of a combination faucet 20. A discharge nipple 21 extends from the lower head 3 and is provided with a valve 22 for controlling the escape of fluid therethrough. This nipple is designed to be engaged by one end of a flexible tube 23 to which a nozzle may be attached.

Although the apparatus has been shown and described as connected to the faucet by means of a flexible tube 18, it is to be understood that it can be made a permanent fixture by connecting it to a combination hot and cold water valve by means of a non-flexible pipe.

In using the apparatus herein described, the chemical to be mixed with the water is placed in the container by removing the cap 9. After replacing the cap, the valves of the combination faucet 20 can be opened to admit water of a desired temperature to the inlet pipe 15 and the discharge of this water into the container may be controlled by means of valves 16. After the water enters the container it can be thoroughly mixed with the chemical previously placed therein by rotating shaft 11 and blades 14. After the mixing operation, valve 22 can be opened and the mixture will thus flow through the tube 23 to the nozzle. It will be noted that the heads 3 can be readily removed from the body 1 for the purpose of cleaning the interior of the container. By making the body 1 of glass or other transparent material, it can be readily determined when the contents have been properly mixed.

It is of course to be understood that various changes may be made in the construction and arrangement of the parts without departing from the spirit or sacrificing the advantages of the invention.

What is claimed is:—

1. Apparatus of the class described including a container, a valved inlet pipe opening thereinto, a valved outlet, and a revoluble mixing device within and extending close to the walls of the container.

2. Apparatus of the class described including a container, a valved inlet pipe opening thereinto, there being an inlet in the container, a removable closure for the inlet, a valved outlet, and a manually operated revoluble mixing device within the container.

3. Apparatus of the class described including a transparent tubular body, heads removably mounted upon the ends thereof, a valved inlet pipe opening through one of the heads, a valved outlet member opening through the other head and a manually operated revoluble mixing device mounted between the heads and extending close to the walls of the body.

4. Apparatus of the class described including a tubular transparent body, heads upon the ends thereof, one of said heads having a socket, tie devices detachably connecting the heads and outside of the body, a valved inlet opening through one of the heads, a valved outlet opening through the other head, a revoluble shaft seated at one end of the socket, and mixing devices extending from the shaft.

5. Apparatus of the class described including a tubular transparent body, heads detachably mounted upon the ends thereof, tie devices detachably connecting the heads and disposed outside of the body, valved means for directing fluid into the body, valved means for conveying fluid therefrom, a shaft revolubly mounted within the heads, means for rotating the shaft, and mixing devices radiating from the shaft.

6. Apparatus of the class described including a separable container having a transparent portion, said container being also provided with an inlet and an outlet, a shaft mounted for rotation within the container, means for rotating the shaft and mixing blades radiating from the shaft adjacent the bottom of the container.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

WALTER S. RODGERS.
JUAN SEIN.

Witnesses:
CLYDE V. NEFE,
H. F. MUDLER.