

1,234,977.

Patented July 31, 1917.

FIG. 1.

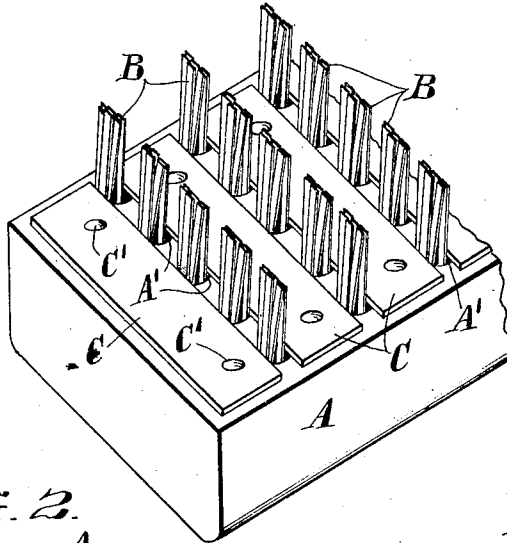


FIG. 8.

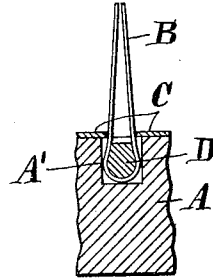


FIG. 2.

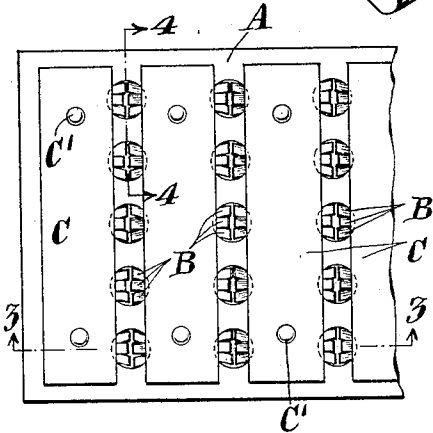


FIG. 4.

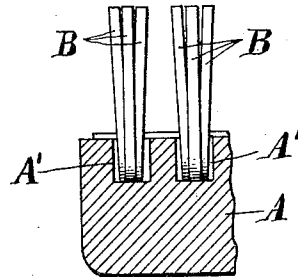


FIG. 5.



FIG. 6.

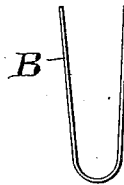
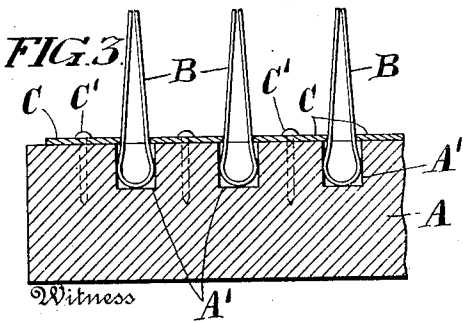


FIG. 7.



Witness

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UNITED STATES PATENT OFFICE.

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BRUSH.

1,234,977.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MAX VEECK, a citizen of the United States of America, residing in Lafayette, in the county of Montgomery, in the State of Pennsylvania, have invented a certain new and useful Improvement in Brushes, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

My present invention relates to brushes of the type in which the bristle elements have portions secured in sockets formed in the brush back or body, and the object of my invention is to provide an improved brush construction of the type referred to, characterized, on the one hand, by the effective manner in which the bristle elements are anchored in place in the brush back or body and the manner in which individual portions of the brush elements are supported and reinforced, and characterized on the other hand by the simplicity of the bristle-holding means and the comparative ease and rapidity with which the bristle elements may be secured in place in the brush back or body.

My invention is particularly adapted for use in the construction of brushes for scraping meat blocks and for other uses where the operating conditions are of similar severity. The invention is not restricted, however, to brushes for any particular use or kind of use.

The various features of novelty which characterize my invention are pointed out with particularity in the claims annexed to and forming a part of this specification. For a better understanding of the invention, however, and the advantages possessed by it, reference should be had to the accompanying drawings and descriptive matter, in which I have illustrated and described preferred embodiments of my invention.

Of the drawings:

Figure 1 is a perspective elevation of a portion of a brush constructed in accordance with my present invention.

Fig. 2 is a plan view of a portion of the brush with the bristles uppermost.

Fig. 3 is a partial section on the line 3—3 of Fig. 2.

Fig. 4 is a partial section on the line 4—4 of Fig. 2.

Fig. 5 is a plan view, and

Fig. 6 is an end elevation of one of the bristle elements, and

Fig. 7 is an end elevation of a modified form of a bristle holder.

Fig. 8 is a view taken similarly to Fig. 3, showing an additional feature of construction.

