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H. P. FISKE.
HAIR WAVER.

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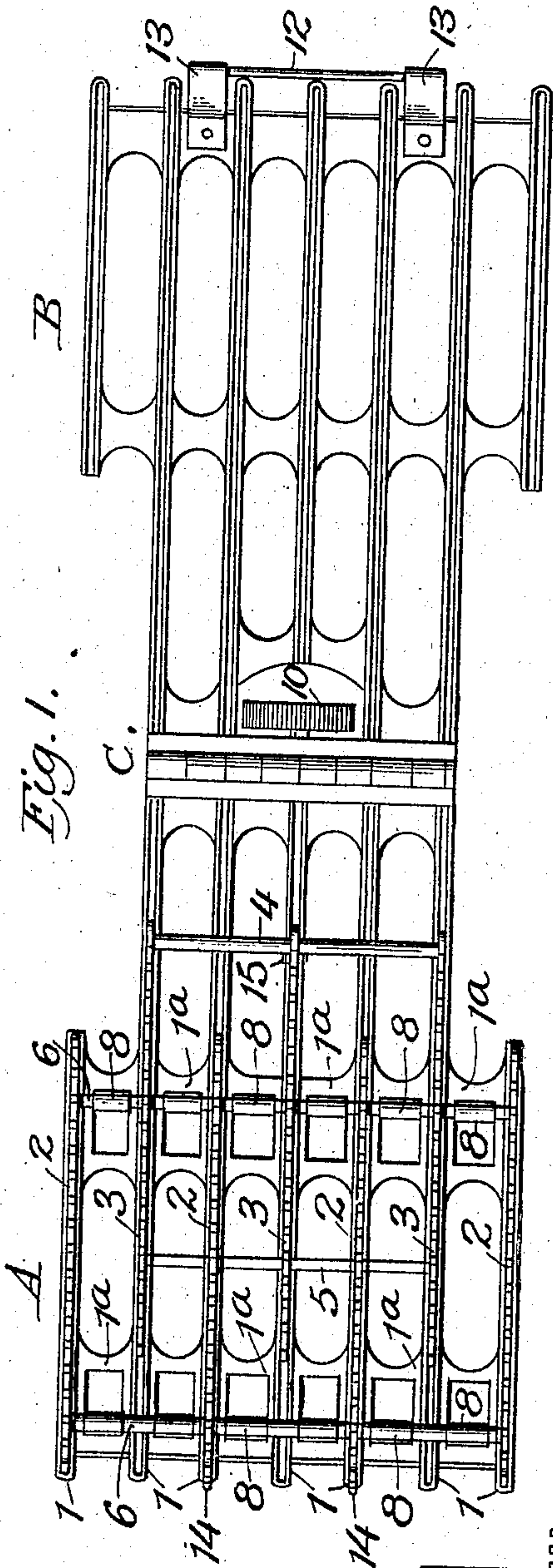


Fig. 1.

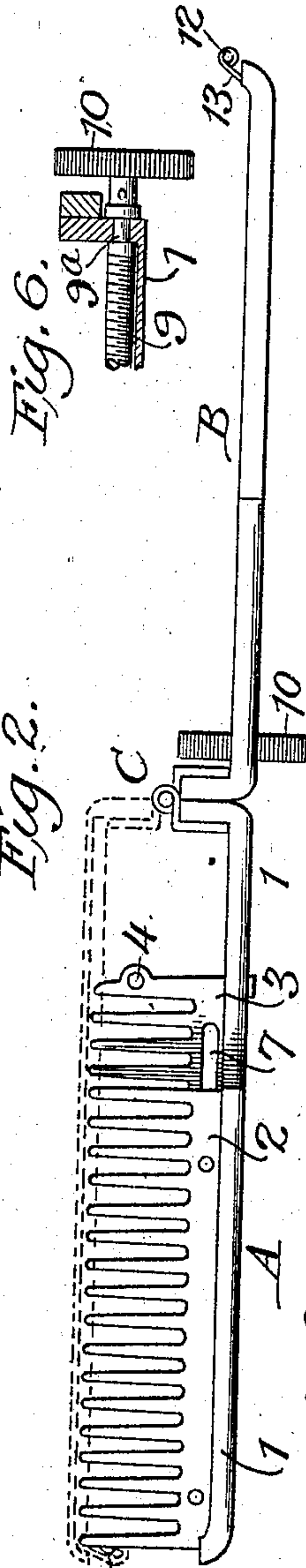


Fig. 2.

