

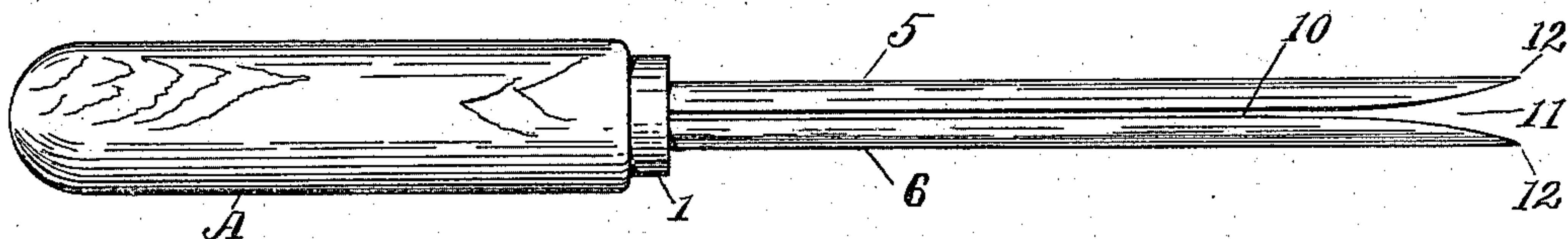
(No Model.)

W. HILL.  
CURLING IRON.

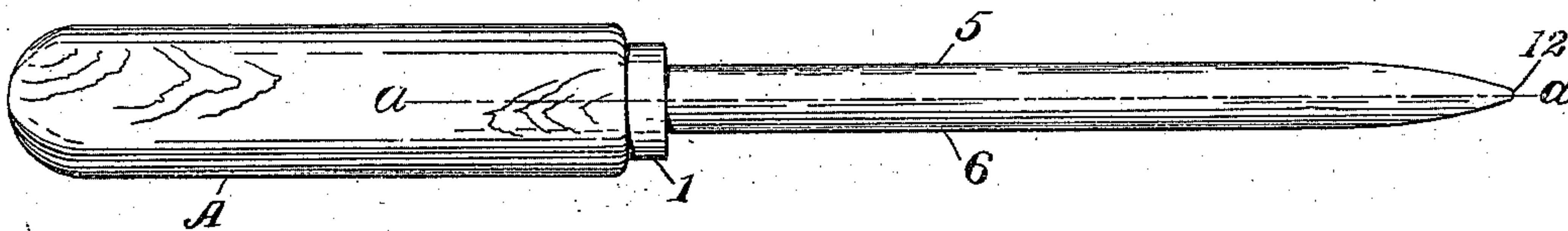
No. 547,212.

Patented Oct. 1, 1895.

