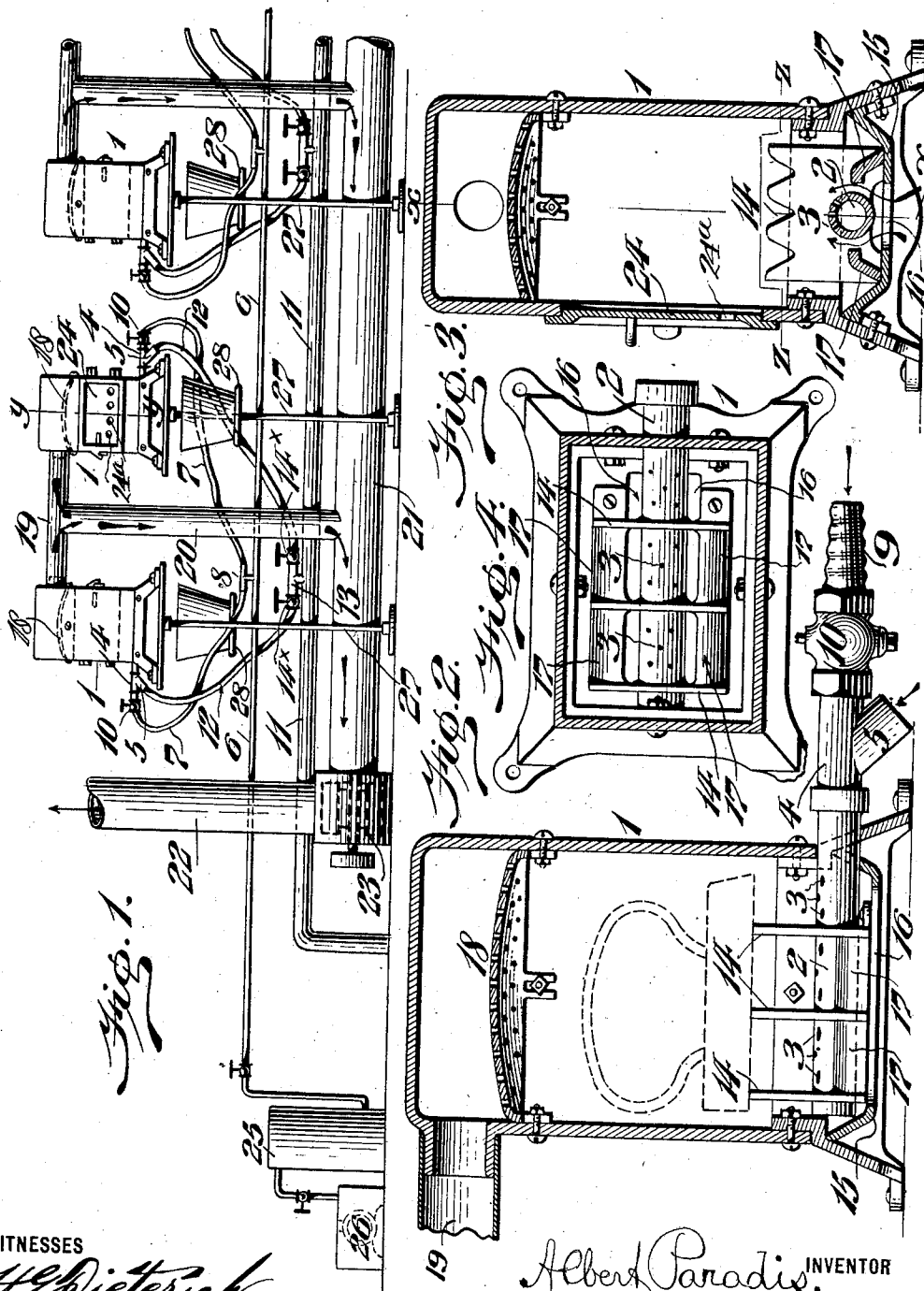


A. PARADIS.
SAD IRON HEATER.
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1,057,263.

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WITNESSES
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ALBERT PARADIS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO SAMUEL STERNBERGER COMPANY, A CORPORATION OF PENNSYLVANIA.

