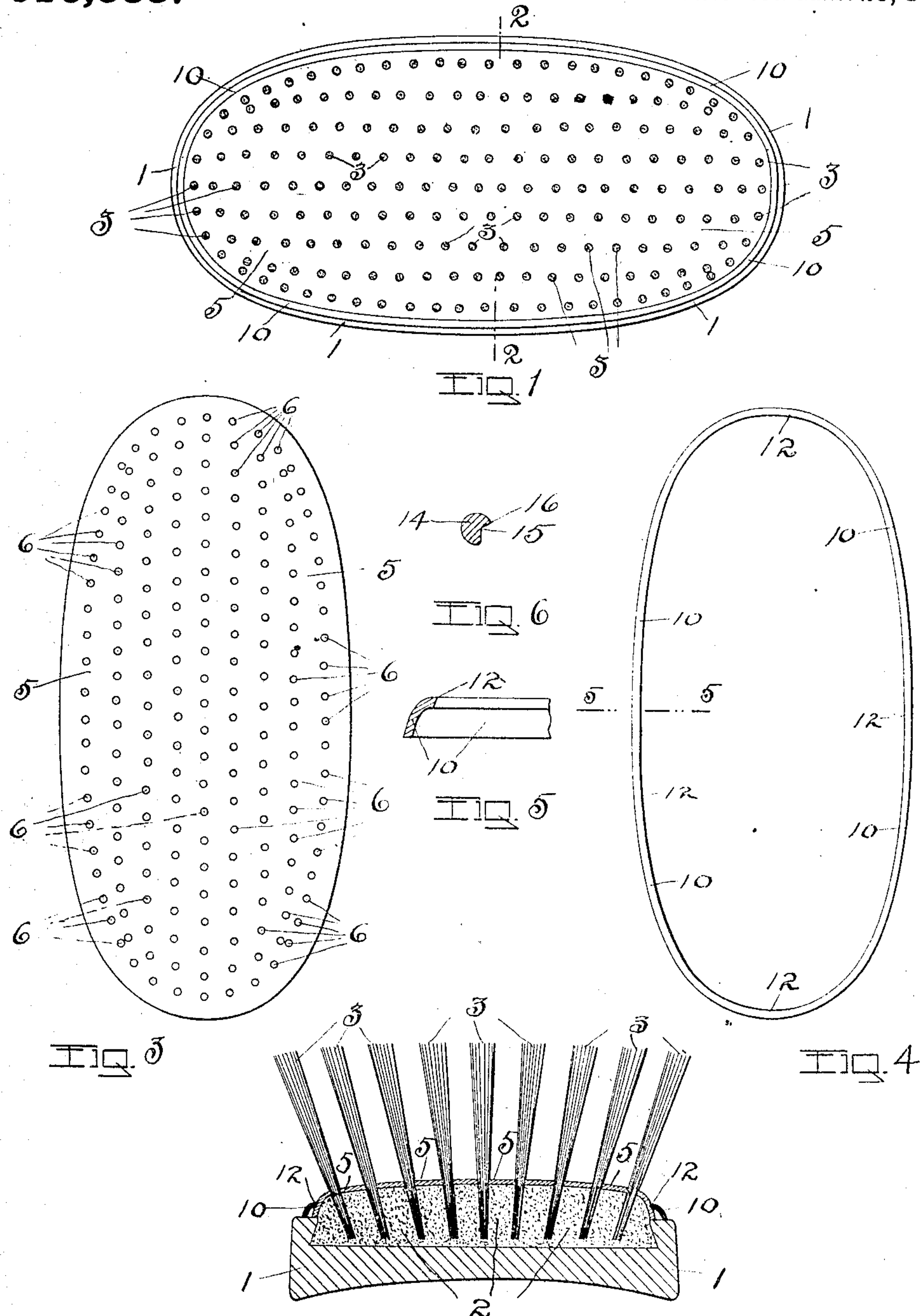


H. ALEXANDER.
BRUSH.

APPLICATION FILED SEPT. 14, 1908.

916,383.

Patented Mar. 23, 1909.



WITNESSES

J. Donsbach.
L. C. Kennedy

FIG 2

INVENTOR

Henry Alexander
by H. H. H. H. H.

UNITED STATES PATENT OFFICE.

HENRY ALEXANDER, OF NEW YORK, N. Y., ASSIGNOR TO UNIVERSAL BRUSH COMPANY, OF TROY, NEW YORK, AND NEW YORK, N. Y., A CORPORATION OF NEW YORK.

BRUSH.

No. 916,383.

Specification of Letters Patent.

Patented March 23, 1909

Application filed September 14, 1908. Serial No. 452,854.

To all whom it may concern:

Be it known that I, HENRY ALEXANDER, a citizen of the United States, residing at New York, county of New York, and State of New York, have invented certain new and useful Improvements in Brushes, of which the following is a specification.

The invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the reference characters marked thereon, which form a part of this specification.

