

(No Model.)

H. G. GUILD.
MANUFACTURE OF COMBS.

No. 370,473.

Patented Sept. 27, 1887.

Fig. 1.

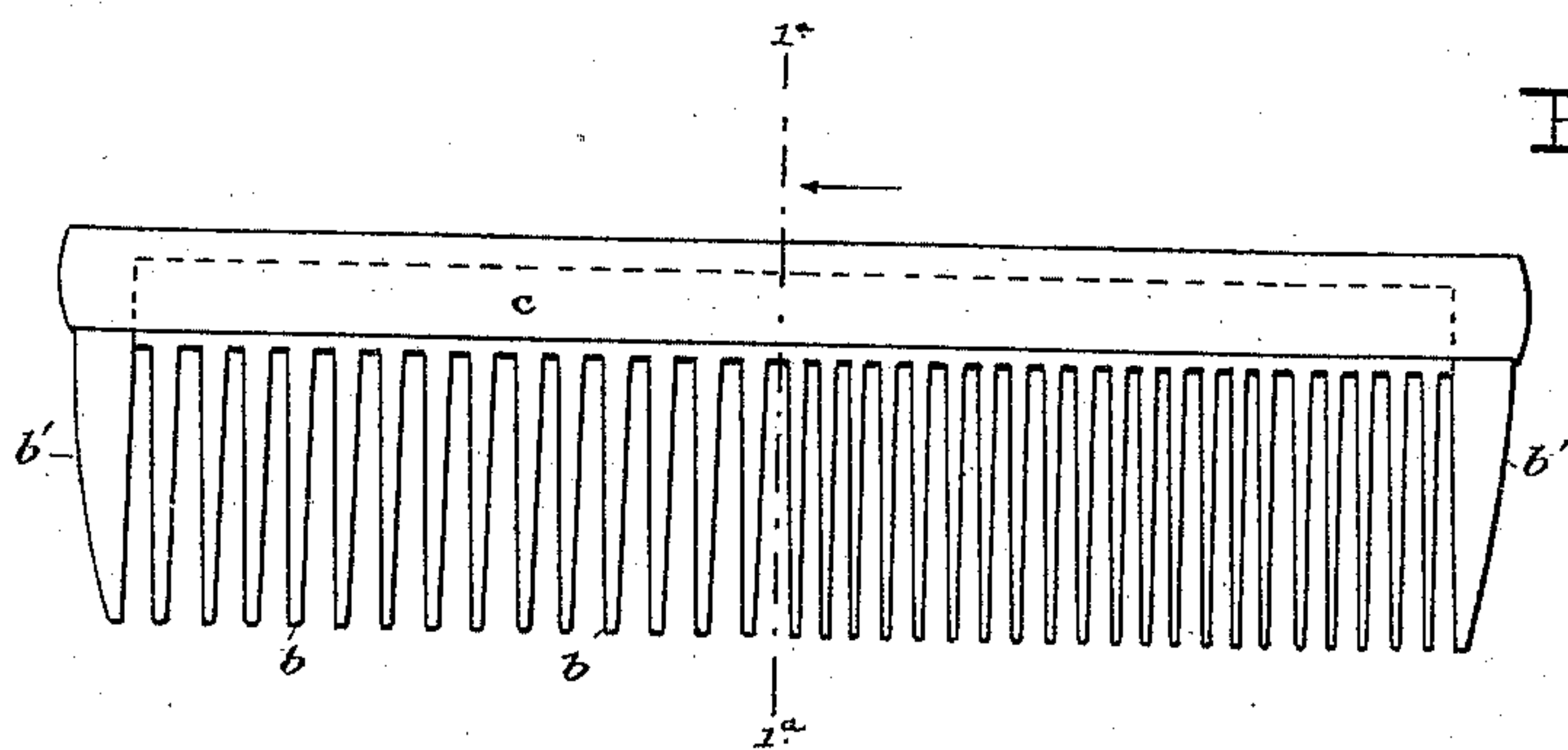


Fig. 1^a.

