

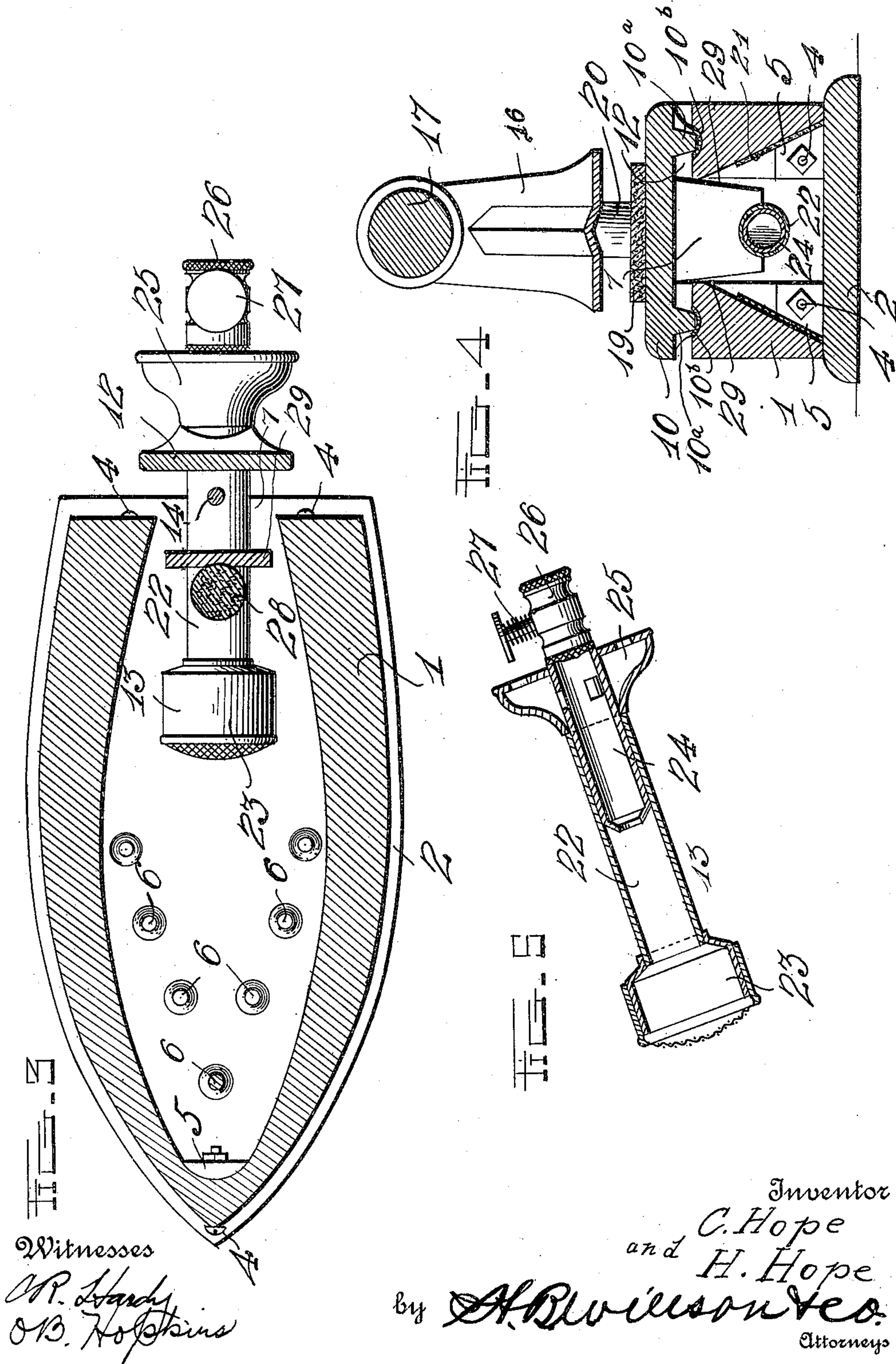


C. & H. HOPE.  
GAS HEATED SAD IRON.  
APPLICATION FILED SEPT. 22, 1910.

993,524.

Patented May 30, 1911.

2 SHEETS—SHEET 2.





# UNITED STATES PATENT OFFICE.

CHARLES HOPE AND HARRY HOPE, OF NEW BRIGHTON, PENNSYLVANIA.

