

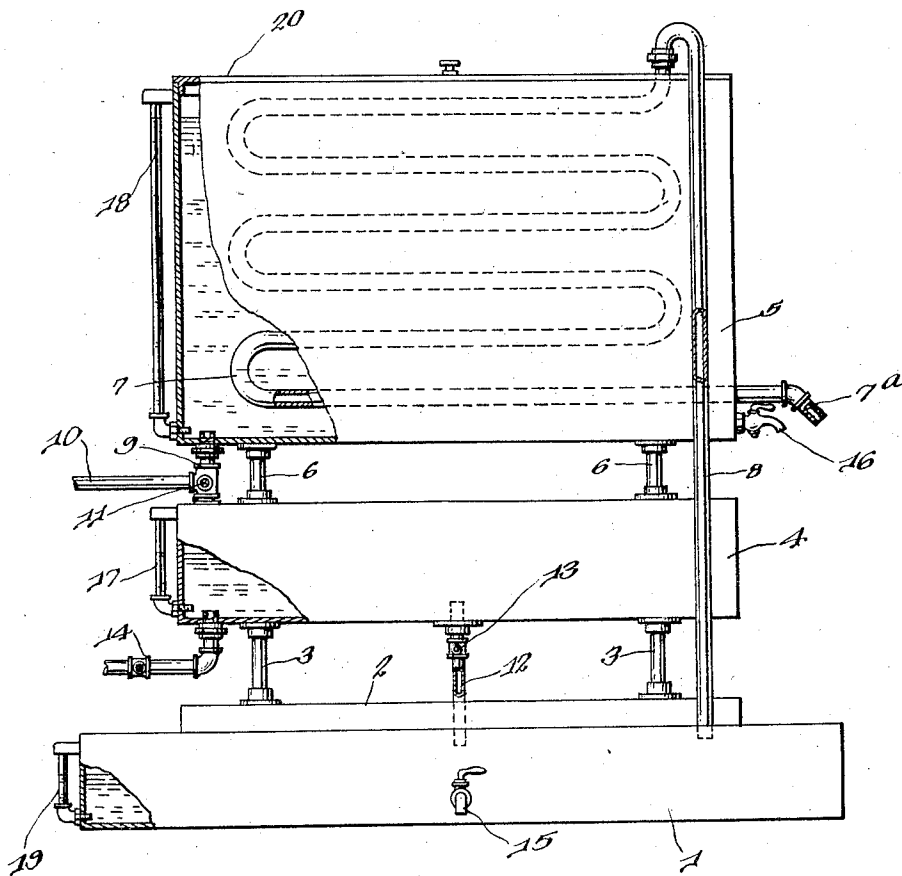
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WATER STILL

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SILVAN PLUMLY, OF MUSCATINE, IOWA.

WATER STILL.

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This invention relates to water stills, and more particularly to a distilling apparatus especially adapted for domestic use.

One of the main objects of the invention is to provide a still of simple construction and operation which may be readily produced at small cost. A further object is to provide a unitary distilling apparatus which is semi-automatic in its operation and is economical in the use of water. Further objects will appear from the detailed description.

The single figure of the drawing is an elevation, partly broken away, of a still constructed in accordance with my invention.

The still includes a base in the form of a boiler 1 upon which is supported, by means of sills 2, a suitable support 3, and reserve tank 4. A cooling or supply tank 5 is supported upon tank 4 by means of suitable supports 6. A coil 7 is positioned within tank 5 and one end of this coil is connected by a steam inlet pipe 8 to the upper portion of boiler 1. Communication is established between tanks 4 and 5 by a T-connection 9 which may communicate with water supply tank 10. A suitable valve 11 is mounted in the T-connection 9 for optionally establishing connection between tanks 4 and 5 and the pipe 10 for cutting off such communication. A pipe 12 establishes communication between tank 4 and boiler 1 and is provided with a suitable valve 13 for opening and closing this pipe. A drain pipe 14 communicates with tank 4 and boiler 1 and tanks 5 are provided with drain cocks 15 and 16. The tanks 4 and 5 are provided with water glasses 17 and 18, respectively, and boiler 1 is provided with a water glass 19, these water glasses providing visual means for indicating the water level in the respective tanks and the boiler.

In using the apparatus boiler 1 is heated in any known or preferred manner so as to bring the water in the boiler to a boiling point thus generating steam which flows through pipe 8 into coil 7, this steam being condensed in the coil and flowing out of the outlet 7^a valve as distilled water. The cooling or supply tank 5 is normally filled with water to within a short distance of its upper end and the reserve tank 4 is kept full of water, the water being supplied to boiler 1 as required by means of feed pipe 12. A removable cover 20 fits snugly in the upper end of tank 5 so as to permit access to the

interior of the same for cleaning purposes and, if desired, the water to be used in the distilling operation may be poured into this other tank, the valve 11 being opened so as to permit the water to flow into tank 4 from which a suitable quantity of water flows into boiler 1 through pipe 12. During the distilling operation, water may be drawn off from the reserve tank 4 to replenish the supply of water in the tank and after the water from the tank 4 has been exhausted this tank may be again filled from tank 5, sufficient water being poured into this tank to replace the water which was drawn therefrom. If desired, the T-connection 9 may be connected to a supply pipe 10 which is connected to any suitable source of supply of water, and, by means of valve 11, the tanks 4 and 5 can be simultaneously filled, thus avoiding the necessity of removing the cover 20 and replenishing the water supply by pouring water into tanks 5. This provides a still of very compact and convenient construction well adapted for domestic use and in which the water in the boiler can be readily replenished as desired.

What I claim is:

1. In a still, a boiler, a reserve tank supported by the boiler, a cooling tank supported by the reserve tank, a coil in the cooling tank, the coil communicating with the boiler at one end, means for optionally establishing communication between the cooling tank and the reserve tank, and means for optionally establishing communication between the reserve tank and the boiler.

2. In a still, a boiler, a reserve tank supported by the boiler, a cooling tank supported by the reserve tank, a coil in the cooling tank, means providing communication between the coil and boiler, a supply tube establishing communication between the cooling tank and the reserve tank, means for opening and closing said tube, a feed pipe establishing communication between the reserve tank and the boiler, and means for opening and closing said feed pipe.

3. A still including a steam supply reservoir, a reserve reservoir contiguous of the supply reservoir and in communication therewith, a cooling reservoir in communication with the reserve reservoir and supported thereby, and means confined in the cooling reservoir in communication with the supply reservoir and provided with an outlet exterior of the cooling reservoir.

4. A still including a cooling reservoir, a reserve reservoir contiguous of the cooling reservoir, means carried by the reserve reservoir providing a support for the cooling reservoir, means providing communication between the cooling reservoir and reserve reservoir, a coil confined in the cooling reservoir and provided with an outlet exterior of the cooling reservoir, steam supplying means in communication with the coil, and means opening communication between the steam supplying means and the reserve reservoir. 10

In testimony whereof I affix my signature.

SILVAN PLUMLY.