

T. M. ELLIS.
BRUSH.
APPLICATION FILED JULY 26, 1911.

1,061,276.

Patented May 13, 1913.

Fig. 1.

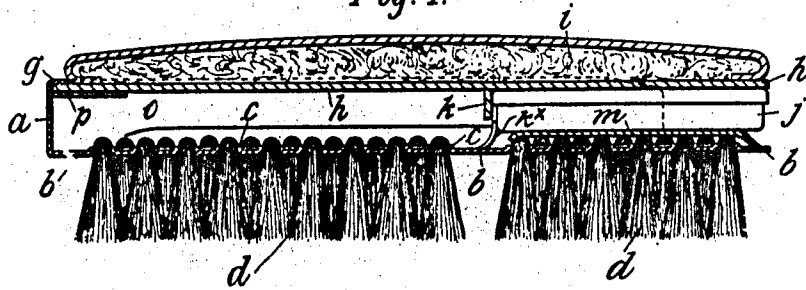


Fig. 5.

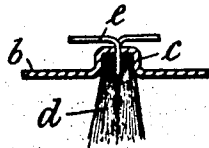


Fig. 2.

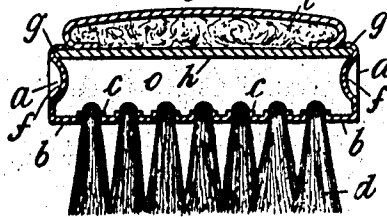


Fig. 6.

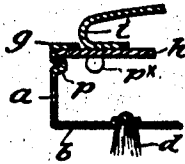
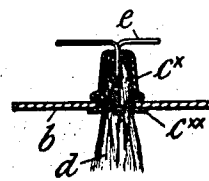


Fig. 1a.

Fig. 3.

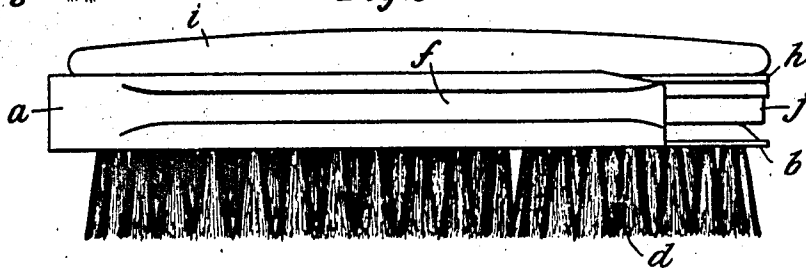
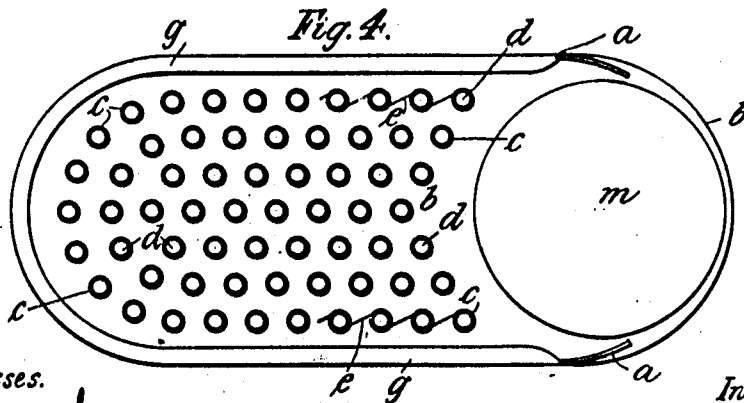


Fig. 4.



Witnesses.

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BRUSH.

1,061,276.

Specification of Letters Patent.

Patented May 13, 1913.

Application filed July 26, 1911. Serial No. 640,569.

To all whom it may concern:

Be it known that I, THERESA MARY ELLIS, a subject of the King of Great Britain, residing at London, England, have invented new and useful Improvements in the Manufacture of Brushes, of which the following is a specification.

The improvements which form the subject of the present invention are more especially applicable to the manufacture of brushes such as are employed in the combination outfits which are intended for use in the blacking and polishing of boots, shoes, and the like, but such improvements may also be applied to brushes for other purposes.

The object of the invention is to lessen the cost of manufacture of such brushes, and also to produce a more elegant and durable article.

It has already been proposed to employ a separate metal bristle plate for insertion into a metal or other base or stock, and such plates have been provided with perforations to form burs on the inside, to prevent the bristles being drawn through by the retaining wire. But according to my present invention I construct the base or stock of the brush of sheet metal stamped into a particular form so as to provide a convenient means of attachment for the various parts forming the said combination outfit.

