

(No Model.)

F. A. PHILLIPPI.
BUFFING OR POLISHING WHEEL.

No. 583,545.

Patented June 1, 1897.

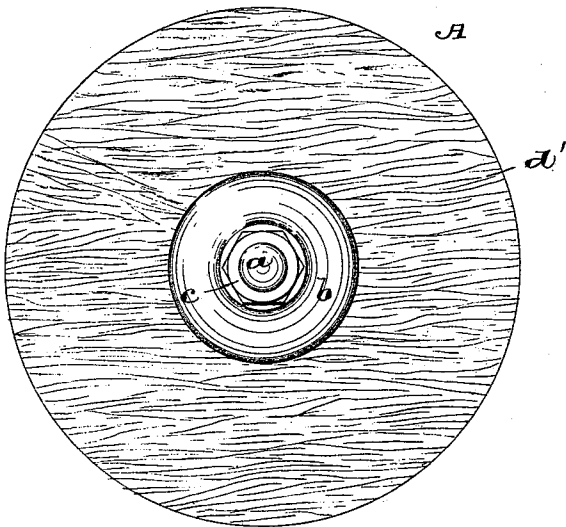


FIG. 1

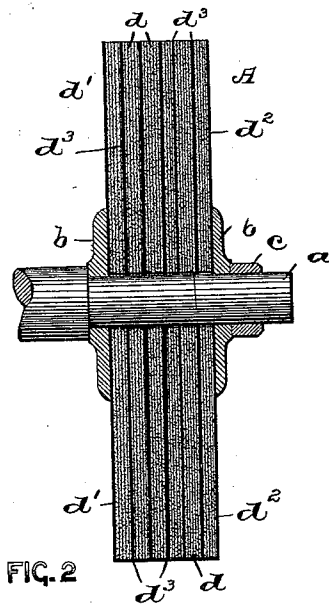


FIG. 2

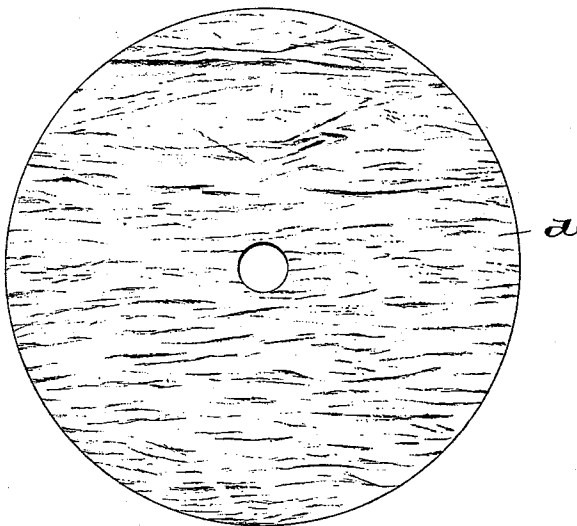


FIG. 3

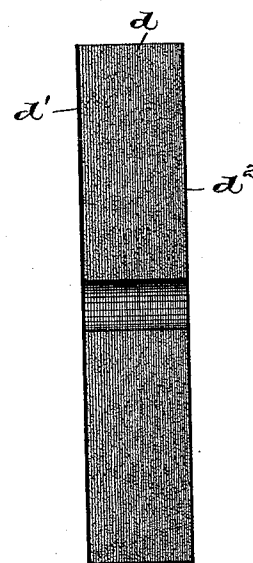


FIG. 4

WITNESSES:

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FRANK A. PHILLIPPI, OF POTTSTOWN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO GABRIEL L. FELDMAN, OF NEWARK, NEW JERSEY.

BUFFING OR POLISHING WHEEL.

SPECIFICATION forming part of Letters Patent No. 583,545, dated June 1, 1897.

Application filed February 24, 1896. Serial No. 580,324. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. PHILLIPPI, a citizen of the United States, residing at Pottstown, in the county of Montgomery and State of Pennsylvania, have invented certain new and useful Improvements in Buffing or Polishing Wheels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in buffing or polishing wheels, and has for some of its objects to provide a strong and serviceable buffing-wheel from which there shall be but very little dirt and dust when used and to provide a wheel in which the danger of burning is reduced to a minimum, the dust arising being non-combustible.

