

(No Model.)

C. H. BLANCHARD.

RANGE.

No. 268,857.

Patented Dec. 12, 1882.

Fig.1.

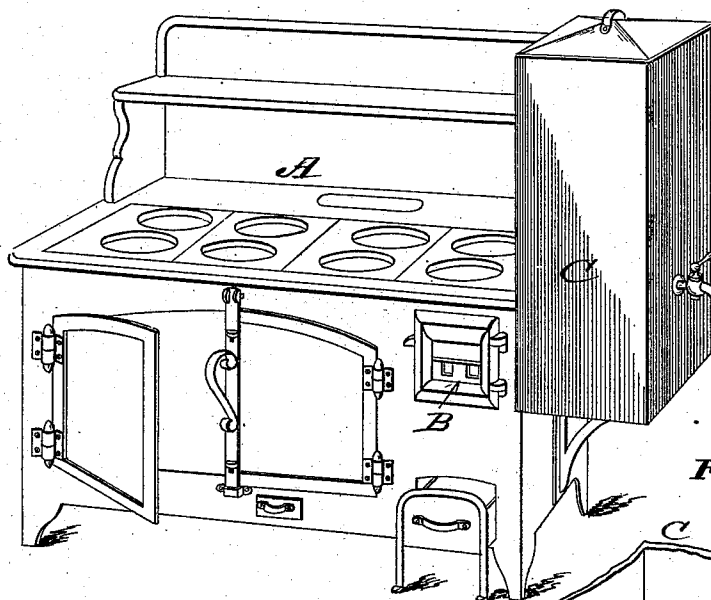
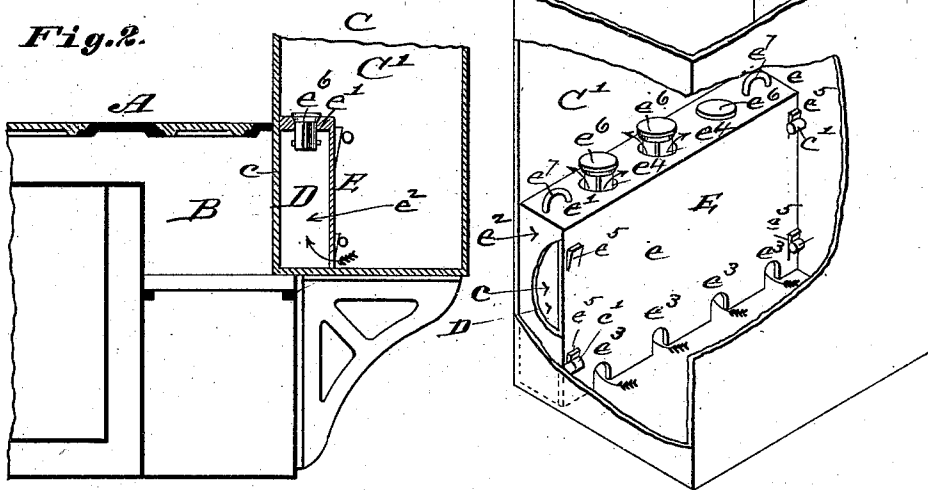


Fig.3.

Fig.2.



Attest:
Charles P. Ricketts
Albert J. Fish

Inventor:
Charles H. Blanchard
by C. P. Moody,
att'y.

UNITED STATES PATENT OFFICE.

CHARLES H. BLANCHARD, OF BATAVIA, OHIO.

RANGE.

SPECIFICATION forming part of Letters Patent No. 268,857, dated December 12, 1882.

Application filed June 16, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. BLANCHARD, of Batavia, Ohio, have made a new and useful Improvement in Ranges, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a view in perspective of a range having the improvement; Fig. 2, a vertical section taken through that portion of the range with which the improvement is immediately connected; and Fig. 3, a view in perspective, upon an enlarged scale, of the lower part of the water-tank, the wall of the tank being broken away to exhibit the interior construction.

The same letters denote the same parts.

The usual mode of heating water, in connection with a range, by means of a water-back in the fire-place and pipes leading therefrom to the water-tank, is objectionable by reason of the incrustation which forms upon the shell of the water-back and within the pipes. Explosions sometimes occur. The pipes also, in cold weather, are liable to freeze.

The present improvement obviates the difficulties referred to. The water-tank is arranged directly alongside the fire of the range, the shell of the tank forming the wall of the fire-place, and by means of a removable plate or plates a compartment is formed within the tank, in the immediate vicinity of the fire-place of the range, through which compartment the water of the tank is caused to circulate.

A represents a range having the improvement in question. Saving the improvement, the range is of the usual construction.

B represents the fire-place of the range.

C represents the water-tank, the shell *c* of the tank forming one of the walls of the fire-place B.

D represents the compartment formed within the water-tank. This compartment extends along the side of the fire-place, and it is set off from the remainder of the interior of the water-tank by means of a removable plate, E, which is preferably of the box-shaped form shown—that is, the plate, in addition to the

main partition *e*, which extends across the lower end of the tank, parallel, or thereabout, with the wall *c*, and upward as high, or thereabout, as the fire-place, has a top, *e'*, which extends from the top edge of the partition *e* to the wall *c*, and also ends *e² e²*, which extend between the partition *e* and the wall *c*. The lower edge of the partition *e* is scalloped to form openings *e³ e³*, through which the water can pass from the main chamber C' of the tank into the compartment D, and when the top plate, *e'*, is used there are openings, such as *e⁴ e⁴*, through which the water can pass from the compartment D into the chamber C'. The plate E is conveniently held in place, by means of the lugs *e' e'*, upon the shell of the water-tank. The plate E is furnished with wedge-shaped lugs *e⁵ e⁵*, which, when the plate E is inserted in the tank, come against the lugs *e' e'*, and the plate is thereby readily secured in place. The ends *e² e²* serve to strengthen the partition *e* when thus wedged into place. Valves *e⁶ e⁶* may be used at the openings *e⁴ e⁴* for the purpose of holding the water back within the compartment D until sufficiently heated, for the compartment D is in effect a heating-chamber wherein the water of the tank is heated, the cooler water entering the compartment through the inlets *e³ e³*, and when heated leaving the compartment through the outlets *e⁴ e⁴*. The valves *e⁶ e⁶* may be suitably weighted. The plate E may be provided with handles *e' e'* to facilitate the handling of the plate, it being desirable to be able to remove the plate from time to time for the purpose of reaching the interior of the plate, and also and especially the wall *c*, which is inclosed within the plate E, and removing the incrustation which forms upon the wall *c*. It will be seen that on removing the plate E the entire interior of the tank is accessible, and any deposit upon any portion of the shell of the tank can be easily noticed and reached. When the top plate, *e'*, is not used there is a suitable space between the upper edge of the partition *e* and the wall *c* to provide for the passage of the water from the compartment D.

I claim—

1. The combination, with a range A, having

the fire-place B, the water-tank C, provided with compartment D, the shell *c* of said tank, which is also the front of said compartment, being the side wall of said fire-place, all substantially as set forth.

5 2. The combination of the water-tank C and the partition *e*, said partition having the openings *e*³ *e*³ at or near the lower edge of the partition, and there being an opening or openings

between the upper edge of the partition and 10 the wall *c*, for the purpose described.

3. The combination of the fire-place B, the tank C, the plate E, and the valves *e*⁶ *e*⁶, substantially as described.

C. H. BLANCHARD.

Witnesses:

BENJ. F. HAVENS,
L. S. CALDER.