Similar characters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a face view of the improved brush, with the ends of the bristles cut off, to better show the face and edge of the brush. Fig. 2 is a vertical cross-section of the same taken on the broken line 2-2 in Fig. 1, and showing the full length of the bristles inserted in the bristle-pad. Fig. 3 is a plan view of the perforate sheet of material, with its peripheral edge unbent. Fig. 4 is a plan view of the metallic ring detached. Fig. 5 is a cross-section of the same taken on the broken line 5-5 in Fig. 4. Fig. 6 is a cross-sectional view, showing a modified form of metallic ring. Figs. 5 and 6 are made upon an enlarged scale.

The object of the invention is to provide that class of brushes in which the bristles are secured by a composition, in a recessed frame or back, with an attractive face and finished peripheral edge; also to effectively retain the bent-over peripheral edge of the perforate sheet, applied to the face of the bristle-pad, in a fixed position.

The invention consists of a perforate sheet of thin material applied to the face of a bristle-pad, in a brush of the class described, with its peripheral edge bent over the projecting peripheral edge of the bristle-pad, and a retaining ring of metal, forced onto the peripheral edge of the perforate sheet and pad under pressure, whereby the ring will exert contractional pressure upon the peripheral bent-over edge of the perforate sheet, to hold it in place upon or against the peripheral edge of the bristle-pad, as will be hereinafter more fully described and subsequently pointed out in the claims.

Referring to the drawings, the brush-back

or frame, 1, is provided in its face with a recess which contains the bristle-pad consisting of the composition, 2, and bristles 3. Before the composition is applied to the ends of the bristles, the bristles are inserted through the apertures or perforations in the perforate sheet, 5, made of thin material, as, for example, a thin sheet of celluloid having the perforations, 6, adapted to receive tufts of bristles which are inserted in the usual well known manner, and the composition applied thereto, to form the inserted bristle-pad, in any well known manner. The object of the sheet of celluloid, or other material, is to form a finished and attractive face on the bristle-pad. The peripheral edge of the perforate sheet is bent down against the projecting peripheral edge of the composition forming the pad by the dies, in which the pad is formed in the usual well known manner. After the bristle-pad is formed or inserted within the brush-back, a metallic ring, 10, is forced down by pressure of a die, or in any known manner, upon the peripheral edge of the brush-back to the position shown in Fig. 2. The size of the ring is such, that when it is forced to such position there is a tendency to expand the ring by reason of its engagement with the peripheral bent-over edge of the perforate sheet, and when the ring is seated so as to inclose the peripheral edge of the perforate sheet, it will engage such peripheral edge with a contractional force equal to the force of expansion which was applied to the ring in forcing it to its proper position. The metal ring may be formed by die pressure either from rings cut from plane sheets of metal, or from sections of tubular metal. The metal rings are preferably so formed as to present on their inner side a sharp edge or flange, 12, adapted to engage and impinge upon the bent-over peripheral edge of the perforate sheet of material, whereby the ring is prevented from slipping from its proper position while the brush is in use. The metal ring serves to conceal the extreme lower edge of the bent-over portion of the perforate sheet, and gives the brush an ornamental finish.

When desired, the ring may be made from a wire having a groove formed on its inner side, as shown in Fig. 6, wherein the wire, 14, is provided with a groove, 15, on its inner side, and the sharp edge or flange, 16, adapted to engage the perforate sheet.

It is obvious that the sharp edge of the ring which engages the bent-over peripheral edge of the perforate sheet of material, under pressure, will impinge thereon sufficiently to
5 be slightly embedded therein and thereby retain the ring in the position shown in the drawings, wherein it engages and rests upon the peripheral edge of the brush-back, and, at the same time, securely retains the bent-
10 over peripheral edge of the perforate sheet in its bent-over position, preventing any part of such edge becoming misplaced or separated from the peripheral edge of the inserted pad. The ring serves not only to conceal
15 the joint between the perforate sheet and the brush-back, but also to permanently retain the bent-over edge of the sheet in a fixed bent position.

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

1. A brush of the class described comprising a brush-back having a recess in its face; a bristle-pad secured in said recess, and projecting therefrom, having on its face a per-
25 forate sheet of thin material, through which

the bristles project, with its peripheral edge bent over the projecting peripheral edge of the pad; and a retaining ring inclosing the projecting peripheral edge of the pad, adapted to engage, under pressure, the bent-over
30 edge of the perforate sheet.

2. A brush of the class described comprising a brush-back having a recess in its face; a bristle-pad secured in said recess, and projecting therefrom, having on its face a per-
35 forate sheet of thin material, through which the bristles project, with its peripheral edge bent over the projecting peripheral edge of the pad; and a metallic ring inclosing the projecting peripheral edge of the pad, having
40 along its inner side a sharp edge adapted to engage, under pressure, the bent-over edge of the perforate sheet.

In testimony whereof, I have hereunto set my hand this 9th day of Sept. 1908.

HENRY ALEXANDER.

Witnesses:

NATHAN G. GOLDBERGER,
FLORA E. PIGGOTT.