

O. H. SCHRAEGER.

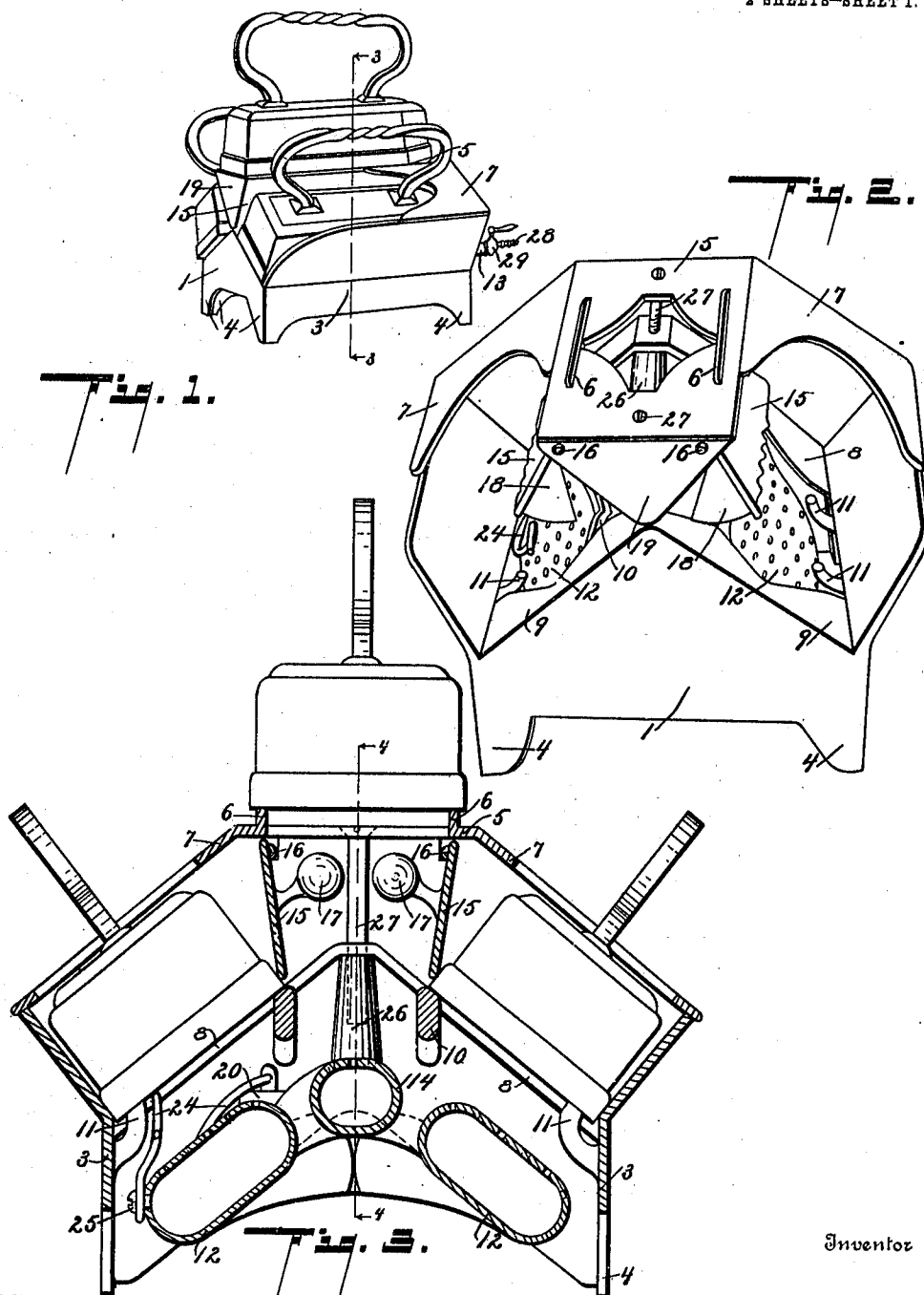
GAS STOVE.

APPLICATION FILED APR. 12, 1909.

978,338.

Patented Dec. 13, 1910.

