(No Model.)

G. S. PIERCE & J. T. SNYDER.

SAD IRON.

No. 365,095. Patented June 21, 1887.

Fig. 1.

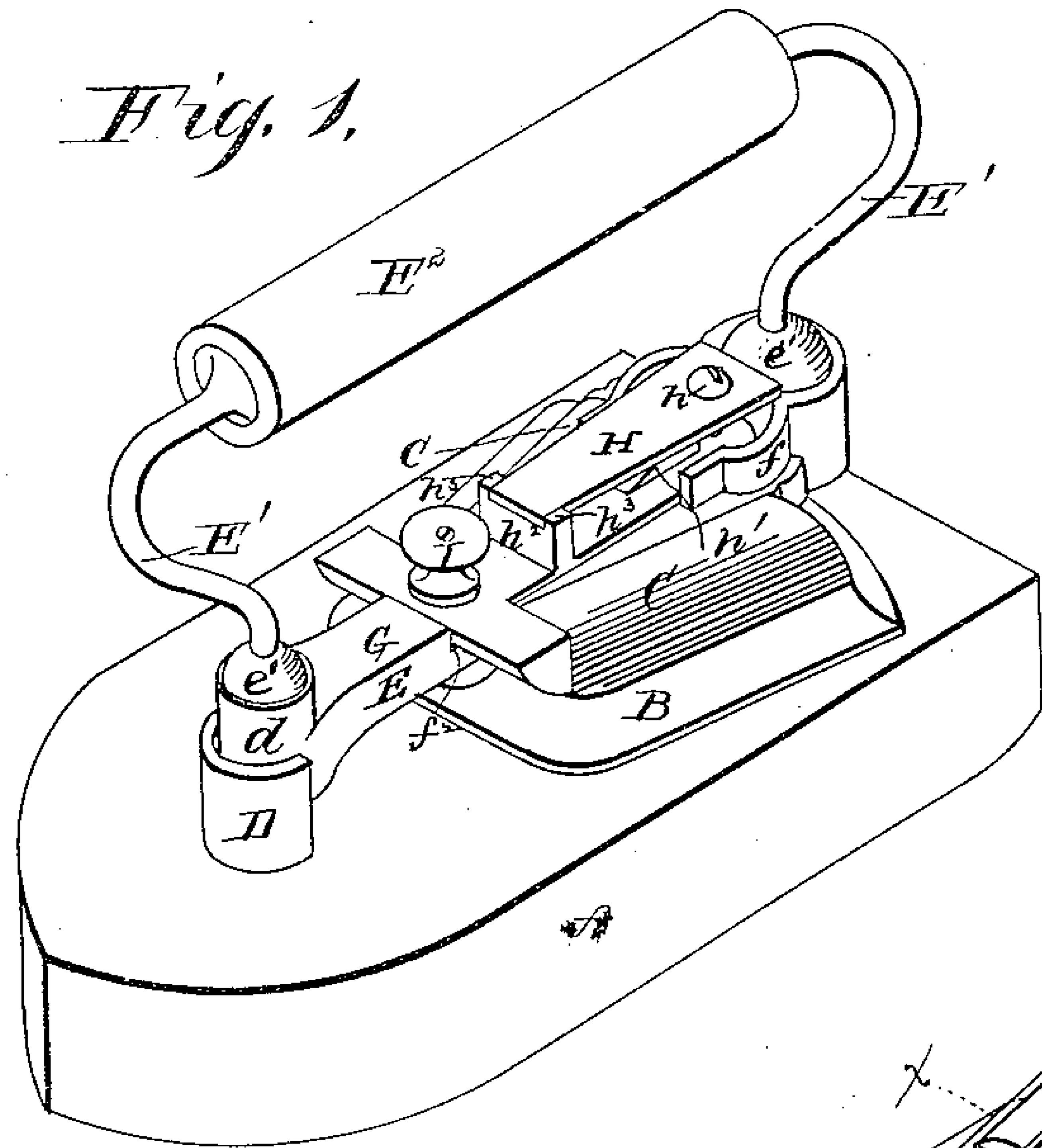


Fig. 3.

