A. L. RADLEIN & G. SELANDER.

ROTARY SCRATCH BRUSH.

APPLICATION FILED AUG. 25, 1913.

1,107,354. Patented Aug. 18, 1914.

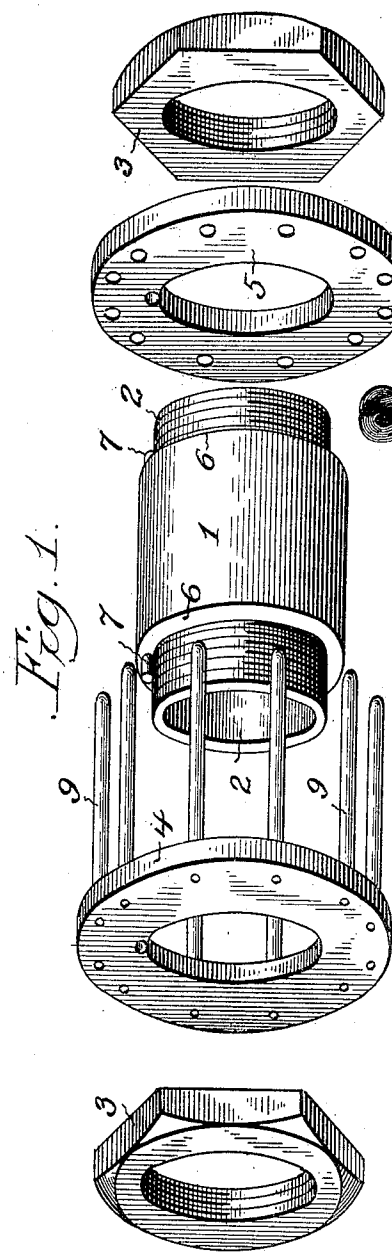


Fig. 1.

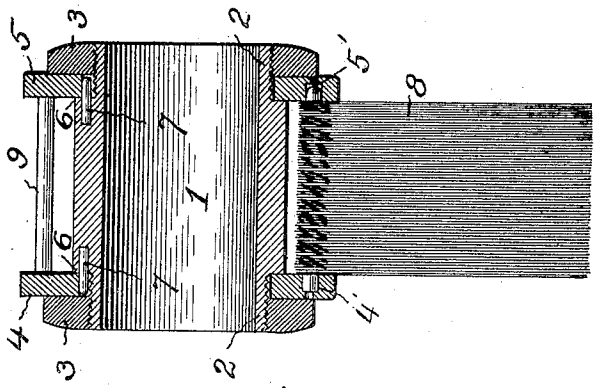


Fig. 2.

Witnesses:
John Enders
Henry Mosher

Inventors:
Albert L. Radlein and
Gustaf Selander,
by Robert S. Burns
Atty

UNITED STATES PATENT OFFICE.

ALBERT L. RADLEIN AND GUSTAF SELANDER, OF CHICAGO, ILLINOIS.

ROTARY SCRATCH-BRUSH.

1,107,354. Specification of Letters Patent. Patented Aug. 18, 1914.

Application filed August 25, 1913. Serial No. 786,390.

To all whom it may concern:

Be it known that we, ALBERT L. RADLEIN and GUSTAF SELANDER, citizens of the United States of America, and residents of Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Rotary Scratch-Brushes, of which the following is a specification.

This invention relates to that class of rotary wire brushes, in which the wire tufts are loosely attached to the central hub of the brush, and are adapted in actual use to impart a satin or pearl finish to metallic articles operated on. And the present improvement has for its object to provide a simple and efficient structural formation and combination of parts, whereby a ready and convenient loading and unloading of the brush body with wire tufts can be attained in a rapid and economical manner, and with which the wire tufts are securely held in place against accidental detachment in actual use, all as will hereinafter more fully appear.

In the accompanying drawings:—Figure 1 is a perspective view illustrating the various parts of the brush in a separated and alined condition. Fig. 2 is a central longitudinal section, the upper portion illustrating the means for securing the end collars on the central hub against independent rotation, and the lower portion illustrating the means whereby the tuft carrying rods are detachably held in the aforesaid end collars. Similar reference numerals indicate like parts in both views.

Referring to the drawings, 1 represents the central hub or carrier formed with the usual axial orifice or bore by which it is mounted on an ordinary power driven arbor. In the present improvement said hub has a structural formation as follows: 2 are screw-threaded ends adapted to receive attaching nuts 3 by which the hereinafter described collars or disks 4 and 5 are held in place. 6 are annular abutment shoulders or enlargements disposed inside the screw-threaded ends 2, aforesaid, to provide stops against which the aforesaid collars or disks 4 and 5 are firmly clamped and held by the nuts 3 aforesaid.

7 are keys or like equivalent projections disposed adjacent to the abutment shoulders 6, and adapted to provide non-circular formations on the perimeter of the hub 1, and with which complementary formations of the central orifices of the disks or collars 4 and 5 have engagement and are held from independent turning movement in relation to the hub 1, after an assemblage of the parts.

The collars or disks 4 and 5, above referred to, are of the flat form shown and formed with a central bore or orifice adapted to fit the perimeter of the screw-threaded ends 2 of the hub 1, above described. In addition said collars are formed with a circular series of cylindrical recesses 4′ and 5′ which extend from the inner faces of the collars 4 and 5 to near the outer faces of the same, and separated from such outer faces by bottom or closure webs, as shown in Fig. 2. Such recesses 4′ and 5′ are adapted to receive and hold from endwise movement, the series of rods or bars 9 which carry the wire tufts of the brush. These rods in the preferred form of the present invention have at one of the ends a drive fit in the orifices of a collar or disk 4, to constitute fixed portions of said collars, while at the other of their ends they fit loosely in the orifices of the companion collar or disk 5. With the described construction either of said collars or disks 4 and 5, may be disconnected from the hub 1, by the removal of an individual holding nut 3, for the purpose of loading or unloading the brush with the wire tufts 8, or in changing the grade or nature of said tufts as required in different kinds of work. The tufts 8 generally employed consist of bundles of fine wire bent into the loop form shown in Fig. 1, with the loop adapted to encompass one of the series of rods 9 of the present construction. It is evident that any other form of finishing devices may be used, such for instance, as individual links of wire formed with eyes for engagement with the rods 9 of the present construction.

Having thus fully described our said invention what we claim as new and desire to secure by Letters Patent, is:—

1. In a rotary scratch brush, the combination of a hub formed with reduced ends and intermediate abutments, a pair of collars fitting loosely on said reduced ends and provided with circular series of cylindrical recesses extending from the inner faces of the collars to near the outer faces of the same, means for securing said collars fixedly to the hub, means for preventing independent turning movement of the collars with relation to the hub, and a series of tuft-carrying rods

engaging the recesses of the collars, substantially as set forth.

2. In a rotary scratch brush, the combination of a hub formed with screw-threaded ends and intermediate abutments, a pair of collars fitting loosely over said screw-threaded ends and provided with circular series of cylindrical recesses extending from the inner faces of the collars to near the outer faces of the same, individual nuts for securing said collars against the intermediate abutments, means for preventing independent turning movement of the collars with relation to the hub, and a series of tuft-carrying rods engaging the recesses of the collars, substantially as set forth.

Signed at Chicago, Illinois, this 23rd day of August, 1913.

ALBERT L. RADLEIN.
GUSTAF SELANDER.

Witnesses:
WALTER MOGENSEN,
A. ALDINGER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."