

(No Model.)

J. L. SHARP & J. D. LUTHER.

SAD IRON.

No. 381,434.

Patented Apr. 17, 1888.

Fig. 1.

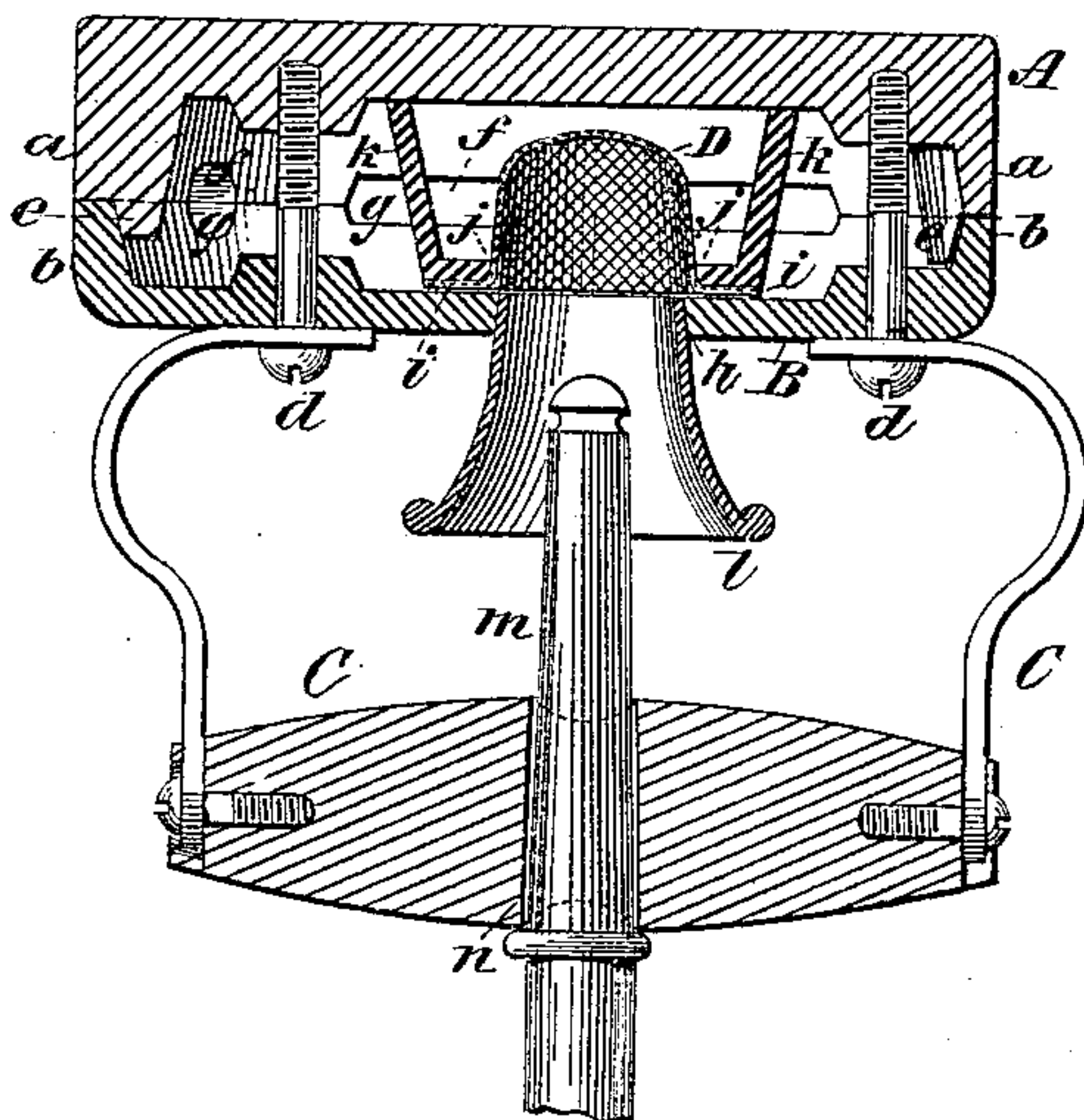


Fig. 2.

