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G. DELORY.

DEVICE FOR APPLYING DYES, &c., TO THE ROOTS OF HAIR.

APPLICATION FILED JULY 7, 1904.

Fig. 1

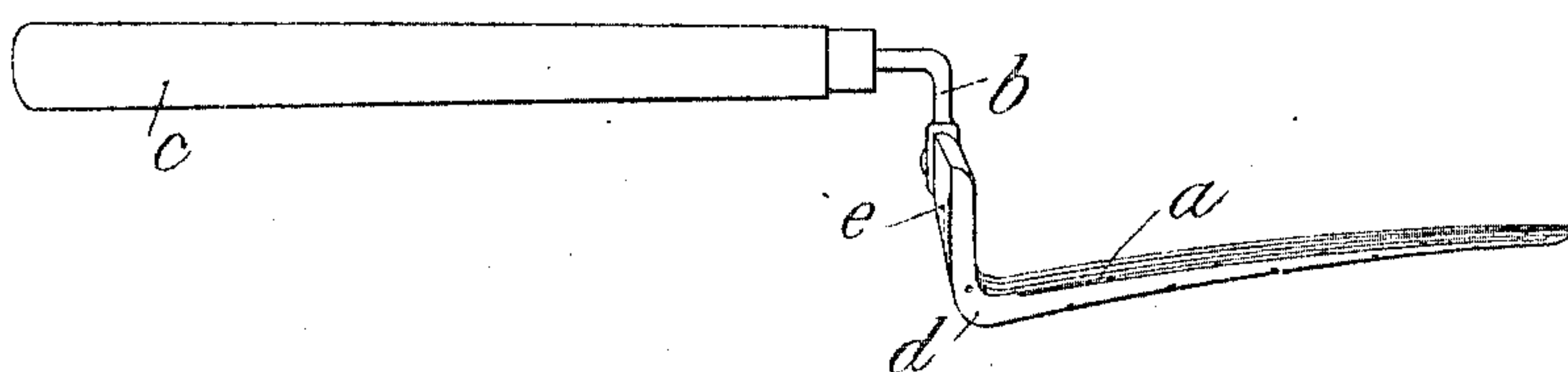


