

C. R. BAKER.

Mold for Arranging Bristles for Brushes.

No. 164,412.

Patented June 15, 1875.

Fig. 1.

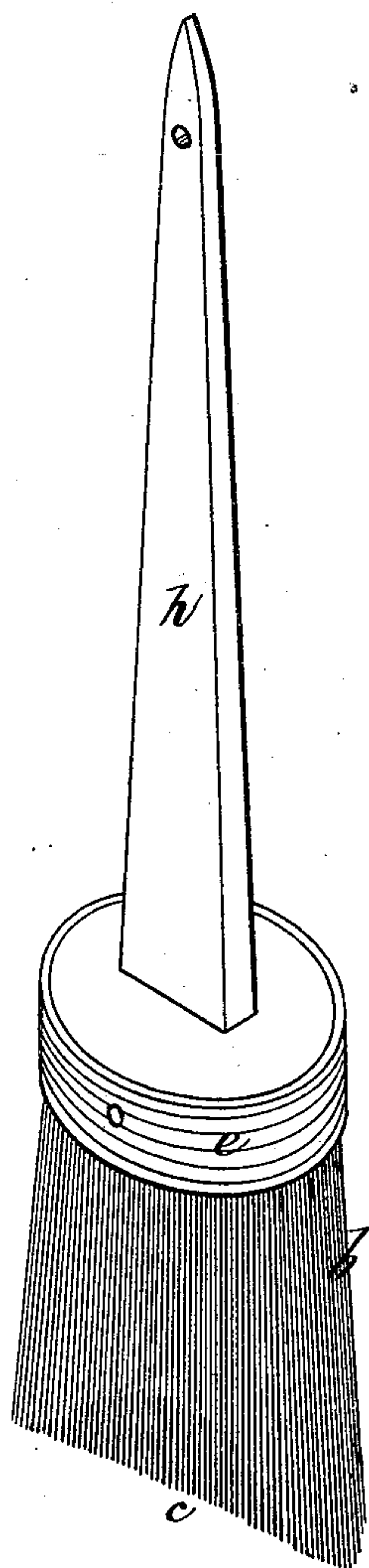


Fig. 2.

