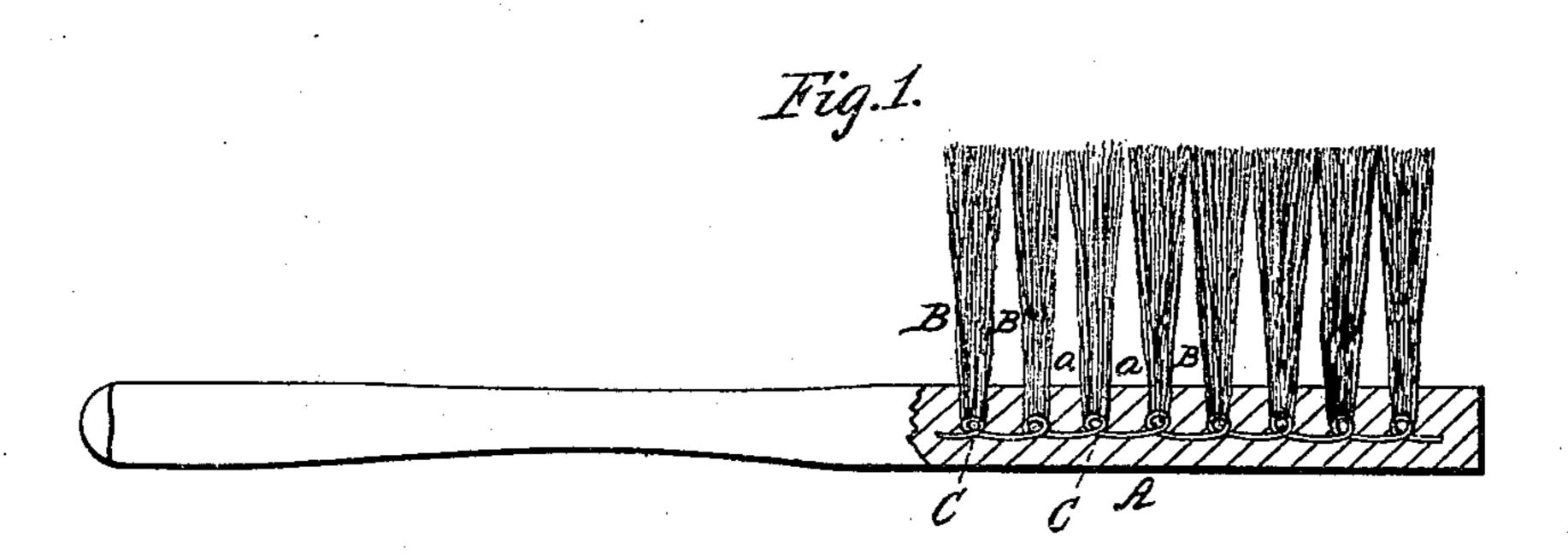
## A. M. WHITE.

Brush.

No. 47,157.

Patented April 4, 1865.



