M. IMHOFF.

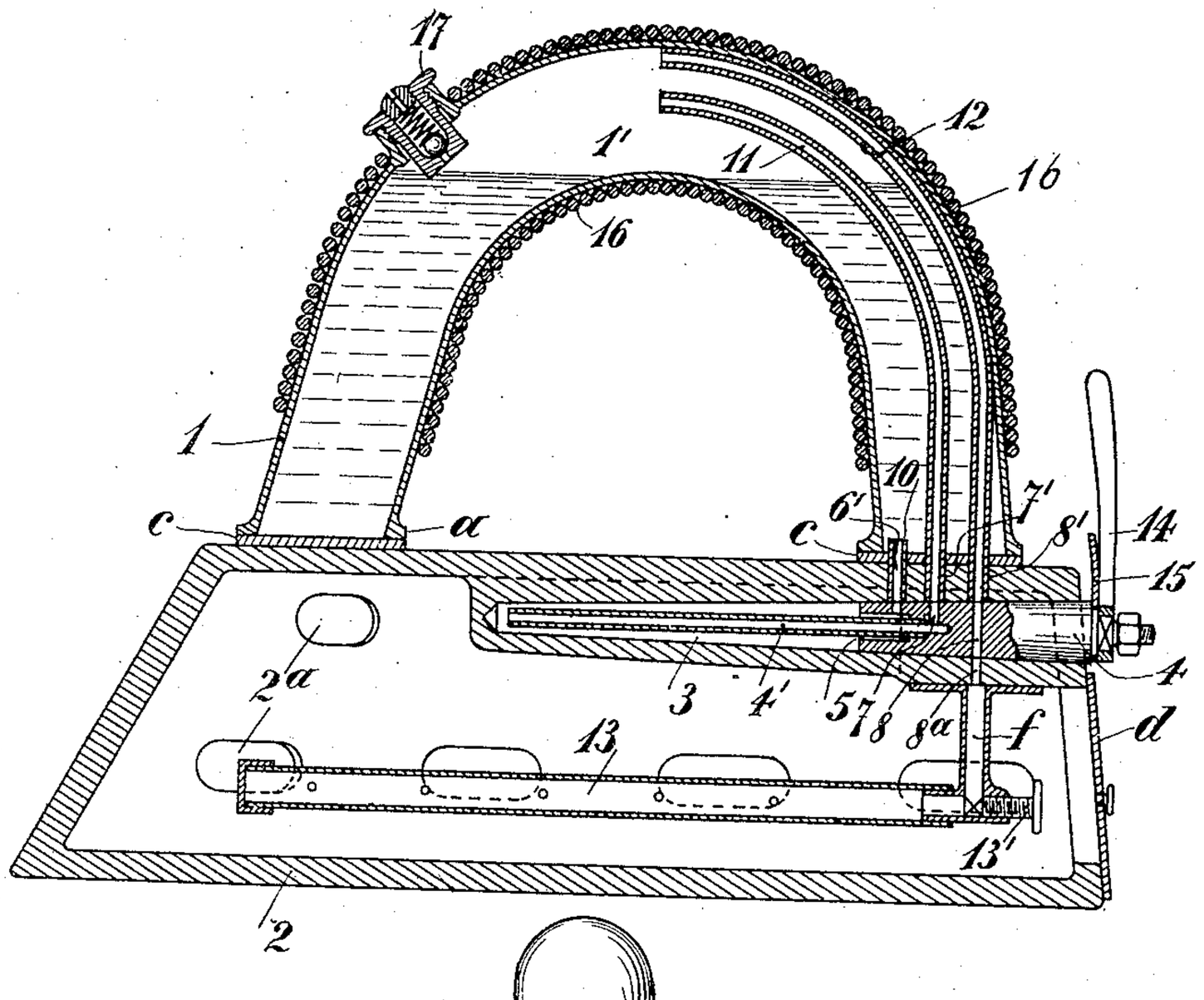
SMOOTHING IRON.

APPLICATION FILED DEC. 22, 1908.

944,732.

Patented Dec. 28, 1909.

Fig. 1.



