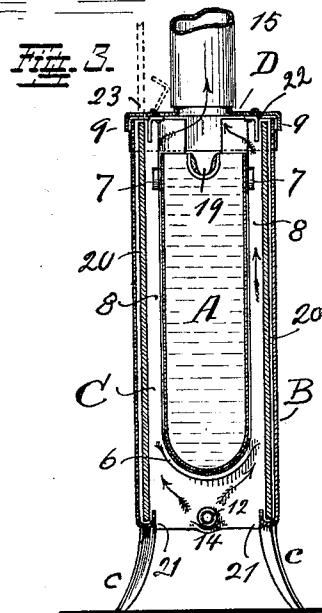
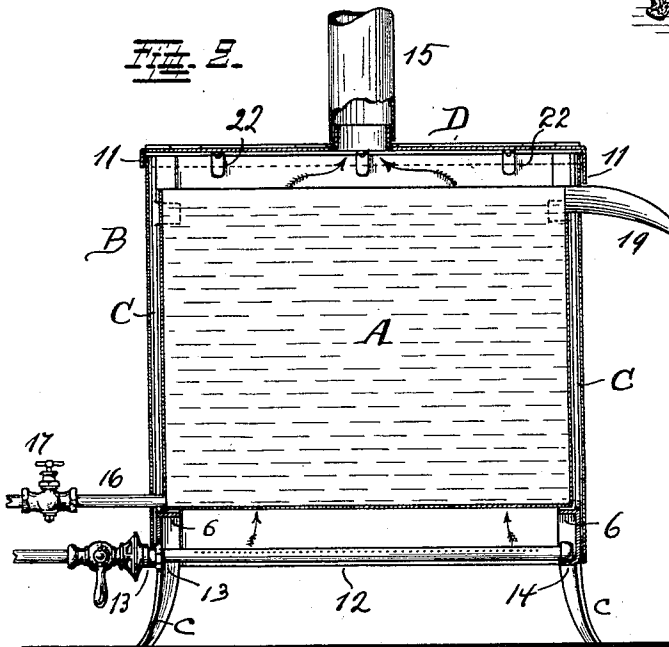
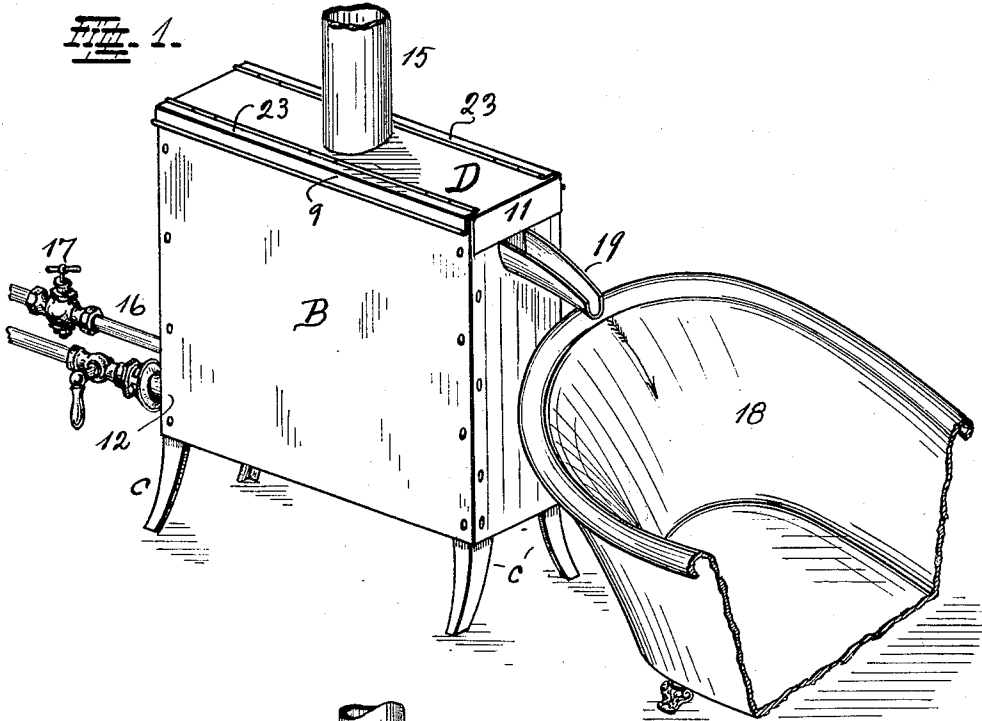


W. A. HEXT.  
HEATING DEVICE.  
APPLICATION FILED JULY 1, 1912.

1,069,256.

Patented Aug. 5, 1913.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

WILLIAM A. HEXT, OF CINCINNATI, OHIO.

HEATING DEVICE.

1,069,256.

Specification of Letters Patent.

Patented Aug. 5, 1913.

Application filed July 1, 1912. Serial No. 706,864.

*To all whom it may concern:*

Be it known that I, WILLIAM A. HEXT, a citizen of the United States, and a resident of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and useful Heating Device; and I do declare the following to be a clear, full, and exact description of the invention, attention being called to the drawing which accompanies this application and forms a part thereof.

