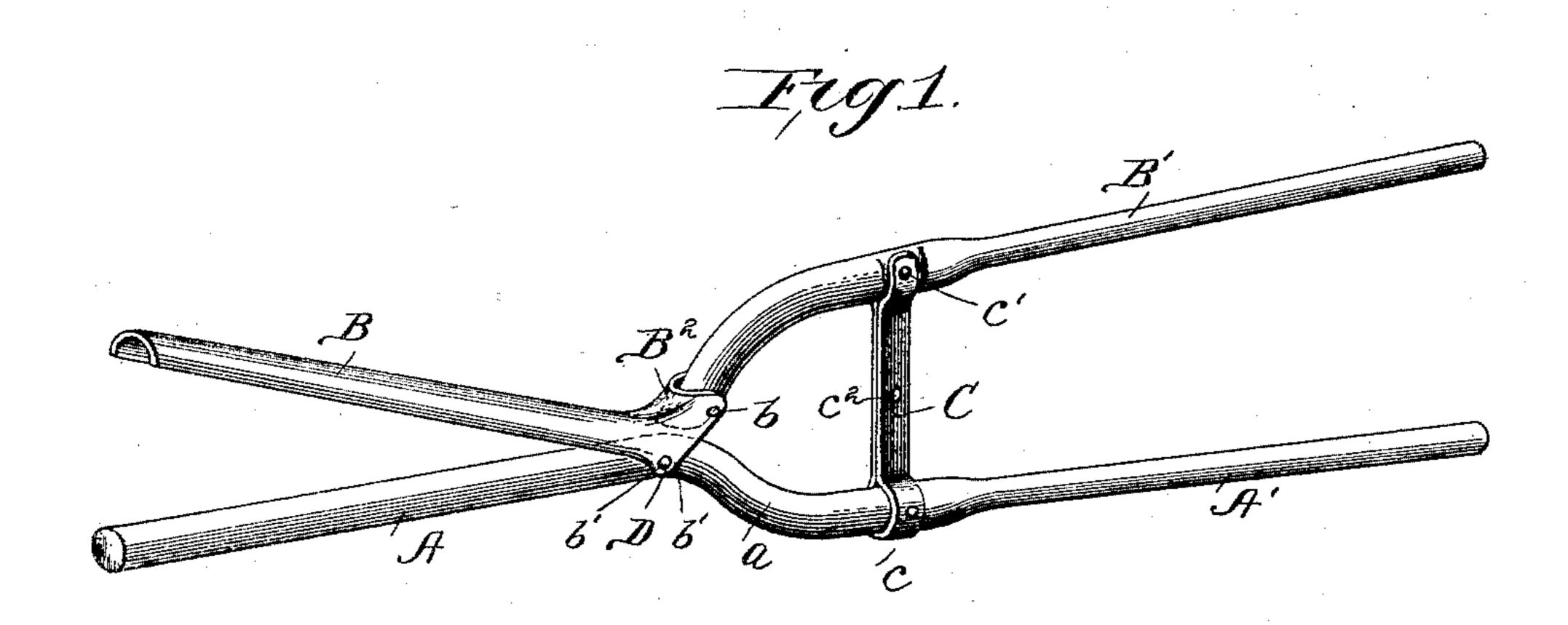
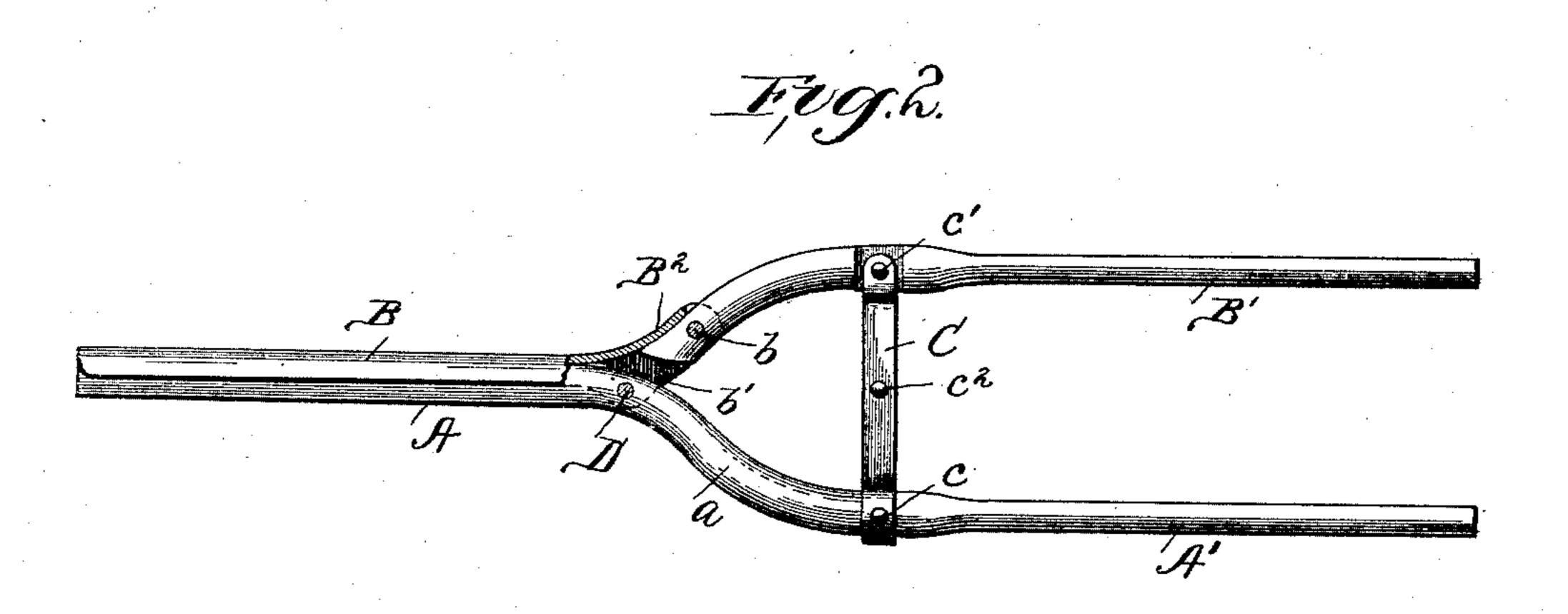
(No Model.)

