A. H. TIMMIS.

BRUSH AND METHOD OF MANUFACTURING THE SAME.

APPLICATION FILED MAY 13, 1916.

1,219,054. Patented Mar. 13, 1917.

Fig. 1.

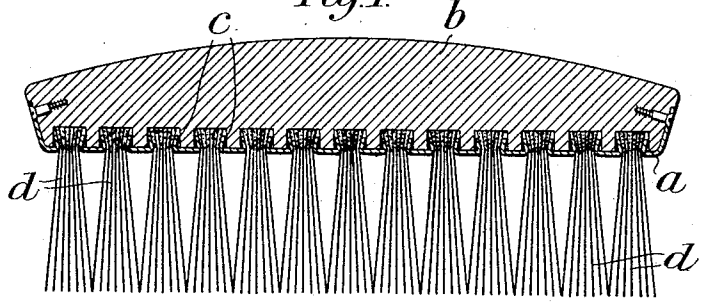


Fig. 2.

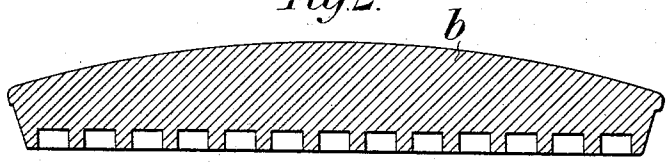
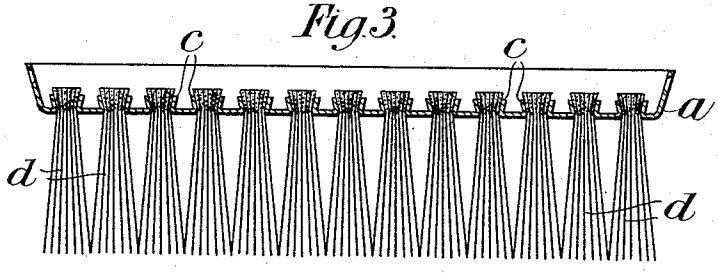


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

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BRUSH AND METHOD OF MANUFACTURING THE SAME.

1,219,054. Specification of Letters Patent. Patented Mar. 13, 1917.

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To all whom it may concern:

Be it known that I, ALBERT HENRY TIMMIS, a citizen of the United States of America, residing at Fairmount, Harrow View, Harrow, Middlesex, England, have invented new and useful Improvements in Brushes and in the Method of Manufacturing the Same, of which the following is a specification.

My invention relates to the manufacture of brushes, for household, toilet, stable and other purposes, of the kind wherein a series of knots or tufts of fibers, bristles or the like are applied to a common back or handle, and to that method of manufacture wherein the knots or tufts are fixed in a metal plate by rubber composition which is subsequently vulcanized.

According to my invention the metal plate (preferably aluminium or brass) in which the knots or tufts are fixed is pressed or stamped so as to form a series of sockets, for receiving the ends of the knots or tufts of bristles before they are cemented together, the ends of the bristles of the several tufts after they have been coated with india rubber being pulled back into the sockets and vulcanized *in situ*. The back of the plate from which the sockets project is then covered by a block of wood or other suitable material, which, in some cases, may be made integral with the brush handle, the said block being recessed to receive the projecting sockets.

My invention will be readily understood by reference to the accompanying drawing, in which:—

Figure 1 is a sectional view of a brush constructed according to my invention, and Figs. 2 and 3 are respectively sectional views of the block and of the plate carrying the knots or tufts detached.

a indicates the stamped metal plate which I use in the manufacture of my improved brushes, the said plate being advantageously dished, as shown, so as to receive the back *b*, and having punched in it a series of holes in such a manner that the punched up portions of metal will form a series of sockets *c*, *c* in which the heads of the knots or tufts *d* are to be fixed.

In practice the bristles, in bunches of the requisite size to form the knots or tufts, are threaded into the several sockets and pulled through so that their ends project. These projecting ends are covered or coated with unvulcanized rubber, for instance by dipping them, and are then pulled into the sockets whereupon the plate with the bristles is inserted into a vulcanizing chamber and subjected to the requisite heat for vulcanizing the rubber, whereby, as before stated, the bristles of each knot or tuft will be cemented together and at the same time the several tufts secured in the plate. The back of the brush is then applied to the dished back and secured either by cement or by fastenings as desired.

Claims:

1. The method of manufacturing brushes of the kind described consisting in stamping a metal plate into dish form having a series of upwardly extending and outwardly flaring sockets introducing knots or tufts of bristles into these sockets, coating the inner ends of said bristles which project above the sockets, with india rubber, drawing the coated ends into said sockets, subsequently securing the bristles together and to the plate by vulcanization, and then securing a back to the dished plate.

2. A brush comprising a metallic plate provided with upwardly extending and outwardly flaring edges, upwardly extending and outwardly flaring sockets integral with said plate, a knot of bristles provided in each of said sockets, the bristles of each knot being secured together and to its respective socket by vulcanized india rubber, and a back having a downwardly extending portion resting within the edges of the plate and provided with a series of recesses in which the upper ends of the knots and sockets rest.

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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."