

(No Model.)

B. A. CARLESS.
ROTARY POLISHING WHEEL BRUSH.

No. 579,531.

Patented Mar. 23, 1897.

Fig: 1.

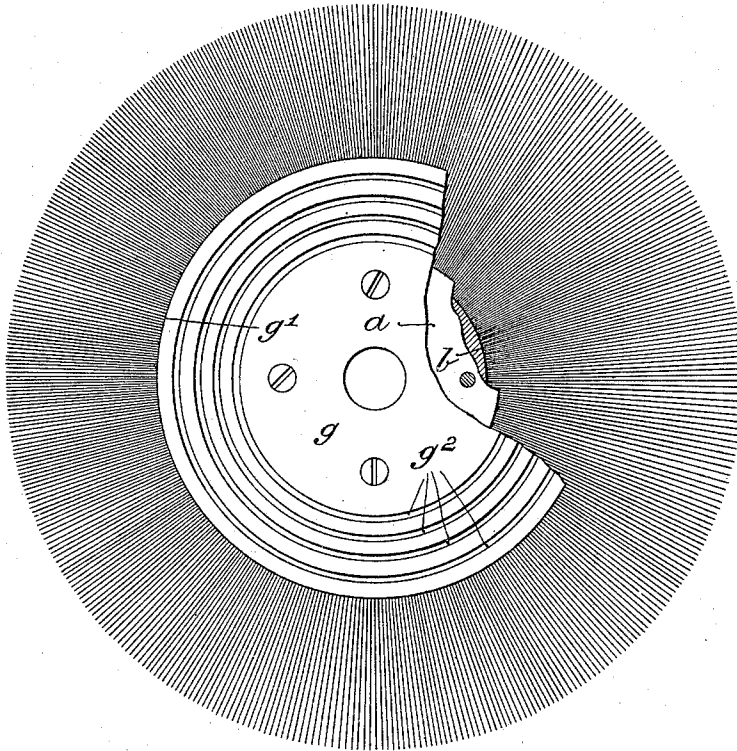
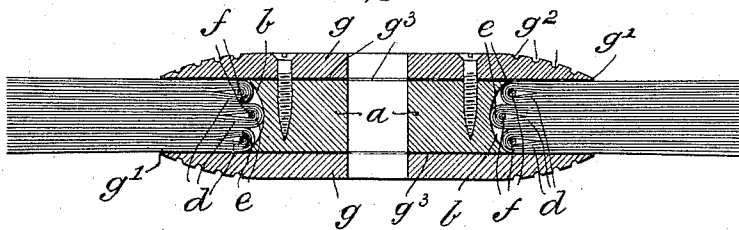


Fig: 2.



Witnesses:
Thomas M. Smith.
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UNITED STATES PATENT OFFICE.

BENJAMIN A. CARLESS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO JOHN EISENMANN, OF SAME PLACE.

ROTARY POLISHING-WHEEL BRUSH.

SPECIFICATION forming part of Letters Patent No. 579,531, dated March 23, 1897.

Application filed April 8, 1896. Serial No. 586,676. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN A. CARLESS, a subject of the Queen of Great Britain, (but having declared my intention of becoming a citizen of the United States,) residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Rotary Polishing-Wheel Brushes, of which the following is a specification.

My invention has relation to a rotary brush for use in polishing, buffing, or cleansing metals, glass, woodwork, or other materials; and in such connection it relates particularly to the construction and arrangement of such a brush.

The principal object of my invention is to provide a rotary brush comprising in its structure a block, the annular periphery whereof is concavely grooved and the faces or sides of which are flat, a series of three or more annularly-formed tufts arranged side by side against each other and confined within the grooved periphery of the block, a wire introduced through the looped ends of each series of tufts to bind the looped ends of the tufts down within the said groove, the looped ends of said tufts resting upon different portions of the groove in the block, and two circular and flat side plates secured to either face of the block to confine and clamp the outer series of annular tufts down upon the inner series.

My invention, stated in general terms, consists of a rotary polishing-wheel brush constructed and arranged in substantially the manner hereinafter described and claimed.

The nature and scope of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, and in which—

Figure 1 is a side elevational view of a rotary polishing-wheel brush partially broken away and embodying main features of my invention, and Fig. 2 is a cross-sectional view thereof.

Referring to the drawings, *a* represents a circular block of wood, metal, or other inflexible material having its rim or periphery *b*

concaved or annularly grooved. Within this groove *b* are adapted to be mounted a series of three or more rows *d* of brush-like tufts, which when forced into the groove at their bends *e*, preferably by means of hydraulic pressure, will radiate from the block *a* as a center thereof. These series of tufts are bound down upon and into the grooved periphery of the block by means of wires or bands *f*, introduced through the tufts, as indicated in Fig. 2, that is to say, the looped end of the interior row of tufts rests upon the lowest portion of the groove *b*, whereas the outer rows are held above the inner row and at the sides of the groove, and each series being separately bound by one wire or band *f*.

Secured to either face of the block *a* is a circular plate *g*, the periphery *g'* of each of which extends a considerable distance beyond the periphery of the block to firmly secure the bristles or tufts and to prevent undue lateral movement or displacement thereof. The outer surface of each plate *g* is preferably provided with a series of concentric grooves *g²* to constitute guides or scales by means of which each plate may be turned down at its periphery a sufficient distance to compensate for the wear of the ends of the bristles of the brush.

The plates *g* may be secured to the block *a* by means of screws, pins, or other preferred means. The outer face of the plates *g*, by preference, is convex, while the inner face is flat and is preferably covered with a layer of cloth *g³* to present a slightly-flexible surface to the body or surface of the bristles of the rotary brush.

By the arrangement of the rows or rings *d* of tufts as above described the inner row is prevented from breaking by reason of the fact that it is clamped on its sides by the outer rows of tufts, and the wearing-surface of the brush is consequently denser and less liable to fray.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

A rotary polishing-brush, comprising a block, the annular periphery whereof is concavely grooved, and the faces or sides of

which are flat, a series of three or more rings
or rows of looped tufts arranged side by side
within the grooved periphery of said block,
a wire adapted to bind each row of tufts to
5 the block, the looped end of the inner row or
rows of tufts resting upon the lowest portion
of the groove of said block while the outer
rows are held above and at the sides of said
groove, and flat side plates secured to either
10 face of the block to clamp the outer rows of

tufts down upon the inner row or rows, substantially as and for the purposes described.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

BENJ. A. CARLESS.

Witnesses:

J. WALTER DOUGLASS,
THOMAS M. SMITH.