

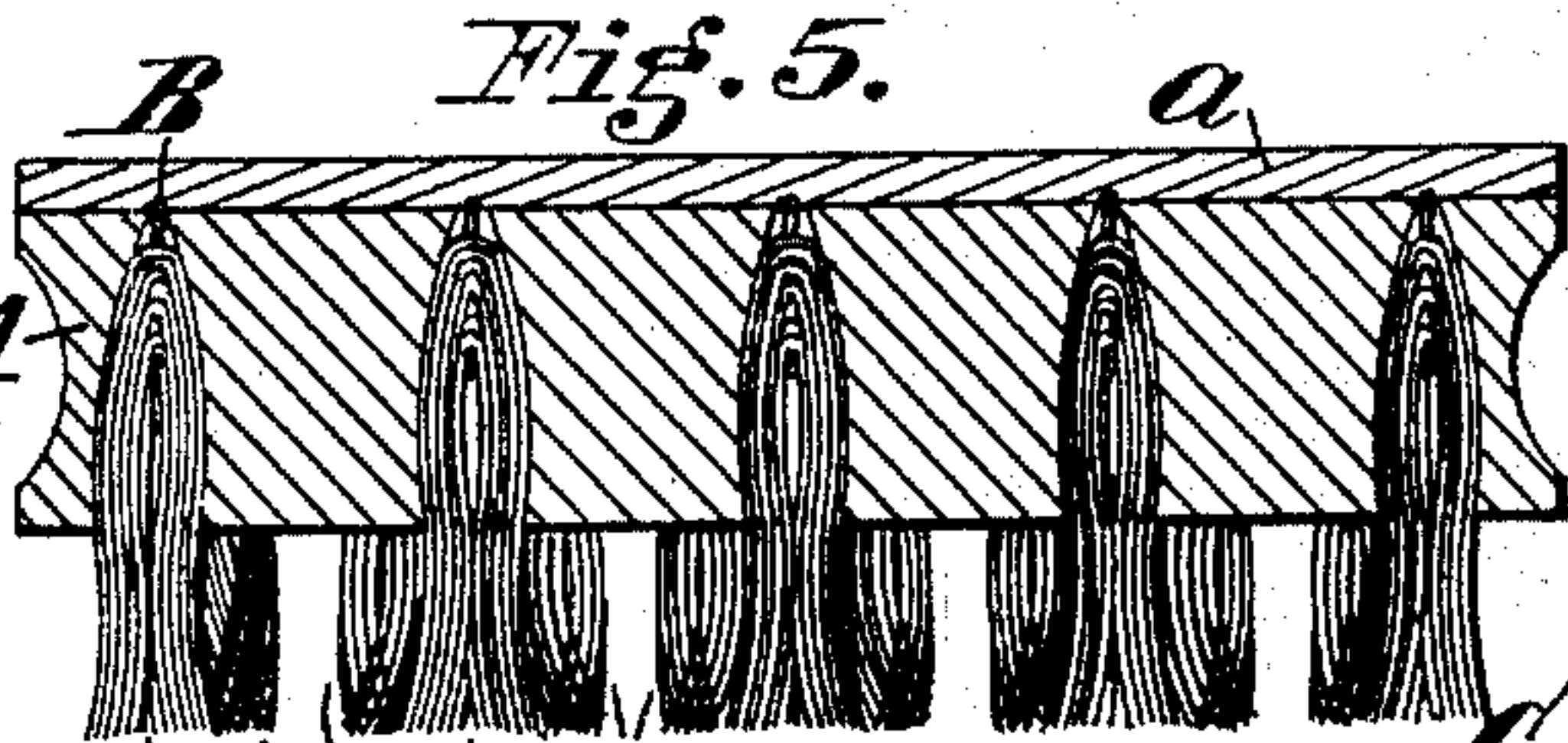
