

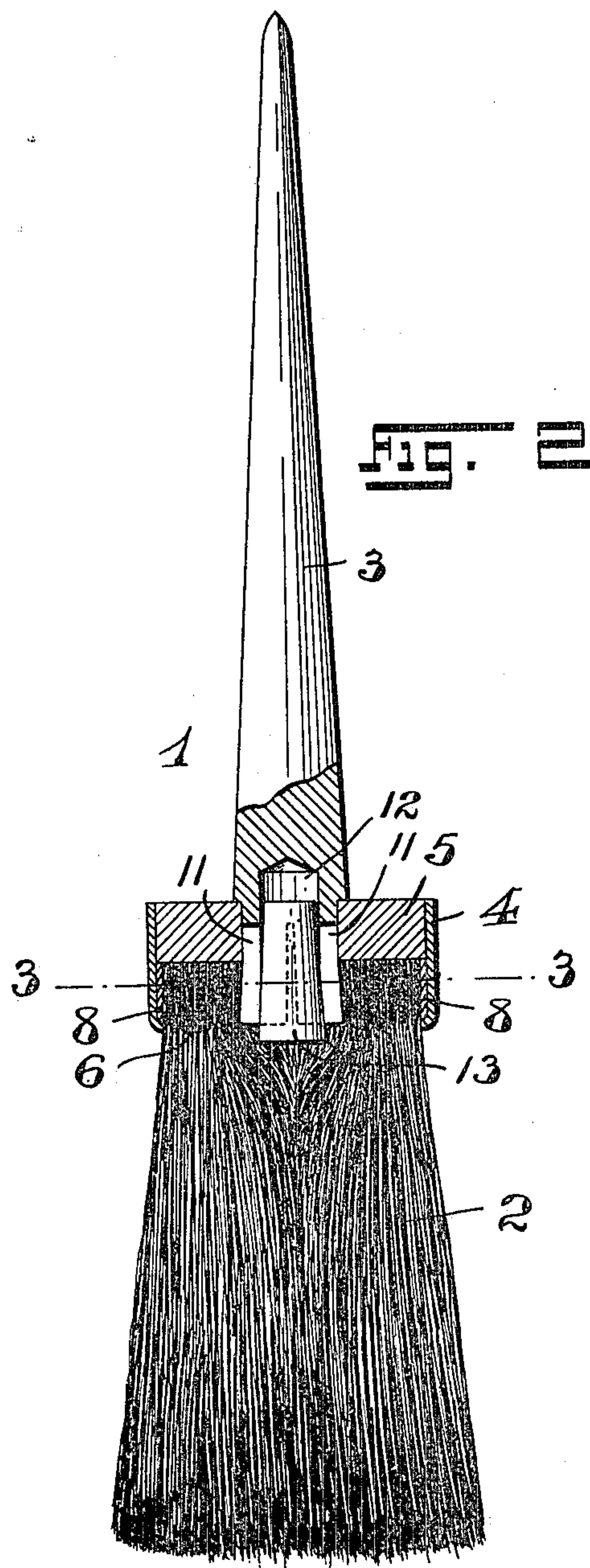
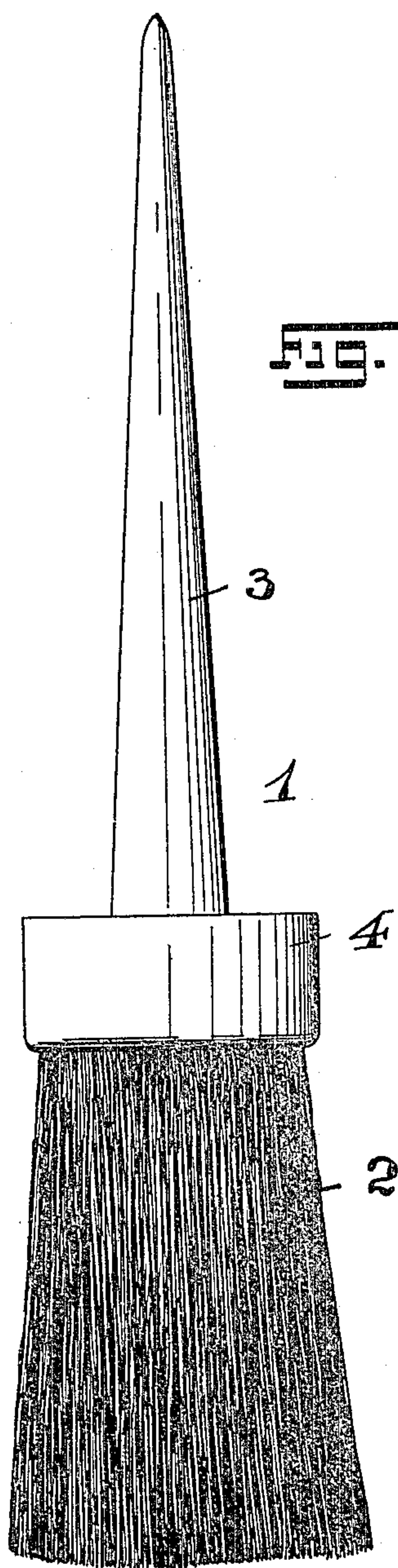
No. 819,934.

