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R. R. RADINSE

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ROTARY BRUSH

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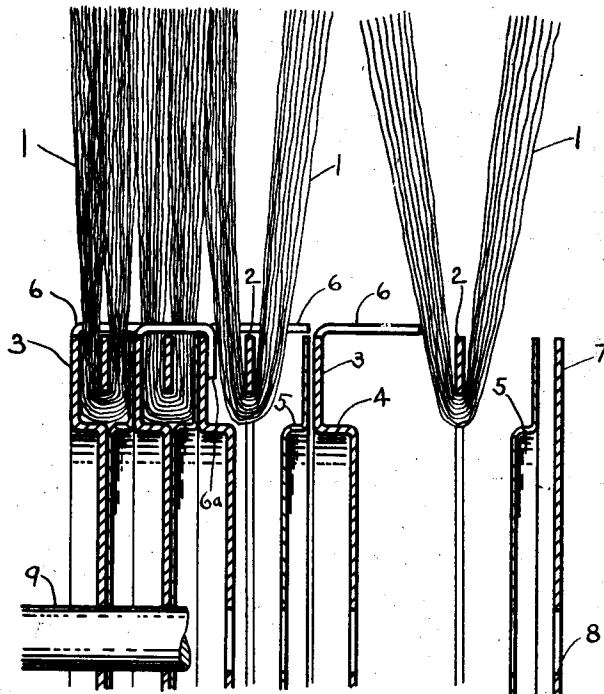


FIG. 1

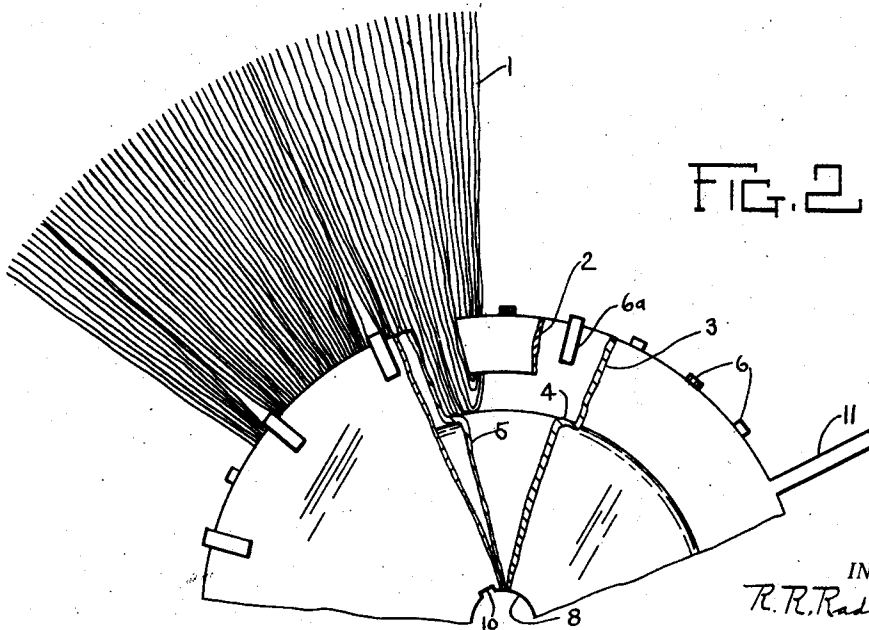


FIG. 2

INVENTOR.

R. R. Radinse

BY

John A. Bommhardt

ATTORNEY.

UNITED STATES PATENT OFFICE.

RUDOLPH R. RADINSE, OF CLEVELAND, OHIO, ASSIGNOR TO THE MANUFACTURERS
BRUSH COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

ROTARY BRUSH.

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This invention relates to rotary brushes of the built up type, whereby brushes may be built up to any desired width in one solid unit.

5 The object of the invention is to provide a convenient and inexpensive means for building up a rotary brush to any desired axial length.

