(No Model.) 2 Sheets—Sheet 1.

H. STRASSNER.

GAS HEATING STOVE FOR SMOOTHING IRONS.

No. 493,532. Patented Mar. 14, 1893.

Fig. I.

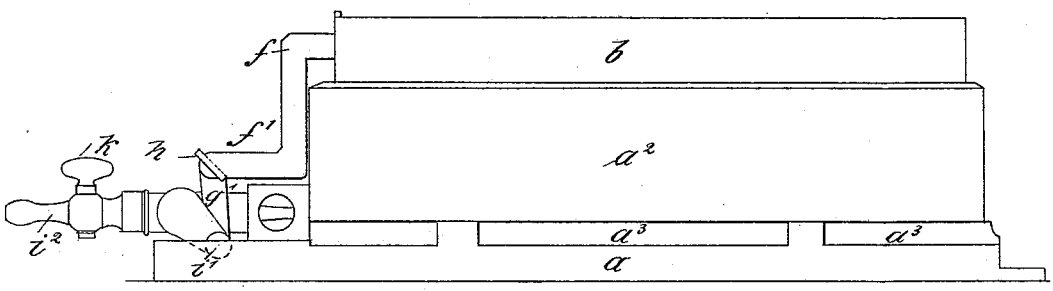


Fig. II.

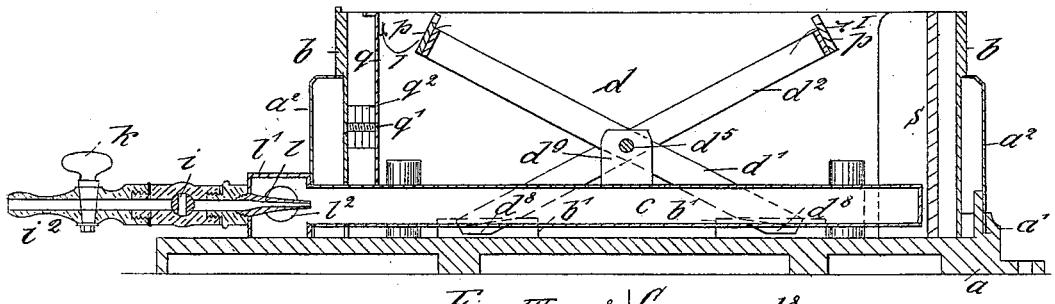
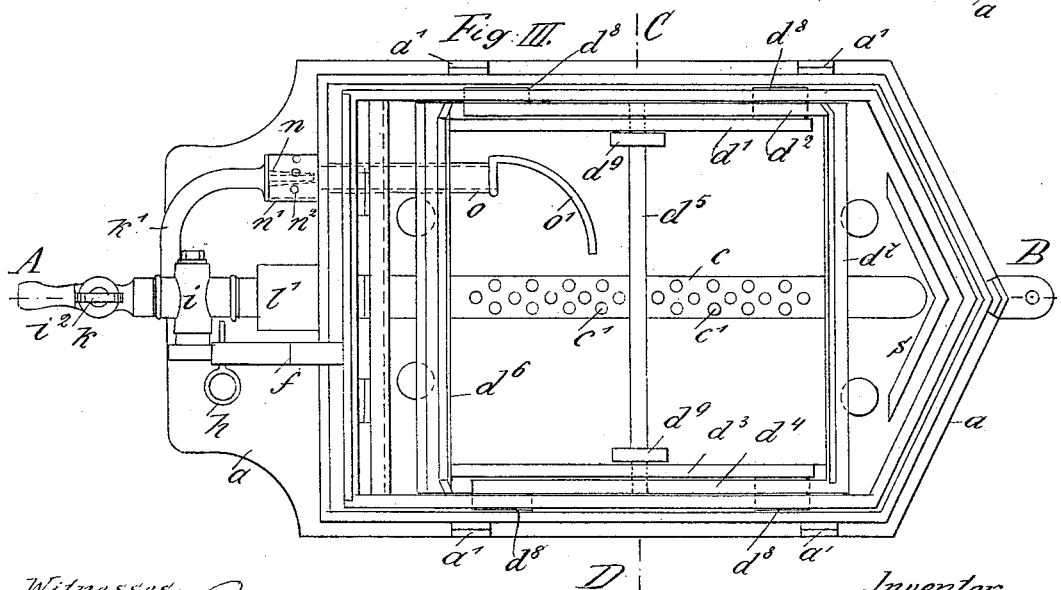