G. L. THOMPSON.
CURLING TONGS.

No. 482,702.

Patented Sept. 13, 1892.





Witnesses: W. Sheem. Vouis 4, 7, Whitehead.

Towestor: George L. Thomyssow.

Bet Daybri Poole & Brown Hotels

## UNITED STATES PATENT OFFICE.

GEORGE L. THOMPSON, OF CHICAGO, ILLINOIS.

## CURLING-TONGS.

SPECIFICATION forming part of Letters Patent No. 482,702, dated September 13, 1892.

Application filed November 10, 1891. Serial No. 411,497. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. THOMPSON, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Curling-Tongs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked therero on, which form a part of this specification.

This invention relates to curling-tongs, and more particularly to that variety of such tongs as is commonly used by professional hair-

dressers.

The object of the invention is to produce an implement of this character that may be more easily manipulated than those in general use and which at the same time may be easily and economically manufactured.

The invention consists in the matters to be described in the following specification, and particularly pointed out in the appended

claims.

In the accompanying drawings, Figure 1 is 25 a perspective view of a pair of curling-tongs embodying my improvements, the jaws being shown in their open position. Fig. 2 is a plan view of the same, showing the jaws closed.

The implement shown comprises a jaw A, 30 having the form of a solid mandrel, preferably of cylindric form, and a jaw B, pivoted to the jaw A and of concavo-convex or semi-tubular form and constituting a clasp. Said jaw B is provided at its inner end with an arm or pro-35 longation B<sup>2</sup>, extending somewhat beyond the point of pivotal connection between the jaws.

The mandrel A is provided with a rigid handle A', and a handle B' is pivotally connected at its inner end with the extremity of 40 the arm or extension  $B^2$  by a pivot-pin b. Said handle B' is also attached to one end of a connecting bar or link C, the other end of which is connected with the rigid handle A'.

Owing to this arrangement but a slight 45 movement of the pivoted handle B' on its fulcrum is required to separate the jaws the required distance, as this movement is multiplied by the pivotal connection b and D, the proportion being in the instance shown about 50 one to three. This feature affords great ease of manipulation, as the necessary movement of the pivoted handle is so slight as not to tire I

the hand, while in devices of this character as ordinarily constructed the opening or separating of the jaws to the required distance 55 necessitates the movement or separation of the handles an equal distance or through an

equal angle.

