Nov. 4, 1924. 1,514,074

E. BARTH

ELECTRIC SMOOTHING IRON

Filed Sept. 24, 1921

Fig. 1.

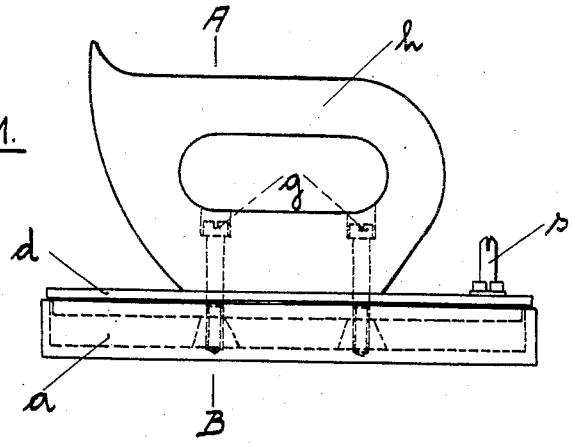


Fig. 2.

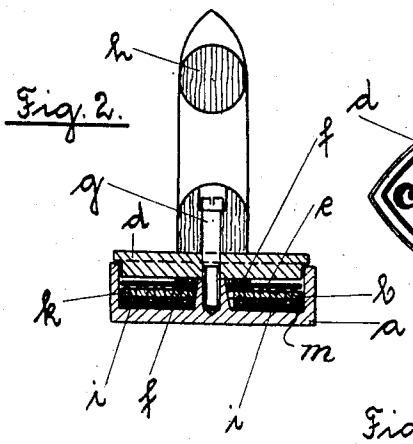


Fig. 3.

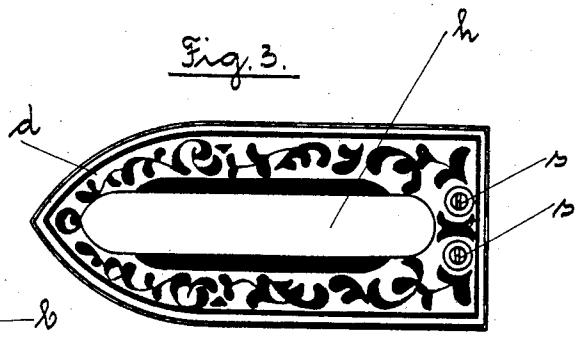
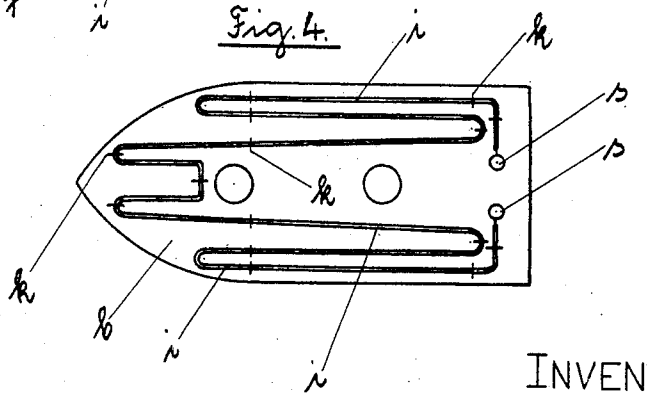


Fig. 4.



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UNITED STATES PATENT OFFICE.

EMIL BARTH, OF STUTTGART-OSTHEIM, GERMANY.

ELECTRIC SMOOTHING IRON.

Application filed September 24, 1921. Serial No. 502,964.

To all whom it may concern:

Be it known that I, EMIL BARTH, a citizen of Germany, residing at Stuttgart-Ostheim, Germany, have invented certain new and useful Improvements in Electric Smoothing Irons, of which the following is a specification.

My invention relates to electrically heated smoothing irons and its particular object is an appliance of this kind, in which the heat radiated by the heaters is prevented from excessively heating the upper portion of the iron and is deviated towards the working surface of the iron. This result is attained in a more perfect manner than in hitherto known construction, in which an air-space is provided between the heating body and the cover plate and in which the upper portion of the smoothing iron is made of a bad conductor of heat, by arranging in the air-space above the heating resistance and its refractory covering a metallic mirror which reflects the upwards directed heat rays downwards, furthermore by so constructing and arranging the heater that it transmits its heat as directly as possible to the surface to be heated and finally by making the covering plate of the smoothing-iron not of metal (cast iron) as heretofore, but of refractory heat-isolating material, for instance earthenware, porcelain, steatite, chamotte and the like.

In the drawing affixed to this specification and forming part thereof a device embodying my invention is illustrated by way of example. In the drawings—

Fig. 1 is a side elevation,

Fig. 2 a cross-section along line A—B of Fig. 1.

Fig. 3 a plan showing the cover plate and

Fig. 4 an inverted plan of the heater body with the resistance cord not yet embedded.

Referring to the drawings the casing *a* is made of cast-iron the outer surface of which is ground smooth.

Inside the casing directly upon the rough bottom of the iron there is disposed a body *b* consisting of refractory insulating material, on the underside of which, if desired in suitably arranged grooves, the heating wire *i* (wound on resistance cord) is fixed, for instance by aid of wire loops *k*. The resistance wires are embedded in refractory insulating material *m* spread over them, which fills up the spaces between the wires but only covers the outer surfaces of the wires with a very thin layer.

The cover or upper portion *d* of the smoothing iron consists of ceramic material, like earthenware, chamotte, porcelain or the like with polished surfaces. The upper face may be provided with some decoration pattern.

Inside the smoothing-iron between the heater and the cover there is inserted a mirror *e* of metal or some other suitable material in such a manner that there is an air-space left below and above it. This mirror serves to reflect the upwards directed rays of heat downwards, thus prevents them from heating the upper portion of the iron and causes them to still further heat the lower portion. Plates or strips *f* maintain the mirror in the correct position. The smoothing-iron is assembled by means of screws *g*, which at the same time hold the handle in position. Current is supplied by way of split contact pins *s*.

I claim:

In a sad-iron, the combination with a closed casing, of an electric heating element therein comprising a support, heating wires on the support, refractory material for covering said wires and isolating the same from the lower wall of the casing, a mirror interposed between the heating element and the upper wall of the casing, the upper wall being composed of refractory material, a handle attached to the upper wall, a free air space substantially surrounding the mirror and the mirror being out of contact with the upper wall, whereby to minimize the heating effect of the heating element on the handle.

In testimony whereof I affix my signature.

EMIL BARTH.

Witness:
E. SCHLEICHER.