Fig. III.



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(No Model.) 2 Sheets—Sheet 2.

H. STRASSNER.

GAS HEATING STOVE FOR SMOOTHING IRONS.

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Fig. IV.

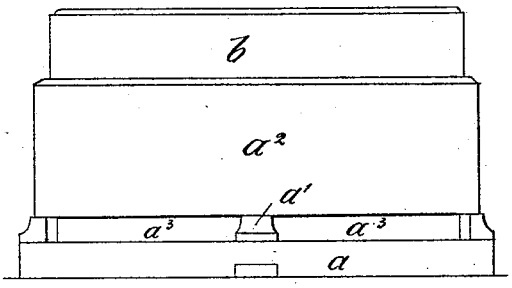


Fig. V.

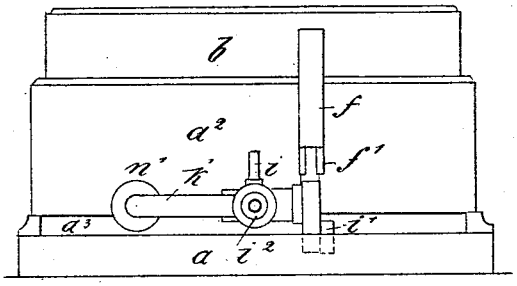


Fig. VI.

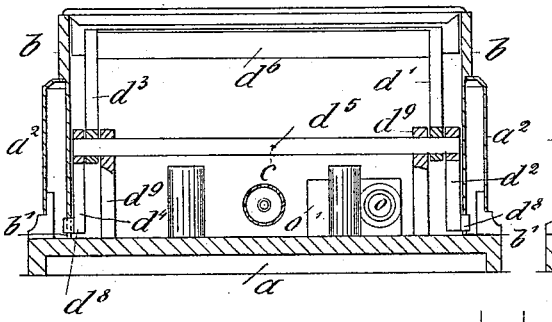


Fig. VII.

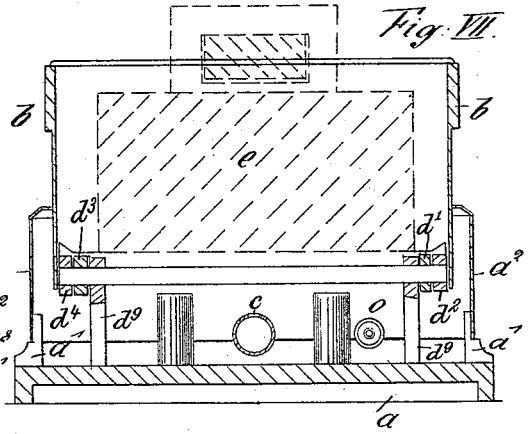


Fig. VIII.

