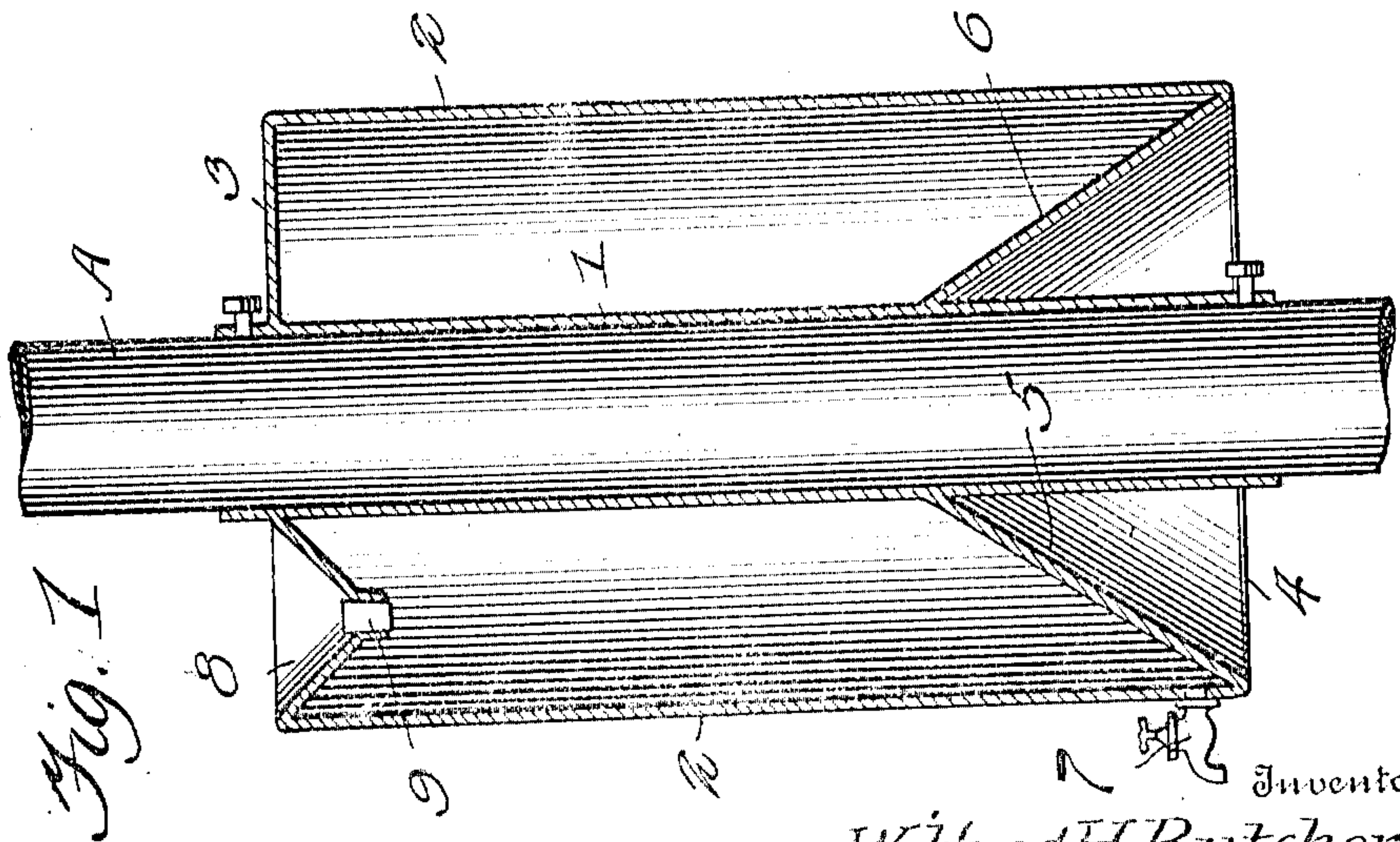