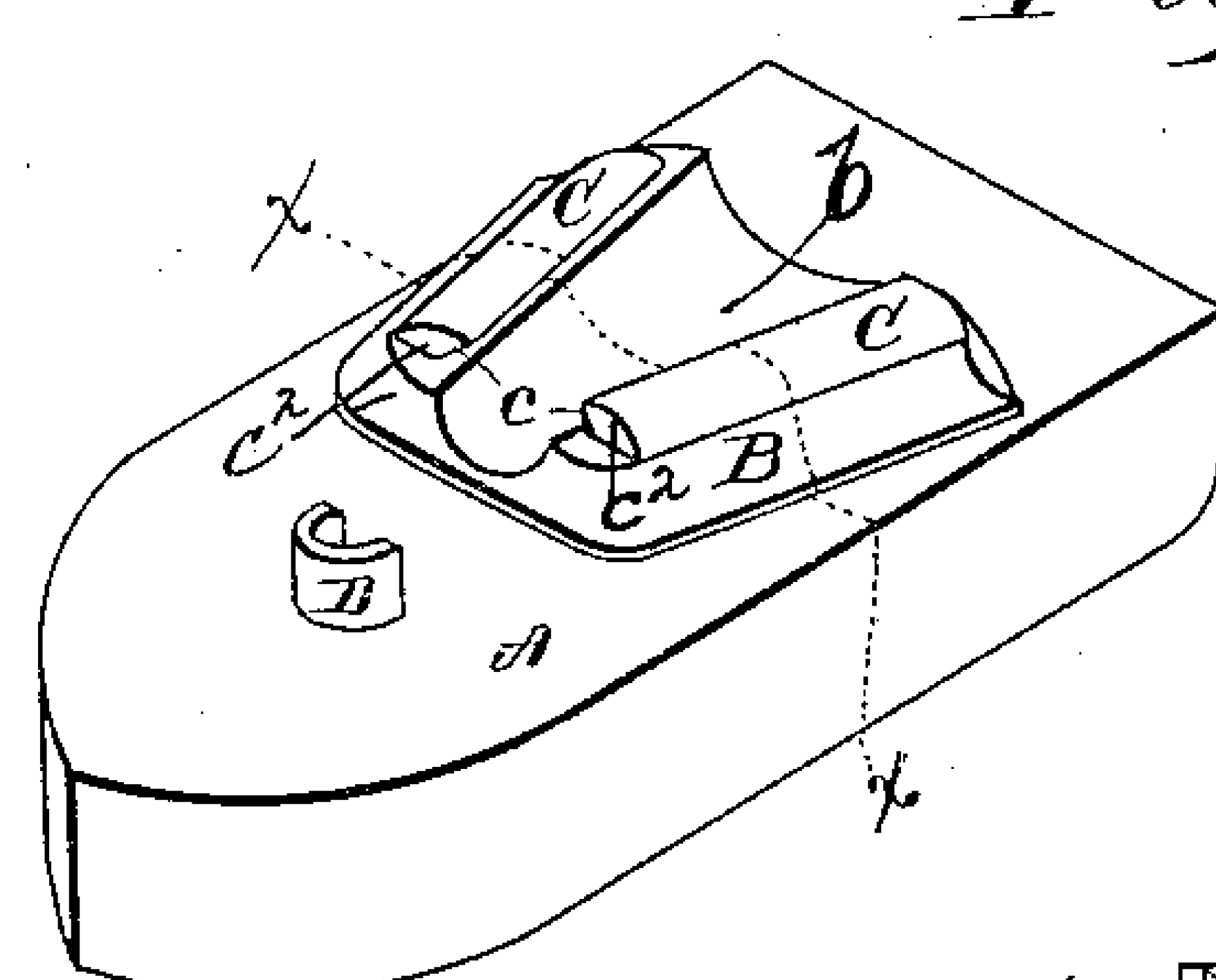


Fig. 4.

