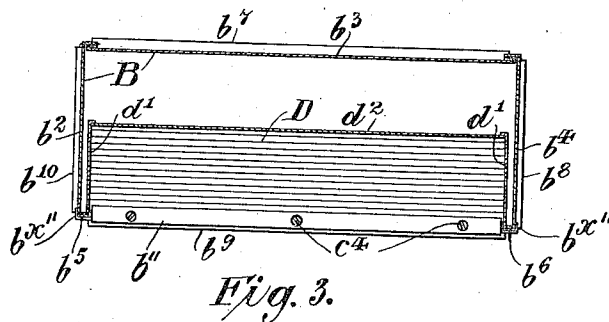
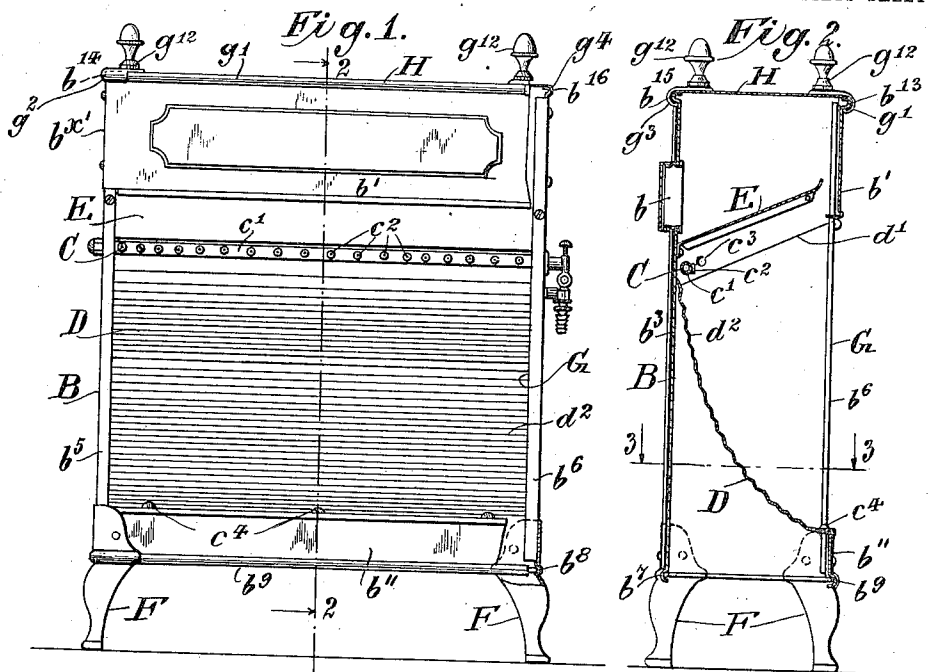