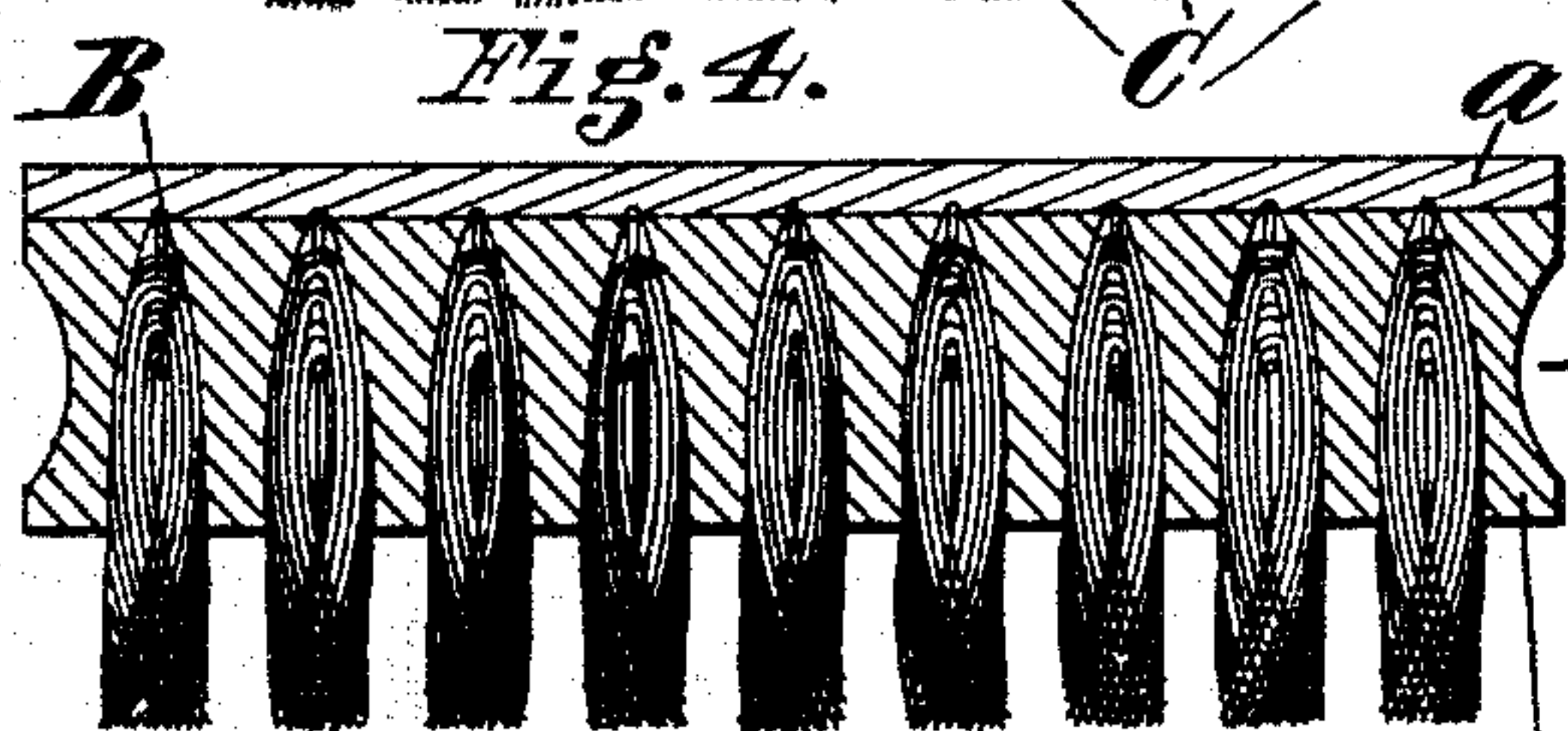
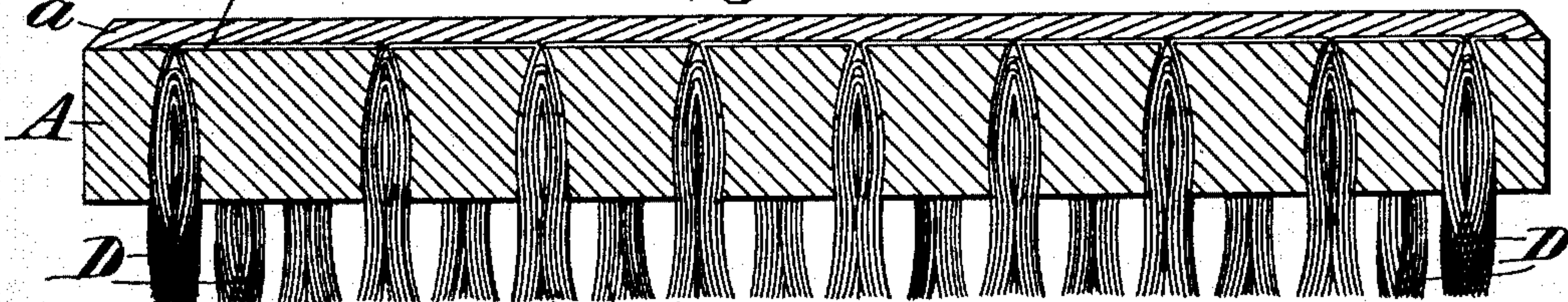
