Sept. 30, 1952 S. E. PETERS 2,611,916

HAIRBRUSH WITH CLOSURE THEREFOR

Filed Dec. 7, 1949

Fig. 1

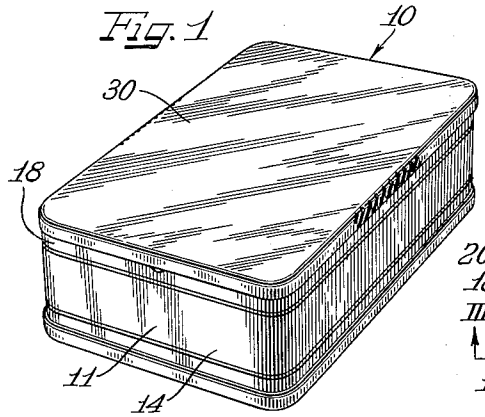


Fig. 2

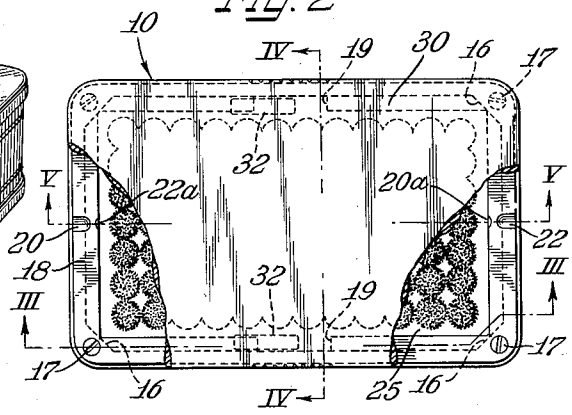


Fig. 3

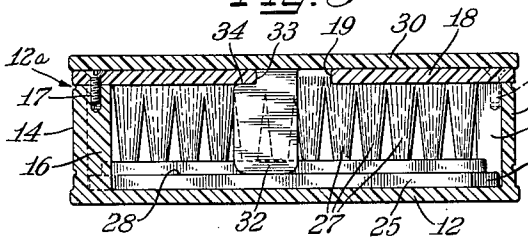


Fig. 4

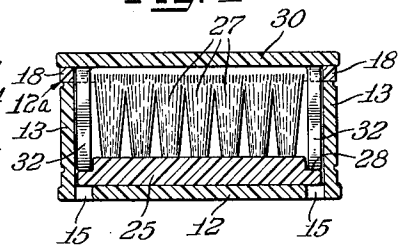


Fig. 6

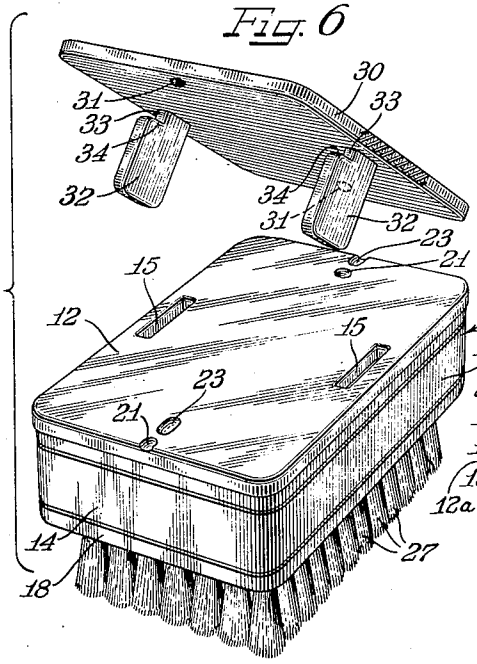


Fig. 5

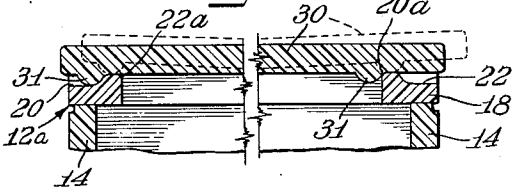
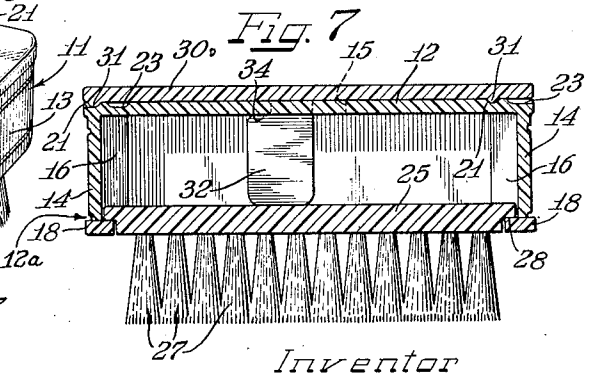


