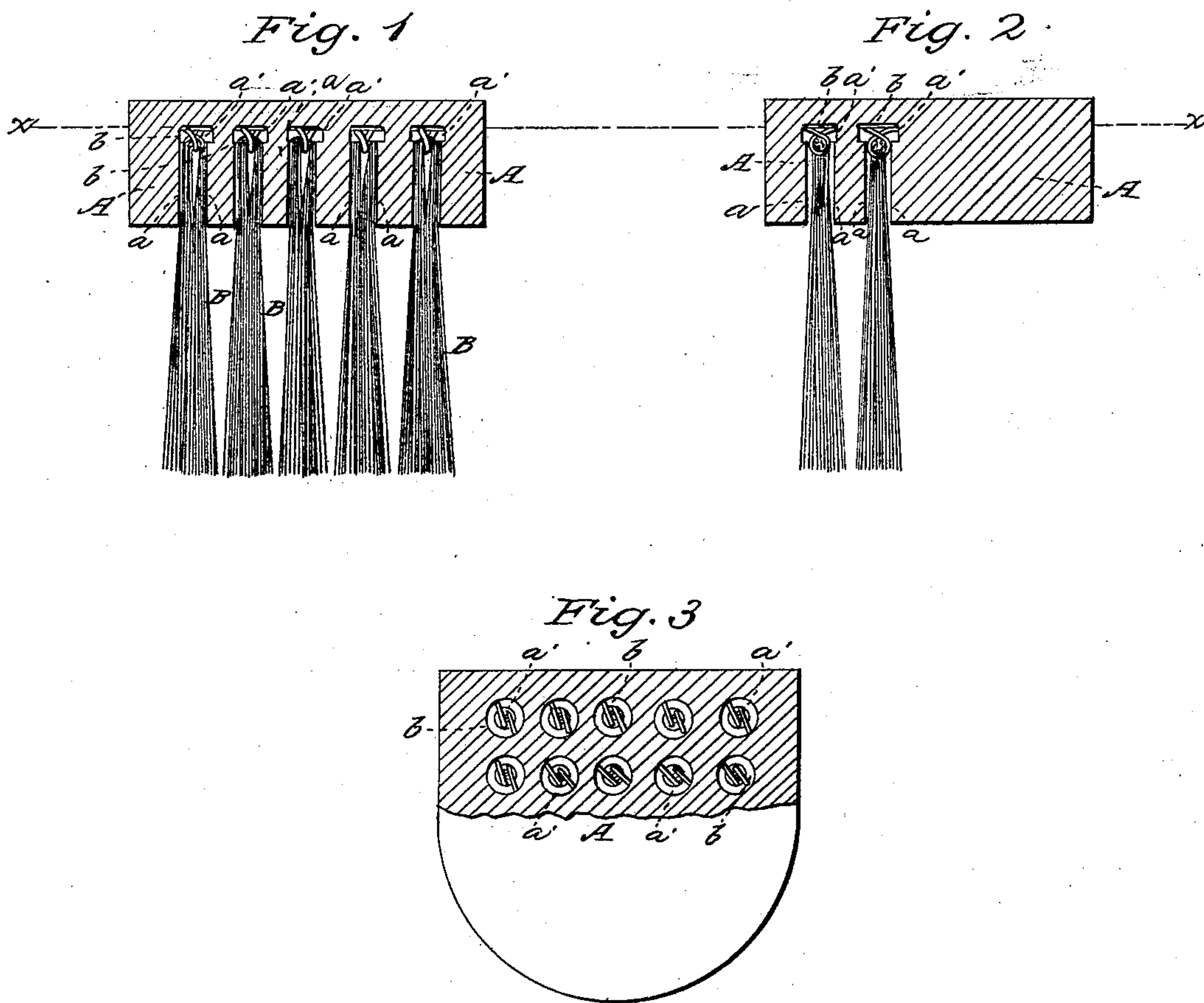


A. M. WHITE.

Brush.

No. 65,029.

Patented May 21, 1867.



Witnesses:

J. W. Combs
G. W. Reed

Inventor:

A. M. White

United States Patent Office.

ALBERT M. WHITE, OF NEW YORK, N. Y.

Letters Patent No. 65,029, dated May 21, 1867.

IMPROVED BRUSH.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ALBERT M. WHITE, of the city, county, and State of New York, have invented a new and useful improvement in Brushes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a portion of this specification, in which—

Figure 1 is a vertical section of a brush constructed according to my invention.

Figure 2 is a vertical section of the same, taken at right angles to fig. 1.

Figure 3 is a partial horizontal section of the same, taken in the line $x x$ of figs. 1 and 2.

Similar letters of reference indicate corresponding parts in all the figures.

This invention may be considered as an improvement on the invention set forth in Letters Patent of the United States for improvements in the manufacture of brushes, granted to ALBERT M. WHITE, and bearing date the 18th day of April, 1865, and its object is to enable the said invention to be more successfully applied in making brushes, the backs or stocks of which are formed of ivory or other substance of like hardness, it having been found by experiment that the excessive hardness of the ivory prevents the ends of the staple-like wires employed in securing the bristles or other equivalent material in their places from indenting themselves into the sides of the holes or recesses provided for the reception of the said wires, as required in attaching the bristles or their equivalents to the stock or back of the brush, with the same facility as when such stock or back is made of softer material. To remedy this difficulty the present invention consists in the construction of the aforesaid holes with recessed or chambered bottoms or backs, whereby the staple-like wires, when forced into them, are caused to bend over and become firmly clinched, in such manner as to securely attach the bunches of bristles, or their equivalents, to the back or stock, however hard the material may be of which the latter is composed.

To enable others to understand the nature and construction of my invention, I will proceed to describe it with reference to the drawings.

The solid ivory stock or back of the brush is shown at A, and has drilled or formed in its under side any required or suitable number of holes, a , which do not extend quite through the aforesaid stock, and the bottoms of which are enlarged or chambered as indicated at a' , the said holes a being intended for the reception of the inner ends of the bunches B of bristles. The bristles of which these bunches B are composed, are doubled in the usual manner, and through the loops thus formed are passed the staple-like wires b , which being done, the looped ends of the brushes B, with the staple-like wires passed through them, as just described, are placed in the holes a , and are forced inward until the ends of the wires b , striking the bottoms of the said holes, are bent over the ends of the bunches, as shown more clearly in figs. 2 and 3, and forced outward into the chambers a' , and holding upon or against the sides of the said chambers, tightly and effectually secure the bunches B in the stock or back A.

What I claim as my invention, and desire to secure by Letters Patent, is—

The enlarged chambers a' of the holes a , in combination with the staple-like wires b , substantially as and for the purpose specified.

A. M. WHITE.

Witnesses:

J. W. COOMBS,

G. W. REED.