The jaw A and its handle A' are constructed of a single blank or rod of metal provided 60 with two bends about its middle length, forming a reversed or ogee curve a, said jaw and handle being therefore rigid or unjointed. The blank or rod forming the jaw A and handle A' is preferably cylindric and made of 65 drawn metal, and that end of the rod which forms the outer part of the handle A' is preferably reduced in diameter, desirably by the operation of a swaging-machine, to give a more convenient hand-hold and reduce the weight 70 of the implement. A transverse opening is formed in the jaw at the forward end of the ogee curve a to receive a pin D, by which the jaw B is pivoted upon the rigid jaw A.

The pivoted jaw B is, as shown, constructed 75 of a blank of sheet metal, which blank is struck up in a die-press or otherwise to form a concavo-convex or semi-tubular body, shaped to fit snugly upon the rigid jaw A and provided near its inner end with laterally-ex- 80 tending lugs or ears b'b', pierced to receive the ends of the pivot-pin D, which passes through the inner end of the jaw A. The inner end of the blank, which forms the extension or arm B2, is bent outward in a curve 85 corresponding generally with the forward part of the ogee curve a, and is provided with transverse openings to receive a pin b, by which the arm is pivotally connected with the end of the handle B'.

The link C is made of a length approximating twice the depth of said ogee curve a, and said link consists in the instance shown of a metal strap doubled upon itself to form an eye at one end, which embraces the handle 95 A' and is secured thereto by a pin c or otherwise, the other end of the link being forked to receive the handle B', which is pivoted within said fork by a pin c'. The sides of

the strap are also secured together by a rivet 100  $c^2$ , arranged about midway between the ends of the link.

The forward end of the pivoted handle B' is bent inward on a curve corresponding ap-

proximately with the rear part of the ogee curve a, and is, as before stated, connected by a pivot-pin b with the rear outwardlycurved extension or arm B<sup>2</sup> of the semi-tubu-5 lar jaw B. The handle B' is also preferably made cylindrical and of drawn metal, and its outer part is reduced in diameter to correspond with the handle A'. Said handle B' is preferably notched at its sides to receive the 10 fork of link C, thus avoiding projecting ends and giving a neat finish to the article.

The parts of the tongs are either before or after assemblage dressed and buffed or polished to afford a smooth neat exterior and 15 may be plated with nickel or silver to prevent

oxidation.

Owing to the construction described a material saving is effected in the cost of manufacture as compared with tongs in ordinary use, 20 wherein the two members of the tongs, each constituting a rigid handle and jaw, cross each other and are connected at the crossing-point by a closely-fitting joint.

It will be understood that the bends between 25 the jaws and straight part of the handles may be of other forms than those shown, and it is not essential that both handles be bent, as either one may be straight or in line with its

Jaw.

The link C may either have a slight rocking movement on the rigid handle A', to which it is connected to give freedom of movement to the handle B' on its pivot c', or any one of many expedients may be resorted to with a yiew to compensate for the change of distance between the pivot D and the pivot or fulcrum

c' incidental to the operation of the pivoted handle A' and its jaw A—such, for instance, as the employment of a link C, having some flexibility, or providing a longitudinal slot in 40 said pivoted handle B' for the reception of either the pivot-pin b or c'.

What I claim is—

1. A curling-tongs comprising two jaws, one of which forms the mandrel and the other the 45 clasp of the tongs, said jaws being pivoted together at their inner ends, handles for the jaws, and a link pivoted at its opposite ends to the handles between the ends of the latter, one of said jaws being rigid with its handle 50 and the other jaw being pivoted to its handle at a point between the pivot connecting the latter handle with said link and the pivot which connects the jaws with each other, substantially as described.

2. A curling-tongs comprising a cylindric jaw, a concave jaw of sheet metal, provided with ears by which it is pivoted on the cylindric jaw and with an extension or arm adjacent to its pivot, a handle for the cylindric 60 jaw, forming an extension of the same, a handle for the concave jaw, pivotally connected with said arm or extension thereof, and a link connecting said handles, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

GEORGE L. THOMPSON.

Witnesses:

C. CLARENCE POOLE. GEORGE W. HIGGINS, Jr.