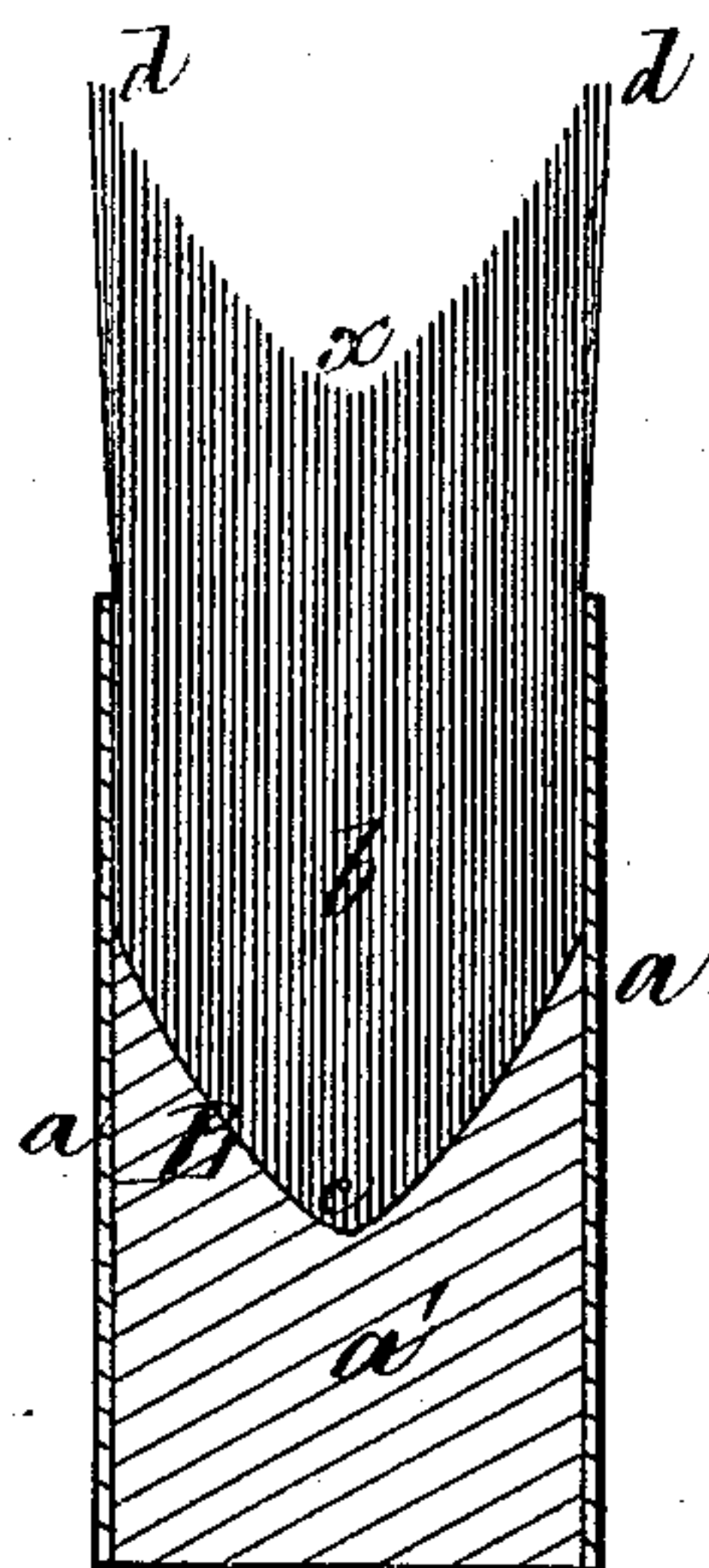
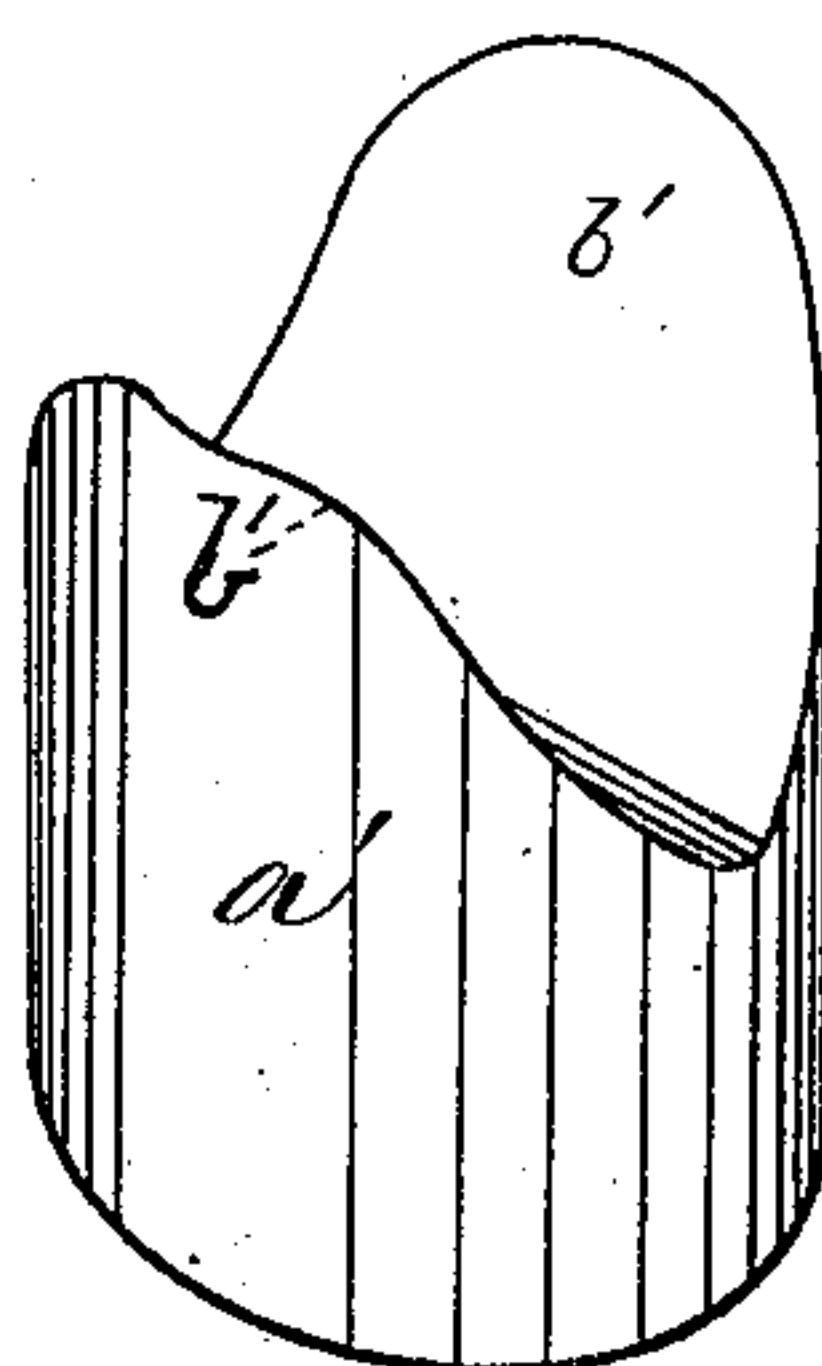


Fig. 2.



