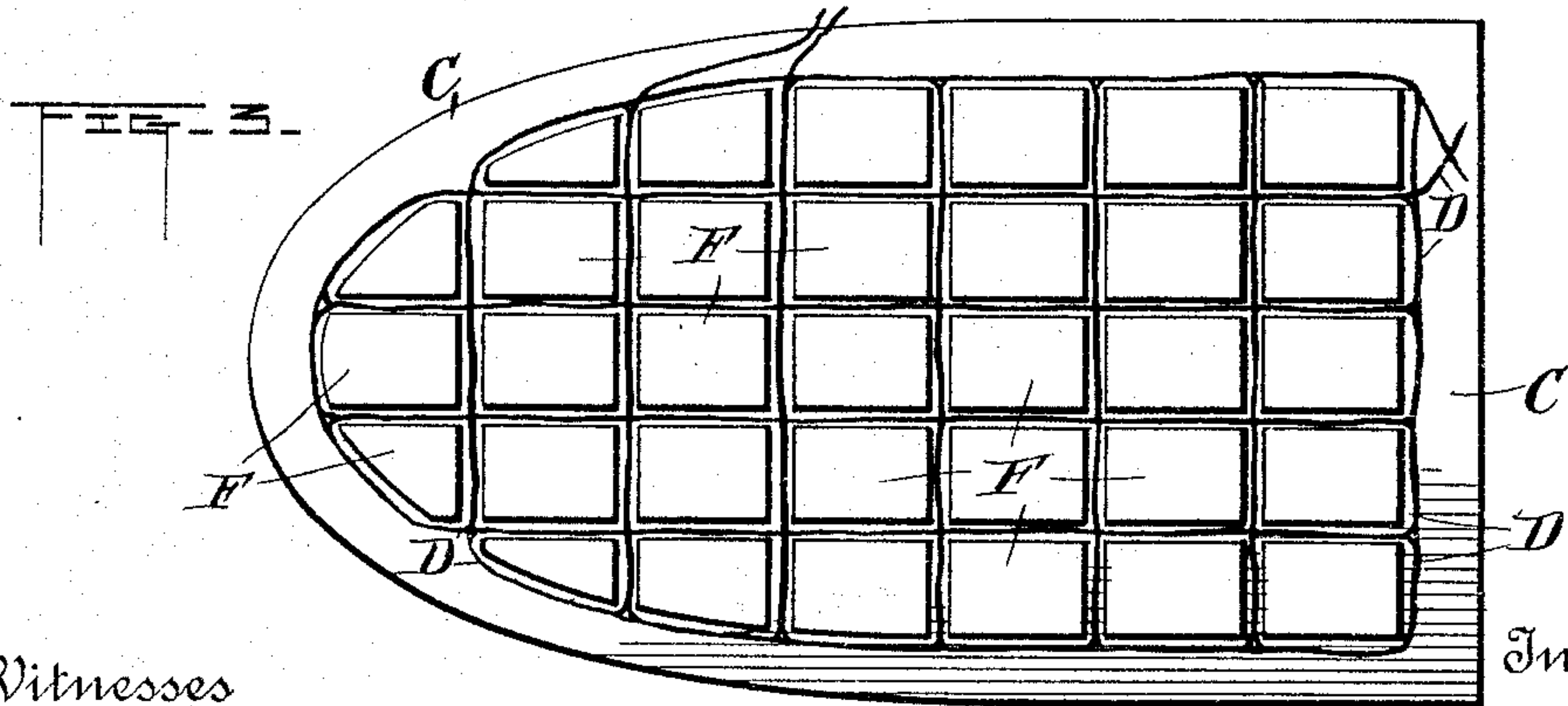
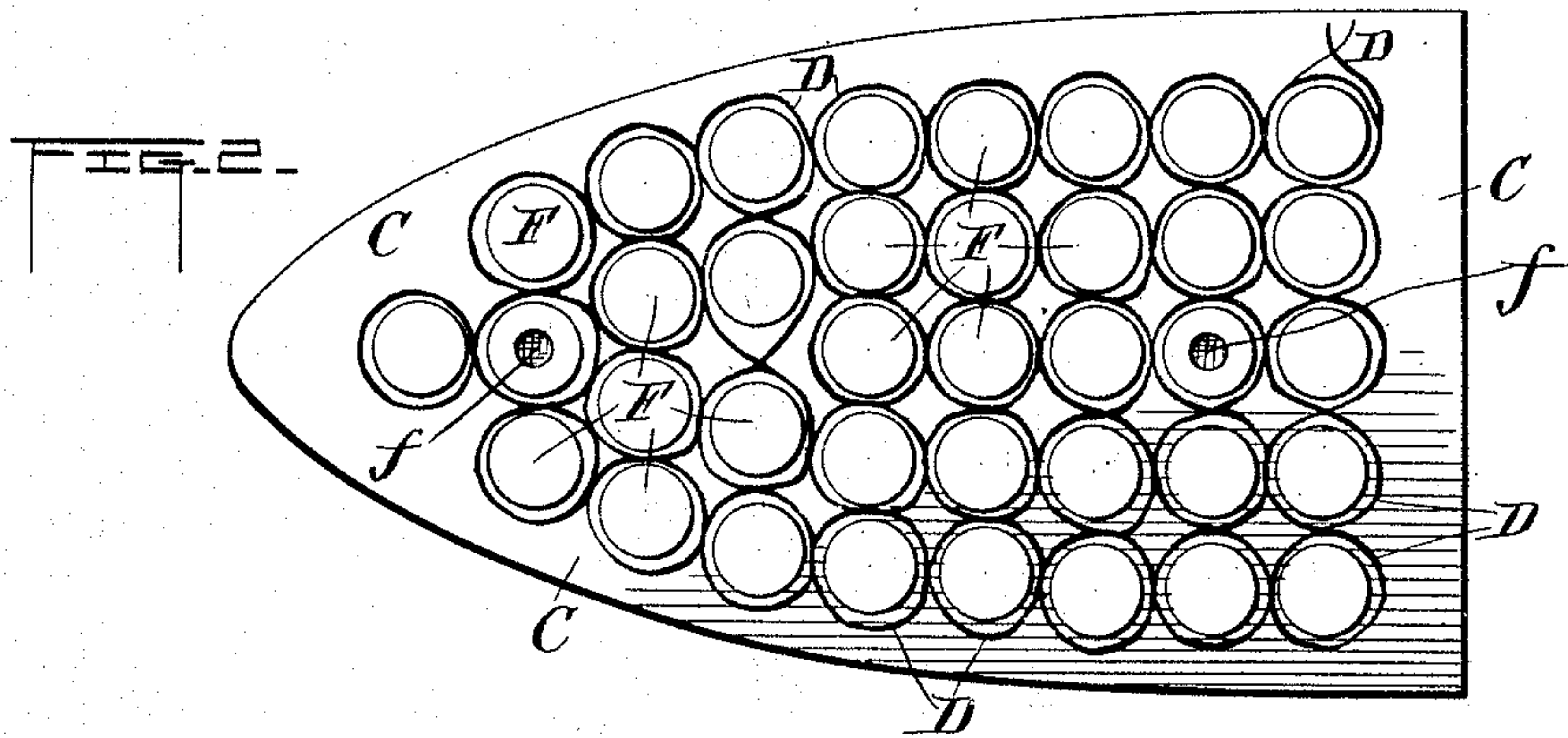
