No. 837,735. PATENTED DEC. 4, 1906.

A. SCHÄRER.

HAIR WAVER.

APPLICATION FILED FEB. 24, 1906.

Fig. 1.

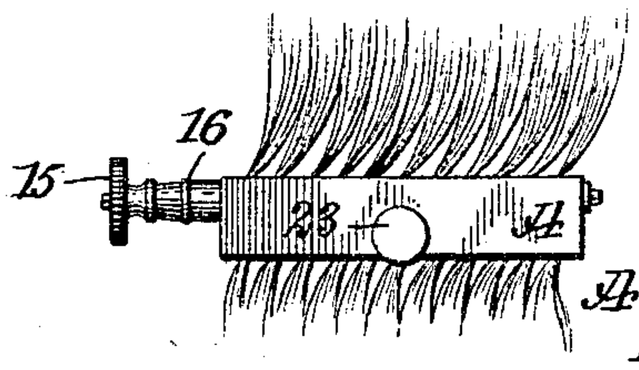


Fig. 2.

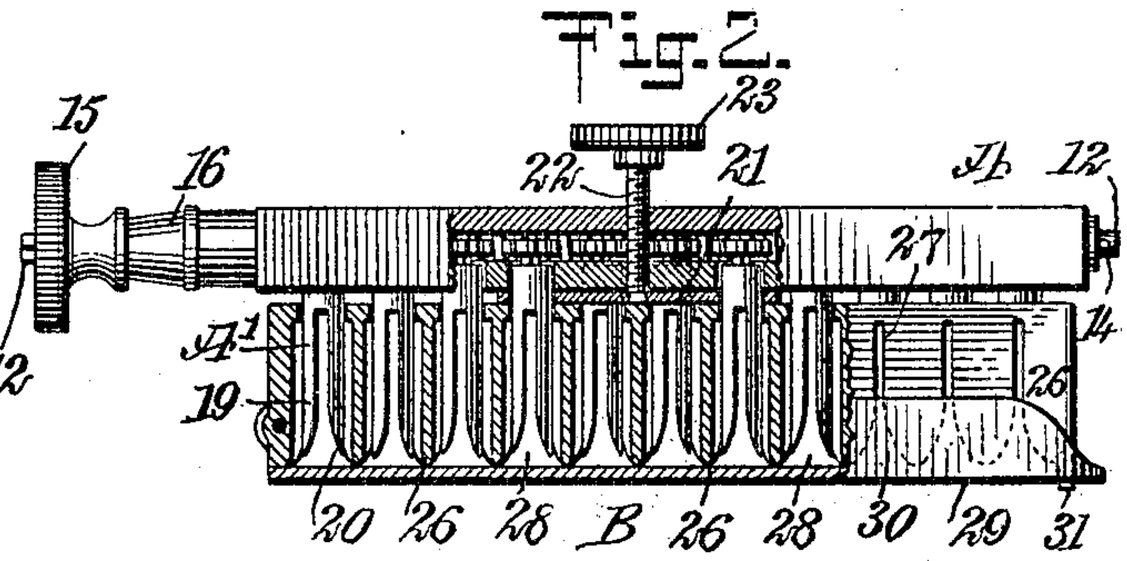


Fig. 6.

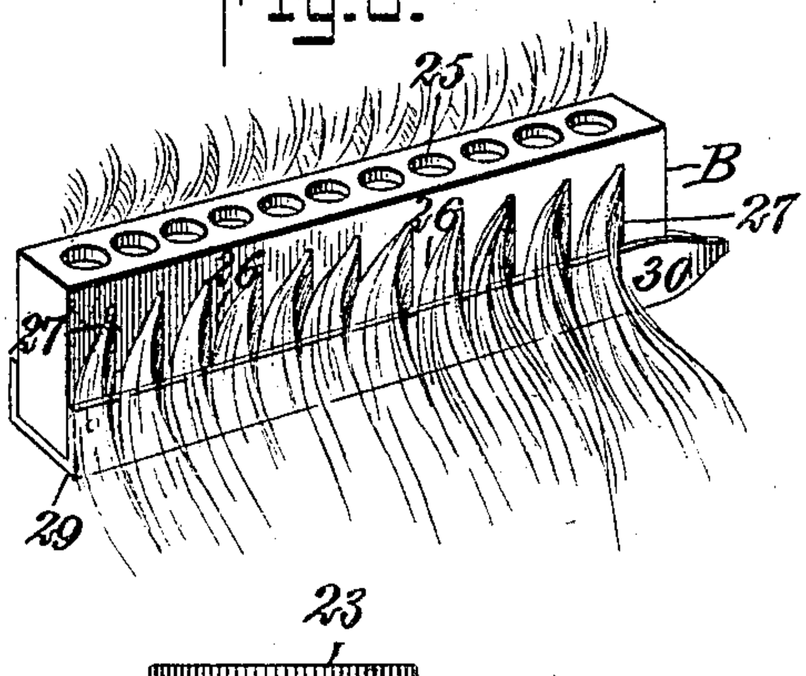


Fig. 4.