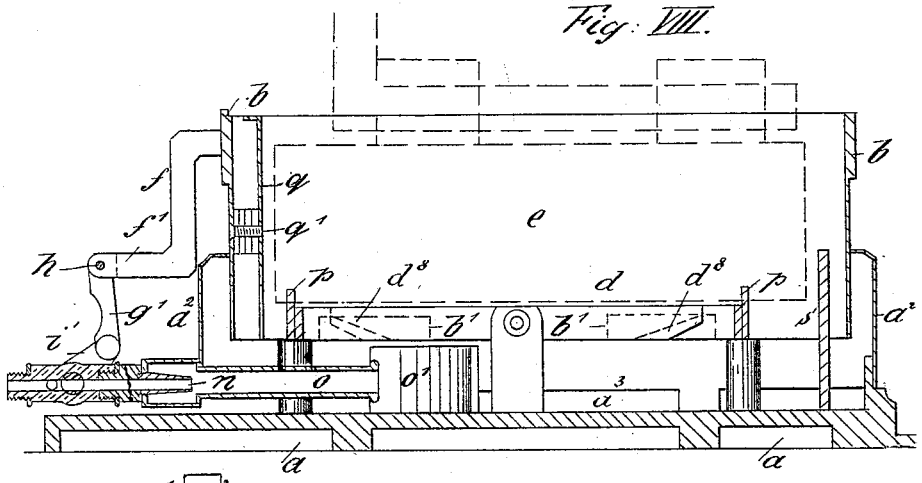
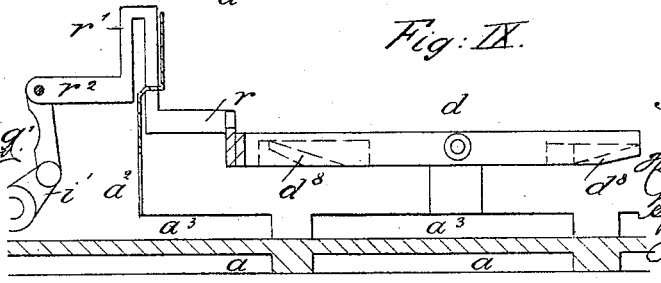


Fig. IX.



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Attorney

UNITED STATES PATENT OFFICE.

HERMANN STRASSNER, OF ERFURT, GERMANY, ASSIGNOR TO SAMUEL BARON, OF NEW YORK, N. Y.

GAS HEATING-STOVE FOR SMOOTHING-IRONS.

SPECIFICATION forming part of Letters Patent No. 493,532, dated March 14, 1893.

Application filed May 25, 1892. Serial No. 434,279. (No model.) Patented in Germany June 9, 1891, No. 60,645.

To all whom it may concern:

Be it known that I, HERMANN STRASSNER, a subject of the King of Prussia, residing at Erfurt, in the Kingdom of Prussia and German Empire, have invented new and useful Improvements in Gas Heating-Stoves for Smoothing-Irons, (for which I have obtained a patent in Germany, No. 60,645, bearing date June 9, 1891,) of which the following is a specification.

My invention relates to improvements in gas heating stoves for smoothing irons, and it has for its object to provide a construction whereby the gas cock of the burner is automatically open when the smoothing iron is placed on the stove and said cock automatically closed when the iron is removed from said stove, and my said invention also has for its object to provide means whereby air is admitted to aid combustion when the iron is upon the stove, and the admission of air cut off when the iron is removed.

To such ends my invention consists in the novel construction, combination, arrangement and application of parts hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure I, is a side elevation of a gas heating stove constructed according to my invention. Fig. II, is a section on the line A—B, Fig. III. Fig. III, is a top plan view. Fig. IV is a front elevation. Fig. V, is a rear elevation. Fig. VI, is a section on the line C—D, Fig. III, the parts being in their position when the gas cock is closed. Fig. VII, is a similar section showing the parts in position when the iron is on the stove, and the gas cock open. Fig. VIII, is a vertical longitudinal section, the parts being in the position shown in Fig. VII. Fig. IX, is a partial sectional view showing a different arrangement of parts.

