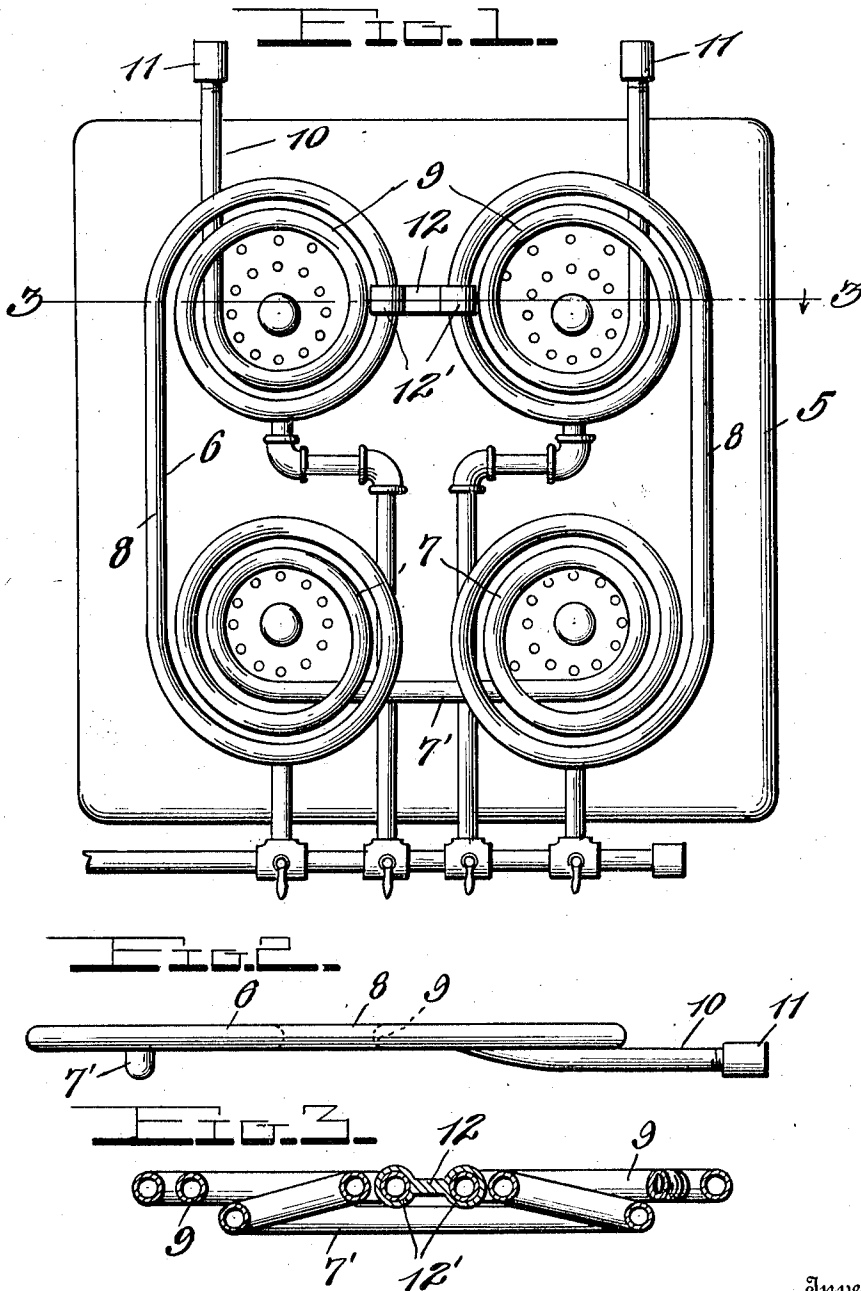


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WATER HEATER.
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1,020,621.

Patented Mar. 19, 1912.



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BELLE REID, OF ST. LOUIS, MISSOURI.

WATER-HEATER.

1,020,621.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BELLE REID, a citizen of the United States, residing at St. Louis, in the State of Missouri, 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 certain new and useful improvements in water heating devices and more particularly to an improved device of this character which is adapted to be arranged over the burners of an ordinary gas cook stove or other gas stoves and ranges, and has for its object to provide means whereby the water may be quickly heated without incurring additional expense, for gas, the water in tank or reservoir being heated while cooking is being done.

A further object is to provide a very simple water heating device which is formed from one continuous length of piping into a plurality of coils adapted to be arranged over the burners of the stove, the extremities of the pipe having connection with the water supply pipe and the hot water tank.