10 This object is affected by providing a series of units or sections, each section consisting of a supporting plate and a ring around which the filling material is folded, the successive rings and filling material being clamped between plates, with the provision of
15 intermediate guard plates if desired, and each supporting plate is provided with means whereby the adjacent plate and unit may be clamped thereto, whereby successive units may be added to any desired extent to build
20 up a brush of the requisite length. A cheap and easy means for locking the units together may consist of fingers projecting from one plate and adapted to be bent down over the edge of the next plate.

25 In the accompanying drawings, Fig. 1 is a central section through a partly disassembled brush constructed according to this invention; Fig. 2 is an end view with parts broken away to show the construction.

30 In constructing this brush the fibers or filling material 1 is inserted through an annular retaining ring 2 and the ends of said filling material 1 bent or folded around said ring so as to extend radially from said ring 2.
35 The ring 2 with its quota of filling material 1 is then assembled with a supporting member 3 consisting of a circular sheet metal plate having a supporting hub 4 stamped therein of a size adapted to firmly support said filling
40 material. This plate has fingers 6 spaced around its outer edge. A guard plate 5 of thinner and consequently more compressible material is then applied to close up the unit or section. Another supporting member 3 is
45 next applied with the locking fingers 6 extending therefrom alternated with the locking fingers 6 of the previous supporting member 3 which last mentioned locking fingers 6 are then bent down as shown at 6^a, across or
50 around the edge of the newly applied supporting member, while the same is under pressure, thus securely and effectively locking those sections of the brush together. Although the guard plate 5 might be omitted,
55 its use provides protection against any of

the bristles or other filling material being forced radially toward the axis of the brush due to the fact that the guard plate 5 is somewhat compressible as before explained a tight
bottomed groove or cell is formed for the
60 brush section.

The adaptability of this construction for building up a multiple section self contained brush is now apparent inasmuch as the set of locking fingers 6 now upstanding provide
65 means for attaching another section of filling material and other members as before and upon bending down the new set of locking fingers the new section is locked to all the previous sections and so on by repetition until
70 the required axial length has been built up. The fingers extend across through the filling material so that creeping of the latter around the ring is prevented. For the last section a plain closing plate 7 is used instead of one
75 with fingers.

Each of the members extending to the center is provided with the size of hole 8 required for the shaft 9 upon which it is to be used. A keyway 10 can conveniently be in-
80 corporated into the punching.

At 11 one of the fingers is shown straightened out to the position as originally punched, before being bent to the upstanding position.

I claim:

85 1. In a rotary brush, the combination of a retaining ring, filling material extending through said ring and projecting radially outward therefrom, a supporting member at one side with an offset hub supporting said
90 filling material, a guard plate at the other side of said filling material, and fingers on said supporting member adapted to be bent down over a similar supporting member of an adjacent brush unit, whereby means is
95 provided for building up a multiple section brush of any desired axial length.

2. In a rotary brush, the combination of annular retaining rings, filling material extending through said rings and projecting
100 radially outward therefrom, a series of supporting members alternating with said rings and between which said filling material is clamped, and means on each of said supporting members for securing said member to the
105 next succeeding member.

3. A rotary brush built up of a plurality of sections, each section consisting of a supporting plate, a ring and filling material folded around said ring, the sections being
110

assembled together with the successive rings and filling material clamped between the plates of adjacent sections, each plate having projecting fingers engaging an adjacent plate
5 to clamp the sections together.

4. A rotary brush as in claim 3, the fingers being at the outer edge of the plate and extending through the filling material of the section and bent over the edge of the plate
10 of an adjacent section to clamp the sections together.

5. A rotary brush built up of a plurality of sections clamped together, each section

consisting of a supporting plate offset centrally to form a hub, a ring, filling material 15 folded around said ring, at one side of said plate, and a guard plate at the opposite side of said ring and filling material, each supporting plate having a plurality of spaced fingers at its outer edge bent across outside 20 of the ring and guard plate of its section and around the outer edge of the supporting plate of the next section.

In testimony whereof, I do affix my signature.

RUDOLPH R. RADINSE.