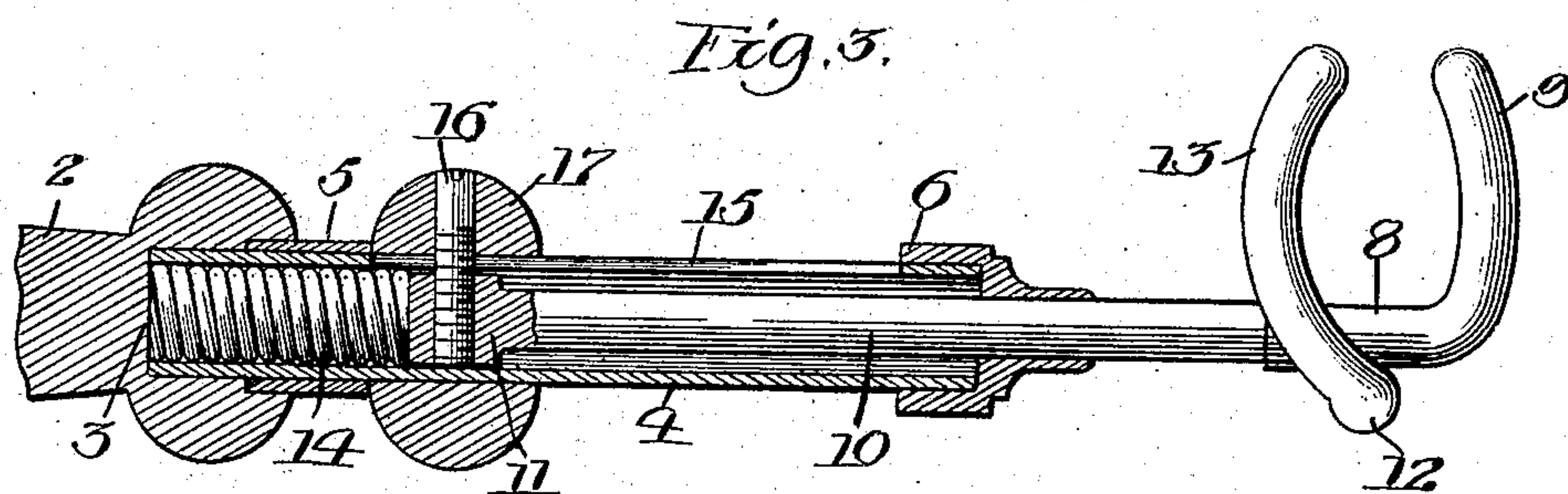
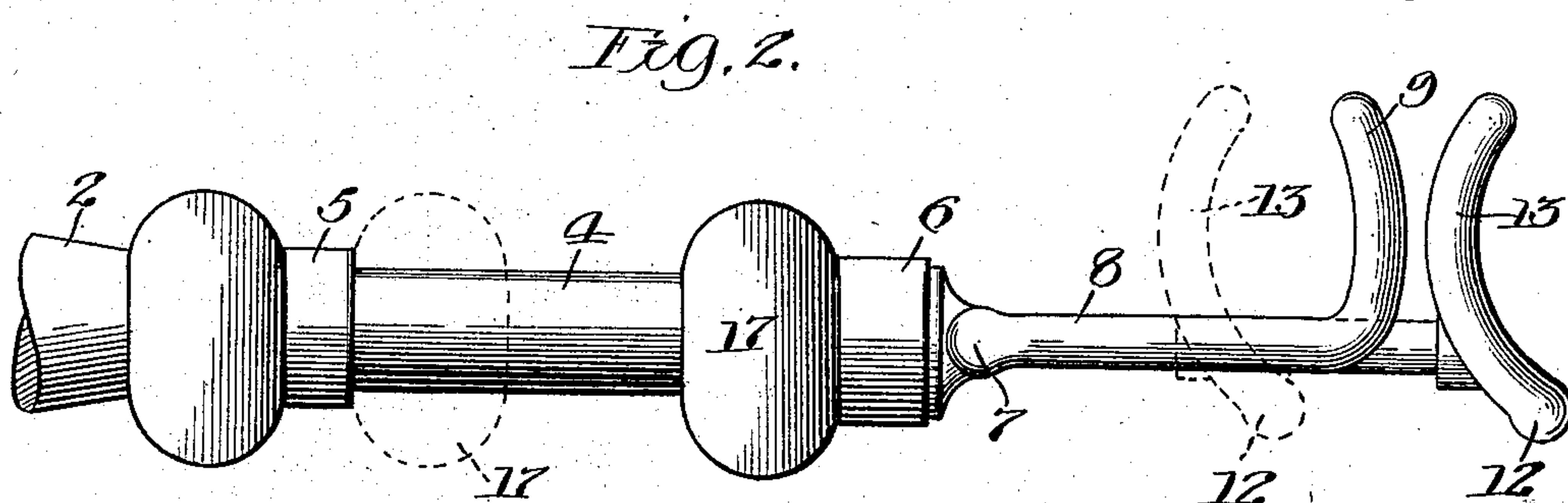