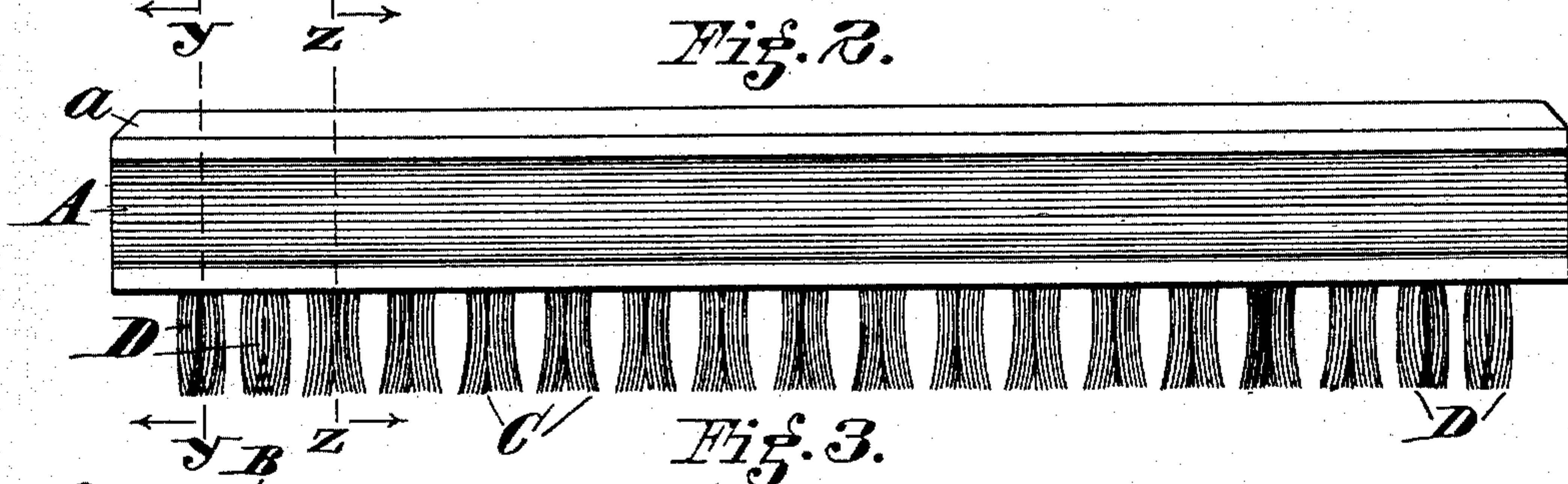
