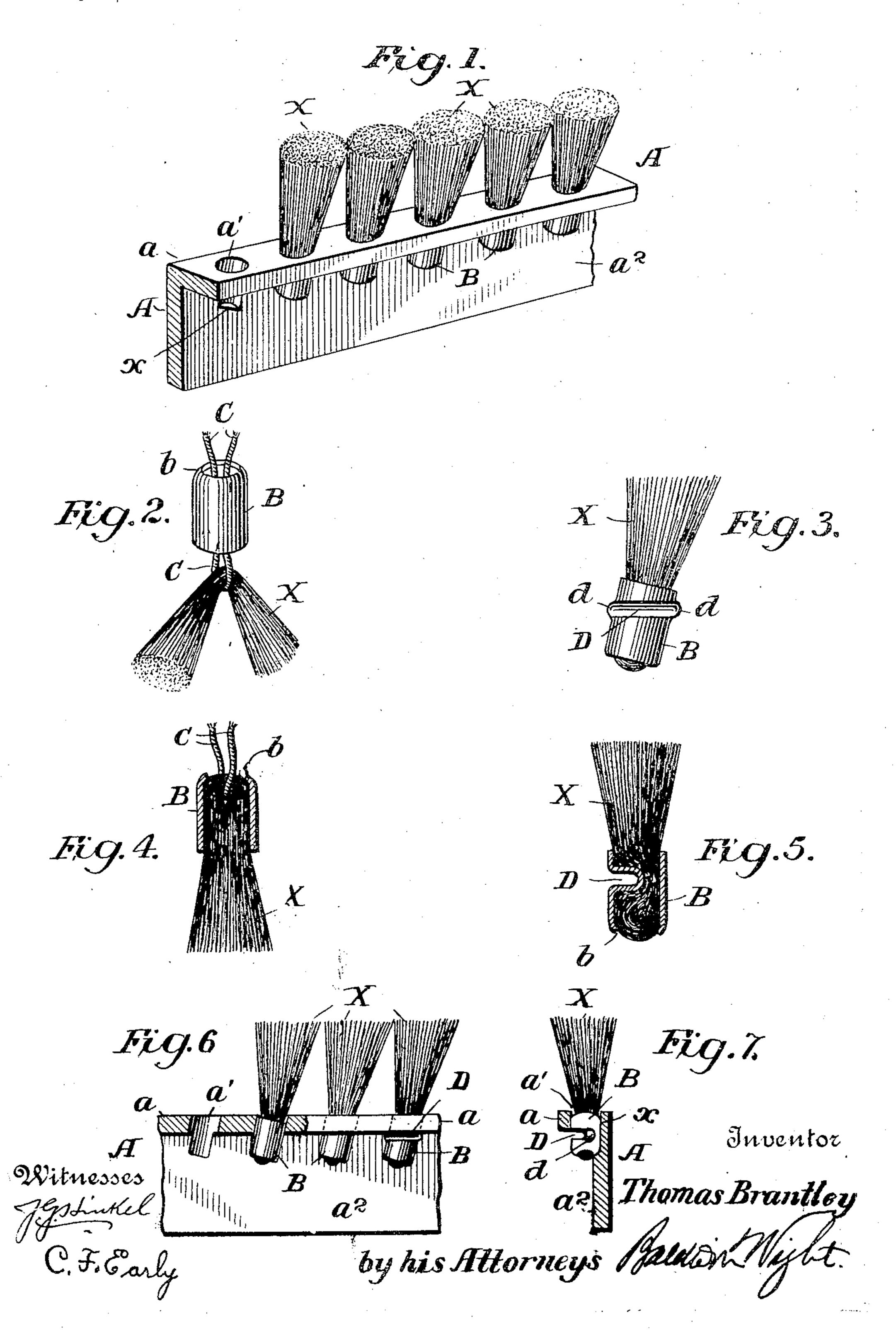
## T. BRANTLEY.

BRUSH.

APPLICATION FILED MAY 27, 1909.

969,456.

Patented Sept. 6, 1910.



## UNITED STATES PATENT OFFICE.

THOMAS BRANTLEY, OF ALBANY, GEORGIA, ASSIGNOR TO SOUTHERN MACHINE WORKS, OF ALBANY, GEORGIA, A CORPORATION OF GEORGIA.

## BRUSH.

969,456.

Specification of Letters Patent.

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Application filed May 27, 1909. Serial No. 498,629.

To all whom it may concern:

Be it known that I, Thomas Brantley, a citizen of the United States, residing in Albany, in the county of Dougherty and State 5 of Georgia, have invented certain new and useful Improvements in Brushes, of which the following is a specification.

My present invention relates particularly to brushes of the kind used for cleaning lint 10 cotton from the saws of cotton gins and consists of an improved way of attaching tufts of bristles to the brush bars used in ro-

tary cotton gin brushes.

In the accompanying drawings:—Figure 15 1 is a perspective view of part of a brushbar with tufts of bristles mounted therein. Figs. 2, 3, 4, and 5 are detail views of the tufts showing how the ferrules are applied. Fig. 6 is a view partly in elevation and 20 partly in section of part of a brush-bar formed with tuft-receiving holes and recesses and illustrates how the tufts of bristles are secured in place. Fig. 7 shows a cross-section of one of the bars with a tuft 25 of bristles mounted thereon.

The brush-bar A is preferably L-shape in cross-section. The flange a of the bar is formed with a row or series of holes a' to receive the tufts of bristles X. These holes 30 are arranged diagonally with reference to the direction of rotation of the brush. They extend entirely through the flange a and also part way into the body portion  $a^2$  of the bar, thus forming recesses x in said body 35 portion which form continuations of the holes a' and which have abutments at their lower ends.

The brush-bar, formed with holes as above described, is equipped with a series of tufts 40° of bristles X, and these tufts are constructed and secured in place in an improved way.

As shown in Figs. 2, 3, 4 and 5, each tuft of bristles is drawn into a metallic ferrule B which is open at one end to its full ex-45 tent, and is formed at its opposite end with a slight flange b. The bristles are drawn

into the ferrule in the manner shown by means of a cord C in such manner that the inner end of the bristles project slightly beyond the flange b but the tuft is prevented 50 by this flange from passing to any great extent out of the ferrule. The ferruleequipped tufts thus constructed are arranged in the holes a' of the brush-bars in the manner indicated the ferrules extending 55 into the recesses or grooves x and resting on the abutments at the lower ends of said grooves.

When a brush-bar has been equipped with the ferruled tufts, recesses or creases D are 60 formed in the ferrules and tufts in the manner shown close to the under or inner side of the flange a of the brush-bar. This operation serves to firmly compress the ferruled tufts in the recesses x and it forms 65 lugs or projections d on opposite sides of the recesses which lie close to the under side of the flange a and close to the body portion  $a^2$  of the brush-bar. In this way the tufts are prevented from moving in the brush-bar 70 either by centrifugal force or otherwise.

I claim as my invention:

A brush bar, a flange on one edge of said bar, said bar being provided with a groove having an abutment at one end and extend- 75 ed at the other end through said flange to form a hole therein, a ferrule resting onsaid abutment, and extending along said groove and into said hole, a tuft of bristles carried by said ferrule, said ferrule being 80 creased below said flange whereby the bristles are firmly clamped within said ferrule and projections are formed on said latter which are in engagement with the lower side of said flange thereby holding all the parts 85 firmly together.

In testimony whereof, I have hereunto subscribed my name.

THOMAS BRANTLEY.

E. B. FRANZONI.

Witnesses: LLOYD B. WIGHT,