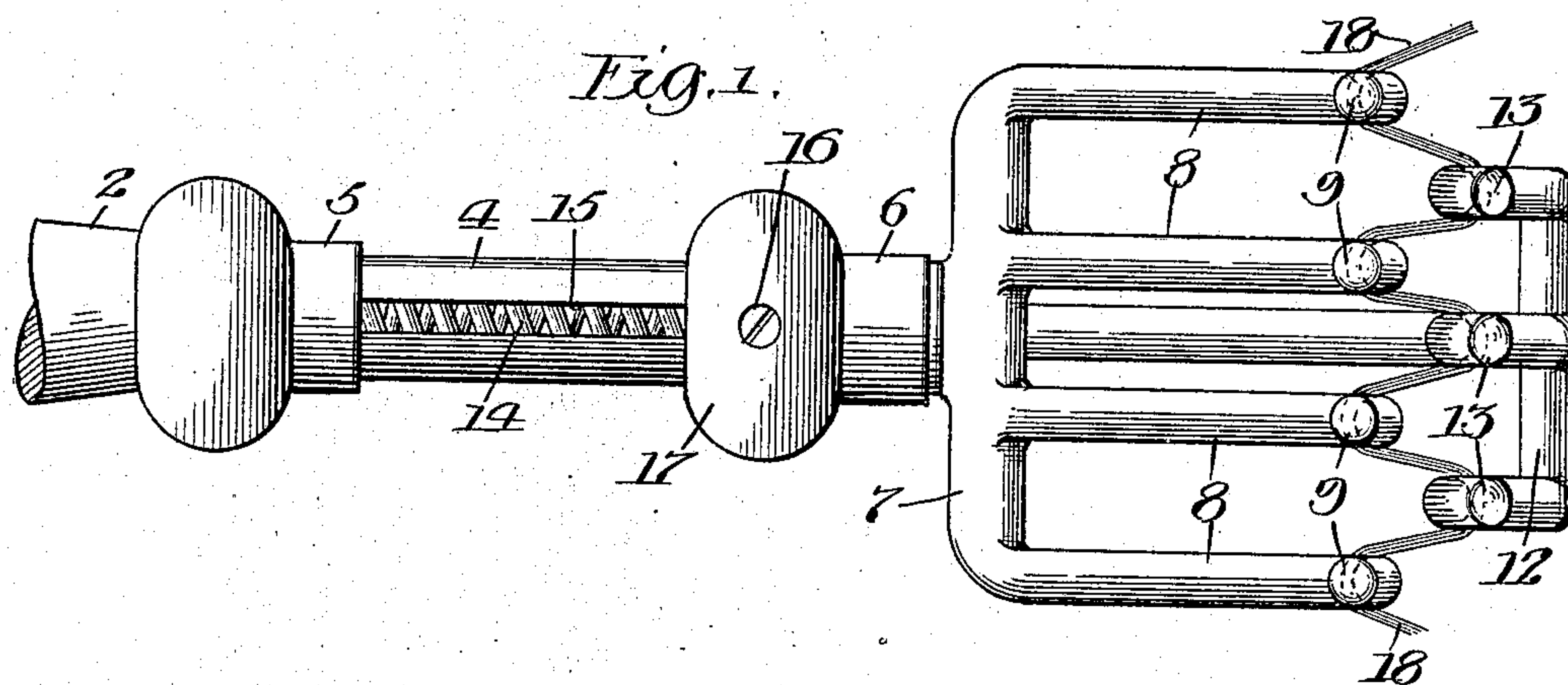


