

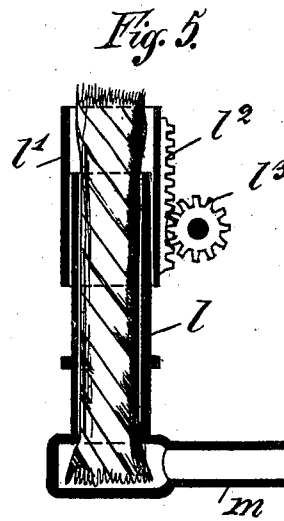
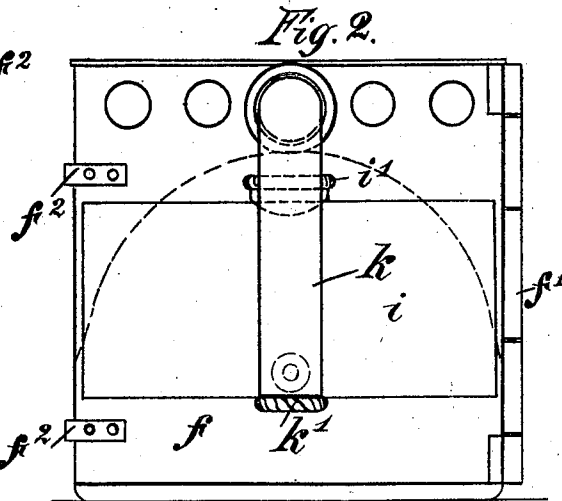
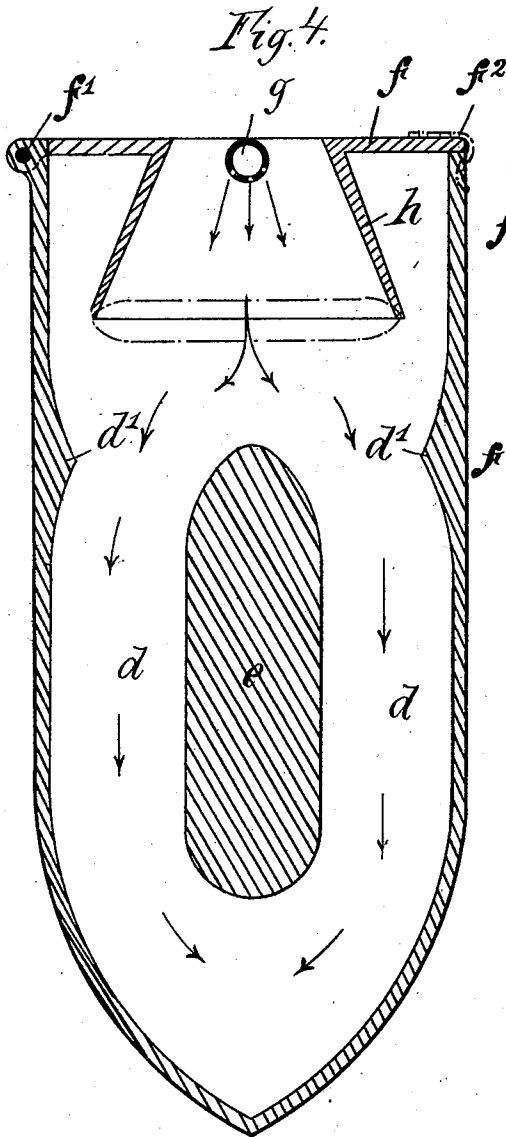
(No Model.)

2 Sheets—Sheet 2.

J. FELDMEYER.
SMOOTHING IRON.

No. 581,248.

Patented Apr. 20, 1897.



