A. B. BELL.

BURNER BOX FOR GAS RANGES.

APPLICATION FILED DEC. 1, 1914.

1,159,351.

Patented Nov. 9, 1915.

2 SHEETS—SHEET 1.

Fig. 1,

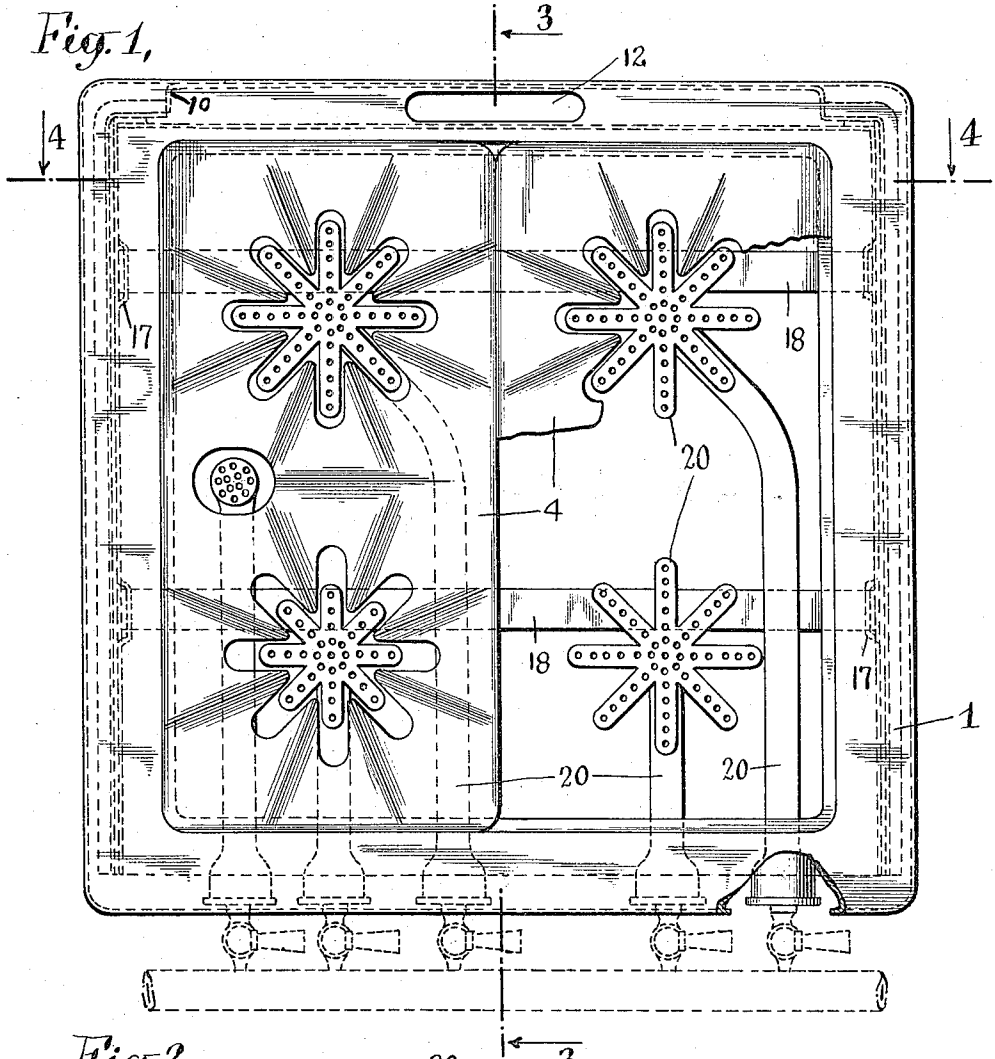
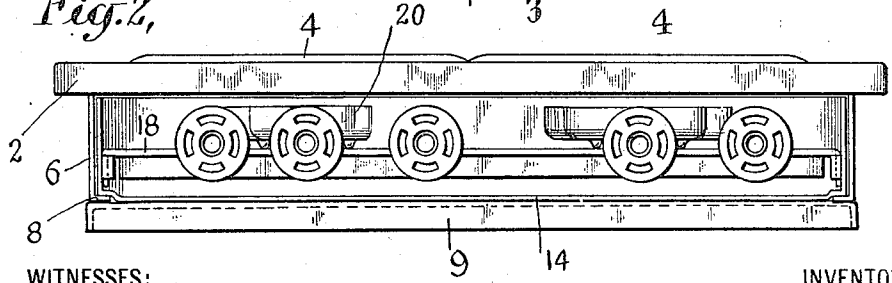


Fig. 2,



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2 SHEETS—SHEET 2.

