

A. R. DAVIS.
BRUSH MACHINE.

No. 8,938.

Patented May 11, 1852.

Fig. 2.

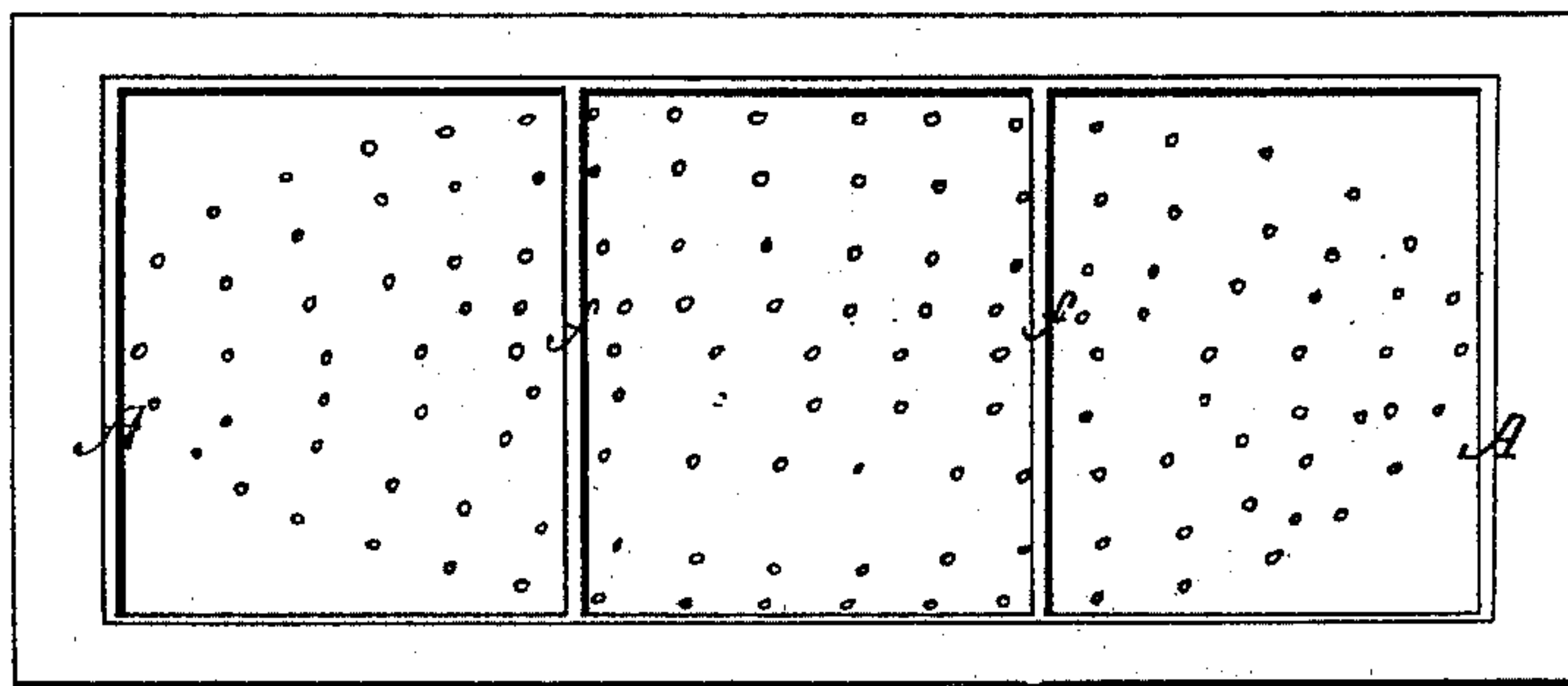
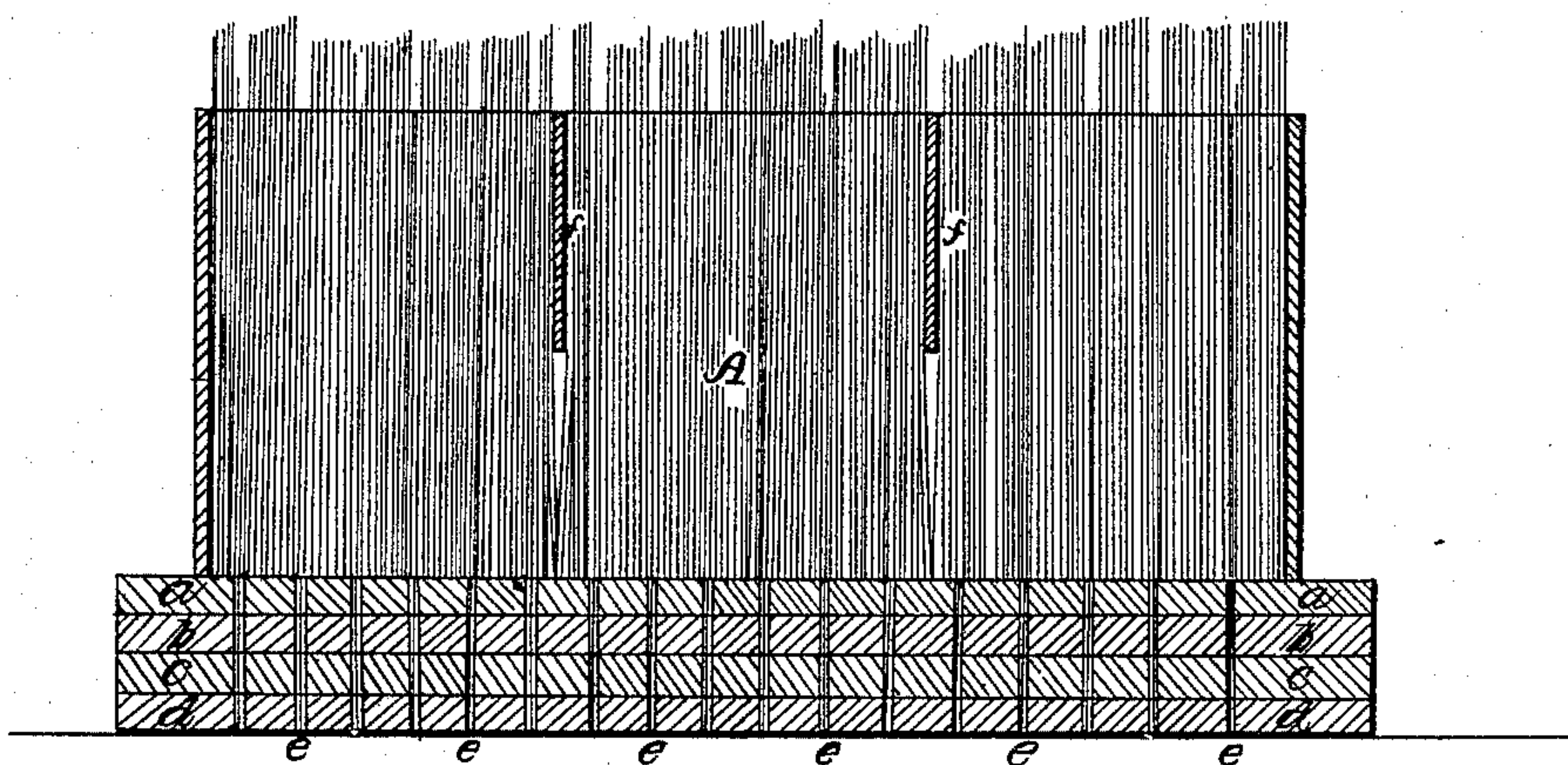