This invention relates to heating devices intended for use in bath rooms and the object of the invention is to produce a device which is serviceable for heating the water to be used in the bath-tub as well as the room which contains the tub.

The invention consists of the construction as hereinafter described and claimed and as illustrated in the accompanying drawing, in which:—

Figure 1, shows the device in perspective view and positioned for use in connection with a bath-tub. Fig. 2, is a central longitudinal section of the device. Fig. 3, is a vertical cross-section of the same taken on a plane between the ends thereof.

In the drawing letter A indicates the receptacle or tank which contains the water to be heated. It is without top, box-shaped, elongated and comparatively high.

B is an outer shell of substantially similar shape and closely surrounds the tank. This shell is made of sheet-metal and supported on two cast-metal end-frames C, to which it may be connected by rivets or screws and the lower part of which frames forms the supporting legs *c* of the structure. The tank is supported by being seated upon shoulders 6, one projecting inwardly from each end-frame. The bottom of the tank is rounded off and shoulders 6 are formed accordingly. Near its top the tank is held in position between stays 7, two of which are provided at each end-frame from which they project inwardly. Shell B is wider than the tank, the excess being divided on both sides of this latter, thereby producing heating flues 8—8, one on each side of the tank.

D, is the top of the shell, seated upon the upper edge thereof, preferably removable and held in place by side-flanges 9—9 and by end-flanges 11—11.

Heat is furnished by means of a suitable fuel, which may be gas, and is applied by a burner 12 positioned below the tank, the

shell being open thereat to permit access of air. This burner is held to the end-frames by suitable means, which may be lock-nuts 13—13, holding it to one frame while its other end may rest upon a shoulder 14, on the other frame. A flue 15 is provided on the top to carry off the products of combustion, as well as any steam which might be generated. Water is supplied to the tank by means of a pipe 16 connected to one end thereof near the bottom, the supply being controlled by a valve 17. The outlet is at the top of the opposite end and the device is so positioned as to bring the outlet above a bath-tub 18, a snout 19 being provided to guide the water into this latter. The water in the tank is not under pressure, the outlet being open at all times, thus preventing also generation of pressure in consequence of the heat applied.

It will be observed from the arrangement of inlet and outlet, that the tank is necessarily always full of water, thus preventing it from being burnt when the burner is lighted. It will also be observed, the burner being in operation, that the heat in flues 8 will serve to heat the water in the tank as well as the air in the room by heat radiated from the shell. Hot water for the tub is obtained by turning on the inlet valve 17 admitting cold water to the tank whereby the hot water therein is forced out of the tank and overflows into tub 18. The admission of cold water may be continued to temper the hot water in the tub. As soon as satisfactory, the cold water is turned off, thus stopping the flow to the tub and at the same time leaving the tank full of water ready to be heated. Cold water may of course be obtained at any time by passing the water rapidly through the tank without turning off valve 17.

At times, especially in summer, it is not desirable to heat the room. I use then asbestos shields 20, in sheet-form, which are placed against the sides of the shell in a manner to prevent radiation of heat therefrom. They are supported in grooves 21 either inside or outside of the shell, the grooves being formed by turning the lower edges of the shell accordingly. Above they are held by lugs 22. To permit introduction of these shields, parts of the top at its longitudinal edges, including flanges 9—9, are made to form flaps 23—23, which are adjustable with reference to the top and

may be lifted up as indicated in dotted lines in Fig. 3, to permit placing or removal of the shields.

Having described my invention, I claim as new:

1. In a device to supply heat to a tank for heating water and to a shell to produce radiated heat, the combination of an open-top, elongated box-shaped tank, a shell of substantially similar shape and without a bottom surrounding the tank with a space between the longer sides thereof to produce heating flues, a top to close the shell, a frame at each end of the device and in the spaces between tank and shell and whereby both are supported, a burner below the tank, a flue leading from the top of the shell, a supply-pipe entering through the shell and connecting directly to the lower part of the tank and a valveless overflow outlet from the latter combined with a snout which is open at all times and extends from the upper part of the tank and outwardly through the shell.
2. In a device to supply heat to a tank for heating water and to a shell to produce radiated heat, the combination of an elongated open-top tank, a shell surrounding it with a space between the longer sides of the tank to form heating flues, a supply-pipe en-

tering through the shell and connecting directly to one end of the tank near the bottom thereof, a valveless snout extending from the upper part of the opposite end of the tank outwardly through the shell producing a free outlet which is open at all times and means to supply heat to the underside of the tank.

3. In a device to supply heat to a tank for heating water and to a shell to produce radiated heat, the combination of a tank, provided with an inlet for water and with an outlet for it, a shell open at the bottom which surrounds the tank with a space between the two, a top to close the upper part of the shell and provided with flanges adapted to engage the upper edges thereof, a burner below the tank to apply heat against the outside thereof to heat the water therein and against the innerside of the shell to be transmitted therefrom by radiation, shields removably supported within the shell to control this radiation and means provided on the top to admit these shields.

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

WILLIAM A. HEXT.

Witnesses:

C. SPENGLER,  
T. LE BEAU.