

G. H. WRIGHT.
GAS HEATED IRON.
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1,001,331.

Patented Aug. 22, 1911.

Fig. 1.

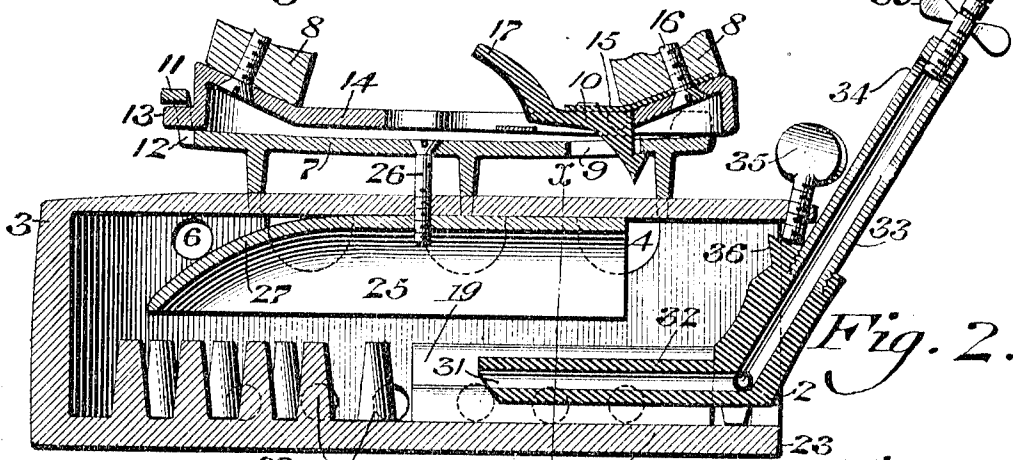
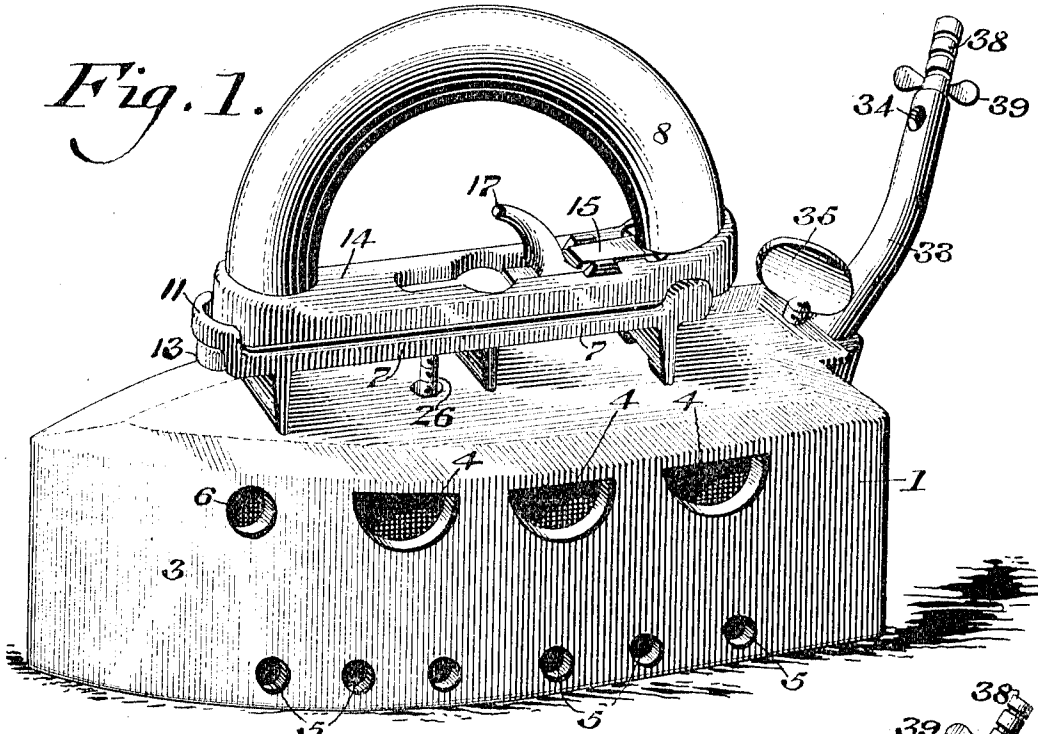


Fig. 2.