In the said drawings the reference letter a designates a ground plate having legs a' carrying a stationary sheath or mantle a^2 having a shape conforming to but larger than a smoothing iron. This sheath or mantle is so supported by the legs a' as to leave spaces or air openings a^3 between its lower end and the ground plate a. Located in and adapted to move up and down in said sheath or mantle a^2, is a second sheath or mantle b which sheath or mantle when in its lowered position rests upon the ground plate a. The letter c represents a pipe extending into the sheath or mantle b and which is provided with a series of perforations c' in its upper surface for the issuance of gas to be burned, or the flame thereof. Located in said sheath or mantle b is a grate or support d for a smoothing iron e, said grate being composed of four levers d', d^2, d^3, and d^4, carried by and turning upon an axis d^5 which is supported in lugs d^9 extending from the ground plate a. Two of these levers d' and d^2 are located at one end of the axis d^5 as shown, and the other two d^3 and d^4 are arranged at the opposite end of said axis d^5. The upper ends of these levers are connected by cross-bars d^6 and d^7, thus forming a skeleton support or grate for the smoothing iron. The lower ends of each of these levers d', d^2, d^3, d^4, are provided with laterally extending lugs or projections d^8, which engage recesses b' in the inner sheath or mantle b. When the iron e is placed upon this skeleton support or grate d, the lower ends of the levers d', d^2, d^3, d^4, are raised, and by means of the lateral lugs or projections d^8 which engage the recesses b' in the mantle b, said mantle is raised from the ground plate a, and air is permitted to enter the interior of the stove through the air openings a^3 to facilitate combustion and when the iron is removed the weight of the inner sheath or mantle b causes it to descend and cut off the admission of air.

Secured to the upper part of the inner mantle b is a crank-shaped lever f, the lower horizontal member of which is connected to one end of a rod g' by a removable pin h, the other end of said rod g', being connected to the crank i' of the gas cock i which is located in the gas supply conduit i^2.

k represents a main gas cock for admitting and cutting off the supply of gas by hand.

When parts being in the position shown in Fig. I, in which the gas cock is closed, if the smoothing iron e be placed upon the skeleton support or grate d, the mantle b is caused to rise, as before described, and through the medium of the cranked lever f, rod g', and crank i', the gas cock is opened, and gas admitted to the gas pipe c, at the same time that air is admitted to the interior of the stove through

the air openings a^3. If desired to place the iron upon the grate without opening the gas cock, the removable pin h, is withdrawn, breaking the connection, and thus permitting the object to be attained.

The reference letter k' represents a pipe tapping the gas conduit i^2 in advance of the cock i and leading to the small ignitor burner n which always remains lighted as long as the cock k is open to admit gas thereto. The ignitor burner n is surrounded by a casing m' provided with perforations n^2 for the admission of sufficient air to support combustion at said burner and as admixture of atmospheric air and gas takes place in the cover n' stronger currents of air or sudden draft can have no influence whatever on the igniting flame. The flame from the burner n is directed through the pipe o, against the shade or deflector o' and over the perforations c' in the pipe c, igniting the gas issuing from the burner l located at the front end of said gas pipe c. The burner l is provided with a casing l' having perforations l^2, to supply sufficient air to support combustion at that point.

While I prefer to employ the ignitor-burner, it is not essential, for it is obvious that instead thereof, the levers f, rod g', and crank i', can be so arranged that when the inner mantle b is in its lower position, the gas will not be entirely cut off, but a very small flame allowed to burn.

For the purpose of affording a proper circulation of air when the iron is on the grate, the cross-bars d^6, d^7, are provided with shoulders, p, p, see Fig. II, so that the gases of combustion will leave the skeleton support or grate d in the direction indicated by the arrows I.

The reference letter q represents a plate secured to the rear side of the mantle b, by means of screws q' and disks q^2, at such a distance from the rear side of the mantle as to prevent the escape of heat at the rear of the iron. This plate is adjustable to and from the said mantle according to the size of the iron to be heated by removing or adding the necessary number of disks q^2.

In case it is desired to place the iron upon the stove without heating the same, said iron is laid crosswise upon the top of the mantle b and not upon the skeleton support or grate d, and in this manner the gas cock i will remain closed.

