A. LEVETT.

BUFFING OR POLISHING WHEEL.

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1,374,018.

Patented Apr. 5, 1921.

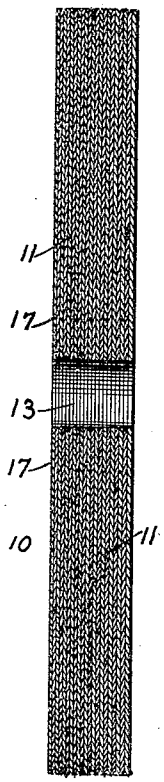


Fig. 1.

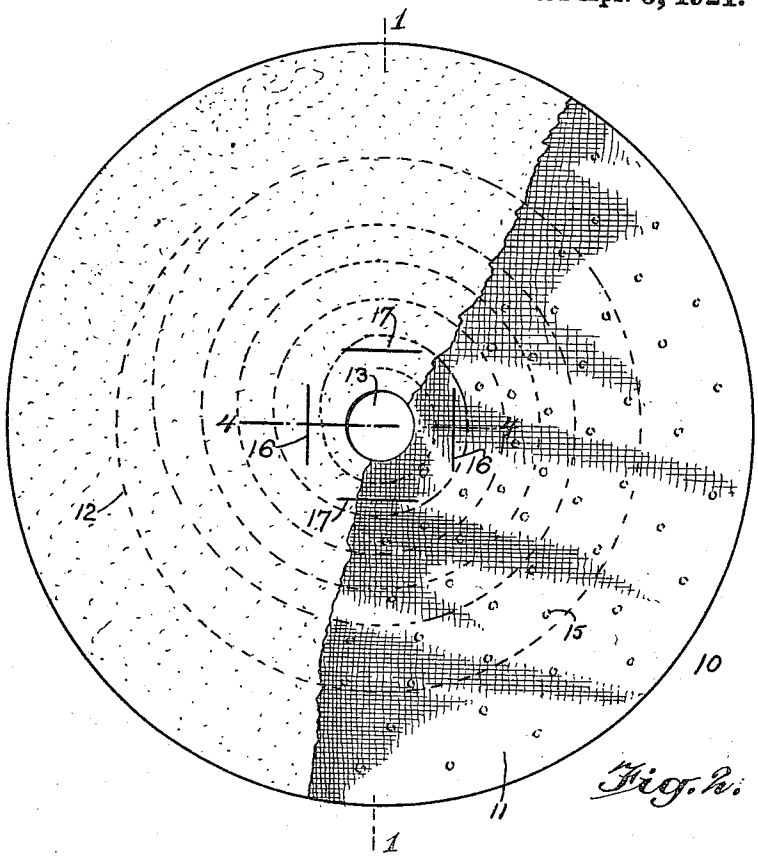


Fig. 2.

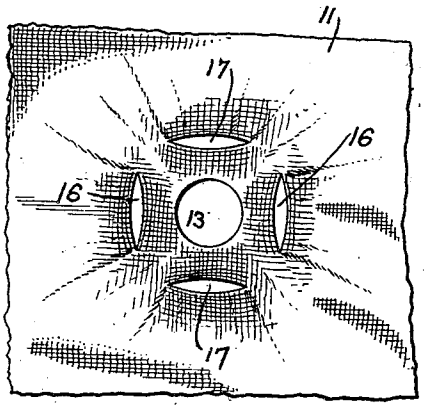
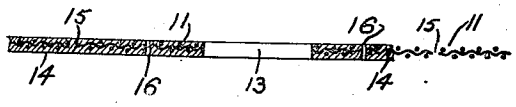


Fig. 3.

Fig. 4.



WITNESSES

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BUFFING OR POLISHING WHEEL.

1,374,018. Specification of Letters Patent. Patented Apr. 5, 1921.

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To all whom it may concern:

Be it known that I, ALEXANDER LEVETT, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Buffing or Polishing Wheel, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved buffing or polishing wheel arranged to combine with the body of the wheel a polishing compound to insure the formation of a high quality of polish on the article to be polished and without requiring the workman to periodically apply a polishing compound to the peripheral face of the wheel as now generally practised. Another object is to render the polishing wheel when in use very effective leaving the work exceedingly bright and clean without any particles of the polishing compound being lodged in or adhering to the interstices, crevices or the like, or the filigree work or other ornamentations on the article to be polished or buffed at the time. Another object is to prevent the fiber disks forming the body of the polishing or buffing wheel from unraveling. Another object is to allow the disks to expand or stretch in every direction thus providing the desired elasticity in the body of the wheel and insuring a proper polishing or buffing action along the entire peripheral face of the buffing or polishing wheel.