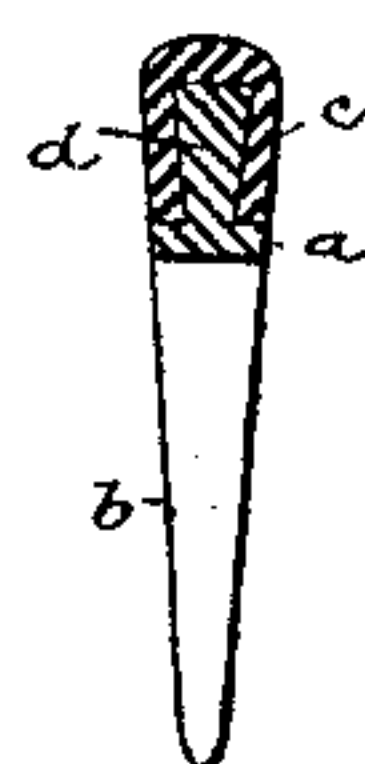


Fig. 2.

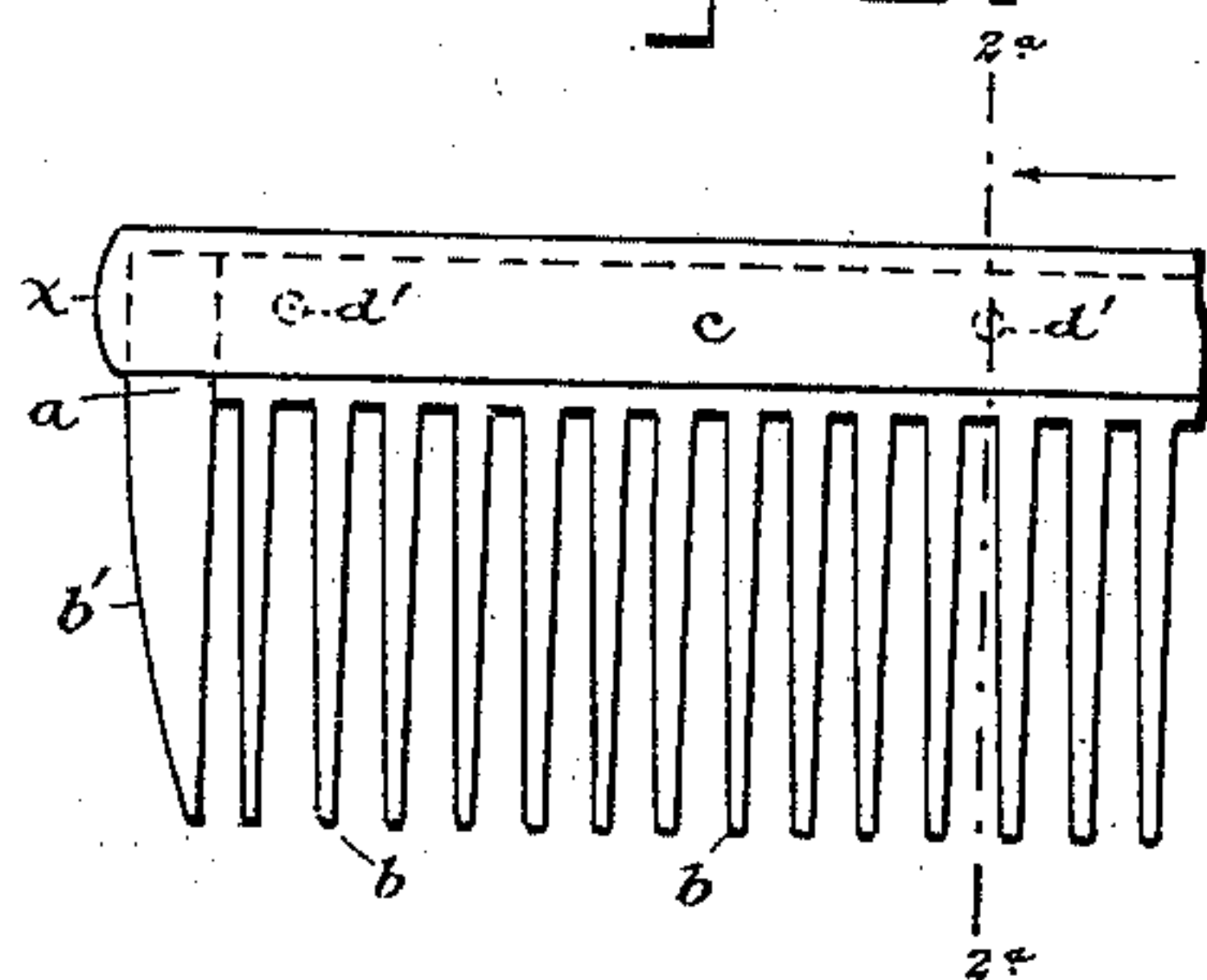


Fig. 2^a.

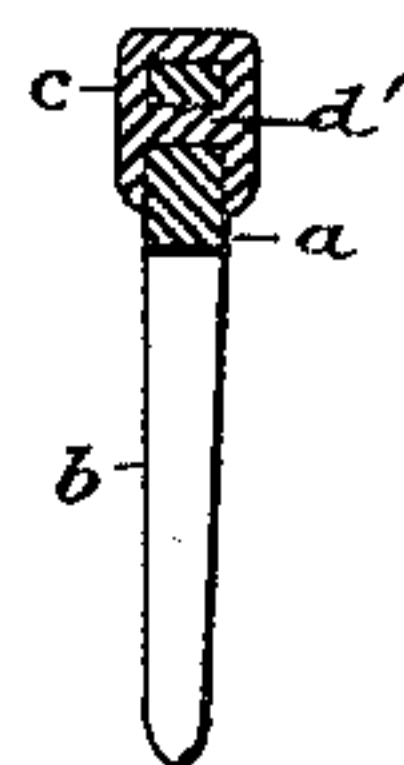


Fig. 3.