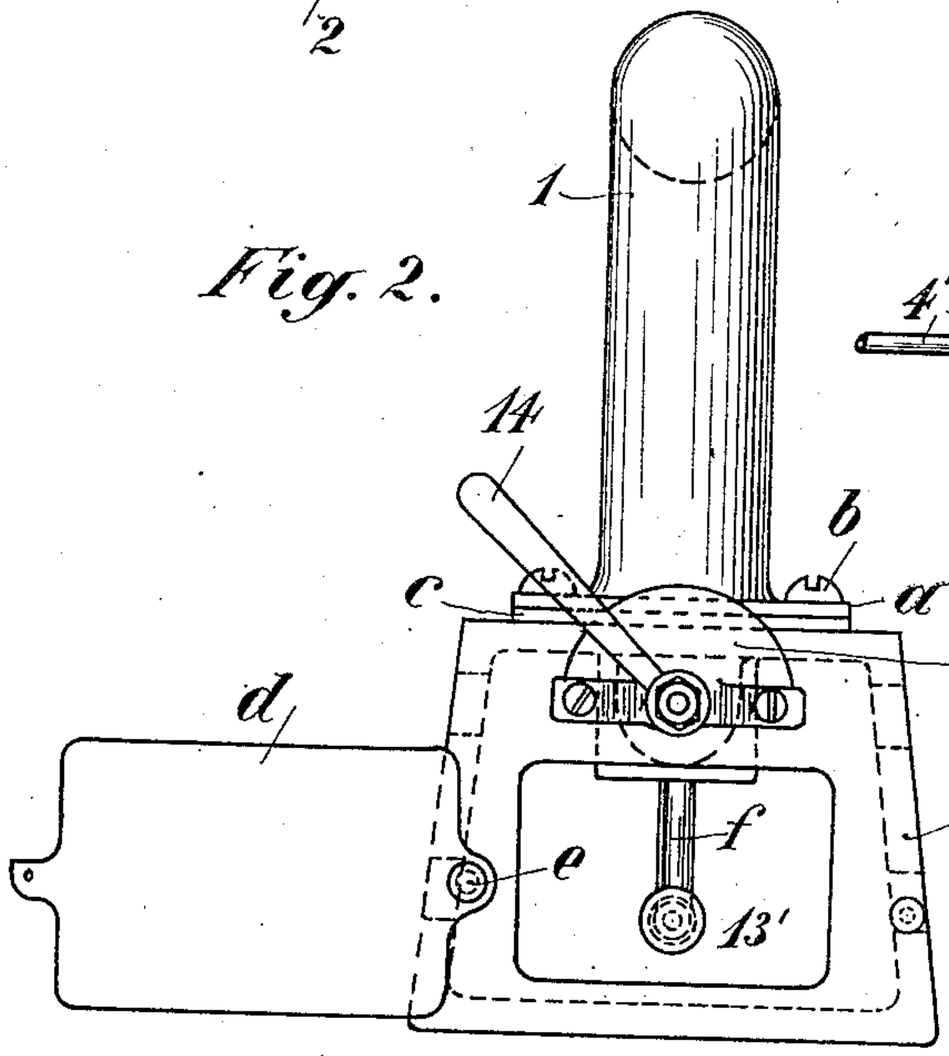


Fig. 2.

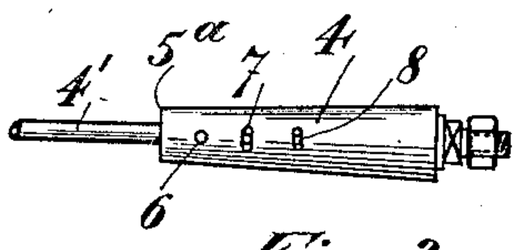


Fig. 3.

Witnesses.

Jesse N. Sutton.

B. Bonniers

Inventor.

Max Imhoff

by Henry Orth & Co

Atty.

UNITED STATES PATENT OFFICE.

MAX IMHOFF, OF VIENNA, AUSTRIA-HUNGARY, ASSIGNOR TO WIHL. WELTI-NAEGELI, OF OBERRIEDEN, NEAR ZURICH, SWITZERLAND.

SMOOTHING-IRON.

944,732. Specification of Letters Patent. **Patented Dec. 28, 1909.**

Application filed December 22, 1908. Serial No. 468,806.

