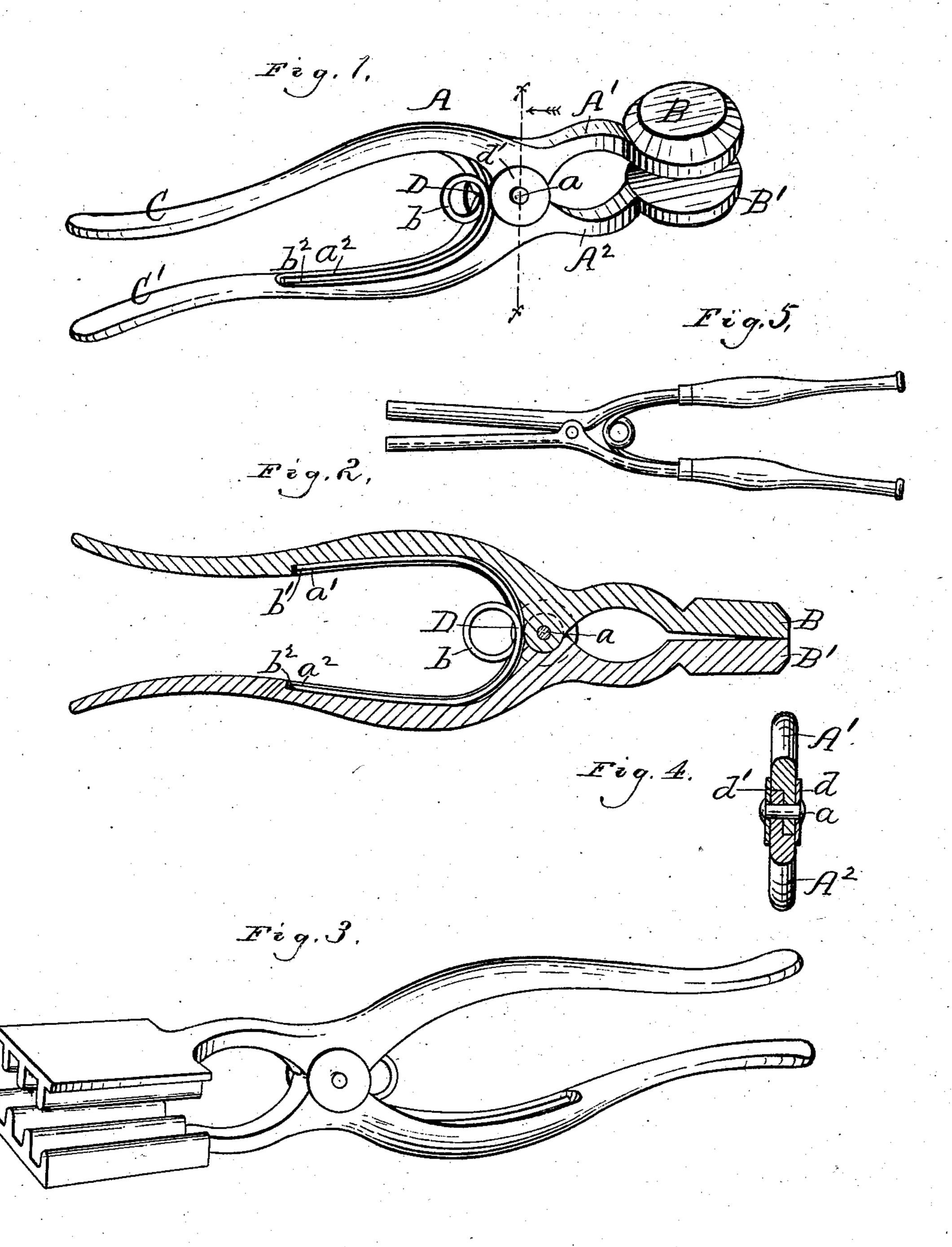
(No Model.)

M. CAMPBELL.

HAIR CRIMPER.

No. 294,309.

Patented Feb. 26, 1884.



Denny Frankfunter. L. M. Freeman

Mark bampbell
By G. B. boupland 460
Httornoys.