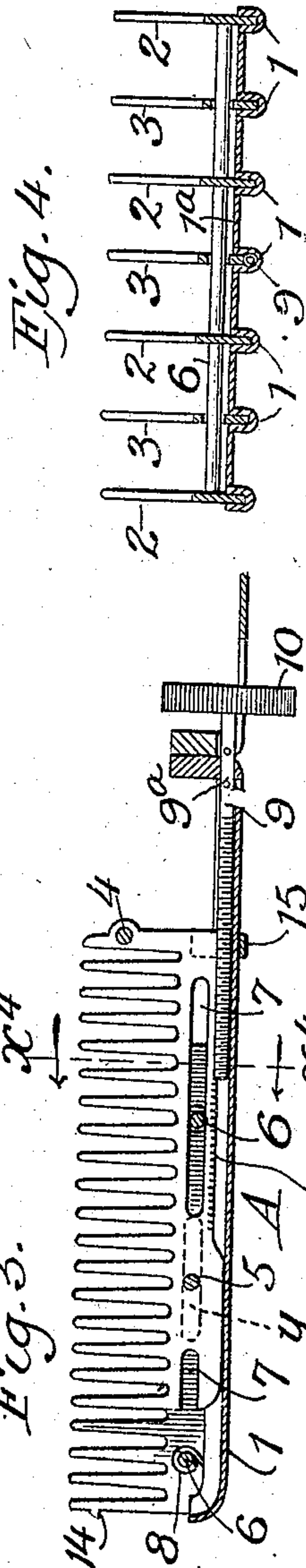


Fig. 3.

Fig. 4.

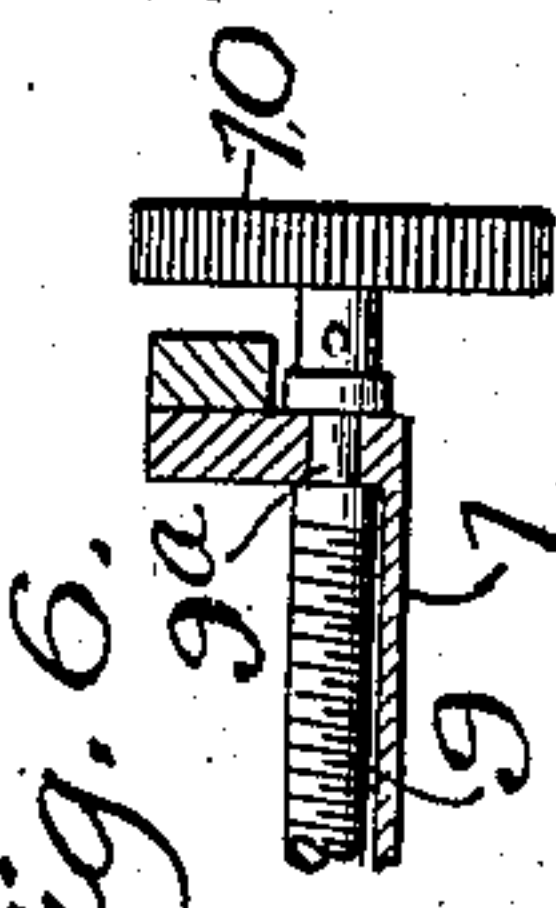


Fig. 5.

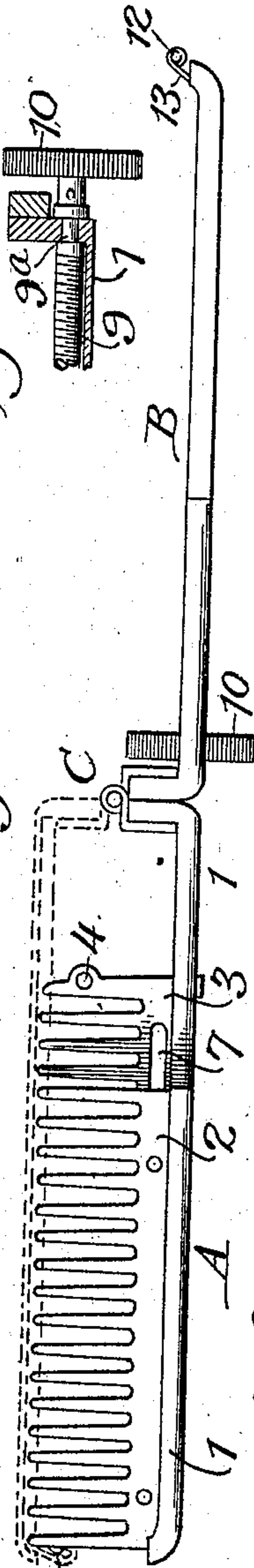


Fig. 6.

