D. F. McGOVERN.

BUFFING WHEEL.

APPLICATION FILED DEC. 15, 1920.

1,425,786. Patented Aug. 15, 1922.

FIG. I

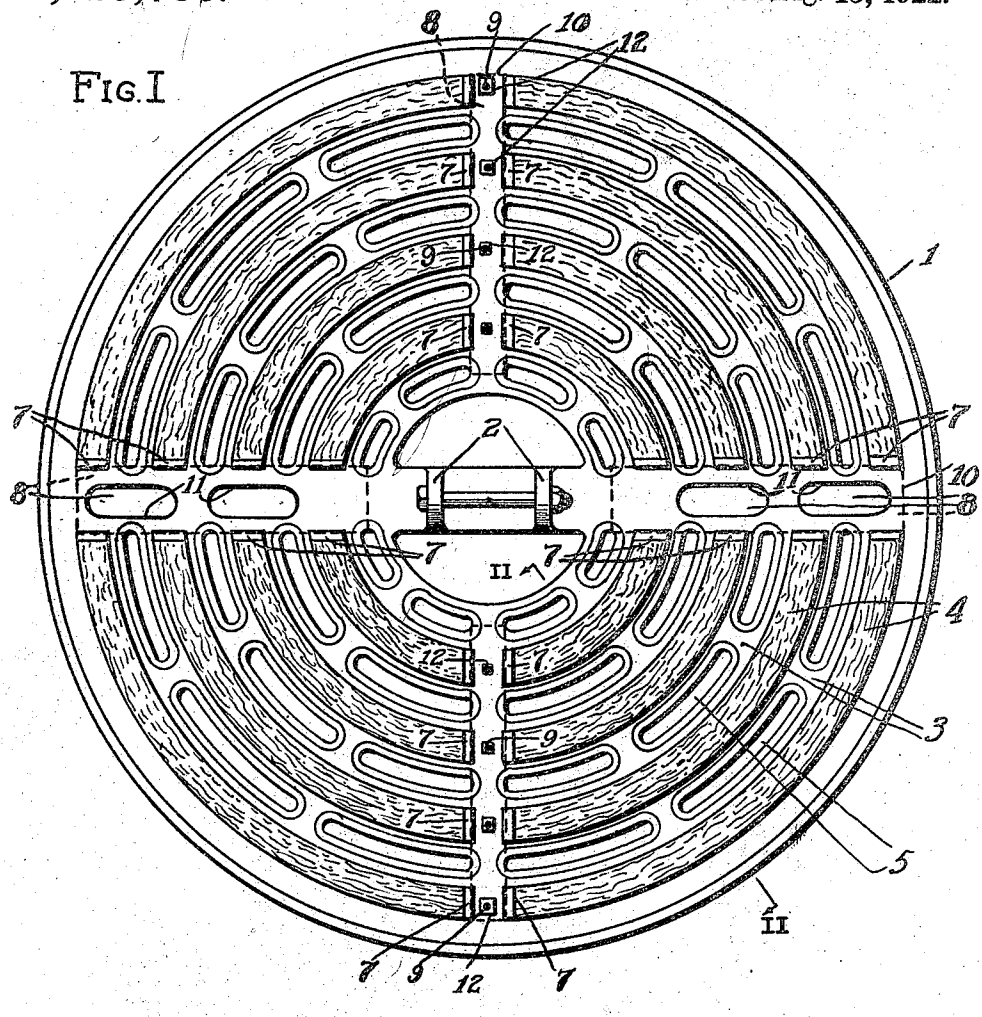


FIG. II

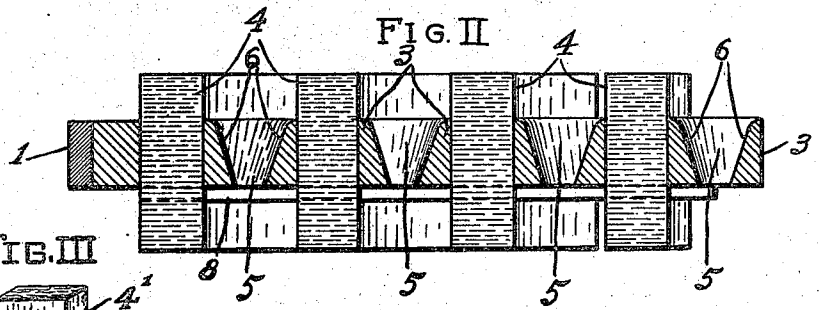
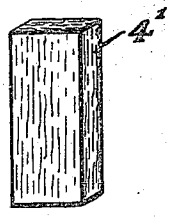


FIG. III



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DANIEL F. McGOVERN, OF MONTPELIER, VERMONT.