United States Patent Office.

MARK CAMPBELL, OF CHICAGO, ILLINOIS.

HAIR-CRIMPER.

SPECIFICATION forming part of Letters Patent No. 294,309, dated February 26, 1884.

Application filed May 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, MARK CAMPBELL, of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Im-5 provements in a Hair-Crimping Iron, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, and to letters of referto ence marked thereon, forming a part of this specification.

This invention relates to an improvement in devices for manipulating the hair; and it consists in providing a crimping-iron with a 15 spring placed between the handles and so arranged as to automatically spread the handles and close the jaws in a clamping position, as will be hereinafter more fully set forth.

Figure 1 is a side elevation of a crimping 20 device embodying my improved features; Fig. 2, a vertical longitudinal section of the same; Fig. 4, a transverse section in the plane x x, Fig. 1; and Figs. 3 and 5 are different styles of crimping devices embodying my im-25 provement.

Referring to the drawings, A represents a crimping-iron of the ordinary form, consisting of the two parts $A' A^2$, provided with the jaws B B' and the handles C C', the two parts 30 being secured together by means of the rivet a, adapting the parts to have the proper movement with relation to each other.

Ordinarily the crimping device is so constructed and arranged that the crimping-35 jaws are brought together by a corresponding movement of the handles; but in my improvement this feature is reversed, the jaws receding from each other as the handles are pressed together. The inner sides of the han-40 dles C C' are provided with the channels or grooves $a' a^2$, for the reception of the spring D. This spring is composed of any suitable material, and is bent around itself in the middle to form the tension-loop b. The two 45 ends b' b^2 , projecting backward, in the form of a U, from the fulcrum-joint of the crimping-iron, are inserted in the grooves a' a^2 , the loop end of the spring resting at the junc-

tion of the handles, as shown in Fig. 2 of the drawings. This spring is removably retained 50 in place by frictional contact with the parts against which it bears, and serves to automatically throw the hands apart when the pressure from the hand of the operator is relaxed, the jaws closing to grasp or clamp the 55

object at the same time.

Instead of providing the handles with grooves for the reception of the widely-extended ends of the spring D, the ends may be bent at right angles to and inserted into 60 correspondingly recessed apertures in the handles, and the parts recessed or grooved at the junction for the reception of the loop end of the spring. This spring may be of any desired or different form from that shown, 65 and may be secured in relation to the handles in various ways, as I do not confine myself to any precise form of construction or manner of arranging the spring so long as the main object of automatically spreading 70 the handles is accomplished. By this arrangement the device is caused to grasp and hold the hair during the process of manipulating the same without any pressure from the hand of the operator, pressure only being 75 required from the hand, in order to open the jaws as the device is moved, thus entirely dispensing with the necessity of the operator having to exert a constant pressure in order to accomplish the desired result, as is ordi- 80 narily the case where the device is so constructed as to require the handles to be pressed together in order to close the jaws. It is a very laborious and tiresome task to many persons to grasp and tightly hold the handles 85 in order to clamp the jaws at each movement; but this difficulty is entirely obviated by the use of the spring D. The enlarged washers d d' are placed on the ends of the fulcrum-rivet, as shown in Fig. 4 of the drawings, the edges 90 of which project over part of each side of the coiled end of the spring and serve the purpose of assisting to prevent an accidental lateral displacement of the same.

Figs. 3 and 5 of the drawings show the 95 adaptation of my improved feature to differimprovement relating to the spring and the manner of retaining the same in place.

Having thus described my invention, what I 5 claim as new, and desire to secure by Letters ${f Patent}, {f is}_{f is}$. The interest is the following ${f patent}$ is the following ${f is}_{f is}$. The following ${f is}_{f is}$ is the following ${f is}_{f is}$.

The combination, with a crimping-iron provided with shallow recessed grooves on the L.M. Freeman.

ent styles of crimping devices, the gist of my | inner side of the handles thereof, of the spring D, having a tension-loop formed in the mid- to dle, and the washers d d', placed on the fulcrum-rivet, substantially as described.

MARK CAMPBELL.

STEPHEN H. LADD,