

No. 882,174.

PATENTED MAR. 17, 1908.

A. SHATZKY.
WATER HEATER.

APPLICATION FILED FEB. 15, 1907.

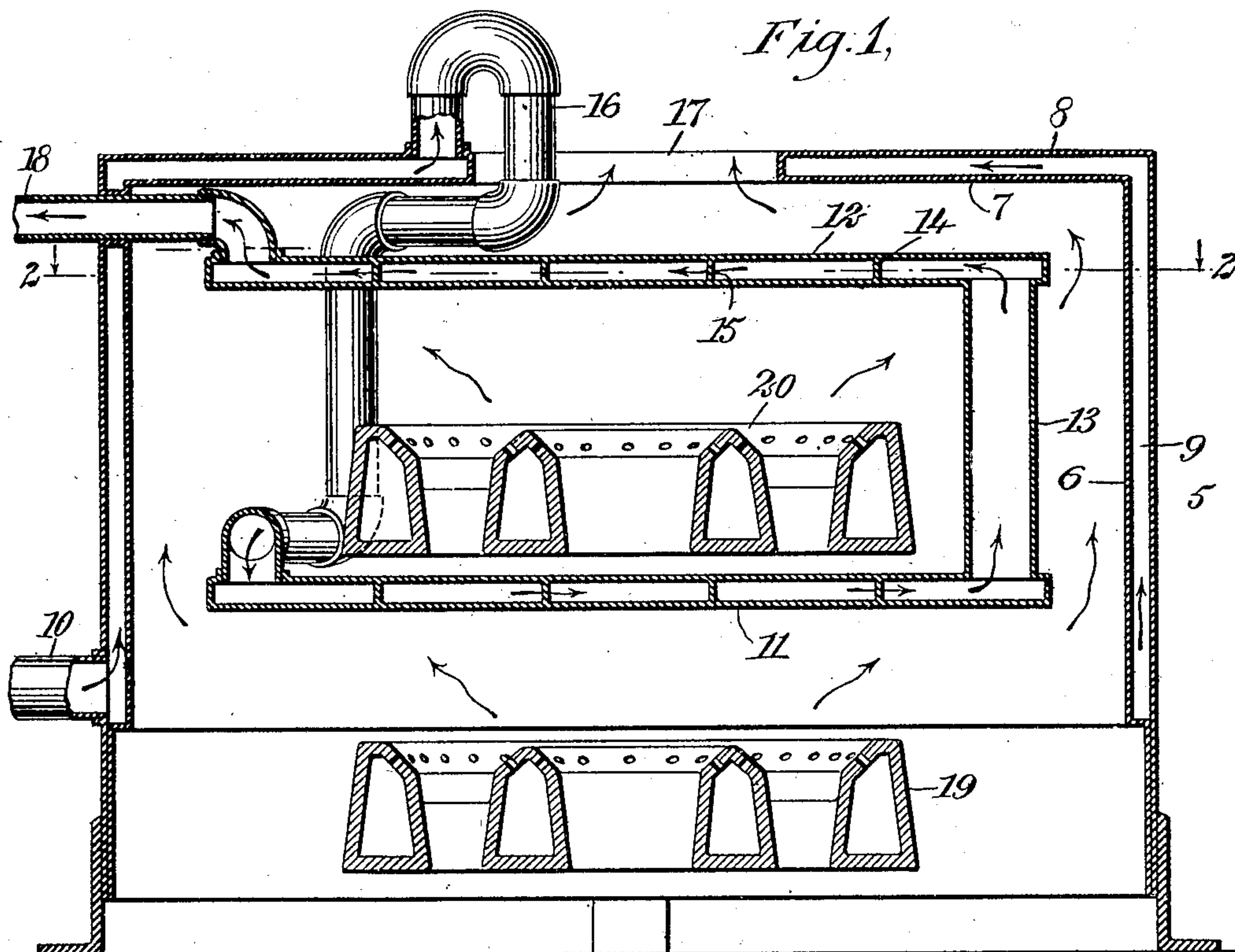
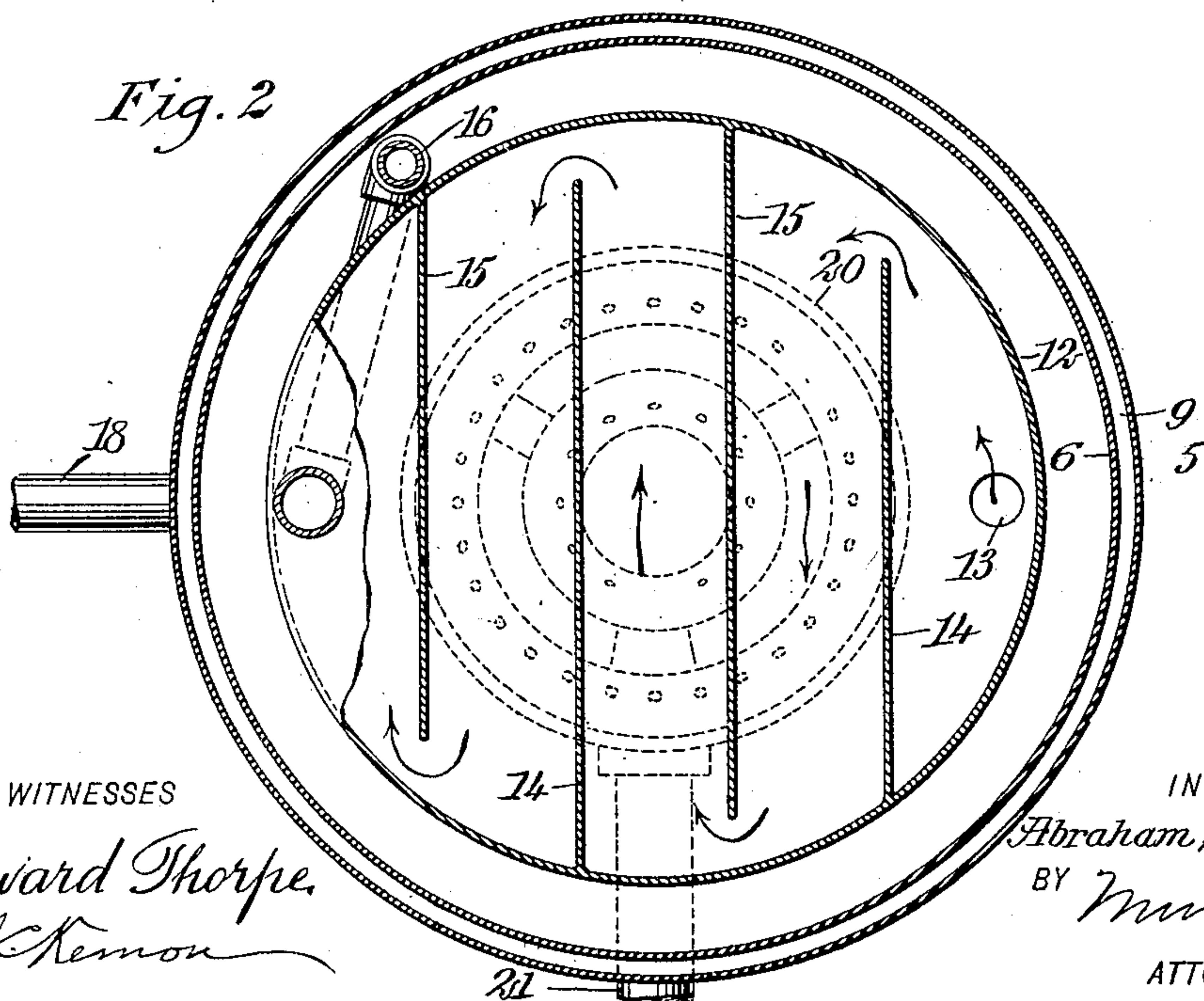


Fig. 2



WITNESSES

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ABRAHAM SHATZKY, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO JACOB MARTIN, OF BROOKLYN, NEW YORK.