PATENTED MAY 8, 1906.

J. SCHREINER.
BRUSH.

APPLICATION FILED SEPT. 29, 1905.

2 SHEETS—SHEET 1.



WITNESSES:

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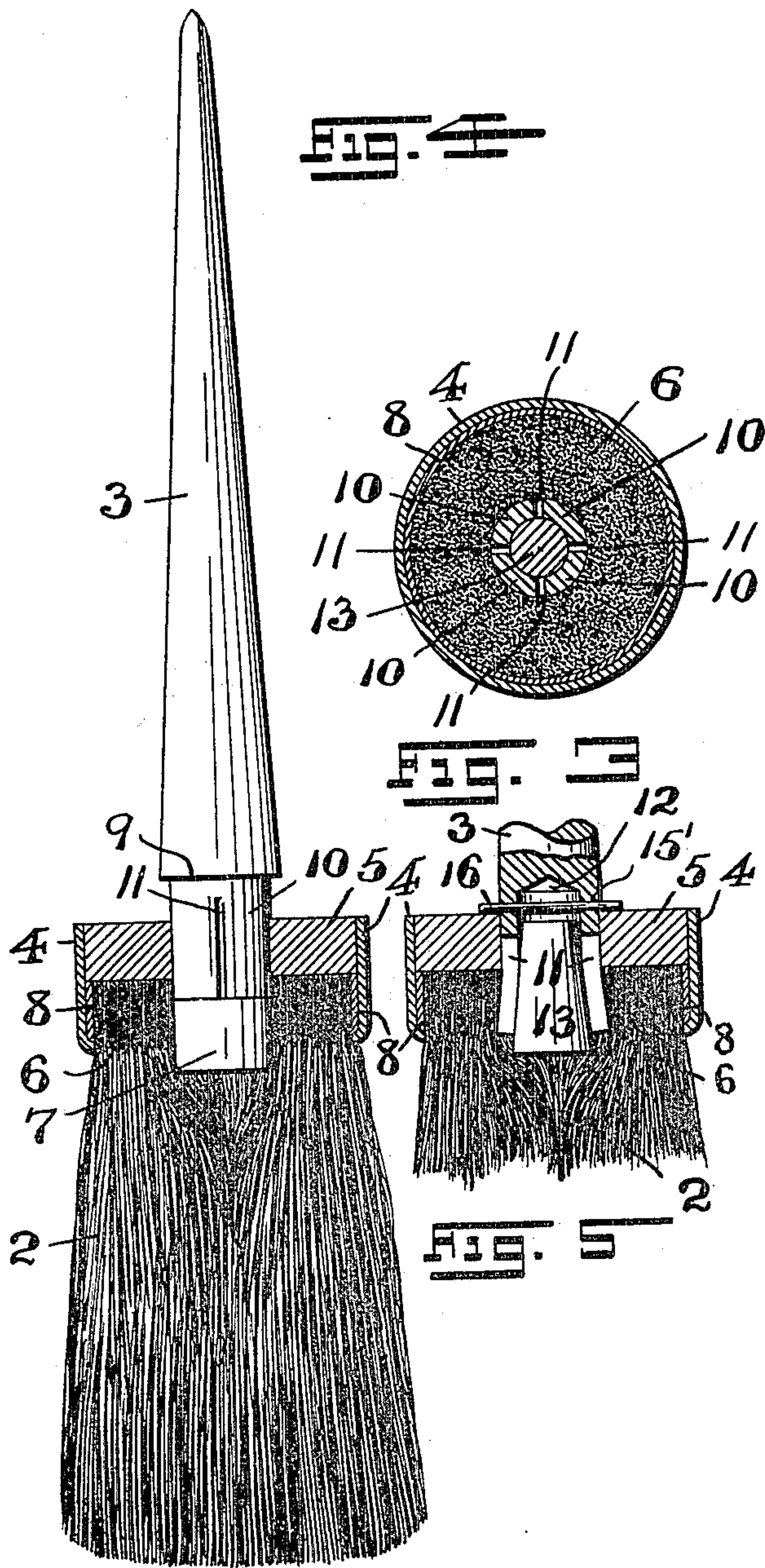
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UNITED STATES PATENT OFFICE.

