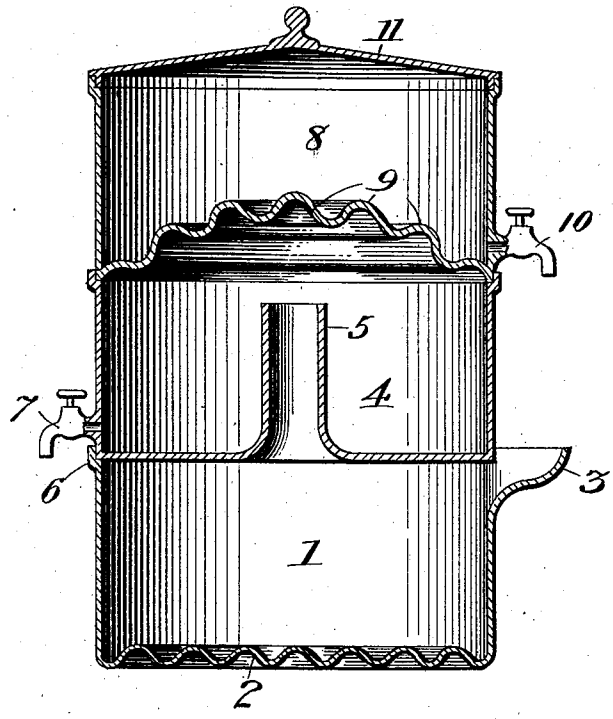
No. 755,179. PATENTED MAR. 22, 1904.

F. H. SMITH.

WATER STILL.

APPLICATION FILED MAR. 9, 1903.

NO MODEL.



Witnesses:
C. C. Hunt.
[illegible]

Inventor:
Frederick H. Smith.
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 755,179. Patented March 22, 1904.

UNITED STATES PATENT OFFICE.

FREDERICK H. SMITH, OF CHICAGO, ILLINOIS, ASSIGNOR TO PHILIP P. MENARD, OF CHICAGO, ILLINOIS.

WATER-STILL.

SPECIFICATION forming part of Letters Patent No. 755,179, dated March 22, 1904.

Application filed March 9, 1903. Serial No. 146,884. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK H. SMITH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Water-Stills; and I do 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 improvements in devices adapted for use for the purpose of distilling water for domestic use; and it consists in the peculiar construction and combination of devices hereinafter described and claimed.

The object of the invention is to provide a device of this character which shall be simple in construction, durable in use, and comparatively inexpensive of production and which will be efficient in operation.

With these and other objects in view the invention consists in certain novel features of construction, combination, and arrangement of parts, which will be hereinafter fully described and claimed.

In the accompanying drawing I have illustrated my invention in a vertical sectional view.

In the embodiment of my invention I provide a boiler 1, which is here shown as a cylindrical vessel of suitable dimensions having annular corrugations 2 in the bottom concentrically disposed and having in one side near its upper edge an outwardly-projecting trough or lip 3, adapted for use in supplying the boiler with water. I also provide a distilling vessel 4, which is provided with an upwardly-extending steam-inlet pipe 5, which rises from the center of its bottom, and the said distilling vessel is adapted to be placed on the upper side of the boiler 1 and to be removed therefrom at pleasure. Any suitable means within the scope of my invention may be employed to support the distilling vessel on the boiler. For the purposes of this specification I have shown the boiler provided at its upper side with an outstanding flange 6 of suitable size to receive and seat the lower end of the distilling vessel. The steam-inlet pipe 5, with which the distilling vessel is provided, extends to within a suitable distance of the upper side thereof, and the said distilling vessel is provided at one side with a draw-off faucet 7.

In connection with the distilling vessel, I provide a water-reservoir 8, which is here shown as of cylindrical form and adapted to be detachably secured on the upper side of the distilling vessel, so as to close the same. The bottom of the said water-reservoir is preferably of concavo-convex form with the concave side lowermost, and the same is thereby caused to form a steam-dome over the distilling vessel and to increase the superficial area of the said bottom of the said reservoir. I provide the same with annular concentrically-disposed corrugations 9. The water-reservoir has a draw-off faucet 10 at one side, which is adapted to be disposed directly over the feed lip or trough 3 of the boiler, so that water may be supplied to the boiler directly from the water-reservoir. The water-reservoir is provided with a detachable cover 11.

In the operation of my invention the steam from the boiler passes upwardly through the pipe 5 into the distilling vessel and impinges against the under side of the corrugated bottom 9 of the water-reservoir, which forms also the steam-dome of the distilling vessel and is there condensed, the resulting water of condensation being collected in the distilling vessel, from which it may be drawn as it is needed by the faucet 7. It will be understood that the temperature of the water in the water-reservoir is very much lower than that of the boiling water in the boiler, so that the steam is readily condensed by the corrugated bottom of the water-reservoir.

From the foregoing description, taken in connection with the accompanying drawing, the construction, mode of operation, and advantages of my invention will be readily apparent, it is thought, without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

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

A water-distilling apparatus, comprising a boiler open at top and provided with a filling-lip at one side thereof, a vapor-chamber adapted to rest upon the boiler and open at top and having a fixed bottom provided with an upwardly-extending inlet-pipe, a water-reservoir adapted to rest upon the vapor-chamber and provided with a fixed dome-shaped condensing bottom and a discharge-cock, the latter adapted to supply water therefrom to the filling-lip of the boiler, and a cover for the water vessel, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FREDERICK H. SMITH.

Witnesses:
W. A. HERRICK,
JOHN M. MITCHELL.