J. C. BRADLEY.
HAIR WAVING DEVICE.
APPLICATION FILED NOV. 25, 1907.

911,571.

Patented Feb. 9, 1909.



Witnesses:
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att'y

UNITED STATES PATENT OFFICE.

JESSIE CORNELIA BRADLEY, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-FOURTH TO FRANK D. THOMASON, OF CHICAGO, ILLINOIS.

HAIR-WAVING DEVICE.

No. 911,571.

Specification of Letters Patent.

Patented Feb. 9, 1909.

Application filed November 25, 1907. Serial No. 403,685.

To all whom it may concern:

Be it known that I, JESSIE CORNELIA BRADLEY, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hair-Waving Devices, of which the following is a full, clear, and exact description.

My invention relates to devices for producing artistic effects with the hair, and more particularly to an iron for making the hair wavy or curly, or producing upon it what is popularly known as the "marcel" or "princess" waves or wavy effect of the same character.

It is the object of my invention to provide a device which, while accomplishing this result will do so without injuring the hair.

It is also an object of my invention to make a device that is very efficient in its operation; is easy to handle by an inexperienced person, and is so cheap to make that it is within the means of the ordinary person to purchase.

These objects I accomplish in the manner hereinafter described and as more particularly pointed out in the claims.

In the drawings:—Figure 1 is a top plan view of my invention drawn about full-size. Fig. 2 is a side elevation of the same, and Fig. 3 is a central vertical section of the same.

Referring to the drawings, 2 represents a suitable handle having its upper end portion bored out to form a seat 3 for the reception of the tubular shank 4 of the iron, which is surrounded where it enters the handle by a ferrule 5. The opposite end of this shank is closed by a suitable bolster 6 that fits over and is, preferably, brazed or screwed thereon, and this bolster has a cross-bar 7 that extends on each side thereof and at right angles thereto. Cross-bar 7 has a plurality of equi-distant parallel fingers 8, 8, extending out at right angles therefrom, that are, preferably, about the same length as said plate, and have their free ends 9 bent up at right angles to the plane of their length, substantially as shown. Slidably mounted in the bore of the tubular shank 4 is a suitable piston 10 which, preferably, has an enlarged head 11 on its inner end. Said piston extends out through an opening in head 6 to a point a suitable distance beyond

the transverse plane of the ends of the finger 8 where it is provided with an integral T-shaped cross-bar 12, on which is mounted a series of upwardly and backwardly bent fingers 13, substantially the same as the bent up ends of fingers 8.

A coil expansion spring 14 is seated in and fills the space in the tubular shank between the inner end of the piston and the inner end of said shank. In order to prevent the rotation of this piston and provide means for reciprocating it, a suitable longitudinal slot 15 is made in the shank, and a screw 16 is tapped into the head of the piston and projects out through said slot, and, preferably, through a suitable runner 17 slidably mounted on and surrounding the outer circumference of the shank. By moving this runner back and forth the piston is reciprocated. The piston is so adjusted that when the same is at the limit of its movement towards the handle the fingers 13 thereof will be to the rear of the plane of the bent portions of fingers 8, and when at the limit of its movement away from said handle, said fingers will be moved in front of said bent portions. Thus when it is desired to wave the hair, piston 10 is moved towards the handle to move the fingers 13 to the position shown in Fig. 3 (and in dotted lines in Fig. 2). The strand of hair 18 to be waved is placed in the trough between the fingers 13 and the bent portions 9 of stationary fingers 8 and the piston then moved away from said handle both by the action of spring 14 and by hand. As the piston moves out to the limit of its forward movement, as shown in full lines in Figs. 1 and 2, the hair is laced zigzag around fingers 13 and the bent portions of fingers 8, as illustrated. After being left a sufficient time in this position the runner is slid back toward the handle and the hair when removed will be found to have been given a very graceful wavy or serpentine design. This operation is continued until the part of the hair to be so treated, is properly waved.

What I claim as new is:—

1. As an article of manufacture a hair waving device comprising two series of alternately arranged independent fingers, the end portions of each series of which are always in parallel planes, means for supporting each of said series of fingers, having

parallel shanks that are reciprocal longitudinally relative to each other and are adapted to move said fingers in parallel planes past each other.

5 2. As an article of manufacture a hair waving device comprising two series of alternately arranged independent fingers the supported end portions of which are in substantially the same planes, means for supporting each of said series of fingers having
10 parallel shanks that are movable longitudinally relative to each other, the movement of said supporting means being adapted to reciprocate the outer portions of each series
15 of fingers past each other.