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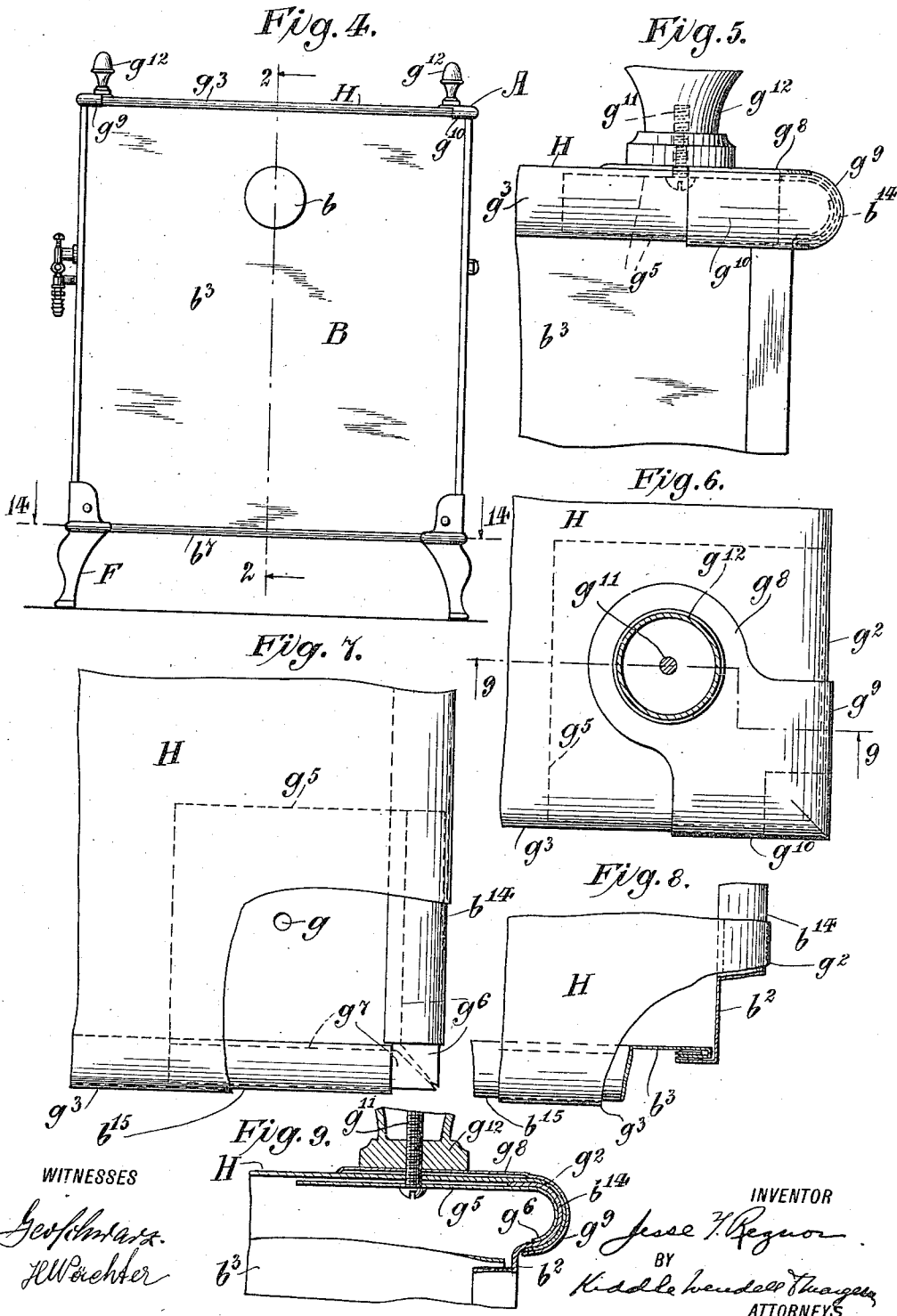
GAS HEATER.

APPLICATION FILED JULY 29, 1912.

1,063,217.

Patented June 3, 1913.

3 SHEETS—SHEET 2.



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Fig. 10.

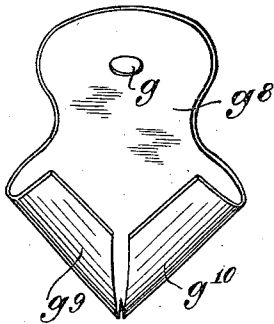


Fig. 11.

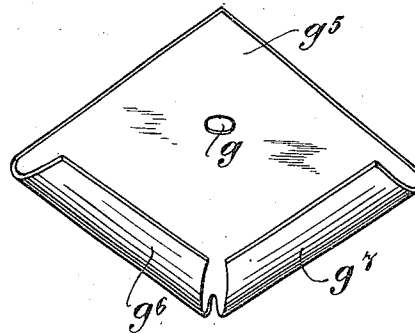


Fig. 12.

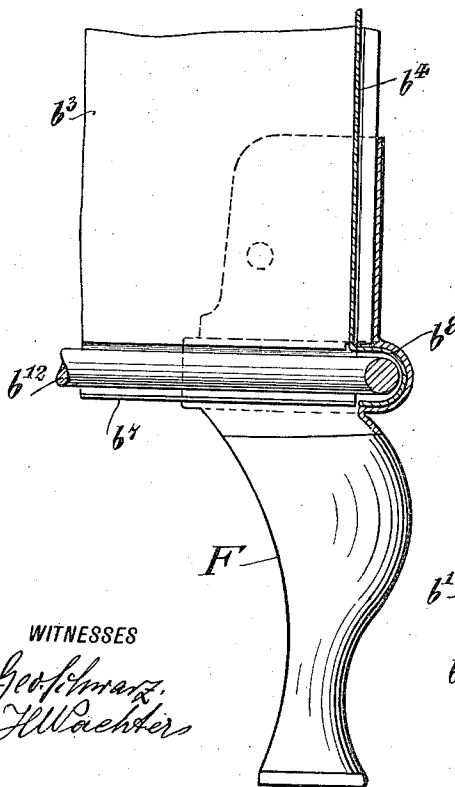


Fig. 13.