Fig. 3

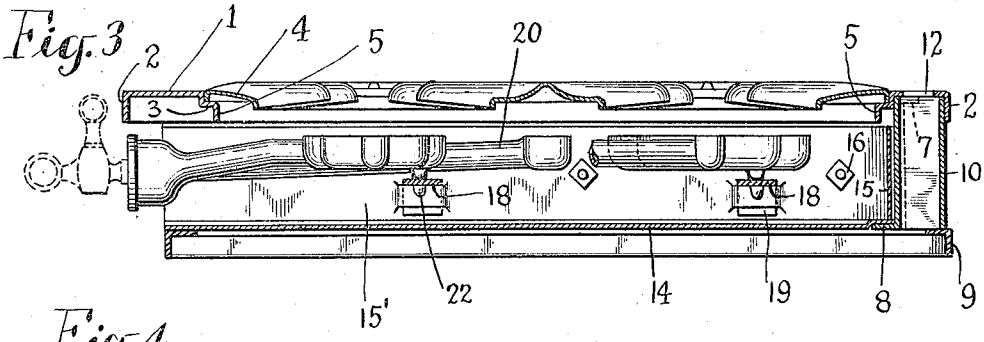


Fig. 4,

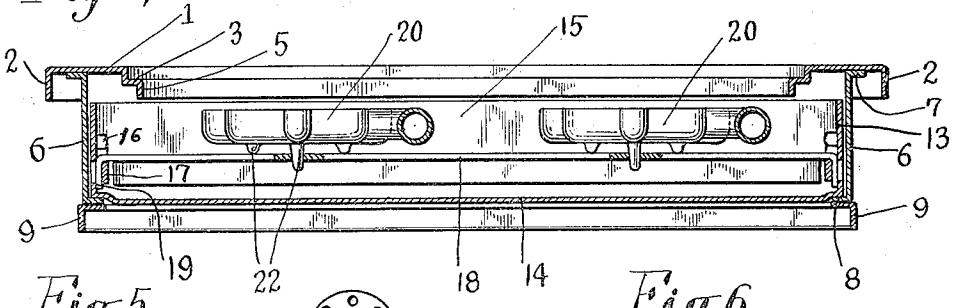


Fig. 5,

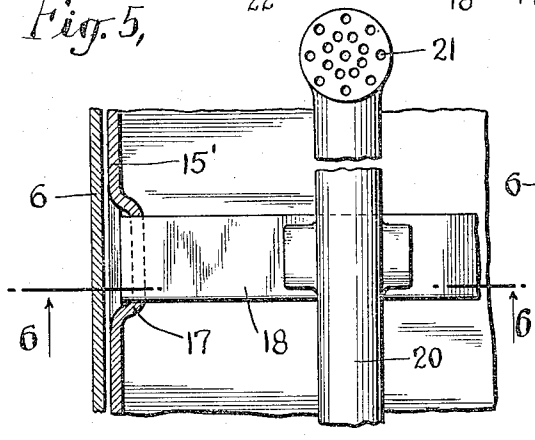


Fig. 6.

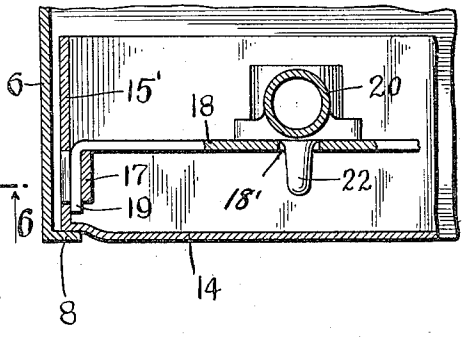
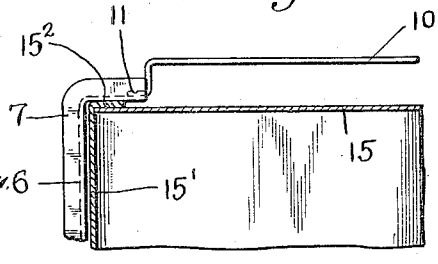


Fig. 7.