In the drawings, A represents the back or body of a brush, especially intended for use in scraping butcher blocks. The brush back A which, for the use specified, is ordinarily made of wood, has transverse rows of bristle-receiving holes or sockets A' extending into it from one face of the back. In each socket A' is inserted the connecting portion and the adjacent portions of the branches or legs of one or more looped bristle or abrading elements B. Each bristle element thus inserted in the socket A' has the inserted portion of its branches or legs laterally displaced in a direction transverse to the length of the corresponding row of sockets. As shown, each of the bristle elements B is made of a strip of sheet iron or steel, or other suitable tough resilient material, which may well be bent into the U or yoke form shown in Figs. 5 and 6 prior to its insertion in the brush back. In the particular construction illustrated, there are three bristle elements B inserted in each socket, and the bristle elements inserted in each socket have their legs or branches spread fan-wise, as shown best in Fig. 4. Between each adjacent pair of rows of sockets A', bristle-holding elements C, shown as strips of sheet metal, though they may be made of wood, are suitably secured as by means of nails D. Similar bristle-holding elements C are similarly secured in place at the outer sides of the end rows of sockets.

The two bristle-holding strips C at opposite sides of each row of sockets overlap the sockets in that row, and each engages the adjacent legs of the bristles in the row of sockets and bends those legs toward the other legs of the same bristle elements. Advantageously, the parts are so proportioned and arranged that in the case of all or the greater portion of the bristle elements, the free ends of the two legs of each bristle element will bear snugly against one another. In consequence, all or the greater portion

of the free ends of the bristle elements inserted in any one row of sockets are brought together along a line running parallel to the row of sockets. It should be explained that the described mode of construction permits of almost mathematical uniformity in the location of the free ends of the bristle elements, provided sufficient care be taken in assembling the brush, but such mathematical uniformity is not practically necessary or especially desirable. The snug engagement of the free ends of the opposing legs of a large number of the bristle elements is desirable, however, because of the effective manner in which the engaging bristle ends reinforce one another.

With the described construction, the bristle elements are not only effectively anchored in place by the strips C, but are advantageously reinforced by the latter at the points of contact. To increase the reinforcing effect of the bristle-holding elements, the latter may each be in the form of a channel bar CA, as shown in Fig. 7, so that the free edges of the flanges of the strips CA may engage the bristle elements at a distance from the face of the brush back, against which the bodies of the strips CA are secured.

The described construction permits of the rapid and easy securing of the bristle elements in place, and in particular, it facilitates the effective use of automatic or semi-automatic machinery in assembling the brush and securing the bristle-receiving elements to the brush back. With the described construction, it is readily possible, in the case of the failure of a portion of the bristle elements before the brush as a whole is worn out, to replace the defective bristle elements by new elements.

If desired, an internal reinforcing block D of wood or the like may be inserted in each socket, between the opposed bristle legs, as shown in Fig. 8. These blocks, when used, minimize the tendency of the inserted bristle portions to vibrate and crystallize under the shocks of use.

While in accordance with the provisions of the statutes, I have illustrated and described the best forms of my invention now known to me, it will be apparent to those skilled in the art that some changes may be made in the form of the apparatus disclosed without departing from the spirit of the

invention set forth in the accompanying claims.

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

1. A brush comprising in combination, a brush back formed with sockets in one face, looped bristle elements having their connecting portions and adjacent portions of their branches inserted in said sockets, bristle-holding means secured to the face of the brush back and overlapping the opposite edges of each socket and pressing the adjacent bristle element toward the center of the socket.

2. A brush comprising in combination, a brush back formed with sockets in one face, looped bristle elements having their connecting portions and adjacent portions of their branches inserted in said sockets and each having the inserted portions of its branches laterally displaced from one another, and bristle-holding means secured to the brush back and overlapping the opposite edges of said sockets and bending opposed branches of said looped elements into contact with one another at their free ends.

3. A brush comprising in combination, a brush back formed with rows of sockets in one face, looped bristle elements having their connecting portions and adjacent portions of their branches inserted in said sockets and each having the inserted portion of its branches laterally displaced in a direction transverse to the length of the row of sockets including the socket in which it is inserted, and bristle-holding elements secured to the brush back, and running alongside of said rows and partially overlapping the sockets thereof.

4. A brush comprising in combination, a brush back formed with parallel rows of sockets in one face, looped bristle elements having their connecting portions and adjacent portions of their branches inserted in said sockets and each having the inserted portions of its branches laterally displaced in a direction transverse to the longitudinal direction of the rows of sockets, and bristle-holding elements secured to the brush back, one between each adjacent pair of said rows and overlapping the adjacent edges of the sockets in the rows between which it is placed.

MAX VEECK.