GAS-HEATED SAD-IRON.

993,524.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed September 22, 1910. Serial No. 583,272.

*To all whom it may concern:*

Be it known that we, CHARLES HOPE and HARRY HOPE, citizens of the United States, residing at New Brighton, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Gas-Heated Sad-Irons; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in gas heated sad irons.

One object of the invention is to provide an iron of this character having means whereby the heat will be fed to the toe of the iron, thus providing for the uniform heating of the latter.

Another object is to provide a gas heated iron having an asbestos lining to retain the heat and provided with means whereby the handle is prevented from becoming heated.

A further object is to provide an improved construction of burner tube whereby the inner end of the burner is disposed near the center of the iron thus providing for the more even distribution of the heat.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a side view of a gas heated sad iron constructed in accordance with the invention; Fig. 2 is a central vertical longitudinal section of the same; Fig. 3 is an enlarged horizontal section on the line 3—3 of Fig. 1; Fig. 4 is a transverse section on the line 4—4 of Fig. 2. Fig. 5 is an enlarged longitudinal section of the burner removed from the iron.

Referring more particularly to the drawing 1 denotes the hollow body portion of the iron, the inner walls of the sides of which converge from the base of the iron toward the upper side thereof, said walls serving to deflect the heat downwardly onto the bottom or base of the iron. Secured to the lower portion of the body of the iron and engaging the lower edges of the sides thereof is a base or bottom section 2 which corresponds in shape to the shape of the body portion of the iron and which is preferably of slightly greater size than said body portion so that the edge of said base portion

projects a slight distance beyond the outer wall of the sides of the iron, said projecting edge of the base portion facilitating the use of the iron when pressing plaits or similar parts. In the lower edge of the sides of the iron are formed a series of notches or recesses 3 which, when said edges engage the base form a series of ventilating passages through which air is supplied to the burner. The base 2 may be secured to the body portion of the iron in any suitable manner but is preferably secured thereto by bolts 4 which are passed through the walls of the iron and through apertured ears or lugs 5 formed on the base and projecting upwardly into the body of the iron as shown.

On the inner side of the base of the iron are formed a series of upwardly projecting heat retaining fingers 6, said fingers being arranged in the toe portion of the iron whereby the heat from the burner will be conducted to said toe portion thus uniformly heating the iron. In the top or upper side of the body of the iron is formed a longitudinally disposed slot or passage across which, midway between the toe and heel of the iron is formed a bridge piece 8. The slot or passage 7 through the top of the iron is widened in the extreme rear end of the iron and continued downwardly through the rear wall thereof and provides an opening through which the burner is inserted into the body portion of the iron. Around the outer edge of the toe end of the body of the iron is formed an upwardly projecting flange 9 with which the top or cover plate 10 of the iron is engaged, said cover plate being provided on its rear end with downwardly projecting supporting lugs 10<sup>a</sup> which engage the top of the body 1 and thus support the cover plate. The lugs 10<sup>a</sup> preferably engage shallow sockets or recesses formed in the top of the body portion of the iron and between the ends of the lugs and the sockets are arranged asbestos washers 10<sup>b</sup>. By thus supporting the cover plate, a ventilating passage is provided between the top of the body 1 and the cover plate at the rear portion of the iron, said passage being provided to admit air to the burner.

The cover plate 10 is provided in its toe end with an upwardly projecting discharge tube 11 which passes through said cover plate and communicates at its inner end with the adjacent end of the slot or passage 7 formed through the top of the body portion



1 of the iron, thus providing for the escape of any smoke or gases which may arise from the burner. On the rear end of the cover plate 10 is formed a downwardly and rearwardly projecting burner engaging lug 12 the lower end of which is notched to receive the burner 13, said burner being secured in place by a fastening screw or bolt 14 mounted in the cover plate and its lower end engaging the burner, as will be readily understood.