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UNITED STATES PATENT OFFICE.

ALFRED B. BELL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HALE AND KILBURN COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF DELAWARE.

BURNER-BOX FOR GAS-RANGES.

1,159,351. Specification of Letters Patent. Patented Nov. 9, 1915.

Application filed December 1, 1914. Serial No. 874,968.

To all whom it may concern:

Be it known that I, ALFRED B. BELL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Burner-Boxes for Gas-Ranges, of which the following is a specification.

My invention relates to burner-boxes or supports for the top burners of a gas range.

The invention comprises a pressed metal burner-box of improved construction and also a simply constructed and inexpensive support for top burners in combination with a supporting means for the same, such as the lining of the burner-box, the coacting parts being so constructed that the burner support may be readily and quickly inserted in or removed from its operative position, in which it is mounted without the use of any bolts or screws.

The burner-box is adapted to form one of the interchangeable units of the gas range construction described in application of Robert B. Caverly and Alfred B. Bell, entitled improvements in gas ranges, Serial No. 874,961, filed December 1, 1914, in which the various units of the construction are adapted to be mounted interchangeably in different positions so as to readily form ranges of different types from the same unitary parts. The burner-box unit, as will be described herein, comprises a flanged three sided shelf or inclosure bent to form from sheet-metal and welded to a pressed steel top frame adapted to receive the top grate of the range, and welded at the bottom to an angle frame adapted to be secured upon the warming oven unit of the gas range described in the application referred to above, or in other desired locations. The burner-box is provided with a lining which preferably comprises a three side box with a bottom which is slipped into place within the outer shell of the burner-box and may be secured therein. The sides of the lining are provided with small pockets which may be formed therein, as by pressing the metal of the sides inwardly to form inwardly extending straps, and the burner supports, which are horizontal members with their ends turned down, are removably mounted by inserting the end flanges of the supports into the pockets in the side walls of the lining. The horizontal portions of the supports are pierced to receive the downwardly extending lugs on the burners. Preferably the burner supports are angle bars formed preferably of galvanized iron, one flange of each of the angles being notched or cut away at the end, the remaining flange being bent downwardly to form a tongue which rests in one of the pockets referred to, so that the support is prevented from rocking or getting out of position. The support thus briefly described is of a simple, cheap and effective design.

In order that a clearer understanding of my invention may be had, attention is hereby directed to the accompanying drawings forming part of this application and illustrating certain embodiments of my invention.

In the drawings Figure 1 represents a top plan view of a burner-box, with burners supported therein, Fig. 2 is a front elevation of the same, Figs. 3 and 4 are vertical sections on lines 3—3 and 4—4 respectively of Fig. 1, Fig. 5 is a horizontal sectional detail illustrating the method of supporting a burner support, Fig. 6 is a vertical section on line 6—6 of Fig. 5 and Fig. 7 is a top plan view partly in section of one of the rear corners of the burner-box with the top frame thereof removed.

Referring to the drawings, a burner-box comprises a top frame 1 formed preferably of pressed steel having a downwardly extending flange 2 all around the outside of the same, a horizontal offset portion 3 on which the top grate 4 is adapted to rest and a downwardly extending flange 5 extending around the inner edge of the top frame. The outer shell 6 of the burner-box is formed into a three sided inclosure, namely, the back and two sides, by bending a sheet of sheet-metal. This formed inclosure is provided with an outwardly extending flange 7 around the top of the same and an inwardly directed flange 8 extending around the bot-

tom, the top flange 7 being welded to the horizontal portion of the top frame 1 at the rear and sides. The flange 8 at the bottom of the shell is similarly welded or bolted to the horizontal flange of a pressed metal angle frame 9, this angle frame being made of standard angle iron notched at the corners to permit the same to be bent to the required form. This angle frame stiffens the burner-box unit and is adapted to fit on top of and be bolted to the warming oven unit referred to above as described in the said application of Caverly and Bell, or to support the burner-box unit in some other desired location.

