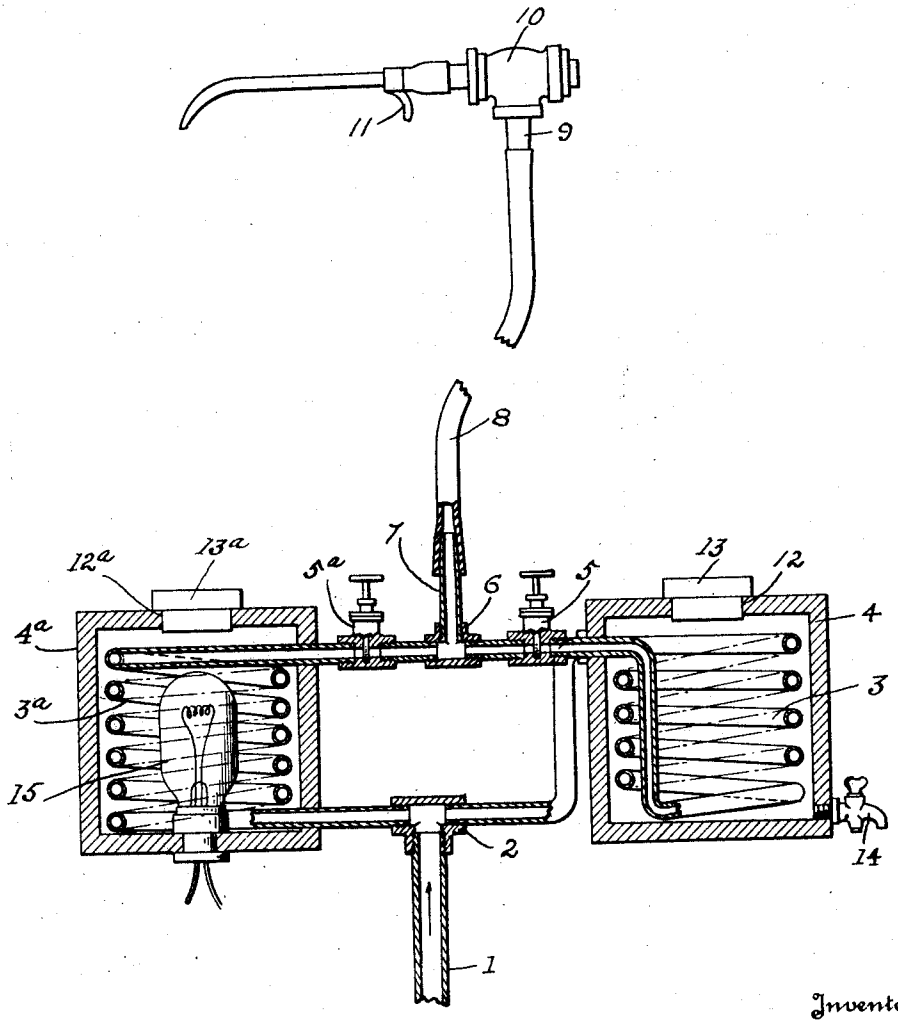
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APPARATUS FOR SUPPLYING WATER AT VARIOUS TEMPERATURES TO DENTAL SYRINGES

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Inventor

Carl Hardy Brown

By [signature]

Attorney

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CARL HARDY BROWN, OF MACON, GEORGIA

APPARATUS FOR SUPPLYING WATER AT VARIOUS TEMPERATURES TO DENTAL SYRINGES

Application filed December 22, 1927. Serial No. 241,883.

The object of this invention is to provide an apparatus for supplying to the dentist warm water or ice water, drop by drop, or in a steady stream of light pressure direct from the city water supply or other source to patient's mouth, or other objects in a small radius of his chair. The flow of water is controlled by the hand of the dentist or his assistant.

One form of the invention is illustrated in the accompanying drawing, which is a cross section of the entire apparatus.

A pipe 1 for supplying water under pressure from a city water main or other source is connected to one branch of a T-coupling 2. The other two branches of said T-coupling are connected, respectively, to the upper end of a coil 3 in a tank 4 and to the lower end of a coil 3^a in a second tank 4^a. The lower end of the coil 3 in the tank 4 and the upper end of the coil 3^a in the tank 4^a are connected, respectively, to valves 5 and 5^a, each of which is connected to one branch of a second T-coupling 6.

A nipple 7, carried by the third branch of the T-coupling 6 is adapted to receive one end of a flexible hose 8, the other end of which is adapted to receive a nipple 9 of a nozzle 10. This nozzle may be of any convenient form and the flow of water through same may be controlled in any convenient manner, for example by a trigger 11 actuated by a finger of the operator.

The tanks 4 and 4^a may be made of any suitable material, for example of metal.

The tank 4 has a filling opening 12 in its top, which opening is normally closed by a plug 13 and through which the tank may be filled with a cooling medium, such as cracked ice or ice water for the purpose of cooling the water which flows through the coil 3. The tank 4 also has a drain cock 14.

The tank 4^a contains a heating medium, shown in the present instance as consisting of an electric lamp 15, and has an opening 12^a in its top, which opening is normally closed by a plug 13^a and through which access may be had to the interior of the tank.

Water under pressure from a city water main or other source is delivered through the pipe 1 and T-coupling 2 to the upper end of the coil 3 in the tank 4 and to the lower end of the coil 3^a in the tank 4^a.

The water which flows through the coil 3 to the T-coupling 6 will be cooled by the cooling medium in the tank 4 and the water which flows through the coil 3^a in the tank 4^a to said coupling will be heated by the heating medium in the tank 4^a; and the rate of flow of cooled or heated water to the T-coupling 6 and thence to the nozzle 10 may be controlled by the valves 5 and 5^a. Therefore, by suitably adjusting the valves 5 and 5^a, water can be delivered to the nozzle 10 at any temperature between that to which the water flowing through the coil 3 can be reduced by the cooling medium in the tank 4 or that to which the water flowing through the coil 3^a can be raised by the heating medium in the tank 4^a.

I claim:

Means for supplying water at various temperatures to a dental syringe, comprising a closed container, heating means in said container, a coil in said container, a receptacle for a cooling medium, a second coil in said receptacle, a water supply pipe connected to the lower end of the first-named coil, and to the upper end of the second-named coil, a water delivery pipe connected to the upper end of the first named coil and to the lower end of the second-named coil and having an outlet for connection to a dental syringe, and a valve in said delivery pipe between each of said coils and said outlet.

CARL HARDY BROWN.