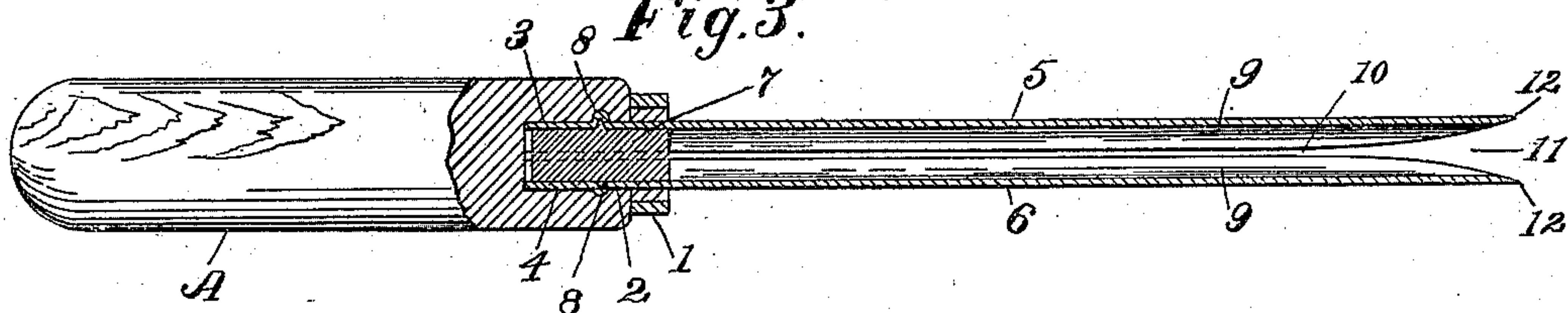
*Fig. 1.*



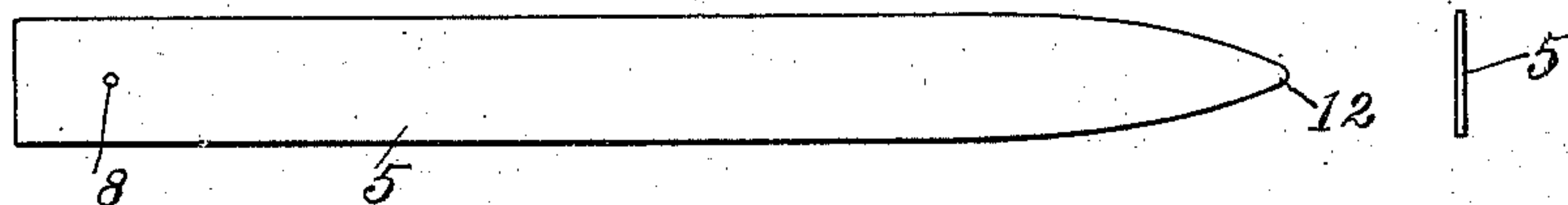
*Fig. 2.*



*Fig. 3.*

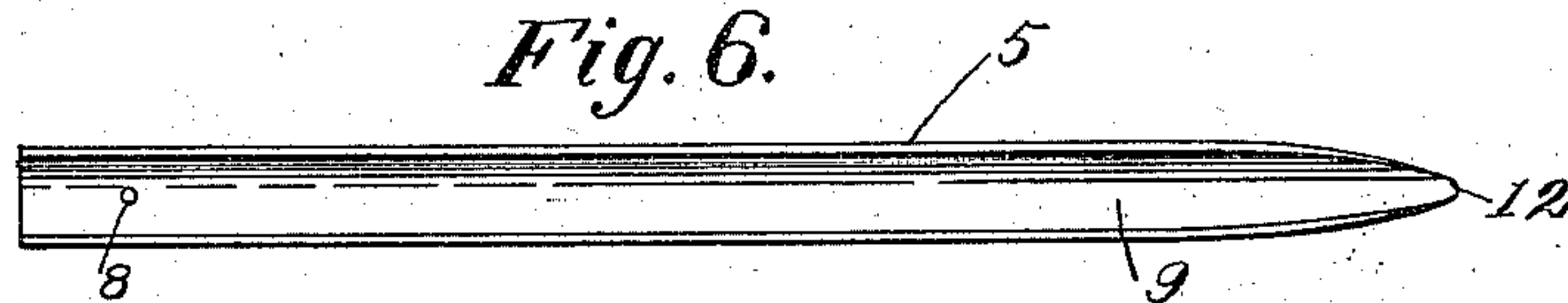


*Fig. 4.*

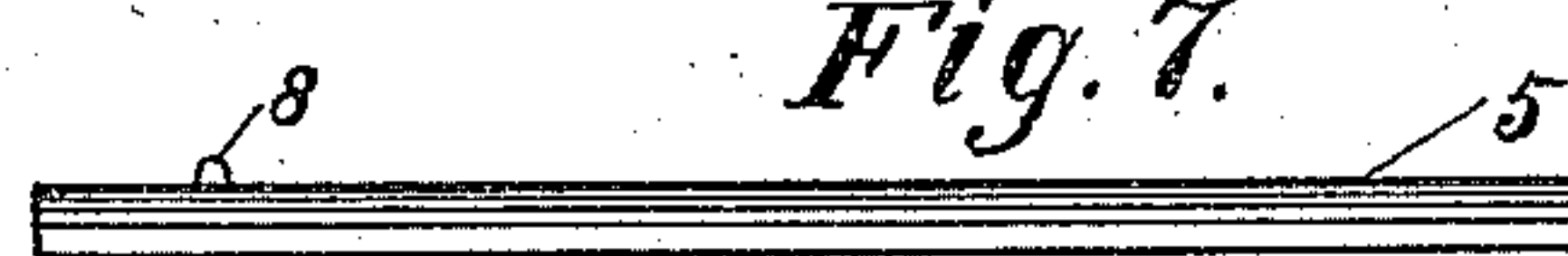


*Fig. 5.*

*Fig. 6.*



*Fig. 7.*



*Fig. 8.*



Witnesses

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# UNITED STATES PATENT OFFICE.

WARREN HILL, OF HARTFORD, CONNECTICUT.

## CURLING-IRON.

SPECIFICATION forming part of Letters Patent No. 547,212, dated October 1, 1895.

Application filed February 15, 1895. Serial No. 538,556. (No model.)

*To all whom it may concern:*

Be it known that I, WARREN HILL, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Curling-Irons, of which the following is a specification.

This invention relates to curling-irons or hair-curlers, the object being to provide an improved implement of this class which shall be adapted for gathering up and spreading the hair to be curled when the heating-iron is thrust into the mass of hair, and which shall be operated to curl the hair in a substantially cylindrical or spiral form and shall be simple in construction, effective in operation, and capable of being produced at a low cost.

In the drawings accompanying and forming part of this specification, Figure 1 is a side elevation of my improved curling-iron made with two resilient blades. Fig. 2 is a plan view of the curling-iron. Fig. 3 is a longitudinal section on the line *a a*, Fig. 2. Fig. 4 is a plan view of one of the blanks from which the blades of the curling-iron are formed. Fig. 5 is an end view of the same. Fig. 6 is a bottom plan of one of the blades. Fig. 7 is a side view of the blade, and Fig. 8 is a cross-sectional view of the same.

Similar characters designate like parts in the figures.

My improved curling-iron in the preferred form thereof herein shown consists of a suitable handle having therein a socket, in combination with a pair of blades of segmental form seated within said socket and having their inner sides concaved, and a holding pin or member set between the blades and engaging the concaved inner sides thereof for holding the blades in position in the handle.

