

No. 863,455.

PATENTED AUG. 13, 1907.

G. J. SCHNEIDER.
ELECTRIC SAD IRON.
APPLICATION FILED JULY 9, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

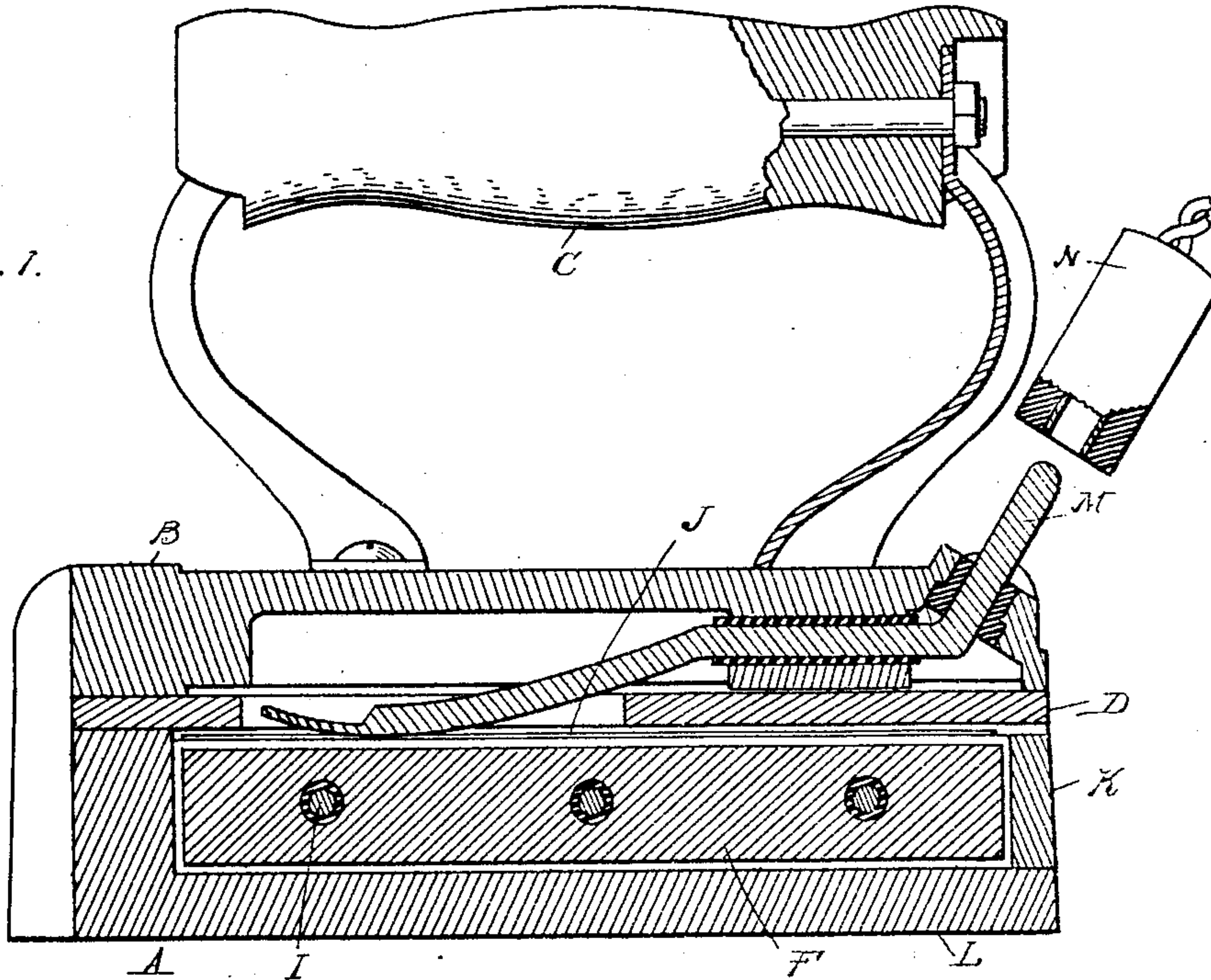
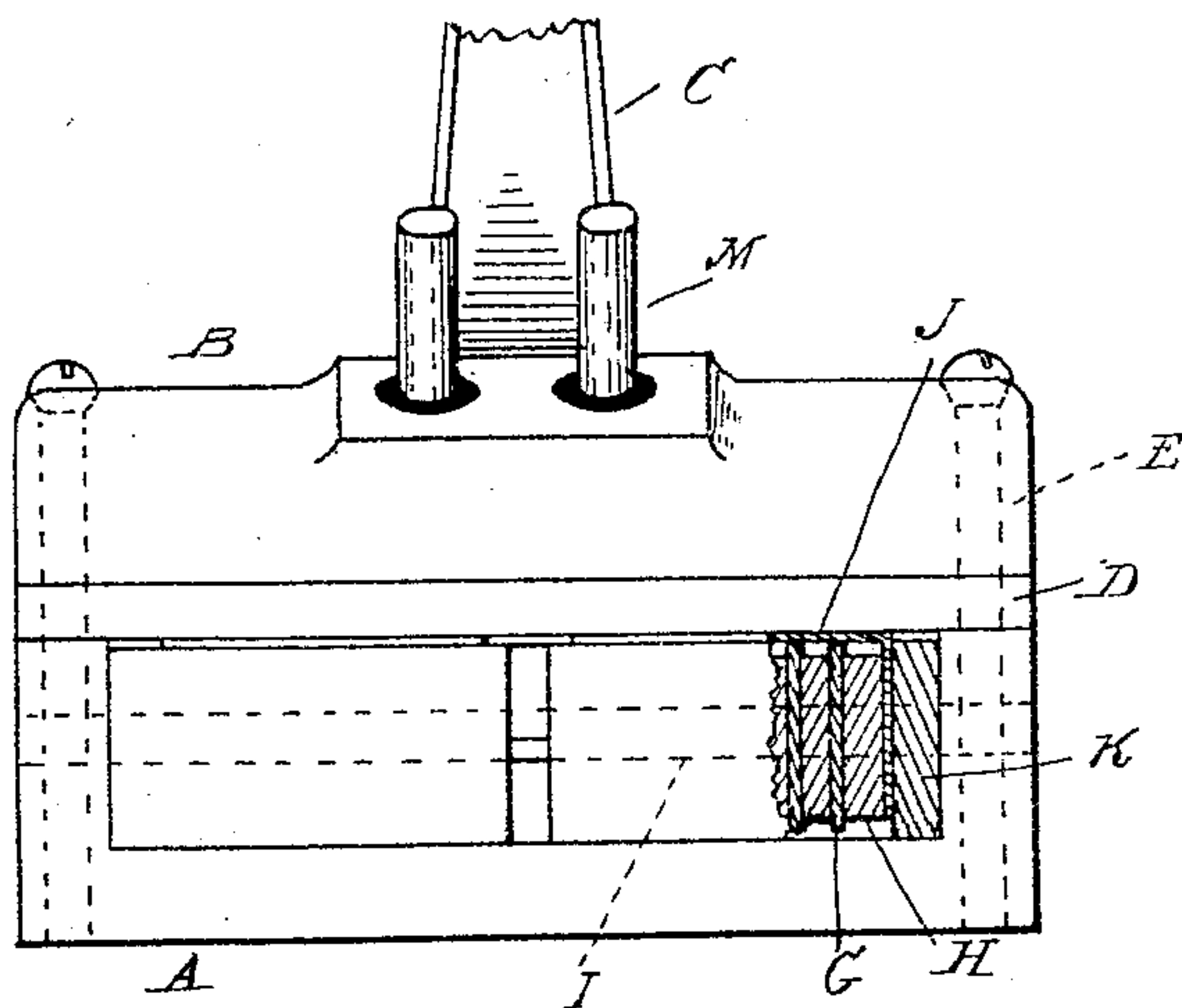


