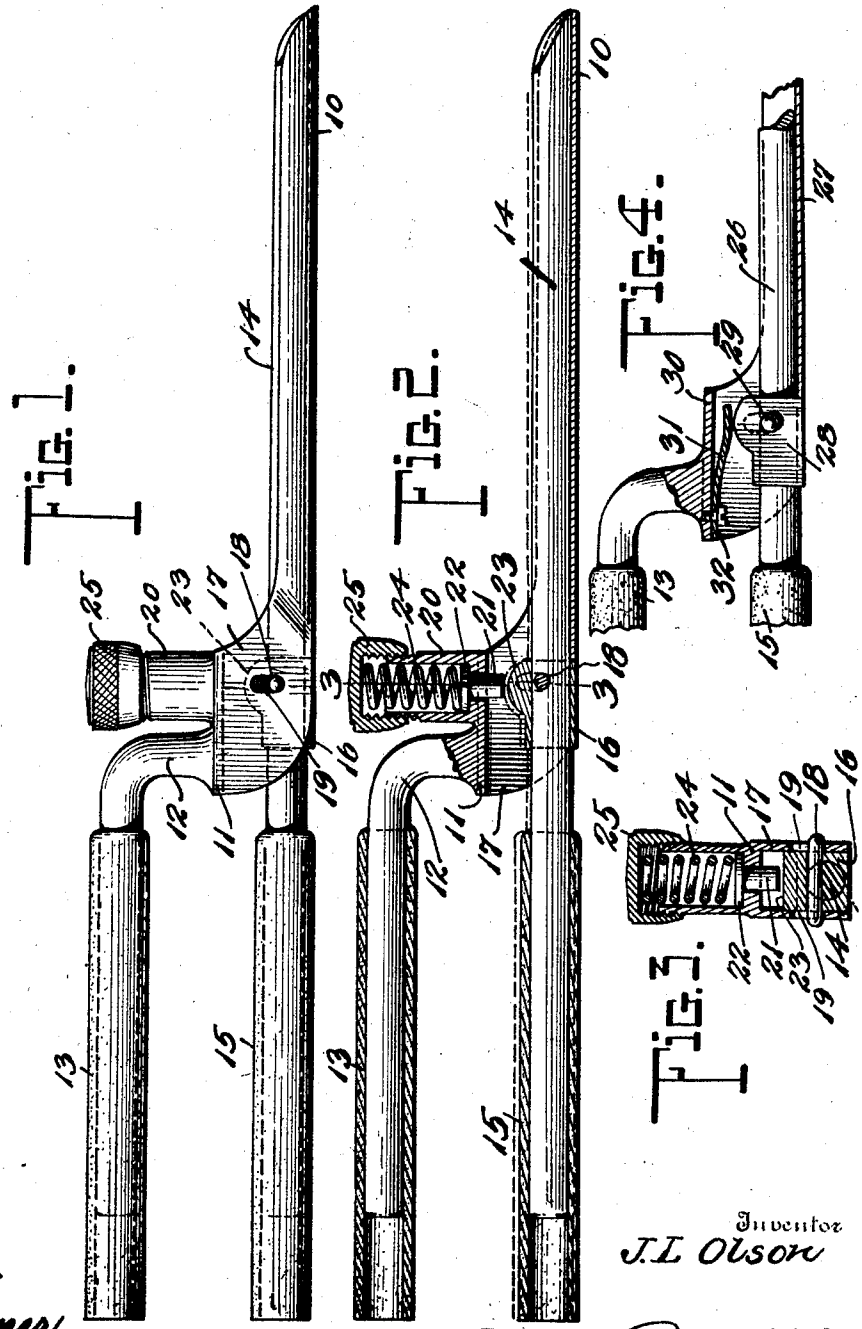
June 2, 1925.

1,540,564

J. L. OLSON

CURLING IRON

Filed Nov. 3, 1924



Witnesses

W. H. Wagner.

Inventor

J. L. Olson

By Robb Robb & Hill

Attorneys

Patented June 2, 1925. 1,540,564

UNITED STATES PATENT OFFICE.

JOHN L. OLSON, OF CHICAGO, ILLINOIS.

CURLING IRON.