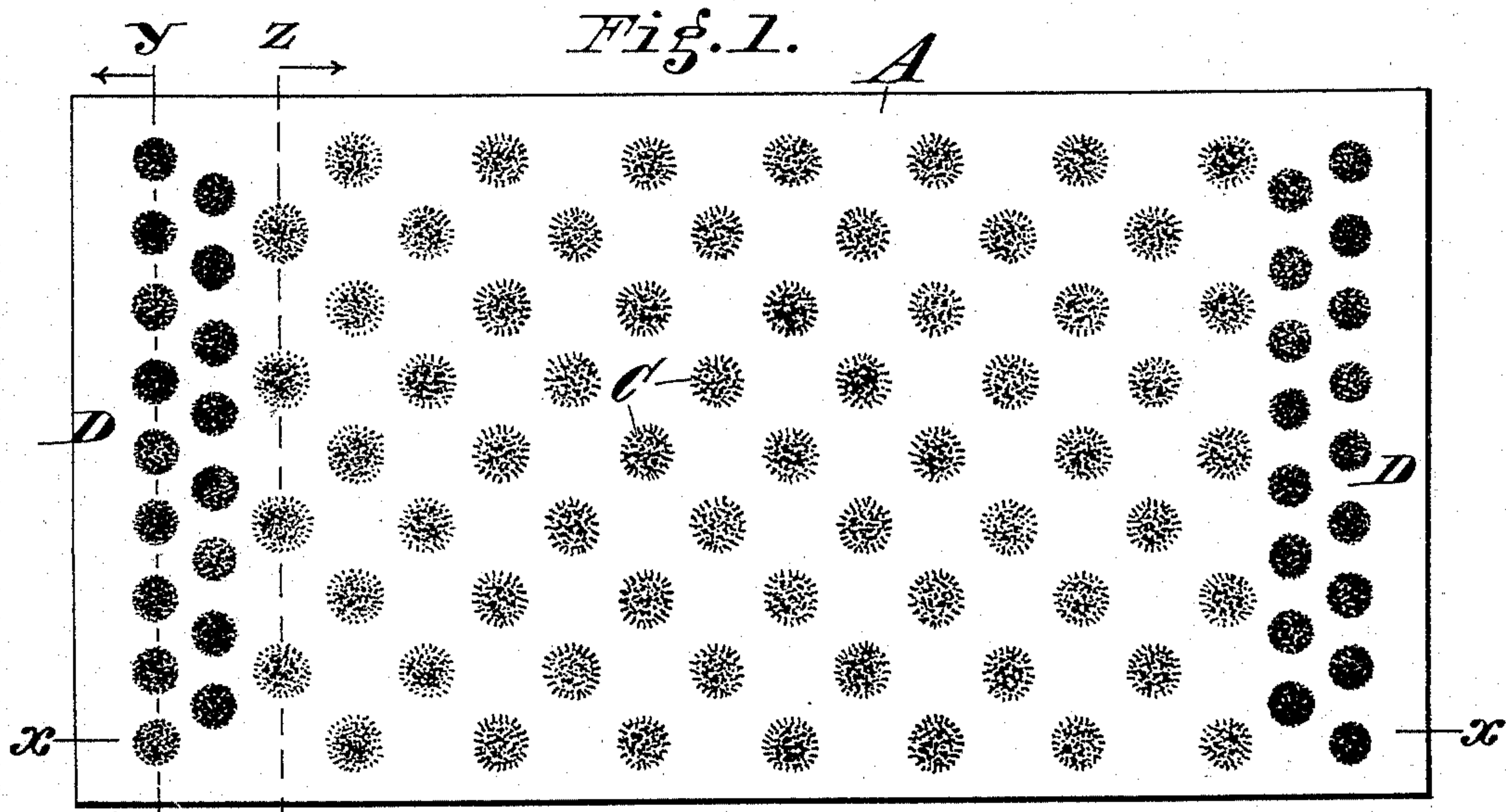
(Model.)