Witnesses
James F. Duhamel
A. J. [Signature]

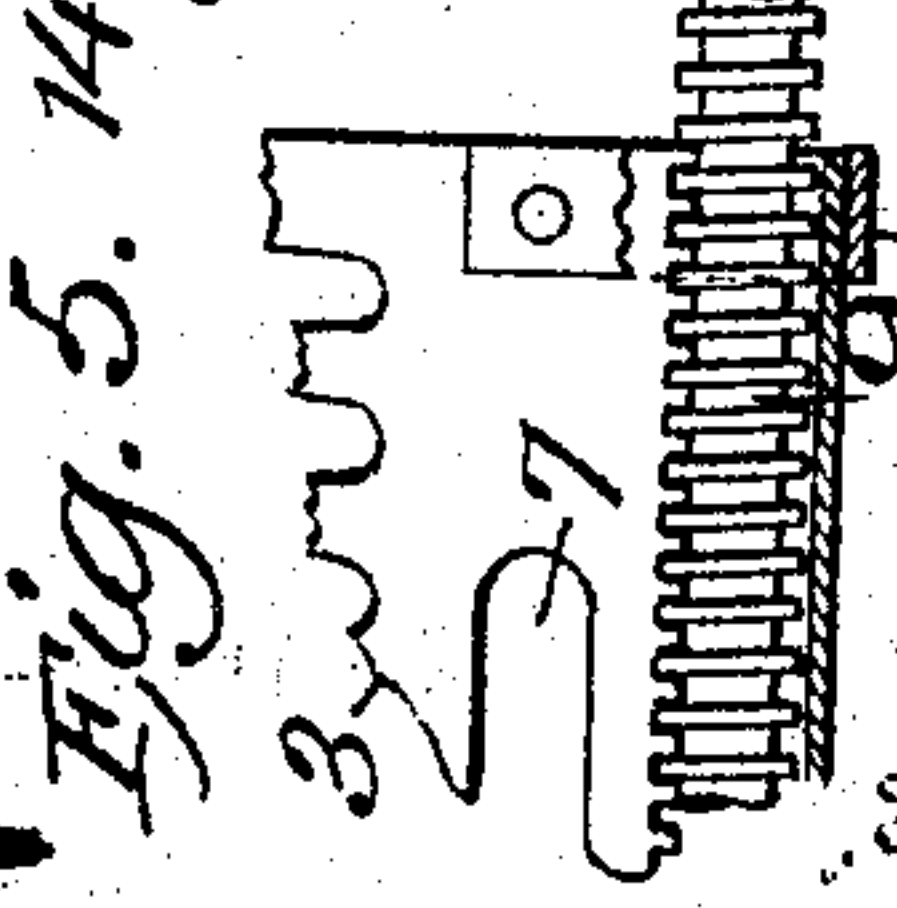


Fig. 7.

Henry P. Fiske
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UNITED STATES PATENT OFFICE.

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HAIR-WAVER.

No. 815,278.

Specification of Letters Patent.

Patented March 13, 1906.

Application filed October 24, 1905. Serial No. 284,211.

To all whom it may concern:

Be it known that I, HENRY P. FISKE, a citizen of the United States, residing in the borough of Manhattan, in the city, county, and State of New York, have invented certain new and useful Improvements in Hair-Wavers, of which the following is a specification.

This invention relates to the class of toilet or hair-dressing devices which are designed to impart to the hair a peculiar wavy form, as distinguished from the effects produced by curling and crimping devices. The United States patent to Sheridan, dated December 16, 1902, and numbered 716,295, shows and fully describes a device for producing such a wavy effect in the hair, and the device illustrated in said patent belongs to the same class as that set forth in the present application.

The object of this invention is to overcome certain defects in this class of devices which have heretofore rendered them in a large degree impracticable when applied in actual use, and the means employed in attaining this object will be hereinafter fully described, and the novel features thereof carefully defined in the claims.

In the accompanying drawings, which serve to illustrate an embodiment of the invention, Figure 1 is a plan view of the device as it appears when thrown open, and Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal mid-section of the main portion or comb-section of the device; and Fig. 4 is a cross-section of the same, taken at line x^4 in Fig. 3. Fig. 5 is a detail view of the screw for moving the sliding combs. Fig. 6 is a detail of the screw device.