2 SHEETS-SHEET 1.



Witnesses
Gloria Ellen Braden
Gertrude Tallman

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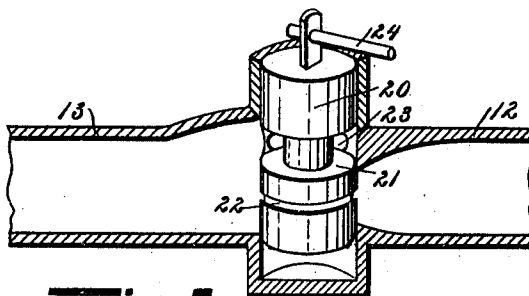
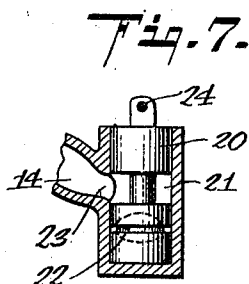
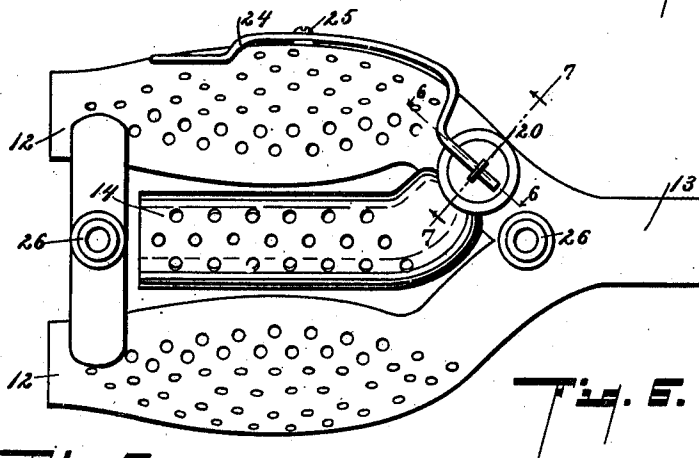
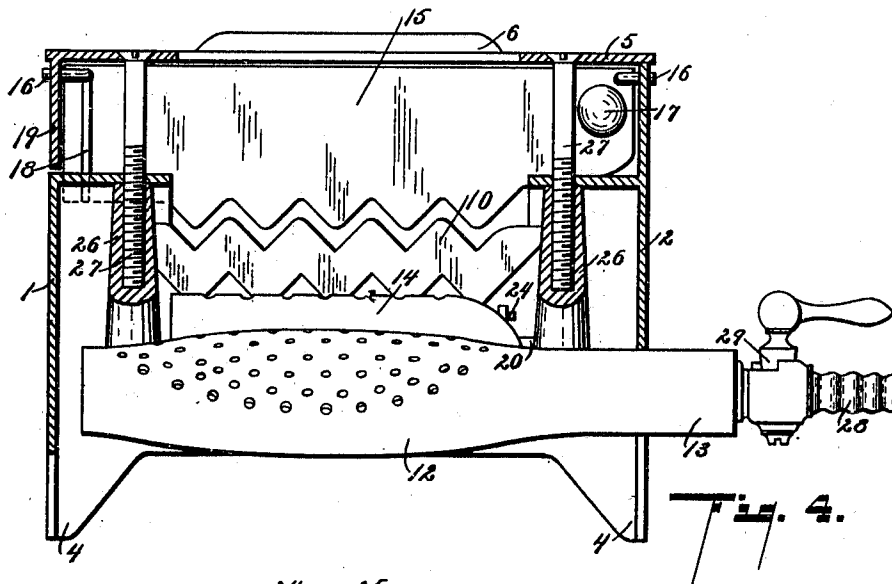
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2 SHEETS-SHEET 2.



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Fig. 8.

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UNITED STATES PATENT OFFICE.

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GAS-STOVE.

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Specification of Letters Patent.

Patented Dec. 13, 1910.

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To all whom it may concern:

Be it known that I, OTTO H. SCHRAEGER, a citizen of the United States, residing at the city of Milwaukee, county of Milwaukee, State of Wisconsin, have invented certain new and useful Improvements in Gas-Stoves, of which the following is a specification.

This invention relates to improvements in gas stoves.

My invention relates particularly to improvements in gas stoves of the sad-iron heating type, or a gas stove especially designed for the heating of sad-irons.

The main objects of this invention are: First, to provide an improved sad-iron heater in which the irons are effectively and quickly heated, and which is very economical in the amount of gas consumed,—that is, a large proportion of the heat units are utilized. Second, to provide an improved sad-iron heater which is of large capacity and very compact. Third, to provide an improved sad-iron heater which is economical and durable in structure.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure 1 is a perspective view of a structure embodying the features of my invention, the same being illustrated with three irons arranged therein. Fig. 2 is a front perspective view thereof. Fig. 3 is a transverse vertical section taken on a line corresponding to line 3—3 of Fig. 1, the irons being shown in full lines. Fig. 4 is a longitudinal section taken on a line corresponding to line 4—4 of Fig. 3, the burner being shown in full lines. Fig. 5 is a plan view of the burner removed from the casing. Fig. 6 is an enlarged detail perspective of the valve 20, the valve casing and parts connected therewith being shown in section on a line corresponding to line 6—6 of Fig. 5. Fig. 7 is a vertical section taken on a line corresponding to line 7—7 of Fig. 5, the valve being shown in full lines.