2 Sheets—Sheet 1.

C. GRAU.
TANNER'S SIGUE BRUSH.

No. 483,350.

Patented Sept. 27, 1892.



Attest
Frank L. Millward
John C. Rose

Inventor
Charles Grau,
by John C. Jones,
his attorney.

(Model.)

2 Sheets—Sheet 2.

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Fig. 6.

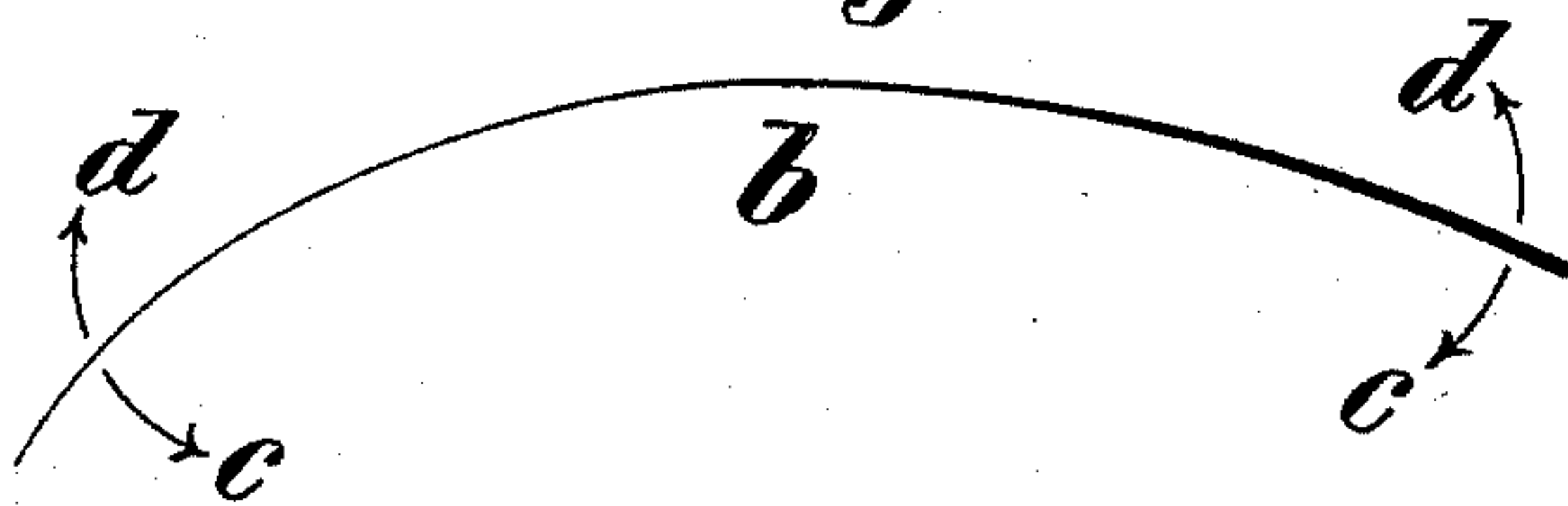


Fig. 7.

