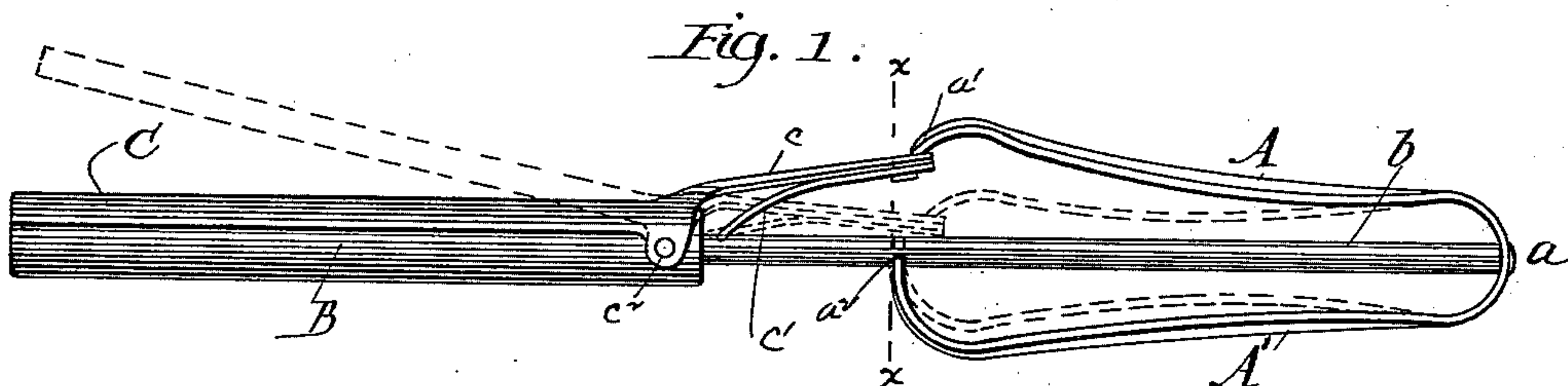


(No Model.)

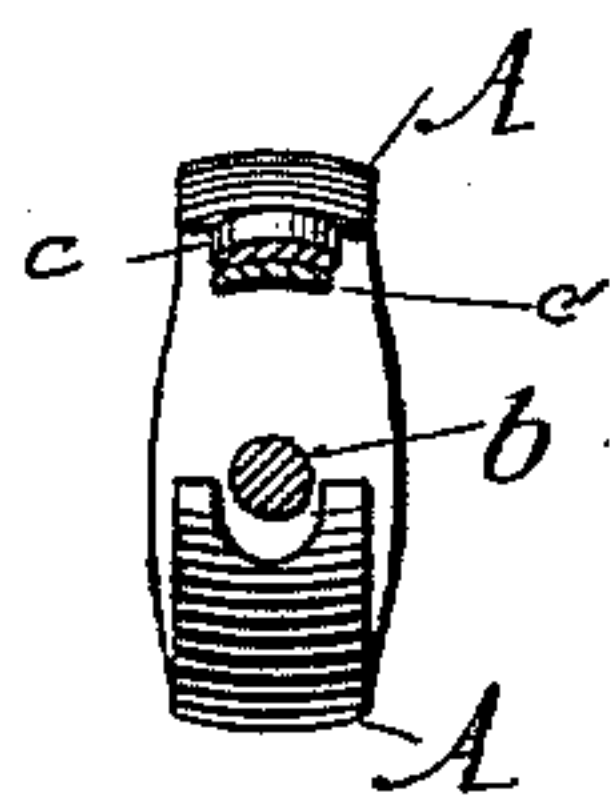
E. F. ANGELL.  
CURLING IRON.

No. 420,325.

