(No Model.)

S. SPIRO.

WATER HEATER.

No. 404,572. Patented June 4, 1889.

Fig. 1.

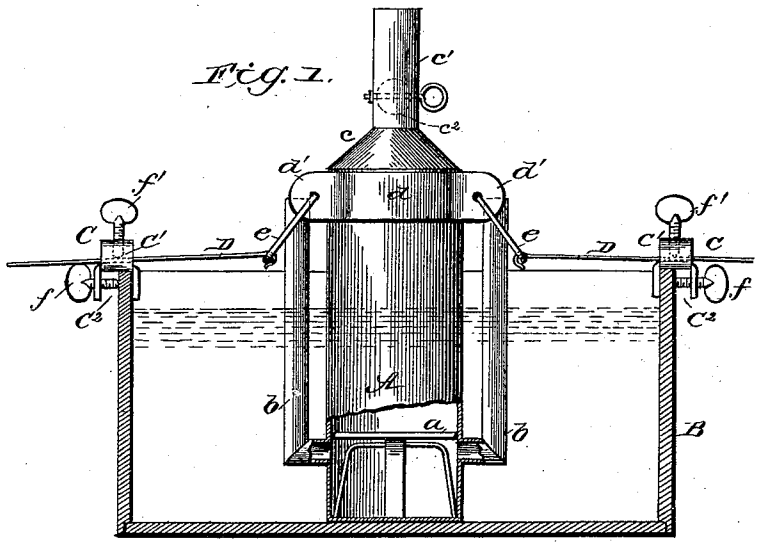


Fig. 2.

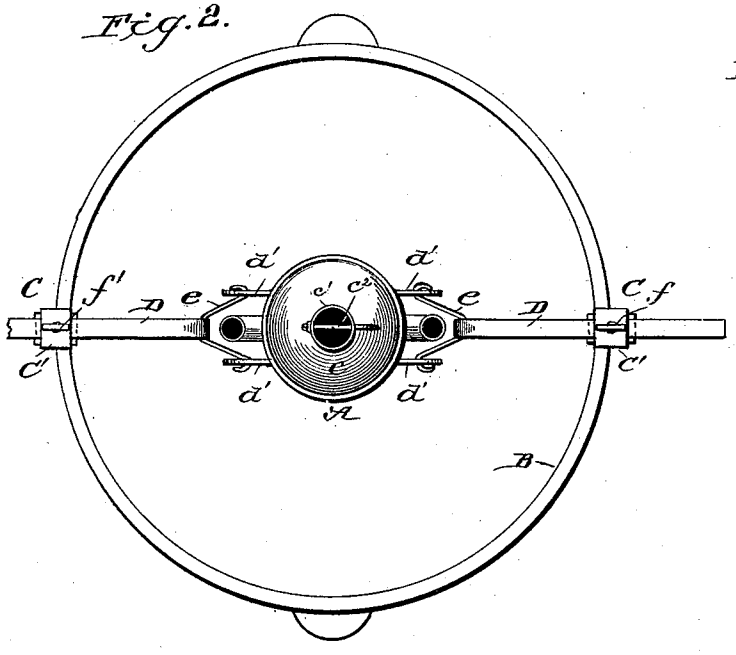
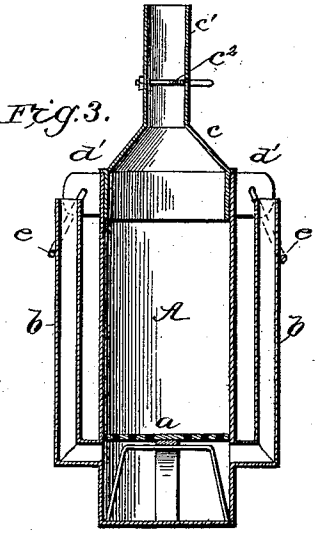


Fig. 3.



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UNITED STATES PATENT OFFICE.

SIMON SPIRO, OF BIRMINGHAM, ALABAMA.

WATER-HEATER.