With these and other objects in view, the invention consists of the novel features of construction, and the combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view showing the application of the device to a gas stove or range; Fig. 2 is a side elevation of the same detached; and Fig. 3 is a section taken on the line 3—3 of Fig. 1.

Referring more particularly to the drawings, 5 indicates a gas stove which in the present instance is illustrative of one of the ordinary stoves of this character provided with four burners. As the detailed construction of the stove does not enter into the construction or operation of the present invention, it will not here be set forth in detail, it being understood that the device is capable of arrangement upon any of the various forms of such stoves or ranges.

My improved water heating device is formed from a single continuous length of piping 6. This piping is bent intermediate of its ends to form the heating coils 7, the convolutions of each coil being concentrically spaced, the coils themselves being connected by the central portion 7' of the pipe

6. From the coils 7 the pipe is extended longitudinally, as shown at 8, such extended portions being disposed in parallel relation. Adjacent to each end of the pipe another coil 9 is formed similar to the coils 7. The convolutions of each coil are spirally arranged and disposed in the same horizontal plane, the central connecting portion 7' and the ends 10 of the pipe extending beneath the outer convolutions of said coils. Each pair of the coils are arranged in the same plane, and the extremities of the end portions 10 of the pipe are provided with the coupling heads 11 whereby they may be connected to the cold water supply pipe and to the hot water tank. The coils 9 are preferably connected by means of a transverse bar 12 which is formed upon each end with a sleeve 12' through which the outer convolution of each coil extends, said sleeves being brazed or otherwise secured thereon. This connecting bar will obviate the possibility of the coils being separated by the accidental bending of the pipe, though it will, of course be understood that if desired the connecting bar may be eliminated.

When the device is arranged in position for use, as shown in Fig. 1, the coils 7 and 9 are disposed around the burners, and the gas turned on and ignited in the usual manner. It will be obvious that as the water passes through the pipe coils successively from the cold water pipe to the hot water tank, it is highly heated. The device is capable of use without interfering with the ordinary use of the gas stove or range for cooking purposes, the pots, pans or other culinary utensils being placed over the heating coils, upon the usual rest or gratings for same, as now used in ordinary stoves and ranges. The corresponding convolutions of the end and intermediate coils are disposed in the same horizontal plane. The coils are arranged directly over the burners of the stove and in substantially concentric relation thereto. As will be seen from reference to Fig. 1 the flame jets are disposed within and adjacent to the innermost convolution of each coil, thereby serving to heat the water in the pipe coils and simultaneously cook the contents of the various receptacles which may be arranged over the coils upon the gratings. When it is no longer desired to use the device, it may be readily uncoupled and stored away until again required.

From the foregoing it will be seen that I

have produced a very simple attachment for gas stoves and ranges whereby a large quantity of water may be heated very quickly while at the same time the use of the stove or range for the usual purposes is not interfered with.

It will be understood that the coils may be otherwise formed than as shown in the drawings, and the general form of the device still adhered to, the essential feature being that the coils are so formed from one continuous length of piping that the water successively passes from one to the other as it is heated and carried into the storage tank. The device is also susceptible of many other minor modifications without materially departing from the spirit or sacrificing any of the advantages thereof.

Having thus described the invention what is claimed is:—

1. The herein described water heater comprising a pipe bent to form parallel inlet and outlet end portions, a pair of end coils and a pair of intermediate coils, each of said coils being spiral, the said end portions of the pipe being connected to the smallest convolutions of the end coils and passing under the large convolutions thereof, said

pipe having parallel connecting portions between the largest convolutions of the end and intermediate coils and a connecting portion between the smallest convolutions of the intermediate coils and passing under the larger convolutions thereof.

2. The herein described water heater comprising a pipe bent to form parallel inlet and outlet end portions, a pair of end coils and a pair of intermediate coils, each of said coils being spiral, the said end portions of the pipe being connected to the smallest convolutions of the end coils, and passing under the larger convolutions thereof, said pipe having parallel connecting portions between the largest convolutions of the end and intermediate coils, and a connecting portion between the smallest convolutions of the intermediate coils and passing under the larger convolutions thereof, and a bar connecting the largest convolutions of the end coils.

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

BELLE REID.

Witnesses:

JOHN CASHMAN,

H. FORREST RADFORD.

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