Witnesses
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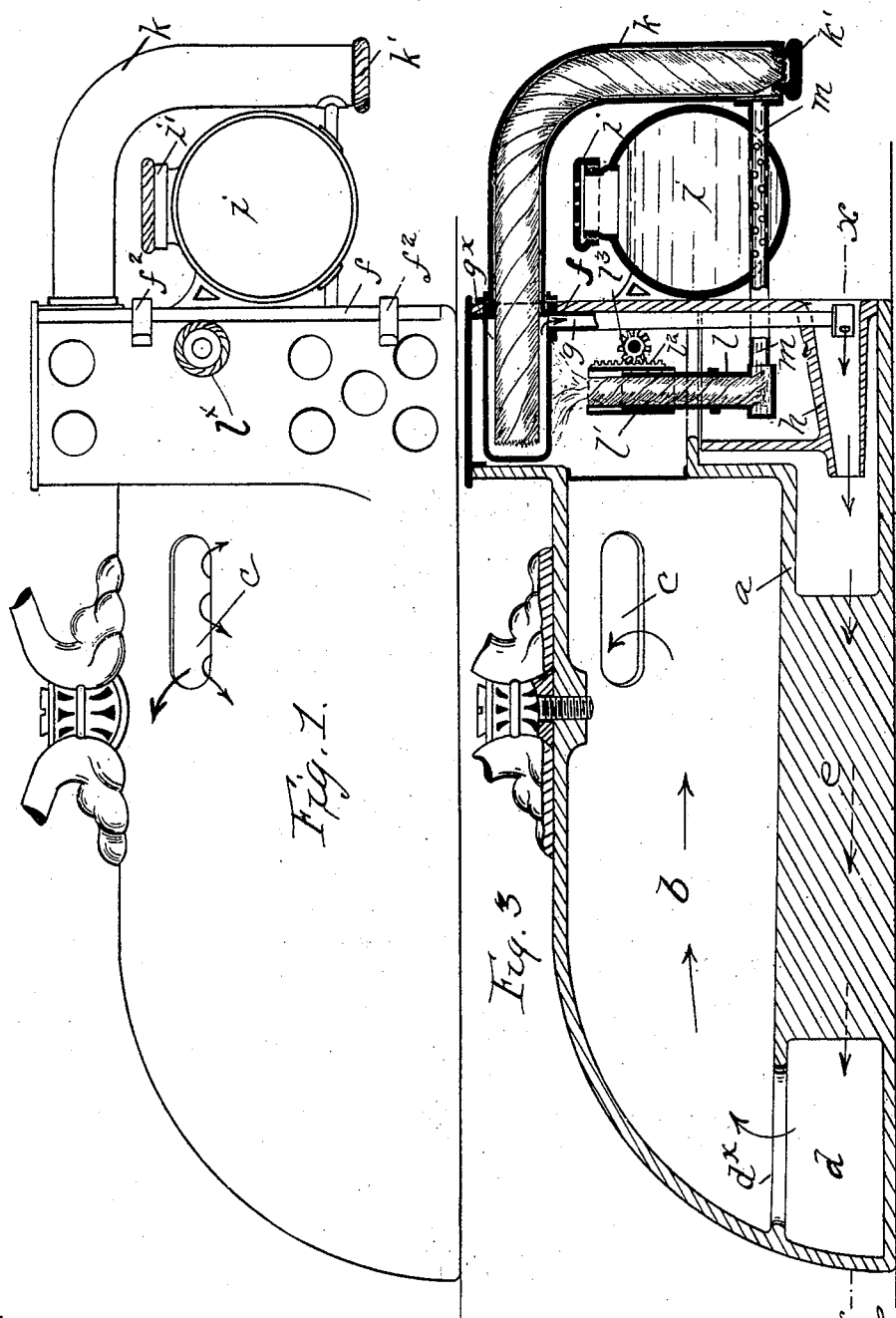
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2 Sheets—Sheet 1.

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SMOOTHING IRON.

No. 581,248.

Patented Apr. 20, 1897.



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Attorneys

UNITED STATES PATENT OFFICE.

JOSEF FELDMEYER, OF WÜRZBURG, GERMANY, ASSIGNOR OF ONE-HALF
TO GEORG HESSDÖRFER, OF SAME PLACE.

SMOOTHING-IRON.

SPECIFICATION forming part of Letters Patent No. 581,248, dated April 20, 1897.

Application filed December 19, 1895. Serial No. 572,617. (No model.) Patented in Austria July 25, 1895, No. 45/2,661; in Hungary July 31, 1895, No. 3,301; in Belgium July 31, 1895, No. 116,598, and in Germany October 3, 1895, No. 84,372.

To all whom it may concern:

Be it known that I, JOSEF FELDMEYER, painter, a subject of the King of Bavaria, residing at Herzogenstrasse 3, Würzburg, Germany, have invented certain new and useful Improvements in Smoothing-Irons, of which the following is a specification.

The invention has been patented in Austria, No. 45/2,661, dated July 25, 1895; in Hungary, No. 3,301, dated July 31, 1895; in Belgium, No. 116,598, dated July 31, 1895, and in Germany, No. 84,372, dated October 3, 1895.

My invention relates particularly to heating the iron by means of a gas-jet, the gas being generated in a gas-chamber by means of a supply of fluid contained in a reservoir connected with the iron.

In the drawings, Figure 1 is a side view of the invention; Fig. 2, an end view; Fig. 3, a central vertical section from end to end; Fig. 4, a horizontal section on line *xx* of Fig. 3, and Fig. 5 a sectional detail view of the burner.

The iron is substantially of the ordinary shape. It has, however, a nozzle *h* at one end, directed inwardly, through which the mixed air and gas is fed to the interior of the iron and in line with passages *dd*, extending along the opposite sides of the iron and along the bottom thereof, said passages being on opposite sides of a central web *e*. The nozzle is flared, as shown in Fig. 4, and its rear end opens to the outside to draw in the outer air. The flame plays along the passages *dd*, being divided by the central web *e*, and the heat and flame pass from the passages *dd* up through an opening *d'*, Fig. 3, into the main chamber of the iron at *b* and thence out at the discharge-openings *c*. A circuitous passage is formed in this way to secure the maximum heating effect.