To all whom it may concern:

Be it known that I, MAX IMHOFF, a citizen of the Republic of Switzerland, residing at Vienna, Austria-Hungary, have invented certain new and useful Improvements in Smoothing-Irons; and I do hereby 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The present invention relates to improvements in smoothing irons internally heated by means of a vaporizable fluid contained in a reservoir attached to the body of the iron and preferably formed as the handle of the iron, there being suitable valve-controlled connections between the reservoir and the vaporizer contained in the body of the iron, as will hereinafter be more particularly described and claimed.

Referring to the accompanying drawings, in which like parts are similarly designated—Figure 1 is a vertical, longitudinal section of a smoothing iron embodying my invention; Fig. 2 is a rear end elevation, and Fig. 3 is a view of the valve controlling the fuel supply to and from the vaporizer and to the burner.

The handle, 1, of the smoothing iron is formed as a hollow reservoir, 1′, for a vaporizable fuel, and is arched having at its ends lugs *a* through which pass screws *b* for securing the handle to the body 2. Between the ends of the handle and the body of the iron are heat insulating washers *c* that assist in making a fluid-tight joint. The body, 2, is hollow and is closed at the rear by a door or plate *d* pivoted at *e*, or otherwise movably secured to the body 2. Near the top of the body 2 is a vaporizing chamber 3, closed by a suitable cock or valve 4, in the rear end of the vaporizing chamber. This valve is tapered, as is also the vaporizing chamber 3, and has a recess 5 in its inner or smaller end, thereby forming a ring flange 5^a around this end. The valve has three ports, the one 6 passing through the flange 5^a, the one 7 communicating with an open-ended pipe or tube 4′ extending from the valve almost to the opposite end of the vaporizing chamber 3, and the port 8 passing transversely through the conical plug 4. The ports 7 and 8 are somewhat enlarged at their upper ends, as shown in Fig. 3, so that the port 6 may be closed or regulated while the ports 7 and 8 remain open. The port 6 registers with a bore 6′ through the top of the iron through which is inserted a short fuel supply pipe 10. The port 7 registers with a bore 7′ also through the top of the iron, in which is secured a long tube 11 opening above the level of the liquid in reservoir 1′, whereby the vapor arising from the vaporization of the liquid fuel in the vaporizing chamber 3 will pass through pipe 4′, port 7 and tube 11 to the space above the fuel level, causing pressure on the fuel, and thence by pipe 12 secured in bore 8′ registering with port 8 through bore 8^a through the bottom wall of the vaporizing chamber into the hollow burner support *f*, past the burner valve 13′ into the perforated tubular burner 13 carried by the support above the bottom of the iron. The valve 4 is operated by a handle 14, and is held in place by a yoke or plate 15 having suitable indications thereon as to the degree of opening of the valve.

The sides of the body of the iron are provided with suitable openings 2^a for the escape of the products of combustion.

The filling opening in the handle is closed by a plug 17 having a perforation closed by a spring-urged ball acting as a relief valve. Any other form of relief valve may be used.

The handle is shown in Fig. 1 as being covered with a heat-insulating material 16.

The reservoir is filled approximately to three-quarters of its height, and, when starting the device, the valve is placed in the position shown in Fig. 1, and the front end tilted up so that some liquid will run through pipes 11 and 12 to burner or interior of the body and to the vaporizer. That in the burner or body is lighted, and soon heats the vaporizer sufficiently to vaporize the fluid therein and send its vapor to the vapor space in 1, to cause pressure on the fuel and at the same time feed the burner with vapor.

I claim—

1. In a smoothing iron, the combination with a burner, a vaporizer and a liquid fuel reservoir; of a connection between the reservoir and vaporizer, means to deliver vaporized fuel to the reservoir over the liquid fuel

therein, means to connect the space above the liquid fuel with the burner, and a single valve to control said connection and means.

2. In a smoothing iron, the combination with a hollow handle serving as a reservoir for liquid fuel; of a body portion connected thereto and having a vaporizing chamber, a pipe connecting the lower part of the reservoir and the vaporizer, a pipe connecting the vaporizer with a vapor space in the reservoir above the liquid fuel therein, a burner, a pipe connecting the vapor space and burner and a single valve controlling all of said pipes and having elongated ports for the two latter pipes, whereby the fuel supply between the reservoir and vaporizer may be cut off without cutting off the passage of vapor to and from the vapor space.

In witness whereof I have signed this specification in the presence of two witnesses.

MAX IMHOFF.

Witnesses:
ROBERT W. HEINGARTNER,
AUGUST FUGGER.