N. KENNY.

Hot Water Urn.

No. 208,474. Patented Oct. 1, 1878.

Fig. 1.

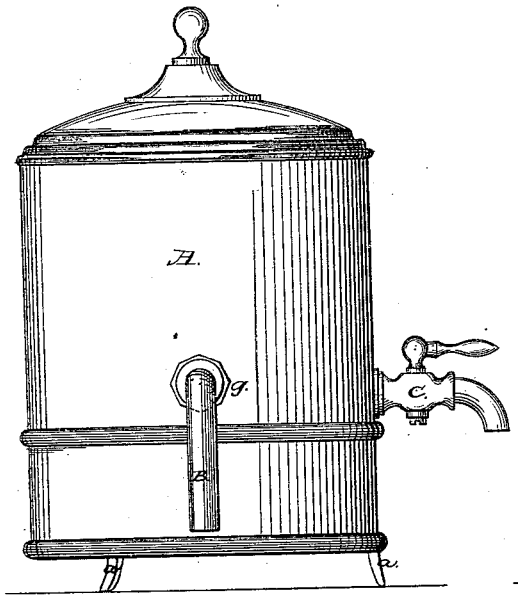


Fig. 2.

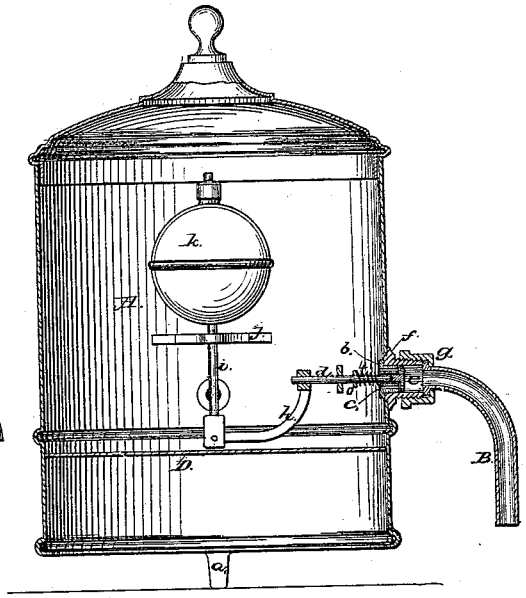


Fig. 3.

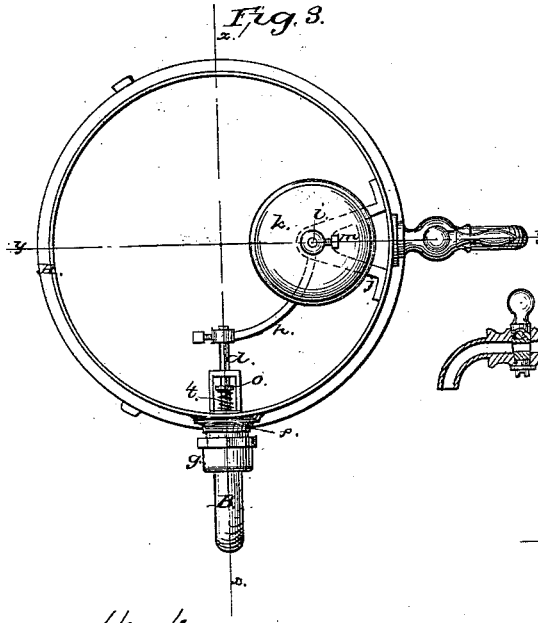
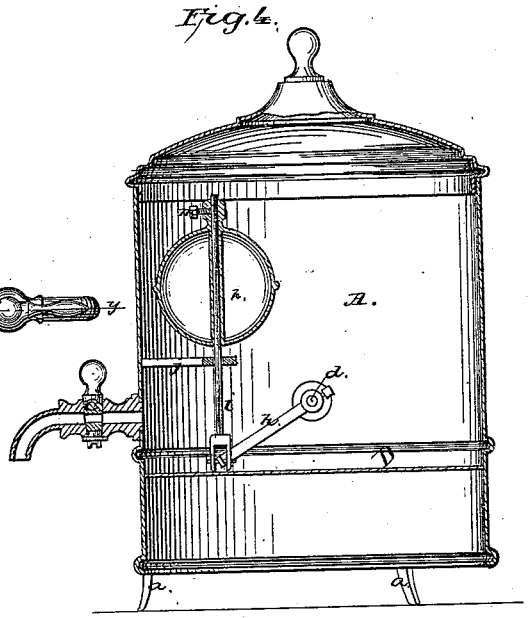


Fig. 4.