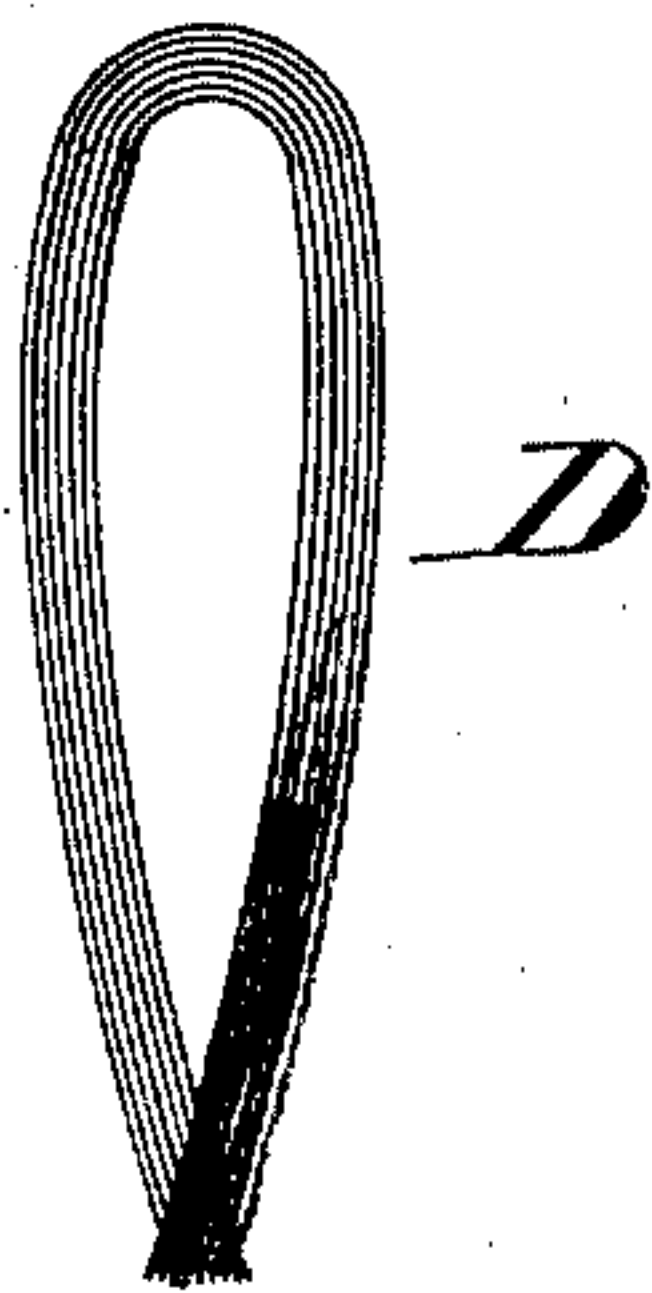
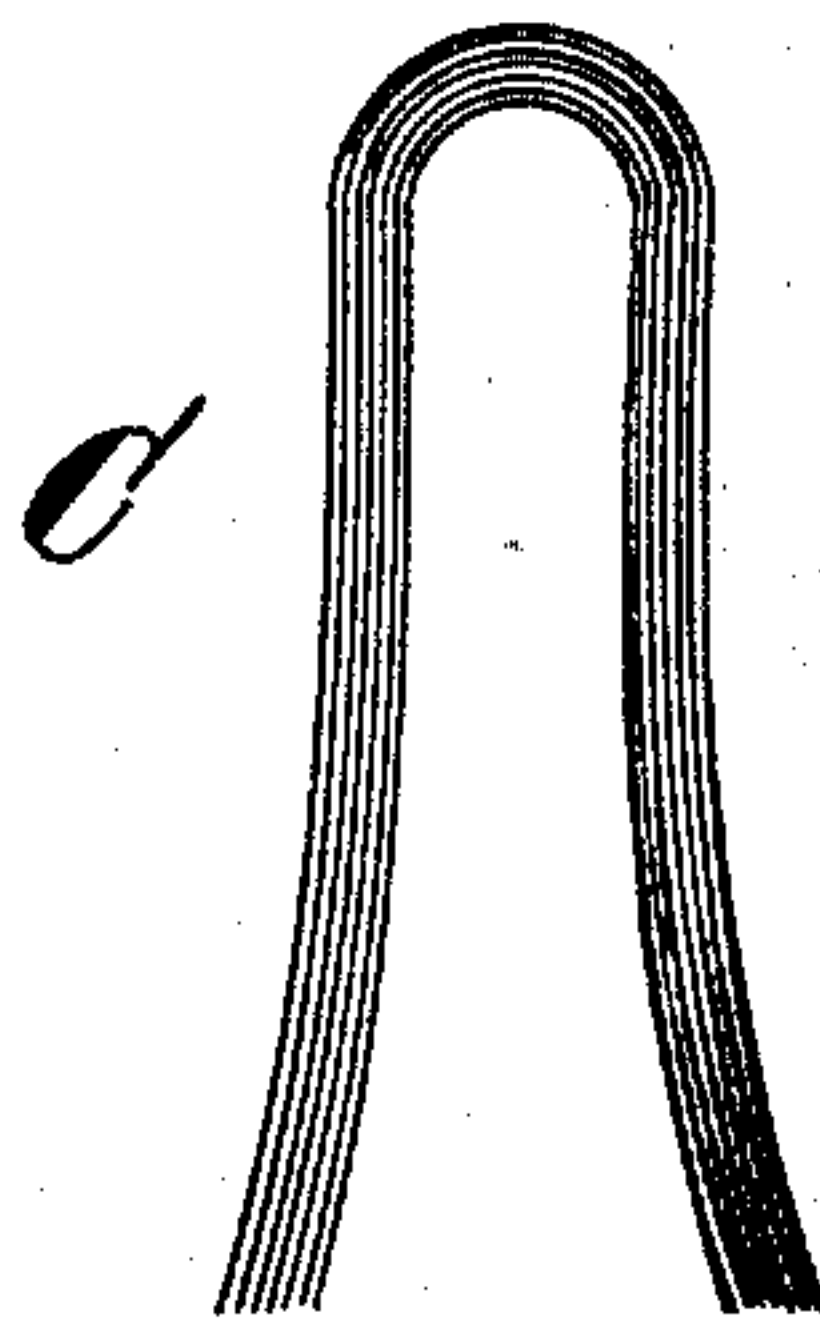


