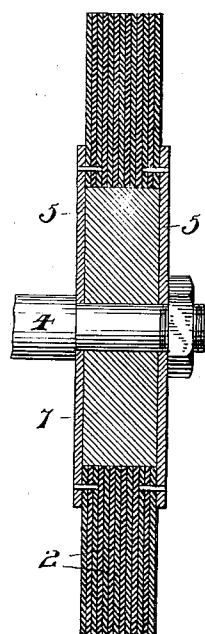
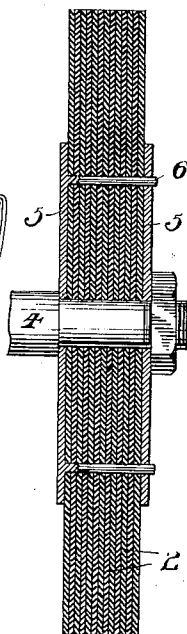
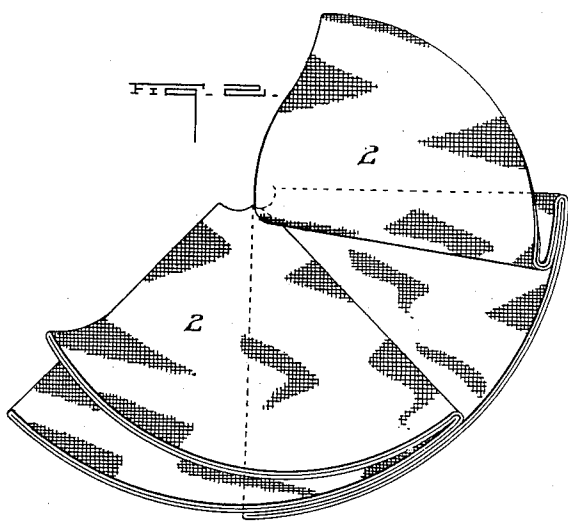
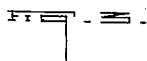
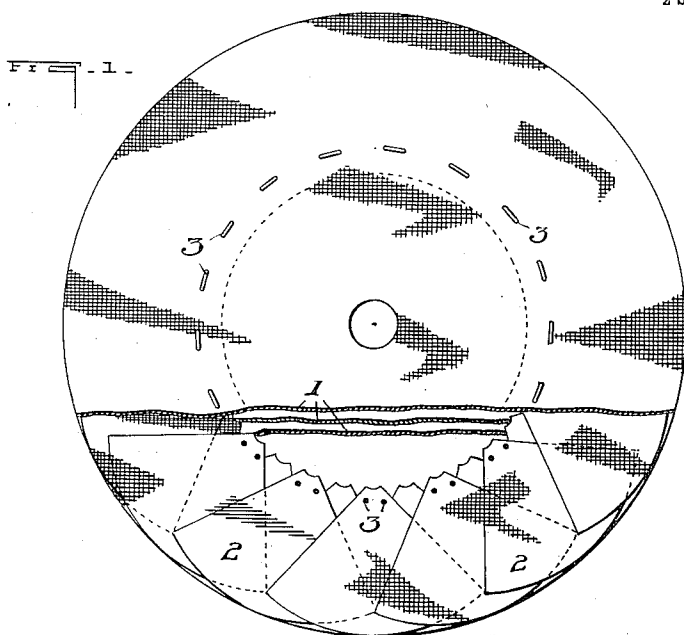


No. 872,966.

PATENTED DEC. 3, 1907.

