(No Model.)

R. L. BALL.

BASE HEATING STOVE.

No. 489,843. Patented Jan. 10, 1893.

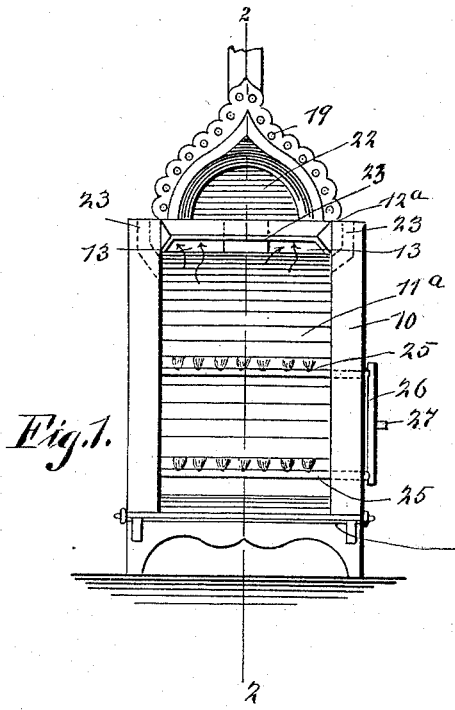


Fig. 1.

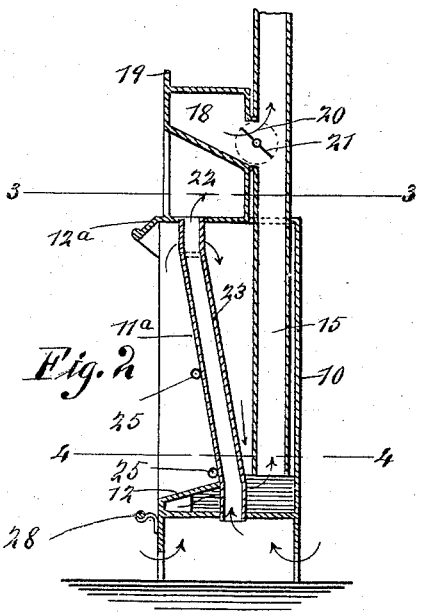


Fig. 2.

Fig. 3.

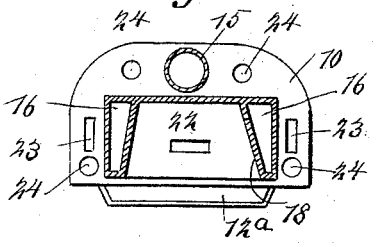
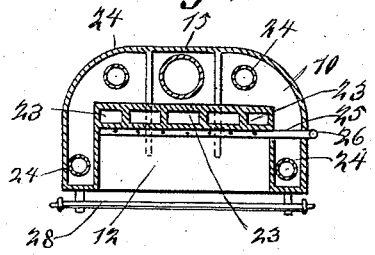


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE

RICHARD L. BALL, OF TERRE HAUTE, INDIANA.

BASE-HEATING STOVE.

SPECIFICATION forming part of Letters Patent No. 489,843, dated January 10, 1893.

Application filed April 12, 1892. Serial No. 428,801. (No model.)

To all whom it may concern:

Be it known that I, RICHARD L. BALL, of Terre Haute, in the county of Vigo and State of Indiana, have invented a new and Improved Base-Heating Stove, of which the following is a full, clear, and exact description.

My invention relates to improvements in base heating stoves, and especially to stoves of this class which are adapted to use gas for fuel.

The object of my invention is to produce a cheap and simple stove of this character, which will generate and radiate a large quantity of heat in proportion to the amount of fuel consumed.

To this end my invention consists in a base heating stove, the construction of which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of the stove embodying my invention; Fig. 2 is a vertical cross section on the line 2—2 in Fig. 1; Fig. 3 is a sectional plan on the line 3—3 in Fig. 2; Fig. 4 is a horizontal section on the line 4—4 in Fig. 2.

The stove has a main case 10, which may be supported upon feet in the usual way, and in the front of the case which is open, is a combustion chamber 11, having the usual inclined back wall 11^a, but in this case, the wall is double. The combustion chamber is closed at the bottom, as shown at 12, and above the chamber is the usual forwardly-projecting hood 12^a. At the upper end of the combustion chamber wall are smoke passages 13, leading into the back portion 14 of the case. A smoke pipe 15, opens from the lower portion of the case and in the back part thereof, and the pipe extends upward through the top of the case and is adapted to connect with the chimney in the usual way. The combustion chamber 11 also communicates by means of openings 16, shown in Fig. 3, with a hollow radiator 18, which rests upon the top of the case 10 and is formed integral therewith, the radiator having preferably on its front side and at its upper edge an ornamental molding 19.

The radiator 18 connects by means of an opening 20, with the smoke pipe 15 and the opening is controlled by a common damper 21, so that the smoke can be allowed to pass upward directly from the combustion chamber through the radiator and into the smoke stack, or if the damper is closed it may be forced downward to the bottom of the case 10 and thence upward through the smoke pipe, thus giving the benefit of the entire heat of the fuel. If desired, the damper may be partially closed so that the heat and smoke may be carried both ways, and the radiator and the lower portion of the case both heated at the same time.

The radiator 18 is preferably of a nearly semicircular shape and in front of the radiator above the top of the case 10 is a space 22, which is open in front and in which vessels of water or other articles may be placed to be heated these being allowed to rest on the top of the case. Near the center of the case 10 are air pipes 23, which extend upward through and within the back wall of the combustion chamber, the middle pipe having an outlet in the space 22 and the side pipes being curved outward so as to open through the top of the case, on each side of the radiator 18, as shown in Figs. 1 and 3. Air pipes 24, are also arranged in the back and sides of the case, these pipes extending longitudinally through the case 10 from top to bottom. It follows that when the stove is heated the cold air will be drawn up into the pipes from beneath the stove and the air will be heated and ejected from the upper ends of the pipes into the room. Gas pipes 25, extend across the back wall of the combustion chamber, these having the usual burner openings, and the pipes are connected at one end by a pipe 26, which is also connected with a supply pipe 27. When the gas is lighted, the products of combustion may be made to pass upward through the radiator and into the smoke pipe or may be deflected downward through the back of the case and up through the smoke pipe.

The stove is provided on its front side and near the bottom with an ordinary foot rest or fender 28.

It will be seen that when the stove is heated,

constant streams of warm air will be forced into the room from the pipes 23 and 24, and the stove will also heat by direct radiation.

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

1. A base heating stove, comprising a main case having a combustion chamber in front, a smoke pipe leading upward from the back portion of the case, smoke passages leading into the back portion of the case from the upper part of the combustion chamber, a hollow radiator arranged above the case and connected with the combustion chamber, the radiator having a central receptacle which is open in front, a damper-controlled passage between the radiator and the smoke pipe, and air pipes extending upward through the case, said pipes being open at both ends and arranged to deliver through the case top and also into the receptacle of the radiator, substantially as described.

2. A base heating stove comprising a main case, having a combustion chamber with an open front and an inclined double wall at the back, a smoke pipe leading upward from the back compartment of the case, smoke passages leading from the top of the combustion chamber to the back compartment, a hollow radiator arranged upon the case top and connected with the combustion chamber, the radiator having a receptacle with an open front therein, a damper-controlled passage leading from the radiator to the smoke pipe, air pipes leading upward from the base of the stove through the double wall of the combustion chamber and delivering into the receptacle of the radiator and also through the case top, and air pipes leading vertically upward through the case, substantially as described.

RICHARD L. BALL.

Witnesses:
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