

R. C. SEELEY.
SAD IRON.
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966,866.

Patented Aug. 9, 1910.

Fig. 1.

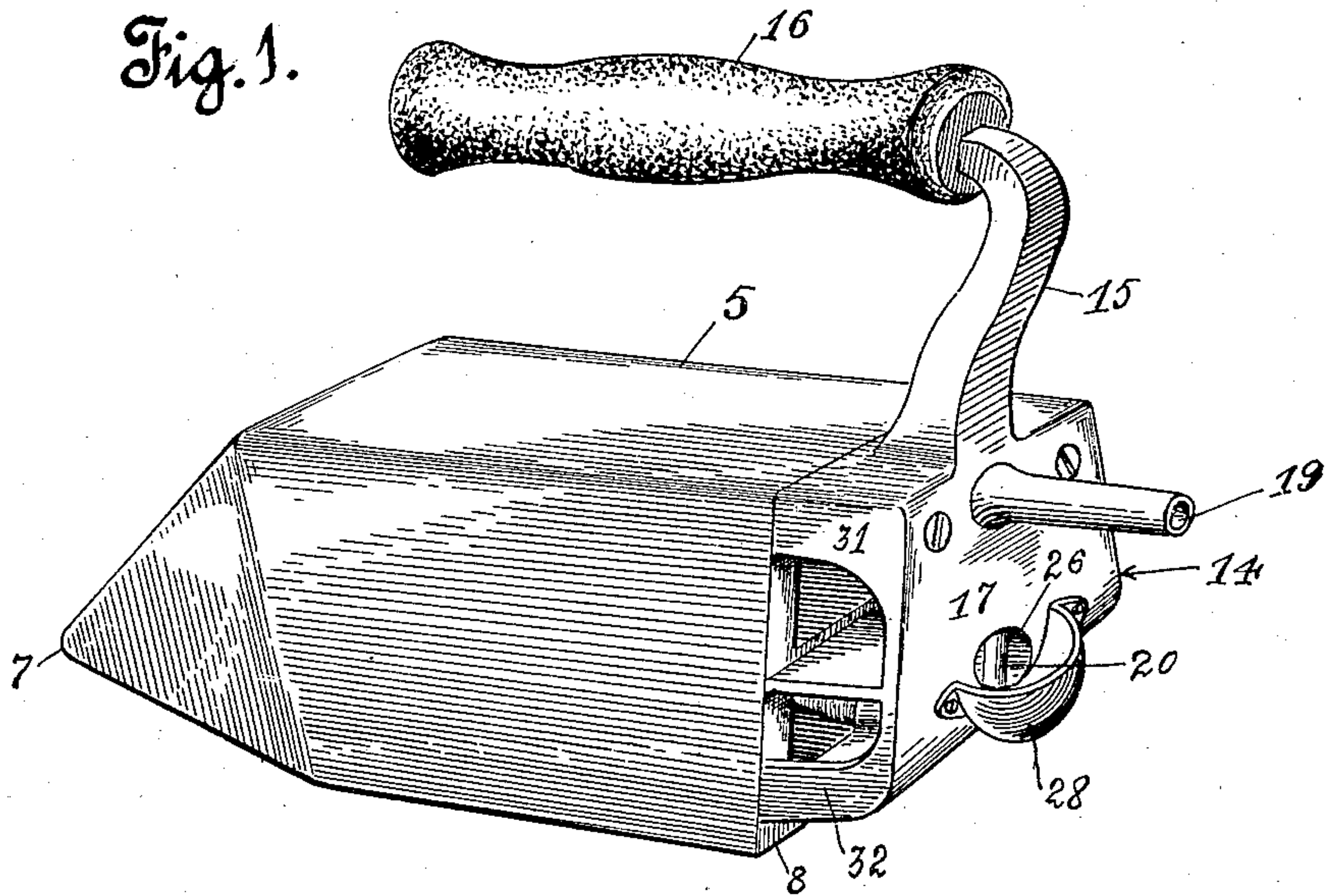


Fig. 2.

