I. ABRAHMSOHN.

BRISTLE RIM FOR ROTARY BRUSHES.

APPLICATION FILED AUG. 27, 1909.

955,738. Patented Apr. 19, 1910.

Fig. 1.

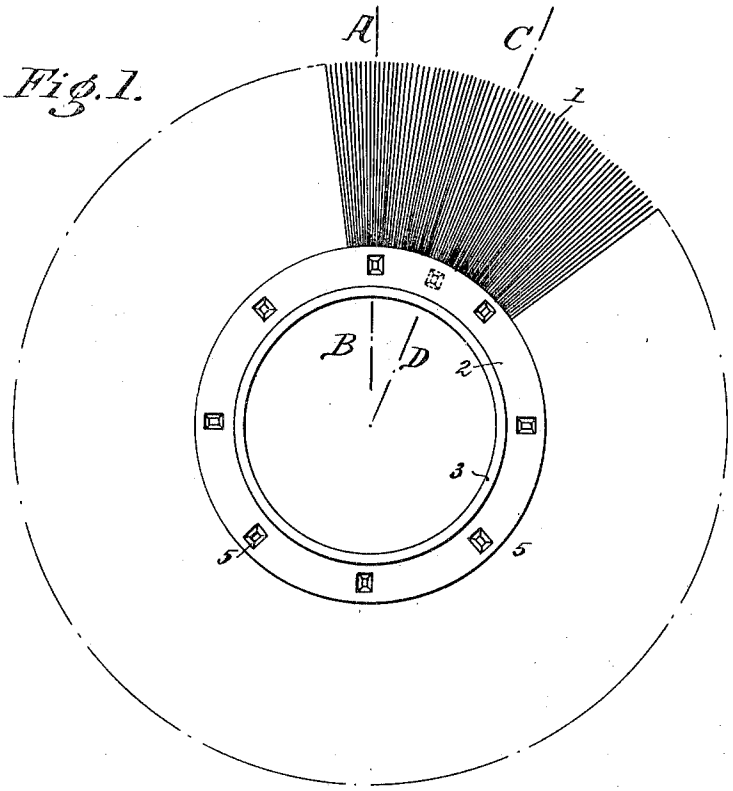


Fig. 2.

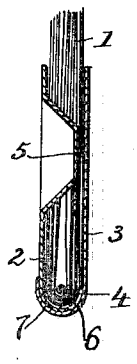
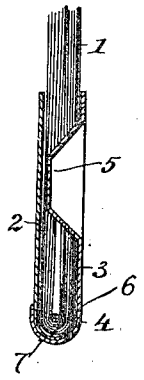


Fig. 3.



Witnesses

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ISIDOR ABRAHMSOHN, OF FREIBURG IN BREISGAU, GERMANY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO OSCAR MEZ AND JULIUS MEZ, BOTH OF FREIBURG IN BREISGAU, GERMANY.

BRISTLE-RIM FOR ROTARY BRUSHES.

955,738. Specification of Letters Patent. Patented Apr. 19, 1910.

Application filed August 27, 1909. Serial No. 514,896.

To all whom it may concern:

Be it known that I, ISIDOR ABRAHMSOHN, a citizen of the Empire of Germany, residing at Freiburg in Breisgau, in the Empire of Germany, have invented a new and useful Bristle-Rim for Rotary Brushes, of which the following is a specification.

There are known rotary brushes each composed of a number of bristle rims juxtaposed on the outer face of a spindle or sleeve or hub and secured between flanges or the like. The bristles are doubled and placed around a wire, after which they are held in position by two disks or rings which are firmly pressed against the bristles, the whole forming a bristle rim. The rotary brush composed of such bristle rims presents the disadvantage, that the bristles can easily shift between the disks or rings, more particularly when the brush is long and is rotated at a great speed.

My invention relates to improvements in such bristle rims, and the improvements consist in making the disks or rings of sheet metal and in providing them with projections pressed out of their material, which projections engage in the bristles and thus take hold of them, whereby, even when the brush is rotating at a high speed, any loosening of the wire or binding ring, as well as any shifting of the bristles on the circumference of the disks or rings is effectually prevented. Then it will be possible to use the brush until the bristles project only a few millimeters beyond the holding disks or rings.

I will now proceed to describe my invention with reference to the accompanying drawing, in which—

Figure 1 is a side view of an improved bristle rim, a part of the bristles being fully shown, while the rest is indicated by a dotted circle, Fig. 2 is a cross section on an enlarged scale through the line A—B in Fig. 1, and Fig. 3 is a similar cross section through the line C—D in Fig. 1.

Similar characters of reference refer to similar parts throughout the several views.

The bristles 1 are bound together by means of two disks or rings 2 and 3 made from sheet metal and are held between the rings or disks by a cord, wire, or the like 4 in any known manner. The disks or rings 2 and 3 are each provided with projections 5, 5 pressed out of their material. The projections 5, 5 on one disk extend in close proximity to the other disk and engage between the bristles 1, as is clearly shown at Figs. 2 and 3. The projections 5, 5 of either of the two disks 2 and 3 are made to alternate with those of the opposite disk, as can be seen from Fig. 1, where one of the projections 5 of the rear disk 3 (in the line C—D) is indicated by dotted lines. The projections 5, 5 are shown to be square, but this shape is immaterial and may be varied.

The two disks 2 and 3 of each bristle rim are to be connected with one another in the following manner: The inner periphery of one disk 2 is bent over in the direction in which the projections 5 project, so as to form a border 6. The inner periphery of the other disk 3 is so bent over as to form a flange 7, this flange being partially cylindrical or slightly conical. The bristles 1 are then in any known manner assembled on the ring or disk 2 and are bound together with a wire 4 or the like, after which the bristles are doubled by bending and spreading outward, whereupon the ring or disk 3 is placed on them and its flange 7 is pushed into the border 6 of the disk 2 and is bent over by means of a press or any known tool, so that the border 7 overlaps the inner periphery of the disk 2, as is clearly shown at Figs. 2 and 3.

It depends upon the size and thickness of the disks 2 and 3, whether the projections 5, 5 are pressed out at the same time that the borders are bent or not. For larger disks of a not inconsiderable thickness it is of course preferable to perform these two operations simultaneously, while for smaller thin disks it is preferable to produce the projections only after the bristle rim is finished and this by means of a pair of suitable tongs or any other known tool.

The several bristle rims destined to form a rotary brush are to be juxtaposed on the outer face of some spindle, sleeve, or hub and there secured between flanges or the like in any known manner, so that the two disks 2, 3 of each rim engaging one another by their borders 6, 7 are adapted to press the bristles 1 together under the pressure of the flanges or the like.

The projections 5, 5 engaging between the bristles 1 prevent any shifting of the same between the two disks 2 and 3, so that the bristles 1 can not produce unequal displace-

ments of the binding wire 4 around the rim as hitherto. The projections 5, 5 alternating with one another and extending from one disk in close proximity to the other disk permit it to reliably secure the bristles 1 with a relatively small number of projections on each disk or ring.

I claim:

In a bristle rim for rotary brushes, the combination with two annular disks made from sheet metal, bent over at the inner periphery so as to form borders which engage one another and having inward projections pressed out of the material of the disks, of bristles radially disposed and fastened at their inner doubled ends by means of a binding wire between said two disks, said two disks being adapted to hold the bristles together, while the inward projections of one disk extend in close proximity of the other disk and alternate with the inward projections of the latter.

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Witnesses:
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