In order that my invention may be clearly understood I will proceed to describe the same with the aid of the accompanying drawing, in which—

Figure 1 is a longitudinal section of a brush constructed in accordance with my invention; Fig. 1^a is a detailed view in section of a modified form; Fig. 2 a transverse section of the form shown in Fig. 1; Fig. 3 a side view of same; Fig. 4 a plan view of the back of the brush with the polishing pad and box removed; and Figs. 5 and 6 enlarged detail views of modifications of the tuft fastenings.

Similar letters of reference relate to like parts in all the figures of the drawings.

The base or stock of the brush is constructed from a blank of any suitable sheet metal or alloy of the required shape the edge of which is turned down or stamped so as to form a flange *a* of a depth corre-

sponding more or less to the thickness of the wooden base or stock ordinarily employed.

In the flat base or stock *b* I pierce or punch holes and draw or press out the metal into eyelets or short ferrules *c* (see Figs. 1, 2 and 4) into which the bristles *d* are fixed by wire threading in the ordinary way as shown for example at *e* in Fig. 4, or they may be secured in place in any other suitable manner. Grooves *f* are formed in the side portions of the flange *a* for the fingers in the manipulation of the brush, and for the reception, where such is employed, of a sheath or guard such for example as is shown and described in the specification of a British patent granted to me and bearing date the 21st August 1908, No. 17583. The edge of the flange *a* may be turned inward as shown at *g* so as to form, in combination with the upper inner portion of the finger grooves *f*, a channel or groove to receive the cardboard, wood, metal, or other base or backing *h* of the polishing pad *i*. The inner curved end of the base or backing *h* may be further supported by an inserted strip or ledge *p*, or by one or more indents *p*^{*} (Fig. 1^a) in that portion of the flange *a*.

The flange *a* may in some cases be discontinued at one end of the base or stock *b* as may be seen clearly in Figs. 3 and 4, thereby leaving an opening for the reception of the box or tin *j* of polishing paste, a suitable stop *k* (Fig. 1) being provided in order to prevent the said box or tin *j* being pushed in too far. Or a similar stop *k*^{*} may be bent up from the metal base or stock *b*, or be attached thereto in any convenient manner. The box or tin *j* may be further secured in place by the pressure thereupon of the overhanging portion of the base *h* of the pad *i* which may be bent or so shaped as to exert sufficient friction upon the box or tin *j* to prevent undue movement thereof. Or the box or tin *j* may be clipped or held in place against its stop by the spring-like action upon its sides of the two ends of the flange *a* as shown in Fig. 4. The box or tin *j* may be provided or not with a lid as may be preferred, and if no lid is employed the contents thereof may be covered and preserved by the overhanging portion of the base *h* of the pad *i*, or by the metal or other covering *m* of the irregular butt ends of the

bristles *d* at that end of the brush. The cavity *b* may if desired be utilized for the reception of other boxes or like articles.

The modifications illustrated in Figs. 5 and 6 facilitate the wiring of the tufts of bristles *d* in a regular manner, the before-mentioned eyelets or ferrules *c* in the first instance are pressed out of a base plate *b* and are each provided with holes in their walls through which holes the wire is threaded, the inner end wall forming a stop against which the butt of the tuft *d* is drawn by the wire *e*; or as shown in the second instance, separately formed eyelets *c** may be employed, the eyelet being retained in the hole in the base *b* of the brush by beading or swaging the edge *c*** over in the well known manner.

It will be obvious that these methods of manufacture may be applied to all sorts of brushes; that the stock, base and handle may be wholly of metal, or the metal base *b* may be fixed in any convenient manner to a wooden backing or handle of any other suitable material.

Claims:

1. In a brush, in combination, a one-piece metal stock consisting of a base and up-

wardly-extending end and side flanges, bristles secured to said base, said side flanges having inwardly-bent portions intermediate their upper and lower edges to form finger grooves, said flanges being provided adjacent their upper edges with a back-receiving groove and a back supported in said back-receiving groove.

2. In a brush, in combination, a one-piece metal stock consisting of a base and upwardly-extending end and side flanges, bristles secured to said base, said side flanges having inwardly-bent portions intermediate their upper and lower edges to form finger grooves, the upper edges of said flanges being bent inwardly whereby the inwardly-bent edges of the side flanges will form with said first-mentioned inwardly-bent portions back-receiving grooves, and a back supported in said back-receiving grooves.

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

THERESA MARY ELLIS.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."