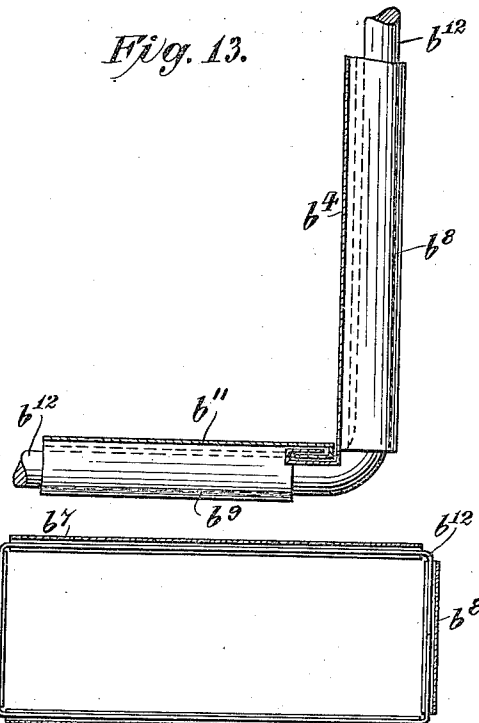
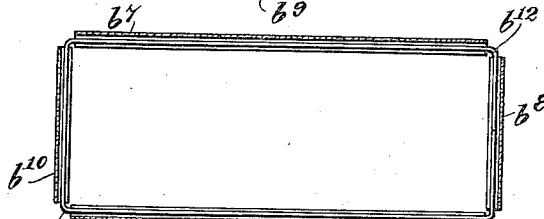


Fig. 14.



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UNITED STATES PATENT OFFICE.

JESSE T. REZNOR, OF MERCER, PENNSYLVANIA, ASSIGNOR TO REZNOR MANUFACTURING COMPANY, OF MERCER, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

GAS-HEATER.

1,063,217.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed July 29, 1912. Serial No. 711,974.

To all whom it may concern:

Be it known that I, JESSE T. REZNOR, a citizen of the United States, and a resident of Mercer, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Gas-Heaters, of which the following is a specification.

The invention relates to gas heaters.

One object of the invention is to provide a sheet metal gas heater with a top construction which adds to the strength, rigidity and finish of the upper portion of the heater.

The invention is also directed to the specific construction of the upper corners of the heater.

The invention also relates to other features of the heater which are clearly set forth in the accompanying claims.

As showing a specific embodiment of the invention, reference is made to the drawings forming a part of this specification, in which—

Figure 1 is a front elevation of the heater, partially broken away. Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1 or on the line 2—2 of Fig. 4. Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2. In Fig. 3 the legs which support the casing have been removed. Fig. 4 is a rear elevation of the heater. Fig. 5 is a partial vertical view showing in full size the corner A in Fig. 4. Fig. 6 is a partial plan view showing in full size the corner A in Fig. 4. Fig. 7 is a partial plan view showing the top member of the heater broken away so as to expose the upper ends of two of the vertically extending members of the casing of the heater and a part of the inner corner member. Fig. 8 is a view showing a portion of the top member of the heater in place on the upright side and back members of the heater casing, said top member and the upright members being broken away so as to show the bent corner joint construction between the sides and back. Fig. 9 is a view taken on the broken line 9—9 of Fig. 6 looking in the direction of the arrows. Fig. 10 is a perspective view showing the under side of the outer corner member. Fig. 11 is a perspective view showing the under side of the inner corner member. Fig. 12 is an enlarged sectional view showing the reinforcing bar in place in beaded portions at the bottom edge of the upright members and

also showing partially in section one of the supporting legs at the rear of the heater. Fig. 13 is a view showing only a portion of the upright side and rear members and a portion of the reinforcing bar or rod located in the lower beaded portions thereof. Fig. 14 is a view taken on the line 14—14 of Fig. 4 and shows only a part of the lower beaded portions of the upright members and the reinforcing rod in place in the beaded portion.

The heater comprises the casing B, the burner C, the reflecting member D, the inner roof or baffle plate E and the casing supporting legs F. The casing is formed of vertically extending sheet metal members which constitute the front, sides and back thereof and a horizontal flat sheet metal top member H. The sides extend at right angles to the front and back members and provide a casing having a rectangular cross section. The burner C, reflecting member D and the baffle plate E are all located within the casing and are arranged so that the heat is reflected through the front of the heater which is open.