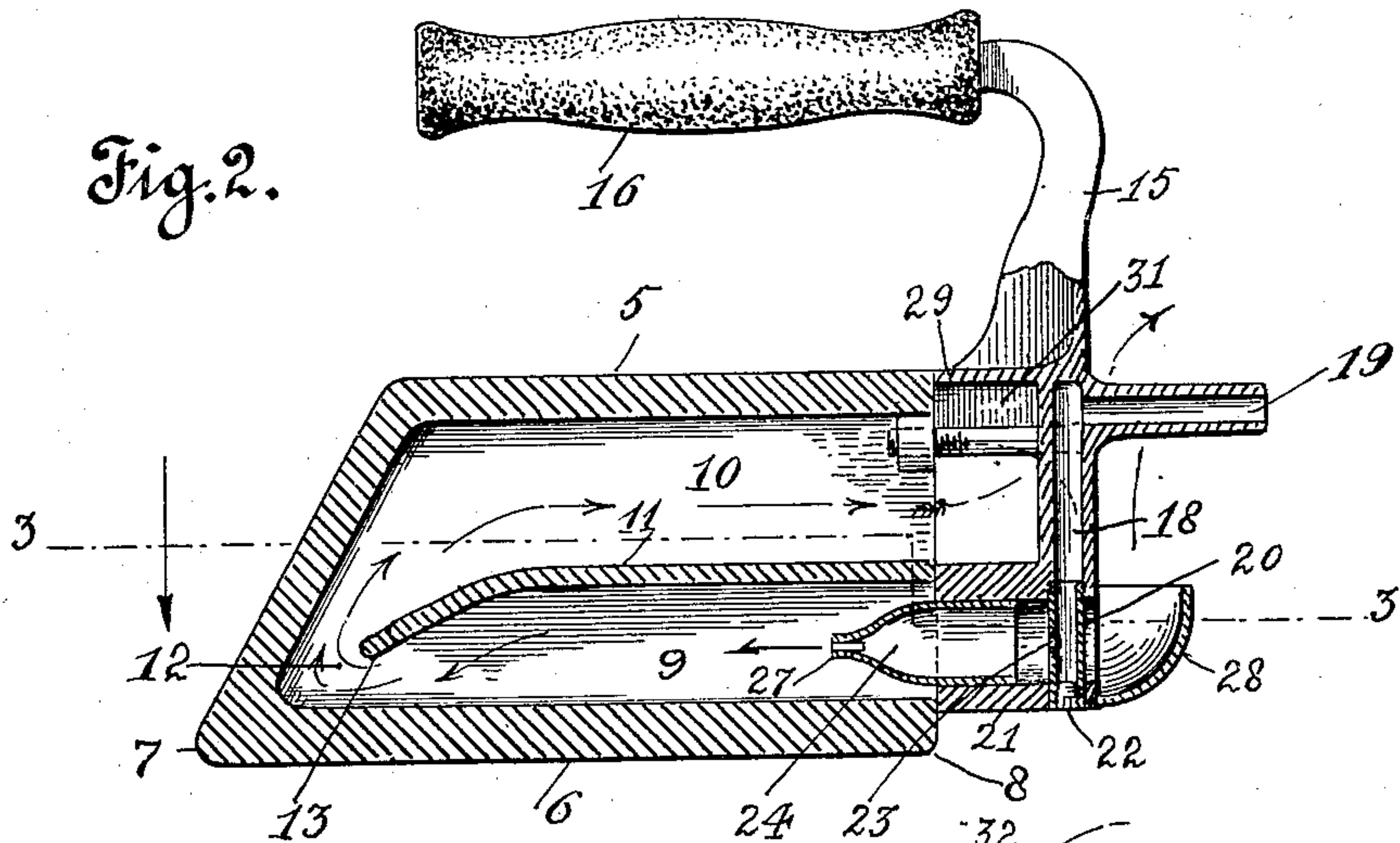
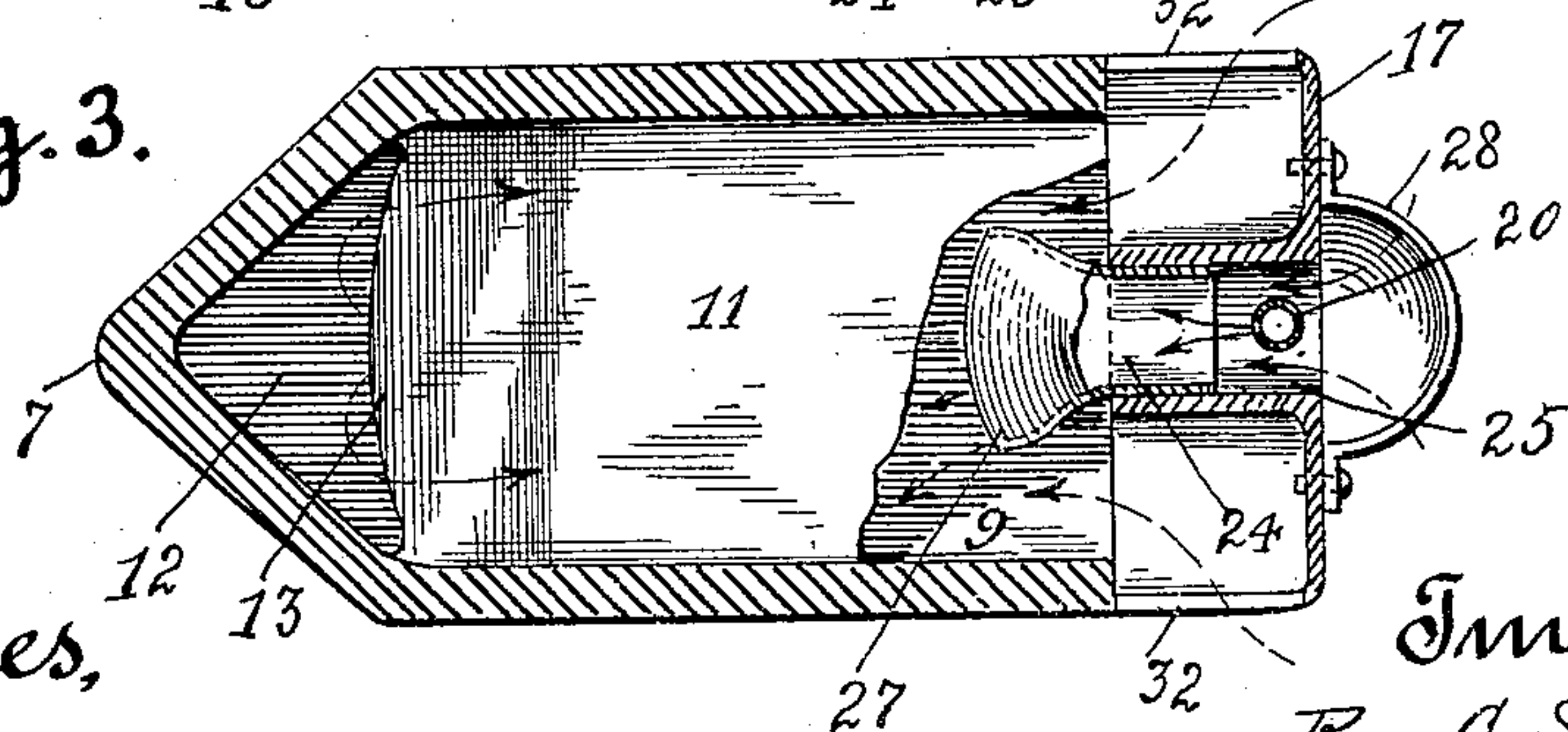