The letter s represents a guard or guide to preserve the mantles a^2 and b, from injury when placing the iron upon the skeleton support or grate d. In Fig. 9 of the drawings I have illustrated a different arrangement, in which the inner mantle b is dispensed with. In this figure the levers d', d^2, d^3, d^3 carry arms or bars r arranged inside the mantle a^2 and parallel to its length. The arms or bars r are connected with one end of a U-shaped connecting lever r' which is fitted to slide up and down on the mantle a^2, when the iron is placed upon and removed from the support d, and the other end of said lever is connected to the rod g' which is connected with the crank i' of the gas cock i. The operation of these parts is the same as that described with reference to the construction shown in the other figures of the drawings, except that in this construction air is always admitted to the interior of the stove through air openings a^3, whereas in the previously described construction air is only admitted when the iron is placed upon the support d.

Having thus described my invention, what I claim is—

1. In a gas heating stove for smoothing irons the combination with an outer mantle provided with air openings, of a skeleton support or grate composed of levers d', d^2, d^3, d^4, and cross bars d^6, d^7, a gas supply, a gas cock, and mechanism operated by the levers of the support or grate to open and close said gas-cock, substantially as described.

2. In a gas heating stove for smoothing irons, the combination with an outer mantle provided with air openings, of an inner, movable mantle opening and closing said air openings, a movable grate d engaging said inner movable mantle for raising said mantle when an iron is placed on said grate, a gas supply, a gas cock and means connected with said inner mantle and said gas cock for opening and closing said cock, operated by the movement of said mantle, substantially as described.

3. In a gas heating stove for smoothing irons, the combination with a mantle provided with air openings, a movable grate in said mantle, a gas supply pipe, a gas cock in said pipe, a main gas burner, an ignitor burner, a vertically movable device carried by the movable grate, and means connected with said vertically movable device and said gas cock and operated by said device to open and close the gas-cock, substantially as described.

4. In a gas heating stove for smoothing irons, the combination with an outer mantle provided with air openings, of an inner mantle, a movable grate engaging said inner mantle to raise the same when the iron is placed upon the grate, and a plate q connected with and adjustable to and from said inner mantle, substantially as described.

5. In a gas heating stove for smoothing irons, the combination of an outer mantle provided with air openings, a vertically movable inner mantle which controls said air openings, a movable grate connected with the inner mantle and serving to elevate the same when an iron is placed on said grate, a gas supply pipe provided with a gas cock, a lever connected to the inner mantle, a rod connecting the lever with the gas cock, and a removable pin connecting the rod and lever, substantially as described.

6. In a gas heating stove for smoothing irons, the combination with a mantle a^2, of levers d', d^2, d^3 d^4, within said mantle, cross bars d^6, d^7,

connecting the upper ends of said levers, and shoulders *p*, on said cross bars, substantially as and for the purpose described.

7. In a gas heating stove for smoothing irons, the combination with an outer mantle provided with air openings, a vertically movable inner mantle located within the outer mantle and controlling said air openings, a movable grate located within the inner mantle and connected therewith to elevate the same and uncover the air openings when an iron is placed on the grate, a gas supply pipe provided with a gas cock, and a lever connected with the inner mantle and with the gas cock, substantially as described.

8. In a gas heating stove for smoothing irons, the combination with an outer mantle provided with air openings, of an inner mantle located within the outer mantle, a movable grate connected with the inner mantle and serving to elevate the same when an iron is placed on said grate, a gas supply pipe provided with a gas cock, a lever connection between the inner mantle and the gas cock, a branch pipe communicating with the gas pipe in advance of the gas cock, and an ignitor burner supplied by the branch pipe, substantially as described.

In testimony whereof I have hereunto set my hand and affixed my seal in presence of two subscribing witnesses.

HERMANN STRASSNER. [L. S.]

Witnesses:
CARL BORNGRAEBER,
AUGUST MIEBORCH.