In the drawings the handle is shown provided with a ferrule 1, and it has a central bore 2, in which the shank portions 3 and 4 of the two oppositely-disposed blades 5 and 6 are set, a plug or holding device 7 being shown forced into place between said blade-shanks for the purpose of holding them outwardly in firm engagement with the handle.

As a means for more securely holding the blades in place, and especially for holding them against rotation and also against longitudinal movement in the handle, each of the

blade-shanks 3 and 4 is shown provided with a projection or holding-key 8, which is shown embedded in the inner surface of the handle-bore, so as to firmly engage the blade with the handle and thereby prevent any displacement thereof.

In manufacturing the curling-iron, the handle having been properly bored the blades are set with their shanks in the bore and the holding-iron 7 is then forced downwardly between the blades, so as to expand the same into firm engagement with the handle and at the same time force the blade-keys 8 into the material of the handle in the manner and for the purpose stated.

The blades 5 and 6 are shown of segmental form not only externally, but also internally, so as to form between them a tubular space 9, Fig. 3, in which the heated air may circulate during the operation of heating the iron preparatory to using the same. Said heating-iron blades are set in substantial parallelism with each other and at a slight distance apart, so as to form relatively narrow slots 10 longitudinally of the heating-irons, which slots terminate in a funnel-shaped or open mouth 11, whose function is to gather up the tuft or lock of hair to be curled when the curling-iron is thrust into the mass of hair, the hair seized by the curling-iron being separated out of the mass by the points 12 of the blades. These points, being formed centrally of the width of said blades, are located at the extreme outer diameter of the heating-iron, so as not to separate or spread the mass of hair into which the heating-iron portion of the implement is inserted.