Fig. 3.



Witnesses,

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UNITED STATES PATENT OFFICE.

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SAD-IRON.

966,866.

Specification of Letters Patent.

Patented Aug. 9, 1910.

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To all whom it may concern:

Be it known that I, ROY C. SEELEY, a citizen of the United States, residing at Hollywood, in the county of Los Angeles and State of California, have invented new and useful Improvements in Sad-Irons, of which the following is a specification.

My invention has reference more particularly to that class of sad irons that are heated by a gas flame, and among the objects thereof is to provide a novel arrangement of vapor deflectors, whereby the steam or vapors arising from the dampened fabrics being ironed will be deflected away from the air inlets, so that they will not commingle with the dry cool air entering the mixing chamber, and thus affect materially the combustion of the gases in the iron.

A further and important object is to provide a flame deflector that will effectually heat the extremities of the iron, such as the toe, to a degree equal to the body.

In the accomplishment of the above objects I preferably employ a cast iron body member divided horizontally into a lower mixing and combustion chamber, and an upper chamber through which the unconsumed gases and heat which are not absorbed and radiated have their escape, in combination with a removable shield provided with air and gas inlets and burner tip suitably secured to the rear of the iron.

In the annexed drawings forming a part of this specification, Figure 1 is a perspective view of a gas heated sad iron embodying my novel construction. Fig. 2 is a central longitudinal section through the iron. Fig. 3 is a horizontal section through the iron taken on line 3—3 of Fig. 2.

Referring to the drawings, 5 designates the body of the iron, preferably formed of cast iron, 6 the sole, 7 the toe, and 8 the heel. Within the body are two horizontally disposed chambers, the lower or heating chamber 9 and the upper or draft chamber 10. These chambers are divided by a horizontal partition 11, preferably formed integral with the body of the iron, and terminating adjacent the toe of the iron, thereby forming an aperture 12 which furnishes a means of escape for the waste products of combustion from the heating chamber to the draft chamber to their point of egress from the iron at the heel thereof. The forward end of partition 11 is turned downwardly as clearly illustrated in Fig. 2 of the drawing

to form a deflector 13, adapted to deflect the flame downwardly directly against the toe of the iron in its upward course to and through the draft chamber 10.