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1,057,263.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT PARADIS, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Sad-Iron Heater, of which the following is a specification.

My invention consists of a heater for sad irons, the same embodying a body, means for supplying highly combustible gas thereto, and means for discharging the products of combustion from said body whereby they are prevented from entering and thus fouling and heating the work room occupied by the heater, provision being made also for directing said products elsewhere for additional use if so desired.

It consists also of details of construction as will be hereinafter described.

The invention is illustrated in the accompanying drawing, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific arrangement and organization shown and described.

Figure 1 represents a side elevation of a sad iron heater embodying my invention. Fig. 2 represents a vertical section on an enlarged scale on the line $x-x$ Fig. 3. Fig. 3 represents a vertical section on the line $y-y$ Fig. 1 on an enlarged scale. Fig. 4 represents a horizontal section on the line $z-z$ Fig. 3.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates the body of a furnace or heater, in the lower portion of which is the tube 2 with jet openings 3 therein producing a burner which is supplied with combined gas and air through the air intake pipe 4 and the gas intake pipe or branch 5 respectively, said pipe 4 being connected with said burner at the end thereof, said branch 5 being connected with said pipe 4 at the side thereof and opening into the same.

6 designates a pipe for conveying air from any suitable source to the pipe or tube 7 and from the latter to the pipe 4, said pipe 7 being connected at one end with the pipe 6 by the coupling 8, and at the other end with the pipe 4 by the nipple 9, on the latter, said pipe 4 having a cock or valve 10 for evident purposes.

11 designates a pipe for conveying gas

from any suitable source to the tube or pipe 12 and from the latter to the branch 5, said pipe 12 being connected at one end with the pipe 11 by the coupling 13 and at the other end with said branch 5 in any suitable manner, said coupling 13 having cocks or valves 14^x for evident purposes.

Within the body of the heater at the lower portion thereof is the stand or holder 14 for sad irons as shown in dotted lines Fig. 2, said stand being formed of vertically arranged parallel plates which in the present case rest on the base 15 of the burner and straddle the burner whereby they are sustained. In said base 15 is an opening 16 forming an inlet for the admission of fresh air into the body 1 so as to supply the burner 3 therewith. Rising from said base 15 at opposite sides of the inlet 16 are the inwardly inclined or overhanging plates 17 which serve to deflect the air entering said inlet toward the jet openings of the burner 3 so as to increase the combustion of gas at said opening and intensify the heat thereof.

Within the body 1, near the upper portion thereof is the perforated plate 18 which extends as a dome in the body and is firmly secured to the sides thereof, it forming a heat retarding and radiating baffle as will be referred to further hereinafter.

On the upper end of the body 1 is the pipe 19 for the escape of the products of combustion from said body, said pipe being connected with the pipe 20 which latter is connected with the exhaust pipe 21 and discharge pipe 22. Intermediate of said pipes 21 and 22 is the suction device 23 for forcibly and effectively drawing the products of combustion from the body 1 into the pipes 20 and 21 and directing them into the pipe 22 which latter opens into the atmosphere, or elsewhere. I draw in larger quantities of gas in order to produce great heat for the iron and as this results in voluminous products of combustion, I make provision for getting rid of the latter as quickly as possible; hence, the said products of combustion are forcibly and effectively withdrawn from the body 1.

It will be noticed that there is a plurality of pipes 7 and 12, so as to be connected with two bodies of heaters and thus supply the latter simultaneously with gas and air. The pipe 19 is common to said bodies and each body has a door 24 for access to the interior

thereof for removing the heated iron occupying the stand 14, or for the purpose of introducing the said iron into the body to be heated.

5 The doors of the plurality of bodies face in opposite directions so that a double gang or shift of laundrymen may be employed, ironing tables being placed on opposite sides of the device, said doors having vents 24^a therein to admit fresh air into the body of the furnace above the flames of the burner and below the baffle for purposes to be hereinafter described. The air conveying pipe 6 is connected with an air holding tank 25, the latter being in communication with the compressor 26, whereby the pipe 6 and consequently the burner will be supplied with a large volume of air, it being evident that gas and air mix in the pipe 4 and the resultant gas is admitted to the burner where it is ignited, and so highly heats the sad iron which is seated on the stand 14 above the burner. The baffle 18 serves to check the products of combustion in their passage to the top of the furnaces and so prevent rapid discharge of the same, the heat thus being retained longer in the portion of the body that contains the irons, the effect of which on the said iron being evident.

