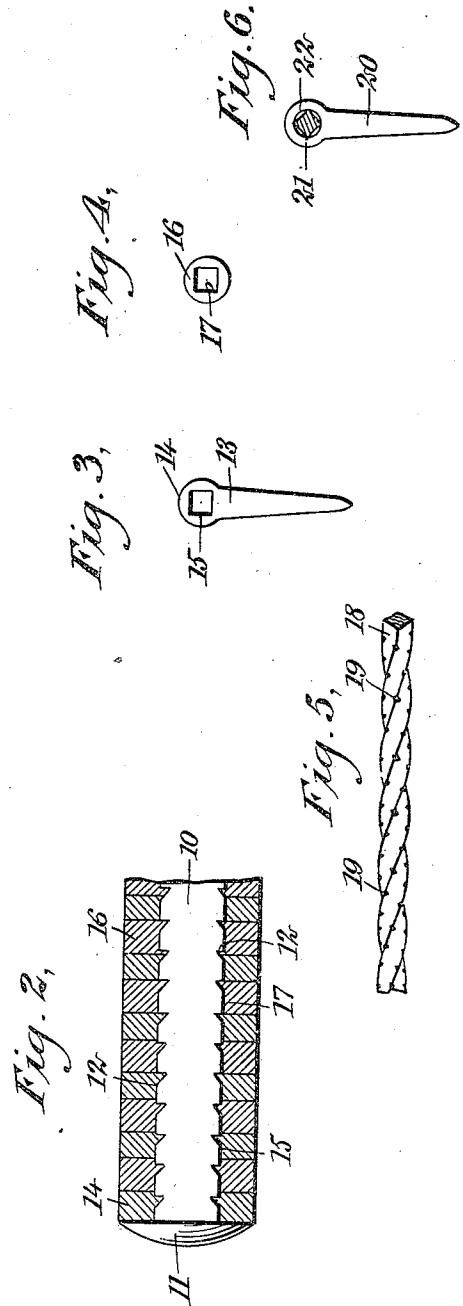
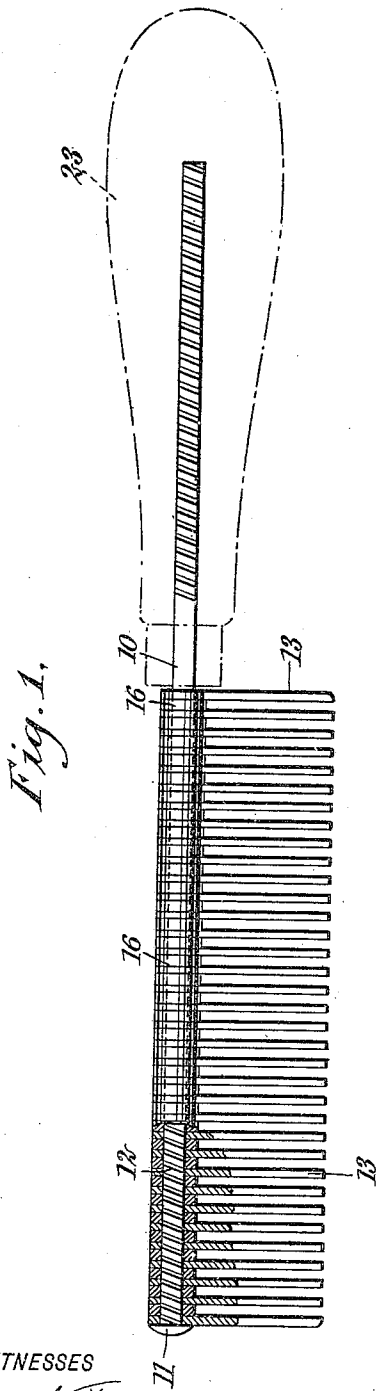


952,732.

Patented Mar. 22, 1910.



WITNESSES
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UNITED STATES PATENT OFFICE.

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COMB.

952,732.

Specification of Letters Patent. Patented Mar. 22, 1910.

Application filed September 30, 1908. Serial No. 455,426.

To all whom it may concern:

Be it known that I, JOHN W. GONCE, a citizen of the United States, and a resident of Chattanooga, in the county of Hamilton and State of Tennessee, have invented a new and Improved Comb, of which the following is a full, clear, and exact description.

This invention relates to combs, and more particularly to a comb comprising a rod having a roughened surface, or of irregular form, teeth having perforated heads to receive the rod, and perforated spacers or washers between the adjacent teeth to space them, the assembled parts being subjected to heavy pressure so that the teeth and the spacers are forced into close engagement with the irregularities of the rod, to cause the teeth and the spacers to adhere to the rod so that substantially a one-piece comb results.

An object of the invention is to provide a simple, inexpensive and durable comb fashioned preferably from metal, and formed from teeth assembled upon a rod, the teeth being suitably spaced and forced to attach to the rod under pressure, thus obviating the manufacture of the comb from a single piece of material, while resulting in the production of an article which is substantially equal to one formed from a single piece of material.

A further object of the invention is to provide a comb fashioned from separate teeth mounted upon an assembling rod and separated by suitable washers or spacers, in which the teeth are spaced and pressed into such engagement with the rod that it is unnecessary to hold them upon the same by means of nuts or the like at the end of the rod.