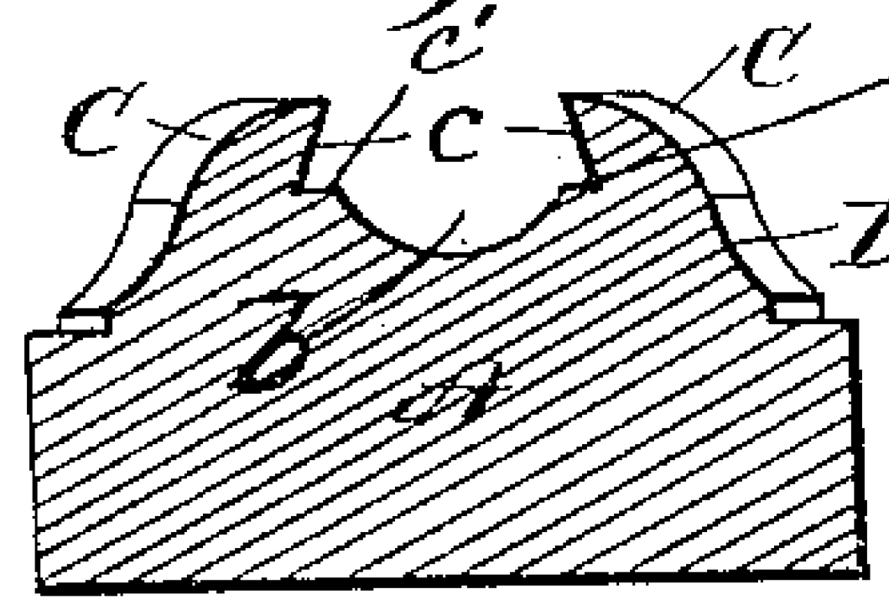


Fig. 6.

