

(No Model.)

M. C. PANKEY.
PROCESS OF MAKING BRUSHES.

No. 451,294.

Patented Apr. 28, 1891.

Fig. 1.

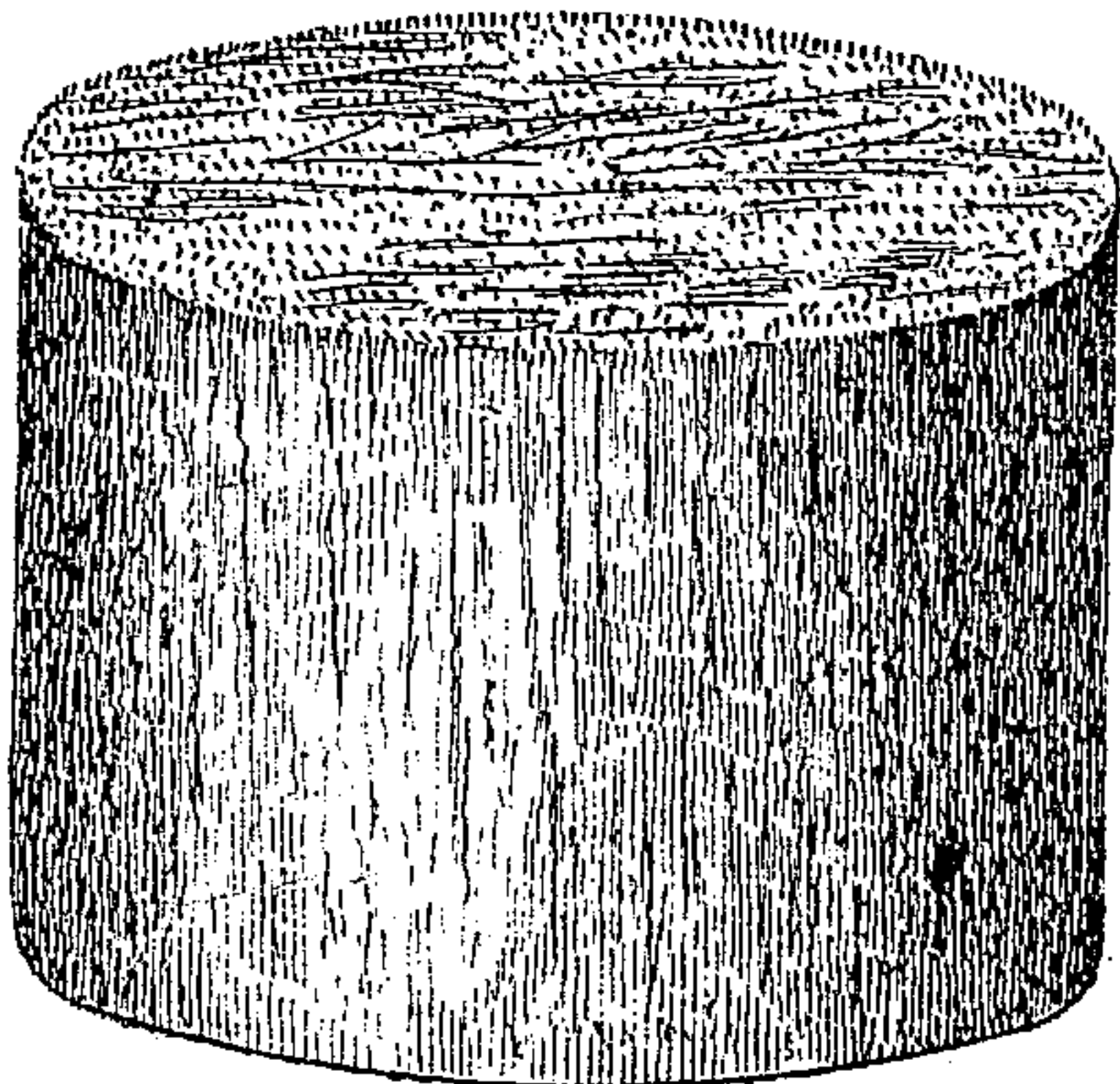


Fig. 2.