JOSEPH SCHREINER, OF NEWARK, NEW JERSEY, ASSIGNOR TO RUBBER AND CELLULOID HARNESS TRIMMING CO., A CORPORATION OF NEW JERSEY.

BRUSH.

No. 819,934.

Specification of Letters Patent.

Patented May 8, 1906.

Application filed September 29, 1905. Serial No. 280,592.

To all whom it may concern:

Be it known that I, JOSEPH SCHREINER, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Brushes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention has reference generally to improvements in brushes of the various kinds; and the invention relates more particularly to a novel means of positively securing the end of the handle of the brush to the knot of the bunch of bristles.

My invention is especially adapted for securing and connecting the end of the handle to and within the vulcanized or hard rubber set bristles, which are bound with a metal band or ferrule.

The invention has for its principal object to provide a novel brush of the character hereinafter more fully set forth, with the result that the end of the handle is positively secured in a solidly - vulcanized head, in which the bristles are so thoroughly embedded that it is impossible for them to get loose, the end of the handle being wedged or spread from underneath by the insertion of a plug, which is preferably tapered, in a socketed or split end of the handle.

My invention consists, primarily, in the novel brush and means of attaching a handle thereto, as will be hereinafter more fully set forth; and, furthermore, this invention consists in the novel arrangements and combinations of the devices and parts, as well as in the details of the construction of the same, all of which will be more fully described in the following specification, and then finally embodied in the clauses of the claim, which are appended to this specification and which form an essential part of the same.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a face view of a form of brush embodying the principles of my present invention. Fig. 2 is a central longitudinal vertical section of the bunch of bristles and parts connected therewith, as well as of the sock-

eted and split end portion of the handle, the tapered plug inserted in said socket, as well as the upper portion of the handle, being shown in elevation; and Fig. 3 is a horizontal section taken on line 3 3 in said Fig. 2. Fig. 4 is a vertical sectional representation of a bunch of bristles and parts connected therewith and an elevation of the handle and an auxiliary plug in the vulcanized-rubber-set knot of the bristles, said view showing the socketed end portion of the handle in the act of driving said auxiliary plug from the said rubber-set knot of bristles prior to securing the tapered plug of the handle in the lower socketed end portion of the latter. Fig. 5 is a detail sectional representation of the knot end of the bunch of bristles and a portion of the handle, showing a slightly-modified means of connecting the said parts.

Similar characters of reference are employed in all of the said above-described views to indicate corresponding parts.

Referring now to the said drawings, the reference character 1 indicates the complete brush, the same comprising a bunch of bristles 2, a handle 3, an outer metal ferrule 4, a centrally-perforated disk 5, and means for attaching the lower end portion of the said handle 3 to the said bunch of bristles.