During the operation of heating the curling-iron, preparatory to using the same, the heating-iron is held in a flame or other means for heating the same, and the heated air passes both outside and inside of the blades, and it circulates through said longitudinal slots and within the interior space 9 of said heating-iron and in practice passes longitudinally of the heating-iron and out of the open mouth thereof, so as to distribute the heat throughout the entire extent of the curling-iron blades.

The blades 5 and 6 of the curling-iron are of resilient construction, so that when the same are thrust into the hair this, being gathered into the longitudinal slots 10 by means



of the open mouth 11, will spring said blades slightly apart and cause the blades to grasp the hair with a spring-pressure, so that as the hair is slid along in said slots throughout the length of the instrument the hair will be acted upon by the edges of the resilient blades to spread and prepare the same in a layer in suitable condition for being wound upon the exterior of the curling-iron.

For making the curling-iron blade I first prepare a suitable sheet-metal blank, substantially as illustrated in Figs. 4 and 5, by means of suitable forming-dies, forming said blank into a segmental shape, as illustrated, for instance, in Figs. 6, 7, and 8.

In the present instance the cross-sectional form of the blade is that of a segment equal to one-half of a circle; but in some cases more than two segmental members may be used in constructing the curling-iron, so that the arc of the segment will be correspondingly reduced. If, for instance, three segmental members or blades are employed to form the heating-iron portion of the implement, said segmental arc will be approximately equal to one-third of a circle, and the open mouth at the points of the blades will be formed between three blade-points instead of between two such points, as in the present instance. I also show the blades 5 and 6 as being of an even thickness throughout, which renders them susceptible of being quickly and uniformly heated.

The curling-iron herein shown and described is not only adapted to be manufactured at an extremely low cost and with a minimum amount of material, but it also possesses unusual efficiency. It is by reason of its peculiar construction quickly and evenly heated, and by reason of the resilient character of the blades, together with the peculiar construction and organization of the same, it gathers in and holds the hair in the best manner for applying the heat thereto.

The curling-iron being of a substantially circular form, notwithstanding that it is formed of a multiplicity of members, the hair is wound in a regularly-formed curl, while the sheet-metal blades of the heating-iron are of construction sufficiently resilient to permit them

to spread or spring apart when thrust through the hair. It is apparent, however, that by constructing them in segmental form their lateral strength or stiffness is greatly increased by reason of their arched construction, which renders them practically incapable of being bent or injured by any ordinary use.

Having thus described my invention, I claim—

1. In a curling-iron having a handle with a socket therein; the combination of two segmental blades seated within said socket, and having their inner sides concaved and forming a circular seat; and a holding-pin set between the blades and within the handle-socket, and adapted for engaging the blades, and for forcing said blades outward into engagement with the handle, substantially as specified.

2. In a curling-iron, the combination, with a handle having a cylindrical socket therein, of a multiplicity of segmental blades having parallel edges except at their points, and together forming less than a complete circle, said blades being seated within said socket and having their inner sides concaved and forming a circular seat; and a combined holding- and -separating pin set between said blades within the handle-socket and holding the blades in engagement with the handle, and also separating the blades laterally to form longitudinal openings between the blades, substantially as described.

3. In a curling-iron, the combination, with a suitable handle, having a blade-receiving bore, of a multiplicity of segmental blades set in said bore, and each having an external projecting-blade key adapted to engage in the material of the handle; and a holding-pin in position and adapted to force the blades outwardly for holding the same in place, and to force the blade-keys into the handle; whereby the blades are secured against rotation and against longitudinal movement in said bore, substantially as described.

WARREN HILL.

Witnesses:

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