Fig. 7



Inventor
Stanley E. Peters

by The Firm of Charles A. Hill Attys

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HAIRBRUSH WITH CLOSURE THEREFOR

Stanley Earl Peters, Chicago, Ill., assignor to Frederick W. Geisler, Chicago, Ill.

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5 Claims. (Cl. 15—184)

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The present invention relates to a brush construction and more particularly to a brush construction in which the brushing elements, when not in use, are enclosed within a housing which also serves as a handle during use of the article.

The brush of the present invention comprises generally a housing having one open end closed by a removable top or cover and a bristle plate disposed in the housing for movement toward and away from the open side thereof and carrying bristles for projection beyond the housing when in use. The removable top is provided with means for cooperating with the housing in interlocked engagement therewith to maintain the bristle plate in fixed relatively adjusted position within the housing both when the article is in use and when not in use.

The novel features and numerous advantages of the present invention will be readily appreciated by those skilled in the art and include the positive interlocking engagement of the cover with the housing to retain the bristle plate in relatively adjusted position, and the enclosure of the bristles within the housing while not in use to maintain the same in sanitary condition, while at the same time permitting movement of the bristles to an exposed position for use.

It is, therefore, an important object of the present invention to provide an improved brush construction in which the brush bristles are maintained within a housing when not in use and in position to project therebeyond when in use.

Another important object of the present invention is to provide a brush construction including an open-end housing having a brushing element journaled therein for movement to a plurality of relatively adjusted positions and means for closing the open end of the housing and at the same time maintaining the bristle elements in one of their adjusted positions.

It is a further important object of the present invention to provide a brush construction including a housing having one open end, a brushing element disposed in the housing for movement to a plurality of relatively adjusted positions, and a cover for closing the housing when the brushing elements are not in use and for maintaining the brushing elements in relatively adjusted position to extend beyond the housing when in use.

Still another important object of the present invention is to provide an improved brush construction including a housing, a bristle plate journaled for relative movement within the housing, a plurality of bristles carried by the plate for movement therewith, and a cover for closing the

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housing when the bristles are not in use and adapted for interengagement with the housing to maintain the bristles in adjusted position to extend beyond the housing for use.

Other and further important objects of the present invention will become apparent from the following detailed description, taken in connection with the accompanying drawings and the numerals of reference thereon, forming a part of this disclosure.

On the drawings:

Figure 1 is an elevational perspective view of a brush construction of the present invention;

Figure 2 is a plan view, with parts broken away, of the brush construction of Figure 1;

Figure 3 is a sectional view, with parts shown in elevation, of the brush construction of Figure 1 taken along the plane III—III of Figure 2;

Figure 4 is a sectional view of the brush construction of Figure 1 taken along the plane IV—IV of Figure 2;

Figure 5 is a partial sectional view of the brush construction of Figure 1 taken along the plane V—V of Figure 2;

Figure 6 is an exploded elevational perspective view showing the brush construction of Figure 1 in an adjusted, operative position; and

Figure 7 is a sectional view, with parts shown in elevation, similar to Figure 3, showing the brush construction in adjusted, operative position.

As shown on the drawings:

In Figure 1 reference numeral 10 refers generally to the brush construction of the present invention. The brush construction 10 includes a generally rectangular casing 11 having a closed bottom wall 12 and upstanding opposed side walls 13 and end walls 14 with an open end 12a opposite the bottom wall 12. The bottom wall 12 is provided with elongated, opposed slots 15 directly inwardly of the juncture of the side walls 13 and the bottom wall 12 (Figures 4 and 7). The corner juncture lines of the side walls 13 and the end walls 14 are somewhat thickened, as at 16 (Figure 2), to provide adequate material to accommodate interiorly threaded recesses for receiving screws 17 securing a marginal edge flange 18 in position to abut the upper edges of the side walls 13 and the end walls 14.