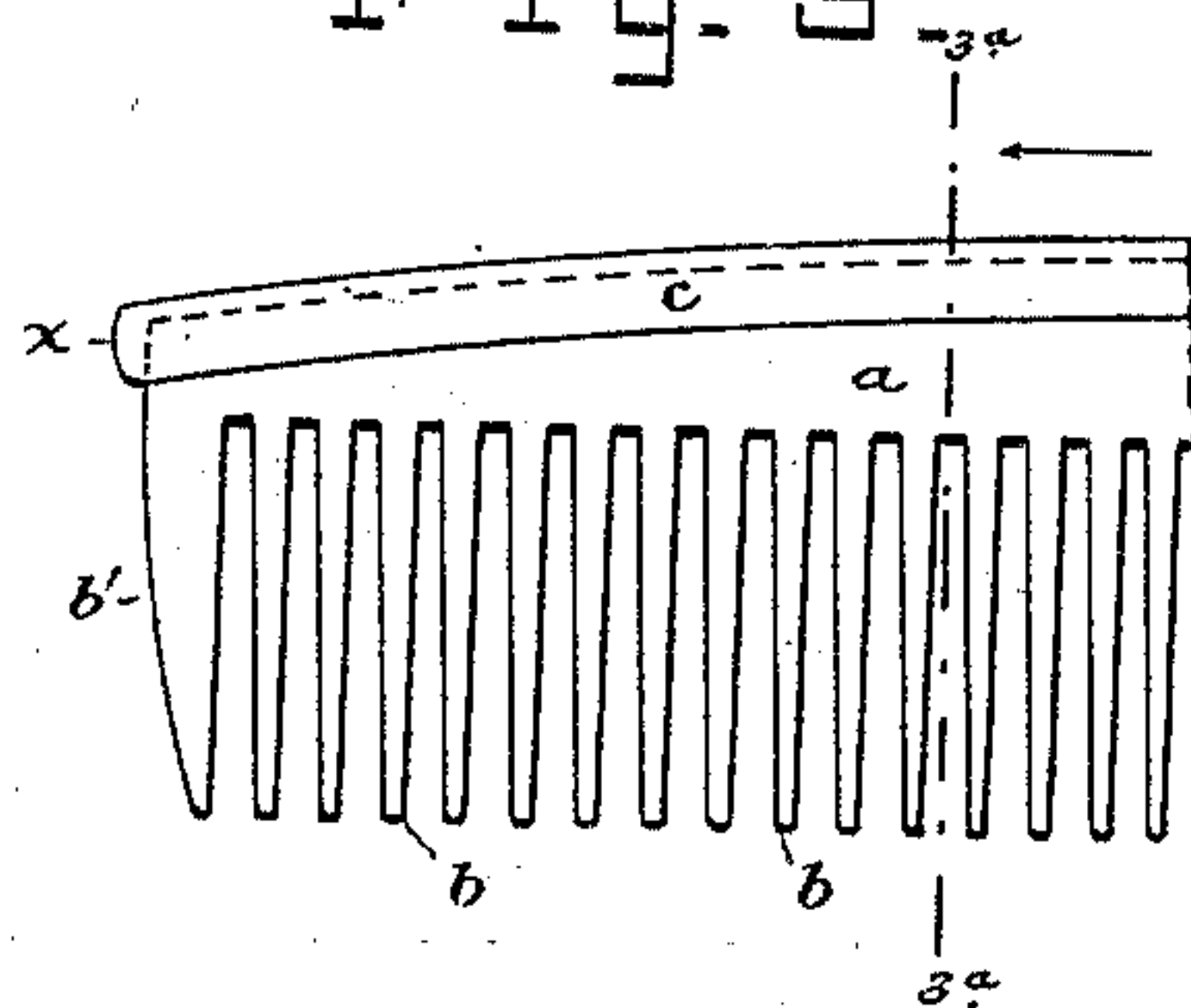
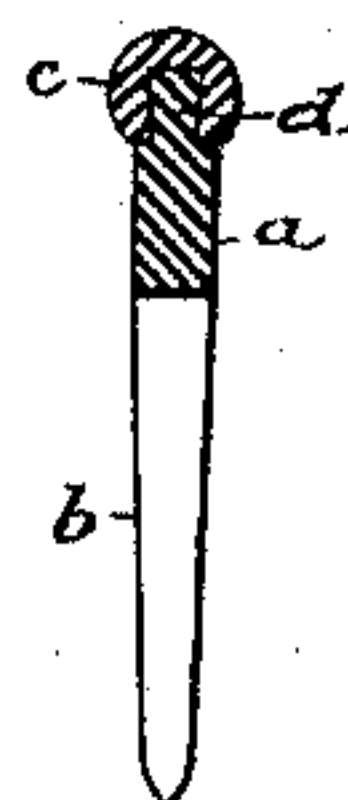


Fig. 3^a.



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MANUFACTURE OF COMBS.

SPECIFICATION forming part of Letters Patent No. 370,473, dated September 27, 1887.

Application filed October 22, 1886. Serial No. 216,940. (No model.)

To all whom it may concern:

Be it known that I, HENRY G. GUILD, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in the Manufacture of Combs, of which the following is a specification.

My invention relates to toilet-combs and their manufacture, and the object of my invention is to produce a strong and durable comb more economically than they can be manufactured by the ordinary methods.

Heretofore it has been a common practice to re-enforce the heads of horn, rubber, celluloid, and ivory combs with sheet metal and rolled metal, but not, so far as I am aware, with cast metal, the re-enforce being cast directly upon the comb-head.