W. A. PAINTER.
BUFFING OR POLISHING WHEEL.
APPLICATION FILED AUG. 6, 1907.

2 SHEETS—SHEET 1.



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J. D. Thompson

INVENTOR

William A. Painter
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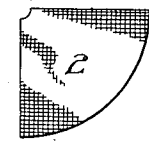
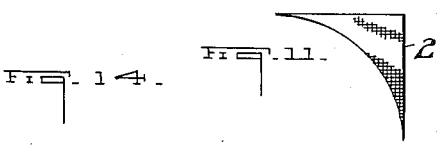
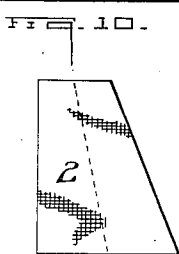
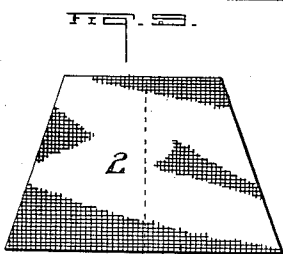
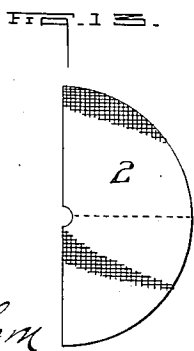
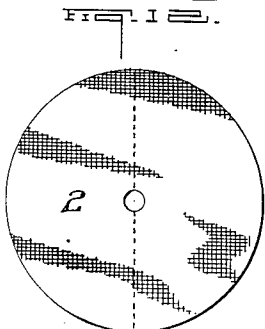
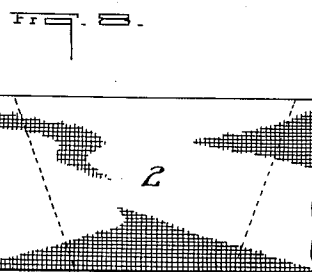
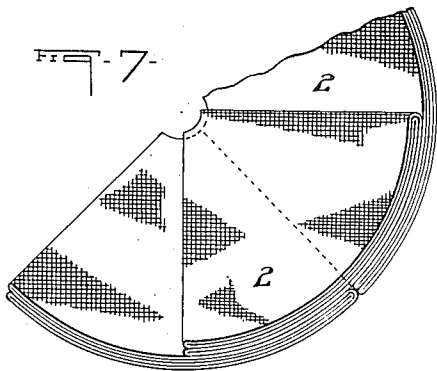
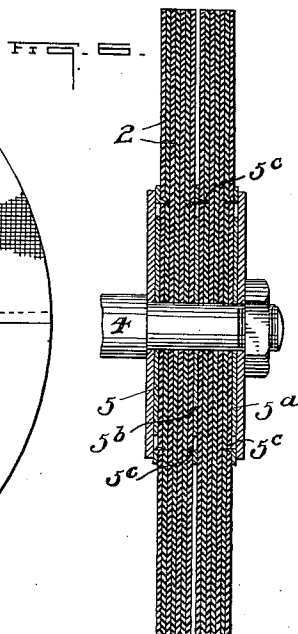
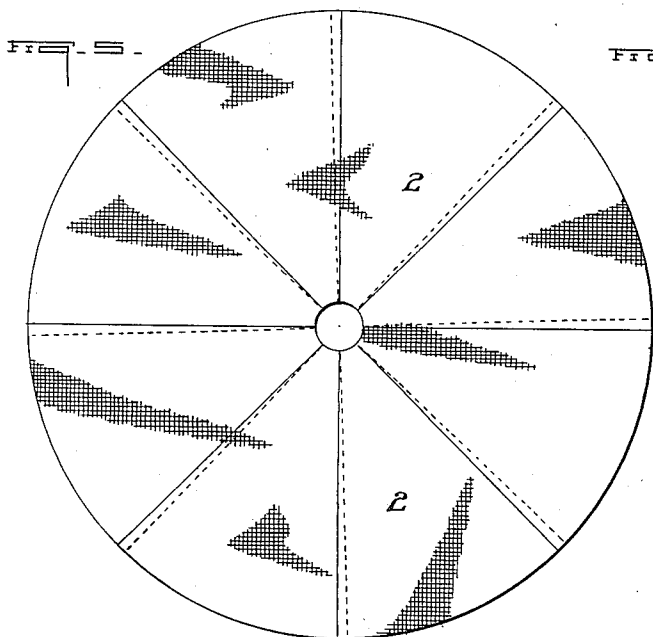
ATTORNEY

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

WILLIAM A. PAINTER, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO PATRICK H. BERGIN, OF ALLEGHENY, PENNSYLVANIA.

BUFFING OR POLISHING WHEEL.

No. 872,966.

Specification of Letters Patent.

Patented Dec. 3, 1907.

Application filed August 6, 1907. Serial No. 387,330.

To all whom it may concern:

Be it known that I, WILLIAM A. PAINTER, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Buffing or Polishing Wheels, of which the following is a specification.

In the accompanying drawings, which illustrate applications of my invention, Figure 1 is a part side elevational and a part sectional view of a buffing or polishing-wheel embodying my invention; Fig. 2 a detail view showing a piece of folded cloth turned back to particularly illustrate the manner of assembling the folded pieces; Fig. 3 a vertical sectional view of a wheel built of full sized pieces as shown in Fig. 2; Fig. 4 a sectional view of a modified form of wheel showing a wooden hub; Fig. 5 a side view of a wheel with outside disks omitted showing folded and overlapping full sized disk-pieces; Fig. 6 a vertical sectional view showing a modified form of completed wheel; Fig. 7 a broken detail view illustrating a different method of assembling the folded pieces from that shown by Fig. 2; Fig. 8 a plan of a strip of material from which the folded pieces may be formed; Figs. 9 and 10 detail views indicating the manner of folding rectangular pieces; Fig. 11 a detail view of a waste piece from a large disk; and Figs. 12, 13 and 14 detail views of a disk and illustrating the manner the disks are folded.

An object of my invention is to provide a new and improved buffing or polishing-wheel made of cloth or other textile fabric, filamentous or flexible material, such as muslin, cotton-cloth, canvas or felt.

Further objects of the present invention are to provide a wheel of substantially the same thickness throughout, a wheel simple to assemble and operate, and a wheel possessing more durable wearing qualities than wheels of this class as heretofore constructed.

