

Aug. 1, 1933.

R. R. RADINSE

1,920,667

ROTARY BRUSH

Filed Feb. 1 1933

FIG. 1

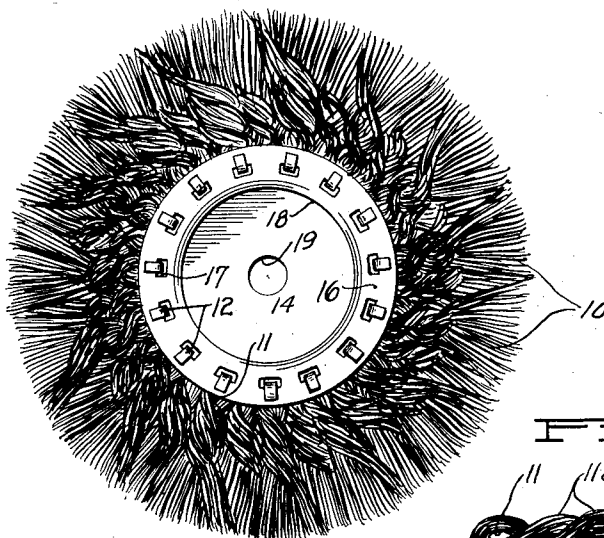


FIG. 5

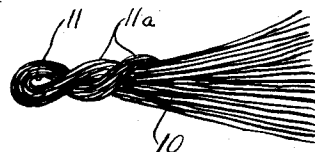


FIG. 2

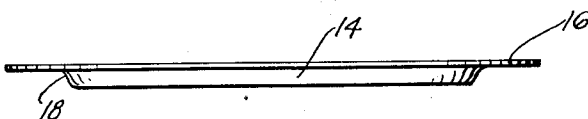


FIG. 3

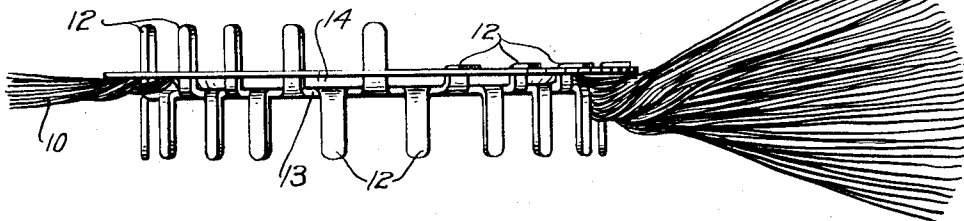
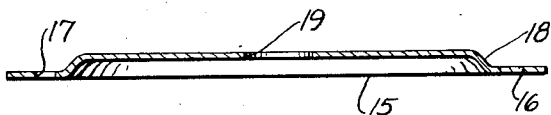


FIG. 4

BY

INVENTOR
Rudolf R. Radinse

John A. Bonnhardt
ATTORNEY

UNITED STATES PATENT OFFICE

1,920,667

ROTARY BRUSH

Rudolf R. Radinse, Avon Lake, Ohio

Application February 1, 1933. Serial No. 654,584

3 Claims. (Cl. 15—179)

This invention relates to rotary brushes, and especially to wire brushes, and has for its object to provide a brush improved with respect to the manner of assembling and uniting the various parts, including also a construction of the wire units by the provision of a twisted loop which has been found to give greater efficiency and durability, and capable of severe use without breaking or bending down the various brush wires. A further improvement relates to the manner of clamping the units to a circular plate or hub disk.

The invention is illustrated in the accompanying drawing in which Fig. 1 is a side view of the brush. Fig. 2 is an edge view of one of the side plates. Fig. 3 is a view illustrating the manner of assembling the units. Fig. 4 is a section of one of the side plates. Fig. 5 is a plan of one of the brush units.

The brush consists of a number of brush units or "knots" 10 assembled on a circular structure. These are preferably made of steel wire or fibre, and as shown in Fig. 5 are twisted to form a loop 11 with say two bights or bends 11a to form a relatively stiff neck or shank from which the free ends of the wires project to the proper distance or size.

As stated, a plurality of these knots or units are assembled on a circular structure which comprises a middle plate or disk 13 provided around its edge with tongues 12 projecting originally at opposite sides of the plate, and the tongues 12 are inserted through the respective loops 11 which are then clamped in place by means of two side plates 14 and 15. These plates are dished as shown so that the central part thereof will fit against the plate 13, with the rim or flange 16 overlapping the knots which are embraced between said rims. In assembling the parts the ends of the tongues 12 are inserted through holes or slots 17 in the rims 16, and then in a press or

otherwise the parts are pressed together and the tongues 12 are bent out and down upon the flanges 16, as clearly shown in Fig. 1, and the knots or wire units are thereby rigidly clamped in position and secured to the central structure. The plates 13, 14 and 15 are provided with central holes 19 which permit the brush to be mounted on a shaft or arbor in any suitable or convenient manner. A brush thus constructed has great rigidity and strength and is evenly balanced in its central portion, and the twisting of the wires to form the loops or knots serves to support the individual wires and prevent bending or breaking thereof even under severe work.

The invention is not limited to the exact form shown, but various modifications thereof are possible within the scope of the following claims.

I claim:

1. A rotary brush comprising a circular disk having tongues at its edge, looped brush units engaged by said tongues, and clamping plates at opposite sides of the disk, between the rims of which the loops are clamped, the tongues extending through openings in the rims of the plates and being bent down upon the outer sides thereof.

2. A rotary brush as in claim 1, the side plates being dished to fit against opposite sides of the disk, and the margins projecting outwardly beyond the edge of the disk to embrace the loops therebetween.

3. A rotary brush comprising a circular disk having tongues projecting therefrom, looped brush units engaged by said tongues, and clamping plates at opposite sides of the disk, between the rims of which the loops are clamped, the tongues extending through openings in the plates and being bent down upon the outer sides thereof.

RUDOLF R. RADINSE.

95

100

105

110