Fig. 1.



UNITED STATES PATENT OFFICE.

ABBOT R. DAVIS, OF EAST CAMBRIDGE, MASSACHUSETTS.

MANUFACTURE OF BRUSHES.

Specification of Letters Patent No. 8,938, dated May 11, 1852.

To all whom it may concern:

Be it known that I, ABBOT R. DAVIS, of East Cambridge, in the county of Middlesex and State of Massachusetts, have invented
5 a new and useful Improvement in Manufacturing Brushes; and I do hereby declare that the same is fully set forth and described in the following specification and the accompanying drawings, letters, figures, and references thereof.

Of the said drawings Figure 1 represents a longitudinal section of the apparatus I employ in the use of my improvement. It also exhibits it placed on a series of brush
15 blocks. Fig. 2 is a top view of it and the brush blocks.

In the said drawings, *a, b, c, d*, denote a series of brush blocks one laid on top of the other and having the holes *e, e*, (for the
20 reception of the bristles) of each block, alike, in number and distance asunder, with each of the other blocks, and placed directly over them, so that a bristle or collection of bristles may be made to pass through the
25 series of blocks, when inserted in any hole of the top block.

My invention is alike applicable to a single brush block, but as it is a common practice now to fill two or more blocks at
30 one and the same time, and by the process for which Letters Patent of the United States of America were granted to me on the nineteenth day of August, A. D. eighteen hundred and fifty-one, I have thought
35 proper to represent the application of my present or new invention to the filling of a series of blocks with bristles. For this purpose I make use of a rectangular or other proper shaped frame of metal A, which is
40 made open at top and bottom and may be provided if desirable with sundry transverse partitions *f, f*, or any other suitable substitutes that will serve to keep bristles in upright positions when put into the frame
45 A. This frame is made large enough to entirely surround the series of holes as seen in Fig. 2. It is placed and confined by any proper means on the upper surface of the block or series of blocks, and so as to in-
50 close or surround all the holes thereof. This done it is next to be filled with bristles, (as seen by the red lines in Fig. 1) which should all stand in it in upright positions, or in line respectively in accordance with
55 those of direction of the bore of the holes of the block. The block or series of blocks

and frame so prepared is next to be shaken, rapped or jarred, upward, downward, or laterally, in such manner as to cause the
60 bristles that may be immediately over any one of the holes of the block, to enter the same and pass down into the same. By such a procedure it will be found that the whole block or series of blocks in a very
65 short time will have their respective holes completely and densely filled with the bristles. In order to retain them in the block or blocks while the surplus bristles are removed, a coating of cement may be
70 spread over the bottom surface of the block or that of the lower block when a series of them is used, which cement, passing into the holes of the block and between the ends of the bristles, will, (when dry) cause the
75 bristles to adhere together and to the block. The frame A and the balance of the bristles or those not in the block may be next removed from the block.

In filling blocks essentially as described or by the process above specified, experience
80 has demonstrated that about nine times the work can be effected by it in any given time, to what can be done by the ordinary process of filling the holes by bunches of bristles separately inserted by the hand of a work-
85 man, the mode in common use.

The frame A if desirable, may be made with a bottom or bottom plate, having holes bored in it to correspond respectively with
90 those of the block on which it is placed, so that each hole of the bottom, when such bottom is properly placed on the block may have its center or axis in line of the axis of some hole of the block. In this case, by
95 lifting the frame off the block the surplus bristles can readily be removed from those which may be made to pass through the holes of the bottom and into the block.

When a series of blocks is used and the bristles inserted in them, the process of
100 separating the blocks asunder and dividing the bristles or cutting them off to their proper lengths for each block is the same as that heretofore patented by me, as here-
105 inbefore mentioned.

I claim as my invention—

The above described improvement in filling the holes of a brush block with bristles, the same consisting in the employment of a
110 frame to contain said bristles in mass and hold them in the brush blocks, and in the directions of their respective holes in the

block, in combination with giving to such
block and frame such movements, rappings,
jarrings, or blows, as to cause the bristles
by the force of gravity or concussion to pass
5 into and fill the holes in the block, as herein-
before stated.

In testimony whereof I have hereto set

my signature, this eighth day of March,
A. D. 1852.

ABBOT R. DAVIS.

Witnesses:

R. H. EDDY,
GEORGE W. CUTLER.