The heating-chamber or passages *dd* have two strengthening-ribs *d'*, one on each side, and the flame plays against these and against the central web *e*, and through these the heat is transmitted to the bottom of the iron. At the end of the iron a door *f* is hinged at *f'*, clips or fastening devices being provided at *f''*, which are of spring form, as shown in dot-

ted lines in Fig. 4, to clasp the edge of the iron. This door carries the gas-tube *g*, extending downwardly and ending in a perforated head located in the nozzle *h*, so that the gas issuing from these perforations and being ignited produces a broad horizontal flame, air being drawn in to mix with the gas and produce a flame of intense heating power. This door closes a vertical chamber at the rear of the iron, outside of which the reservoir is placed. In the lower part of said chamber the main nozzle is located, while the wick-tube from the reservoir extends into the upper part of the chamber and the supplemental burner and vapor-pipe extend vertically therein. These parts will now be described. The fluid from which the gas is formed is held in a reservoir *i*, supported on a tube *m*, extending through the door at the rear end of the iron, said tube extending through the bottom of the reservoir and being perforated to receive the fluid therefrom. At the rear end of this perforated tube a wick-tube *k* extends upward over the reservoir and terminates in a chamber *g'* at the rear of the iron, with which the gas-pipe *g* communicates. The reservoir has a perforated screw-cap *i'*, and the wick-tube has a screw-cap *k'* at its lower end to allow of the adjustment of the wick. The pipe *m* also extends into the rear chamber of the iron, and at its inner end an upright burner *l* is fitted having a wick which is fed with fluid through the tube *m*, said burner being directed against the chamber *g'*.

The size of the flame from the burner *l* may be regulated by the means shown in Figs. 3 and 5, consisting of a shell *l'*, having a rack *l''* thereon, into which meshes a pinion *l'''*, operated from the outside by a suitable handle *l''''*, Fig. 1. The tube *m*, it will be noticed, feeds both the main wick in tube *k* and the supplemental wick of the burner, and the tube *k*, it will be noticed, extends over and down in rear of the reservoir *i*, being connected thereto, not directly, but only through the tube *m*. By this arrangement heating of the wick-tube *k* will not affect the production of gas by heating the reservoir.

The action of the device will be clear, the burner *l* producing a flame which heats the

chamber g^x and vaporizes the fluid drawn up by the wick in the tube k , and this gas passes to the nozzle h through the gas-pipe g . It will be seen that the wick-tube k and burner l are so arranged as to require the fluid to be raised above the liquid-level. I prefer to use alcohol as the burning fluid.

I claim as my invention—

1. In combination with a sad-iron, means for heating the same comprising a fluid-reservoir arranged outside of the iron, a wick-tube connected therewith and containing a wick, a burner-tube having a wick and also connected with the reservoir, the said burner being directed toward the wick-tube to vaporize the fluid therein, and means for conveying the gas into the interior of the iron, including a main burner-nozzle and a pipe for conveying the vapor from the wick-tube to said main burner-nozzle, substantially as described.

2. In combination with a sad-iron, means for heating the same, consisting of the fluid-reservoir arranged outside of the iron, the perforated pipe m extending through the same from front to rear, the wick-tube k leading from one end of said perforated pipe, and containing a wick, the supplemental burner-tube leading from the other end of the perforated pipe m , and directed toward the wick-tube k and means for conveying the gas generated in the wick-tube to the interior of the iron, including a main burner-nozzle, substantially as described.

3. In combination with a sad-iron, means for heating the same, comprising a reservoir arranged outside of the iron, the nozzle h , the

elevated wick-tube k carrying a wick, the supplemental burner-tube l also connected with the reservoir and directed toward the wick-tube and the tube g extending from the wick-tube downwardly to the nozzle h , arranged at the lower part of the iron, the said supplemental burner-tube and the upper inner end of the wick-tube being arranged in a chamber at the rear of the iron and above the main burner-nozzle.

4. In combination, the iron having a chamber therein to receive the heat and having a rear chamber extending vertically, the reservoir arranged at the rear of said iron, a wick-tube extending up from said reservoir, and having its end projecting into the upper part of the vertical rear chamber, the supplemental burner directed upwardly within the rear chamber toward the end of the wick-tube, the burner-nozzle at the lower part of the iron and the tube g extending vertically in the rear chamber from the wick-tube to the burner-nozzle, substantially as described.

5. In combination in a sad-iron, the body portion, having the rear chamber, the door f inclosing the same, and the heating means comprising the reservoir, the wick-tube k , the burner l connected with the reservoir, through the door, the nozzle h and the conduit g for conveying the gas from the wick-tube to the interior of the iron, substantially as described.

Signed at Frankfort-on-the-Main, Empire of Germany, this 18th day of November, 1895.

JOSEF FELDMEYER.

Witnesses:

GEORG HESSDÖRFER,
JEAN GRUND.