SPECIFICATION forming part of Letters Patent No. 404,572, dated June 4, 1889.

Application filed July 20, 1888. Serial No. 280,564. (No model.)

To all whom it may concern:

Be it known that I, SIMON SPIRO, of Birmingham, in the county of Jefferson and State of Alabama, have invented a new and Improved Water-Heater, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in water-heaters, having for its object to provide for heating in an expeditious and satisfactory manner a quantity of water contained in separate receptacle into which the heater is to be disposed; and to these ends the invention consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation, with parts broken away, of my invention as applied for use. Fig. 2 is a plan view of the same, and Fig. 3 is a sectional elevation of the fire-pot.

In the embodiment of my invention I employ a fire-pot or heater proper A which in construction resembles a tinker's soldering-furnace, which, however, has no special significance, being only a matter of preference as to form. This fire-pot or heater has a fire-grate *a*, which is preferably formed of a foraminated disk or plate secured upon legs, the feet of which rest upon the bottom of the fire-pot, thus providing an ash-pit below said grate. The fire-pot or heater A is also provided with air or draft pipes *b b*, connecting at their lower ends by elbows with the ash-pit chamber, while their vertical or upright portions are arranged out of contact with the fire-pot or heater, and have their upper ends terminating well up near the upper end of the fire-pot or heater, preventing the entrance of water thereto. The arrangement of the air or draft pipes *b b* out of contact with the fire-pot or heater permits of the unobstructed exposure of the heating-surface of the fire-pot or heater to the surrounding water, as will appear further on. To the upper end of the fire-pot or heater A is applied or fitted a cap or cover *c*, preferably conical, and having a central pipe *c'*, which serves as the smoke-exit, and is provided with a damper or valve c^2 to regulate the draft. Around the upper end of the fire-pot or heater A is secured a band or ring *d*, which is provided with ears or eye-plates *d' d'*, and to these ears or eye-plates are applied bails or handles *e e*.

B is a receptacle or vessel, which may be a common wooden tub, a trough, a barrel, or other vessel or receptacle, with a capacity, say, of more than six gallons, which contains the water to be heated, and into which is placed the fire-pot or heater A.

C C are brackets, which are applied to the vessel or receptacle B at its upper edge. The brackets C C are each constituted of a closed loop or eye C', formed with pendent flanges or an open loop C^2, which receives the upper or top edges of the vessel. The flanges or open loop are provided with securing-screws *f f* to effect the holding or application of the brackets C C to the receptacle or vessel B.

D D are metallic straps or plates, having their inner ends hooked into the bails or handles *c c* of the fire-pot or heater A. The opposite portion of the straps or plates D D are passed through the closed loops or eyes C' of the brackets C, and adjustably held therein by means of screws *f' f'* supplied to the latter and engaging with said straps or plates. The fire-pot or heater A is thus held in position in the vessel or receptacle B against displacement from the buoyant action of the water. By simply inverting the fire-pot its contents, the grate included, can be quickly, and without the use of additional contrivances, removed.

With the heater or fire-pot secured in the receptacle or vessel B, and the required quantity of water placed in the latter, a fire is then built in the fire-pot or heater, and the heat given out by the fire-pot or heater will heat the water as required quickly and in a satisfactory manner for domestic or other purposes. The fire-pot or heater casing will be made of galvanized iron or other suitable sheet metal. The air or draft pipes *b b*, together with the smoke exit or pipe *c'*, secure perfect combustion in the fire-pot or heater, thus augmenting the heating capacity thereof.

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

1. A heater provided with bails or handles, in combination with the retaining-vessel, securing-straps engaging the handles or bails, and means for adjustably and detachably

connecting the said straps to the retaining-vessel, substantially as described.

2. The heater provided with bails or handles, in combination with the brackets applied to a containing vessel or receptacle and having closed loops or eyes and flanges, the hooked plates or straps connecting with said bails or handles, and screws in the said brackets for adjustably connecting the plates to the brackets and detachably connecting the brackets to the receptacle, substantially as specified.

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Witnesses:
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