It will be observed that by deflecting the flame downwardly, I am enabled to maintain the forward extremity of the iron at the same temperature as the body, which is extremely essential, as there is less metal in the toe of the iron to retain the heat, and also as it is the first portion of the iron to come in contact with the dampened fabrics, it is in consequence cooled much more rapidly than the body of the iron.

Bolted or otherwise secured to the heel of the iron is a main shield 14, preferably formed of the same material as the body, and provided with a metal shank 15 formed integrally therewith, which extends upwardly and forwardly and is provided with a heat insulating handle 16. The vertical wall 17 of the shield is provided with a central bore 18 that opens at the upper end into the inner end of a transversely disposed gas inlet bore 19, a flexible gas hose (not shown) connecting the outer end of the bore to a source of gas supply. The lower end of the vertically disposed bore 18 terminates approximately on a level with partition 11, and is interiorly threaded for the reception of the exteriorly threaded end of a short tube 20 that extends downwardly through the vertical wall 17 of the shield, and is provided at the lower end thereof with a cleaning plug 22. A gas outlet 23 that opens into a burner nozzle 24 is also provided in the tube.

Burner nozzle 24 is preferably brazed to shield 14 and its rear end opens into a mixing chamber 25 that registers with an aperture 26 formed in the vertical portion 17 of the shield. The burner tip 27 is formed into a wide thin opening that is admirably adapted to spread a wide flame into the chamber heating the floor thereof in an efficient and satisfactory manner. By forming this opening in the tip wide and thin, all danger of back firing is absolutely avoided and the whole surface of the floor is subjected to the action of the flame, the deflector 13 forcing the flame downwardly against the toe 7 in its upward and outward course through chamber 10.

Secured to the outer face of vertical portion 17 of the shield and adjacent the aperture 26 is a semi-spherical shield 28, which serves

to prevent the moist steam arising from the ironed fabrics from entering the mixing chamber 25, thereby deteriorating the quality of the gas and often extinguishing the flame.

5. The upper and lower edges of shield 17 are provided with transversely extending flanges 29 and 21 that extend outwardly from the vertical portion of the shield and are adapted to contact with the heel of the iron. These flanges are provided on both of their side edges with downwardly and upwardly extending vapor shields 31 and 32, respectively. Shields 32 are for the purpose of preventing the gas flame from being affected by the moist steam arising from the fabrics being ironed. These vapor shields at the inlet sides of the main shield are deemed equally as important as the semi-spherical shield 28 attached to the rear vertical face of the main shield, which performs the same office as the shields 32.

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

1. In a gas heated sad iron, the combination of a hollow body, of a main shield having a burner fitted therein secured to the rear portion of the hollow body, vapor shields formed integrally with said main shield at the sides thereof, said shields arranged to prevent the entrance of vapors into the hollow body when the iron is in operation, and a flame deflector arranged in the interior of said hollow body, said deflector adapted to deflect the flame downwardly against the toe of the iron on its passage therethrough.

2. In a gas heated sad iron, the combination of a hollow body, of a main shield having a burner fitted therein secured to the rear portion of said hollow body, the rear portion of the burner forming a mixing cham-

ber and communicating with the atmosphere through an aperture formed in the main shield, a vapor shield secured to the outer face of the main shield adjacent the aperture formed therein, vapor shields formed integrally with said main shield at the sides thereof, and a flame deflector arranged in the interior of said hollow body, whereby the flame from the burner will be deflected downwardly against the toe of the iron on its passage therethrough.

3. In a gas heated sad iron, the combination of a hollow body, of a main shield having a gas passage-way formed therein and terminating in a burner tip, said shield being detachably secured to the rear portion of the body, and a plurality of supplementary vapor shields formed integrally with said main shield at the sides thereof, said shields arranged to prevent the undue entrance of vapors into the hollow body when the iron is in operation.

4. A gas heated sad iron, comprising a hollow body open at one end and closed at the other, a horizontally disposed partition in said hollow body, said partition dividing said hollow body into an upper and lower chamber, both of said chambers communicating at the closed end, a gas burner mounted on said hollow body and adapted to discharge its flame forwardly into the lower chamber of the hollow body, and a flame deflector formed on said partition at its inner end, said deflector adapted to deflect the flame of the burner downwardly against the toe of the iron on its passage therethrough.

In witness that I claim the foregoing I have hereunto subscribed my name this 16th day of March, 1909.

ROY C. SEELEY.

Witnesses:

EDMUND A. STRAUSE,
MYRTLE A. PALMER.