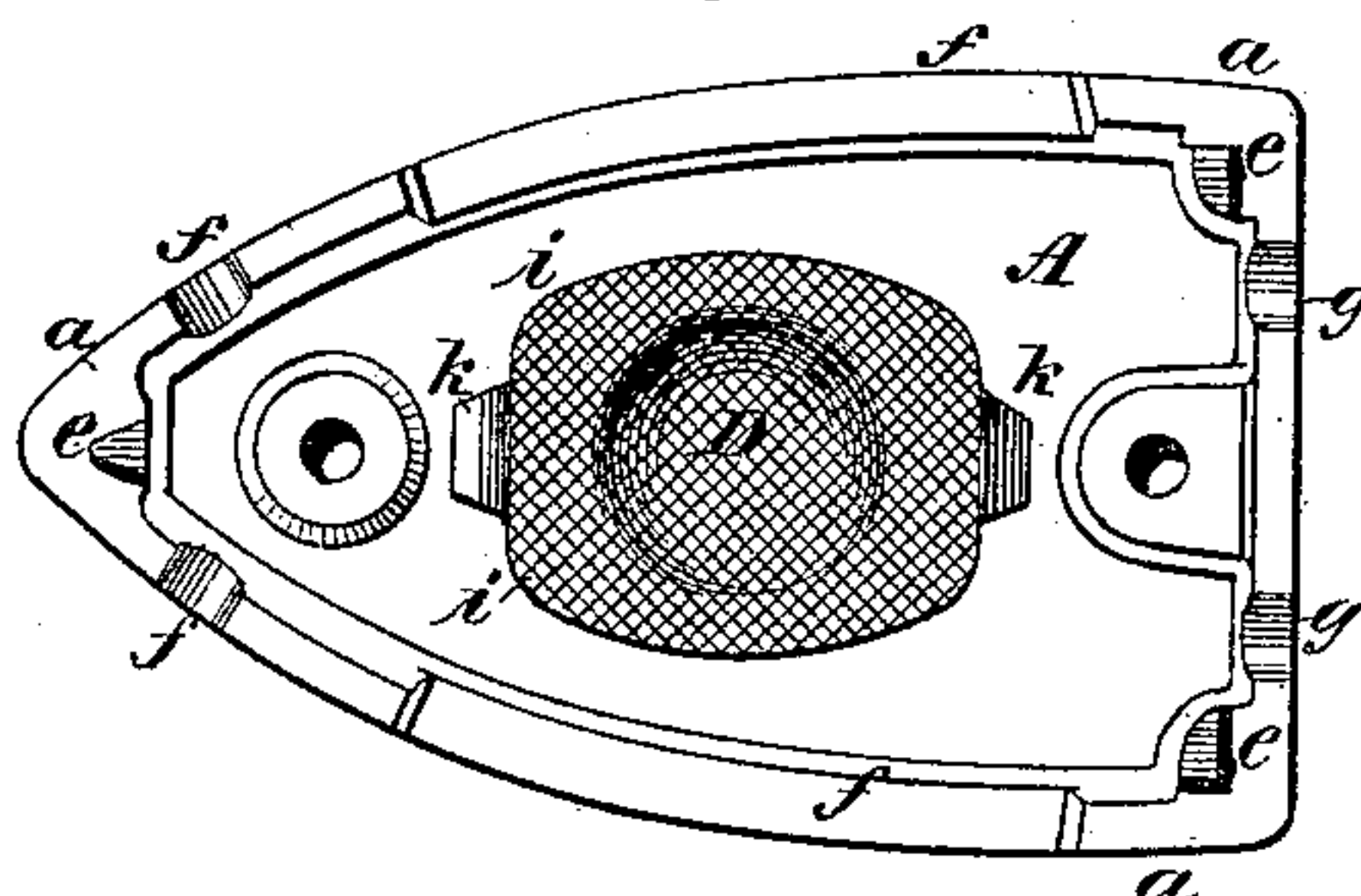


Fig. 4.