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UNITED STATES PATENT OFFICE.

CHARLES R. BAKER, OF EAST CAMBRIDGE, MASSACHUSETTS.

IMPROVEMENT IN MOLDS FOR ARRANGING BRISTLES FOR BRUSHES.

Specification forming part of Letters Patent No. **164,412**, dated June 15, 1875; application filed April 1, 1875.

To all whom it may concern :

Be it known that I, CHARLES R. BAKER, of East Cambridge, in the county of Middlesex and State of Massachusetts have invented an Improvement in the Manufacture of Paint and Varnish Brushes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of a varnish-brush made in accordance with my invention. Fig. 2 is a transverse section through the mold which I employ with the bristles arranged therein. Fig. 3 is a perspective view of the bottom of the mold.

In the manufacture of paint and varnish brushes it is very essential that the bristles be carefully arranged in such a manner that their soft or "flag" ends may receive the peculiar smooth and uniform taper desired. This taper shape has heretofore been produced by arranging the bristles with their soft or flag ends in a horizontal plane and reducing the bristles to a uniform length, after which, with a pair of shears, their butt ends are trimmed off until that end of the bunch is given the exact form which it is intended to give the flag end of the brush when the bristles are fitted in their ferrule or socket, and moved along until their butt ends come up flush with its upper edge, the result of which is to dispose the flag ends with an approximate smooth and uniform taper in the position desired.

The above-described method is objectionable, for the reason that the trimming of the bristles to shape the brush is an extremely difficult and inconvenient operation, and the exact taper required is seldom obtained; moreover much time is consumed, thereby involving considerable expense, beside that incurred in reducing the bristles to a uniform length.

I am aware that it is not new to place bristles in a block or mold for the purpose of forming a brush, as the same is shown in the patent to E. Clinton, April 21, 1874; but in such cases

the faces of the mold have been made flat, and no provision had for the vacancy occasioned by driving in the handle.

To overcome this difficulty is the object of my invention, which consists in making the faces of the mold concave, as hereinafter explained.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, *a* represents an oval tube of metal provided with a wooden block, *a'*, at its bottom, which fits snugly within the tube, but may be moved therein on application of pressure, so as to vary the depth of the tube to accommodate bristles *b* of different lengths, the whole serving as a mold or holder, *B*, for receiving the bunch of bristles *b*, which are placed therein with their flag or soft ends *c* resting on its bottom *a'*, the form of the mold being exactly that intended to be given to the brush, the position of the bristles on being removed being found to correspond precisely with the form of the mold, which is formed with a concavity, *b'*, on each side, whereby its capacity becomes sufficient to admit a larger quantity of bristles in the center of the brush than at either side, so as to provide for the vacancy caused by driving in the handle after the bristles have been placed in the ferrules, an essential in the proper construction of all paint and varnish brushes. The bristles are now kept in place by tying a string around them, when the upper or butt ends *d* are cut off even with the lower line *x* of the butt ends extending longitudinally across the center of the head of the bunch. The ferrule or socket *e* is now slipped over the butt ends, and the handle *h* of the brush driven in in a well-known manner.

When a short brush is to be made, the bottom *a'* of the holder may be raised within its tube, and bristles of shorter length be arranged therein.

From the foregoing it will be seen that the employment of the mold or holder *B* enables me to readily dispose the bunch of bristles in

such manner that the flag ends will exactly assume the desired taper and form, the unnecessary waste and difficulties incident to the present manufacture of brushes being thereby avoided.

What I claim as my invention, and desire to secure by Letters Patent, is—

The mold or bristle holder B, provided with

the concave faces b' , substantially as and for the purpose set forth.

Witness my hand this 26th day of March, 1875.

CHAS. R. BAKER.

In presence of—

N. W. STEARNS,

W. J. CAMBRIDGE.