In the drawing, similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, the casing of my improved stove or sad-iron heater preferably comprises end portions 1 and 2, side portions 3, the upper parts of the side portions being inclined outwardly, and the end and side portions being extended downwardly at the corners to form legs 4. The top of the casing preferably consists of a horizontal portion 5 which is adapted to form a grid, it being provided with a central opening and with rib like rests 6 for the iron. The side portions 7 of the top are inclined downwardly, the same being cut away so that an iron may be placed thereon as is clearly illustrated in Figs. 1 and 2.

At each side, above and below the central grid 5, are grids adapted to support the irons in an inclined position. These outer grids preferably comprise solid end portions 8 and 9, which project inwardly from the end portions 1 and 2 of the casing, the serrated bars 10 and the inwardly-projecting finger-like rests 11.

The burner preferably consists of a pair of outer members 12 which branch from the supply pipe 13, and a central member 14. These outer members 12 are arranged so as to deliver heat to the outer edges of the irons placed on the outer grids. This deflects the heat that strikes against these irons inwardly so that it is carried across them to the central grid. To assist in directing the heat to the central grid, I provide a pair of deflectors 15, which are pivoted, as at 16, in the ends of the casing and are adapted to be held in their inner position by the irons, so that the heat passing from the edges of the irons is delivered to the central grid rather than passing out above the irons on the side grids. When the irons are removed, these deflectors swing out over the side burner members so that they also tend to deflect the heat to the central grid when in its position.

In practice, the central grid is used as an auxiliary heater,—that is, a cold iron is placed on this heater until one of the irons on the side burner is removed and it is then transferred to the side burner where it is quickly heated. The central grid being lo-

cated above the side grids, the heat is effectively delivered thereto, particularly when the deflectors are present in the structure. The deflectors are preferably swung to their outer position by means of the weighted arms 17. At their rear ends they are provided with end pieces 18 which close in at the side of the end portion 19 of the casing top, thus more completely directing the heat to the central grid.

One of the side burner members 12 and the central member 14 are preferably controlled by the valve 20 which is adapted to alternately admit a full and a restricted supply of gas to the members,—that is, when in one position, it admits a full supply of gas to the outer member, and when in the other position it admits a full supply of gas to the inner member, a restricted supply or a limited supply being admitted alternately to the burners to serve as a pilot or to maintain a pilot light therefor. To accomplish this, the valve 20 is provided with a full supply passage 21 and a restricted supply passage 22. As illustrated in Figs. 5 and 6, the full supply of gas is delivered through the port 23 to the central burner. When the valve is lifted, the full supply is delivered to the outer burner member. The valve is preferably actuated by means of the lever 24, which is connected to the valve and pivoted at 25, it being arranged to be engaged by the irons placed on the grid above the side burner. The gas will then pass to the side burner.

It will be noted that the valve 20 has no control over one of the side burners 12, but does control the delivery of gas to the central burner 14 and the other side burner 12. When the iron is placed over the side burner 12 controlled by this valve, the lever 24 is actuated to open the valve, thus admitting the gas to the side burner and cutting it off from the central burner 14, it being found that when irons are on the grids above the side burners, sufficient heat is deflected to the iron on the central grid to effectively heat the same, particularly when the irons are shifted or transferred as hereinbefore described. The structure is preferably retained in its assembled position by providing the burner with upwardly-projecting studs 26 tapped and threaded to receive the screws 27 which are arranged through the top of the casing and through the portions 8 and 9 of the grid into the studs, as illustrated. Thus two screws are sufficient to hold the parts securely together, making the structure very easy to assemble.

The burner in the structure illustrated is provided with a nipple 28 adapted to receive a rubber tube, the structure being especially adapted as a portable device, the valve 29 being located on the burner to control the delivery of gas thereto.

By forming and arranging the parts as I have illustrated, I secure a stove which is simple and economical in structure and one which is very compact in proportion to its capacity. The burners are also so constructed and arranged that a large proportion of the heat units of the gas consumed are utilized.