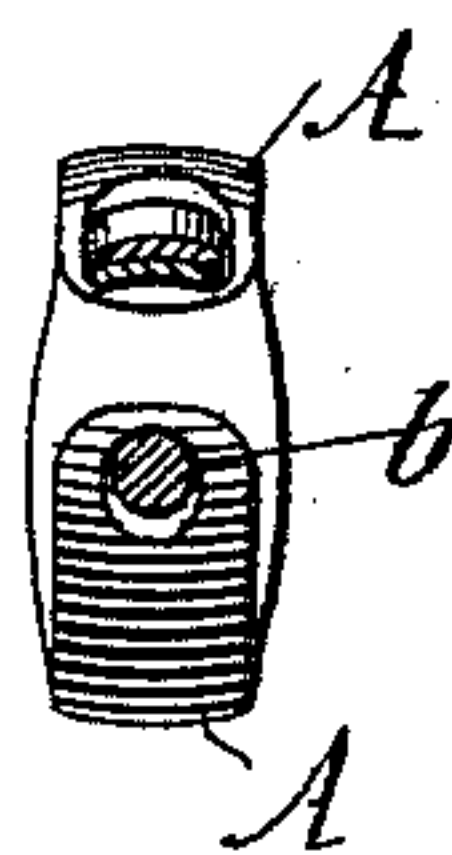
Patented Jan. 28, 1890.



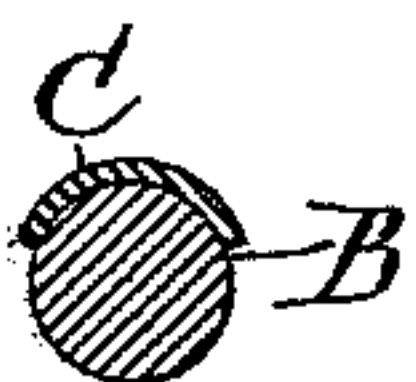
*Fig. 2.*



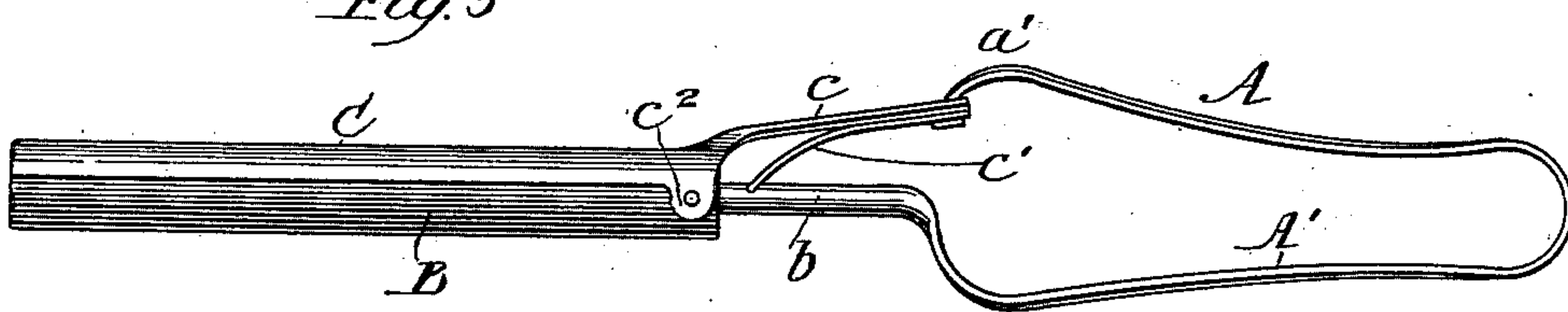
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



Witnesses:  
Frank Blanchard  
H. Fowler

Inventor:  
Edward F. Angell  
By Gillson & Benjamin  
Attorneys.



# UNITED STATES PATENT OFFICE.

EDWARD F. ANGELL, OF CHICAGO, ILLINOIS.

## CURLING-IRON.

SPECIFICATION forming part of Letters Patent No. 420,325, dated January 28, 1890.

Application filed April 2, 1889. Serial No. 305,732. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD F. ANGELL, a citizen of the United States and resident of Chicago, county of Cook, and State of Illinois, have invented new and useful Improvements in Curling-Irons, for which I desire to secure Letters Patent, and of which the following is a specification.

The object of my invention is to provide a handle for curling-irons which will control the movement of the jaws and will not readily become heated.