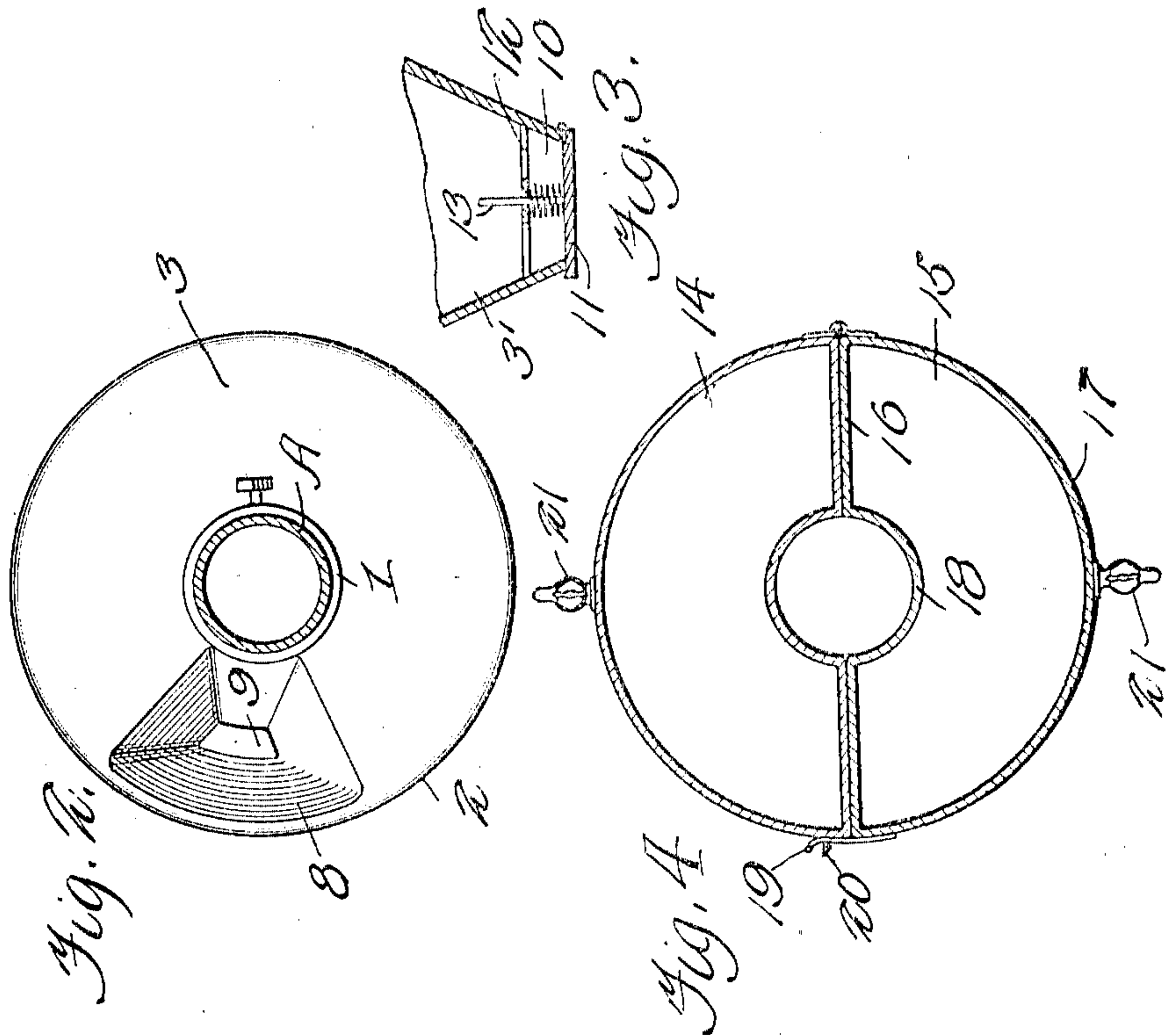