In the course of the manufacture of the bunch of bristles 2 the upper end portions or knot 6 of the bristles is rubber-dipped, having been arranged about a centrally-disposed auxiliary plug 7, usually of wood, and then surrounded by an inner metal band or ferrule 8. Surrounding the said inner metal band or ferrule 8 and secured in its position in any suitable manner is the previously-mentioned outer metal ferrule or band 4, the latter having its upper edge portion extending above the knot 6 of the bristles, so as to form a space above the said knot in which the previously-mentioned disk 5 is placed and held by the said ferrule 4, said disk 5 having its central perforation in alinement with the said auxiliary plug 7, as clearly indicated in Fig. 4 of the drawings. The lower end portion of the said handle 3 is usually provided with a shoulder 9 and a series of downwardly-projecting end tongues or members 10, formed with longitudinally-extending slots 11 between the said tongues, whereby the latter will become resilient to enable the spreading of the lower end portion of the handle in the manner to

be presently more fully described. The said lower end portion of the handle is also provided in its end with a socket 12, which is surrounded by the said resilient tongues 10 and extends, preferably, into the body of the handle, substantially as illustrated in Fig. 2 of the drawings. In assembling these parts, so as to positively attach the lower end portion of the handle to the knot of the bristles and the disk 5 thereabove, the socketed and slotted end portion of the handle is inserted in the central opening or perforation of the disk 5 until the resilient tongues 10 will rest directly upon the auxiliary plug 7. Pressure or force is then applied to the handle 3 until the shoulder 9 of the handle rests directly upon the disk 5 and the said auxiliary plug 7 has been driven from the knot end of the bristles, as will be clearly understood. A tapered plug 13 is now passed through the bunch of bristles and inserted from below in the socket 12 of the lower end portion of the handle, and by driving the said tapered plug home the said tongues 10 will become sufficiently spread so as to tightly wedge the said end portion of the handle in its attached relation to the knot of the bristles and the disk 5 of the same, and all of which is clearly illustrated in Fig. 2 of the drawings. From an inspection of said Fig. 2 of the drawings it will be seen that any upward displacement of the parts is prevented by the said tapered plug 13 and the spread tongues 10, while the shoulder 9 of the handle likewise prevents any downward displacement, and it will be seen that in this manner the handle 3 is positively attached to the bunch of bristles.

In the modified construction represented in Fig. 5 of the drawings I have shown the handle 3 without the shoulder 9 and have combined with the socketed and slotted end portion of the handle, as indicated in Fig. 2, a laterally-extending duct 15' and a pin or dowel 16, driven into position, as shown in Fig. 5, for preventing any downward displacement in this form of handle attachment with the knot end of the bunch of bristles.

Having thus described my invention, what I claim is—

1. As an improved article of manufacture, a brush comprising a knot of bristles, an open-ended ferrule inclosing said knot, the upper

portion of said ferrule extending above the upper end of said knot of bristles so as to provide a receiving-space, a centrally-perforated disk in said space and held in position by said ferrule, a handle having its lower end portion inserted through the perforation in said disk, a series of resilient and downwardly-projecting end tongues, formed with longitudinally-extending slots, said handle being formed in its lower portion from which said end tongues project with a receiving-socket, a plug arranged between said end tongues and extending part way into said receiving-socket, said plug being adapted to spread said end tongues, to prevent the withdrawal of said handle from said disk in an outward direction, and means connected with said handle and in engagement with the upper face of said disk to prevent the separation of said handle from said disk in an inward direction, substantially as and for the purposes set forth.

2. As an improved article of manufacture, a brush comprising a knot of bristles, an open-ended ferrule inclosing said knot, the upper portion of said ferrule extending above the upper end of said knot of bristles so as to provide a receiving-space, a centrally-perforated disk in said space and held in position by said ferrule, a handle provided with a shoulder resting upon said disk and a series of resilient and downwardly-projecting end tongues, formed with longitudinally-extending slots, said handle being formed in its lower end portion from which said end tongues project with a receiving-socket, and a plug arranged between said end tongues and extending part way into said receiving-socket, said plug being adapted to spread said end tongues, to prevent the withdrawal of said handle from said disk in an inward direction, and the shoulder on said handle preventing the separation of said handle from said disk in an inward direction, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 28th day of September, 1905.

JOSEPH SCHREINER.

Witnesses:

FREDK. C. FRAENTZEL,
ANDREW ALBIGHT, Jr