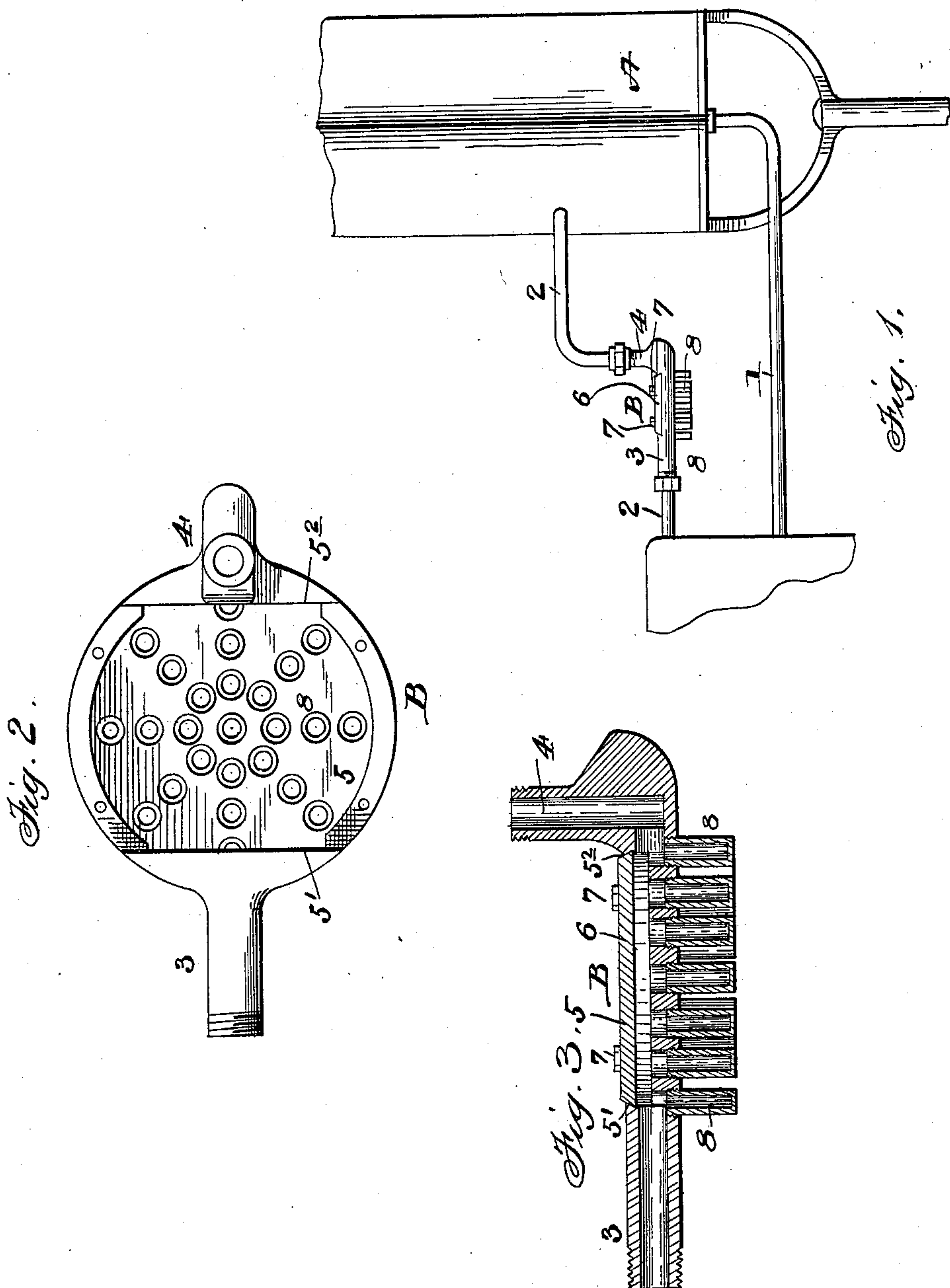


(No Model.)

F. V. WINTERS.
HEATER FOR STAND BOILERS.

No. 594,166.

Patented Nov. 23, 1897.