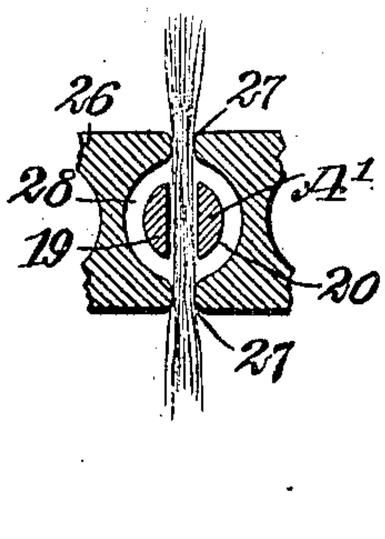


Fig. 5.

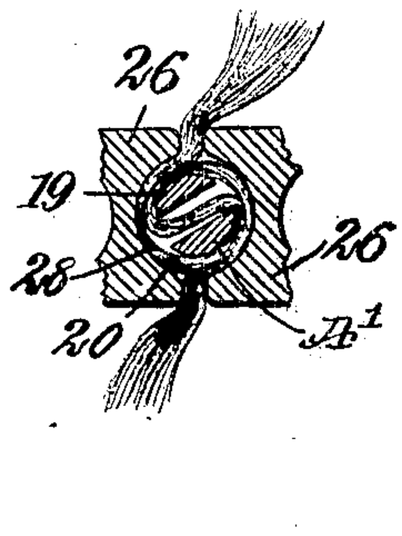


Fig. 3.

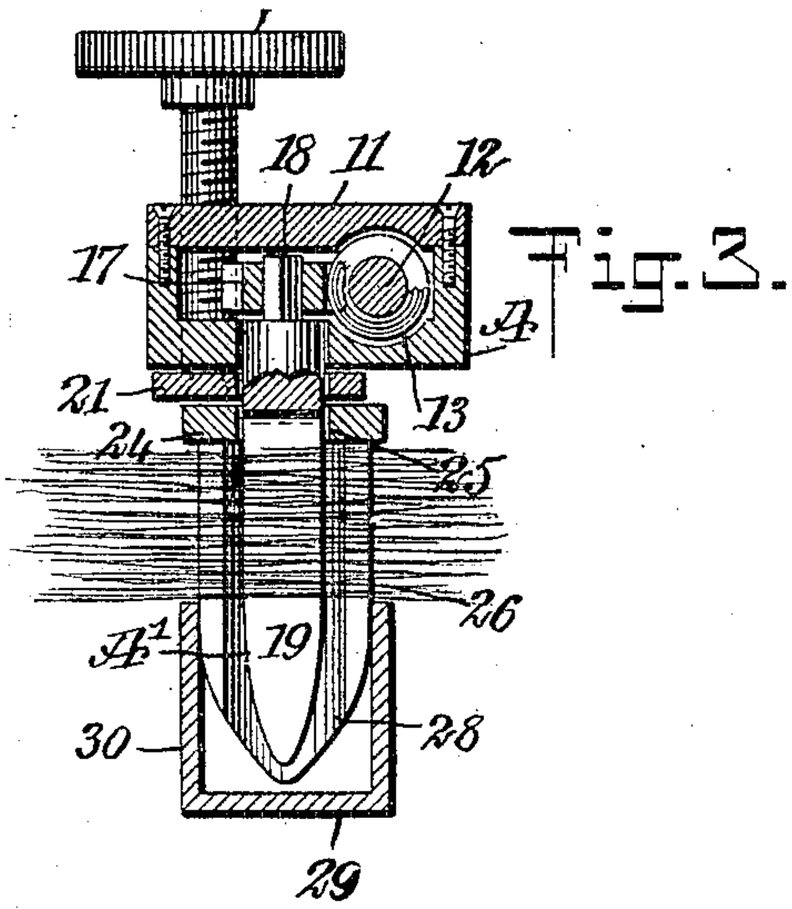
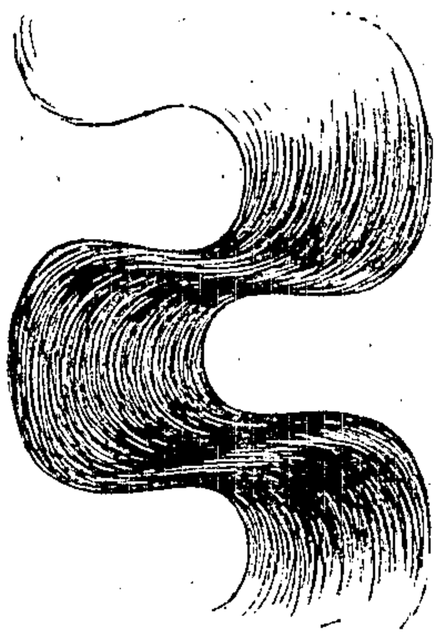


