W. H. GIESELER.

BOILER FOR STEAM RADIATORS.

APPLICATION FILED OCT. 4, 1913.

1,109,983.

Patented Sept. 8, 1914.

Fig. 1.

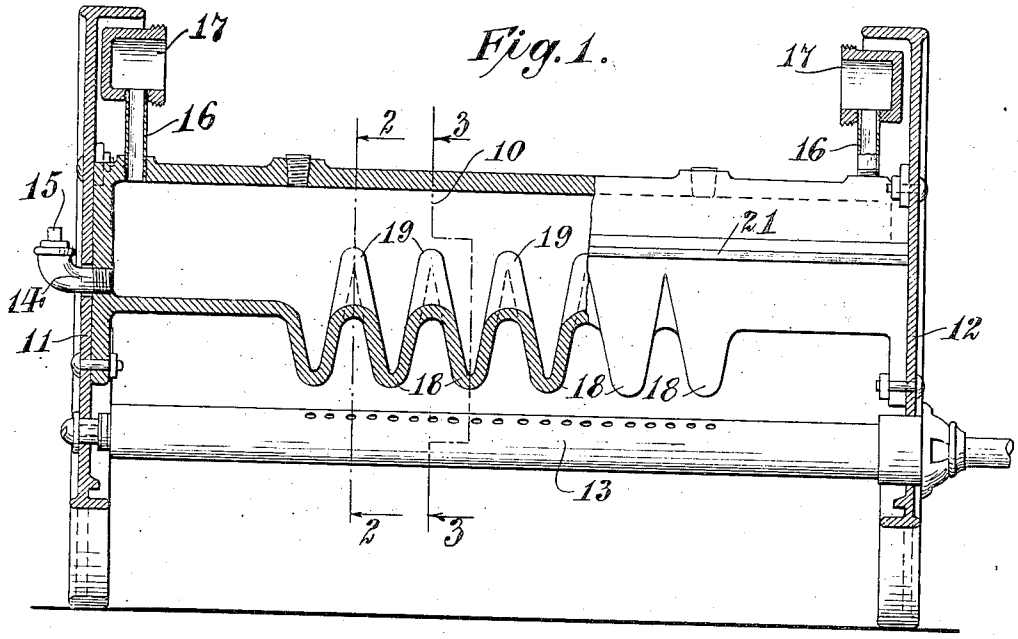



Fig. 2.

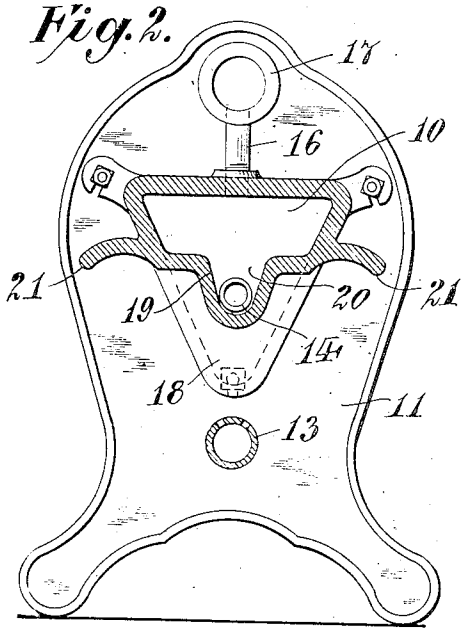
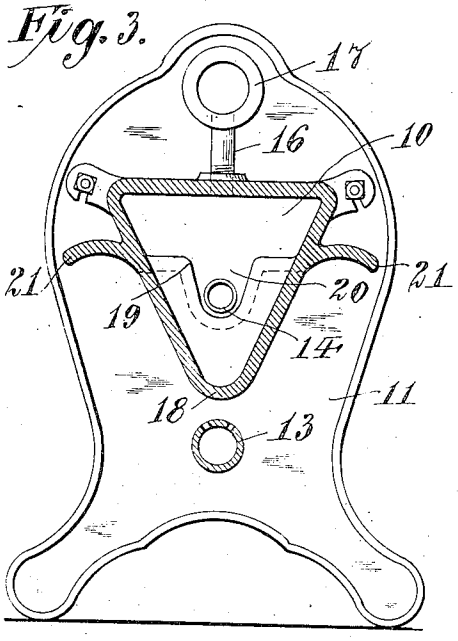



Fig. 3.




WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM H. GIESELER, OF PASSAIC, NEW JERSEY.

## BOILER FOR STEAM-RADIATORS.

1,109,983. Specification of Letters Patent. Patented Sept. 8, 1914.

Application filed October 4, 1913. Serial No. 793,304.

*To all whom it may concern:*

Be it known that I, WILLIAM H. GIESELER, a citizen of the United States, and a resident of Passaic, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Boilers for Steam-Radiators, of which the following is a specification.

This invention relates to boilers, particularly boilers for use in gas-steam radiators. In this type of radiator a small boiler is usually provided at the bottom of the radiator coil which heats a small amount of water converting the same into steam filling the coils. The water and steam are hermetically retained in the boiler and radiator, the steam condensing when the heat is turned off from the boiler and then reëvaporating when the boiler is again heated up.

One object of the present invention is to provide a boiler of this character which is adapted to quickly heat the water with a minimum expenditure of gas or other fuel employed.

Another object is to so form the boiler as to cause the water to be evenly distributed therein when the steam condenses.

The various further objects and advantages will be fully set forth in the following detailed description and the features of novelty will be pointed out in the claims.

In the accompanying drawing illustrating the invention:—Figure 1 is a longitudinal sectional elevation of the improved boiler. Fig. 2 is a cross section taken along line 2—2 in Fig. 1. Fig. 3 is a cross section taken along line 3—3 in Fig. 1.

Referring in detail to the drawing, the boiler consists of a body 10 mounted upon and suitably secured to feet 11 and 12. Supported in any suitable manner, as by feet 11 and 12, is a burner 13 disposed under the body of the boiler and connected to a source of gas supply. The water is introduced into the boiler through a stub pipe or elbow 14 threaded into one of the ends of the boiler. A suitable plug 15 may be used for closing the mouth of the elbow pipe. Extending upward from the top of the boiler are a pair of nipples 16, adjacent to each end, and communicating with these nipples are caps 17 which may be attached to the radiator coil to connect the same with the boiler.

I will now describe the improved construction whereby increased heating surface is provided for the boiler and provision made for distributing the water uniformly within the same. The bottom portion of the boiler, instead of being left flat as hitherto, is formed into a plurality of pockets 18 providing a corrugated formation having increased heating surface and separating the water into small component portions. To assure that the water is evenly distributed between the pockets, the walls 19 separating the pockets are formed with channels 20 which permit the water to flow from one pocket to another, after the bottom portion of the pockets has been filled up to the level of the base of the channels. Thus, when the steam condenses it flows into one pocket filling the same up to the bottom of the channel and then overflows into the succeeding pocket which it similarly fills, and so on until all the pockets are filled. Ordinarily the water contained in the boiler is more than sufficient to fill all the cups above the base of the channels.

To further utilize the heat to the best advantage, I provide adjacent to each longitudinal edge of the boiler a flange 21 which serves to deflect the heat rising upward from the burner and directs the same laterally or slightly downward so as to create a warm current of air in a horizontal direction, thus distributing same evenly throughout the room instead of permitting it to rise upward in the immediate vicinity to the heater as hitherto.

It will thus be seen that I have provided a boiler for radiators in which the heat from the burner is utilized to the best advantage in heating the water and distributing the surplus heat evenly throughout the room. With this improved construction also, the radiator may very quickly be heated up in addition to utilizing the heat economically.

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

1. A boiler for radiators having the bottom wall thereof formed in a plurality of pockets the outer surface of the latter being wavy to present an extended heating surface and means for permitting the flow of water from one pocket to another.

2. A boiler for radiators having the bottom wall thereof formed into a plurality of pockets and separated by walls in the interior of the boiler, said interior walls being formed with channels extending down-

ward from the top thereof permitting the water to flow from one pocket to another.

3. A heater for a steam radiator comprising a burner, a boiler mounted above the same having the bottom wall thereof formed into a plurality of pockets and longitudinal flanges extending outward from the longitudinal walls of the boiler.

Signed at New York in the county of New York and State of New York this 24th day of September A. D. 1913.

WILLIAM H. GIESELER.

Witnesses:
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EVE AXEL.