H. MAKIE.

COMB CLEANER AND DISINFECTOR.

APPLICATION FILED SEPT 14, 1920.

1,392,189. **Patented Sept. 27, 1921.**

FIG. 1.

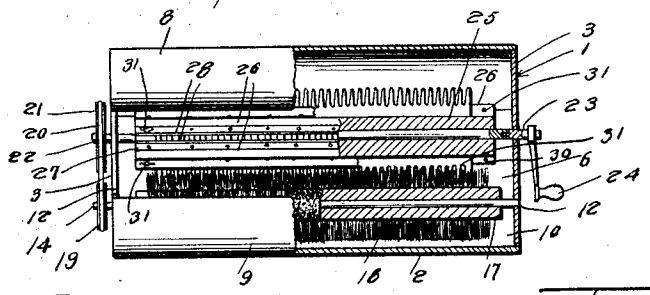


FIG. 2.

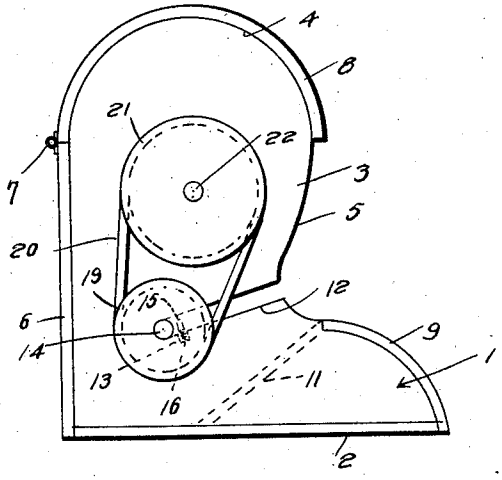


FIG. 3.

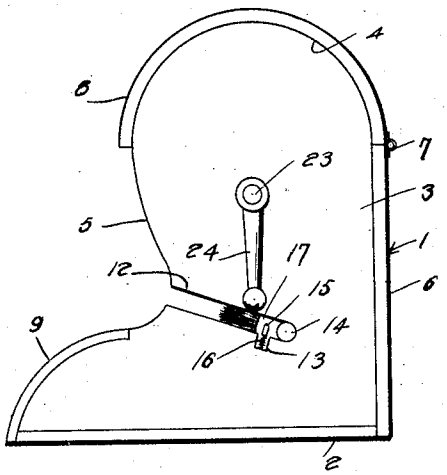


FIG. 4.

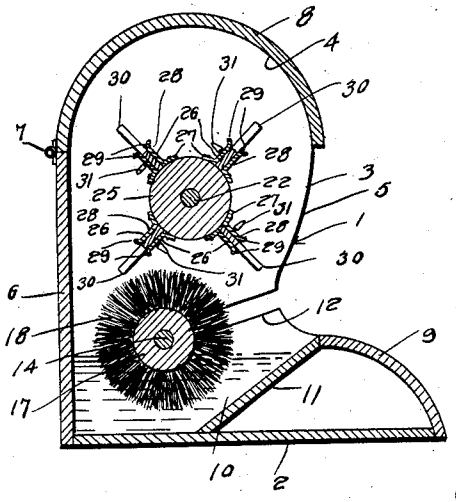


FIG. 5.

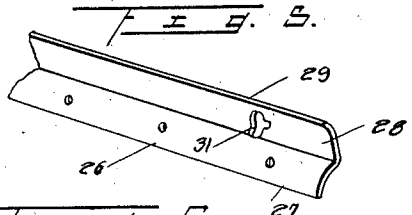
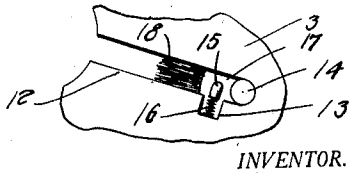


FIG. 6.



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COMB CLEANER AND DISINFECTOR.

1,392,189. Specification of Letters Patent. Patented Sept. 27, 1921.

Application filed September 14, 1920. Serial No. 410,347.

To all whom it may concern:

Be it known that I, HAYATO MAKIE, a subject of the Emperor of Japan, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Comb Cleaners and Disinfectors; 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.

The invention relates to new and useful improvements in comb cleaners and disinfectors especially adapted for use in tonsorial parlors, and has for its primary object the provision of means especially adapted to completely and quickly remove all dirt and other foreign matter from a comb and at the same time to disinfect the comb so as to render the same sanitary for further use.

Another object of this invention is the provision of a revolving comb holder operating in conjunction with a rotating cleaning medium adapted to remove all foreign matter from the comb and from between the teeth thereof and to subject said comb to a bath of disinfecting fluid.

A further object of this invention is the provision of a comb cleaner and disinfector of the above stated character which will be simple, durable, and efficient, and which may be manufactured and sold at a comparatively low cost.

With these and other objects in view as will become more apparent as the description proceeds, the invention consists in certain novel features of construction, combination, and arrangement of parts as will be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a front elevation partly in section illustrating a comb cleaner and disinfector constructed in accordance with my invention.

Fig. 2 is an end elevation illustrating the drive connection,

Fig. 3 is an end elevation illustrating the opposite side of the device,

Fig. 4 is a vertical sectional view illustrating the disinfecting container,

Fig. 5 is a perspective view illustrating one of the clamping plates of the comb holder,

Fig. 6 is an enlarged detail view illustrating a stop.