Fig. 7.



WITNESSES:

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HAIR-WAVER.

No. 837,735. Specification of Letters Patent. Patented Dec. 4, 1906.

Application filed February 24, 1906. Serial No. 302,750.

To all whom it may concern:

Be it known that I, ARNOLD SCHÄRER, a citizen of the Republic of Switzerland, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Hair-Waver, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a device for imparting a decided and uniform wave to the hair and to so construct the device that it will not tend to break the hair and that can be conveniently applied, and also to provide a construction which will be of a simple nature, the comb portion, or that which remains in place upon the head for a period of time, being made very light.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the device applied to the hair. Fig. 2 is a sectional side elevation of the device drawn upon an enlarged scale. Fig. 3 is a transverse vertical section through the device, also drawn upon an enlarged scale. Fig. 4 is a transverse section through a tooth of the comb-section of the device and a winding-tooth of the body-section which enters the said comb-tooth, showing the two teeth in their normal positions and strands of hair passing through them. Fig. 5 is a view similar to Fig. 4, illustrating, however, the strands of hair as wound within the comb-tooth to impart the wave formation thereto. Fig. 6 is a perspective view of the comb-section of the device as it appears when left temporarily on the head, and Fig. 7 is a view illustrating the wave which is imparted to the hair by the use of the device.

A represents the body-section of the device, and B a comb-section which is used in connection with the body-section, but is separable therefrom. The body-section A is of box-like formation, as is shown particularly in Fig. 3, and is provided with a removable top 11. A shaft 12 extends through the said body-section, and the said shaft within the body-section has a worm-thread 13 formed thereon. The shaft is prevented from being accidentally drawn out from the said body-section by placing a pin 14 at one end, and at the other end of the shaft outside of the said body a thumb-nut 15 is secured, whereby to turn the shaft. Ordinarily a spacing-sleeve 16 is made to intervene between the body A and the said thumb-nut, so as to prevent the fingers of the operator coming too close to the said body, as is shown in Figs. 1 and 2. A series of pinions 17 are also located within the body A, and these pinions are toothed to mesh with the worm-thread 13 on the said shaft 12. Each pinion 17 is secured to the shank 18 of a winding-pin A′. These winding-pins are preferably made of metal, although other material may be employed, and their shanks 18 are polygonal and of reduced diameter. The winding-pins A′ are circular in cross-section and are bifurcated to form two members 19 and 20, the inner faces of the said members at their ends being inclined or curved in opposite directions, as is clearly shown in Fig. 2. In connection with the said body member A a plate 21 is employed, which is located beneath the central portion of its box-like structure, being apertured for the passage of the winding-pins A′ at that portion of the device, and the plate 21, which is for a purpose to be hereinafter described, is raised and lowered through the medium of a screw 22, passed through the box-body, as is shown in Figs. 2 and 3, the apertures through which the screw passes being threaded, and the said screw is provided with a knob 23 at its outer end.

The comb-section B is constructed of a light material, such as celluloid, and its back 24 is flat and provided with apertures 25, corresponding in number to the number of winding-pins A′ which they are adapted to receive, and the said apertures are of such size that the said pins turn neatly therein. The teeth 26 of the comb-section project down from the back between the apertures 25, and said teeth are wide enough at their side portions to extend to about the center of adjacent apertures, as is shown in Fig. 6, whereby the spaces 27 between the teeth 26 occur at about opposite the central portions of said apertures, as shown in the same figures. The opposing faces of the teeth 26 are longitudinally concaved, as is shown in Figs.

