No. 696,798. Patented Apr. 1, 1902.

J. M. CHAMBERS.

BRUSH.

(Application filed June 7, 1901.)

(No Model.)

Fig. 1.

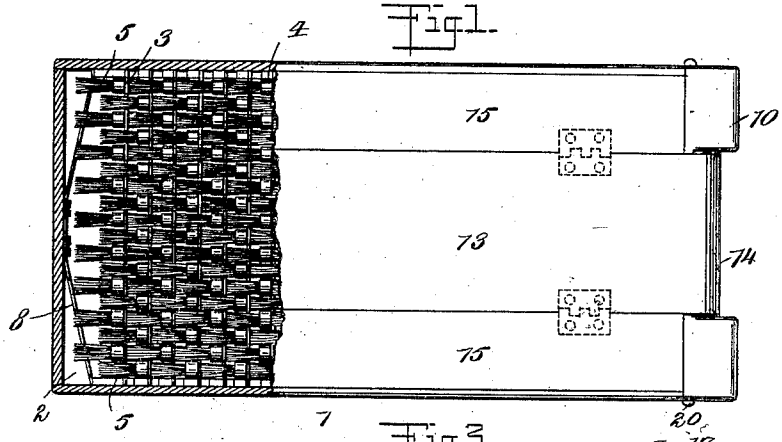


Fig. 2.

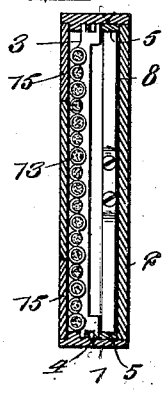


Fig. 3.

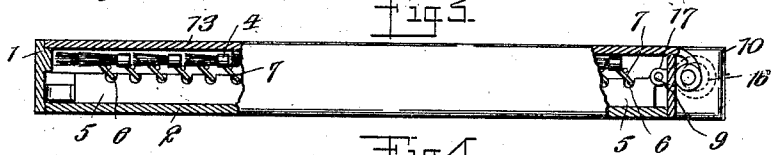


Fig. 4.

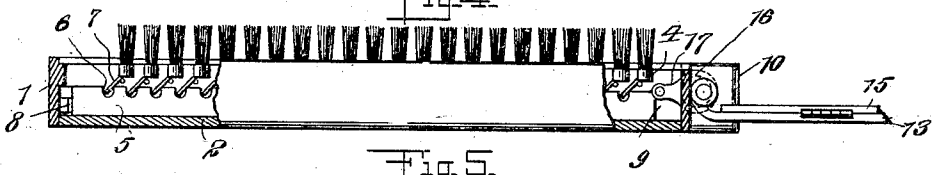


Fig. 5.

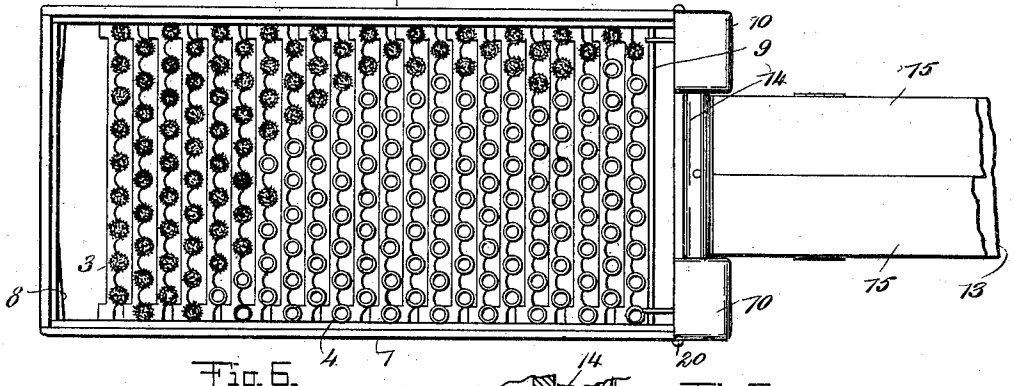


Fig. 6.

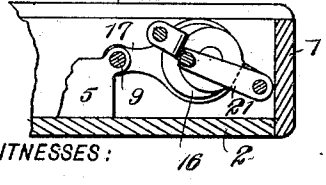
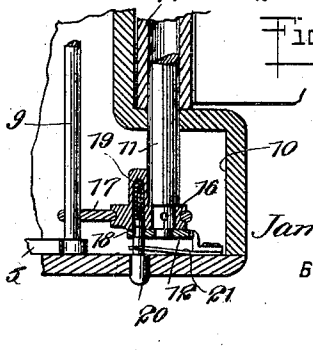


Fig. 7.



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UNITED STATES PATENT OFFICE.

JAMES M. CHAMBERS, OF THOMASTON, CONNECTICUT.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 696,798, dated April 1, 1902.

Application filed June 7, 1901. Serial No. 63,536. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. CHAMBERS, a citizen of the United States, and a resident of Thomaston, in the county of Litchfield and State of Connecticut, have invented a new and Improved Brush, of which the following is a full, clear, and exact description.