The flange 18 is slotted as at 19 (Figure 2), the slots being vertically aligned with the slots 15 in the bottom wall 12.

The upper surface of the flange 18 is provided with a concave locking recess 20 intermediate the side of one of the flanges overlying the end walls

14 (Figure 2) and the bottom wall 12 is provided with a vertically aligned similarly concaved locking recess 21, as best shown in Figure 6. The opposite side of the flange 18 is provided with a rounded edge portion 20a corresponding to the recess 20, while a second locking recess 21 is provided in the bottom wall 12 in vertical alignment with the rounded edge portion 20a. The flange 18 is also provided with an elongated guide recess 22 adjacent to and aligned with the rounded edge portion 20a, and a similarly positioned rounded edge portion 22a is provided adjacent the locking recess 20. The bottom wall 12 is likewise provided with guide recesses 23 aligned with the locking recesses 22 thereof.

A bristle plate 25 is positioned in the interior of the casing 11 and is capable of movement therein between the bottom wall 12 and the flange 18, the flange extending inwardly of the side walls 13 and the end walls 14 to overlie a marginal portion of the plate 25 to prevent entire displacement of the plate and bristles from the interior of the housing. The plate 25 extends laterally into closely spaced relation to the side walls 13 and the end walls 14, and the corners of the plate are beveled as at 26 to accommodate the thickened corner portions 16 of the casing 11.

The bristle plate 25 carries for extension therebeyond a plurality of laterally and transversely spaced groups of bristles 27 which project beyond the plate through a distance less than the depth of the casing 11. The plate is also grooved, as at 28, about its entire perimeter to define a shoulder in spaced relation to the surface of the plate carrying the bristles.

The open end of the casing 11 opposite the bottom wall 12 thereof is closed by means of a cover 30 having a locking projection 31 projecting therefrom adjacent each end portion thereof for entry into the locking recesses 20 and 22 of the flange 18, as shown in Figure 5. The cover 30 also carries, intermediate the locking projections and alongside the longer edge portions thereof, a pair of locking tongues 32 projecting normally to the plane of the cover for entry into the slots 19 of the flange 18. The tongues 32 extend in surface engagement with the shoulder of the groove 28 extending around the perimeter of the bristle plate 25 as hereinbefore described.

Also, the locking tongues 32 are each provided with a recess 33 adjacent their point of attachment to the cover 30, the recesses 33 forming a shoulder 34 extending parallel to and in spaced relation to the inner surface of the cover 30. As shown in Figure 3, each recess 33 is of such dimension that the shoulder 34 snugly engages the inner surface of the flange 18 upon insertion of the tongue 32 into the slot 19 and subsequent lateral movement of the cover relative to the casing. This lateral movement of the casing cover is restricted by engagement of the locking projection 31 in the locking recesses 20 of the flange 18 and also by the edge of the recess 33 abutting the edge of the slot 19.

From the foregoing description it will be seen that when the brush is assembled as shown in Figure 1, the cover 30 is secured to the casing 11 by means of the tongues 32 and the engagement of the tongue shoulders 34 with the flange 18 and also by engagement of the locking projections 31 within the locking recesses 21. During relative lateral movement of the cover with respect to the casing, the locking projections are guided into the locking recesses 21 by means of the guide recesses 22. Further, when the cover 30 is in the position shown in Figure 1, the tongue extends into engagement with the shoulder of the groove 28 of the bristle plate 25 to thereby retain the bristle plate in extended surface engagement with the inner surface of the bottom wall 12, thereby preventing relative movement of the plate within the casing 11.

When it is desired to employ the bristles 27 for brushing, the cover 30 is first removed from its position as shown in Figures 1–5 and the casing 11 is inverted. Upon inversion of the housing, the bristle plate 25 is free to move to the position shown in Figure 7, in which the bottom of the bristle groove 28 abuts the flange 18, the flange preventing removal of the bristle plate from its position within the housing. The bristles 27 thus extend beyond the housing 11 and are secured in this adjusted position by means of the cover 30, which is now secured to the housing in surface contact with the outer surface of the bottom wall 12.