It may be explained preliminarily that the device consists of a comb-section and a cover-section and that these two sections are hinged together. The comb-section consists of a light back-frame, on which are secured, as the device is herein shown, four like fixed combs disposed parallel and spaced at equal distances apart and three similar combs disposed so as to alternate with the fixed combs, but slidably mounted in the back-frame. These slidable combs are connected together and are movable together by means of a screw.

To describe the device more in detail, A designates as a whole the comb-section of the device, B the cover-section as a whole,

and C the hinge connecting them. Preferably the device will be made from aluminium in order to attain strength with extreme lightness, as the device is to be left as a fixture on the hair for some time. The back-frame of the section A is made up of U-shaped or trough-like ribs 1, connected together by intermediate ties 1^a. In four of the ribs are secured the fixed combs 2, while in the three ribs alternating with those supporting the fixed combs are mounted the movable or slidable combs 3, these latter being connected together by a transverse front bar 4 and a transverse base-bar 5, the latter playing in slots in the two inner fixed combs. These slots are not seen in full lines, but are indicated in dotted lines at y in Fig. 3. The fixed combs 2 are connected by transverse bars 6, and these play in slots 7 in the sliding combs. (Seen clearly in Fig. 3.) To further brace the structure, parts of the sheet or plate forming the ties of the back-frame are cut free on three sides and rolled about the said bars, thus forming sleeve-like brackets. These brackets are designated by the numeral 8 in Figs. 1 and 3.

The movable or sliding combs 3 are represented in Figs. 1, 2, and 3 as shifted or displaced to the extent of about one-half of the full extent to which they may be displaced. The displacement is effected by a screw 9, provided with a milled head 10. This screw rotates in the hollow of the central rib of the back-frame, (see Fig. 4,) and its thread engages teeth or partial screw-threads in the lower edge of the central comb, as seen at 11 in Fig. 3 and in detail in Fig. 5. The screw, which may be of harder metal than aluminium, is collared at 9^a to prevent longitudinal movement.

The cover-section B is or may be a counterpart of the back-frame of the comb-section. It has no combs, but has ribs and ties like the ribs and ties on the other section.

In the operation of the device the combs will all be side by side—that is to say, the sliding combs 3 will be run back (to the left in the principal views) as far as they will go, so as to aline them with the fixed combs. The lock of hair is now laid across all of the combs and pressed down between the teeth of same. The cover-section is now turned over to the position indicated by dotted lines in Fig. 2 and secured by snapping a transverse

rod 12, secured in brackets 13 on the cover section or frame over catches 14 on the two intermediate fixed combs. The tips of the teeth of the several combs enter and are housed in the hollows of the respective ribs on the cover-section. The alternate movable combs are now displaced to the desired extent by means of the screw 9, and this imparts a wavy or zigzag form to the incarcerated hair. The device is left in this condition with the hair inclosed for the proper length of time or as long as necessary and is then removed by throwing back the cover and carefully withdrawing the comb-teeth from the hair.

As has been stated, the back-plate and combs, as well as the cover-section, will be made by preference from aluminium, and by preference also the U-shaped ribs and the ties between them, both of the comb-section and cover-section, will be integral, as indicated in Fig. 4. If deemed necessary for strength, the middle comb, in which the screw-threads 11 are cut, may have a thicker back than the other combs.

The toothed devices for holding the hair have been herein called "combs," although they do not perform the ordinary functions of a comb. Detached, however, they usually present all the appearance of combs. They may be of any desired thickness and may be mounted in grooves and guides formed in any way in the back-frame. The grooves in the cover-section may also be formed in any manner desired. It will be noted that the covers for the several combs are all connected rigidly together and hinged to the back-frame.

The actual number of combs employed is not essential to this invention; but it is important that there should be an odd number—as seven, for example—and that the two outer combs should be stationary or fixed, as herein shown. The length of the teeth of the combs and their shape are not features important to the present invention. Nevertheless, it is preferred that these teeth be smooth, practically straight, and without taper.

The collaring of the screw may be with pins, as seen at 9^a in Fig. 3; but it will be preferable, perhaps, to employ the construction shown in Fig. 6, which represents the screw 9 shouldered to form one collar and the head 10 thereof pinned onto the screw-journal to form the other collar.

To hold the middle comb, provided with the screw-threads 11, down into engagement with the thread on the screw 9, there is a stirrup 15, which is somewhat U-shaped and takes under the U-shaped rib in which the screw rotates, the upright branches of the stirrup being secured to the front end of the middle comb. This stirrup plays in the movements of the comb in apertures cut in the tie-plates between the ribs.