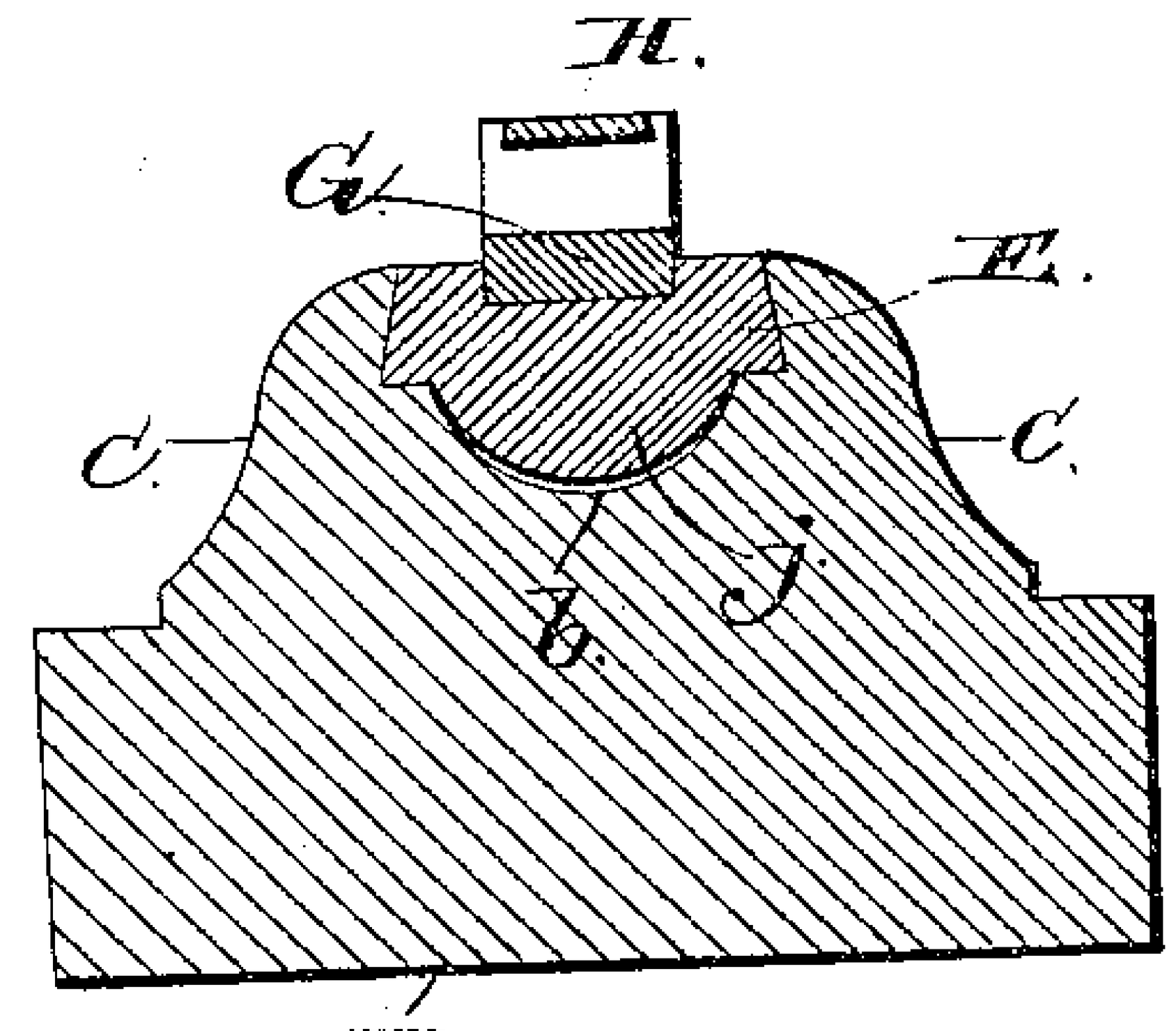


Fig. 5.

