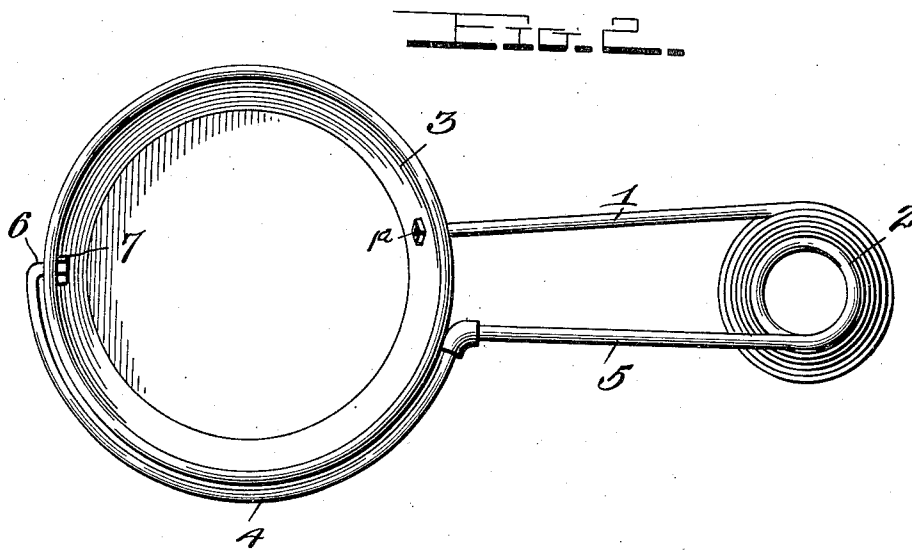
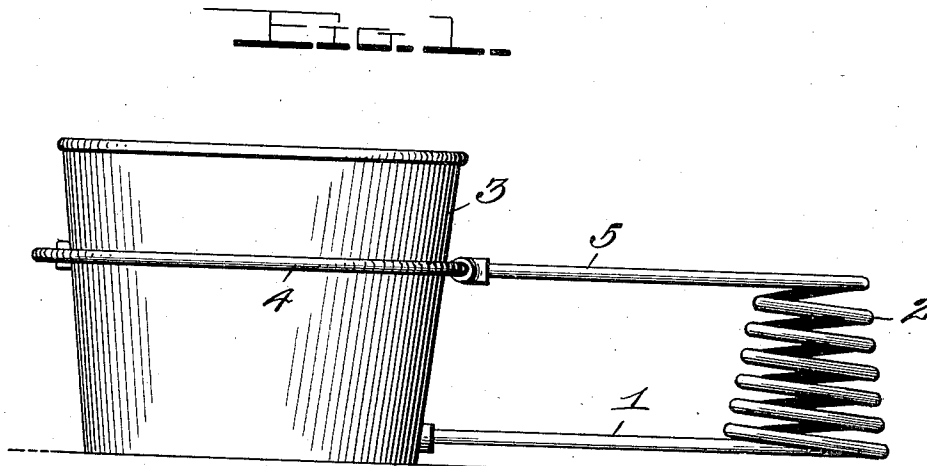


W. A. WILLIAMS.
WATER HEATER.
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1,010,005.

Patented Nov. 28, 1911.



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WATER-HEATER.

1,010,005.

Specification of Letters Patent.

Patented Nov. 28, 1911.

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To all whom it may concern:

Be it known that I, WILLIAM A. WILLIAMS, a citizen of the United States, residing at Newport, in the county of Jackson and State of Arkansas, have invented certain new and useful Improvements in Water-Heaters, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to water heaters, and more particularly to a water heater that is adapted to be used for the quick heating of water for tubs or kettles.

The particular use of this invention is that it is intended for the quick heating of water for use in the scalding of hogs, washing of clothes, and many other domestic purposes, at the same time, it is desired to have this heater attached to a tub so as to save a greater part of the rubbing that is usually required, by providing a circulation in the same, that will assist in reducing the rubbing required.