Application filed November 3, 1924. Serial No. 747,595.

To all whom it may concern:

Be it known that I, JOHN L. OLSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Curling Irons, of which the following is a specification.

This invention relates to a hair curling iron, and particularly to a construction embodying cooperating tong members pivoted to each other and adapted to embrace the hair to be curled.

In previous constructions of this character the tongs were formed either with a fixed pivot or tensioned toward each other. In the case of a fixed pivot there occurs a pinching action of the tongs upon the hair adjacent the fulcrum so that only a limited area of the tongs can be practically used and they do not act in parallelism with equal pressure. In such case the more tightly held hair is heated to a greater degree than the looser portion and the scissor-like action has a tendency to injure the portion of the hair nearest the fulcrum. When the tongs are under a constant closing tension they are not free for application to the hair and one member cannot bodily move laterally to the other so as to permit the insertion of the hair between the tong members for substantially their entire length.

In the application of this device it is usual to apply the concave tong next the scalp and such permanently tensioned tongs prevent their free manipulation for this purpose as there is constant tendency to grip the hair adjacent the pivot.

My invention obviates these objections by providing a free floating pivot between the jaws which permits them to be moved in parallelism for a limited distance and the tension device only acts to apply an even pressure upon the clamping tong after a body of hair has been disposed between the tongs, and does not affect their pivotal action but exerts a lateral pressure thereon to firmly hold the hair in position.

The invention has for an object to provide a novel and improved construction of curling iron comprising tong members freely pivoted to each other and a cooperating tension device disposed to act upon one member only after its separation from the other member by an interposed object.

A further object of the invention is to provide an improved spring device for application to curling irons and adapted to be supported by one tong normally out of contact with the cooperating tong but adapted to act thereon after a limited lateral movement of the latter.

Another object of the invention is to present a new construction of spring plunger mounted upon one tong member in alignment with the pivot of the other to act transversely of the axis of said pivot and adapted to be adjusted to determine the tension under which the hair is to be held between the tong members.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawing:—

Figure 1 is a side elevation of the invention;

Figure 2 is a longitudinal section;

Figure 3 is a section on the line 3—3 of Figure 2; and

Figure 4 is a detail section of a modified form of the invention.

Like reference characters designate corresponding parts throughout the several views.

The curling iron to which this invention is applied may be of any desired character or configuration either for simply clamping a strand of hair or for the production of a Marcel wave, and the application of the invention shown embodies a concave tong member 10 which is provided at its inner end with a pivoting yoke 11 and angularly disposed portion 12 adapted to receive the usual handle 13. The cooperating tong member 14 is substantially straight and provided with a handle 15 disposed parallel to the handle 13. This member 14 has secured thereon a pivoting sleeve or block 16 adapted to fit between the walls 17 of the yoke 11 and to receive a cross pivot 18 secured in said block and adapted for movement in the slots 19 of the walls 17.

This construction permits a limited bodily movement of the clamping tong 14 toward and from its cooperating member as indicated by dotted lines in Figure 2. When a strand or portion of hair has been locked between the tong members it is desirable to provide means for resiliently clamping the same so that the pressure upon the handles may be relieved, and for this purpose a spring device is disposed to act upon

the clamping tong after its bodily separation from the cooperating tong.

One form of such device is shown in Figures 1 to 3 and comprises a cylinder 20 at the base of which is disposed a plunger 21 having a head 22 which seats against the base of the cylinder forming a positive means to limit the inward movement of the plunger and maintain its definite relation to the curved face 23 of the pivot block 16. The plunger is held in its normal projected position by a tension spring 24 resting thereon and at its opposite end contacting with a cap 25 which is adjustably mounted upon the cylinder to vary the tension of the spring and the consequent holding tension of the clamping jaw. This is a very desirable feature of construction as it provides for the proper tension to be applied to the character of hair treated. For instance if the hair is of a very fine light nature a different tension is desirable than if of a more heavy character.

A modified form of the invention is shown in Figure 4 wherein the clamping jaw 26 cooperates with the concave jaw 27, the former being provided with a pivot block 28 and pivot 29 slidably mounted in the yoke 30 of the jaw 27, these parts being similar to those before described. Above the pivot block 28 a flat spring 31 may be secured to the base of the yoke as at 32, and spaced from the upper face of the block 28 so as not to act thereon until the jaws have been laterally separated by the insertion of a body of hair between the same.

