

W. W. CARPENTER.
APPARATUS FOR MAKING HAIR BRUSHES.

APPLICATION FILED JUNE 11, 1903.

NO MODEL.

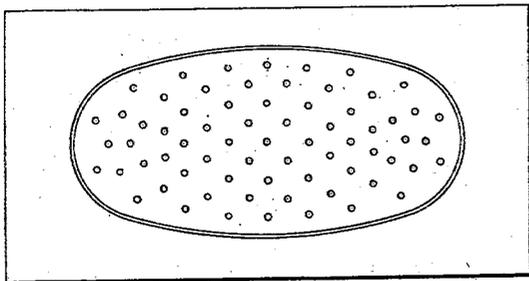


Fig. 1.

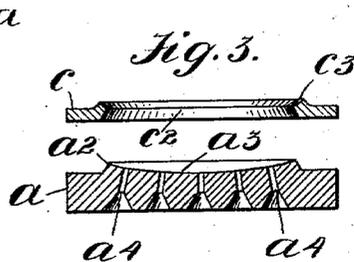
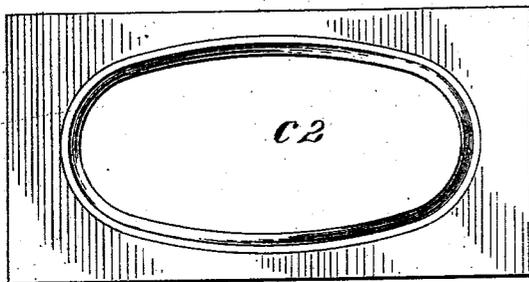


Fig. 3.
Fig. 4.

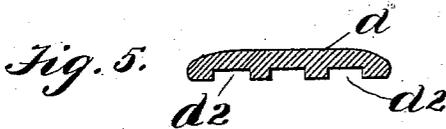
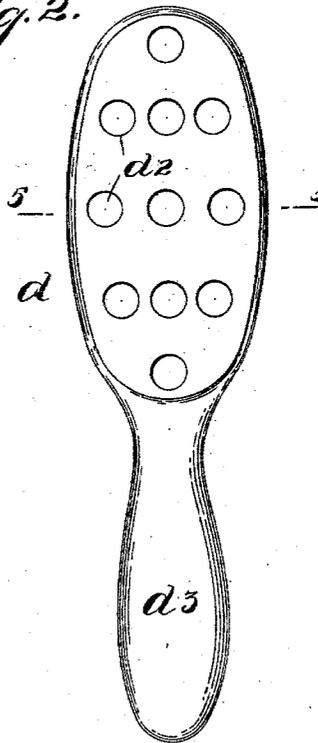


Fig. 5.

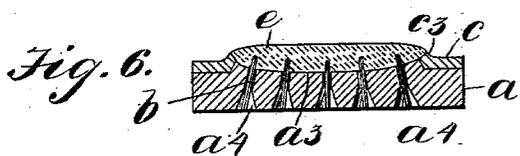


Fig. 6.

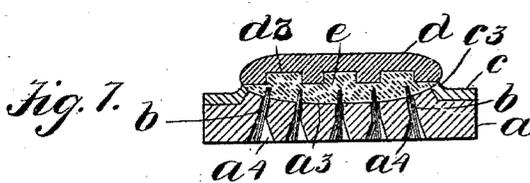


Fig. 7.

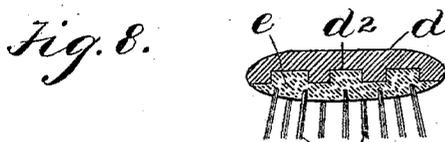


Fig. 8.

WITNESSES

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UNITED STATES PATENT OFFICE.

WALTER W. CARPENTER, OF BROOKLYN, NEW YORK.

APPARATUS FOR MAKING HAIR-BRUSHES.

SPECIFICATION forming part of Letters Patent No. 753,234, dated March 1, 1904.

Application filed June 11, 1903. Serial No. 160,960. (No model.)