The sides of the casing are designated by the reference characters b^2 and b^4 and are secured to the back b^3 by bending the metal at the rear edges of said sides and at the side edges of the back to form the interlocking joint clearly shown in Figs. 3 and 8. At the forward edges of the sides b^2 and b^4 the metal is first bent inwardly toward the companion side and then rearwardly so as to form vertical columns b^5 and b^6 at the opposite front corners of the heater. To the forward edges of the sides there is secured by riveting the opposite side edge portions of the upper and lower front members b^7 and b^8 respectively in which the metal is bent rearwardly to form the flanges or laps bx' on the upper member and bx'' on the lower member. The lower edges of the vertically extending front, side and back members are provided with the horizontally extending beaded portions b^7 , b^8 , b^9 and b^{10} , which are open at the inside of the casing and in these beaded portions there tightly fits a rod b^{12} bent to form a rectangle, as shown in Fig. 14. This rod serves to brace, strengthen and add rigidity to the lower portion of the heater; and the ends of the rod may be welded together if desired or the rod may terminate and the ends may meet between the corners as at substantially

the middle portion of the sides. The casing is supported at the corners on the legs F which are provided with beaded portions which fit over both the beaded portions of the sides and the beaded portions of the front or back members. Each of the legs is riveted to the side and the front or rear member with which it fits. The top edge of the front, side and rear members, namely members b' , b^2 , b^3 and b^4 , are provided with beaded portions b^{13} , b^{14} , b^{15} and b^{16} . The top member H is also provided with beaded portions g' , g^2 , g^3 and g^4 that fit the outside of the beaded portions of the upright casing members.

At each of the corners at the top of the heater there is an inner plate g^5 having rectangularly arranged beaded portions g^6 and g^7 and an outer member or plate g^8 having rectangularly arranged beaded portions g^9 and g^{10} . The beaded portions g^6 and g^7 of the inner corner member fit within the beaded portions at the tops of the front, sides and back members and the inner part of the beaded portions g^9 and g^{10} of the outer corner member fit the outside of the beaded portions at the corners of the top member H. Both the inner and outer corner members g^5 and g^8 are provided with openings g for the passage of the screw g^{11} which is provided with the nut or cap g^{12} . The openings g in the inner and outer corner plates are located so that when the screws pass therethrough said plates can be drawn toward each other, whereby the top member and the upright portions at the front, sides and back of the casing will be securely and firmly clamped and held together, thus affording a rigid, simple, compact and neat construction for the top of the heater.

The burner C comprises a tube c' having a series of perforations at c^2 for the passage of the gas which is to be consumed. This tube extends the full width of the heater and passes through and is supported by the sides b^2 and b^4 thereof. The side b^4 is provided with an opening c^3 adjacent to the burner tube through which a lighted match may be passed when the heater is to be started.

The reflecting member D comprises fan-shaped members d' located within the casing at opposite sides of the heater, and a curved reflecting plate d^2 connecting the fan-shaped members. This reflecting member is secured to the casing by the rivets c^4 (see Figs. 1, 2 and 3). The burner tube c' is located in the rear of the casing near the

upper end of the curved reflecting plate d^2 and in front thereof.

The inner roof or baffle plate member E is located above the burner and extends the full width of the casing. This roof or baffle is secured to the sides and back of the casing and extends forwardly and upwardly, terminating short, however, of the front upper member b' .

The casing is provided at the back with the vent opening b to permit the escape of gases that pass between the roof member and the front upper member b' to the space between the top H and the roof member.

It is obvious that various forms and modifications may be made without departing from the spirit and scope of the invention.

What I claim is:

1. A gas heater having vertically extending members rectangularly arranged and each provided with a beaded portion at the top, a top member provided with beaded portions which fit the outside of the beaded portions on the vertically extending members, an inner corner member fitting within the last mentioned portions, an outer cap member fitting upon the outer part of the beaded top member, and means for holding the inner and outer corner members together whereby they will hold the vertically extending members and the top member firmly together.

2. A gas heater having sheet metal vertically extending front, side and back members arranged at right angles to each other, a top member, an inner corner member, an outer corner member and a screw member, the upper edges of the front, side and rear members being beaded, the outer edges of the top member being beaded and fitting with the beaded edges of the front, side and rear members, the inner corner member fitting the interior beaded portion of the upright members, the outer corner member fitting the exterior of the beaded portion of the top member and the screw means passing through the inner and outer corner members whereby they may be drawn toward each other and serve as clamping means to hold the top member and the vertically extending members together.

This specification signed and witnessed this 10th day of July, A. D., 1912.

JESSE T. REZNOR.

Signed in the presence of—

R. C. KERR,

THOS. McCLAIN, Jr.