The general operation of the invention will be apparent from the foregoing description from which it will be seen that the present invention permits the jaws to fulcrum freely and without resistance, and in the insertion of the hair to move bodily in parallelism with each other so that the operator has perfect freedom of action in the application of the iron to the hair while the tension is not applied until the hair has been disposed between the tongs and as the result it applies a direct bodily pressure upon the clamping member throughout its length which permits substantially the entire curling area of the iron to be used as there is no restricted or pinching action common to the scissor type of action in hair curling.

The construction has also material practical advantages in that the pin in its travel in the slot merely serves to keep the tong members assembled and there is substantially no wear thereon as it forms a floating or free pivot and the plunger from the spring device receives the thrust directly from the bearing block upon the clamping tong. The location of this plunger directly in alignment with the pivot materially reduces the strain upon the parts and permits a free action in the opening of the tongs as even though under tension the plunger may travel upon the curved face of the block.

While the specific construction has been herein shown and described, the invention is not confined thereto as changes and alterations may be made therein without departing from the spirit thereof as defined by the following claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A curling iron comprising tong members, a free floating pivot between the same, and a normally inactive tension device disposed upon one member to tension the pivot in the separation of the tong members by an interposed object.

2. A curling iron comprising tong members, a pivot between the same to permit relative lateral movement, and a spring device supported by one tong to engage said pivot during lateral movement and normally disposed out of tensioning contact with the cooperating tong during pivotal movement.

3. A curling iron comprising tong members, a pivot between the same to permit relative lateral movement, a spring device supported by one tong to engage said pivot during lateral movement and normally disposed out of contact with the cooperating tong during pivotal movement, and means to limit the movement of said device toward said cooperating tong.

4. A curling iron comprising tong members pivoted for movement in parallelism, and a normally inactive spring plunger disposed upon one tong to act transversely of the axis of the pivot between the tongs in the separation thereof by an interposed object.

5. A curling iron comprising tong members pivoted for movement in parallelism, a spring plunger disposed upon one tong to act transversely of the axis of the pivot between the tongs and engage the pivot in such parallel movement, a casing enclosing said plunger, a spring within said casing bearing upon the plunger, and an adjustable cap for said casing bearing upon said spring.

6. A curling iron comprising tong members one of which is provided with a yoke having slotted walls, a bearing block secured to the cooperating tong and having a pivot extending through said walls, and a normally inactive spring member carried by said yoke and adapted to bear upon said bearing block in the separation of the tongs incident to an interposed object.

7. A curling iron comprising tong members one of which is provided with a yoke having slotted walls, a bearing block secured to the cooperating tong and having a pivot

extending through said walls, and a normally inactive spring member carried by said yoke and adapted to bear upon a curved face of said bearing block in the separation of the tongs incident to an interposed object.

8. A curling iron comprising tong members one of which is provided with a yoke having slotted side walls, a bearing block secured to the opposite member and having a pivot extended therefrom through said slots, a cylinder mounted upon said yoke, a plunger therein spaced from said bearing block at its outward degree of travel, and tension means for projecting said plunger toward said block.

9. A curling iron comprising tong members one of which is provided with a yoke having slotted side walls, a bearing block secured to the opposite member and having a pivot extended therefrom through said slots, a cylinder mounted upon said yoke, a plunger therein spaced from said bearing block at its outward degree of travel, a coiled spring disposed in said cylinder and resting upon an enlarged head of said plunger to project the same toward said block, and a cap adjustably mounted upon said cylinder to bear upon said spring.

10. A curling iron comprising coacting tong members mounted for preliminary separation without tension, and a normally inactive tension device disposed to act upon said members in their further separation by an interposed object.

11. A curling iron comprising coacting tong members mounted for pivotal separation without tension, and a subsequent bodily separation under tension and a tension device disposed to act upon said members in such bodily separation from each other incident to pressure upon an object interposed between said members.

In testimony whereof I affix my signature.

JOHN L. OLSON.