Fig. 3.



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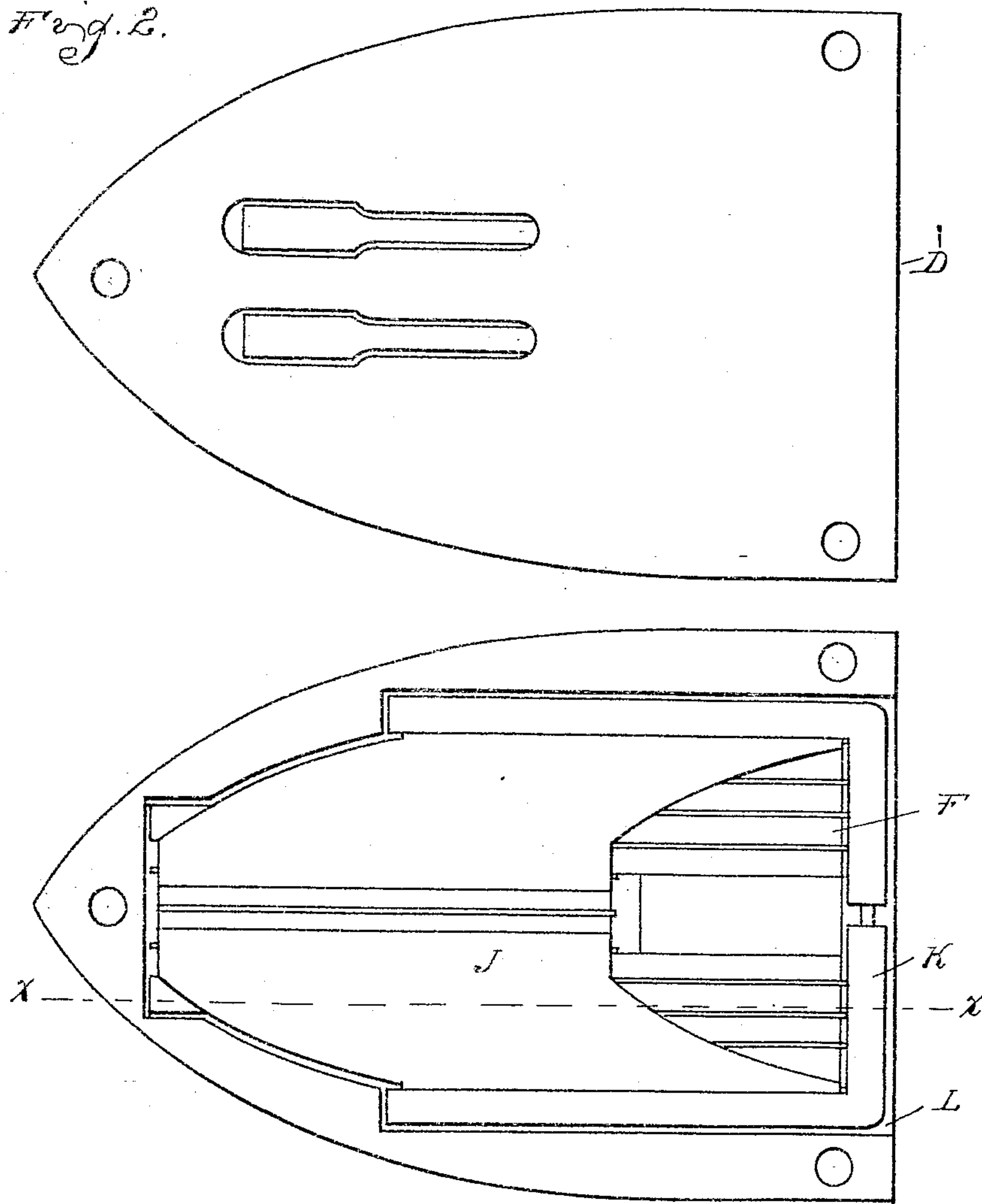
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2 SHEETS—SHEET 2.

Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE J. SCHNEIDER, OF DETROIT, MICHIGAN, ASSIGNOR TO AMERICAN ELECTRICAL
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ELECTRIC SAD-IRON.

No. 863,455.

Specification of Letters Patent.

Patented Aug. 13, 1907.

Application filed July 9, 1906. Serial No. 325,296.

