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I. L. G. CORNELL

1,497,974

BRUSH

Filed Nov. 4. 1921

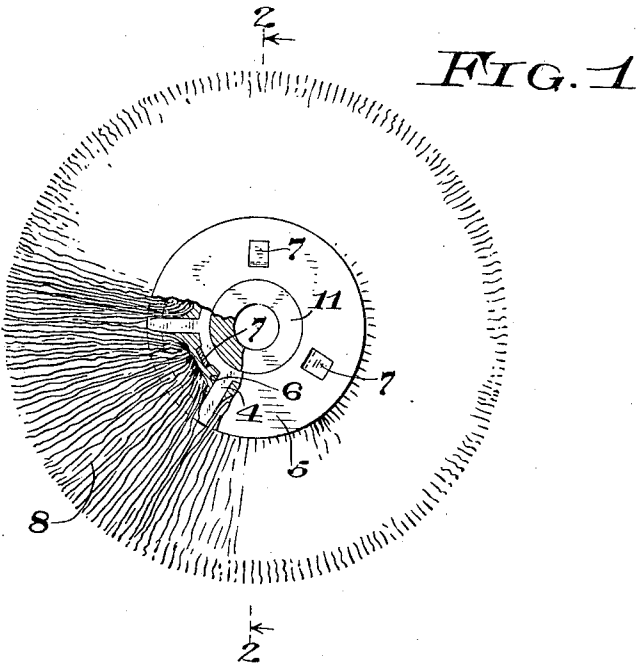


FIG. 2

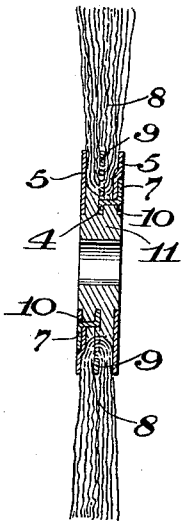
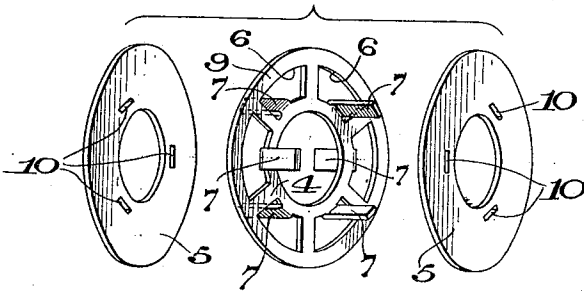


FIG. 3



WITNESSES

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IRSIL L. G. CORNELL, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO THE MILWAUKEE BRUSH MANUFACTURING COMPANY, OF MILWAUKEE, WISCONSIN, A CORPORATION OF WISCONSIN.

BRUSH.

Application filed November 4, 1921. Serial No. 512,815.

To all whom it may concern:

Be it known that I, IRSIL L. G. CORNELL, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Brushes, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

The invention relates to brushes.

The object of the invention is to provide a rotary brush of simple construction in which the bristles are firmly secured by a novel hub design.

The invention further consists in the several features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings: Fig. 1 is an elevation view of a device embodying the invention, parts being broken away and parts being shown in section; Fig. 2 is a section taken on the line 2—2 of Fig. 1; Fig. 3 is an expanded view of the hub.

The hub of the brush comprises a centrally disposed bristle receiving spider 4, and end clamping plates 5.

The spider 4 is a stamping made from sheet metal consisting of a ring provided with radially disposed arcuate slots or openings 6 and tongues 7 projecting from the inner edge of said slots, one set of tongues extending laterally on one side of the ring and another set extending laterally on the other side of the ring. Bunches of bristles 8 are connected to the spider by passing them through the openings 6 and bending them around the arcuate sections 9 formed by cutting or punching out the slots 6. The brush herein shown is provided with wire bristles though the bristles may be of other material if desired.

Each plate 5 is a metal stamping provided with a set of openings 10 positioned

to admit passage of one set of the tongues 6 through it and when the bristles have been placed on the spider they are firmly clamped to and between it and the plates 5 by passing the tongues through the opening 10 and crimping their ends down upon the outer sides of the plates.

A central bearing for the brush is formed of bearing metal 11 which is permitted to flow in between the plates and the spider, as shown in Fig. 2, so as to firmly anchor it to the hub. The metal fills all unoccupied space between the plates and the spider and adjacent the bristles to prevent their displacement.

I desire it to be understood that this invention is not to be limited to any specific form or arrangement of parts except in so far as such limitations are specified in the claims.

What I claim as my invention is:

1. In a brush, the combination of a spider having radially disposed arcuate slots, bristles passed through said slots and extending back on themselves and around the outer sides of said slots, tongues on said spider extending laterally therefrom, plates against which the outer ends of said tongues are bent to clamp the bristles between the plates and against the spider, and a metal core filling the voids between said plates and adjacent said bristles.

2. In a brush, the combination of a spider having radially disposed arcuate slots, bristles passed through said slots and extending back on themselves and around the outer sides of said slots, tongues on said spider extending laterally therefrom, and plates against which the outer ends of said tongues are bent to clamp the bristles between the plates and against the spider, each plate being provided with separate tongue-receiving openings.

In testimony whereof I affix my signature.
IRSIL L. G. CORNELL.