Jan. 14, 1941. E. L. H. COSBY 2,228,754

BRUSH

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FIG. 1

FIG. 2

FIG. 3

FIG. 4

FIG. 5

FIG. 6

FIG. 7

FIG. 8

FIG. 9

FIG. 10

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BRUSH

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1 Claim. (Cl. 15—176)

This invention relates to that class of brushes in which the stock or frame carrying the bristles is detachably secured to the back of the brush, and whereby the stock can be inserted and held in the back in either of two directions.

I have previously proposed in such class of brush to employ a strip or equivalent having upturned holed or slotted and plain lugs carrying a rod, one or more catch devices secured to the rod with the nose or noses projecting, a helical spring or springs encircling the rod and positioned between the lugs and the catch device or devices to normally keep the catches in the locked position, the strip and catch pieces being preferably positioned in a recess in the back of the brush. The perforated plate of the stock had a bridge or bridges projecting therefrom and which could be engaged by the catch device or devices on the rod when the rod is pushed back, the stock inserted within the back and the rod released. A single catch and bridge could be employed placed in the centre of the brush.

The object of the present invention is to simplify and improve the construction of such class of brush whereby it is specially adapted for small size brushes.

According to this invention, the back member carrying the catch device is provided with raised strips or panels or equivalent on which the rim of the hollow stock rests, whereby a three or more point suspension is obtained ensuring the stock resting rigidly in place without any movement or wobble.

Another object is to produce a device of the character described in which the maximum simplicity of construction and operation is secured.

Other objects and advantages will appear as the nature of the improvements is better understood, the invention consisting substantially in the novel arrangement and co-relation of parts herein fully described and illustrated in the accompanying drawing, wherein similar reference characters are used to describe corresponding parts throughout the several views, and then finally pointed out and specifically defined and indicated in the appended claim.

The disclosure made the basis of exemplifying the present invention concept suggests a practical embodiment thereof, but the invention is not to be restricted to the exact details of this disclosure, and the latter, therefore, is to be understood from an illustrative, rather than a restrictive standpoint.

The invention idea involved is capable of receiving a variety of mechanical expressions, one of which, for the purpose of illustration, is shown in the accompanying drawing, in which—

Figure 1 is a longitudinal sectional view of a brush made in accordance with my invention;

Fig. 2 is a cross sectional view thereof taken on line 2—2 Fig. 1;

Fig. 3 is a plan view at a reduced scale of the catch fitting for the brush back looking from the bottom of Fig. 1;

Fig. 4 is a side view, and

Fig. 5 is a top plan view thereof;

Fig. 6 is a face view of the catch plate;

Fig. 7 is a side view thereof;

Fig. 8 is a bottom plan view of the stock of the brush;

Fig. 9 is a top plan view thereof, and

Fig. 10 is a side view thereof partly in section.

Referring now to the drawing in detail, 15 indicates the back of the brush which is provided with a recess 16 in which the catch fitting 17 is secured by means of screws 18. The said fitting comprises a plate 19 having an upstanding wall 20 around its edge and a depressed flat portion 21 of less area than the area of the plate 19. Connecting one end of the depressed wall 21 with the upstanding wall 20 is a central hollow raised panel or strip 21*a*, and at the other end two diagonal raised panels or strips 22 connect the said walls, the panels or strips 21*a* and 22 being of slightly less depth than the depressed panel 21 but with their bottom surfaces in the same plane. The panel 21 is provided with a slot or cutout 23.

To the upper side of the plate 19 as viewed from Figs. 1, 2 and 5 is secured a plate 24 longitudinally and centrally, with a channel shaped portion 24*a* closed at both ends to form a housing, the plate 24 being conveniently secured to the plate 19 by tongues 25 punched out of the plate 19 and bent over the edges of the plate 24. In connection with same is a slidable plate 26 having a punched up tongue shaped to form a catch or hook 27 and an upwardly bent lug 28, the plate 26 having a shank or handle 29 at its outer end.

The plate 26 is located within the recessed portion 21 of the plate 19, and is retained therein by the plate 24 with the catch 27 projecting through the slot 23, and with the lug 28 extending into the channel portion 24*a*. The shank 29 is located in the panel 21*a* with the end projecting through a hole or cutout 30 in the brush back 15. A helical spring 31 is positioned between the end wall 32 of the channel portion 24*a* and the lug 28 so as to normally urge the

plate 26 in the direction in which the catch 27 faces.

The stock or bristle carrying frame is constructed in a similar manner to a stock I have previously proposed and consists in a domed or dish shaped plate 35 with a rim 36 around its edge having tubular projections 37 for carrying the wired ends of tufts or bristles 38, and within the rim 36 is a perforated plate 39 engaging the inner ends of the tufts 38 and is secured therein by lugs 40 (see Figs. 9 and 10) on the plate 35 engaging recess in the edge of the plate 39. In the center of the perforated plate 39 is formed a bridge 41 which the catch 27 is adapted to engage. The inner ends of the tufts 38 hold the perforated plate 39 at a little distance from the stock plate 35, and to close the opening formed by pressing out the bridge 41 there is provided a thin plate 42 which is secured by means of tongues 43 to the plate 39, the said tongues passing through holes 44 provided for this purpose in the said plate 39. The ends of the rim 39*a* of the perforated plate 39 are deeper than the rest of the rim to provide portions 39*b* projecting below the rim 36 of the stock plate 35.

To insert the stock 36 the plate 26 is slid inwardly against the spring 31 by pressing on the end of the shank 29 and the stock is positioned in the walls 20 of the plate 19 and the pressure released, when the spring 31 will urge the plate 26 outwardly and bring the catch 27 in engagement with the bridge 41 and hold the stock to the plate 19 with the projecting edges of the stock resting on the panels 21*a*, 22, 22, the three point suspension ensuring the stock resting rigidly in place without any movement or wobble.

To remove the stock, the plate 26 is pressed inwardly until the catch 27 is free from the bridge 41 when the stock can be lifted out.

From the foregoing it will be seen that I have provided simple and efficient means for removably uniting the stock of a brush with the back thereof.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

In a brush of the character described, a back having a recess in its under face, a dish-shaped fitting mounted in said recess and having a depressed portion forming a pocket open at its top and of less length and width than the fitting, said pocket having an opening therein, a plate slidable in said pocket and having a handle extending outwardly of the back at the end thereof, said plate also having a punched-out tongue shaped to form a catch or hook and also having a punched-up lug bent at substantially a right angle to said plate; said fitting having other depressed portions forming panels spaced from each other about the pocket and extending between the pocket and walls of the fitting, one panel constituting a guide for said handle, a channel-shaped housing carried by said fitting and extending into the upper portion of the recess in bridging and covering relation to the pocket, the punched-up lug on the slidable plate extending into the housing, a coiled spring in the housing between the lug and an end of the housing to yieldably hold the slide plate in its normal position, a bristle-carrying stock reversibly mounted in said fitting and having walls bearing against said panels, a bridge centrally carried by said stock for engagement with the catch on the slide plate for detachably securing the stock in place when the slide plate is in its normal position.

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