Attest:

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NICHOLAS KENNY, OF NEW YORK, N. Y.

IMPROVEMENT IN HOT-WATER URNS.

Specification forming part of Letters Patent No. **208,474**, dated October 1, 1878; application filed November 6, 1877.

To all whom it may concern:

Be it known that I, NICHOLAS KENNY, of the city, county, and State of New York, have invented new and useful Improvements in Hot-Water Urns, which improvements are fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of the urn. Fig. 2 is a vertical section, as represented at *x x* in Fig. 3. Fig. 3 is a plan or bird's-eye view of the urn, with the top removed to show the interior. Fig. 4 is a vertical section on the line *y y* in Fig. 3.

The object of my invention is to furnish a device or urn by means of which hot water can be had at all times when desired for the purpose of furnishing hot drinks.

In Figs. 1, 2, 3, and 4, A represents the shell or cylindrical wall of the urn. In Fig. 1 is seen at B the inlet or supply pipe through which the supply of cold water passes into the urn. At C, in same figure, is shown the pipe and faucet through which the hot water is drawn from the urn as it is wanted for use.

In Figs. 2 and 4, D D represent the bottom of the urn; and the part of the shell or wall of the urn seen below the bottom D, and to which the feet *a* are attached, is merely to form a chamber in which to place an oil or spirit lamp, or a gas-burner, for the purpose of heating the water in the urn above the bottom D.

Now, as it is necessary to have a supply of cold water flowing into the urn through the pipe B, Fig. 3, to correspond with the quantity drawn off at the faucet C, I use the following device, viz: In the cylinder A, I insert a plug, *b*, as seen in Fig. 2, the outer end of which is a plane or flat surface. Through this plug *b*, I drill one or more holes, parallel with its axis and near to its periphery, (these holes are seen at *c*, Fig. 2;) and through the center of the plug *b* is a hole for the passage of the valve-rod *d*. On the outer end of this rod *d* is a flat circular plate or valve, *e*, and through this plate or valve is drilled one or more holes of a corresponding distance from its center with holes *c* in the plug *b*, so that as the valve oscillates the holes *c* will be opened and closed correspondingly, and thus the supply of water which passes through these holes *c* is increased or diminished.

In order to attach the supply-pipe B to the plug *b*, I place on its outer end a ring or thimble, *f*, and on this thimble *f* is placed the screw-thimble *g*, which holds and secures the pipe B in its place. Now, when water is admitted to the pipe B, it is evident that when the valve-rod *d* so oscillates as to bring the holes in the valve *e* opposite to the holes *c* in the plug *b*, the water will flow through the same into the urn; and when, by said oscillations, these holes in the valve *e* do not correspond with the holes *c* in the plug *b*, the water-supply is cut off accordingly.

Now, in order to have the valve *e* oscillate automatically, as desired, to keep up as near as possible an equal amount of water in the urn, I attach to the valve-rod *d* a crank, *h*, and to this crank *h* is attached the float-rod *i*, which passes up through the supporting-bracket *j*, and on its upper end is placed the float *k*, and this float *k* is secured at any desired place on the rod *i* by means of the screw *m;* and this float *k* is so secured on the rod *i* that when the water rises in the urn as high as is desired it, floating on the water, will draw the rod *i* up, and this rod, being attached to the crank *h* of the valve-rod *d*, will, of course, oscillate it, and thus shut off the supply of water, and as the water goes down in the urn the opposite effect is produced, and thus the amount of water in the urn is automatically regulated.

In order to secure actual contact between the inner surface of the valve *e* and the outer surface of the plug *b*, I place a small spiral spring on the valve-rod *d*, one end of which presses against the inner end of the plug *b*, and the other end against the collar *o* in the rod *d*.

I am aware that the regulating devices above described are not new, and also that it is not new to feed water to boilers automatically, a copper boiler having been heretofore constructed with a water-chamber connected to a reservoir, said reservoir having a float operating a valve in a feed-pipe; but in this case the regulating devices were outside the hot-water chamber, there being no convenient

space for it elsewhere, and said water-chamber could not be conveniently heated by a lamp because of a pipe extending through the bottom thereof to the coffee-chamber.

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

A hot-water reservoir having below it an open-bottomed chamber adapted to receive a lamp, a cock, C, a float, *k*, rod *i*, crank *h*, spring-valve and plug, and inlet-pipe, all substantially as shown and described.

NICHOLAS KENNY.

Witnesses:
J. COFFIN,
J. H. KUHNS.