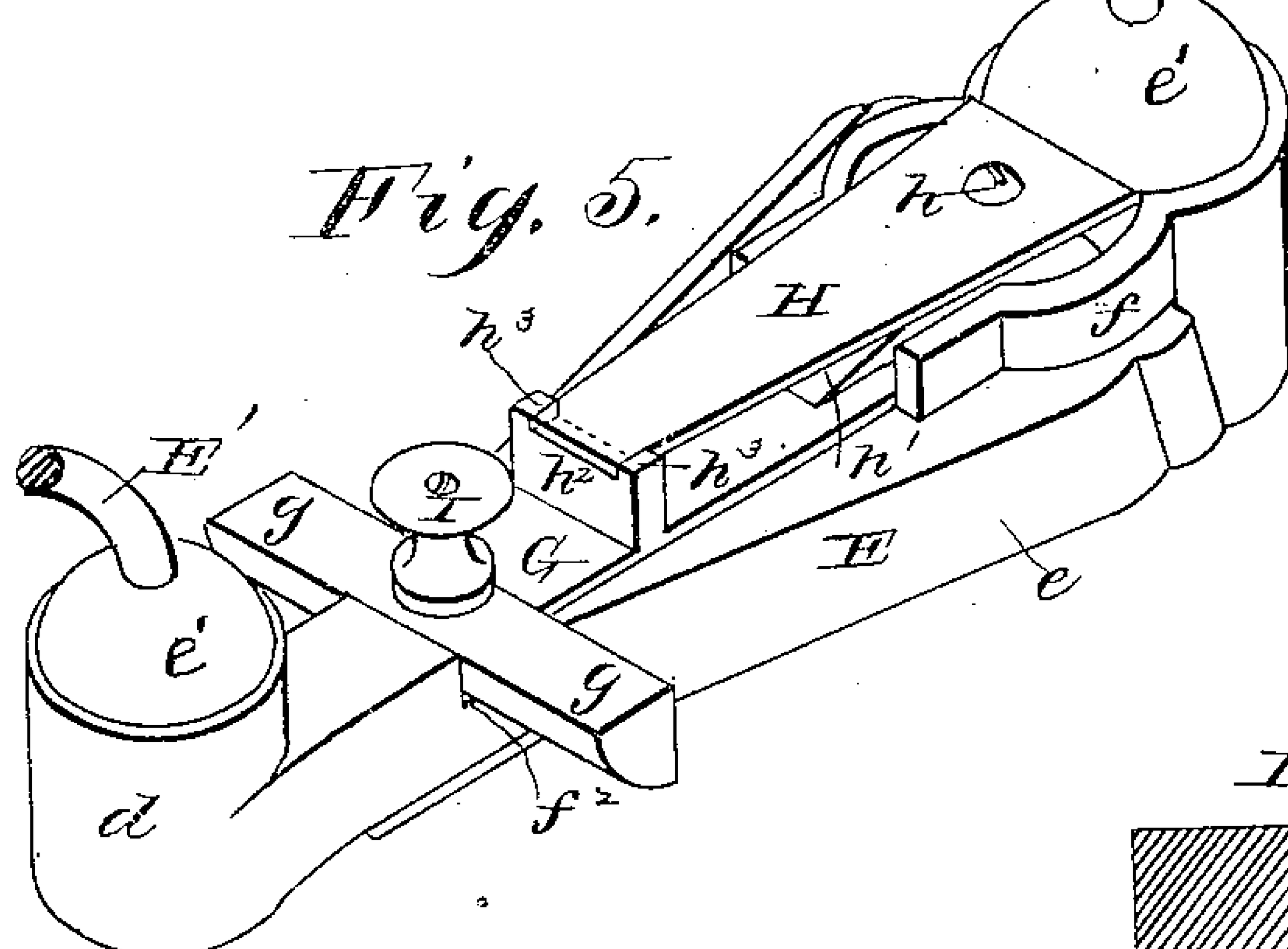
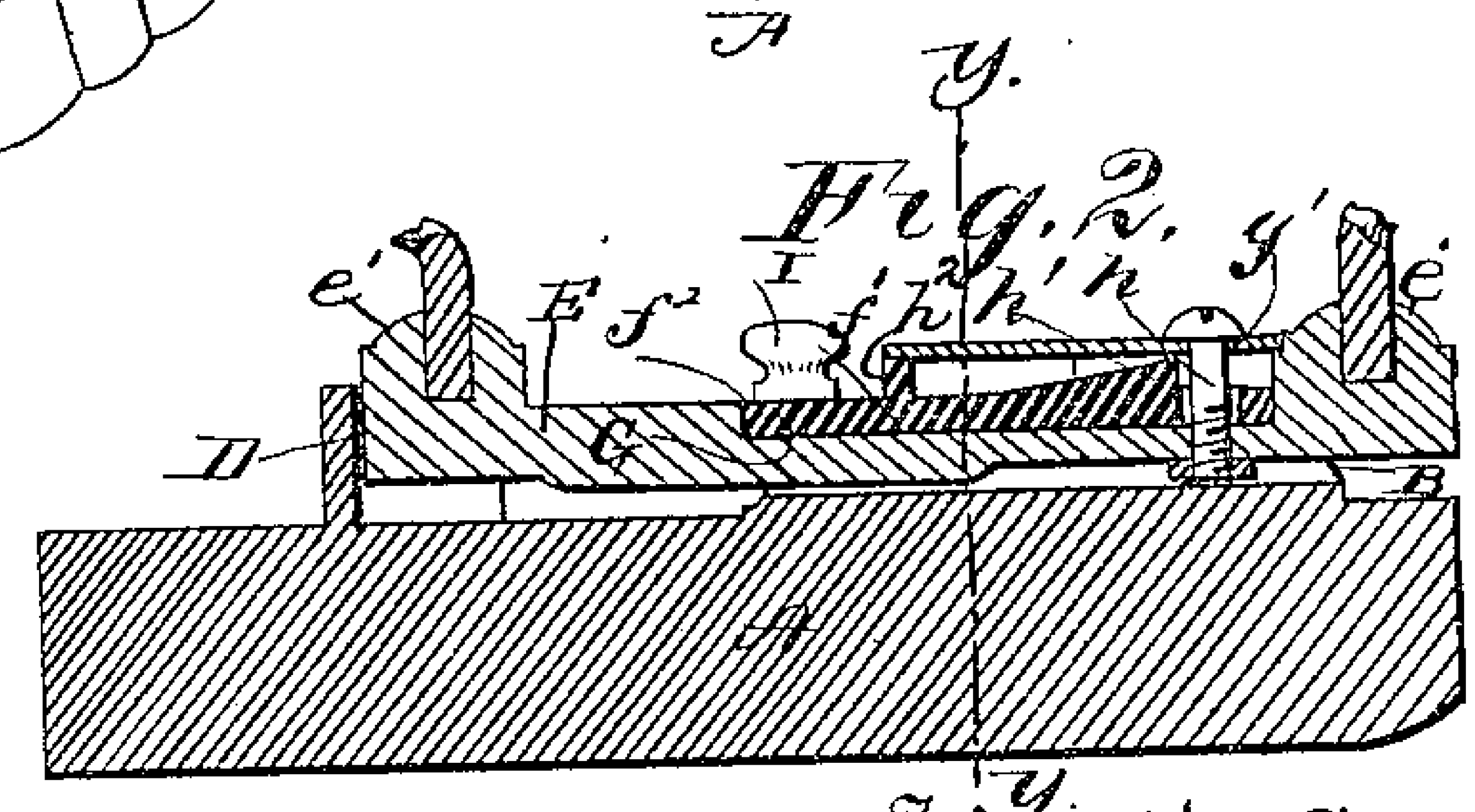


Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE S. PIERCE AND JOHN T. SNYDER, OF LUZERNE, PENNSYLVANIA.