As shown in Figures 6 and 7, the tongues 32 are now inserted through the spaced slots 15 of the bottom wall 12, with the shoulders 34 of the tongues abutting the inner surface of the bottom wall 12 following lateral movement of the cover relative to the casing, causing entry of the locking projections 31 into the guiding recesses 23 and thence into the locking recesses 21. The bristle plate 25 is held against the flange 18 by the abutment of the extreme end of each of the tongues 32 against the corresponding portion of the upper surface of the bristle plate.

Thus it will be seen that the cover 30 is employed to position the movable bristle plate in relatively adjusted position within the housing 11. In each of these positions, the cover tongues 32 engage the housing and the locking projections 31 of the cover 30 engage the locking recesses formed in the flange 18 and in the bottom wall 12. Further, the tongues directly abut the bristle plate to maintain the bristles against relative movement in either position.

It will be understood that modifications and variations may be effected without departing from the scope of the novel concepts of the present invention.

I claim as my invention:

1. A brush construction comprising a casing having an open end and a wall opposite the open end, the wall having a slot therein, a removable cover for closing the open end of said casing and for alternative attachment to said wall, a bristle plate mounted in said casing and extending intermediate said open end and said wall, a plurality of bristles carried by said bristle plate and extending therebeyond, and a tongue formed on said removable cover and enterable into the slot in said wall to abut said plate for maintaining said bristle plate in relatively adjusted position within said casing adjacent the open end thereof with the bristles projecting beyond the casing upon attachment of the cover to said wall.

2. A brush construction comprising a casing having an open end and a wall opposite the open end, said wall having a pair of opposed slots intermediate its length, a flange carried by said casing for partially closing the open end thereof and having slots registering with the slots of said wall, a bristle plate mounted in said casing for movement therein, a plurality of bristles carried by said plate and projecting therefrom and movable therewith between a first position confined within said casing and a second position extending beyond said casing, a cover for attach-

ment to said flange closing the open end of said casing and for alternative attachment to said wall, and tongues carried by said cover and extending therebeyond for alternative entry into the slots formed in said wall and in said flange for extension into the interior of said casing and into engagement with said bristle plate to secure said plate and said bristles in either one of said positions.

3. A brush construction comprising a casing having an open top, a marginal flange surrounding the open top of the casing and having opposed slots communicating with the interior thereof, a bristle element disposed within the casing for movement toward and away from the open top thereof, and a cover for closing the open top of said casing, said cover having spaced projections extending therebeyond for entry into the slots of said flange and said projections having recesses formed therein for receiving portions of said flange immediately adjacent said slots upon lateral movement of said cover relative to said casing following entry of said projections into said slots, said projections extending into the interior of said casing to engage said bristle element to maintain the same in relatively fixed position within said casing.

4. A brush construction comprising a casing having an open end and a wall opposite the open end, the wall having spaced slots communicating with the interior of the casing, a removable cover for closing the open end of said casing, a brushing element disposed within said casing for relative movement therein to an extended position projecting beyond said casing, and tongues carried by said cover for extension into the interior of said casing upon positioning of said cover in surface engagement with said wall, said tongues having recesses formed therein for receiving portions of said wall immediately contiguous to said

slots therein for securing said cover to said wall with said tongues extending into the interior of said casing for abutting said brushing element to maintain the same in position to project beyond said casing for use.

5. A brush construction comprising a casing having an open end and a wall opposite the open end having an opening therethrough, a bristle plate mounted within the casing for movement toward and away from the open end, stop means in the casing between the bristle plate and the open end to limit movement of the bristle plate toward the open end, a cover having locking means projecting therefrom, the cover being manually movable between a first position in which it is disposed over the open end of the casing and a second position in which it is disposed on said wall opposite the open end with the locking means extending through said opening in the wall into engagement with the bristle plate, and means for securing the cover to the casing in said first and second positions.

STANLEY EARL PETERS.

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