No. 845,636.

PATENTED FEB. 26, 1907.

J. HARRIS.

WATER TANK HEATER.

APPLICATION FILED NOV. 27, 190

FIG. 2.

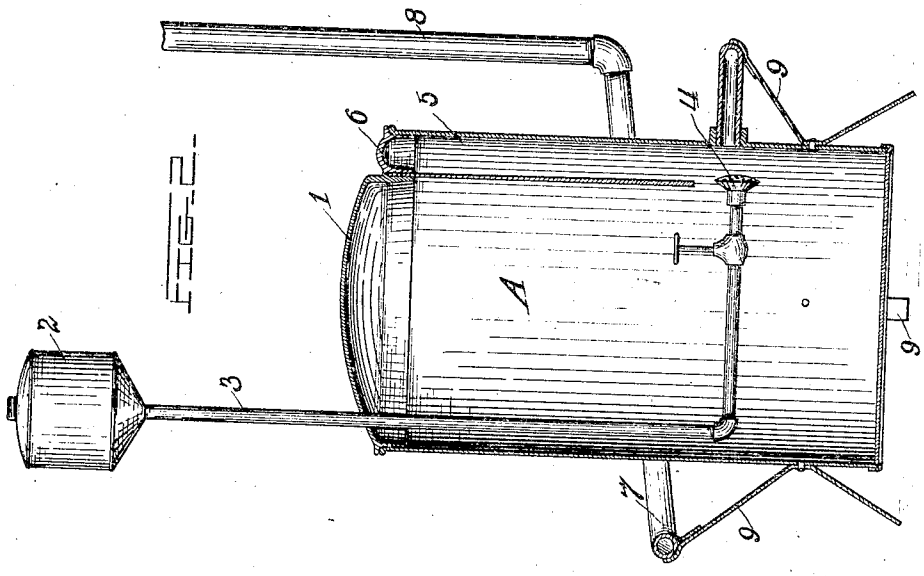
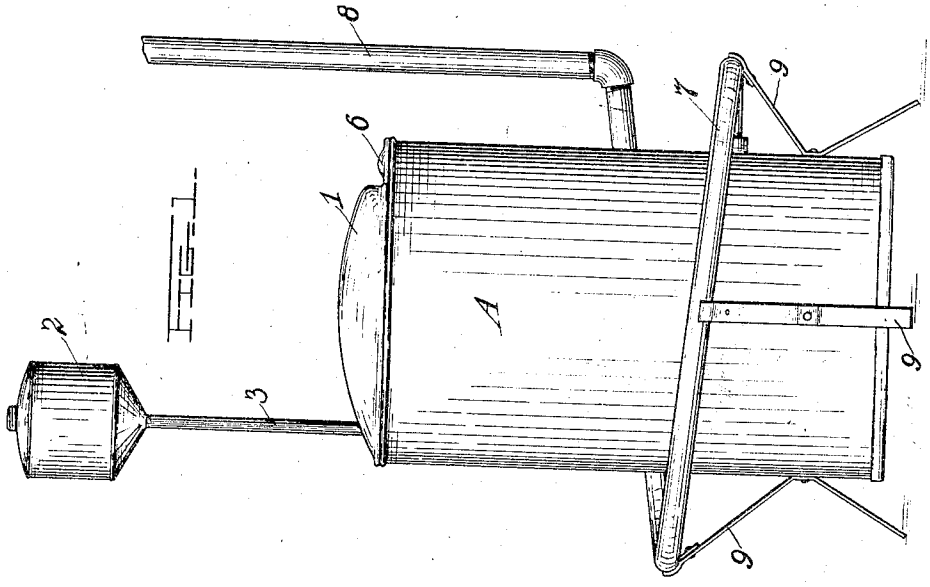


FIG. 1.



Witnesses

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UNITED STATES PATENT OFFICE.

JOB HARRIS, OF NEW PROVIDENCE, IOWA.

WATER-TANK HEATER.

No. 845,636. Specification of Letters Patent. Patented Feb. 26, 1907.

Application filed November 27, 1906. Serial No. 345,375.

To all whom it may concern:

Be it known that I, JOB HARRIS, a citizen of the United States, residing at New Providence, in the county of Hardin and State of Iowa, have invented certain new and useful Improvements in Water-Tank Heaters, of which the following is a specification.

My invention relates to an improvement in water-tank heaters; and the object is to provide a heater for heating liquids which will give better results than any now on the market and at the same time one which is cheap to manufacture and which has a greater heating area.

My invention relates to certain other novel features of construction and combinations of parts, which will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in front elevation. Fig. 2 is a vertical sectional view.

A represents the heater or drum, and 1 is an air-tight cover which is adapted to be placed in a tank or other receptacle for heating water or other liquids. A fuel-tank 2 for gasolene or oil is connected to the drum by a pipe 3, which leads to a burner 4 for heating the drum. A cold-air pipe 5 leads into the drum and is provided with a lid 6 at its top, which permits the ingress of air. At one side of the drum a pipe 7 is connected, which is adapted to encircle the drum as many times as desired and then to project upwardly, as at 8, and extending higher than the drum. This pipe conducts the gases from the drum, and by having the pipe encircle the drum a greater heating area is acquired, as the heat from the gases passing through the pipe is utilized in heating the water in connection with the heating-drum. Standards or supports 9 9 are fastened to the drum and are adapted to engage pipe 7 in any suitable manner for holding the pipe in proper position from the bottom of the tank.

It will be seen from the foregoing that I have provided a water-heater which is cheap to manufacture and which has a maximum heating-surface and that I am able to utilize all the waste products of combustion.

It is evident that many slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth; but,

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

1. A heater for water-tanks provided with a heating-drum, a burner therein, a cold-air pipe leading to the drum, and a coiled hot-air pipe connected to the drum and encircling the same.

2. A heater for water-tanks, comprising a drum, a burner therein, an air-pipe leading to the drum, a coiled pipe connected to the drum and encircling the same, and standards secured to the drum for supporting the pipe.

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

JOB HARRIS.

Witnesses:
W. T. KERSEY,
GEO. ELERDING.