I have illustrated and described my invention in detail in the form which I have found practical in use. I am, however, aware that it is capable of being considerably varied in structural details without departing from my invention, and I desire to be understood as claiming the structure specifically in the form illustrated, and broadly as well.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a structure of the class described, the combination with a casing comprising side and end walls, the upper portions of said side walls being inclined outwardly, a top having a horizontally-arranged central portion forming a central grid, and outwardly-inclined portions at each side thereof; side grids arranged to support an iron in an inwardly inclined position, said grids each comprising solid end portions extending inwardly from the end walls of the casing, inner serrated bars and finger-like rests projecting inwardly from the side walls of said casing; and a burner arranged to deliver to the bottoms of the irons arranged on said side walls.

2. In a structure of the class described, the combination with a casing comprising side and end walls; a top having a horizontally-arranged central portion forming a central grid, and outwardly-inclined portions at each side thereof; side grids arranged to support an iron in an inwardly-inclined position; swinging deflectors arranged below the said central grid, said deflectors being retained in their inner position by the irons placed on said side grids; and a burner comprising a pair of members arranged adjacent to the side walls of said casing to deliver to the bottoms of the irons arranged on said side grids.

3. In a structure of the class described, the combination with a casing comprising side and end walls; a top having a horizontally-arranged central portion forming a central grid, and outwardly-inclined portions at each side thereof; side grids arranged to support an iron in an inwardly-inclined position; a burner comprising a pair of members arranged adjacent to the side walls of said casing to deliver to the outer edges of the irons arranged on said side grids; and means for securing the parts together, comprising a pair of upwardly-projecting studs on said burner and screws

arranged through said casing top and the inwardly-inclined end portions of said grids and threaded into said studs.

4. In a structure of the class described, the combination of a pair of grids arranged one above the other; a burner for the lower grid, and a deflector interposed between said grids, all coacting for the purpose specified.

5. In a structure of the class described, the combination of a central horizontally-arranged grid, side grids adapted to support an iron in an inwardly-inclined position at each side of said central grid; swinging deflectors interposed between the said side grids and said central grid, said deflectors being retained in their inner positions by the irons placed on said side grids; and a burner adapted to deliver to the irons arranged on said side grids.

6. In a structure of the class described, the combination of a central grid, of a grid arranged at each side of said central grid; swinging deflectors arranged below the said central grid, said deflectors being retained in their inner positions by the irons placed on said side grids; and a burner adapted to deliver to the irons arranged on said side grids.

7. In a structure of the class described, the combination of a pair of grids arranged to support the irons in inwardly-inclined positions; swinging deflectors arranged to be retained in their inner positions by the irons placed on said grids; and a burner adapted to deliver to the bottoms of the irons arranged on said grids.

8. In a structure of the class described, the combination of a pair of grids, a burner and a deflector arranged to be actuated by articles placed upon one of said grids, all coacting for the purpose specified.

9. In a structure of the class described, the combination with a casing; a central horizontally-arranged grid; side grids arranged to support the irons in an inwardly-inclined position, at each side of and below said central grid; swinging deflectors arranged below said central grid arranged normally to swing to their outer position, said deflectors being retained in their inner position by irons placed on the said outer grids; a burner comprising a pair of outer

members adapted to deliver to the bottoms of the irons arranged on said side grids, and a central member arranged between said outer members; a valve adapted to control the delivery of gas to one of said outer members and said central member, said valve being adapted when actuated to alternately admit a full and a restricted supply of gas to the said burner members; and an actuating means for said valve arranged to be actuated by an iron arranged on the grid above said outer burner member.

10. In a structure of the class described, the combination with a casing; a central horizontally-arranged grid; side grids arranged to support the irons in an inwardly-inclined position, at each side of and below said central grid; a burner comprising a pair of outer members adapted to deliver to the bottoms of the irons arranged on said side grids, and a central member arranged between said outer members; a valve adapted to control the delivery of gas to one of said outer members and said central member, said valve being adapted when actuated to alternately admit a full and a restricted supply of gas to the said burner members; and an actuating means for said valve arranged to be actuated by an iron arranged on the grid above said outer burner member.

11. In a structure of the class described, the combination of a pair of side grids inclined outwardly, and a central grid arranged between and above said side grids; and burners arranged below said side grids whereby the heat is deflected from said side grids to said central grid by the irons arranged on said side grids.

12. In a structure of the class described, the combination of a pair of side grids inclined outwardly, and a central grid arranged between said side grids; and burners arranged below said side grids whereby the heat is deflected from said side grids to said central grid by the irons arranged on said side grids.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

OTTO H. SCHRAEGER. [L.S.]

Witnesses:

R. A. BOERS,
H. H. DRATH.