With these and other objects in view, the invention consists of certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a cross section of the buffing or polishing wheel, the section being on the line 1—1 of Fig. 2;

Fig. 2 is a face view of the same with a portion of one of the facing disks broken out;

Fig. 3 is an enlarged face view of the central portion of one of the disks; and

Fig. 4 is an enlarged sectional plan view of one of the disks, the section being on the line 4—4 of Fig. 2.

The body 10 of the polishing or buffing wheel is formed of a series of layers 11 of cloth or other suitable fibrous material, the layers being fastened together by stitches 12, and the layers are provided with registering central openings 13 for the passage of the shaft carrying the buffing or polishing wheel. Each of the layers 11 is coated and impregnated with a polishing compound 14 formed of tripoli, emery or other suitable polishing powder, and a mucilaginous non-greasy paste, the compound filling the meshes of the layers and adhering to the faces thereof thus somewhat stiffening the layers. The polishing compound or paste is formed of flour or water to which the emery or tripoli is added in about the proportions (dry measure) of one-half pint of paste to one pint of tripoli. In practice, each of the layers 11 is preferably provided with perforations or punctures 15 distributed promiscuously and filled with the polishing compound thus increasing the efficiency or polishing quality of the wheel. It is understood that the polishing compound owing to its mucilaginous nature firmly holds the threads of the layer together thus preventing unraveling of the threads at the peripheral face of the wheel.

When using a woven textile material for the layers 11, each layer is preferably provided with slits 16 and 17 arranged adjacent the central opening 13 and of which the slits 16 are disposed approximately parallel to the weft while the slits 17 are disposed approximately parallel to the warp of the woven textile material, as will be readily understood by reference to Fig. 3. It is understood that the cloth or similar woven textile fabric stretches diagonally but not in the direction of the warp or the weft, but by providing the slits 16 and 17 the layer is capable of stretching in every direction thus providing the desired elasticity in each layer to insure a proper polishing action along the entire peripheral face of the buffing or polishing wheel. When making the body 10 of superimposed small scraps of cloth then the slits 16 and 17 need not be necessarily at right angles to the weft and warp.

The polishing compound as above described, is of a greaseless nature and is incorporated with the body, each layer being independently and separately treated. Glue is not used, as the glue will form a gummy

matter and will gum and stick into the interstices of the work and would be objectionable as oil or oily matter. The wheel is pliable and the polishing compound being stitched in between the rows of spiral stitches more than in being soaked in the meshes of the cloth will produce a very efficient buffing and polishing wheel and not a grinding wheel. Only sufficient water is used in connection with the flour and abrasive powder, such as tripoli or emery, that the compound becomes somewhat granular and not being too wet is spread or sprinkled upon the layers; then a full cloth disk is laid on the top and bottom, each layer being independently treated, coated or impregnated and then the layers being stitched with narrow rows of spiral stitches. The compound for polishing is thereby incorporated into the body and being of a greaseless nature, will not adhere or gum up, as will glue or oil, when the latter is soaked into the cloth and is somewhat heavy and sticky.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. A polishing or buffing wheel having a body formed of superimposed layers of woven textile fabric, each layer being provided with a central opening and with slits adjacent the central opening, sundry of the slits extending approximately parallel to the weft and sundry of the slits extending approximately parallel to the warp.

2. A polishing or buffing wheel having a body formed of superimposed layers of woven textile fabric, each layer being provided with a central opening and with slits adjacent the central opening, sundry of the slits extending approximately parallel to the weft and sundry of the slits extending approximately parallel to the warp, and a greaseless polishing compound adhering to and stiffening the said layers.

3. A polishing or buffing wheel having a body formed of superimposed layers of fibrous material, each layer being provided with perforations, and an abrasive greaseless filler filling the meshes and perforations of the layers and adhering to the faces thereof.

4. A polishing or buffing wheel having a body formed of superimposed layers of fibrous material, each layer being provided with perforations, and a filler filling the meshes and perforations of the layers and adhering to the faces thereof, the said filler being formed of a polishing powder and a mucilaginous substance of a greaseless nature with which said layers are impregnated and coated.

5. A polishing or buffing wheel having a body formed of superimposed layers of woven textile fabric, each layer being provided with a central opening and with slits adjacent the central opening, sundry of the slits extending approximately parallel to the weft and sundry of the slits extending approximately parallel to the warp, alternate layers having their slits out of register.

ALEXANDER LEVETT.