In the accompanying drawings, which are made a part of this specification, Figure 1 represents a side elevation of my curling-iron, dotted lines showing the position of the parts with the jaw lifted. Fig. 2 is a cross-section through the line  $xx$ , showing a preferred form of construction. Fig. 3 is a similar view showing a slightly-different form of construction. Fig. 4 is a cross-section of the heating-bar and retaining-jaw. Fig. 5 shows still another form of the handle.

My curling-iron consists of the solid heating-bar B, attached to the stem  $b$ , which is much smaller in cross-section, and of the movable retaining-jaw C, concavo-convex in cross-section, of substantially the same length as the bar B, adjusted to fit closely thereon and being pivoted to the rearward end of the said bar at  $c^2$ . The jaw C is also provided with an obliquely-extended arm  $c$  at its rearward end, to which is firmly fixed a strap-spring  $c'$ , adapted to bear against the stem  $b$ , so as to hold the jaw C closely against the bar B.

The handle, which comprises the essential element of my invention, consists of a strip of elastic metal, and may be firmly fixed at  $a$  to the end of the stem  $b$ , its arms  $A A'$  being folded along the sides thereof and a short distance from said stem and being curved to a convenient shape to grasp, and also at their loose ends curved so that the arm  $A$  bears upon the arm  $c$  at  $a'$  and the arm  $A'$  bears against the stem  $b$  at  $a^2$ . Said arms  $A$  and  $A'$  should be slightly forked, as shown in Fig. 2, at their loose ends to properly engage with the arm  $c$  and stem  $b$ , respectively; or, if desired, they may be provided with an eye to loosely receive said parts, as shown in Fig. 3; or the handle may be integral with the stem  $b$  and have only one end free for the

purpose of bearing on the arm  $c$ , as shown in Fig. 5.

If made of an elastic metal, the handle may be so constructed that its arms will spring from the parts against which they bear at their loose ends, so that except while actually in use heat is conducted to the handle from the bar B only through the stem  $b$  by means of its connection at  $a$ . When in the hand of the operator, the points of contact between the loose ends of the arms  $A$  and  $A'$  and the parts against which they bear are so slight that practically no heat is transmitted therethrough to the handle.

A somewhat different form of my handle is shown in Fig. 5, in which the stem  $b$  is bent and flattened for a portion of its length to form the handle.

By connecting the arms  $c$  and  $A$  in any suitable manner the spring  $c'$  may be dispensed with.

Pressure upon the arm  $A$  of the handle will lift the jaw C, it being unnecessary for the thumb to find the arm  $c$ .

It will be seen that my improved handle is equally valuable in its application to heating irons for other purposes.

I am aware that the heating-bar and retaining-jaw herein shown and described are not new, and do not broadly claim them.

What I do claim as my invention is—

1. In a curling-iron, the combination of the heating-bar and its stem, with a handle consisting of a single piece of metal fixed to the end of said stem and having its ends free and folded along the sides of said stem, substantially as described.

2. In combination with an implement adapted to be heated and provided with a handle-supporting stem, a handle formed of a single strip of metal rigidly secured to the end of said stem and folded along the sides thereof, and so curved as to have a bearing contact only at its ends, substantially as described.

3. In combination with an implement adapted to be heated and provided with a handle-supporting stem, a handle formed of a single strip of elastic metal rigidly secured to the end of said stem and folded along the sides and so curved as to have a bearing only at its ends and adapted to spring away from said bearings when not under pressure.

4. In a curling-iron, the combination, with the bar B, and the retaining-jaw C, having the obliquely-extended arm *c* and controlled by the spring *c'*, of the stem *b* and handle A A',  
5 substantially as and for the purposes described.

5. In a curling-iron, the combination of a heating-bar having a retaining-jaw pivoted thereto and provided with a handle formed of

a single strip of elastic metal rigidly secured to one end of the heating-bar and folded to form an arm adapted to open the retaining-jaw, as set forth.

EDWARD F. ANGELL.

Witnesses:

F. BOWLES,  
F. M. HUNTER.