Fig. 2

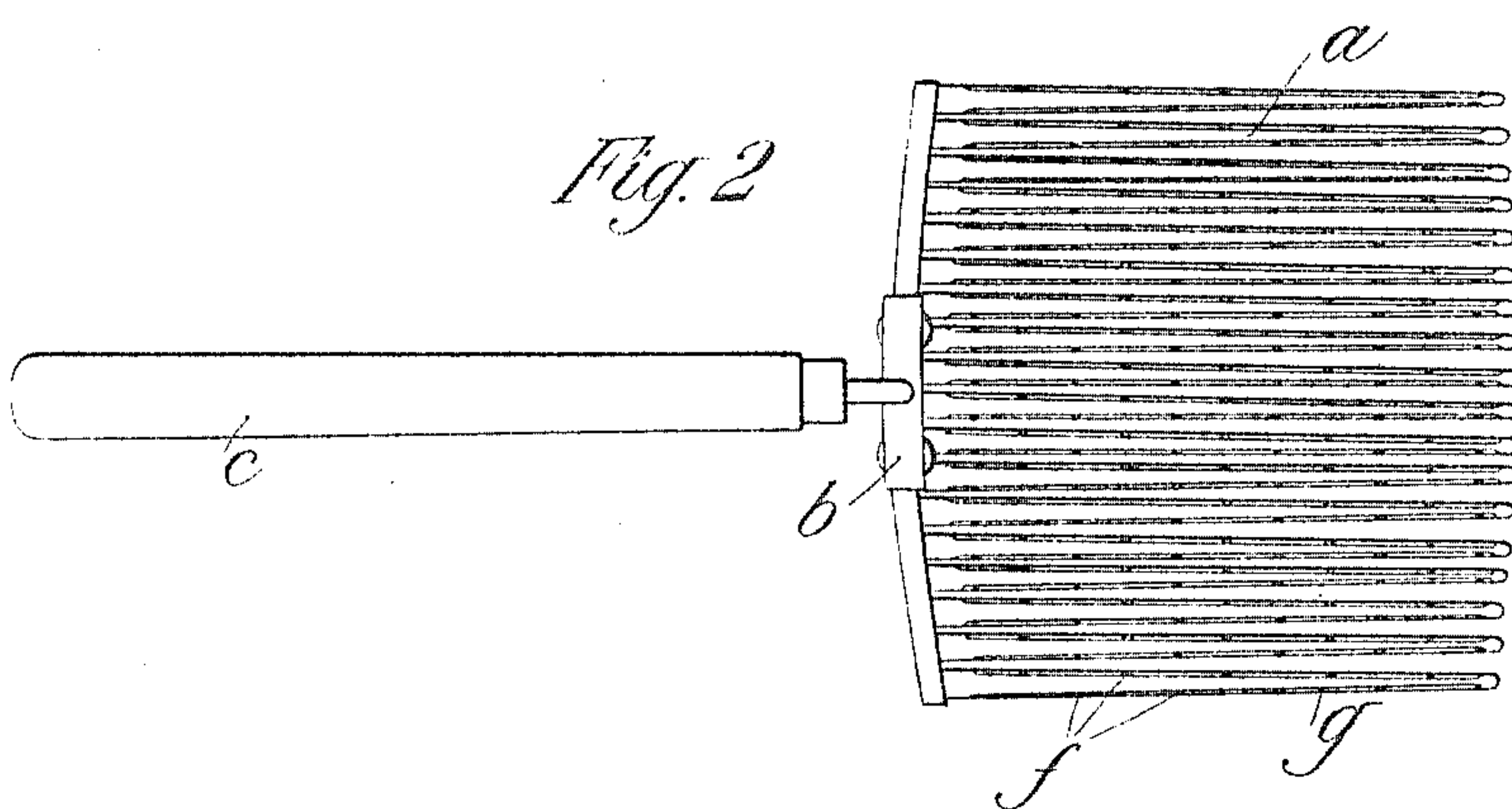


Fig. 3



Fig. 5



Fig. 4

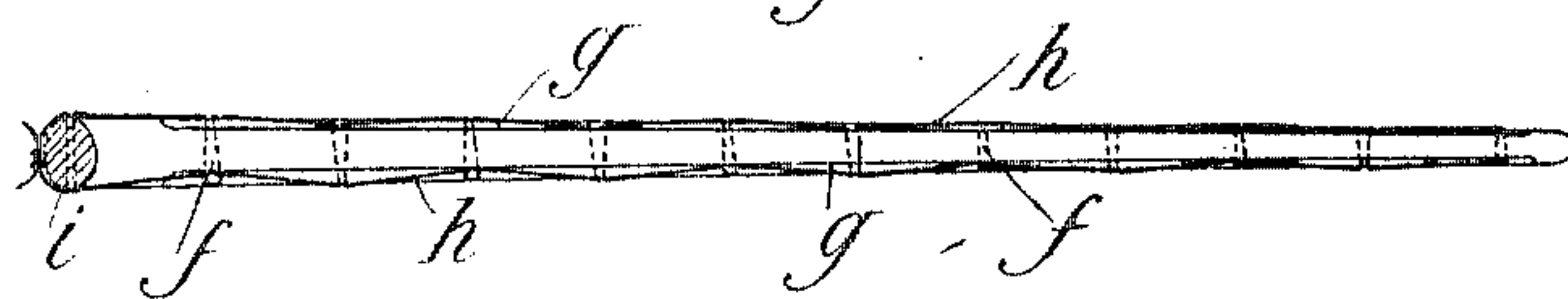
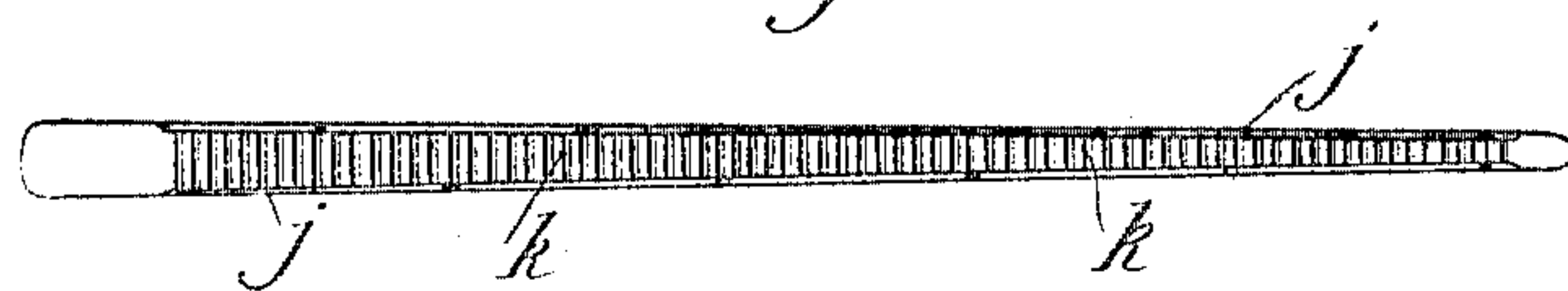