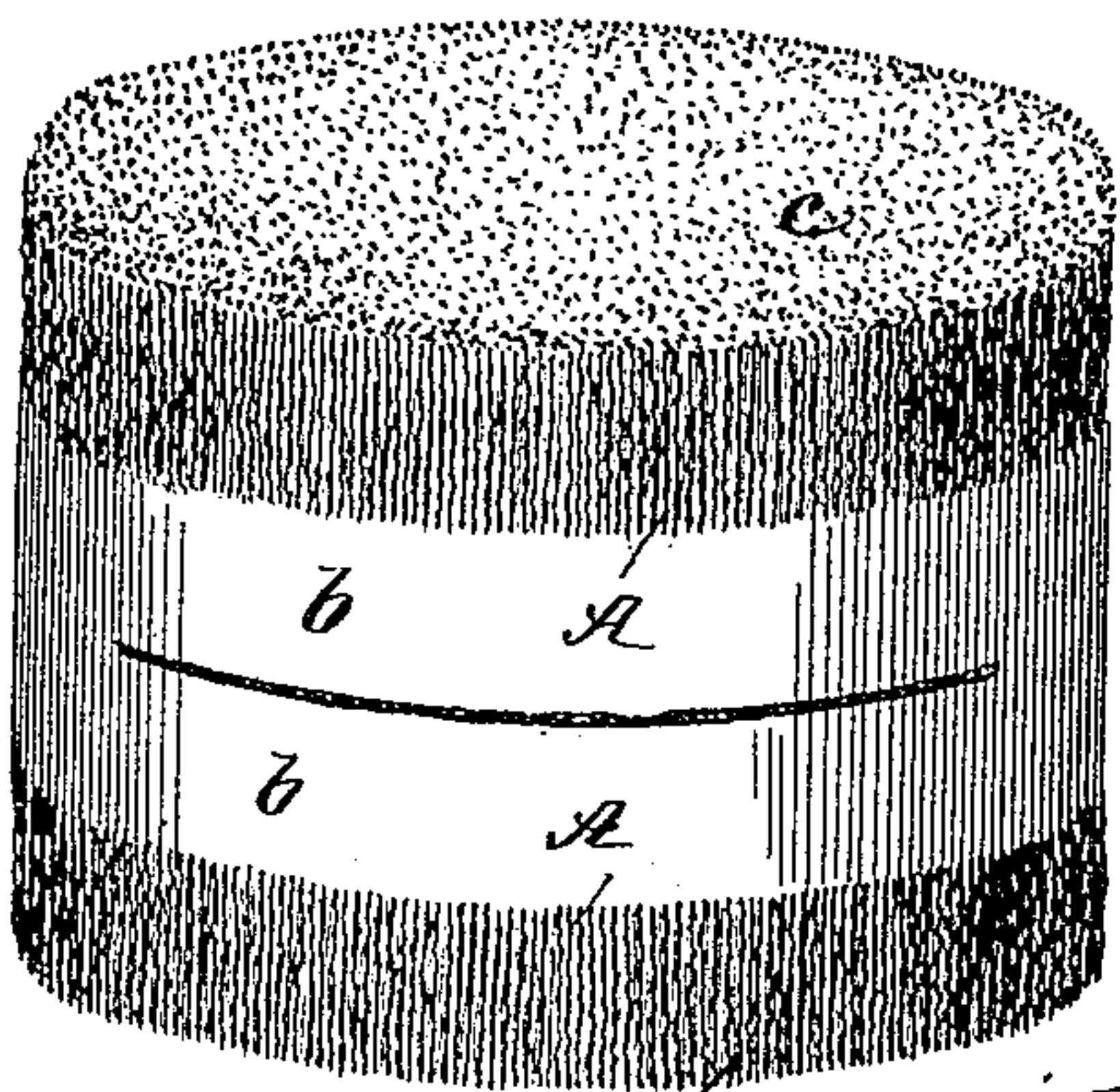


Fig. 3.

