

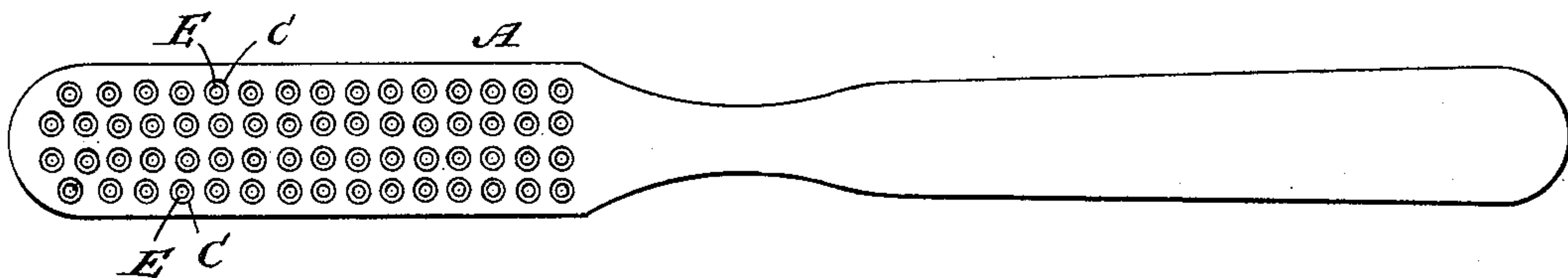
(No Model.)

C. LOONEN.  
BRUSH.

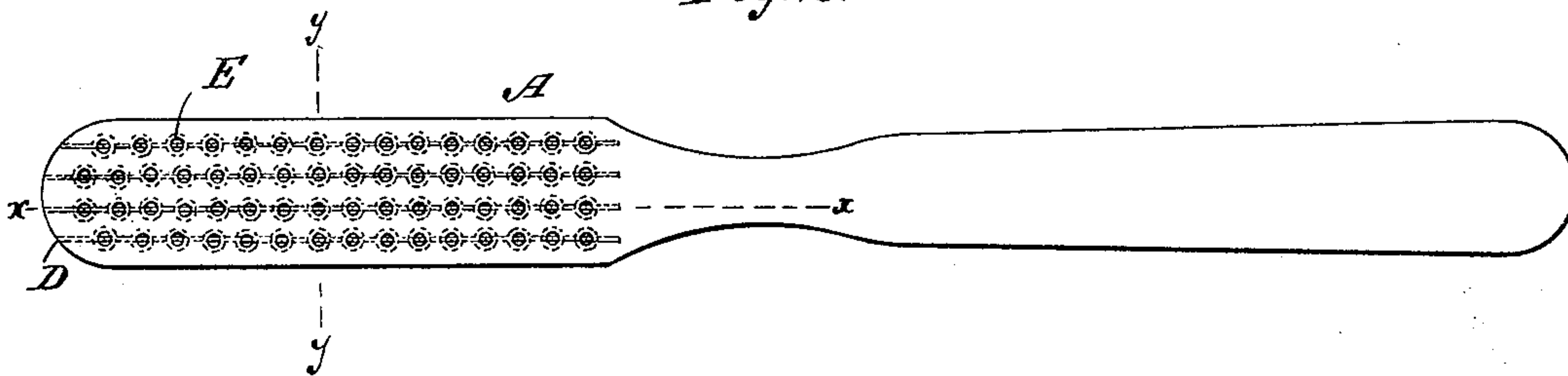
No. 403,542.

Patented May 21, 1889.