Having thus described my invention, I claim—

1. A device for the purpose specified, comprising a back-frame, a plurality of combs fixed to said back-frame, a plurality of combs mounted slidably in said back-frame, said slidable combs alternating with the fixed combs, means connecting the slidable combs rigidly together, means for holding the hair in place in the combs, and a collared screw, mounted in the back-frame, for moving the gang of slidable combs and for holding them where set.

2. A device for the purpose specified, comprising a back-frame, a plurality of combs fixed in said back-frame throughout their entire length, a plurality of combs alternating with the fixed combs and slidably mounted in guides in the back-frame, means connecting the slidable combs rigidly together in a gang, means for holding the hair in place in the combs, and a screw device, mounted in the back-frame for moving the gang of slidable combs and holding them where set.

3. A device for the purpose specified, comprising a back-frame, a plurality of combs fixed to said back-frame, a plurality of combs mounted slidably in said back-frame, said slidable combs alternating with the fixed combs, means connecting the slidable combs rigidly together, a screw device for moving the gang of slidable combs and holding them where set, a cover-section hinged to the back-frame and adapted to fold over onto the comb-teeth and house their points said cover-section being in a single piece, and means for securing the cover-section in place when folded down on the teeth.

4. A device for the purpose specified, comprising a back-frame having parallel ribs of U shape in cross-section, secured rigidly together, a plurality of combs fixed by their backs in the hollows of some of said ribs, a plurality of slidable combs alternating with the fixed combs and mounted with their backs engaging the hollows in the other ribs of the back-frame, transverse bars connecting the slidable combs together rigidly, said fixed and slidable combs being shorter than the back-frame in which they are mounted, a screw device for moving the gang of fixed combs and holding them where set, and means for holding the hair in place in the combs.

5. A device for the purpose specified, comprising a back-frame and a cover-section, of substantially like construction, hinged together end to end and each provided with a plurality of parallel grooves extending longitudinally of the frame, combs secured by their backs in some of the grooves of the back-frame, similar combs mounted slidably in the other grooves of the back-frame, the fixed and slidable combs alternating with each other, means rigidly connecting the slidable combs, a screw device for moving and hold-

ing in position the gang of sliding combs, and reciprocal devices on the cover-section and fixed combs for securing said section in position with its grooves housing the teeth of the respective combs.

5 6. A device for the purpose specified, comprising a back-frame, four combs fixed by their backs to said frame and disposed parallel, with three spaces of substantially equal
10 width between them, three combs slidably mounted in the respective spaces between the fixed combs, and connected rigidly together, a screw device for operating said sliding combs, a cover-section for holding the
15 hair in place, said cover-section being hinged to the back-frame, and means for securing the cover-section in place on the combs.

7. A device for the purpose specified, comprising a back-frame, a plurality of combs
20 disposed parallel with each other and fixed by their backs to said back-frame, a plurality of similar combs alternating with the fixed combs, parallel therewith, connected rigidly together, and slidably mounted in grooves in
25 the back-frame, the exterior combs being both fixed combs, a screw device for operating the slidable combs and holding them in place where set, and means for holding the hair in place in the combs.

30 8. A device for the purpose specified, comprising the back-frame, the fixed combs mounted on said back-frame, the slidable combs mounted in grooves in the back-frame, said slidable combs being connected together
35 and alternating with the fixed combs, the centrally-disposed slidable comb being provided with a screw-thread 11 on its lower edge, the operating - screw 9, mounted and

collared in the back-frame and engaging the screw-thread on said comb, and means for 40 holding the hair in the combs.

9. A device for the purpose specified, comprising the back-frame, the fixed combs mounted on said back-frame, the slidable combs mounted in grooves in the back-frame, 45 said slidable combs being connected together and alternating with the fixed combs, the centrally-disposed slidable comb being provided with a screw-thread 11 on its lower edge, the operating - screw 9, mounted and 50 collared in the back-frame and engaging the screw-thread on the comb, the stirrup 15 of U shape, which takes under the rib in which the said middle comb plays, with its upper ends secured to said comb, and means for 55 holding the hair in the combs.

10. A device for the purpose specified, comprising a back-frame, an even number of combs disposed parallel with each other and fixed in said back-frame, an odd number of 60 similar combs slidably mounted in said back-frame, the slidable combs being less in number than the fixed combs, and alternating and parallel therewith in position, means connecting said slidable combs rigidly together, 65 means for operating the gang of slidable combs, and means for holding the hair in place in the combs.

In witness whereof I have hereunto signed my name, this 17th day of October, 1905, in 70 the presence of two subscribing witnesses.

HENRY P. FISKE.

Witnesses:

WILLIAM J. FIRTH,
H. G. HOSE