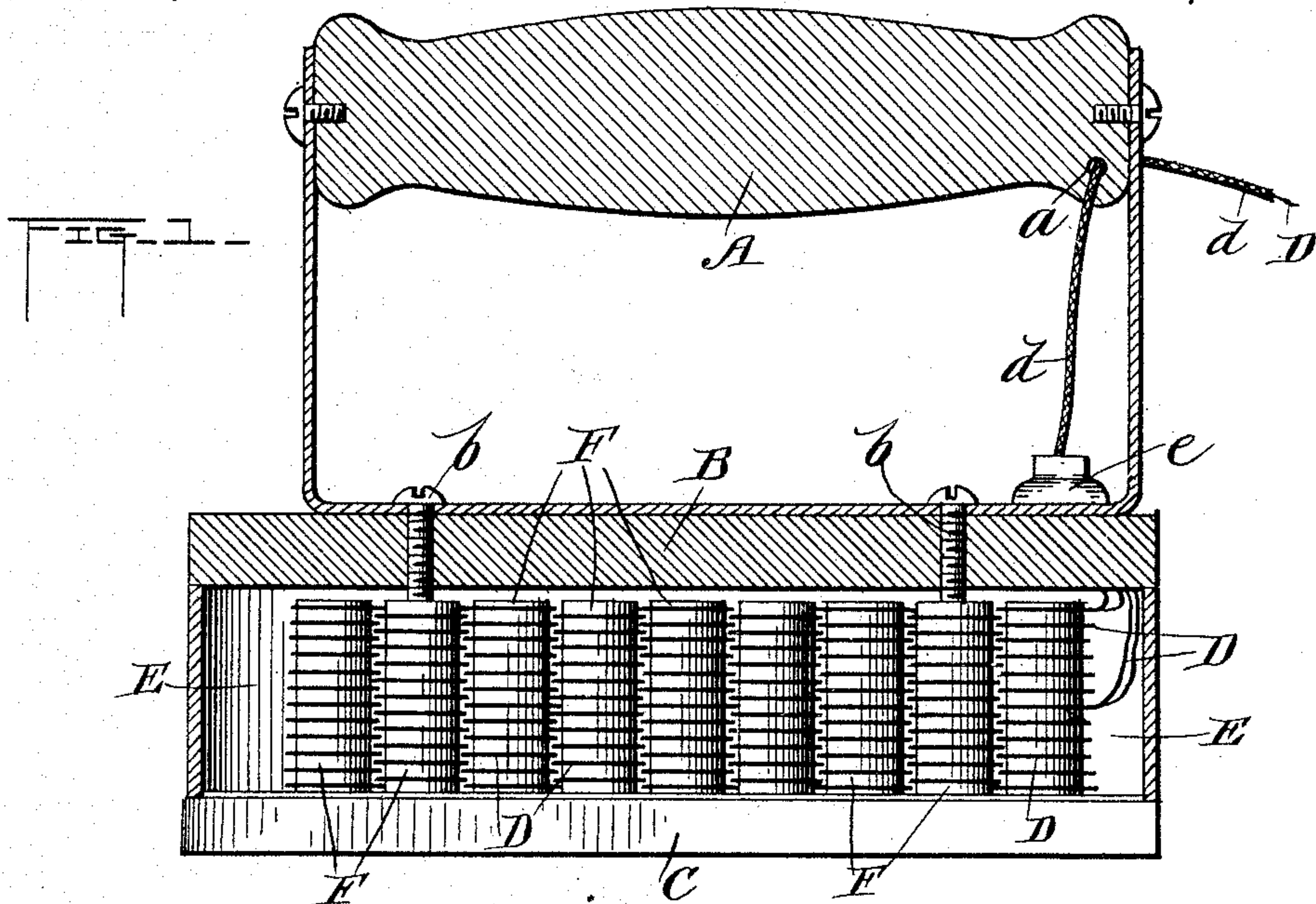