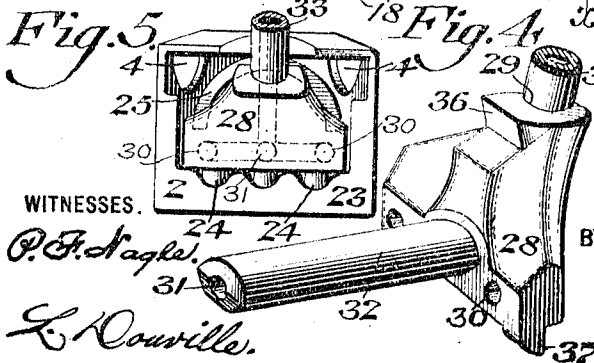
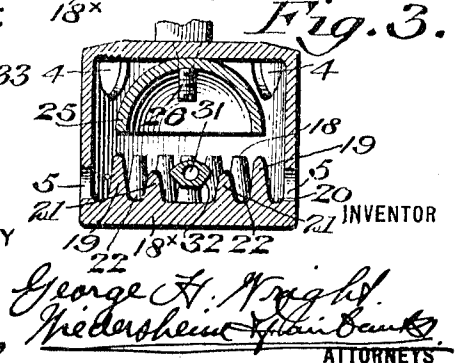


Fig. 3.



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GAS-HEATED IRON.

1,001,331.

Specification of Letters Patent. Patented Aug. 22, 1911.

Application filed October 1, 1910. Serial No. 584,805.

To all whom it may concern:

Be it known that I, GEORGE H. WRIGHT, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Gas-Heated Iron, of which the following is a specification.

This invention relates to improvements in sad irons and more particularly to a gas heated iron, and has for an object to provide an iron wherein the heating devices are so positioned and arranged in cooperation with other adjuncts of the iron as to provide an effective heating of the bottom of iron and limit the distribution of heat more particularly thereto.

It has for a further object to provide a novel form of burner whereby the heat may be properly directed to the bottom of the iron and also to the front end thereof, so that the heat supplied may proportionate itself over the working surface of the iron substantially in a ratio to the work done by this particular surface.

It further consists in providing novel means of attachment of the handle or holder, whereby the same may be detached as desired, and used in connection with another iron if necessary.

It further consists of other novel features of construction, all as will be herein-after fully set forth.

For the purpose of illustrating my invention, I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 represents a perspective of a sad iron embodying my invention. Fig. 2 represents a longitudinal section of Fig. 1. Fig. 3 represents on a reduced scale a section on line *a--a* Fig. 2. Fig. 4 represents a perspective of the burner. Fig. 5 represents on a reduced scale a rear elevation of a portion of the device.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 represents the body of the iron which is of suitable shape for the purpose intended, and preferably formed hollow in order to receive the heating devices, and has at one end an opening 2, through which the burner and its adjuncts may be passed and properly positioned with respect to the adjacent parts.

The body 1 is preferably provided on each side wall, with a plurality of openings 4, which serve to allow the products of combustion to escape from the interior of the iron, and there are also a series of openings 5, in each side wall, disposed in the present instance, adjacent the bottom of the iron and also serving as air inlets to perform a function which will later appear.

6 designates a vent preferably positioned at the upper portion of each side of the body 1, at the forward end, and serving as additional air passages. It will be noted that these openings 6, in the present instance, are bored on a slight angle relative to the side walls in order to prevent air rushing in during the forward movement of the iron and causing back draft within the iron.

7 designates a saddle plate suitably secured to the top of the body 1, and forming means for attaching the handle 8 thereto, and is in the present instance, spaced from the top, so that little if any heat is conducted thereto. The plate 7 is preferably provided with a slot 9 adapted to receive a catch 10 secured to the handle member 8, and is also provided at one end with an upturned flange 11, having an opening 12 therein to receive the tongue 13 of the handle plate 14. This plate 14 pivotally supports the catch 10, and the latter is normally held in position by means of a spring 15 suitably secured to the plate by the handle attaching screw 16. In order to remove the catch 10 from locking engagement with the sides of the slot 9, a finger 17 is preferably formed integral with the catch 10, and its operation will be obvious. In attaching the handle 8 and its adjuncts to the saddle 7, the tongue 13 is first placed into the opening 12, and the opposite end of the handle is then pressed down upon the saddle, so that the catch 10 snaps through the opening 9, thus locking the parts in operative position.

18 designates a plurality of projections preferably formed integral with the bottom 18' of the body 1, and located as here shown,

at the forward end of the interior of said body, and which act as means for distributing the heat from the burner to the forward end of the iron and localizing the heat at the necessary points.

19 designates side wings positioned adjacent the side walls of the body 1, but spaced therefrom in order to form passages 20 with which certain of the openings 5 communicate. It will be noted that these side wings 19, in the present instance, terminate at a point adjacent the projections 18, and serve to direct the flame from the burner against the said projections 18, and also conduct the heat more readily into the bottom 18 of the iron.