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UNITED STATES PATENT OFFICE.

FREDERICK V. WINTERS, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF
TO JOHN A. YORK, OF SAME PLACE.

HEATER FOR STAND-BOILERS.

SPECIFICATION forming part of Letters Patent No. 594,166, dated November 23, 1897.

Application filed January 22, 1897. Serial No. 620,183. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK V. WINTERS, a citizen of the United States of America, residing in New York city, in the State of New York, have invented certain new and useful Improvements in Water-Heaters for Stand-Boilers, of which the following is a specification.

My invention has relation to improvements in devices for heating the water in stand-boilers in instances where the fire is not burning in the stove or range and it is desirable to heat the water in the boiler for immediate uses; and the object is to provide an improved heater for the purposes named which is simple and strong in construction and expeditious and efficient in use.

I have fully and clearly illustrated the invention in the accompanying drawings, to be taken as part of this specification, and wherein—

Figure 1 is a view in elevation of the device arranged in operative connection with a stand-boiler. Fig. 2 is a horizontal plan view of my improved heater with the cover removed. Fig. 3 is a longitudinal central section through the heater.

A designates a stand-boiler of any approved construction provided with the usual cold-water pipe 1, leading to the water-back of the stove, range, or furnace, (not shown,) and the return hot-water feed-pipe 2. In the return hot-water feed-pipe 2 is interposed my improved heater B. This heater B consists of a strong body of suitable metal, comparatively flat in vertical direction and of extended superficial area and circular in horizontal cross-section, substantially as shown, and formed with an integral inlet-pipe section or nipple 3, leading into the reservoir and adapted to connect with the hot-water feed-pipe from the water-back, and also formed with a standing or vertical outlet-pipe 4, the upper end of which is connected with the section of the hot-water pipe opening into the boiler, substantially as shown in the drawings. In the body of the heater is formed a shallow reservoir 5, extending well over the

area of the disk-shaped body, and in the bottom of the reservoir are formed a plurality of water sockets or tubes 8, interspersed throughout the bottom and extending outside of the shell for a sufficient distance, forming independent projecting tubes with closed lower ends, as seen in the drawings. The upper part of the body is formed with straight parallel sides 5' 5'', extending across the body and formed with grooves or inclined inward to take in and hold the detachable cover 6, which is additionally secured by means of bolts or screws 7, the cover being made detachable in order that it may be removed and the reservoir cleaned when necessary.

The use of the heater is apparent. All that is necessary is to set a lamp under it or preferably apply a small gas stove or jet thereto, when, owing to the extended shallow or thin body of water in the reservoir and its disposition in the tubes, the water is speedily heated and a circulation set up in a well-known manner.

What I claim is—

1. The combination with a stand-boiler and the hot-water feed-pipe thereof a heater interposed in the hot-water feed-pipe, comprising a body formed with a flat shallow reservoir of extended superficial area, and a plurality of vertically-depending water-sockets in the bottom plate of the reservoir, and a detachable cover over the reservoir, substantially as and for the purpose specified.

2. The combination with a stand-boiler and the hot-water feed-pipe thereof, of a heater interposed in the hot-water feed-pipe, comprising a body formed with a flat shallow reservoir of extended superficial area, and a plurality of vertically-depending water sockets or tubes in the bottom plate of the reservoir, an inlet-pipe nipple opening into the reservoir and a hot-water outlet-pipe nipple vertically rising from the body opposite to the inlet, substantially as and for the purpose specified.

3. The combination with a stand-boiler and the hot-water feed-pipe thereof, of a heater interposed in the hot-water feed-pipe, com-

prising a disk-shaped body formed with a flat
shallow reservoir and a plurality of vertically-
depending water sockets or tubes in the bot-
tom, and parallel flanges extending across the
5 top of the body, a removable cover the side
edges of which engage in said flanges, and
fastening-bolts in the ends of the cover.

In witness whereof I have hereto set my
hand in the presence of two attesting wit-
nesses.

FREDERICK V. WINTERS.

Attest:

A. G. HEYLMUN,
JNO. A. YORK.