S. B. JENKINS.  
ELECTRICALLY HEATED SMOOTHING IRON.

No. 491,312.

Patented Feb. 7, 1893.



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FIG. 4.

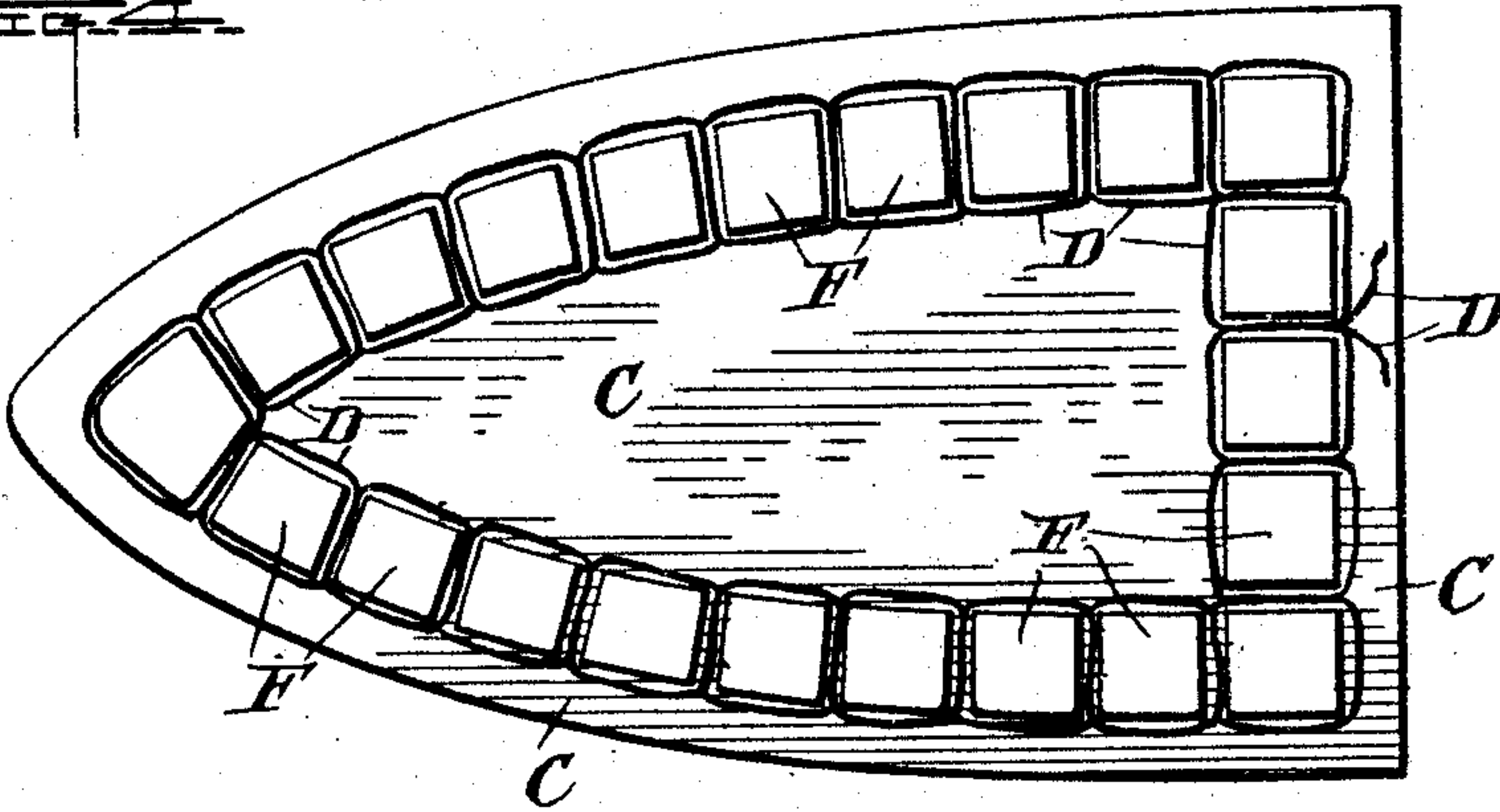


FIG. 5.