This invention relates to improvements in brushes, particularly toilet brushes, such as hair, tooth, and clothes brushes; and the object is to provide a brush so constructed that when not in use the bristles may be folded onto the head or casing and covered up, the whole being in compact form, so that the brush may be conveniently carried in a person's pocket or packed with baggage.

I will describe a brush embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of a brush embodying my invention with a portion of the combined handle and cover broken away. Fig. 2 is a cross-section of the brush. Figs. 3 and 4 are side views, partly in section, showing different positions of the brush-bristles. Fig. 5 is a plan view showing the position of parts when the brush is not in use, some of the bristles, however, being omitted; and Figs. 6 and 7 are sectional details showing moving and locking devices employed.

Referring to the drawings, 1 designates the head or casing of the brush, the top 2 of which is removably engaged therewith, so that the inner mechanism of the device may be readily cleaned when desired. Mounted to rock in the casing are bristle-carrying bars 3. These bars have trunnion-bearings in the side rails of the casing, and on each bar is a series of sockets 4 for receiving clusters of bristles or a brush material. Shifting bars 5 are arranged to slide at the opposite sides of the casing 1, and these shifting bars are provided at the upper edge with notches 6, designed to receive projections or lugs 7 on the ends of the bristle or brush carrying bars. At one end the shifting bars 5 are connected to the ends of a spring 8, the center portion of said spring being connected to an end wall of the casing, as clearly indicated in Fig. 1. At the opposite end the bars 5 are connected by means of a rod 9.

At the handle end of the casing are extended portions 10, which form chambers into which a shaft 11 extends. This shaft 11 at its ends has bearings in brackets 12, and connected to the shaft between the projections 10 is a combined handle and cover for the brush. As here shown, this combined handle and cover consists of a central section 13, extended from a sleeve 14, which surrounds and is connected to the shaft 11 by means of a pin, (indicated in Fig. 5,) and having a hinged connection with this section 13 of the combined handle and lever are flaps 15.

Mounted on the shaft 11 within the chambers formed by the projections 10 are eccentrics 16, from which an eccentric-rod 17 extends to a connection with the rod 9, and in each eccentric is provided a recess or bore in which a locking-pin 18 is designed to slide, the said locking-pin being pressed normally outward by means of a spring 19, and it is adapted to engage with a perforation in the bracket 12. Engaging loosely with the locking-pin 18 is a push-pin 20, which extends outward through an opening in the side wall of the casing and is held normally outward, as indicated in Fig. 7, by means of a spring 21.

In operation by swinging the combined handle and cover outward the shaft 11 will be rotated and the eccentrics thereon will cause the shifting bars 5 to slide toward the end of the casing opposite the handle, and the lugs or projections 7 by engaging with the walls of the notches in said bars will cause a rocking motion of the brush-bars, moving the bristles to operative position, as clearly indicated in Figs. 4 and 5. At the end of the extreme movement the pins 18 will be forced into the perforations in the brackets 12, thus locking the parts in operative position. Now by folding the flaps 15 down upon the central portion, as clearly indicated in Fig. 5, a handle for the brush will be formed, and this handle will be secured from rocking or swinging relatively to the casing by any desired means. When it is desired to move the bristles into the casing, the push-pins 20 are to

be forced inward, causing the locking-pins 18 to be moved out of the perforations in the brackets 12, and when thus released from the brackets the spring 8 will cause a movement of the shifting bars toward the handle end of the casing which will cause the rocking motion of the bristle or brush bars to move the bristles into the casing, as indicated in Fig. 3. Then the flaps 15 are to be swung outward and the combined handle and cover turned over to form a cover for the casing, as indicated in Fig. 1.

A brush embodying my invention will be found very convenient, especially for travelers and for business men. While in the drawings I have shown the invention as arranged for a hair-brush, it is to be understood, as before mentioned, that the same mechanism and arrangement of parts may be carried out for brushes for other purposes, adapting the device, of course, to the proper sizes.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A brush, comprising a casing, brush material carrying bars mounted to rock in said casing, shifting bars movable lengthwise in the casing, parts on the rocking bars for engaging with the shifting bars, a combined handle and cover having swinging connection with the casing, and means operated by a swinging movement of said handle and cover for moving the shifting bars in one direction, the said cover consisting of sections connected to fold one upon another, substantially as specified.

2. A brush, comprising a casing, brush-carrying bars mounted to rock in said casing, shifting bars movable longitudinally in the casing and having notches in their upper edges, projections on the rocking bars for engaging in said notches, a rod connection between the shifting bars at one end, a spring engaging with the other ends of the shifting bars, a shaft mounted at one end of the casing, eccentrics mounted on said shaft, an eccentric-rod extended from the eccentrics to the connecting-rod of the shifting bars, a locking device for the shaft, and a combined cover and handle connected to said shaft, substantially as specified.

3. In a brush, a casing, bristle-carrying bars mounted to rock in said casing, shifting bars connecting with said rock-bars, a combined handle and cover, consisting of an inner portion and two flaps or wings hinged to the side edges thereof, and means operated by a swinging movement of the combined handle and cover for moving the shifting bars in one direction, substantially as specified.

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

JAMES M. CHAMBERS.

Witnesses:
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INA F. BRIGGS.