Fig. 8.



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UNITED STATES PATENT OFFICE.

CHARLES GRAU, OF CINCINNATI, OHIO.

TANNER'S SIGUE-BRUSH.

SPECIFICATION forming part of Letters Patent No. 483,350, dated September 27, 1892.

Application filed August 31, 1891. Serial No. 404,185. (Model.)

To all whom it may concern:

Be it known that I, CHARLES GRAU, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented an Improvement in Tanners' Sigue-Brushes, of which the following is a specification.

My invention relates to that class of brushes known as "sigue-brushes," especially used by tanners in scouring or preparing the hide immediately preceding the blackening or coloring operation. Hitherto brushes of this character have been made with their several tufts composed entirely of nominally-straight bristles or fibers, and the manner of their use in connection with hides has been such as to result in a very rapid wear of the first row or two of tufts at either end of each brush, thus rendering them practically useless and valueless for any purpose whatever, the tufts in the body or main portion being really but little worn in proportion to said end rows, and therefore nothing more nor less than wasted. To secure a uniform wear of all the tufts and to better carry and distribute the "sigue" or grease-cutting fluid, as well as to secure the consequent prolonged and full use of the brush, are the principal objects of my invention, the construction of which will be fully hereinafter described, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a plan view of the brush embodying my invention, showing that side or face thereof containing the tufts; Fig. 2, a longitudinal elevation; Fig. 3, a longitudinal sectional elevation on line *x x*, Fig. 1; Fig. 4, a transverse sectional elevation on line *y y*, Figs. 1 and 2, taken in direction of the arrows adjacent to said line; Fig. 5, a view similar to Fig. 4, but on line *Z Z*, Figs. 1 and 2, and in the reverse direction, as indicated by arrows; Fig. 6, a detail view of one of the preferred forms of bristles used in the several tufts of my brush; Fig. 7, a detail elevation of a tuft of curved or bowed bristles, showing the peculiar manner in which said tuft is arranged preparatory to being introduced or drawn into the holes in the first two rows at either end of the brush-stock; and Fig. 8, a view similar to Fig. 7, but showing the peculiar manner in which a bunch or tuft of said preferred form

of bristles is arranged preparatory to being introduced or drawn into the holes intermediate said opposite end rows to form the main portion or body of my brush.

A represents the usual brush stock or back, *a* the finishing veneer or facing on the back thereof, and B the several lacing or drawing wires, concealed or covered by said veneer.