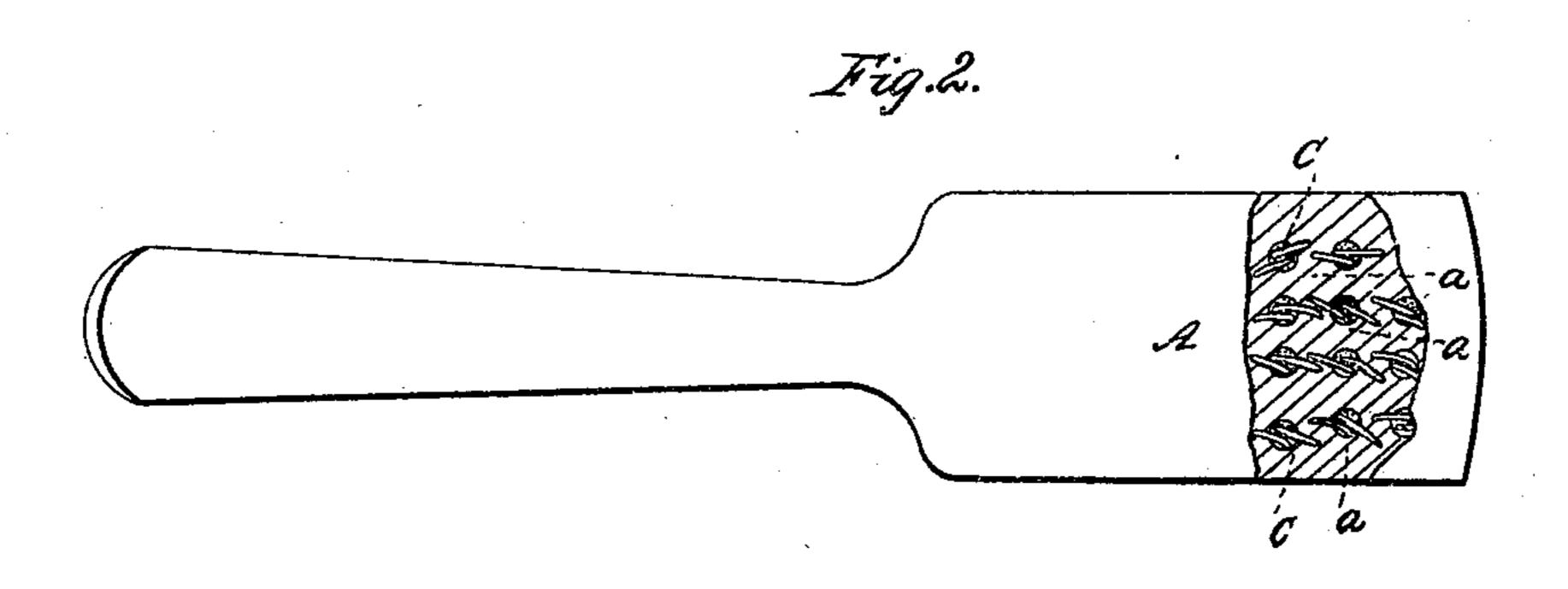


Fig. 3. Fig. 4.

Witnesses: A.F. Schlegel Donthe Inventor: A. M. Mhite

## United States Patent Office.

ALBERT M. WHITE, OF PORT CHESTER, NEW YORK, ASSIGNOR TO HIMSELF AND BARNARD LARVERY, OF SAME PLACE.

## IMPROVED BRUSH.

Specification forming part of Letters Patent No. 47, 157, dated April 4, 1865.

To all whom it may concern:

Be it known that I, Albert M. White, of Port Chester, in the county of Westchester and State of New York, have invented a new and useful Improvement in the Manufacture of 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, forming part of this specification, in which—

Figure 1 is a longitudinal section of a brush made according to my invention. Fig. 2 is a back view of the same with a portion of the back broken out to show the fastenings of the bristles. Fig. 3 is a side view of one of the fastenings before it is forced into the holes in the back. Fig. 4 represents one of the fastenings in the form it assumes after being forced into the back.

into the back.

Similar letters of reference indicate corre-

sponding parts in the several figures.

This invention relates more particularly to brushes with wooden backs or stocks. Its object is to secure the bristles in the back or stock without the use of a false back, which is very liable to come off when the brush is wetted, and without the labor of drilling holes longitudinally through the back or stock for the insertion of wires through loops formed by doubling the bristles; and to this end it consists in securing the bristles in a solid back or stock by first drilling holes partly through the back or stock, then inserting each bunch of doubled bristles into one of the said holes with a staple-like wire, the ends of which, on its being pressed down to the bottom of the hole, run longitudinally or laterally into the wood or other material of which the back or stock is composed, and draw the bend of

the wire tightly around the loop of the bunch of the bristles.

To enable others skilled in the art to manufacture brushes according to my invention, I will proceed to describe the same with refer-

ence to the drawings.

A is a solid wooden back or stock, into the face of which a sufficient number of holes, a, are drilled for the reception of the bunches of bristles B. The bristles B are doubled in the usual manner, and through the loops thus formed staple-like wires C are inserted, in the form shown in Fig. 3. The bristles with the staples thus inserted are placed in the holes and forced down to the bottom thereof with a punch or other instrument, and the ends of the wires are thus caused to follow the grain of the wood or other material of which the back or stock is composed and run longitudinally or laterally thereinto, and thus not only secure themselves in the back or stock, but clasp the loops of the bris:les tightly.

To insure the most perfect fastening of the bristles the ends of the wire should be either beveled on the outer sides, as shown in Fig. 3, or turned slightly inward, and they will then cross each other, as shown in Fig. 4, when the wires are pressed against the bottoms of the holes and so clasp the bristles more securely.

What I claim as my invention, and desire

to secure by Letters Patent, is-

The mode of securing the several bunches of bristles in the solid back of a brush by means of separate staple like wires C, applied substantially as herein described.

A. M. WHITE.

Witnesses:

J. W. COOMBS, GEO. W. REED.