Referring in detail to the drawings, the numeral 1 indicates a casing which includes a bottom wall 2, end walls 3 which have their upper edges curved as illustrated at 4 and their front edges curved inwardly and outwardly as illustrated at 5 while their rear edges are disposed straight, and have secured thereto a rear wall 6 which is also formed on the bottom wall 2. The rear wall 6 has hinged thereto as illustrated at 7 a curved cover 8 which is adapted to rest on the curved upper end 4 of the end walls so as to partially close the casing 1. A curved front wall 9 is formed on a portion of the curved front edges 5 of the end walls 3 and also the bottom wall 2 and coöperates with the same and the rear wall in forming a liquid containing chamber 10 and in which is adapted to be placed a disinfecting solution. An inclined wall 11 is formed integrally with the upper edge of the curved front wall 9 and abuts the bottom wall 2 so as to restrict the size of the fluid containing chamber 10.

The end walls 3 at their curved edges 5 are provided with upwardly and outwardly extending slots 12 having in communication therewith seats or sockets 13. The slots 12 are adapted to receive the extended ends of a shaft 14 and the sockets or recesses 13 have slidably mounted therein plungers 15 adapted to normally extend across the slots in advance of the ends of the shaft to prevent said shaft from moving in the direction of the open ends of said slots during the rotation of the shaft. The pins 15 are normally urged across the slots by springs 16 and said pins may be moved in the direction of the recesses to permit the removal of the shaft 14 from the slots when desired. The shaft 14 has mounted thereon a cylindrical drum 17 carrying tufts of bristles 18 adapted to form a cylindrical brush.

One end of the shaft 14 is extended through one of the end walls 3 and has secured thereon a grooved pulley 19 over which is trained an endless belt 20 and said belt is in turn trained over a grooved pulley 21 of a diameter greater than the pulley 19 and is secured to one end of a shaft 22. One of the ends of the shaft 22 extends through

one of the end walls 3 of the casing 1 while its other end is provided with a screw threaded socket disposed adjacent the other end wall and has threaded connection with a stub shaft 23 forming part of a crank handle 24. The stub shaft 23 is journaled in last named end wall 3 of the casing 1. The shaft 22 is journaled directly above the shaft 14 and has mounted thereon a drum 25 to which is secured pairs of clamping plates 26. Each of the clamping plates 26 includes an arcuate shaped portion 27 riveted or otherwise secured to the periphery of the drum 25 and a radially extending portion 28 that has its free edge curved outwardly as illustrated at 29 so that when the clamping plates 26 are assembled in pairs, a comb 30 may be readily inserted between the radially extending portions 25 and secured therebetween by set screws 31.

The combs are firmly secured to the holder and the brush has approximately one-half of itself submerged in the disinfecting solution, so that rotation of the crank handle 24, the combs are rotated and engaged by the brush which is also rotated to thoroughly cleanse the combs and the teeth thereof and apply a bath of disinfecting solution to the combs.

After the combs have been thoroughly cleaned and disinfected, they may be readily removed from the holder and be ready for use in a highly sanitary condition.

It is also to be noted that owing to the size of the grooved pulley 19 and the size of the pulley 21 that the brush will rotate at a greater rate of speed than the comb holder, thereby assuring the removal of all foreign matter from the comb.

While I have shown and described the preferred embodiment of my invention, it will be understood that minor changes in construction, combination, and arrangement of parts may be made without departing from the spirit and scope of the invention as claimed.

Having thus described my invention what I claim is:—

1. A comb cleaner and disinfector comprising a casing, a comb holder rotatably mounted in said casing, a cleaning medium rotatably mounted in said casing and adapted to remove foreign matter from and disinfect combs carried by the comb holder, and means for imparting rotation to the comb holder and the cleaning medium.

2. A comb cleaner and disinfector comprising a casing having a disinfecting solution chamber adapted to contain a disinfecting fluid, a brush dipping in said disinfecting fluid and rotatably supported by the casing, and a rotary comb holder arranged to project teeth of a comb carried thereby in the path of rotation of said brush.

3. A comb cleaner and disinfector comprising a casing having a disinfecting fluid chamber, a brush rotatably supported by said casing and partly submerged in said fluid, a comb holder journaled in said casing and adapted to support combs in the path of rotation of the brush, and means for imparting rotation to the holder and brush.

4. A comb holder and disinfector comprising a casing having a disinfecting containing chamber, a brush journaled in said casing and partly submerged within the disinfector carried by the chamber, a comb holder journaled in said casing and adapted to project a comb into the path of rotation of the brush, means for detachably securing combs to the holder, means for imparting rotation to the holder, and means for rotating the brush by the holder at an increased rate of speed over the speed of rotation of the holder.

5. A comb cleaner and disinfector comprising a casing, a chamber formed in said casing for containing disinfectant, a rotatable brush journaled in said casing and partly submerged in the disinfectant contained in the chamber, a shaft journaled in said casing above said brush, a drum carried by said shaft, a comparatively small pulley connected to the brush, a comparatively large pulley secured to the shaft, a belt connecting said pulleys, means detachably securing combs to the drum, and means for imparting rotation to the shaft.

6. A comb cleaner and disinfector comprising a casing, means supporting disinfectant within said casing, a brush rotatably mounted in said casing and of elongated formation and partly submerged within the disinfectant, a shaft journaled in said casing, means for imparting rotation to said shaft, means for imparting rotation to the brush from the shaft, a drum carried by said shaft, pairs of plates secured to the said drum and each including arcuate and radially extending portions, said arcuate shaped portions being secured to the drum, and the radially extending portions arranged in spaced relation, said radially extending portions having their free edges curved outwardly to facilitate the insertion of combs between said radial portions, and set screws carried by the radially extending portions for securing combs between the same.

In testimony whereof I affix my signature in presence of two witnesses.

HAYATO MAKIE.

Witnesses:
J. HASHINIOTO,
N. YOSHIDA.