BUFFING WHEEL.

1,425,786. Specification of Letters Patent. Patented Aug. 15, 1922.

Application filed December 15, 1920. Serial No. 430,834.

To all whom it may concern:

Be it known that I, DANIEL F. McGOVERN, a citizen of the United States, residing at Montpelier, county of Washington, State of Vermont, have invented certain new and useful Improvements in Buffing Wheels, of which the following is a specification.

This invention relates to buffing wheels and particularly to a polishing wheel for use in buffing or glossing granite, marble or other stone.

In buffing wheels as heretofore constructed, the buffing elements are usually segmental inserts of felt arranged concentrically about the central feed opening of the wheel in spaced relation to each other, and the abrasive, or polishing material mixed with water is fed to these inserts through said central opening. This structure is open to the objection that the feed is not uniform, those inserts nearest the periphery of the wheel frequently not receiving a sufficient supply of polishing material while those nearest the central feed opening are possibly oversupplied.

To the end therefore of providing a buffing wheel in which there is certainty and uniformity of feed to each individual insert, I have devised my invention.

In it, the webs of the wheel spacing the inserts are provided with a plurality of feed openings through which the abrasive or polishing material mixed with water may be introduced to the working surface, thus insuring an adequate supply of polishing material to each individual felt insert. In order to assist the feed, the side walls of the annular feeding slots may be inclined to each other.

The construction and operation of my invention, together with a selected embodiment which well illustrates the principles involved, is disclosed in the accompanying specification and drawings throughout which like reference characters are employed. In the drawings:—

Fig. I is a top plan view of a buffing wheel in accordance with my invention, and

Fig. II is a section on the line II—II, Fig. I.

I have indicated at 1 a buffing wheel of conventional type having at 2 the usual lugs by means of which the wheel may be bolted to the driver.

According to my invention the concentric webs 3 spacing the segmental felt inserts 4 are provided with a plurality of slots 5 through which the polishing material may be fed to the working surfaces of the individual inserts.

As shown in Fig. II, the side walls of the feeding slots 5 are inclined at an angle to each other as indicated at 6. The downwardly inclined surfaces 6 are advantageous in that they insure proper feed of the polishing material to the felt inserts, but obviously straight sided slots may be used and I do not therefore limit myself to the inclined slots.

This construction results in a uniform and adequate feed of polishing material to each individual insert, as distinguished from the uncertain feed from the center opening of the wheel which characterizes the usual buffing wheel of this class.

In practice the inserts 4 are simple strips of felt clamped edgewise between the concentric rings 3 by a plurality of wedges 7. The wedges are backed by radially disposed blocks 8 which are screwed to the under face of the wheel, as indicated at 9. The blocks 8 prevent the wedges from being forced over by the grinding action when the felt is new and projects considerably beyond the wheel. When the felt wears down, the blocks 8 may be removed.

The radial webs 10 of the wheel may be slotted as indicated at 11 to lighten the construction, and the screws 9 are preferably carried by small inserts 12 which are fixed in said slots 10.

Various modifications in the construction and operation of my device may obviously be resorted to, all without departing from the spirit of my invention if within the limits of the appended claims.

What I therefore claim and desire to secure by Letters Patent is:

1. A buffing wheel comprising a disc having a series of spaced concentric rings and a series of spaced concentric segmental buffing elements clamped between said rings, said rings having each an annular slot series providing a plurality of feed openings for the introduction of polishing material to the individual buffing elements.

2. A buffing wheel comprising a disc having a series of spaced concentric rings and a series of spaced concentric segmental buffing elements clamped between said rings and said rings having each an annular slot series providing a plurality of feed openings for the introduction of polishing material to the

individual buffing elements, and reinforcing members disposed radially of the working face of said disc and sub-dividing said buffing elements into sector-shaped groups.

3. A buffing wheel comprising a disc having a series of spaced concentric rings and a series of spaced concentric segmental buffing elements clamped between said rings, said rings having each an annular slot series providing a plurality of feed openings for the introduction of polishing material to the individual buffing elements, a plurality of radially disposed reinforcing blocks attached to the working face of the disc and sub-dividing said buffing elements into sector-shaped groups, and clamping wedges inserted vertically between the lateral edges of said blocks and the ends of said segmental buffing elements.

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL F. McGOVERN.

Witnesses:
REBECCA YETT,
EVELYN M. ALDEN.