WATER-HEATER.

No. 882,174.

Specification of Letters Patent.

Patented March 17, 1908.

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To all whom it may concern:

Be it known that I, ABRAHAM SHATZKY, a subject of the Czar of Russia, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Water-Heater, of which the following is a full, clear, and exact description.

This invention relates to improvements in apparatus for heating water, the object being to provide a device of this character that will be simple in construction and by means of which water running through the same will be quickly heated, thus making the device particularly useful in bath rooms, kitchens, and in all conditions where it is desired to quickly convert cold running water into hot water.

I will describe a water heater embodying my invention and then point out the novel features in the appended claims.

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

Figure 1 is a sectional elevation of a water heater embodying my invention; and Fig. 2 is a section on the line 2—2 of Fig. 1.

The heater comprises a casing 5 of suitable metal. Extending along the inner side thereof from a point slightly above the bottom is an inner wall 6 which has a portion 7 extending along the under side of the top wall 8 of the outer casing, and thus a water jacket or chamber 9 is provided for water circulation, which is fed into the jacket through the feed pipe 10.

Arranged within the device is a plurality of heating chambers, and in the drawing I have indicated two such heating chambers, that is, a lower chamber 11 and an upper chamber 12, the said chambers communicating one with the other through a pipe 13. These chambers are very shallow so that the water practically passes through the same in thin sheets and the water is caused to pass through the said chambers in a zigzag or circuitous manner by means of partitions 14—15, the partitions 14 extending from one side of the chamber to nearly the opposite side, while the partitions 15 extend from the said opposite side to nearly the side from which the first-named partitions extend. From the water space 9 a feed pipe 16 extends

downward through an opening 17 in the top of the heater and communicates with the lower chamber 11, and a discharge pipe 18 leads from the upper chamber 12. Arranged below the lower chamber 11 is a heater, here shown as a gas burner 19 and a similar heater 20 is arranged below the upper chamber.

These heaters obviously may be connected in any suitable manner with a gas supply, a gas supply pipe being indicated in Fig. 2.

The operation of the device is quite obvious; that is, the water will first enter the jacket or into the space 9 and by circulating therethrough will become somewhat heated, and from this space the water will pass through the chambers 11 and 12 in thin sheets, as before stated, and become highly heated.

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

1. A water heater, consisting of a jacketed casing forming a water space and provided with an opening in the top at the center thereof, a cold water pipe leading into the water space, a shallow chamber arranged horizontally in the casing a short distance below the top, a discharge pipe leading from the chamber out through the casing, a second shallow water chamber arranged horizontally below and a considerable distance from the first chamber, each chamber being provided with partitions projecting alternately from opposite sides of the chamber and terminating short of the side of the chamber toward which they extend, a pipe connecting the said chambers, a feed pipe leading from the water jacket at the top of casing down into the casing and connected with the second water chamber opposite the pipe connecting the said chambers, a burner arranged below the lower water chamber, and a burner arranged above the lower chamber and below the upper chamber.

2. A water heater, comprising a jacketed casing forming a water space and having an apertured top, a supply pipe leading into the said water space, a shallow water chamber arranged horizontally in the upper part of the casing, a discharge pipe leading from the chamber out through the casing, a second shallow water chamber arranged horizontally in the casing below the first chamber and spaced therefrom, a pipe connecting the

chambers, a feed pipe leading from the water space at the top of the casing down into the casing and connected to the second water chamber, a burner arranged in the lower part
5 of the casing below the lower water chamber, and a burner arranged above the lower chamber and below the upper chamber.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ABRAHAM SHATZKY.

Witnesses:

JNO. M. RITTER,
F. W. HANAFORD.