To all whom it may concern:

Be it known that I, GEORGE J. SCHNEIDER, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Electric Sad-Irons, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to electric heaters and more particularly to electrically heated sad irons.

It is one of the objects of the invention to obtain a construction in which the heating element may be removed or replaced without dismantling or disconnecting parts of the case.

It is further the object to obtain a uniform distribution of the heat, and further to obtain a simple construction, as more fully hereinafter set forth.

In the drawings, Figure 1 is a section on line $x-x$, Fig. 2; Fig. 2 is a plan view of the top and bottom portions of the case detached showing the heating element in position; Fig. 3 is an end elevation.

The body or case is preferably formed of two sections A and B, the latter having secured thereto the handle section C. D is a heat insulator, such as a sheet of asbestos board placed between the sections A and B, which latter are secured to each other by suitable means, such as the screws E. The lower section A is recessed for the reception of the heating element, and this recess preferably extends to the rear end, so as to form an entering slot for the insertion or removal of said heating element.

F is the heating element, which is formed so as to enter the recess in the member A. The construction which I preferably employ comprises a series of alternately arranged resistance elements G and heat distributors H, which are clamped together by rods or bolts I, passing through the series. The resistance elements may be formed of one or more insulated thin metallic plates through which the current is passed, and the several elements are preferably connected in series through the medium of the intermediate heat distributors. The terminals are formed by sheet metal plates J, which are clamped in electrical connection with the resistances, and are bent to extend over the top of the series. The thickness of the element is preferably less than the depth of the recess in the member A and the heating element, and heat distributors are spaced from the bottom of the case, preferably by being supported on marginal strips K of greater depth.

Thus the heat generated in the heating element is communicated to the bottom L of the case largely by radiation, and only at the marginal portions of the plates is there heat conducting contact with the element.

The terminals on the case for cooperating with the terminal plates J are preferably formed of resilient rods M, which are located in a recess in the upper section B of the case, and are insulated from each other and the case. The ends of these rods are bent upward, and passed outward through the member B and form the terminals for coupling with a terminal plug N, to which the flexible cord is connected.

With a construction as described, the rods M project downward sufficiently into the recess in the member A so that when the heater F is inserted therein the terminal plates J will press against said rods M. Thus electrical connection will be established by the mere insertion of the element, and furthermore the tension of the resilient rods M will hold the element from displacement. If at any time the heating element burns out, it may be quickly removed and replaced without disconnecting the case or waiting for it to cool.

With the construction described, a very uniform distribution of heat is effected, for the reason that the generated heat in the resistances is first conducted to the distributors H, and then radiated from these distributors to the bottom L of the case. As heat radiation is slower than conduction, this will give an opportunity for the equalization of the heat in the element, and furthermore the marginal portions of the case, being in conducting contact with the element, will receive the heat more rapidly. This is advantageous, as the marginal portion of the case is being constantly cooled by radiation from the sides, and therefore requires more heat than the central portion.

What I claim as my invention is:

1. An electrical heater comprising a body having an open recess, a heating element insertible in the recess in said body, and resilient means for electrically coupling said element automatically upon its insertion.

2. An electrical heater comprising an open recessed body, a heating element insertible in said recess, and resilient terminals for electrically connecting said element, also constituting clamps for holding the element within the recess.

3. An electrically heated sad iron comprising a body having a recess open at the rear, a heating element insertible through said opening into said recess, and terminals carried by said body having resilient portions extending obliquely through said body for automatically connecting with said element.

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4. An electrically heated sad iron comprising a body formed of a recessed bottom member open at the rear, a top or cover member therefor, provided with a handle, resilient terminal connections mounted on said top member, 5 a heating element insertible in the recess in said body, and automatically coupling with said terminal connections, and supporting strips on the sides of said element of greater depth than the element, for the purpose described.
- 10 5. An electrical heater comprising a recessed body, and a heating element for insertion in said recess having heat

conducting contact with the body at the margins of the recess, and centrally spaced from said body to communicate its heat by radiation.

In testimony whereof I affix my signature in presence of two witnesses:

GEORGE J. SCHNEIDER.

Witnesses:

AMELIA WILLIAMS,
THOS. O'DONNELL.