2, 4, and 5, and provide chambers 28, circular in cross-section and of greater diameter than the diameter of the winding-pins which enter them, as is shown in Fig. 3.

The comb-section B is provided with a cover 29, hinged at one end, which cover is adapted to be carried up to close the ends of the spaces 27, which occur between the teeth 26 at the free ends of said teeth, and the said cover 29 is provided with side flanges 30, which extend up a suitable distance at the sides of the teeth of the comb, and at the opposite end of the comb-section to which the cover 29 is pivoted or hinged a latch 31 of any suitable construction is provided to hold the cover in its closed position relatively to the teeth of the comb-section.

In operation the shaft 12 is turned until the winding-pins A′ have been brought to such position that the spaces between their members face to the side or face relatively to the spaces between the teeth of the comb-section. Then the winding-pins are introduced into the apertures 25 in the back of said comb-section and are pressed down into the chambers 28 between the teeth of the comb-section the space between the members of the winding-pins at that time being in registry with the spaces 27 between the teeth of the comb-section, as is shown in Figs. 2 and 4. A lock of hair of suitable size to be treated is then selected and is combed out carefully so as to straighten and untangle the hair, and then the hair of the lock is forced up into the spaces 27, occuring between the teeth of the comb-section and the corresponding spaces between the members of the winding-pins A′. This having been accomplished, the cover 29 is closed and locked. The hair and the complete device will then be in the relative positions shown in Fig. 1. The shaft 12 is now turned, causing the winding-pins to revolve in the chambers 28 of the comb-section, and the various separated strands of hair will then be wound around the winding-pins, a portion of the strands passing through the spaces between the members of the winding-pins, and the revolution of the shaft is continued until the chambers 28 have been filled with the coiled hair strands, as is shown in Fig. 5. At such time the screw 22 is turned, which forces down the plate 21, and this plate bearing on the back of the comb-section separates the comb-section B from the body A, leaving the comb-section in the hair. The body A is then introduced into another comb-section in the same manner as has been described, and the hair of the same lock is introduced into this second comb-section, which occupies a position on the lock a certain distance from the first comb-section fixed, and the shaft 12 is again revolved to coil the strands of hair in the second comb-section and the body-section is again removed. The operation is repeated until this particular lock of hair has received the desired number of comb-sections. The hair is permitted to remain coiled in the comb-sections for a short period of time, so as to set the hair in its coils. The cover 29 of each section is then opened and the comb-sections are removed from the lock of hair, and when said lock of hair is straightened out it will assume the wavy appearance, substantially as shown in Fig. 7.

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

1. In a hair-waver, an element provided with a series of bifurcated winding-pins and means for turning the same, and a second toothed element arranged to receive the winding-pins between the teeth, the second element being removable from the first element.

2. In a hair-waver, an element provided with a series of rotatable bifurcated winding-pins and means for simultaneously rotating said pins, and a second element having apertures to receive the pins and teeth between the said apertures, the opposing faces of the teeth being concaved and forming chambers of greater diameter than the diameter of the winding-pins which extend into the said chambers.

3. In a hair-waver, a series of winding-pins mounted to simultaneously revolve and means for revolving them, and a comb-section having apertures in its back corresponding in number to the number of winding-pins, the teeth of the comb-sections having their opposing faces concaved, forming a series of chambers into which the winding-pins extend, which chambers are of greater diameter than the winding-pins, the spaces between the teeth of the comb-section being substantially in alinement with the central portion of the apertures, and the spaces between the bifurcated winding-pins in one position of said pins registering with the spaces between the teeth of the comb-section.

4. A hair-waver, consisting of a body-section, a series of bifurcated winding-pins carried by the said section, and means for simultaneously rotating the said pins, and a comb-section having apertures in its back to receive the pins of the body-section, the opposing faces of the teeth of the comb-section being concaved, forming chambers of greater diameter than the pins of the body-section, the spaces between the teeth of the comb-section being located substantially in alinement with the central portion of the apertures therein and adapted in one position of the winding-pins to register with the spaces between the members of said pins, and a cover pivoted to the comb-section and adapted to close over the free ends of the teeth of the comb-section.

5. A hair-waver, consisting of a body-section provided with a series of revoluble bifur-

cated winding-pins and means for revolving said pins, and a comb-section provided with a series of apertures in its back adapted to receive the said winding-pins, and the said comb-section having chambers formed between the teeth below the apertures of greater diameter than the diameter of the winding-pins which extend into them.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ARNOLD SCHÄRER.

Witnesses:
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JNO. M. RITTER.