The burner-box has a space at the back thereof which is occupied by a sheet-metal box or inclosure 10 open at top and bottom and having vertical flanges 11 as shown in Fig. 7, which are welded, or bolted to the rear side of the shell or body portion 6 of the box, the horizontal back flange 7 of the shell being cut away for the distance occupied by box 10. A hole 12 is pierced in the top frame 1 above the box 10, of a size suitable for a flue collar, thus making an opening through the burner box for vapors, by way of box 10 and opening 12.

The burner-box lining 13 is preferably of galvanized iron formed into a three sided box having a bottom 14 and an upwardly extending back 15 and two side portions 15′. This may be formed by notching two corners of a sheet of iron and turning up vertical flanges at three sides, flanges or flaps 15^2 on the rear ends of the sides 15′ being turned inward, overlapping the back 15 and being electric welded thereto as shown in Fig. 7. This burner-box lining slips into the burner-box between the frame 6 and the cooking top frame 1, resting on flanges 8 of the frame 6. It may be held in place, if desired, by suitable means, such as the stove bolts 16 extending through the outer shell 6.

Small pockets 17 are provided on the inner sides of the side members 15′ of the lining, preferably by slitting the metal of the sides and pressing the same inwardly to form straps or loops as shown. These pockets 17 form seats for the burner supports 18 which preferably comprise angle bars of galvanized iron arranged horizontally in the burner-box and having vertically extending flanges 19 at their ends which are inserted in pockets 17. Flanges 19 may be formed by notching or cutting away the vertical flange of each angle bar adjacent the end thereof and bending the end of the horizontal flange downwardly to form tongues 19 as shown. The burners 20, which may consist of cast iron pipes having upwardly extending openings 21 therein are provided on their under sides with downwardly extending tapered lugs 22 which are removably mounted in holes pierced through the horizontal flanges of supports 18.

It will be seen that my invention provides a strong and efficient pressed metal burner-box within the lining of which the burner supporting bars 18 are removably mounted without the use of screws or other securing means, the support for the supporting bars 18 being so formed as to prevent bars 18 from rocking or getting out of position. The burners 20 are located both horizontally and vertically when the same are mounted with their lugs 22 in the holes 18′ formed in burner supports 18, as shown in Fig. 6.

Having now particularly described my invention, what I claim and desire to protect by Letters Patent is as follows:

1. In a burner support, the combination of a pressed metal burner-box, side linings mounted therein, having inwardly directed vertical pockets, burner supports comprising bars having downwardly extending ends removably mounted in said pockets, and burners having downwardly extending lugs mounted in openings in said burner supports, substantially as set forth.

2. In a burner support, the combination of a flanged top frame, having a seat for the top grate, a sheet-metal body having top flanges secured to said top frame, and having inwardly directed bottom flanges, and a lining member, comprising a bottom and sides, supported on said bottom flanges, said sides being formed to support a burner-support, and a burner support supported by said sides, substantially as set forth.

3. In a burner support, the combination of a flanged top frame, having a seat for a top grate, a sheet-metal body having top flanges, secured to said top frame, and having inwardly directed bottom flanges, a metal angle frame secured to said bottom flanges, and a burner support supported within said body, said body comprising a back and adjacent sides, and said angle frame extending around all four sides of the inclosure formed by said body, substantially as set forth.

4. In a burner support, the combination of a flanged top frame, having a seat for a top grate, a sheet-metal body having top flanges secured to said top frame, and having inwardly directed bottom flanges, a metal angle frame secured to said bottom flanges, and a vertical frame, constituting a flue-passage, secured to the back of said body, below said top frame, substantially as set forth.

5. In a burner support, the combination of a flanged top frame, having a seat for a top grate, a sheet-metal body comprising an integral back and sides, having outwardly extending top flanges welded to said top frame and having inwardly extending bottom

flanges, an angle frame having a horizontal portion secured to the said bottom flanges and a downwardly extending vertical portion, and extending around four sides, and a lining member resting on said bottom flanges, substantially as set forth.

This specification signed and witnessed this 30th day of November, 1914.

ALFRED B. BELL.

Witnesses:

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WILLIAM J. CONWAY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."