No. 842,997. PATENTED FEB. 5, 1907.

D. F. BRODERICK.

ROTARY BRUSH.

APPLICATION FILED SEPT. 11, 1905.

Fig. 1.

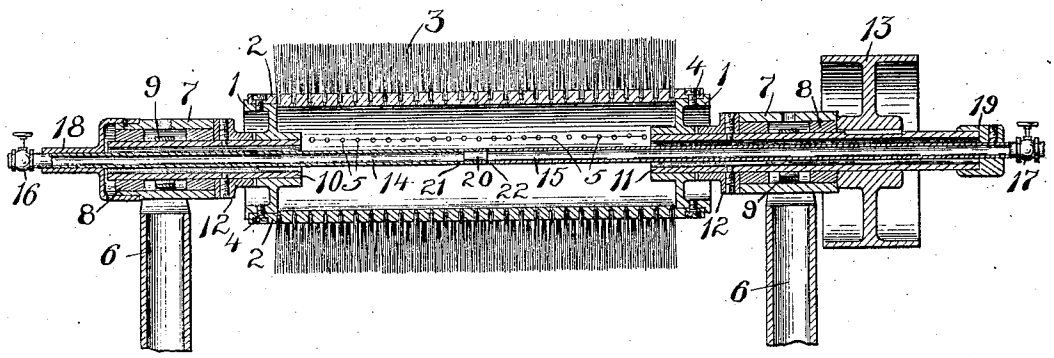
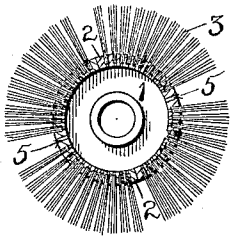


Fig. 2.



Witnesses

Chas. A. Peard

Inventor

D. F. Broderick

By his Attorneys

Baxter Brownell & Mitchell

UNITED STATES PATENT OFFICE.

DAVID F. BRODERICK, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO RUSSELL & ERWIN MANUFACTURING COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

ROTARY BRUSH.

No. 842,997. Specification of Letters Patent. Patented Feb. 5, 1907.

Application filed September 11, 1905. Serial No. 277,827.

To all whom it may concern:

Be it known that I, DAVID F. BRODERICK, a citizen of the United States, residing at New Britain, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Rotary Brushes, of which the following is a full, clear, and exact description.

My invention relates to rotary brushes, particularly driven by power.

The object is to provide a brush in which the bristles may be readily replaced and to which one or more fluids or pastes may be supplied while the brush is in operation and controlled in amount as desired.

Another object is to prevent abrasion in the bearings.

The principles of the invention are illustrated in the accompanying single sheet of drawings. It contemplates the employment of a cylindrical core formed of metallic segments carrying removable bristles. Feed-pipes lead through each end of the core for supplying the fluid to be used.

Figure 1 is a longitudinal sectional view of a construction embodying my invention. Fig. 2 is a cross-sectional view of a core and bristles.

1 1 are the heads of the brush-core.

2 2 are semicylindrical segments of the core-body, having recesses for the reception of the bristles 3. The body-segments are removably attached to the heads by screws 4 4.

5 5 are perforations in the body between the bristles.

6 6 are main bearing-posts. 7 7 are the bearings carried thereby.

8 8 are bushings in the bearings.

9 9 are oil-rings.

10 and 11 are hollow spindles mounted in the left and right hand bearings, respectively, and to which the heads of the core are secured.

12 12 are collars secured to the spindles for preventing longitudinal movement relative to the bearings.

13 is a pulley mounted on the right-hand spindle and keyed to it for driving the brush.

14 and 15 are feed-supply pipes having control-cocks 16 and 17.

18 and 19 are supports for the outer end of the supply-pipes.

20 is a plug partitioning off and supporting the inner ends of the supply-pipes.

21 and 22 are outlets from the supply-pipes within the chamber or reservoir formed in the core.

By this construction any fluid or paste which will flow may be supplied in any quantity to the interior of the brush and will be delivered to the root of the bristles and applied directly to the surface being operated upon without waste or spattering. When any of the bristles become worn out or injured, one of the core-segments may be removed and a new one substituted or the bristles repaired or replaced without interfering with the rest of the machine, thus saving time and money.

The invention is particularly intended for use in machines for finishing and polishing hardware, such as locks, escutcheons, &c. In such work pumice-stone is used frequently. For this reason the feed-pipes 14 and 15 are spaced apart from the spindles 10 and 11, so that the parts cannot contact with each other where there is any likelihood of abrasion.

The advantages of this construction will be apparent to those skilled in the art.

What I claim is—

1. In a rotary brush, bearings, rotating spindles, one of said spindles being hollow, a core formed of segments carried by said spindles, bristles protruding therefrom, a supply-pipe leading through said hollow spindle without touching it and having an outlet within said core, said core having outlet-perforations between the bristles, and means for controlling the supply of fluid through said pipe as desired.

2. A rotary brush comprising bearings, hollow rotating spindles mounted therein, means for applying power to one spindle, a hollow core mounted on said spindles, bristles protruding therefrom, said core having outlet-perforations between the bristles, and supply-pipes leading through said spindles and having outlets within said core for the purpose specified.

3. In a rotary brush, a hollow segmental core having bristles and perforations between the bristles, means for supplying a plurality of fluids to the interior of said core.

from opposite ends, and means for regulating the supply.

4. A finishing-brush comprising bearings, hollow spindles mounted therein, heads secured to said spindles, a segmental perforated core secured to said heads and having bristles, and feed-pipes leading through both of said spindles and meeting in the center of said core.

5. A finishing-brush comprising, rotating spindles, a hollow perforated brush-core mounted thereon and having bristles, bearings for said spindles, one of said spindles being hollow, a feed-pipe extending through said spindle without touching it, and a support 18 for said pipe secured to one of said bearings.

DAVID F. BRODERICK.

Witnesses:
M. S. WIARD,
C. E. RUSSELL.