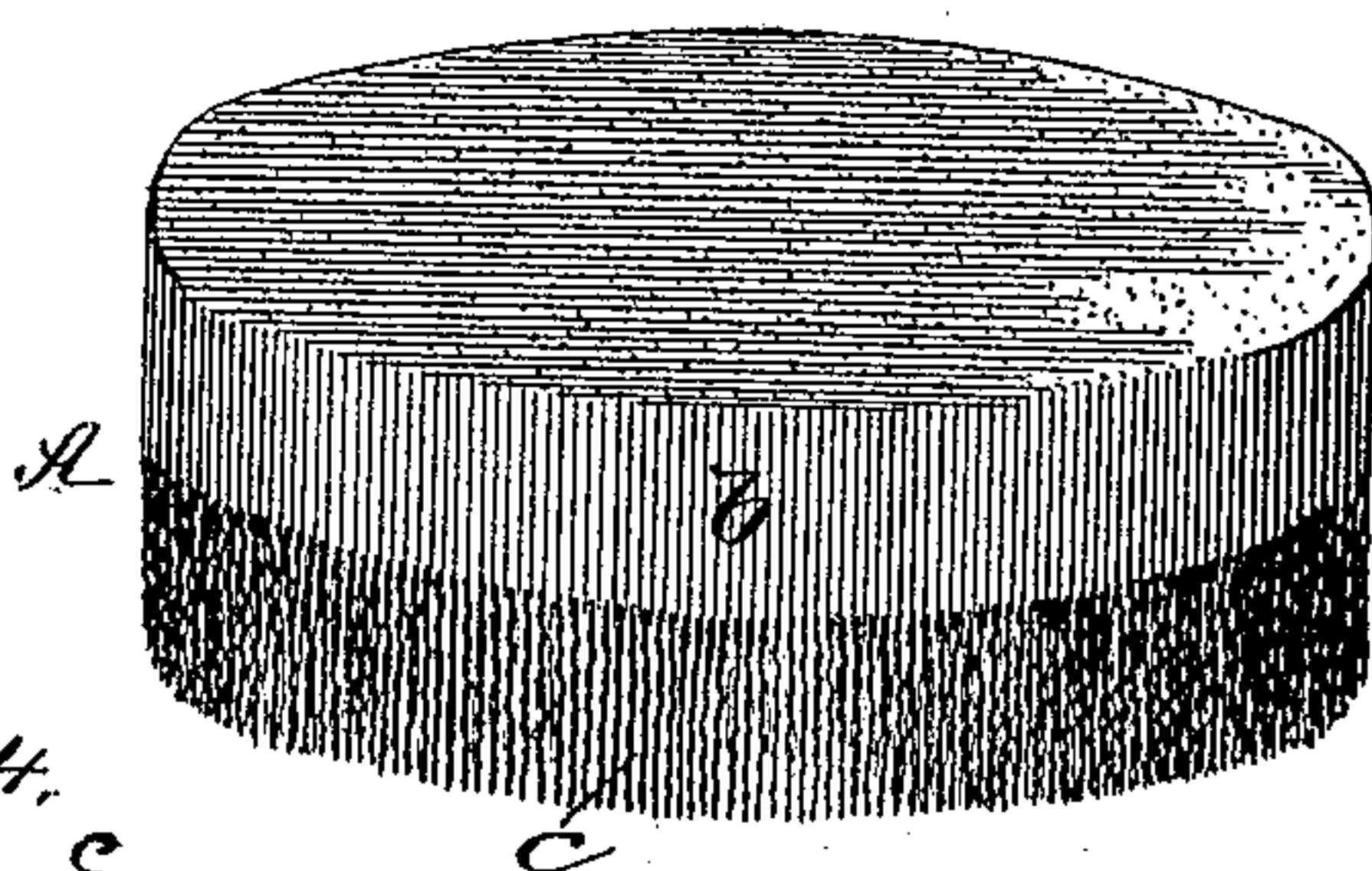
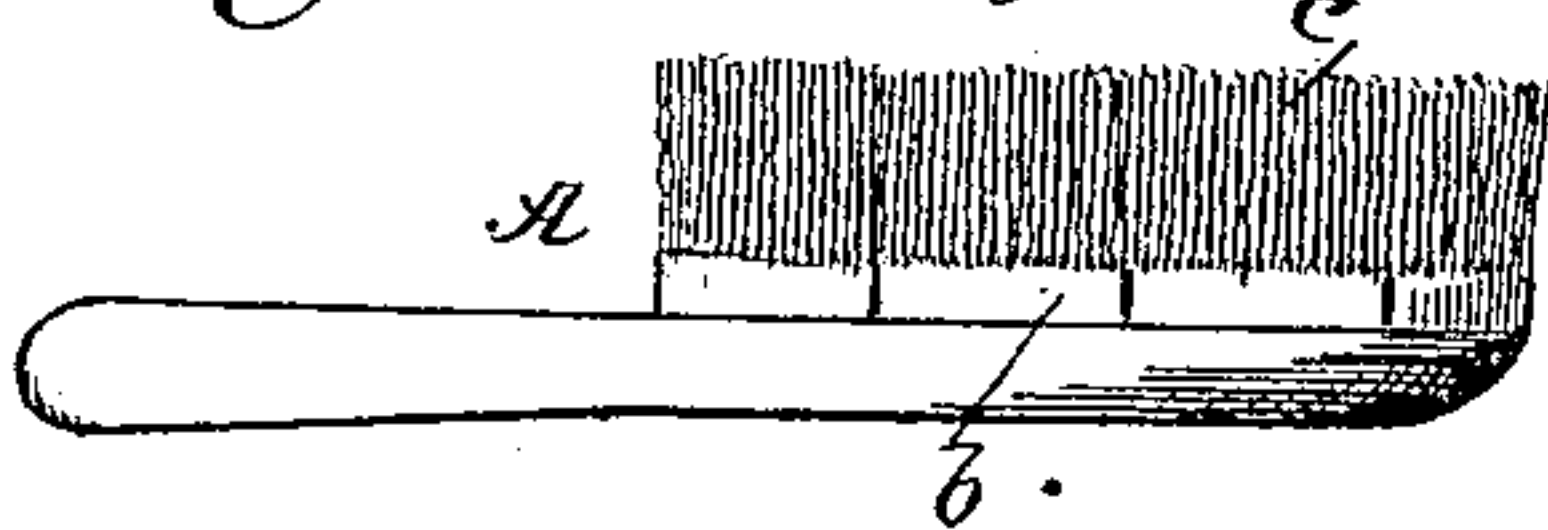


Fig. 4.



WITNESSES:

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PROCESS OF MAKING BRUSHES.

SPECIFICATION forming part of Letters Patent No. 451,294, dated April 28, 1891.

Application filed July 2, 1890. Serial No. 357,529. (No model.)

To all whom it may concern:

Be it known that I, MASTIN C. PANKEY, of Scranton, in the county of Jackson and State of Mississippi, have invented a new and useful
5 Improvement in Processes of Making Brushes, of which the following is a specification.

My invention is in the nature of a new process of making brushes from the stalk of the saw palmetto; and it consists in the method
10 of treating the material to soften the pulpy matters, then combing out the pulpy matters from the faces of the block, so as to leave the fibers projecting in the form of a brush, and then drying, sawing, trimming, and fitting the block.
15

Figure 1 is a perspective view of an oval block of palmetto-stalk before being treated. Fig. 2 is a similar view of the oval block after being softened and combed on both faces and partially sawed in the middle of its solid part.
20 Fig. 3 is one of the brush-blocks as finished and ready to be used or backed and mounted, and Fig. 4 is a view on a smaller scale of a brush composed of a back and handle with several brush-sections attached thereto.
25

In carrying out my invention, I take for an oval brush an oval block, as shown in Fig. 1, of twice the thickness of the brush and subject it to the softening influence of steam for
30 the period of one hour; or the block may be soaked in water for several days, which will answer the same purpose. The pulp has by this action become soft, and the faces of the block are then submitted to the action of a revolving disk with steel teeth fixed in its face until the pulp has been loosened and dislodged from the embedded fibers to the required depth. Both faces are treated in this way, and the blocks with double faces of
40 bristles or fibers are then subjected to the action of a dilute solution of salicylic acid, in the proportion of one-fourth of an ounce of acid to one gallon of water, for a period of twenty-four hours, for the purpose of destroying the sap and preventing mildew. The blocks are then dried in boxes by alternate blasts of hot and cold air, which prevents mildew and discoloration. After the double-

faced block is dried in this manner it is sawed directly down the middle line of its solid portion, and forms two equal brush-blocks A A, each of which has a solid back b, composed of the undisturbed fibers and pulp as it exists in the organic growth of the stalk, and a brush-surface of teeth or bristles c, composed of the
55 tough flexible fiber freed from their surrounding matrix of pulp. These brush-blocks A may be used just as they are, or they may be backed or provided with handles; or several block-sections may be grouped and connected to a back to form a single brush, as in Fig. 4.
60

The size of the brush and the length of the fiber may be regulated so as to adapt the article to nearly all the uses to which brushes are ordinarily applied. With reference to
65 my method of forming two brush-blocks at once and then sawing them apart, I would state that this is a very important part of my invention, the merit of which must be explained to be understood.
70

I have found that when a block thick enough only for a single brush has been softened and combed and dried the fact that one face of the brush is different from the other will cause it to dry at different rates upon its two different faces, and the brush will warp out of shape to such an extent as to be worthless; but when the block is made of double thickness and both faces are combed both faces dry alike, and then when this double block is
75 severed in the middle line by the saw the solid backs are left true and straight.

Having thus described my invention, what I claim as new is—

The process of forming brushes from woods
85 having a fiber embedded in a pulp, which consists in softening the pulp by means of moisture and loosening and detaching the pulp from the fibers by combing on both faces of the block, then drying the combed block, and
90 finally sawing it through the middle or solid portion, substantially as shown and described.

MASTIN C. PANKEY.

Witnesses:

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