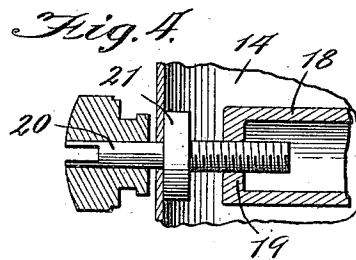
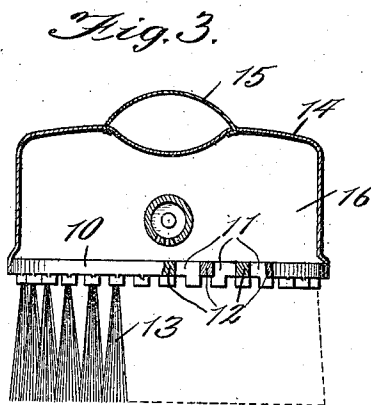
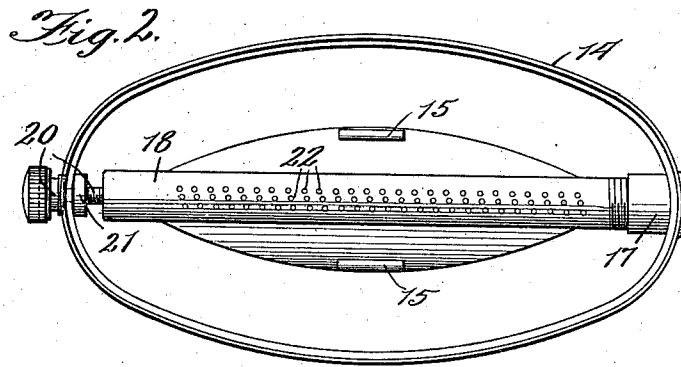
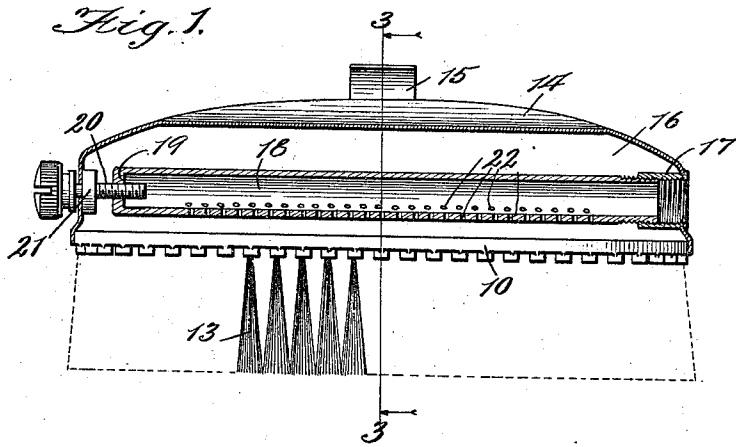


R. J. MONTGOMERY.
BRUSH.

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972,898.

Patented Oct. 18, 1910.



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UNITED STATES PATENT OFFICE.

ROBERT J. MONTGOMERY, OF CHICAGO, ILLINOIS.

BRUSH.

972,898.

Specification of Letters Patent.

Patented Oct. 18, 1910.

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To all whom it may concern:

Be it known that I, ROBERT J. MONTGOMERY, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Brushes, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in brushes, and particularly to that class of brushes in which the bristle-bearing portion is removably secured in place, and it has for its objects to provide new and improved means for connecting the bristle-bearing portion with the back of the brush, and to utilize the connecting means for feeding a stream of water to the brush if desired. I accomplish these objects by the means illustrated in the drawings and hereinafter described.

That which I believe to be new will be set forth in the claims.

In the drawings:—Figure 1 is a view showing the bristle-bearing portion in side elevation and a central longitudinal section through the back portion of the brush. Fig. 2 is a plan view of the back portion of the brush viewed from below in Fig. 1. Fig. 3 is a section on line 3—3 of Fig. 1. Fig. 4 is an enlarged detail, partly in section, showing the manner of mounting one end of the rod which is utilized for clamping the back portion and the bristle-bearing portion together.

Referring to the several figures of the drawings, in which corresponding parts are indicated by like reference characters,—10 indicates a plate, preferably of metal, having formed in it openings or slots 11 between ribs 12, such ribs being provided with tufts of bristles, as 13, secured in place in any suitable manner.

14 indicates the back of the brush, made of yielding material, preferably metal. The back is adapted to be provided with a suitable handle, removably secured thereto, in the construction shown the clip 15 being provided as an attaching means for such handle. The back or shell 14 is shaped to provide a chamber 16 in the finished brush, the lower edge of the back in the construction shown fitting loosely around the plate

10 so as to be readily applied thereto or taken off therefrom.

17 indicates a screw-threaded sleeve secured in any suitable manner in one end of the back.

18 indicates a tube screw-threaded at one end to fit the screw-threaded sleeve 17, and provided at its other end with a head 19 provided with a screw-threaded opening adapted to receive a thumb-screw 20 which is journaled in the adjacent end of the back 14, the tube 18 being thus revolvably held in position. As shown in Fig. 4, the screw 20, after being passed through its journal in the back 14, has fixedly secured upon it a collar 21 to prevent the withdrawal of the screw, a slight amount of play, however, being provided for.