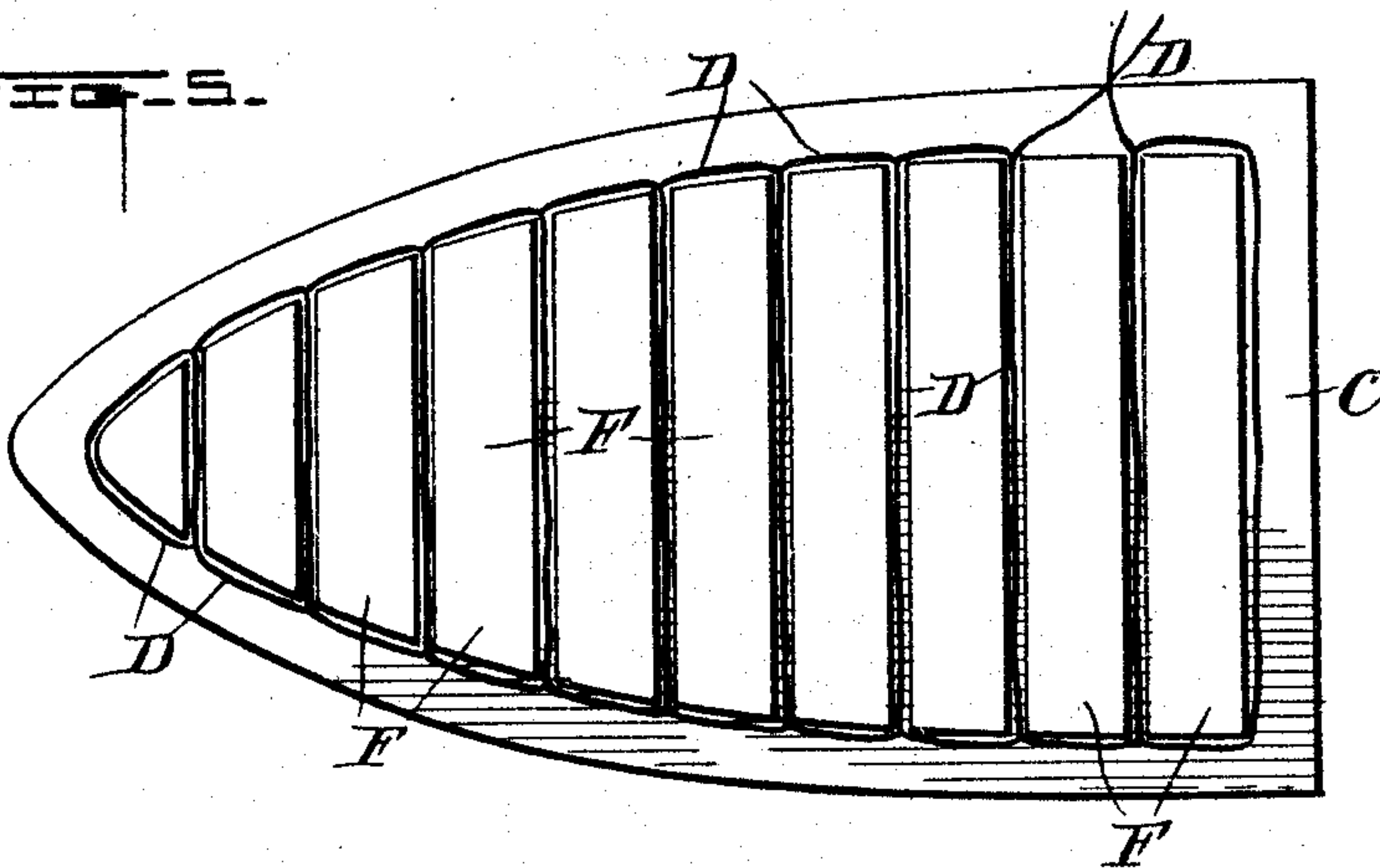