C represents the respective tufts of bristles forming the main portion or body of my brush, and D the tufts of bristles forming the first two transverse rows at either end of the brush, skirting the tufts of said main portion at both ends thereof. Both sets of tufts C and D are preferably composed of what are known as "Chinese" bristles, for the reason that each of said bristles is naturally bowed or curved, as clearly shown at *b* in Fig. 6. In order to construct my said transverse end rows, suitable bunches of these bowed or curved bristles are taken and bent or doubled inwardly (in the direction of the arrows *c c*, shown in Fig. 6) until their opposite ends (butts and flags) approach each other and commingle, as shown in Fig. 7. Then the customary drawing operation of wiring the respective loops thus formed in the customary holes or sockets in the stock A follows. The natural tendency of said curved bristles is to preserve the opposite ends on doubling in the relation shown in said Fig. 7, (that is, toward each other and commingling,) the same relation being maintained after the tuft is properly trimmed to the desired length, and a double transverse row of compact, firm, and upright tufts is thus provided at either end of the brush, which effectually carries and spreads the hot sigue or other fluid used in dressing hides and uniformly distributes it over the surface preparatory to the coloring or blackening operation. These end rows thus peculiarly formed are especially well adapted to receive the wear incident to the manner of using the brush, the greatest wear in use being always at said ends. To construct the tufts C in the main portion or body of my brush, suitable bunches of said bowed or curved bristles are taken and doubled, with their respective bristles turned or disposed outwardly, (in the direction of the arrows *d d*, shown in Fig. 6,) as shown in Fig. 8. Then the customary drawing opera-

tion of wiring the respective loops thus formed in the holes or sockets previously bored in the stock A follows. The natural tendency of said curved bristles is to now
 5 preserve the opposite ends or points in the relation shown in Fig. 8, (that is, with their ends flaring outward away from each other,) the same relation being maintained after each tuft is properly trimmed to the desired length,
 10 as clearly shown in Figs. 2, 3, and 5. The tufts C in the main portion or body of the brush thus peculiarly formed spread out well and effectually carry and uniformly distribute the hot sigue or fluid and wear uniformly
 15 with the end rows of tufts D, previously described. I have shown the tufts C in the body of my brush arranged in diagonal or oblique rows and the end tufts D in straight transverse rows, the latter being somewhat closer
 20 together to carry and distribute the sigue to better advantage and also form a better reinforce or border for such body-tufts; but it is obvious that said body-tufts C could be arranged in straight transverse rows or in any
 25 other manner intermediate the end reinforce rows and the result in use practically unchanged.

It is obvious that my brush could be put to other uses besides the preferred one I have
 30 herein stated and other bristles than Chinese used; but said bristles should be of such a nature as to impart the several effects stated in connection with both clusters of tufts C and D, respectively.

35 I prefer to trim the several bunches of bristles after drawing so that they shall project about one-half an inch from the stock, there-

by presenting an even hard surface, which is especially adapted to the purpose hereinbefore stated; but it is obvious that for a soft
 40 leather the tufts could be trimmed a trifle longer or any length, as desired.

A special feature of my brush—that is, the construction of the tufts C in the main portion or body thereof—is that clogging of the
 45 sigue in the tufts is entirely obviated, and said sigue is properly carried and uniformly distributed until the bristles are ineffectually worn away by use.

I claim—

50 As a new article of manufacture, a tanner's sigue-brush composed of a stock or back A, tufts C, forming the body or main portion of the rubbing-surface, and each tuft comprising a number of naturally-curved bristles, which
 55 are drawn with their ends flaring or disposed outwardly, and a series of tufts D, each projecting from single holes or sockets skirting the opposite ends of said main tufts C and comprising a number of naturally-curved bristles drawn with their ends disposed or turned
 60 inwardly toward each other and intimately commingling, whereby a reinforce is provided at said opposite ends of the body-tufts of the brush for uniform wear therewith, and all the
 65 parts arranged and constructed substantially as and for the purpose herein set forth.

In testimony of which invention I have hereunto set my hand.

CHARLES GRAU.

Witnesses:

G. A. SHEAGUE,
 JOHN E. JONES.