

A. KAMENETZKY.
HOT WATER HEATER.
APPLICATION FILED AUG. 20, 1909.

989,264.

Patented Apr. 11, 1911.

Fig. 1.

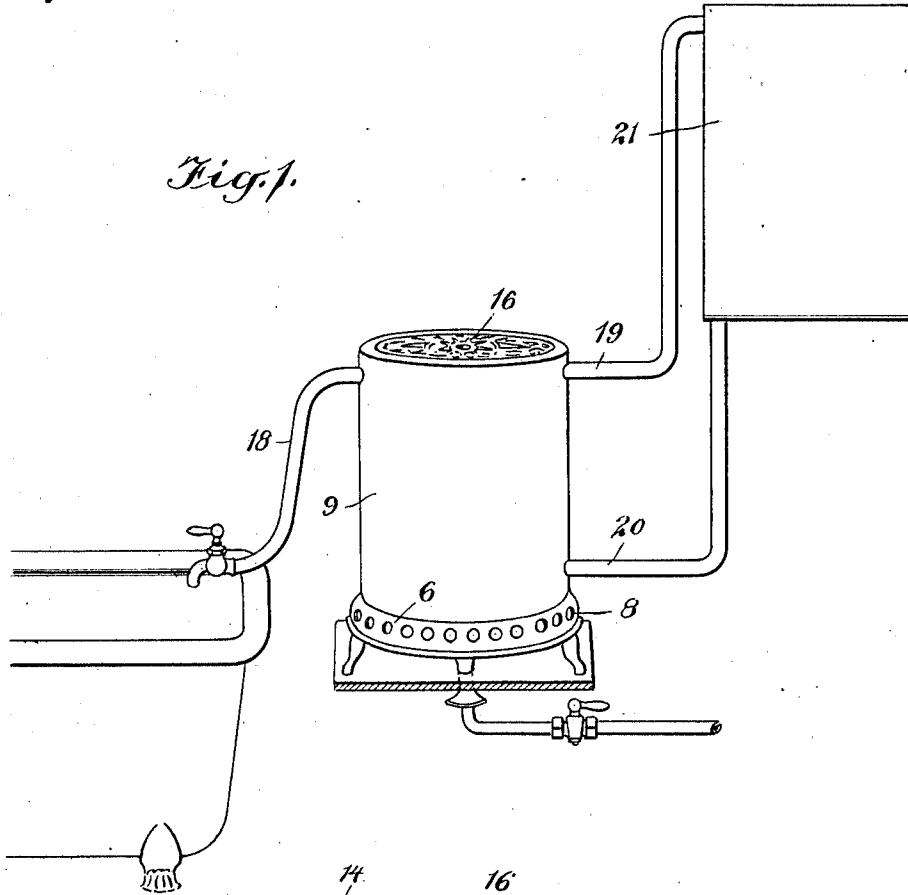
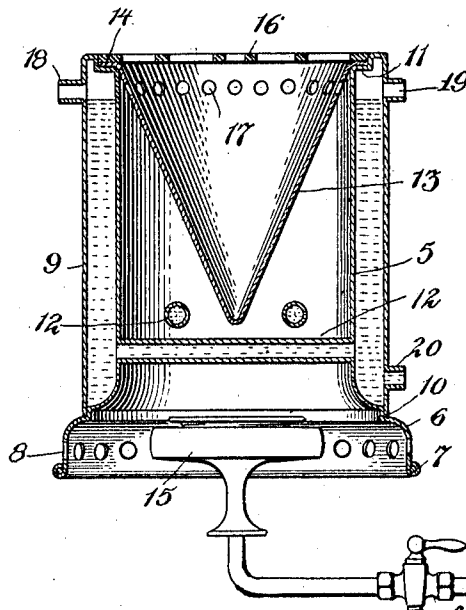


Fig. 2.



Witnesses:
Francis Patterson
Robert Patterson

Inventor
Abraham Kamenetzky
By Attorney
Thomas Patterson

UNITED STATES PATENT OFFICE.

ABRAHAM KAMENETZKY, OF NEW YORK, N. Y.