W. H. BUTCHER.
WATER BOILER.
APPLICATION FILED JUNE 10, 1910.

983,680.

Patented Feb. 7, 1911.



Witnesses

Hugh H. Ott
James A. Cook

Inventor
Wilfred H. Butcher
By *Victor J. Evans*
Attorney

UNITED STATES PATENT OFFICE.

WILFRED H. BUTCHER, OF BURWELL, NEBRASKA.

WATER-BOILER.

983,680.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed June 10, 1910. Serial No. 566,232.

To all whom it may concern:

Be it known that I, WILFRED H. BUTCHER, a citizen of the United States of America, residing at Burwell, in the county of Garfield and State of Nebraska, have invented new and useful Improvements in Water-Boilers, of which the following is a specification.

This invention relates to water boilers and particularly to one designed for attachment to a stove pipe, the object being to utilize the heat for thoroughly heating the walls of the boiler sufficiently on the discharge of the waste heat products.

Another object of the invention is to provide a boiler of this type wherein the bottom is of substantially frusto-conical form presenting a concavity which when the boiler is operatively positioned on the stove pipe will be located immediately over the stove and positioned to receive the best benefit of the heat.

Another object of the invention is to provide a boiler having a substantially funnel-shaped top facilitating the filling of the boiler with water.

In the drawing, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a detail vertical section through my improved boiler showing it applied to a stove pipe. Fig. 2 is a detail top plan thereof showing the stove pipe in section. Fig. 3 is a detail vertical section through a portion of the boiler showing a slightly modified form of my invention. Fig. 4 is a horizontal section showing a still further modified form.

My improved boiler consists of a casing having spaced inner and outer walls 1 and 2, the said casing being apertured centrally for receiving the stove pipe A. The walls 1 of the casing have their ends extended beyond the top and bottom portions 3 and 4, and as illustrated, such portions carry clamping screws or similar equivalent well known devices for engaging the stove pipe to hold the boiler operatively positioned thereon. The bottom 4 of the boiler is of frusto-conical form presenting a relatively broad or large concavity 5 which when the boiler is operatively associated on the pipe will be disposed at such point with respect to the stove to best utilize the full value of

the waste heat, the said concavity forming a collector for the heat and the walls of the said bottom by being arranged, as shown, form a contracted lower portion 6 in the chamber, thus subjecting the water at this point of the boiler to a great amount of heat. At the bottom the boiler is provided with a suitable draw-off cock 7. The top 3 of the boiler is formed substantially throughout to provide an annular concavity 8 which opens directly into the boiler, as illustrated. The construction of the boiler is such that its top is of substantially funnel form facilitating filling the boiler with water as is obvious. The opening in the bottom of the top 3 is closed by a suitable removable plug 9.

In the modified form of my invention shown in Fig. 3, the opening 10 in the top 3' is closed by a spring-controlled valve 11. The top supports a spider 12 through which the guide stem 13 extends, a relatively light spring being interposed between the spider and the said valve 11 and suitably connected with the latter to hold the same normally in a closed position. Under weight of the water when the same is poured in the said substantially funnel-shaped top of the boiler the valve will be automatically opened.

In the form of my invention shown in Fig. 4, the boiler is formed of two parts 14 and 15, each part being substantially identical in construction and formed with an inner wall 16 and an outer wall 17. The inner walls are formed with the concavities 18 whose walls will fit the stove pipe. The section 15 is formed with a clasp 19 to engage a keeper 20 on the section 14 so as to hold both sections operatively associated on the pipe. Each section is provided with a suitable draw-off cock 21. With other respects the modified form of my invention last described is identical with the preferred form and further detail description is believed unwarranted. The boiler constructed on lines as described while being useful for domestic purposes will be found most efficient in barber shops where it is desired to obtain small quantities of water for shaving cups or like purposes.

I claim:—

A boiler for stove pipes embodying a member having inner and outer walls connected by a top wall having a funnel-like

portion, the said boiler having a substantially frusto-conical bottom which connects the said inner and outer walls with each other and the said inner wall depending
5 from the said conical bottom so as to form an annular heat concavity, the said funnel-like portion of the top having an opening therein, a closure for the opening, and a

draw-off cock for the boiler and located near the bottom thereof.

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

WILFRED H. BUTCHER.

Witnesses:

J. C. GREEN,
T. H. DORAN.