My invention consists in a method of providing the head of such a comb—that is, a comb made from horn, hard rubber, ivory, or other similar non-metallic substance or material—with a cast-metal re-enforce cast directly on the head and so as to embed or embrace the whole or a part thereof. The metal employed must of course be such as will fuse at so low a temperature as not to injure the comb by its heat when molten. The white-metal used for a basis in the manufacture of plated ware will serve, or type-metal or other similar alloys may be used. After the re-enforce is formed on the comb-head it may be plated, as with nickel, for example.

In carrying out my invention I proceed substantially as follows: I place the comb in a metal mold or die so constructed as to leave that portion of the comb-head which is to be covered with and embedded in the metal projecting into the hollow of the mold or die. The molten metal is now poured into the hollow of the mold, and it embraces and embeds the head of the comb, or that part thereof which projects into the mold-cavity. When the metal is cold, the comb is removed from the mold and the metal re-enforce smoothed and plated, if this after process be deemed desirable or necessary. In order to fix the cast-metal re-enforce rigidly on the comb-head, I form, preliminarily, some kind of undercut recess in the said head for the molten metal to flow into. This may be conveniently effected by forming a dovetail along the outer edge of the head, or

holes may be bored through the comb-head, through which the molten metal will flow, and form ties connecting the cheeks of the re-enforce on opposite sides of the head. My cast-metal re-enforce may have almost any form; but in the accompanying drawings, which serve to illustrate my invention, I have shown three of the most desirable forms.

Figure 1 is a face view of a comb constructed according to my invention, and Fig. 1^a is a cross-section on line 1^a 1^a in Fig. 1. In these views the comb is supposed to be constructed of horn, hard rubber, or other like material, and provided with a dovetail on the edge of its head to receive the cast-metal re-enforce. Fig. 2 is a face view of a part of a comb constructed according to my invention, and Fig. 2^a is a cross-section of same on line 2^a 2^a in Fig. 2. In these views the head of the comb has holes bored through it, and the cast-metal re-enforce is connected to said head through the medium of said holes. Fig. 3 is a face view of a part of a comb constructed according to my invention, and Fig. 3^a is a cross-section on line 3^a 3^a in Fig. 3. In these views the comb-head is arched, and the cast-metal re-enforce is made to embrace a dovetail formed on this arched head.

In all of these views, *a* represents the comb-head, and *b b* the teeth, formed integrally with said head. These will be made from horn, hard rubber, ivory, or other similar non-metallic substance of which combs are usually made. *c* is the cast-metal re-enforce.

In Figs. 1 and 1^a, *d* represents the dovetail formed on the edge of the comb-head. In these views the guard-teeth *b' b'* are of metal, cast integrally with the re-enforce.

In Figs. 2 and 2^a, *d'* represents the holes in the comb-head filled with metal which is integral with the re-enforce *c*. In these views the guard-teeth are not integral with the comb-head *a*, nor with the re-enforce, but are formed separately of metal.

Figs. 3 and 3^a will require no special description. The guard-teeth are integral with comb-head *a*.

The advantages of employing cast metal for the re-enforce are economy in the manufacture and facility of application to any form of comb. For example, the cast-metal re-enforce may be applied as well to combs with arched or wavy heads as to straight combs, and it closes over

the ends of the head (seen at *x* in Figs. 2 and 3) and forms a finish without the necessity of after labor in finishing, as is required in the modes now employed of applying a metal re-
5 enforce.

In the drawings the re-enforce *c* is represented as plain; but my mode of applying the re-enforce by casting enables me to give it, without extra cost, any ornamental form that
10 may be desired or that can be produced in a metal or other mold.

Having thus described my invention, I claim—

The herein-described method of applying a
15 metal re-enforce to the head of a comb made

from non-metallic material, which consists in first forming in the comb-head an undercut retaining-recess, then placing the comb in a mold or die with that portion of the head which is to be covered by the re-enforce pro- 20
jecting into the hollow of the mold or die, and then filling the said hollow with molten metal, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing 25
witnesses.

HENRY G. GUILD.

Witnesses:

HENRY CONNETT,
F. D. CAPLINGER.