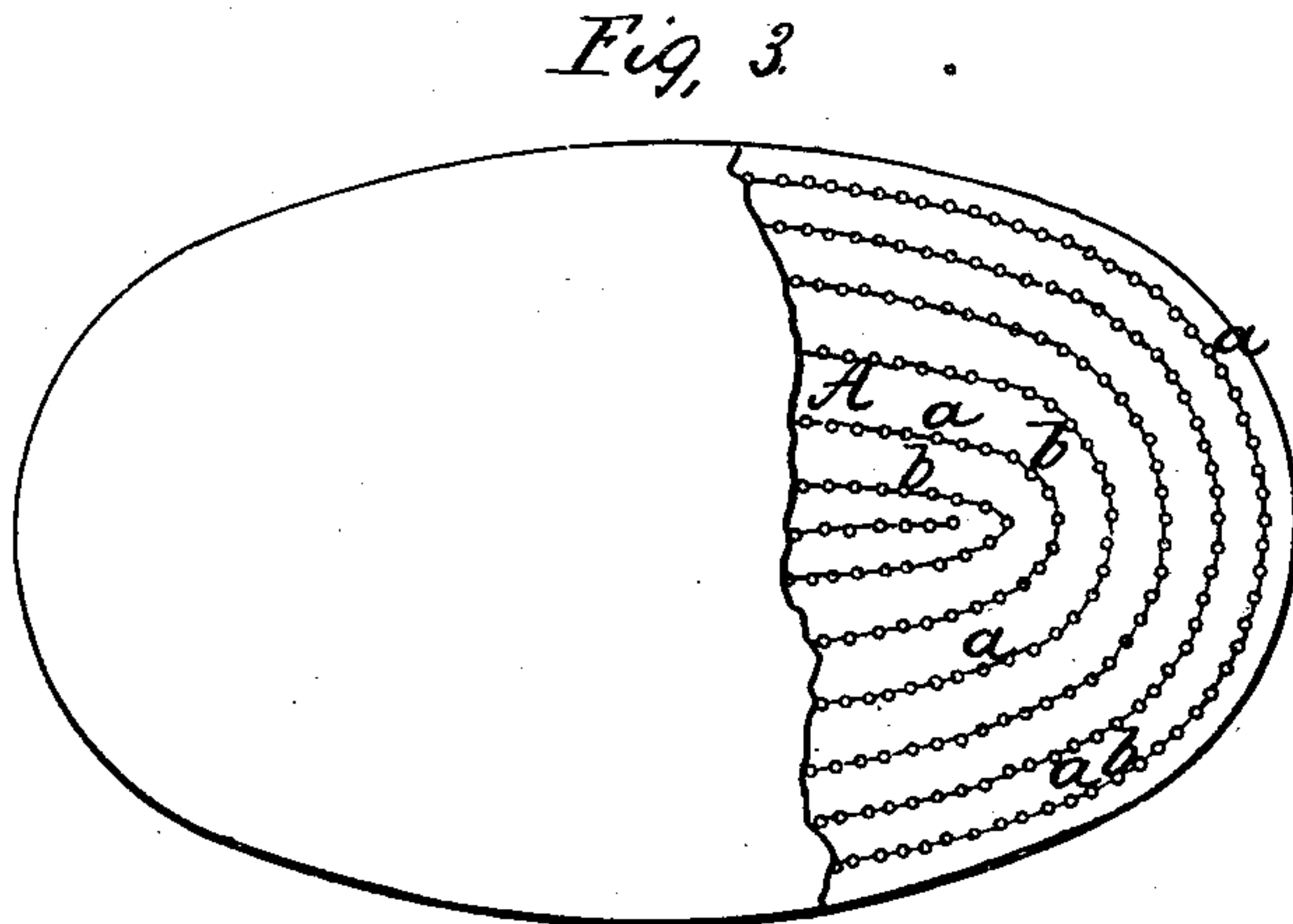
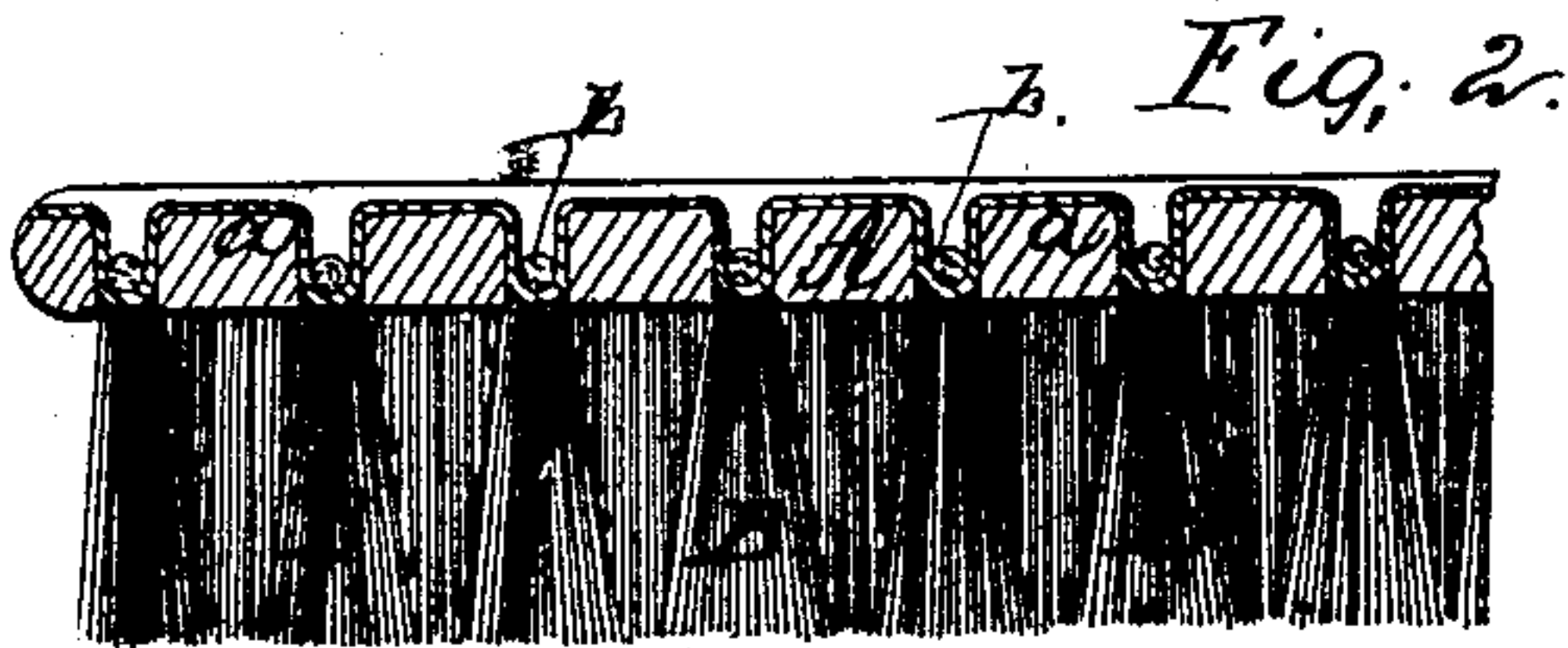