Fig. 6



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# UNITED STATES PATENT OFFICE.

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## DEVICE FOR APPLYING DYES, &c., TO THE ROOTS OF HAIR.

No. 804,522.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed July 7, 1904. Serial No. 215,681.

*To all whom it may concern.*

Be it known that I, GUSTAVE DELORY, manufacturer, a citizen of the Republic of France, and a resident of 31 Rue de Maubeuge, Paris, in the Republic of France, have invented certain new and useful Improvements in Devices for Applying Dyes, Decoloring Lotions, and Pharmaceutical Products to the Roots of the Hair or of the Beard; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

According to the methods at present in vogue when it is desired to apply a lotion intended either to decolor, dye, or otherwise treat the hair it is very difficult, indeed almost impossible, to apply this lotion quite near the roots of the hair or only on the particular spot where it is desired to apply it, and in any case the operation can only be performed by a skillful operator and not by the person himself. The present invention obviates these drawbacks and enables any person to himself perform the dyeing, decoloring, or other treatment of the hair of his head or of his beard in an easy and very uniform manner.

It consists in a special comb, which is allowed to glide flatly on the head or face and near to the roots of the hair or the bristles of the beard and which is arranged in such a manner that each of its teeth distributes the liquid uniformly. For this purpose the teeth of the comb are pierced with oblique holes arranged more or less perpendicularly to the length of the tooth, these holes being narrower at the bottom than at the top and being filled with liquid, which they deliver little by little through their lower opening. A hole inclined to the right preferably alternates with one inclined to the left. All the holes which have their upper openings situated on the same side of the tooth are joined by a groove made in the surface of the latter. Two other grooves may in the same way join the lower openings of the holes, and it is advisable to make these two grooves communicate with one another by means of a series of small transverse furrows made in the lower surface of the tooth. A continuous and, for example, a spongy thread of cotton passes into the holes of each tooth, entering into each by the largest opening and coming out through the smallest and

after arriving at the end of the tooth returning to its starting-point, again passing through the same holes. The use of this thread is very advantageous, as it forms a kind of wick, which, while stopping up the outlet-opening of the holes, insures the regular flow of the lotion, with which it becomes impregnated by capillary attraction and which it deposits at the roots of the hair when it rubs against the latter. However, the delivery of the liquid could be performed without the use of a thread, owing to the grooves mentioned above, and especially if the teeth are provided on their lower surface with small transverse furrows. This simplified construction is particularly suitable for small combs with fine teeth intended to be used for, say, the temples only.

In order to enable this invention to be readily understood, reference is made to the accompanying drawings, in which—

Figures 1 and 2 show the comb in elevation and in plan, respectively, and not provided with a thread. Figs. 3, 4, and 5 represent a tooth of the comb fitted with a thread, on an enlarged scale, in elevation, plan, and transverse section, respectively. Fig. 6 is an underneath view of a tooth having two grooves on its lower surface joined by transverse furrows.

The comb itself *a*, Figs. 1 and 2, is made of any suitable material—such as shell, horn, celluloid, or of any light metal, such as aluminium or the like. It is attached by a suitable shank *b* to a straight or bent handle *c*. Its teeth are bent at right angles near to their roots *e*, as at *d*, and they in some cases present longitudinally and transversely a slight curve, so as to assume the shape of the head. Each of the teeth of the comb, Figs. 3, 4, and 5, is pierced transversely with a certain number of small oblique holes *f*, which are preferably inclined alternately in one direction or the other and present a slightly-conical form, their lower openings being very narrow, as shown in the section Fig. 5. The upper openings of the holes, which are inclined in the same direction, are joined by a narrow longitudinal groove *g*, situated on each side of the tooth. A continuous thread *h*, preferably of cotton or other suitable material, passes through these small holes. It is threaded, for example, from the top to the bottom, starting from the root of the tooth, enters through the big opening of each hole, and comes out through the small one, and when arrived at the end of the tooth it returns to its starting-



point, passing a second time through each hole and always from top to bottom. A line of, as it were, loops is thus formed on the two sides of each tooth. The two ends after having passed through an opening *i* pierced in the base of the tooth at a sufficient height to prevent the knot from rubbing against the skin when using the comb are knotted together behind the tooth.