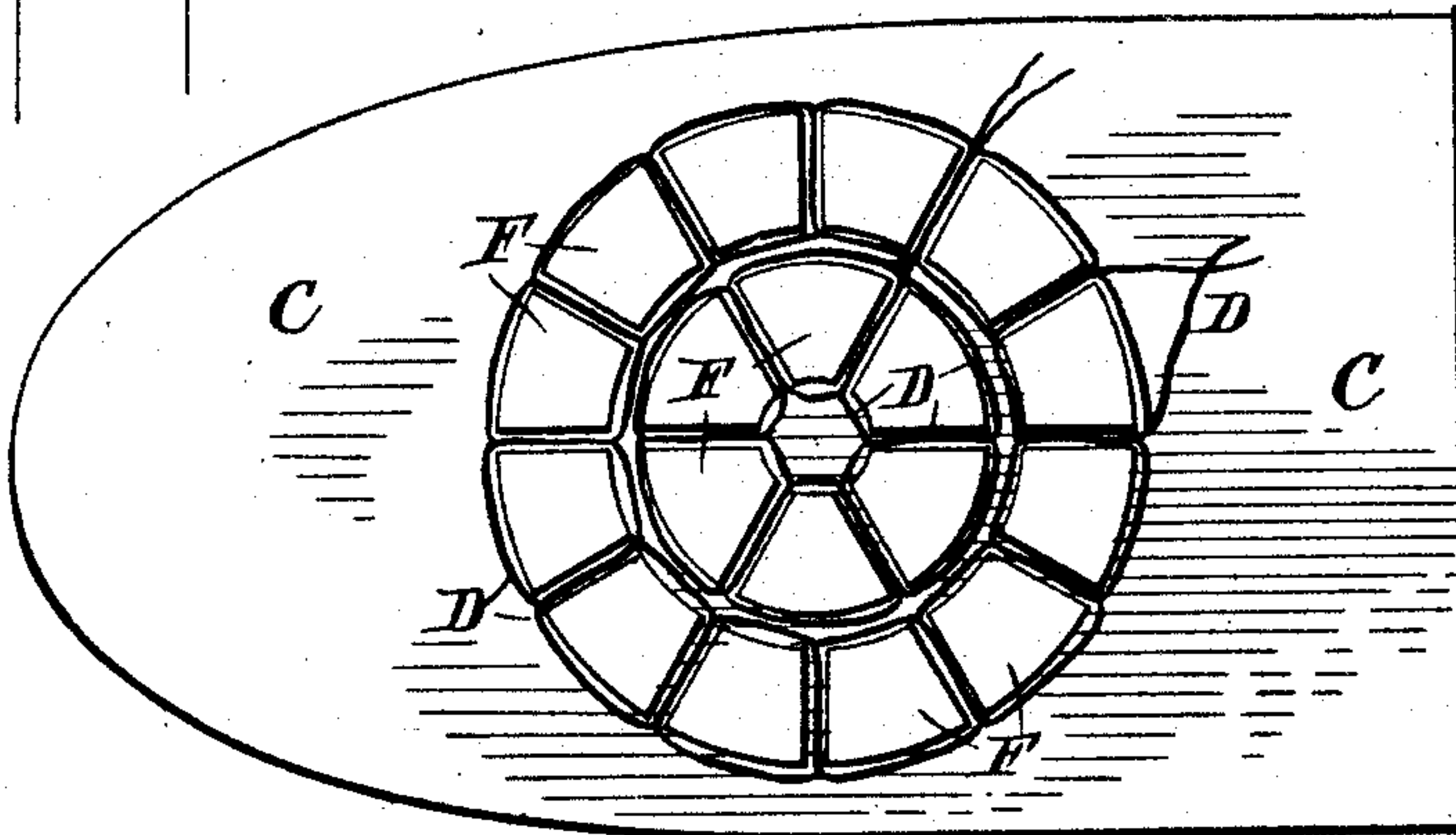