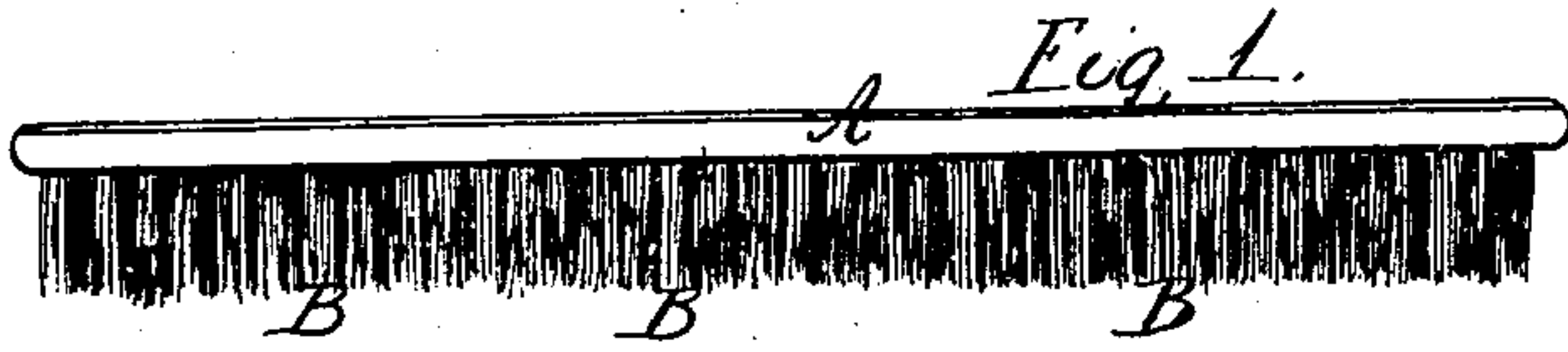