SAD-IRON.

SPECIFICATION forming part of Letters Patent No. 365,095, dated June 21, 1887.

Application filed May 13, 1886. Serial No. 202,088. (No model.)

To all whom it may concern:

Be it known that we, GEORGE S. PIERCE and JOHN T. SNYDER, citizens of the United States, residing at Luzerne, in the county of Luzerne and State of Pennsylvania, have invented a new and useful Improvement in Sad-Irons, of which the following is a specification.

Our invention relates to improvements in sad-irons; and it consists of the peculiar combination and novel construction and arrangement of the various parts for service, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

The object of our invention is to provide improved means for detachably connecting the handle of a sad-iron to the iron itself, and which shall be capable of being easily and readily disconnected, so that the handle can be engaged with heated irons of like construction; to provide novel means for locking the handle to the socket of the iron and which can be conveniently operated by the hand of the attendant that engages or clasps the handle, and to provide improved means which shall be simple and strong in construction, effective and reliable in operation, and cheap and inexpensive of manufacture.

In the accompanying drawings, Figure 1 is a perspective view of a sad-iron embodying our invention. Fig. 2 is a vertical central longitudinal sectional view through the device. Fig. 3 is a detached perspective view of the sad-iron, to more fully show the socket thereof for the handle. Fig. 4 is a transverse sectional view on the line *x x* of Fig. 3. Fig. 5 is an enlarged perspective view of the base-plate carried by the handle, to show the locking device. Fig. 6 is a vertical cross-sectional view through the sad-iron and handle connected together, on the line *y y* of Fig. 2.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A designates the sad-iron, which is of the ordinary or any preferred construction, and the top of this iron is provided with an integral socket, B, that is cast or formed therewith. This socket B is provided with a longitudinal groove, *b*, which is tapered in the direction of its length, and the sides of the socket are further provided with vertical flanges or ledges C, that lie or are arranged on opposite sides of the longitudinal groove *b*. The flanges or ledges C are inclined or converged toward each other at one end, but they do not meet, so as to provide a tapering socket, and the inner edges of the flanges are inclined or dovetailed, as at *c*, against which the beveled corresponding edges of the base-plate E, carried by the handle, fit to snugly and securely retain or hold the plate E in the socket, as is obvious. The ends of the socket B are left open, as shown, and beyond the smaller or reduced end of the socket I provide a stop flange or ledge, D, which is curved or rounded in horizontal section to receive the rounded end *d* of the base-plate E and hold the said end *d* in place; or, if desired, the stop-flange can be made V-shaped or other desired form to prevent longitudinal and lateral movement or play of the base-plate. The edges of the groove *b* that are inclosed within the ledges C provide seats *c'* for the lower edges of the base-plate E of the handle and the front edges of the socket B, and the ends of the flanges or ledges C provide shoulders or abutments c^2, against which the head of the pivoted locking-plate bears that is carried by the handle, as will be described presently.

The base-plate E is provided with beveled side edges, *e*, to correspond to the shape of and fit snugly between the beveled edges of the flanges C, and the said plate is made tapering in form to correspond to the tapering shape of the socket B—that is to say, the front end of the base-plate is made smaller than the rear end thereof and the sides of the plate are converged or inclined toward each other. The front end of the base-plate is provided with an enlargement, *d*, that is curved or inclined on its vertical edges in horizontal section to correspond to the shape of the stop-flange D of the sad-iron proper and to snugly fit therein, and the upper edges of the front and rear ends of the base-plate E are provided with integral enlargements or sockets *e'*, in which are fitted and secured the lower ends of the standards E', that are longitudinally curved and arranged vertically to suspend the handle or grip-piece E^2 above and out of contact with the base-plate E, so that the hand of the operator is not liable to touch the latter and there-

by become burned or injured. The base-plate E of the handle is further provided at its rear end with vertical flanges *f*, which are arranged on or near opposite side edges of and cast integral with the plate, so as to leave an intermediate space, and the said plate has a longitudinal groove or recess, *f'*, formed therein, one end of the groove opening into a transverse groove, f^2, also formed in the base-plate. The locking-plate G of the handle is fitted in the longitudinal groove, and the front end of the locking-plate is provided with right-angled flanges or arms *g*, that form a cross-head which fits in and projects at its ends beyond the transverse groove f^2 of the base-plate. This locking-plate lies or fits snugly and wholly within the longitudinal groove, and its upper edges lie flush with the upper face of the base-plate, so that it is concealed from view, and this locking-plate is normally depressed within the longitudinal groove by means of a spring, H, that bears at one end thereon, as shown. The rear end of the plate G is slotted, as at *g'*, and through this slot and the rear end of the spring H is passed a pivot pin or bolt, *h*, that serves to secure or connect the locking-plate and spring to the base-plate by which they are carried. The rear end of the locking-plate G is further provided with an integral rib, *h'*, arranged longitudinally thereon, on which the end of the spring H rests or bears, and the front end of the spring also bears on a similar flange, h^2, near the cross-head of the locking-plate, and between nibs or teeth h^3 thereon, so that it cannot be moved laterally and thereby displaced. The front end of the locking-plate is provided with a knob or finger-piece, I, by means of which the front end of the plate can be elevated by the operator's fingers to withdraw it from the longitudinal and transverse grooves *f'* f^2 of the base-plate.

The operation of our invention is as follows: The front end of the locking-plate is first elevated by the fingers, so that the cross-head thereof is withdrawn from the transverse groove and the reduced front end of the base-plate is fitted in the reduced open end of the socket B, and the handle, together with the base-plate, is then moved or forced toward the front of the sad-iron, thereby causing the beveled side edges of the base-plate to engage with the similar edges of the flanges or ledges C and the end *d* to fit in or engage with the stop-plate D, whereby the forward movement of the base-plate is limited, after which the free end of the locking-plate is released to permit the cross-head thereon to become depressed and engage with the shoulders or abutments c^2 at the front end of the socket. The upper edges of the base-plate lie flush with the edges of the ribs or flanges C, and the longitudinal rib *j* on the bottom of the base-plate fits or lies within the longitudinal groove *b* of the sad-iron. By engaging the beveled and tapered side edges of the base-plate with the ledges C and the front end, *d*, of the said plate with the stop-flange D, the longitudinal and lateral play or movement of the handle and base-plate are prevented, and as the cross-head of the pivoted spring-pressed locking-plate engages with the shoulders or abutments at the front reduced end of the socket the retrograde or rearward movement of the base-plate is prevented until the locking-plate is elevated.

By thus disposing and constructing the several parts of our invention the handle and sad-iron are very securely and rigidly connected together, and they are also prevented from movement upon one another, while at the same time they can be readily disconnected by elevating the free end of the locking-plate and moving the base-plate rearwardly, to permit the handle to be engaged with and used upon heated sad-irons of like construction while the other previously-used one from which it has been disconnected is being reheated.

Slight changes in the form and proportion of parts and details of construction can be made without departing from the principle of our invention.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of a sad-iron having the converging beveled ribs C, projecting above its upper side and forming an open-ended socket, a curved stop-flange, D, arranged on the sad-iron in front of and in line with the contracted end of the socket, a handle, a base-plate to which the handle is affixed, having the converging beveled sides to fit snugly between the ribs, and its front end fitting in the stop-flange, a locking-plate having a head at one end and connected at its opposite end to the base-plate, and a spring bearing on the free end of the locking-plate, substantially as described, for the purpose set forth.

2. The combination of a sad-iron having the converging beveled ribs C on its upper side to form an open-ended socket, a handle, a base-plate provided with the converging and beveled sides to fit snugly between the flanges, a locking-plate having a cross-head, *g*, at one end, and the notched shoulder h^2, projecting from its upper side, a flat spring fitting at one end in the notch of the shoulder h^2, and a bolt or pin passing through one end of the spring and locking-plate to connect them to the base-plate, substantially as described, for the purpose set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

GEORGE S. PIERCE.
JOHN T. SNYDER.

Witnesses:
L. S. WALKER,
G. L. HALSEY.