The invention therefore consists in the novel construction of polishing or buffing wheel, to be hereinafter fully described, consisting, essentially, of an arrangement of layers or circular disks of a fibrous paper made from wood-pulp and which is commonly known to the trade as "buckskin fiber;" but other like fibrous material may be used, some of such disks, or all of them, being provided with a preparation of a ceraceous nature, as will be hereinafter fully set forth.

In a buffing or polishing wheel made according to my invention the wood fiber or fibrous paper used will wear evenly around the circumferential edges of the several disks, will not burn, as the dust arising from the wheel is very slight, will wear evenly, and hence the wheel can be easily trued with a block of wood covered with sandpaper, which is held against the edge of the revolving wheel.

The invention is illustrated in the accompanying sheet of drawings, in which—

Figure 1 is a face view of my novel construction of buffing or polishing wheel; and Fig. 2 is a vertical section of the same, illustrating in position upon the mandrel the several disks of fibrous paper, with an arrangement of disks treated with paraffin-wax,

stearin, adamantine, spermaceti, or other substance of a ceraceous nature. Fig. 3 is a face view of one of the disks detached; and Fig. 4 is a vertical section of a buffing-wheel made from layers or disks of a fibrous paper, but the oiled or waxed disks having been dispensed with.

Similar letters of reference are employed in all of the above-described views to indicate like parts.

In said drawings, A indicates the buffing-wheel, which is arranged on a mandrel *a*, having the end plates *b b* and nut *c* to secure the complete buffing-wheel in position upon the mandrel.

The wheel proper consists of any number of circular disks or layers *d*, made from a fibrous paper commonly known to the trade as "buckskin fiber;" but other suitable fibrous paper made from a wood-pulp may be used. The two outer layers or disks *d'* and *d''* of said wheel are made from the same material, but are prepared with paraffin-wax, stearin, adamantine, spermaceti, or any other suitable substance of a ceraceous nature, to give the said fiber disks the appearance of parchment. By treating the said fibrous material with the paraffin-wax or other suitable substance of a like nature in a heated state and then allowing it to get cold the said fibrous disks become stiff and strong, but still are sufficiently pliable to be useful.

In constructing the buffing-wheel the two outer layers or disks *d'* and *d''* are coated in the manner stated, and at suitable intervals between the disks *d* I have arranged other disks or layers *d''*, also of a fibrous paper, and which have likewise been prepared with paraffin-wax or other material of a like nature.

The many advantages in constructing a buffing-wheel in the manner hereinabove stated are, first, that the two outer layers or disks which, owing to their treatment with the wax become comparatively stiff, form a proper protection to the non-coated layers or disks *d*; secondly, that by the intermediately-arranged layers or disks *d''*, which are likewise coated with a wax when the wheel is running at a great speed, usually from two thousand eight hundred to three thousand revolutions, the heat from the article gener-

ated by frictional contact during the polishing operation causes the wax to melt and distribute itself upon the non-coated layers or disks d , which helps to retain or hold the polishing material, such as rouge composition or cake-emery, producing a great saving of the material as well as a saving of the wheel itself; thirdly, by the use of the disks of fibrous paper in place of the cotton disks heretofore used the edge of the wheel can be readily trued by employing a block of wood with coarse sandpaper, which is held against the edge of the revolving wheel, and, lastly, owing to the nature of the fibrous material used there will be no dirt or dust and there is no danger of combustion, as the material will not burn like cotton lint.

In Fig. 4 I have illustrated a construction of buffing-wheel in which I have dispensed with the waxed layers or disks d^3 , which construction of wheel is used for very fine buffing and polishing.

Having thus described my invention, what I claim is—

1. A buffing-wheel, comprising therein, a series of disks or layers, of a fibrous paper, prepared with a substance of a ceraceous nature, substantially as and for the purposes set forth.

2. A buffing-wheel, comprising therein, a series of disks or layers, as d , of fibrous paper, a pair of outer layers or disks, as d' and d^2 , prepared with paraffin, and layers or disks d^3 , between said disks or layers d , also prepared with paraffin, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 20th day of February, 1896.

FRANK A. PHILLIPPI.

Witnesses:

JOHN A. WEBER,
H. D. BAYER.