No. 39,417.

PATENTED AUG. 4, 1863.

S. MORRIS.
BRUSH.



Witnesses,
A. D. Hale Jr
C. H. Bean.

Inventor,
Samuel Morris
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UNITED STATES PATENT OFFICE.

SAMUEL MORRIS, OF CHARLESTOWN, MASSACHUSETTS.

IMPROVED BRUSH.

Specification forming part of Letters Patent No. 39,417, dated August 4, 1863.

To all whom it may concern:

Be it known that I, SAMUEL MORRIS, a resident of Charlestown, in the county of Middlesex and State of Massachusetts, have invented an Improved Brush; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is an edge view, and Fig. 2 a section, of a brush made in accordance with my invention. Fig. 3 represents a top view of it, as partially covered on its upper surface.

The back or body of the brush I usually make of sole-leather, but it may be of any other suitable material. It is to be perforated in the usual manner with holes for the reception of the bunches of bristles, which are to be inserted within such holes and confined therein by fine wire or thread run into and out of each hole and through each bunch of bristles, the same being as shown in the drawings, in which—

A is the back or body; B B B, &c., the bunches of bristles; *a*, the confining-wire, and *b b*, &c., the holes for the reception of such wires and bristles.

The brush-body, so far constructed in a manner well known, is to have one or more layers or coats of an opaque water-proof and flexible composition, spread in a liquid state on its back, so as to not only cover and hide from view the outer surface thereof and the confining-wires, but to enter the bristle-holes and fill such parts of them as may be unoccupied by the bristles, the said composition, so spread on the body of the brush, serving also as a finish thereto, as a japan covering of leather or cloth operates as a finish to the same.

The composition or material which may be employed in carrying out my invention is such as is in common use for glazing or varnishing leather, or making what is known in commerce as "patent-leather."

For this purpose a composition may be made of lamp-black and linseed oil varnish, or it may be composed of boiled linseed-oil, asphalt, Prussian blue or ivory-black, copal varnish, and spirits of turpentine. In making it, five gallons of the linseed-oil may be boiled to the consistency of a thick sirup, with about four pounds of white lead, and the same quantity of litharge in fine powder. One pound of the

asphalt, Prussian blue, or fine ivory-black, ten pounds of thick copal varnish, twenty pounds of the prepared linseed-oil, and twenty pounds of the spirits of turpentine may be used. The coloring-matters—viz., the asphalt, Prussian blue, or ivory-black—should first be thoroughly mixed with the oil, and the whole be heated together, the varnish first and next the spirits of turpentine, being afterward incorporated with the mass by continual stirring, until a homogeneous mixture may be produced. After this may have been suffered to stand in a warm place for two or three weeks, it will be ready for use, it being applied in one or more coatings to the brush-back by means of a brush or other proper article.

I do not confine my invention to such a composition or compositions, as there are others of like character which will answer in the place thereof, and which dry by exposure to the atmosphere, and when dry become water-proof, flexible, and opaque, such composition or compositions not being such as can be vulcanized by the application of a high degree of heat, as is the case with mixtures of sulphur and caoutchouc or gutta-percha.

I am also aware that it is not new to cover a brush-back with cement, and to subsequently apply thereto a plate or piece of leather or other solid material as a covering or finish to the cemented surface. Therefore I do not claim such.

I am also aware that bristles have been inserted in and through a plate of india-rubber or gutta-percha composition, and subsequently held in place, not only by a wire or wires run through their loops, but by applying to them and the holding-plate another plate or mass of rubber or gutta-percha composition, and afterward subjecting the whole, while in a mold, to heat, so as to "vulcanize" the rubber or gutta-percha, and thus secure the bristles in place. This latter process or mode of making a brush differs very materially from mine, wherein the japan covering is a liquid composition not to be indurated by heat, but by ordinary atmospheric evaporation of a solvent liquid contained in it. It is laid on the brush-back by means of a brush, and not by a mold.

My water-proof japan-composition backing for the brush, performs not only the function

of finishing the brush, or accomplishes what is done by cement and a leather backing, but it also answers another purpose—viz., that of entering the bristle-holes and covering the holding-wires. It thus dispenses with the use of cement and the leather or flexible back cemented to the brush-back by such cement. Therefore it will be seen that although I employ a well-known composition, such as has been applied to a piece of leather held to the bristle-block by cement, yet a brush made with this composition applied directly to the bristle-block, and so as to enter the bristle-holes of it and cover them and the confining-wires and hide them from view and protect them, as set forth, is an improved article of manufacture.

one differing in essential particulars from other brushes. Therefore

I claim as my invention—

The improved brush, substantially as described, as made with a japan or water-proof and flexible composition applied to its back, so as not only to cover and finish the same and dispense with a solid separate covering-plate, but enter the bristle-holes and hide them and the confining-wires from view, substantially as specified.

SAMUEL MORRIS.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.