21 designates, in the present instance, a plurality of ribs preferably formed integral with the bottom of the iron and disposed between the side wings 19, and spaced in such a manner as to provide channels 22 for conveying air into the burner chamber. It will be noted that the rear wall portion 23 of the iron body 1, is preferably corrugated to form openings 24 in alinement with the channels 22, and through which the air is conducted.

25 designates a shield or deflector preferably secured above the space formed by the wings 19, and secured in the present instance, by means of a screw 26 or like fastening device to the top of the body 1, and it will be noted that this screw 26 as shown in this construction, also acts as a fastening means for the saddle 7. Attention is directed to the tapered portion 27 of the deflector 25, since thereby the heat from the burner is directed downwardly into contact with the projections 18, and also upon the bottom, as will be apparent.

28 designates the body portion of my novel burner used in connection with the iron, the same having an inlet opening 29 therein, and a plurality of outlet openings 30 and 31, it being noted that the opening 31 is located in an extension 32 of the body portion 28, whereby the flame from this outlet is conveyed to a point in close proximity to the projections 18.

The usual gas tube 33 is secured to the inlet 29 and provided with the customary air inlets 34, as will be readily understood, although it will be noted that this tube 33 is preferably provided with a bend in order that the gas tube may not interfere with the ironing operation.

The burner member is preferably secured within the body 1 by means of a thumb screw 35 or the like, which passes through a portion of the body 1, and into contact with a shoulder 36 formed on the body 28, while the lower portion of the burner is provided with lugs 37 adapted to engage the inner wall, whereby the burner is not only held firm, but in correct alinement rel-

ative to the burner chamber, and its adjuncts.

Attention is directed to the nipple 38, to which the usual flexible gas tube is secured, since in the present instance it is threaded into the gas inlet tube 33 and provided with wings 39, serving as a means to turn the nipple. Should it be desired to cut down the air supply to vary the gas mixture, the nipple is turned to draw it farther within the tube 33, thus partially covering the inlets 34. It will thus be clear that the nipple 38 serves as a type of valve for opening, partially closing or closing the air apertures 34, whereby the gas mixture may be regulated in a desired manner and in consequence, the heating flame varied.

In the operation of the device, the flame from the burner is projected by way of the discharge outlets 30, in a direction substantially parallel to the bottom of the iron and into contact with the wings 19 and ribs 21, while the flame from the forward opening 31 impinges directly upon the projections 18, and the front end portion of the iron. Air in the meanwhile enters through the openings 5 and passes upwardly along the channels 20, thereby cooling the side walls of the body 1, and also mixing with the products of combustion to produce a hotter flame. Air also enters along the channels 22 and produces a draft to carry the flame in the forward end of the iron. The openings 4 located adjacent the top of the side walls of the body 1 permit air to circulate above the deflector 25, thereby cooling the top of the body and maintaining the heat in the parts where needed.

It will now be apparent that I have devised a complete unitary structure for the purpose intended wherein a heating device is effectually combined to produce the best results, and wherein the heat is distributed over the surface of the iron proportionately, and a constant temperature is maintained at all times.

It will now be apparent that I have devised a novel and useful construction which embodies the features of advantage enumerated as desirable in the statement of the invention and the above description, and while I have, in the present instance, shown and described a preferred embodiment thereof which has been found in practice to give satisfactory and reliable results, it is to be understood that the same is susceptible of modification in various particulars without departing from the spirit or scope of the invention or sacrificing any of its advantages.

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

1. In a device of the character stated, a hollow body having openings in the side walls thereof, a plurality of wings in said body, a

deflector adjacent said wings and forming therewith a heating chamber, ribs between said wings forming channels, a plurality of projections adjacent said wings and ribs, a burner, and means to introduce air to said channels.

2. In a device of the character stated, a hollow body, a plurality of wings therein, a deflector adjacent said wings and forming therewith a heating chamber, said deflector having a downwardly turned end, a plurality of projections beneath a portion of said deflector and integral with said body, a burner, and means to introduce air into said heating chamber.

3. In a device of the character stated, the combination of a hollow body with a deflector forming a heating chamber, and a burner detachably mounted therein, said burner consisting of a body portion provided with discharge openings adjacent the rear of said body portion, and an extension projecting into said heating chamber and

having a discharge opening adapted to project a flame longitudinally of said deflector.

4. In a device of the character stated, a hollow body, a plurality of wings therein, a deflector adjacent said wings and forming therewith a heating chamber, a burner having outlets disposed to project a flame longitudinally of said chamber, and a plurality of projections disposed in the path of said flame.

5. In a device of the character stated, a hollow body, a plurality of wings therein, a deflector adjacent said wings and forming therewith a heating chamber, a burner having outlets disposed to project a flame longitudinally of said chamber and a plurality of vertically disposed projections integral with said hollow body positioned in the path of said flame.

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Witnesses:

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