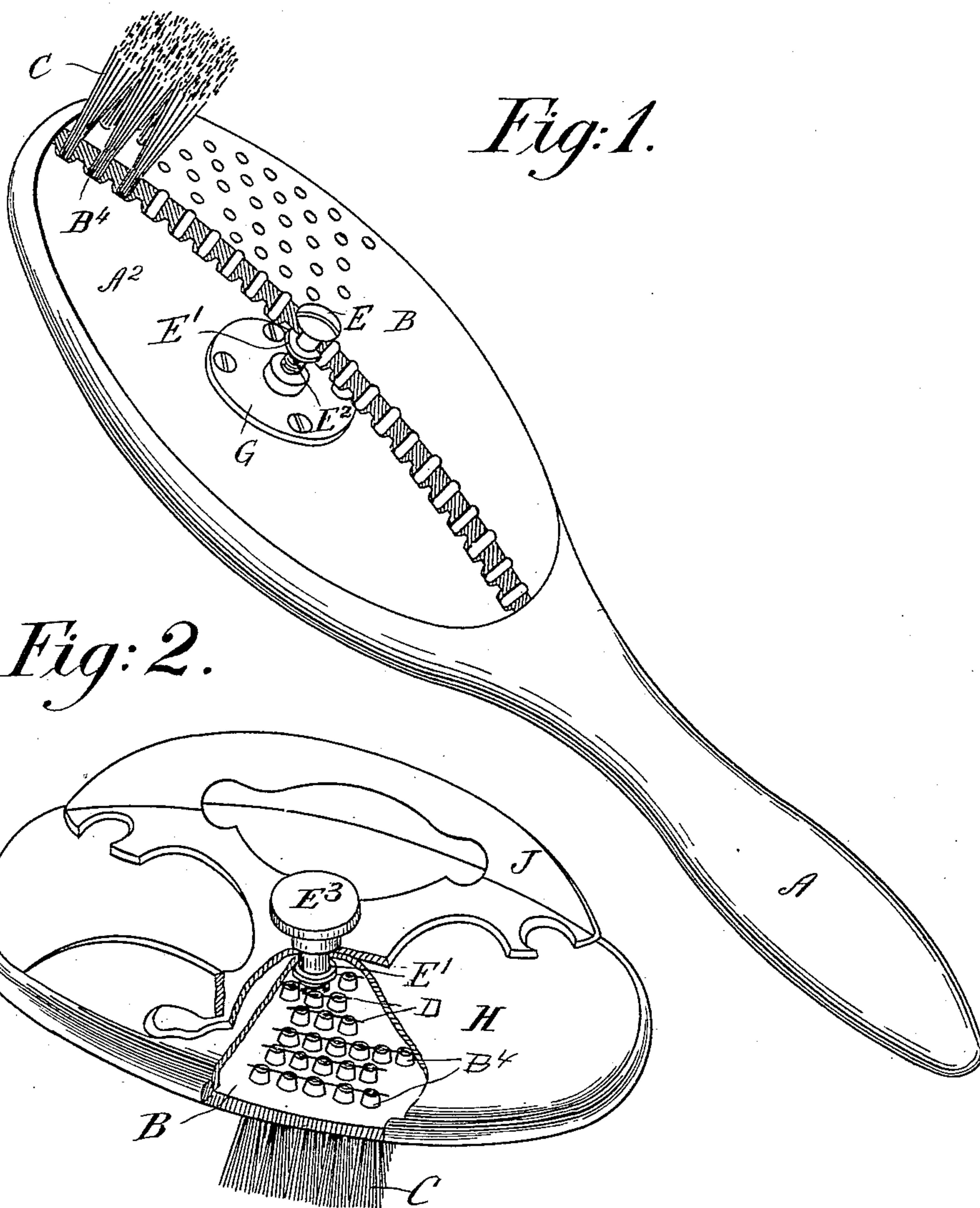


(No Model.)

A. W. COULTER.
BRUSH.

No. 602,431.

Patented Apr. 19, 1898.



Witnesses
Frederick William LeTae
Frank James Ames

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UNITED STATES PATENT OFFICE.

ARTHUR WILLIAM COULTER, OF LONDON, ENGLAND.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 602,431, dated April 19, 1898.

Application filed June 7, 1897. Serial No. 639,707. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR WILLIAM COULTER, jeweler, a subject of the Queen of Great Britain, residing at No. 78 Kew Road, Richmond, London, in the county of Surrey, England, have invented a certain new and useful Improvement in Brushes; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to the construction of brushes, and is designed to provide an improved description of brush, the bristle-plate of which can be easily removed from the back or handle for the purpose of being cleansed or replaced.

According to my invention the bristles or their equivalent are inserted in the usual manner into a movable metal plate of aluminium or of an alloy thereof.

Referring to the accompanying drawings, Figure 1 shows the invention applied to a hair-brush of ordinary shape. Fig. 2 shows the invention as applied to a clothes-brush, military hair-brush, or the like.

In the figures, B represents the bristle-plate, and B¹ the projections or burs.

In place of forming the bristle-plates solid and subsequently cutting, stamping, or drilling the holes I may cast or mold the plate with the holes ready formed at one operation. This method is especially suitable to plates of large brushes. It is also applicable to plates of all dimensions.

In casting larger or thicker plates the amount of metal between the bristle or holes or burs B¹ may be considerably diminished without unduly reducing the strength of the plate, thereby lightening the weight.

In applying this invention to a hair-brush a bristle-plate B, provided with bristles C, may conveniently be attached to a handle A (which is preferably hollowed out, as at A², for its reception) by means of a screw E, which is screwed through from the front of the plate into a metal or other socket G, attached to the handle. The screw E may be prevented from drawing out of the plate B when the latter is removed from the handle by suitable means, such as a washer E' and pin E², as shown in Fig. 1, which arrangement will al-

low of the screw turning freely for the attachment of the plate.

In constructing what is known as a "military" brush, as shown in Fig. 2, a back-plate H is laid over the bristle-plate B, the grip or handle J of the brush being formed as a separate piece, all the three parts, the grip or handle, the back-plate, and the bristle-plate being secured together by the thumb-screw E³, which is secured through from the back and provided with a washer E'. In this construction the bristle-plate B slightly overlaps the edge of the back-plate H. The plate B is provided with bristles C, secured by wires D. The back of the brush may be formed concave or convex, as desired. The back-plate H and grip J may here be constructed of different metals or materials, this arrangement giving considerable scope for ornamental purposes, while the detachability of the several parts allows of their being readily and effectually cleaned with very little trouble.

If desired, in constructing an ordinary hair-brush, such as shown in Fig. 1, the bristle-plate may be attached to an ornamental or other handle, the parts being held together by one or more screws or other devices, as found convenient.

I am aware that it has been proposed to construct tooth-brushes with a pliable detachable plate or mat, forming a holder for the points or bristles or integral with the same, and I make no claim to such device; but

What I claim is—

In a brush a rigid detachable metallic bristle-plate, a series of cylindrical perforations, projecting burs at the back of said perforations having apertures of less diameter than the perforations, bristles inserted in the said perforations, retaining-wires securing the bristles, and means for readily securing the bristle-plate to the remaining portion of the brush.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ARTHUR WILLIAM COULTER.

Witnesses:

HERBERT SEFTON JONES,
HUGH J. WILLOUGHBY.