FIG. 6.



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# UNITED STATES PATENT OFFICE.

SAMUEL B. JENKINS, OF BOSTON, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE AMERICAN ELECTRIC HEATING COMPANY, OF SAME PLACE.

## ELECTRICALLY-HEATED SMOOTHING-IRON.

SPECIFICATION forming part of Letters Patent No. 491,312, dated February 7, 1893.

Application filed June 8, 1892. Serial No. 435,928. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL B. JENKINS, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Electric 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.

This invention has for its object to increase the efficiency and durability of electrically heated smoothing irons. It consists primarily in the combination of the bottom plate of such an iron having a series of bars or sub-cores raised thereon with a conductor of electricity woven between and around the said bars substantially as hereinafter more particularly set forth and claimed.

In the accompanying drawings Figure 1 represents a vertical longitudinal section of a smoothing iron for tailors or laundry use embodying my invention; Fig. 2 represents a plan view of the bottom-plate thereof; Figs. 3, 4, 5 and 6 represent similar views of other forms of the said plate.

A designates the handle of the iron, B the iron-body to which the said handle is fastened by screws *b*, C the bottom-plate which presents the heating and smoothing face to the articles which are to be ironed, and D the insulated heating wire the ends of which pass out of the chamber E, occupying the interior of said body, through an outlet *e* and are incased in a tube or covering *d* carried up through a guide-hole *a* of the said handle.

The bottom-plate C is provided with a series of raised integral bars or sub-cores F which may either be cast therewith in the form shown or cut or sawed from a solid upward extension of the said plate; both it and they being preferably of soft iron. Two of these bars have recesses *f* screw-tapped in their tops to receive the lower ends of the said screws thus fastening the said top plate in place. The said bars may be cylindrical as in Figs. 1 and 2 or square in cross-section as in Figs. 3 and 4 or may take as in Fig. 5 the shape that would be given by a series of parallel transverse cuts through a raised inner part conforming to the outline of the bottom

of the flat-iron. The said bars may also fill the entire space at the bottom of the chamber E as shown in Figs. 3 and 5, or constitute a mere border for it as in Fig. 4, or be arranged in concentric circles, as in Fig. 6, where also another (sectoral) form of bar is shown. Many other forms and arrangements may be adopted.

The wire is wound or woven from bar to bar as shown in the drawings or in any other convenient way not forming helices on the individual bars but passing from one to another, every part of the wire touching some one of the said bars so that the heat will be communicated to the bars and thence to the bottom plate as fast as generated. This will be true both of the heat of resistance and the heat of hysteresis due to the magnetic lag, the iron bottom-plate and its bars being magnetized by the passage of the electric current through the said wire and about the said bars or sub-cores as described. If the bottom-plate be of copper, of course this magnetic action will not occur; but its greater conductivity will be some compensation therefor.

The various shapes of bars, the weaving of the wire between and about them, and the general principle of operation are set forth in my application for Letters Patent on electric heaters and soldering iron of even date of execution herewith. I, therefore, do not broadly claim them herein.

A smoothing iron constructed as above will have a continuously and sufficiently heated bottom plate, capable of receiving and securely holding a great length of heating wire. The latter will not be liable to disarrangement nor to injury by overheating.

What I claim and desire to secure by Letters Patent is:

In an electrically heated smoothing iron the combination of a bottom plate having a series of bars or sub-cores raised thereon with a conductor of electricity woven between and about the said bars substantially as and for the purpose set forth.

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

SAMUEL B. JENKINS.

Witnesses:

EDWIN W. PIERCE,  
PELATIAH R. TRIPP.