To all whom it may concern:

Be it known that I, WALTER W. CARPENTER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Apparatus for Making Hair-Brushes, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved apparatus for use in the manufacture of hair-brushes; and the invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a plan view of a mold-block which I employ; Fig. 2, a similar view of a supplemental plate used in connection with said block; Fig. 3, a transverse section of said plate and block, the plate being placed over the block; Fig. 4, a face or front view of a brush-back which I employ; Fig. 5, a transverse section on the line 5 5 of Fig. 4; Fig. 6, a transverse section through the mold-block and supplemental plate and showing one step of the process of making a brush; Fig. 7, a view similar to Fig. 6, showing another step of the process of making a brush; and Fig. 8, a transverse section of the complete brush.

In the practice of my invention I provide a mold-block *a*, the top surface of which is provided with a raised beveled portion *a*², in which is formed a receptacle *a*³, the bottom of which is gradually curved upwardly from the center thereof toward the surrounding edges thereof, and said block *a* is also provided with a plurality of bores or passages *a*⁴, which extend therethrough and through which in the manufacture of a brush the tufts *b* of bristles or other brush material are passed. I also provide a supplemental plate *c*, which is provided with an opening *c*², similar in form to the raised portion *a*² of the mold-block *a*, and around this opening *c*² is a raised flange *c*³, the inner walls of which are beveled outwardly and up-

wardly and outwardly and downwardly, as clearly shown in Fig. 3, the outward and downward bevel corresponding with the bevel or incline of the raised portion *a*² of the mold-block *a*, and said supplemental plate *c* is adapted to be placed on the block *a*, as shown in Figs. 6 and 7, and in this position of the block *a* and plate *c* the upwardly and outwardly directed bevel of the central opening *c*² of the plate *c* corresponds with the bevel or incline of the bottom of the receptacle *a*³ in the raised portion *a*² of the block *a*. I also provide a brush-back *d*, the face portion of which is provided with a plurality of holes or recesses *d*², any desired number of which may be employed, and said brush-back is also provided with a handle *d*³.

In the process of making a brush the tufts *b* of bristles or other brush material are passed upwardly through the block *a*, as clearly indicated in Figs. 6 and 7. The receptacle *a*³ in the block *a* is then filled with liquid or plastic cement *e*, in which the tufts *b* are embedded. The receptacle *a*³ is filled rounding full of the cement, and the brush-back *d* is pressed downwardly thereon, as shown in Fig. 7, and in this operation the cement enters the holes or recesses *d*² in the brush-back, and after the cement has set or become hard the plate *c* is removed from the block *a* and with it the brush-back, the cement *e*, which adheres thereto, and the tufts *b*, which are secured in said cement, after which the brush, including the back *d*, the cement *e*, and the tufts *b*, are removed from the plate *c*. The plate *c* serves in this operation to hold the edge portions of the cement in place and to prevent the breaking off thereof and to give a finished appearance to the brush.

The back of the brush-back *d* is rounded or tapered in cross-section, and the front thereof, including the cement *e*, is similarly formed, the cement extending to the side and end edges of the brush-back in a gradual curve, as clearly indicated in Fig. 8, and a firm, strong, and substantial brush is thus formed.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The herein-described apparatus for making

hair-brushes, comprising a mold-block the top
of which is provided with a raised portion of
the shape which it is desired to give the body
of the brush, said raised portion being pro-
5 vided with a receptacle the bottom of which
is beveled outwardly and upwardly from the
central portion thereof to the edges thereof,
said block being also provided with bores or
passages which communicate with said recep-
10 tacle and through which tufts of brush mate-
rial are adapted to be passed, a plate adapted
to be placed on said block and provided with
a central opening which corresponds with the
raised portion on said block and which is
15 adapted to inclose the same, the top walls of

said opening being beveled outwardly and up-
wardly, so as to form an enlargement of the
receptacle in the mold-block, said receptacle
being adapted to receive liquid cement, and a
brush-back provided in the face thereof with 20
holes or recesses, substantially as shown and
described.

In testimony that I claim the foregoing as
my invention I have signed my name, in pres-
ence of the subscribing witnesses, this 10th day 25
of June, 1903.

WALTER W. CARPENTER.

Witnesses:

F. A. STEWART,

C. E. MULREANY: