

(No Model.)

McC. YOUNG.

BRUSH.

No. 412,692.

Patented Oct. 8, 1889.

Fig. 1.

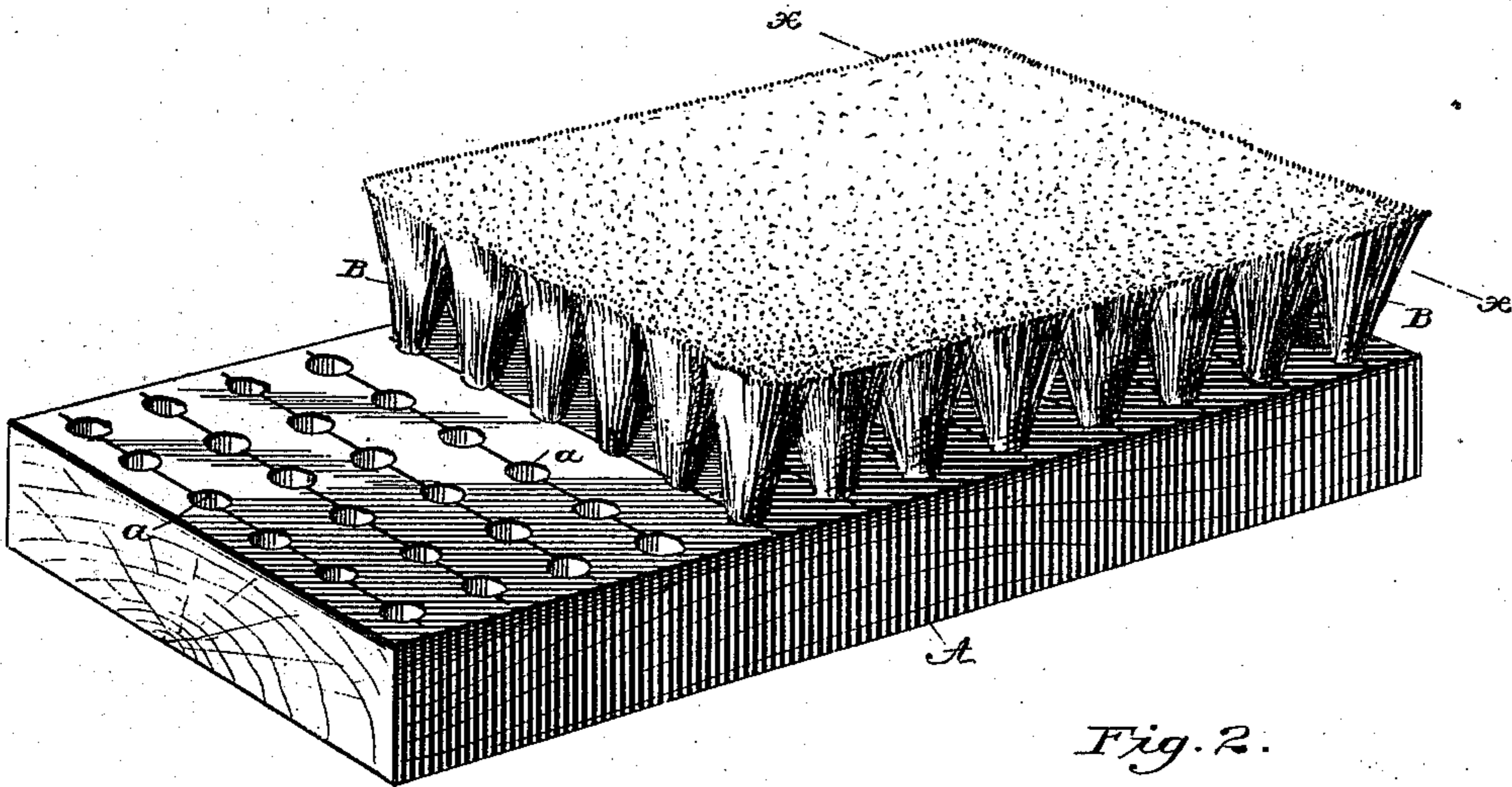


Fig. 2.

on line x-x

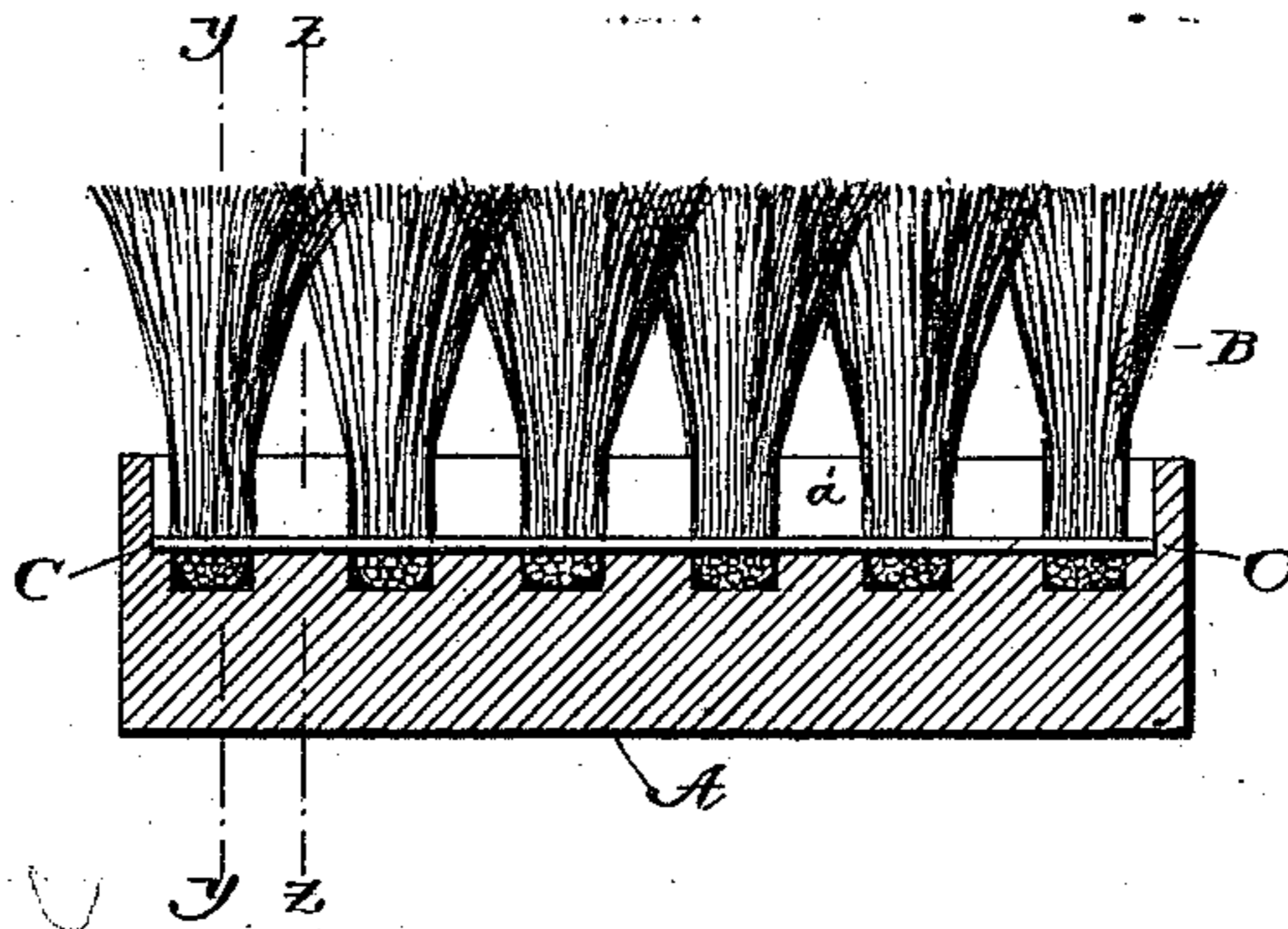


Fig. 3.

on line y-y

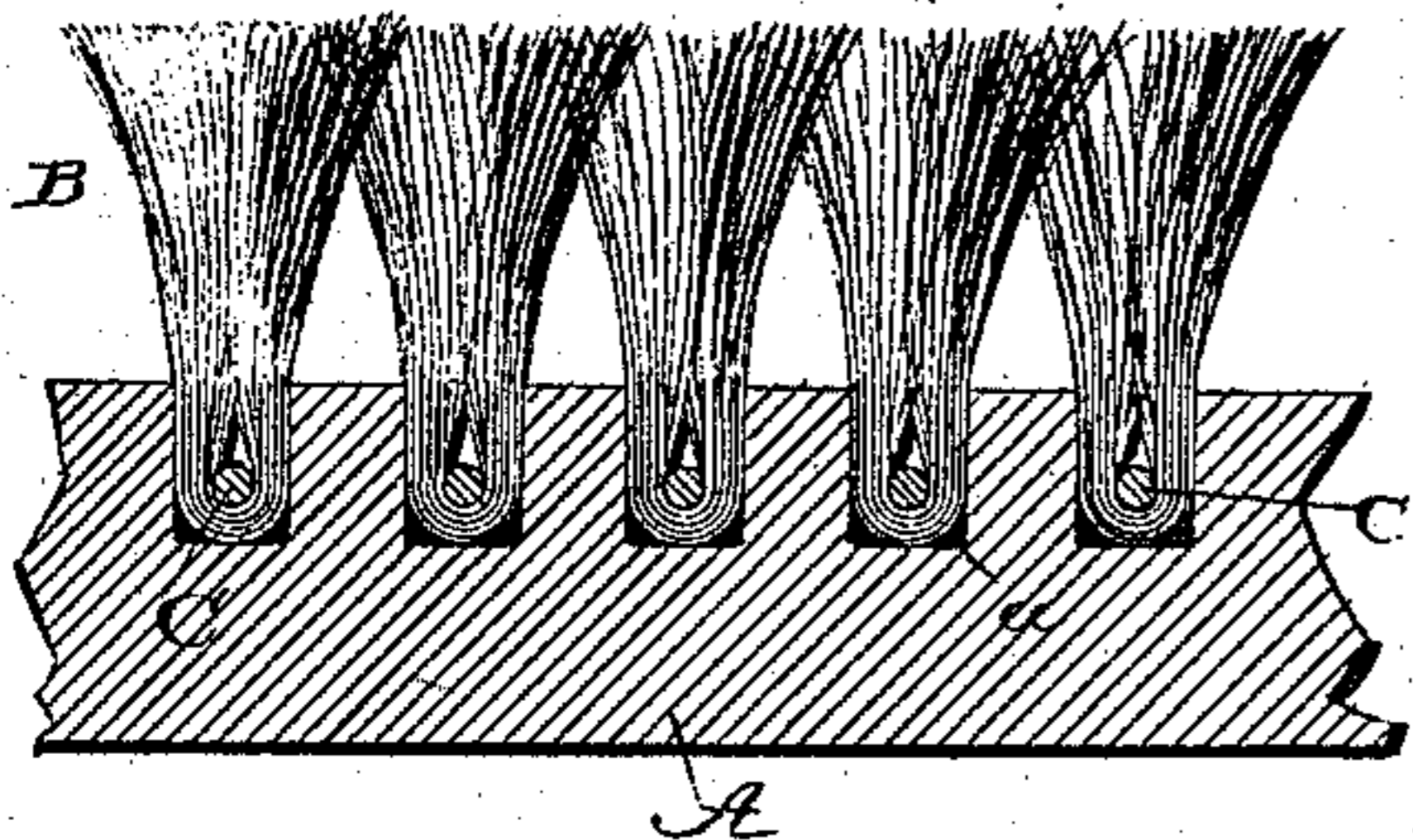


Fig. 4.

on line z-z

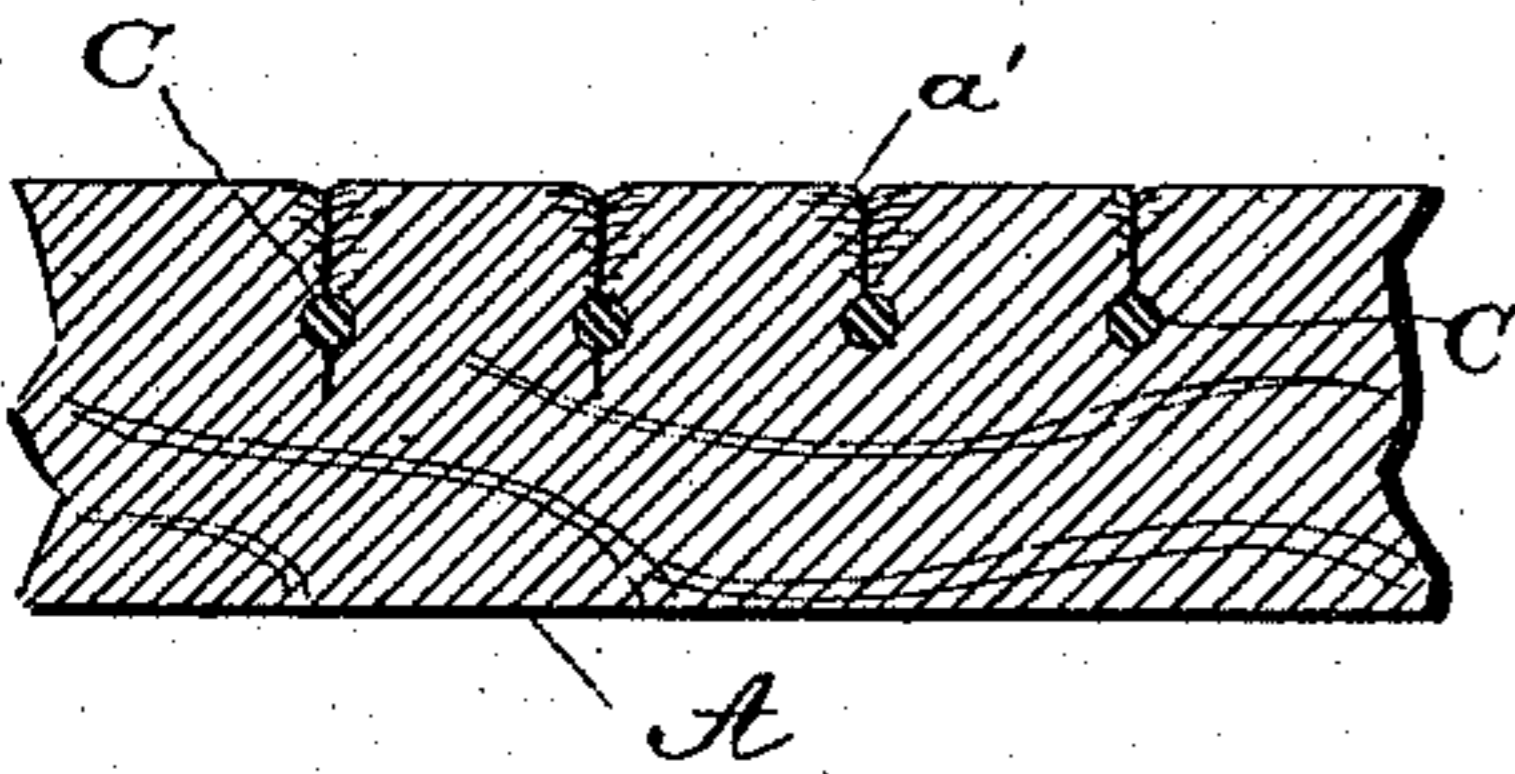


Fig. 5.

on line z-z

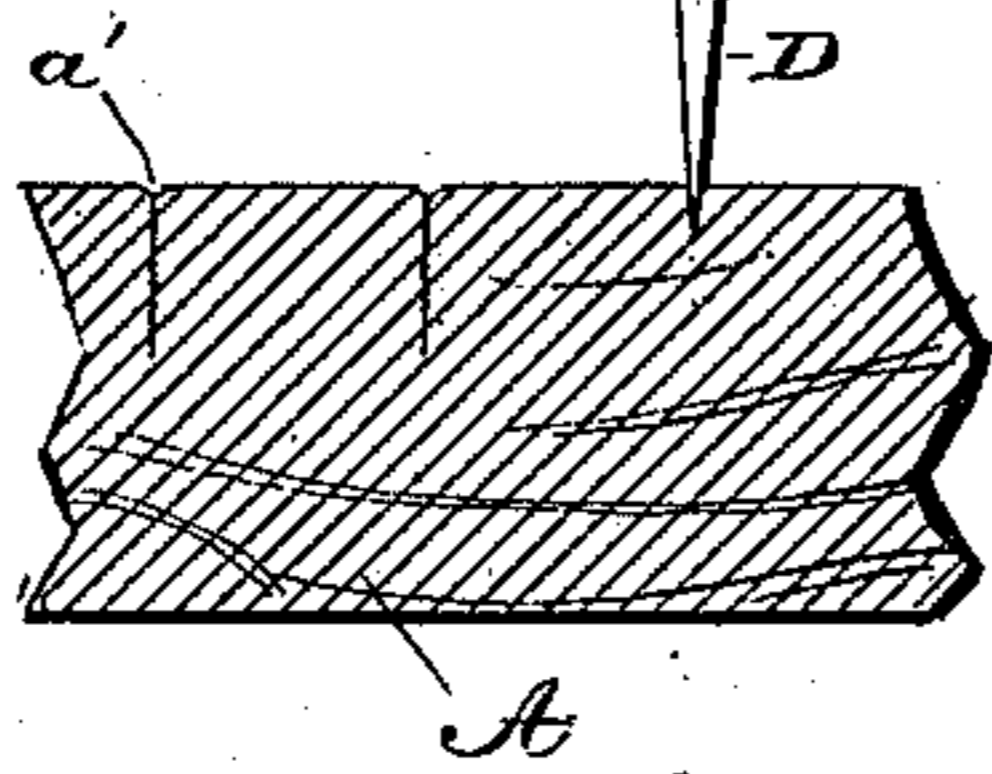
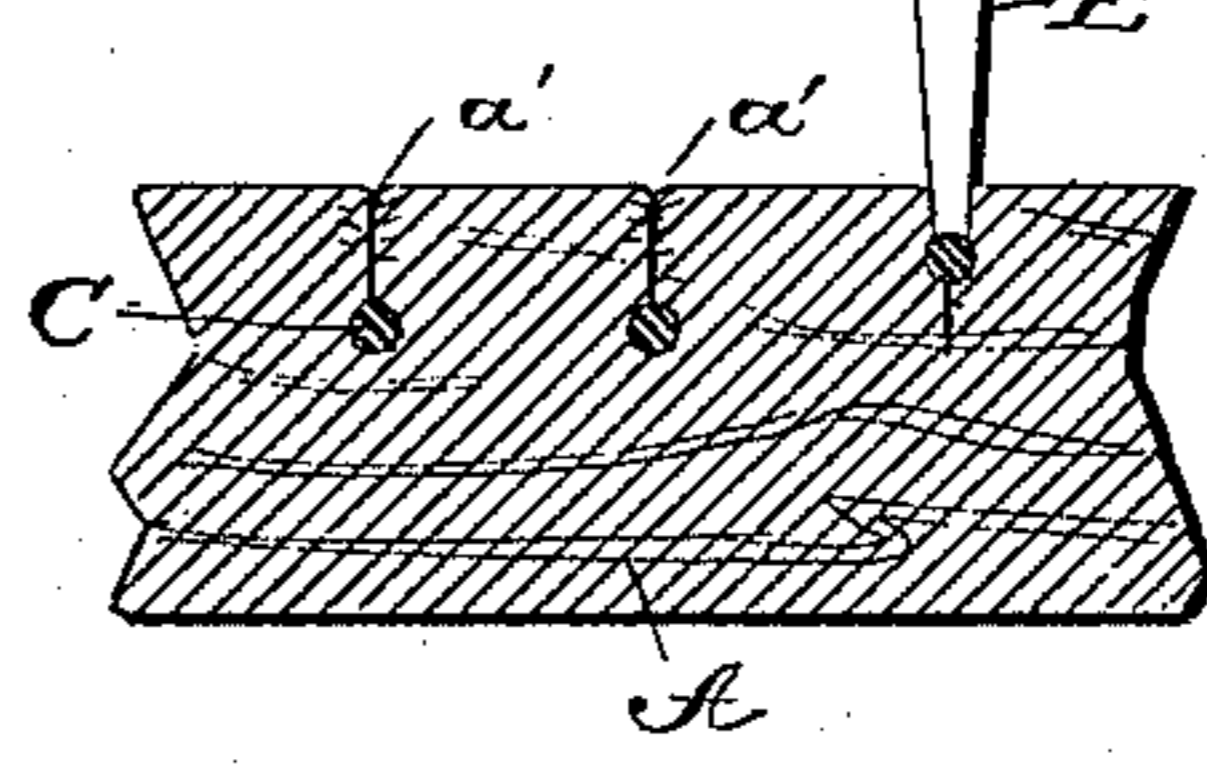


Fig. 6.

on line z-z



Witnesses

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McCLINTOCK YOUNG, OF FREDERICK, MARYLAND.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 412,692, dated October 8, 1889.

Application filed April 20, 1889. Serial No. 308,005. (No model.)

To all whom it may concern:

Be it known that I, McCLINTOCK YOUNG, of Frederick, in the county of Frederick and State of Maryland, have invented certain Improvements in Brushes, of which the following is a specification.

My invention relates to a brush in which the tufts are arranged in rows, and secured by wires or other metal fastenings passing through the tufts and embedded in slits in the wooden back or body in such manner that they are retained firmly in position by the fiber which was displaced during their insertion, and which has reacted or resumed its original position above them.

In the accompanying drawings, Figure 1 is a perspective view of a brush-block constructed on my plan, the tufts being omitted from one end the better to show its construction. Fig. 2 is a cross-section on the line x x . Fig. 3 is a longitudinal section on the line y y of Fig. 2. Fig. 4 is a longitudinal section on the line z z of Fig. 2. Fig. 5 is a section on the line z z , showing the manner in which the incisions are formed in the block preparatory to the insertion of the tufts and fastenings. Fig. 6 is a similar section illustrating the manner in which the wires are driven home to their places.

Referring to the drawings, A represents the back or body of the brush, preferably formed from a solid piece of wood. B B are tufts seated therein, and C the fastening-wires.

In preparing my block I provide the same, as usual, with the series of tuft-receiving holes a , formed by boring or otherwise. These holes are arranged in rows in any suitable direction, and after the formation of the holes I form in the face of the block a series of narrow slits or incisions a' , intersecting the holes and passing down through the intervening walls. These slits are most advantageously formed by means of a chisel or cutting-blade (shown at D, Fig. 5) without the removal or cutting away of any portion of the wood. After the block has been thus bored and incised a series of tufts adapted to fill one row of holes are doubled or folded

over a straight wire or rod C. The tufts are then applied to the mouths of the holes, the wire laid across the upper edge of the incision, and by means of any suitable tool or device—for example, a blade such as shown at E, Fig. 6—the wire is driven down forcibly into the slit and the tufts at the same time carried home to their seats in the holes. As the wire is forced down the fiber forming the walls of the incision is forced apart to allow the passage of the wire; but after the tool or inserting device is withdrawn the fiber reacts and resumes its original or substantially original position, thus closing the slit again above the wire, which is held firmly in place. The closure of the slit may be accelerated by wetting the wood; but this is not necessary under ordinary circumstances.

The wires may be of a round or any other appropriate form in cross-section, and they may be extended to the edges of the block. It is preferred, however, to have them of a length somewhat less than the width of the block and to make the incisions of corresponding length, and this for the reason that the ends of the wires are thus embedded or concealed wholly within the wood and prevented from moving endwise.

It is also to be understood that the slit or incision may be formed by a fine saw or equivalent tool, removing a portion of the wood, the only essential requirement being that the slit shall be of a width materially less than that of the wire or fastening device in order that the fiber may close the slit after the fastening is inserted.

Having thus described my invention, what I claim is—

1. The brush block or body having the holes and the incisions therein, in combination with the tufts and the tuft-holding wires seated in the incisions and confined by the fiber closed thereover, as described.

2. A brush-block having a series of holes and intersecting incisions terminating at their ends within the edges of the block, in combination with the tufts, and the wires or fastenings seated in the incisions and with the fiber closed thereover.

3. The brush block or body consisting of
the wooden block provided with the series
of tuft-receiving holes, and with the incisions
formed therein without removal of the wood,
5 whereby they are adapted to close over wires
inserted therein.

In testimony whereof I hereunto set my

hand, this 8th day of April, 1889, in the pres-
ence of two attesting witnesses.

McCLINTOCK YOUNG.

Witnesses:

EDWIN C. MARKELL,
MARSHALL FOUT.