The invention consists in the construction and combination of parts to be more fully described hereinafter and more particularly set forth 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 views, and in which—

Figure 1 is a side elevation of an embodiment of my invention showing parts broken away and indicating in dotted outline, a handle for the comb; Fig. 2 is an enlarged longitudinal section of a part of the comb showing the rod, the teeth and the spacers; Fig. 3 is a plan view of a tooth; Fig. 4 is a

plan view of a washer or spacer; Fig. 5 is a side elevation of a part of a rod of modified form; and Fig. 6 is a transverse section showing a tooth of modified form as arranged upon the rod of modified form.

Before proceeding to a more detailed explanation of my invention, it should be clearly understood that while the comb is particularly useful as a hair comb, the method of constructing the comb can be advantageously applied to other combs or to other articles of similar construction in which it is necessary to provide a plurality of spaced teeth or the like.

I prefer to fashion the comb from metal, though any other suitable material adapted to the purpose can be employed. The teeth and the washers can be stamped or cut from the material in any convenient manner, while the assembling rod can likewise be stamped or machined in any other way. As the application of pressure to the teeth and the spacers results in the production of a practically homogeneous comb, it is unnecessary to apply the handle to the rod until the manufacture is practically completed. In my invention, the teeth are securely attached to the rod as soon as the pressure has been applied, and the handle is subsequently mounted upon the rod. Therefore, the addition of the handle to the comb may be the last step in the manufacture, and the handle thus is not liable to be injured during the polishing or finishing.

Referring more particularly to the drawings, I provide a rod 10 of angular, preferably rectangular, cross-section, having at one end a laterally extended head 11 and having grooves or notches 12 in the side faces thereof. The grooves or notches may be of any suitable form, for example, as shown most clearly in Fig. 2 they may be of V-section and may be obliquely disposed with respect to the length of the rod. The teeth 13 have heads 14 provided with openings 15 therethrough formed to receive the rod 10, upon which they are mounted. The teeth are separated or spaced by washers or spacers 16 having suitably formed openings 17 therethrough adapted to receive the rod. The head 11 of the rod prevents the teeth from slipping from the same at its end and serves to facilitate the assembling of the teeth and spacers upon the rod. The teeth may be of any suitable form or length according to the purpose for which the comb

is designed. After a sufficient number of teeth and spacers has been placed upon the rod, the comb is arranged in a suitable press in which the teeth are forced longitudinally of the rod against the head 11, and in which at the same time the teeth and spacers are forced into the sides of the rod to cause the metal of the teeth and the spacers to fill the irregularities of the rod, as is shown most clearly in Fig. 2. The necessary heavy pressure to accomplish this purpose can easily be applied by means of a hydraulic press or a die machine of suitable type. The teeth and the spacers, by the application of the pressure become so securely attached to the rod that they form with the same a substantially homogeneous structure, so that the resulting comb is practically a single piece of material.

It will be understood that the rod may have any suitable shape or may be roughened or provided with irregularities of different kinds. I do not limit myself to any one form of rod or any particular type of teeth and spacers. As is shown for example in Fig. 5 I can employ a rod 18 which is spiral or twisted in form and has notches or depressions 19. With this form of rod the teeth 20 may have circular openings 22 through the heads 21 thereof, while the washers are of correspondingly circular form.

After the teeth and spacers have been permanently assembled upon the rod the handle 23 can be driven upon the projecting end of the rod or can be mounted upon the same in any suitable manner.

I prefer to manufacture the comb with the teeth and washers of different metal alternated on the rod, to lend a variegated color and appearance to the article, as well as to produce an electrical effect, on the principle of the thermopile. I do not claim such an arrangement of different metal in the teeth and washers to be a novelty, but I contend that the pressure exerted in securing the teeth and spacers in place brings them into closer contact and thereby increases the magnetic or electrical effect. The teeth and the spacers can be fashioned from copper, alumi-

num, brass or any other metal suited to the purpose.

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

1. A comb, comprising an assembling member, and teeth mounted upon said assembling member under pressure, whereby said teeth are forced into the sides of said member.

2. A comb, comprising an assembling member, teeth arranged upon said assembling member, and spacers upon said assembling member intermediate said teeth, said teeth and said spacers being compressed longitudinally of said assembling member and transversely of the same so as to force said teeth into said assembling member.

3. A comb comprising a rod having an irregular surface, and teeth having heads through which said rod extends, the material of said teeth extending into the irregularities of the rod.

4. A comb comprising a rod having a roughened surface, teeth having perforated heads engaging said rod, and spacers on the rod separating said teeth, the material of said heads and said spacers extending into and filling the irregularities of said roughened surface of the rod.

5. A comb, comprising a rod having at the end a head, teeth having heads provided with openings therethrough and arranged upon said rod by means of said openings, spacers having openings and arranged upon said rod by means of their openings, said teeth and said spacers alternating, and a handle upon said rod at the end remote from said head of said rod, said teeth and said spacers being compressed longitudinally of said rod and being compressed transversely of said rod so as to force said teeth into the sides of said assembling member.

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

JOHN W. GONCE.

Witnesses:

CARL GONCE,
E. S. GONCE.