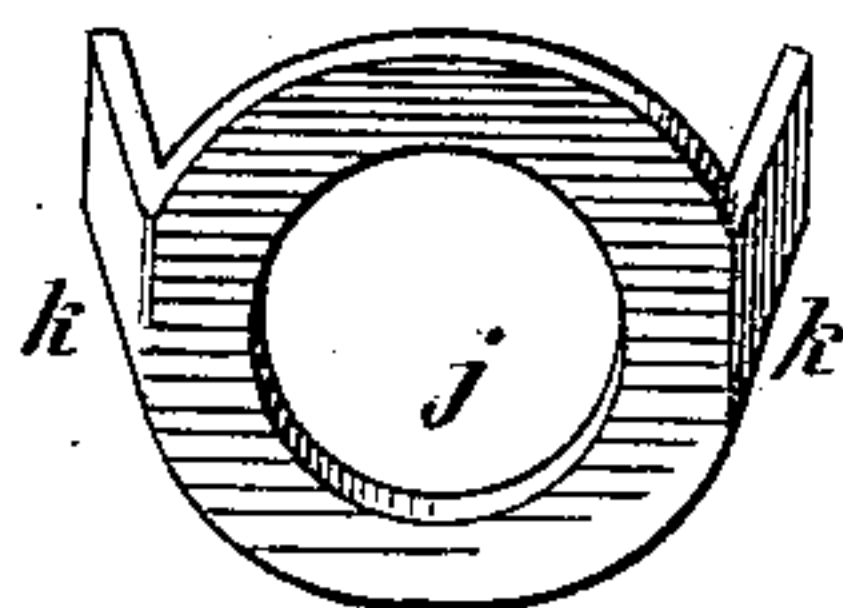
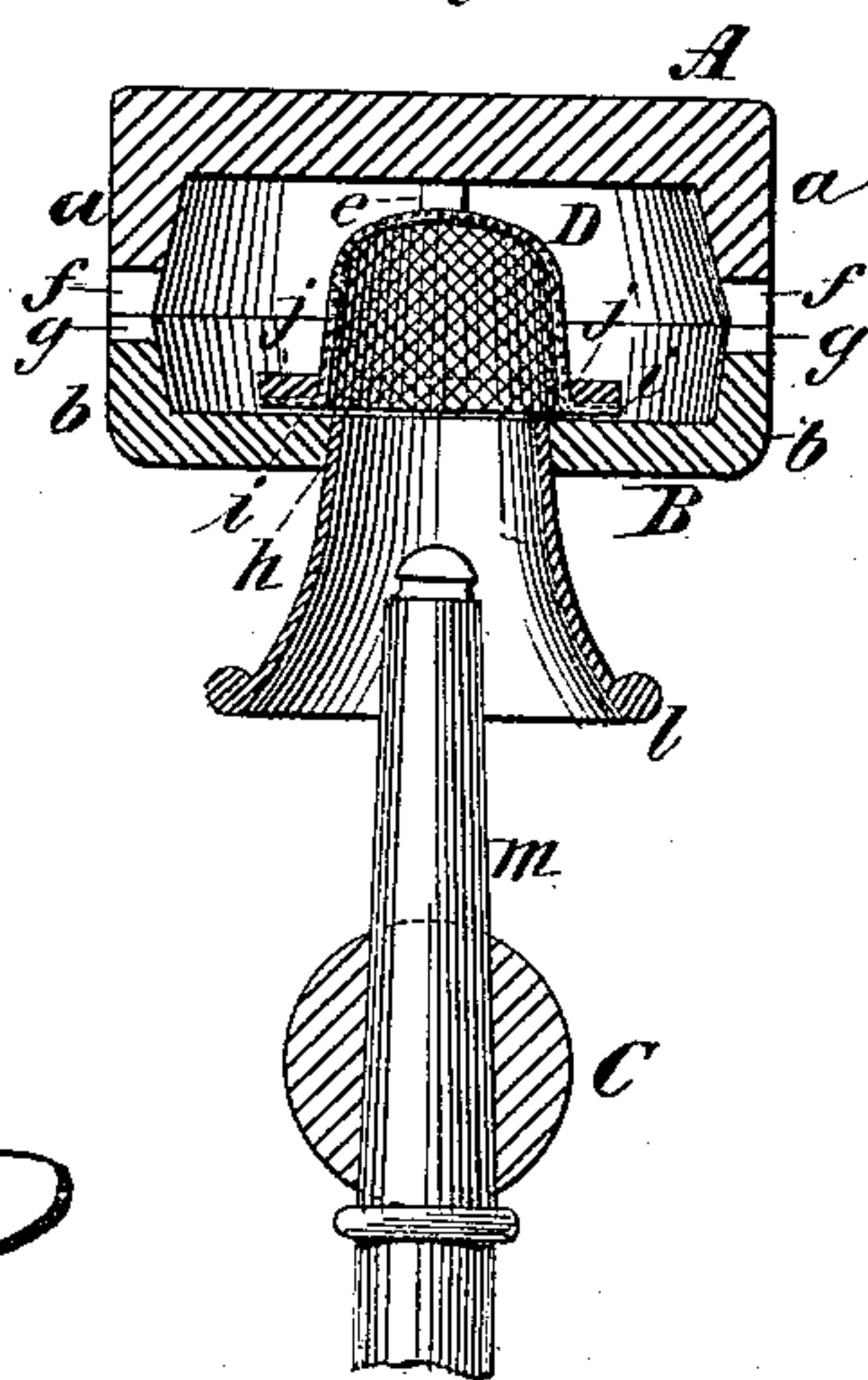


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## SAD-IRON.