30 Attention is drawn to the fact that the gas and air are drawn into the lower portion of the body of the furnace in order to produce the greatest heat in said portion where the irons are located, said irons being subjected to the burning flames of the mixed gas and air. Then, the baffle serves as a heat-retarding and radiating device in downward direction preventing the immediate escape of the products of combustion from around the irons, and preserving the heat of the latter. Then the vents 24^a introduce fresh air into the front of said body above the irons and consequently below the baffle 18 thus cooling said front for the benefit of the workmen without making any material cooling effect upon the irons so that the products of combustion having their flames reduced or deadened above said vents pass through the perforations of the baffle and reach the upper portion of the body of the furnace comparatively extinguished so as to avoid intense heating of said upper portion which otherwise would add to the discomfort of the workmen in the room in which the furnace is located, it being noticed that the present device is adapted for manufacturing establishments, more particularly extensive laundrying.

The furnaces are elevated sufficiently above the floor to be convenient for the workmen to reach the doors 24 and for that purpose they are supported on the tops of tables 27. On the sides of the standards of said tables below said tops are the shelves 28 which are adapted for supporting buck-

ets or other vessels to contain water for cooling the sad irons when so desired.

Attention is directed to the fact that the products of combustion in the bodies 1 are drawn through the pipes 19 and 20 into the pipe or flue 21 and forcibly injected from the latter into the pipe 22 owing to the blower or suction device 23, said pipe 22 opening into the atmosphere or being connected with a pipe leading to another apartment so that the heat of said products may be further utilized. By this provision also, the products of combustion are prevented from entering the work room, and thus the atmosphere of the latter is not fouled nor improperly heated by the former.

In lieu of previously generated gas supplied to the burner from the pipe 11, any combustible fluid may be admitted to said burner the same to be ignited at the jet openings 3 and produce a heating medium for the iron, the products of combustion of which after acting on the irons or other articles in the furnace being passed off or exhausted, as in the present case through the pipe 19.

As air is supplied to the interior of the body of the furnace by vents or inlets in the side thereof, especially in the present case, in the doors 24, as has been stated, such air mingles with the products of combustion and so is consumed, thus intensifying the heat in the furnace while also increasing the upward draft in the furnace, thus more effectively exhausting the said products and forcibly impelling them into the pipe 19.

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

1. A sad iron heater composed of a body adapted to support an iron therein, a burner in said body, means for supplying combustible gas to said burner, a pipe for the discharge of expended products of combustion leading from said body, an air vent in the body above said burner, a suction device connected with said pipe, a discharge pipe leading from said suction device, a pipe connected with said body for supplying air thereto under pressure, an air holder connected with said air supplying pipe, and an air compressor connected with said holder.

2. A sad iron heater composed of a body adapted to support an iron therein, a burner in said body, means for supplying combustible gas to said burner, a perforated baffle within said body above said burner, a pipe for the discharge of expended products of combustion leading from said body above said baffle, an air vent in said body between said burner and said baffle, a suction device connected with said pipe, a discharge pipe leading from said suction device, a pipe connected with said body for supplying air thereto under pressure, an air holder con-

nected with said air supplying pipe, and an air compressor connected with said holder.

3. A heater for a sad iron comprising a body having a base with opening therein,
5 overhanging plates rising from the base, a burner between said plates over said opening and having perforations in its upper face above said plates, and a holder resting on said base and extended above the burner to
10 support said iron.

4. A heater for a sad iron comprising a body having a base with opening therein, overhanging plates rising from the base, a

burner between said plates over said opening and having perforations in its upper 15 face above said plates, and a holder comprising vertically arranged separated plates resting on said base and extended above the burner to support said iron, said body having a door with air vents above said iron 20 supporting holder.

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Witnesses:

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