Arranged above the cover plate and secured thereto by fastening bolts or screws 15 is a handle frame 16, said frame being preferably constructed of heavy sheet metal bent into substantially U-shape and having formed therethrough a longitudinal corrugation which imparts rigidity to the frame plate. Between the upper ends of the frame is secured a handle 17, said handle being preferably insulated from the metal portion of the handle frame by washers 18 formed of asbestos or other heat resisting material. Between the lower portion of the handle frame and the top plate of the iron is arranged a board or sheet 19 of asbestos or other heat resisting material and said handle is also preferably spaced a suitable distance above the board or sheet 19 by asbestos blocks 20. By thus arranging and connecting the handle the same is prevented from becoming heated. The heat is further deflected from the handle and downwardly onto the base of the iron by an asbestos lining 21 arranged on the under side of the cover plate and on the inclined inner walls of the sides of the iron.

The burner 13, as here shown, preferably comprises an outer elongated tube 22 having on its inner end the usual burner head 23. In the outer tube 22 is arranged an inner choke tube 24, said tube projecting a suitable distance into the outer tube and having its inner end contracted to a slight extent which directs the gas toward the center of the tube and burner head and prevents the usual noise caused by the discharge of the gas to the burner head. The outer end of the choke tube 24 projects beyond the outer end of the outer tube 22 and has arranged thereon the usual mixing chamber 25 and has secured thereto a valve casing 26 having the usual or any suitable form of needle valve 27 whereby the flow of the gas to the burner is controlled. To the valve casing 26 is connected the usual flexible gas pipe (not shown). The elongated outer tube of the burner is braced and held in position in the body of the iron by an asbestos block 28 arranged between the burner and the top plate of the iron as shown, this block not only aiding the other parts in preventing bending or buckling of the burner tube, but also guarding the other burner holding elements from action of the heat. On the un-

der side of the cover plate is arranged a depending lug or bracket 29 which has a notched lower end to engage the burner tube and prevent the lateral displacement of the same. This lug or bracket 29 is arranged in advance of the screw 14, which screw, when it is turned home, draws the burner up against the lugs 12 and 29, so that it will be clamped in position. By providing the elongated burner tube the burner head is brought near the center of the iron and the heat thus evenly distributed over the base or bottom of the iron.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

Having thus described our invention, what we claim is:

1. In a sad iron, a hollow body portion having its inner side walls inclined downwardly and outwardly, a base detachably secured to said body portion, said base projecting beyond the outer side walls of the body portion, a series of heat conducting fingers formed on the base of the iron and projecting upwardly into the body portion thereof, a cover plate having its rear end spaced a slight distance above said body to form a ventilating passage, a smoke tube arranged in the front end of said cover plate and communicating with the hollow body of the iron, a handle secured to the cover plate of the iron, and a burner detachably secured in the iron.

2. In a gas heated sad iron, a hollow body portion having formed in the lower edge of its side walls a series of notches adapted to form ventilating passages, said body portion having downwardly and outwardly inclined inner walls, an asbestos lining arranged on said walls, a base detachably secured to the body portion of the iron, a cover plate arranged on the upper side of said body portion and spaced a suitable distance therefrom at its rear end to form a ventilating passage, a heat resisting lining arranged on the under side of said cover plate, a handle secured to and spaced a suitable distance above said cover plate, and a burner arranged in the body portion of the iron.

3. In a gas heated sad iron, a hollow body portion, a base detachably secured thereto, a cover plate arranged thereon, a handle connected to said cover plate, a burner holding lug formed on the rear end of said cover plate, said lug projecting downwardly and



rearwardly beyond the rear end of the iron  
and having in its lower end a notch, a burner  
adapted to be engaged with said notch, said  
burner comprising an elongated outer tube  
5 adapted to project a suitable distance into  
the iron, a burner head, a fastening screw  
arranged in said cover plate to hold said  
burner in place, and a brace formed of heat  
resisting material and adapted to hold the  
10 burner at the proper inclination.

4. A sad iron comprising a hollow body,  
a cover plate thereon provided with longi-  
tudinally spaced depending lugs at its rear

end, a handle secured on said cover plate,  
a burner fitted to the lower ends of said 15  
spaced depending lugs, and a securing bolt  
mounted in the cover plate and engaging  
the burner between said lugs.

In testimony whereof we have hereunto  
set our hands in presence of two subscrib- 20  
ing witnesses.

CHARLES HOPE.  
HARRY HOPE.

Witnesses:

IRA K. WILSON,  
THOS. J. FORGAN.

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