SPECIFICATION forming part of Letters Patent No. 381,434, dated April 17, 1888.

Application filed July 5, 1887. Serial No. 243,311. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES L. SHARP and JAMES D. LUTHER, residing, respectively, at the city, county, and State of New York, and  
5 at Brooklyn, Kings county, New York, have invented a new and Improved Sad-Iron, of which the following is a full, clear, and exact description.

The object of our invention is to provide a  
10 sad-iron which can be heated by means of the gas issuing from an ordinary gas tip or burner without blackening the polishing-face of the iron with soot.

The invention consists in a wire-gauze or  
15 perforated metal cup carried within the hollow body of the sad-iron in line with an opening in the iron and at a distance from the top plate of said body. Gas and air enter the perforated cup and the iron through said opening,  
20 ing, and when ignited will burn on said cup, the flame also spreading within the iron. The iron-body is made in two sections and has a number of openings in the sides to let the products of combustion escape.

25 The invention further consists in details of construction and combinations of parts, as will be more fully hereinafter set forth.

Reference is to be had to the accompanying drawings, forming part of this specification,  
30 in which—

Figure 1 is a longitudinal vertical section of a sad-iron provided with our improvements, and shown in position on an ordinary gas-burner. Fig. 2 is an inverted plan view of  
35 the upper plate of the sad-iron, showing our improved cup in position. Fig. 3 is a central vertical cross-sectional view of the sad-iron, shown in position on an ordinary gas-burner; and Fig. 4 is a perspective view of a ring used  
40 to support our improved perforated cup within the iron-body.

The body portion of our sad-iron consists of the two plates or sections A and B. These plates A and B have rims *a* and *b*, respectively, which register when the two plates are  
45 brought together, thereby leaving a hollow on the inside of the iron. The plates A and B are held together preferably by screws *d d*, as

shown. The screws *d d* or other fasteners also serve to hold a handle, C, in position on the  
50 plate B. One of the plates, A or B, carries a number of lugs, *e e*, which project into the angles formed by the rim of the opposite plate. This holds the two plates A B in relative positions and prevents sidewise movement of  
55 one plate upon the other. The flanges *a* and *b* have notches *f* and *g* in their edges, which may or may not register, and which form passages leading from the interior of the iron for the escape of the products of combustion. 60

The plate B has an opening, *h*, preferably near its center, leading into the interior of the iron.

Opposite the opening *h*, and within the hollow portion of the iron, we place the dome or  
65 other suitably-shaped perforated cup, D. The cup D has a flange, *i*, adjacent to its open end, which is adapted to bear upon the plate B. The cup D is held in position on the plate B by means of a ring, *j*, surrounding the same,  
70 which ring *j* has two or more legs, *k*, arranged to bear firmly against the inner side of the plate A. The cup D does not extend entirely to the plate A, but a space is left between it and the plate A, as shown, for the purpose 75 hereinafter stated.

The opening *h* is preferably provided with a funnel or tube, *l*, into which an ordinary tip or burner, *m*, may project. The funnel *l* is made larger in area than the burner *m*, so  
80 that air may enter the cup D along with the gas. The handle C is provided with a hole, *n*, through which the burner or tip *m* may pass to support the iron, as shown. When the gas is turned on to heat the iron, it first enters the  
85 funnel *l* or hole *h* from burner *m* and becomes mixed with a quantity of air. This mixture then passes into and through the perforated cup D within the iron. The mixture of air and gas is then lighted through the notches  
90 or openings *f* and *g*, and when so lighted the flame burns on the top and sides of the cup D and spreads within the iron, heating the same very quickly. The cup D, being at a distance  
95 from the plate A, insures the direct action of the flame upon the inner side of said plate.

The gas first being mixed with air, as before described, produces a blue flame within the iron, which prevents any deposit of soot.

Having now described our invention, what we claim is—

1. In a sad-iron, the flanged plates A and B, one of said plates having a gas-and-air inlet, in combination with the perforated cup D, and ring *j*, having legs *k*, for holding the cup D securely within the iron, substantially as described.

2. The plate A, having flange *a*, notched to form openings *f*, in combination with the plate B, perforated cup D, ring *j*, having legs *k*, and funnel *l*, as specified.

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Witnesses:

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