HOT-WATER HEATER.

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To all whom it may concern:

Be it known that I, ABRAHAM KAMENETZKY, of the borough of Brooklyn, city of New York, county of Kings, State of New York, have invented certain new and useful Improvements in Hot-Water Heaters, of which the following is a full, clear, and exact specification, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention is an improvement in gas or vapor hot water heaters and has in view a relatively simple device of this character suitable for household use, in which the water will be economically and expeditiously heated, the heater being constructed so that articles may be seated on the top and heated when desired. To this end, I provide an upright casing forming the combustion chamber of the heater and having a surrounding water jacket, a tapering or conical heat deflector closing the upper portion of the casing and having perforations near the top for the escape of the gases, and water heating pipes extending from the opposite sides of the water jacket across the combustion chamber at or near the terminus of the heat deflector.

Reference is to be had to the accompanying drawings forming a part of the specification in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view illustrating my improved heater as connected up to heat the water for the bath tub, and Fig. 2 is a central vertical section of the heater.

The heater, more specifically described, embodies in its construction an upright casing 5 forming the combustion chamber, the casing having a flaring base 6 wired at its lower edge as indicated at 7 and provided with air intake openings 8 arranged at suitable intervals. Surrounding the casing 5, is a water jacket 9, the lower edge of the jacket bearing against a shoulder 10 formed on the flaring base 6, with the connection between the jacket and casing at the top forming a depressed seat 11.

A number of water heating pipes extend across the casing 5 immediately above the flaring base 6 and connect with the water jacket, these pipes being preferably arranged in pairs with one set or pair of pipes extending at right angles to the other set or pair of pipes, thus adapting the water to circulate

through these pipes from several points around the water jacket.

A heat deflector 13 preferably of conical form is constructed with an external flange 14 at its enlarged end which rests on the seat 11, the point of the deflector terminating at or near the level of the pipes 12 and a substantial distance above a gas or vapor burner 15, centrally arranged within the flaring base 6. On top of the flange 14 of the heat deflector 13 is seated a perforated lid 16, the upper face of which is approximately flush with the top of the heater. The upper portion of the heat deflector has a number of perforations 17 for the escape of the hot gases and products of combustion at the top of the heater.

The water jacket 9 is constructed with suitable connections for a hot water discharge pipe 18 leading from the top and circulating pipes 19 and 20 respectively constituting a feed pipe and a return pipe.

In installing the heater, the same can be supported on legs or seated directly on the flaring base as desired.

The circulating pipes are connected to a water tank 21 arranged at a level above the heater and the discharge pipe is led to the bath tub or other point where the hot water is to be used.

After the burner 15 is connected to the gas supply, the heater is in readiness for use. The flame from the burner strikes the heating pipes 12 and together with the burned gases is thrown out against the casing 5, forming the inner wall of the water jacket and effectively heating the water before escaping through the perforations of the deflector 13 and perforated lid 16. During the use of the heater for the purpose of heating water, it may also be used for cooking or heating any article on the perforated lid.

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

1. The combination in a hot water heater, of an upright casing forming a combustion chamber, a gas or vapor burner located in the lower portion of the casing, a water jacket surrounding the casing, said casing having a depressed seat at the top, a conical heat deflector extending into the casing to a point above the burner and having an external flange resting on said seat, and a perforated lid seated on the flange of the deflector.

2. The combination in a hot water heater,
of an upright casing forming a combustion
chamber and having a flaring open base pro-
vided with air intake openings, a gas or va-
por burner located centrally in said base, a
5 water jacket surrounding the casing and hav-
ing outlet and inlet connections, pipes ex-
tending across the casing from the opposite
sides of the water jacket, said pipes arranged
10 in pairs above the burner, with one pair of
pipes located at approximately right angles
to the adjacent pair of pipes, a conical heat

deflector seated on the upper portion of the
casing and extending to a point near the
heating pipes and a perforated lid seated 15
over the deflector.

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

ABRAHAM KAMENETZKY.

Witnesses:

FRANCES PATTERSON,
HERBERT PATTERSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