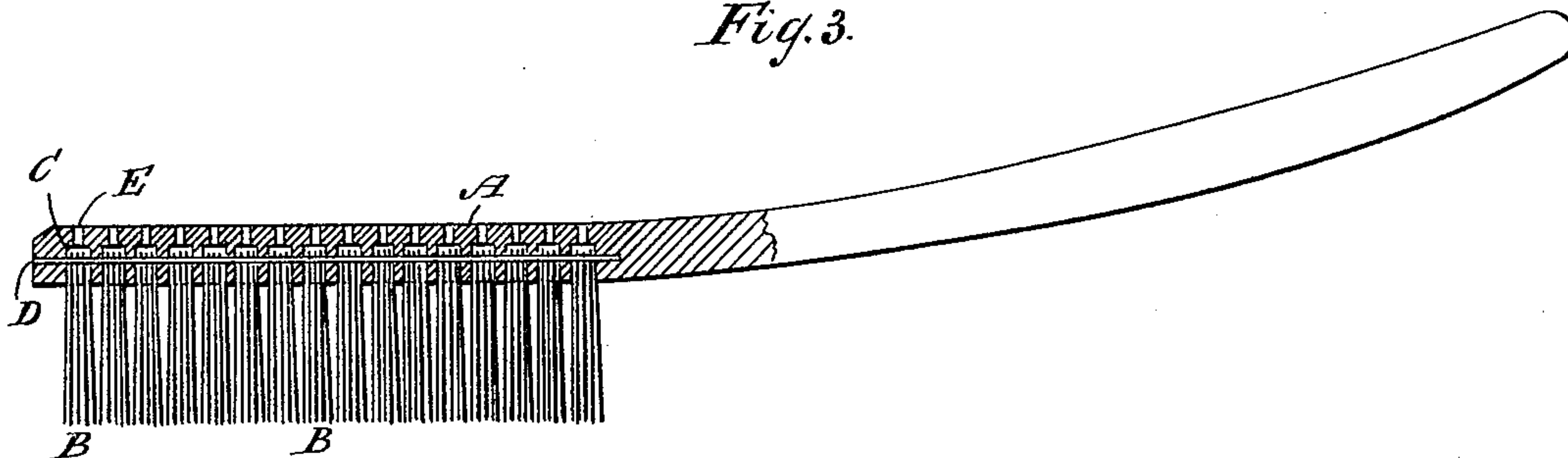
*Fig. 1.*



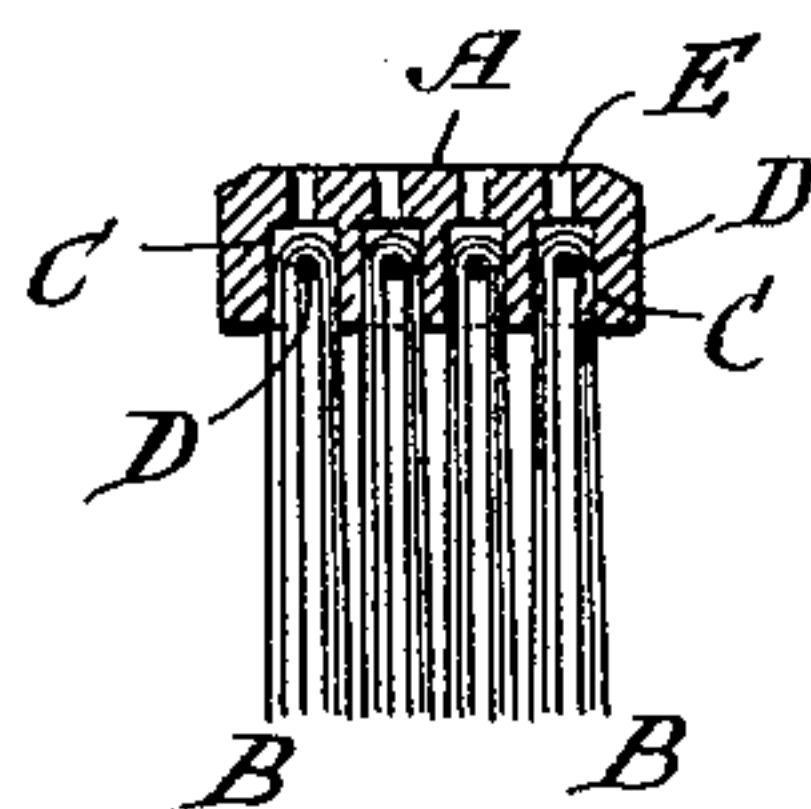
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



WITNESSES:

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INVENTOR:

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BY

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# UNITED STATES PATENT OFFICE.

CHARLES LOONEN, OF PARIS, FRANCE.

## BRUSH.

**SPECIFICATION** forming part of Letters Patent No. 403,542, dated May 21, 1889.

Application filed January 3, 1889. Serial No. 295,272. (No model.) Patented in France November 2, 1888, No. 180,831.

*To all whom it may concern:*

Be it known that I, CHARLES LOONEN, a citizen of France, residing at Paris, France, have invented new and useful Improvements in Brushes, (for which I have obtained Letters Patent in France, dated November 2, 1888, and numbered 180,831,) of which the following is a specification.

This invention relates to an improvement in brushes, by means of which the base of the bristles or tufts can be easily kept dry and preserved from decay, as set forth in the following specification and claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a face view of a brush with the bristles removed. Fig. 2 is a rear view of a brush. Fig. 3 is a section along the line *x x*, Fig. 2. Fig. 4 is a section along the line *y y*, Fig. 2.

Similar letters indicate corresponding parts.

In the drawings, the letter A indicates the stock of a brush. The bristles are formed into tufts B and secured in place in the tuft-receiving holes C in any well-known suitable way, as by thread or wire D. The bottoms of the tuft-receiving holes C are connected with the air by means of ventilating-openings E. These openings E allow dirt or impurity which collects at the bottom of the tuft-receiving holes to escape or be removed, and in case the brush is moistened by use, as is the case with such brushes as scrubbing-brushes or tooth-brushes, any moisture which collects

at the bottom of the tuft-receiving holes will drain off or evaporate through the openings E. The tuft-receiving holes can thus be readily kept dry and clean, and the thread or wire D, as well as the portions of the tufts which rest in the holes C, can be prevented from becoming foul or rotten. The openings E are of smaller diameter than the tuft-receiving holes, so that the tufts cannot slip through the openings.

I do not claim a brush having its stock provided with perforations communicating with the spaces between the tufts.

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

1. As a new article of manufacture, a brush having its stock provided with tuft-receiving holes and with ventilating-openings communicating with the tuft-receiving holes, substantially as described.

2. As a new article of manufacture, a brush having its stock provided with tuft-receiving holes and with ventilating-openings communicating with the tuft-receiving holes, said openings being of smaller diameter than the tuft-receiving holes, substantially as described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

CHARLES LOONEN. [L. s.]

Witnesses:

E. GIRARD,  
L. GATTIER.