By means of this construction, the shape of the back may be regulated to a limited degree. By turning the screw 20 in the direction to withdraw it from the head 19, the collar 21 is brought to bear against the inner surface of the back 14 at the end, and continued turning in the same direction will have the effect of elongating the oval of the back, causing a corresponding narrowing of such oval. By turning the screw in the opposite direction, the head of the screw is brought to bear against the outer surface of the back 14 at the end, and continued turning in that direction has the effect of shortening the oval of the back, causing a corresponding expansion transversely. With the back 14 in shape to fit the bristle-bearing plate 10, the back is placed in position and the screw 20 given the required turn in either direction to change the shape of the back so that it will bind either at the ends or at the sides, as will be understood, such binding being sufficient to hold the parts together firmly. The effective length of the tube 18 may of course be varied by screwing it more or less as desired into the sleeve 17.

The tube 18 is adapted to be utilized not only as a part of the clamping means but also as part of the means for supplying water to the brush. As shown in the drawings, the tube is provided with openings 22 along one side, so that when the screw-threaded sleeve 17 is connected with any

suitable source of water supply under pressure, a series of streams of water will be directed against the plate 10 and through the perforations between the bristle-holding
5 ribs, as will be readily understood.

While I have shown in the drawings three rows of openings 22, it will be understood that any other equivalent construction might be used,—as one or more slots, for example.
10 By my construction I have provided a brush especially suitable for use as a bath brush, but I do not wish to limit its use to that purpose, as my improvements may be embodied in any type of brush to which they
15 are adapted.

I have described the back or shell 14 as fitting "loosely" upon the plate 10, but it will be understood that I do not mean by such term "loosely", either in the specification or the claims, to restrict the construction to any particular degree of looseness, the only requirement being that when the
20 distorting means is adjusted to permit of the insertion or withdrawal of the plate 10 from the back or shell 14 such insertion or withdrawal may be readily accomplished, the adjustment of the screw 20 after the
25 plate 10 is inserted in the back being adapted in any event to cause the back to bind very firmly upon the plate either at its ends
30 or at its sides.

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

1. In a brush, the combination with the
35 bristle-bearing portion, and a back of yielding material adapted to fit loosely thereon, of means carried by said back adapted to distort said back after it has been placed in position on said bristle-bearing portion to
40 hold it tightened against said bristle-bearing portion.

2. In a brush, the combination with the bristle-bearing portion, and a back of yielding material adapted to be placed loosely
45 thereon, of means adapted to distort said back after it has been placed in position on said bristle-bearing portion whereby said back is held firmly thereon.

3. In a brush, the combination with the
50 bristle-bearing portion, and a back of yielding material adapted to fit loosely thereon, of means carried by said back adapted to contract it either longitudinally or transversely to tighten it at the ends or at the
55 sides, respectively, against said bristle-bearing portion.

4. In a brush, the combination with the bristle-bearing portion, and a back of yielding material adapted to loosely fit thereon,
60 of a screw mounted in said back and adapted

to exert pressure upon said back to bind it at a plurality of points against said bristle-bearing portion.

5. In a brush, the combination with the bristle-bearing portion, and a back of yielding material adapted to be placed loosely
65 thereon, of a rod mounted at one end in said back, and adjusting means mounted on said back adapted to bear against said rod whereby said back may be distorted and thereby
70 secured firmly in position upon said bristle-bearing portion.

6. In a brush, the combination with the bristle-bearing portion, and a back of yielding material adapted to fit loosely thereon,
75 of a rod mounted at one end in said back, and a thumb-screw loosely mounted in said back at a point opposite the bearing of said rod therein and threaded into said rod.

7. In a brush, the combination with the
80 bristle-bearing portion, and a back of yielding material adapted to fit loosely thereon, of a rod mounted at one end in said back, a thumb-screw loosely mounted in said back at a point opposite the bearing of said rod
85 therein and threaded into said rod, and a collar secured on said screw adapted to permit only a slight movement of the screw longitudinally in its bearing in said back.

8. In a brush, the combination with the
90 bristle-bearing portion, and a back of yielding material adapted to fit loosely thereon, of a perforated tube mounted in said back, adjustable means coöperating with said tube to tighten the back at a plurality of points
95 against said bristle-bearing portion, and means for connecting said tube with a source of supply of water under pressure.

9. In a brush, the combination with the bristle-bearing portion, and a back of yielding
100 material adapted to fit loosely thereon, of a screw-threaded sleeve mounted in one end of said back, a perforated tube screw-threaded at one end into said sleeve, and a screw mounted in the other end of said back
105 and bearing upon said tube.

10. In a back for brushes, the combination of a shell made of yielding material, and adjustable means carried thereby adapted by
110 their adjustment to distort said shell.

11. In a back for brushes, the combination of a shell made of yielding material, a rod mounted at one end in said shell, and adjusting means mounted on said shell adapted to bear upon said rod whereby said shell may
115 be distorted.

ROBERT J. MONTGOMERY.

Witnesses:

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