10 In order to dye or decolor the hair, the teeth of the comb are laid over by means of a preferably flat soft brush previously dipped in the lotion. This lotion, which is retained by the upper grooves, fills the small conical  
15 holes. The double thread passed into these is constantly impregnated with liquid by capillary attraction and distributes it regularly on the hair near the roots until the store contained in the holes is exhausted.

20 Fig. 6 clearly shows the modification, which consists in providing the lower surface of the teeth with two longitudinal grooves *j*, joined by transverse grooves *k*. This construction can be used with or without the thread *h*.

25 This kind of comb is also used with advantage for the direct application of antiseptic or pharmaceutical products to the roots of the hair and enables diseases of the hair or skin to be treated without having to wet the whole  
30 head of hair.

Having now particularly described and ascertained the nature of my said invention and the best means I know of carrying the same into practical effect, I declare that what I claim  
35 is—

1. A device of the character specified comprising a plurality of transversely-perforated members having longitudinal grooves formed therein connecting said perforations and a  
40 body portion for supporting said perforated members.

2. A device of the character specified comprising a plurality of obliquely-perforated members having longitudinal grooves formed  
45 therein connecting said perforations and a body portion for supporting said perforated members.

3. A device of the character specified comprising a body portion, a plurality of teeth  
50 protruding therefrom each provided with a plurality of oblique transverse perforations formed therein and longitudinal grooves connecting said perforations.

4. A device of the character specified comprising a body portion, a plurality of teeth  
55 protruding therefrom each provided with a plurality of alternately-inclined transverse perforations and longitudinal grooves connecting the perforations inclined in the same  
60 direction.

5. A device of the character specified comprising a body portion, a plurality of substantially parallel teeth protruding therefrom each provided with a plurality of alternately-in-  
65 clined transverse perforations and longitudinal

nal grooves on each side of the teeth connecting the perforations inclined in the same direction.

6. A device of the character specified comprising a body portion, a plurality of teeth  
70 protruding therefrom having perforations formed transversely therein, longitudinal grooves formed in the teeth connecting the openings of said perforations, and threads passed successively through said perforations. 75

7. A device of the character specified comprising a body portion, a plurality of teeth protruding therefrom having perforations transversely formed therein, longitudinal  
80 grooves formed in said teeth and connecting the openings of said holes, and transverse grooves formed in said teeth connecting said longitudinal grooves.

8. A device of the character specified comprising a body portion, a plurality of teeth  
85 protruding therefrom having perforations transversely formed therein, threads passed successively through said perforations, longitudinal grooves formed in said teeth and connecting the openings of said perforations and  
90 transverse grooves formed in the teeth connecting the longitudinal grooves.

9. A device of the character specified comprising a body portion, a plurality of teeth  
95 protruding therefrom having tapering transverse perforations formed therein, and longitudinal grooves connecting the larger openings of the perforations.

10. A device of the character specified comprising a body portion, a plurality of teeth  
100 protruding therefrom having tapering, transverse alternately-inclined perforations formed therein, the smaller openings of the perforations being on the under side of the teeth and longitudinal grooves formed in said teeth and  
105 connecting the openings of said perforations.

11. A device of the character specified comprising a curved body portion, a plurality of curved teeth protruding therefrom having tapering, alternately-inclined perforations  
110 formed therein, the smaller openings of the perforations being on the under side of the teeth and longitudinal grooves connecting the openings of said perforations.

12. A device of the character specified comprising a curved body portion, a plurality of curved teeth protruding therefrom having tapering, transverse alternately-inclined perforations formed therein, longitudinal grooves  
115 connecting the openings of said perforations, and threads passed successively through the perforations from top to bottom. 120

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

GUSTAVE DELORY.

Witnesses:

HANSON C. COXE,  
ALCIDE FABE.