In the accompanying drawings which illustrate by way of example an embodiment of this invention; Figure 1 represents a view in elevation of a tub and water heating system embodying this invention; Fig. 2 is a plan view of Fig. 1.

Similar reference characters refer to similar parts throughout the drawings.

In the drawings which illustrate this invention 1 represents a pipe which is suitably bent intermediate of its ends to form a heating coil 2 which has its upper end bent back parallel to the first mentioned pipe toward a tub 3 to which the pipe 1 is connected, at the lower portion thereof, by means of a nut 1^a threaded on the end of the pipe. A circular piece of pipe 4 is attached to the returning pipe 5 that comes from the top of the coil in any suitable manner, and has its end portion 6 provided with a suitable fitting 7 that secures it to the upper portion of the tub 3. It will be noted that the pipe 4 is disposed in close proximity to the wall of the tub or receptacle 3. In the use of the device the wall of the receptacle becomes highly heated from the hot water contained therein, and as the pipe 4 is disposed closely adjacent to said wall, the cooling of the water in its passage through said pipe will be obviated. Any suitable means may be provided for the heating of the coil 2.

In operation the tub is filled above the height that the fitting 7 extends into the tub, so that the pipes 1 and 5 and the coil

2 attached thereto will be filled with water. Heat is then applied suitably to the coil 2 so that a circulation of the water is started and it traverses through the coil 2, the pipe 5, the elbow 4, and fitting 7, into the tub and thence back by the pipe 1 and through the system again. This circulation will be kept up as long as heat is supplied to the coil 2, so that the water in the tub will be kept at a constant high temperature, and be circulated continuously; both characteristics serving to help any purposes for which the water is ordinarily put to.

When the device is not used for the above purpose, the pipe coil 2 provides a convenient handle whereby the tub or vessel 3 may be lifted.

The end of the pipe 1 and the end portion 6 of the pipe 4 extend through openings or orifices in the wall of the tub or receptacle and in order to detach the coil 2 and the conducting pipes from said receptacle it is simply necessary to remove the nut 1^a and the fitting 7 from the ends of the pipes 1 and 4. The openings in the wall of the receptacle may now be closed by means of suitable plugs and the tub or receptacle used in the ordinary manner.

Thus it will be seen that this device provides a ready means for use in many domestic purposes, and at the same time, is compact and convenient, and involves no great cost in its manufacture or installing.

Obviously while there is shown but one form of the construction of this device in the drawings, it is not desired to limit this application for patent to this one form of construction because it is well known that many modifications in the construction of this invention may be made without departing from the principles thereof.

The coil 2 is of a frusto conical shape as is clearly shown in the drawings in order to afford a more desirable heating surface for the same, when it is disposed above a flame. This form of coil is more desirable also because it affords a larger base to the same than a straight coil would afford, and at the same time the heat is so directed to the upper portion as to cause this part to be kept at relatively high temperature and thereby assist in the proper action of the system.

Having thus described this invention it is claimed:

In combination with a portable water receptacle, a pipe having a frusto-conical coil

formed therein intermediate of its ends, the end portions of said pipe extending from the coil in parallel relation and in different horizontal and vertical planes, one end of
5 said pipe extending through the wall of the receptacle adjacent to its bottom, means for detachably securing the end of the pipe to said wall, the other end of said pipe terminating at a point adjacent to the receptacle,
10 a second pipe connected thereto and extending laterally around the receptacle and disposed in close proximity to the wall thereof, said pipe having one end disposed through
the wall of the receptacle at a point above the center thereof and opposite to the point
15 of connection of the first named pipe to said wall, and means for detachably securing the latter pipe to the receptacle, said pipe coil further serving as a handle whereby the receptacle may be lifted. 20

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

WILLIAM A. WILLIAMS.

Witnesses:

M. H. DAGUE,

IRA JURACK.

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