Referring to the drawings 1—1 designate circular pieces of cloth or other suitable material of a size that it is desired to form a wheel, as shown by Fig. 1, I employ three disk-pieces 1, two being outside pieces and one a centrally disposed piece. Located between said pieces 1 are a plurality of radially folded pieces 2. These pieces 2 form a characteristic and important feature of the present invention. The pieces 2 may be formed from a circular piece of cloth or other mate-

rial such as indicated by Fig. 12 or the piece may be formed from a rectangular piece as shown by Figs. 8, 9 and 10, or a square piece of material may be employed from which said pieces are folded. The pieces 2 are folded radially from the center or other point. The larger or open ends of the pieces constitute the periphery of the wheel and the smaller ends are nearer the center of the wheel thereby forming, when the pieces are assembled as shown, radial lines in proportion to the circumference of a completed wheel and at the same time producing a wheel of uniform thickness. The pieces may be assembled by placing the same over, against or between each other. Fig. 2 illustrates the radially folded pieces overlapping and placed between the folds of one another and Fig. 7 shows the pieces laid one upon another.

The prime object of the fold is to produce a cross-cutting or diagonal surface on the cloth or other material employed, in different directions. The mesh of the fabric crossing each other as described and illustrated, prevents the material from pulling out or fraying on the working or exposed edges of the pieces.

Another important feature of the folded pieces is that pockets are formed adapted to receive and hold a buffing composition, such as rouge or other compound employed in buffing or polishing.

Wheels of this class as heretofore constructed have been built up of strips, pieces or disks superposed parallel to one another with the raw edges exposed, consequently the threads of the fabric pull out quickly and the life of the wheel is comparatively short. Under my method of folding and assembling the threads are not pulled out and the wheel will wear much longer than wheels built up as above described.

By my invention, I am enabled to employ what has heretofore been waste material, that is to say, commercial buffing wheels have heretofore been made of disks of from eight to eighteen inches in diameter, these wheels soon wear down to a diameter too small to be used and the centers or remaining portions of the wheels while being of a diameter from say, four to eight inches are discarded.

In Fig. 1, I have shown a form of wheel constructed of used or discarded pieces 2.

In assembling a wheel of this form a circular piece 1 of the diameter the completed wheel is to assume is employed. This is then spread out flat and the scrap disk-pieces 2 5 folded radially as shown, preferably two folds, although one fold or more than two folds may be given the piece, and the folded pieces then superposed one upon another. The large or outer ends of the folded pieces 10 are placed even with the periphery of the outer disk 1 and a sufficient number employed to give the desired thickness; then a second outside disk is placed over the folded disks and said folded and large disks secured 15 together by staples 3, as shown by Fig. 1, or by stitching the same together or by other suitable means. In practice I prefer to employ three large disks 2 as shown by Fig. 1, two large outside disks and a center or intermediate disk. 20

My invention is not limited to a folded piece as described made from a circular or disk-piece 2, for I may employ pieces 2 of the form of Fig. 9, or pieces of other forms than 25 those shown. Nor do I limit the present invention to a wheel built up of used or discarded folded pieces, for it is equally within the scope of my invention to employ new full sized pieces as shown in the forms of Figs. 3, 30 5 and 6. When new pieces are employed said pieces are folded radially and assembled in substantially the same manner as heretofore described.

In Figs. 3, 4 and 6 I have shown modified 35 forms of wheels mounted on a spindle 4 of a buffing or polishing machine.

In the form of Fig. 3, I show a wheel made from full size new disks, said disks being held together between two metallic plates 5 and

pins 6 extending through said disks and 40 plates.

The form of Fig. 4 shows a wooden hub 7 with the small radially folded pieces secured thereto and held between two metallic plates similar to the plates shown by Fig. 3. 45

In the form of Fig. 6 I employ very thin metal disks or plates 5^a. In this form of wheel I have shown a thin metal disk 5^b in the center of the wheel. Each of these disks is provided with spurs 5^c. 50

What I claim is:

1. A buffing or polishing-wheel comprising a plurality of radially folded overlapping pieces and means for securing the pieces together. 55
2. A buffing or polishing-wheel having a plurality of radially folded pieces.
3. A buffing or polishing-wheel having a plurality of radially folded overlapping pieces.
4. A buffing or polishing-wheel having a 60 hub portion and an outer portion formed by a plurality of radially folded pieces.
5. A buffing or polishing-wheel comprising outer disk-pieces, a plurality of radially folded pieces interposed between the outer pieces, 65 and means for securing the said folded pieces to the disk-pieces.
6. A built-up buffing or polishing-wheel comprising outer pieces, a plurality of radially folded overlapping pieces interposed between the outer pieces, and means for securing the said folded pieces to the outer pieces. 70

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

WILLIAM A. PAINTER.

Witnesses:

NELLIE V. APPLIGATE,
W. G. DOOLITTLE.