3. As an article of manufacture a hair waving device comprising two series of alternately arranged independent fingers the supported end portions of which are in substantially the same plane, means for supporting each of said series of fingers having
20 parallel shanks that are movable longitudinally relative to each other, the movement of said supporting means being adapted to reciprocate the outer portions of each series
25 of fingers past each other in parallel planes.

4. As an article of manufacture a hair waving device comprising a handle, a series of substantially L-shaped fingers projecting
30 in the same direction from a cross-bar secured to said handle, a separate series of substantially L-shaped fingers arranged alternately with said first mentioned fingers, a plunger reciprocal in said handle, and a
35 suitable cross-bar secured to the outer end of said plunger to which said latter series of fingers are secured.

5. As an article of manufacture a hair waving device comprising a handle, a series
40 of substantially L-shaped fingers projecting in the same direction from a cross-bar secured to said handle, a separate series of substantially L-shaped fingers arranged alternately with said first mentioned fingers,
45 a spring pressed plunger reciprocal in said handle, and a suitable cross-bar secured to the outer end of said plunger to which said latter series of fingers are secured.

6. As an article of manufacture a hair-
50 waving device comprising a handle, a series of substantially L-shaped fingers projecting in the same direction from a cross-bar secured to said handle, a separate series of substantially L-shaped fingers arranged al-
55 ternately with said first mentioned fingers, a plunger reciprocal in said handle, a suitable cross-bar secured to the outer end of said plunger to which said latter series of fingers are secured, and a spring within said
60 handle that keeps said plunger normally at the limit of its outward movement.

7. As an article of manufacture a hair waving device comprising two series of alternately arranged independent fingers the
65 end portions of each series of which are

parallel and are bent upward and normally toward each other and are adapted to reciprocate past each other.

8. As an article of manufacture a hair waving device comprising a handle, a series
70 of fingers projecting in the same direction from a cross-bar secured to said handle, a separate series of fingers arranged alternately with said first mentioned fingers the ends of both of said series being bent up-
75 ward and normally toward each other, a plunger reciprocal in said handle, and a suitable cross-bar secured to the outer end of said plunger to which said latter series of fingers are secured.

9. As an article of manufacture a hair waving device comprising a handle, a series
80 of fingers projecting in the same direction from a cross-bar secured to said handle, a separate series of fingers arranged alternately with said first mentioned fingers the ends of both of said series being bent up-
85 ward and normally toward each other, a plunger reciprocal in said handle, a suitable cross-bar secured to the outer end of said
90 plunger to which said latter series of fingers are secured, and a spring within said handle that keeps said plunger normally at the limit of its outward movement.

10. As an article of manufacture a hair
95 waving device comprising a stationary member having a series of fingers projecting laterally therefrom, and a movable member slidably mounted in said stationary member and provided with a series of lateral fingers
100 that move parallel with and between the fingers of the opposite member.

11. As an article of manufacture a hair waving device comprising a stationary mem-
105 ber having a series of fingers projecting laterally therefrom that are provided with upturned ends, and a movable member slidably mounted in said stationary member and provided with a series of lateral fingers that
110 move parallel with and between the fingers of the opposite member.

12. As an article of manufacture a hair waving device comprising a stationary mem-
115 ber having a series of fingers projecting laterally therefrom that are provided with upturned ends, and a movable member slidably mounted in said stationary member and provided with a series of lateral fingers that
120 project in the same direction as and move parallel with and between the upturned ends of the fingers of the opposite member.

13. As an article of manufacture a hair waving device comprising a stationary mem-
125 ber having a hollow shank provided with a series of parallel fingers, a reciprocal plunger slidable longitudinally in said shank, and a series of parallel fingers projecting upward from said plunger and adapted to be moved past the plane of the first men-
130 tioned series of fingers.

14. As an article of manufacture a hair
waving device comprising two independent
series of alternately arranged fingers, the end
portions of one series of fingers being ar-
ranged in a plane parallel to the plane of
the end portions of the opposite series, and
said fingers movable past each other always
in their same relative plane.

15. As an article of manufacture a hair
waving device comprising two independent
series of alternately arranged substantially
L-shaped fingers, the end portions of one

series of fingers being arranged in a plane
parallel to the plane of the end portions of
the opposite series, and said fingers movable
past each other always in their same rela-
tive plane.

In testimony whereof I have hereunto set
my hand and seal this 25th day of October,
A. D., 1907.

JESSIE CORNELIA BRADLEY. [L. s.]

Witnesses:

FRANK D. THOMASON,
HOWARD E. LEACH.