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L. G. SOMMERS
EDGE BUFFING WHEEL
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FIG. 1

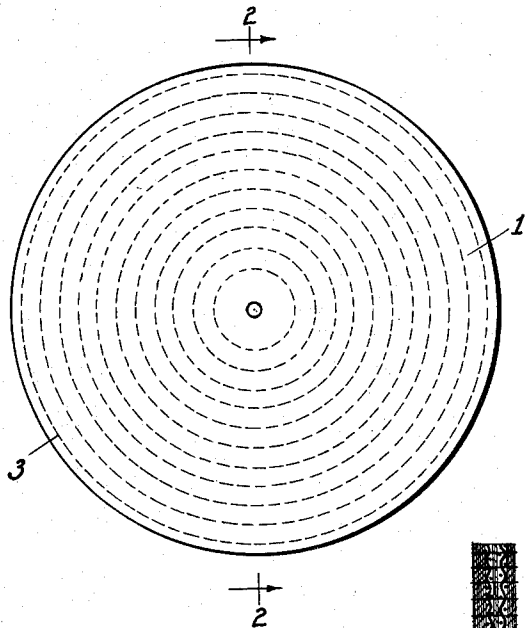


FIG. 3

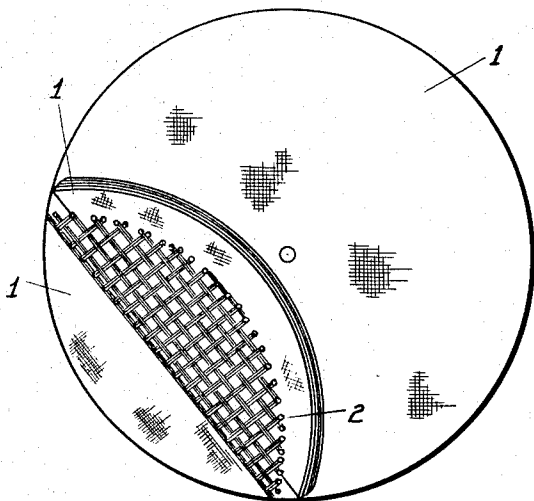
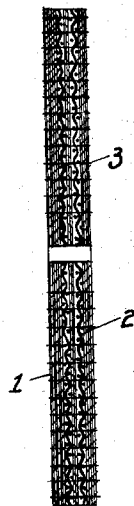


FIG. 2



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EDGE BUFFING WHEEL

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5 Claims. (Cl. 51—193)

This invention relates to buffing wheels, and more particularly to a buffing wheel that has its peripheral edge as its work face, as distinguished from a pad having one of its pair of side faces as the work face, and has among its objects the production of such a wheel that will be neat and simple in construction, economically made, long lasting, well adapted to the purpose for which it is intended, and which shall be otherwise satisfactory and efficient for use wherever deemed applicable.

One of the objects of this invention is to so construct a buffing wheel of the kind described, that it will not easily become overheated and burn when in hard usage, this being accomplished by spacing some of the usual cloth layers of the wheel farther apart than usual, and additionally, by having more air spaces in the means spacing said usual cloth layers apart.

Another object of this invention is to provide one or more of the layers making up the buffing wheel, with relatively large mesh or openings to thereby better retain the abrasive or polishing compound therein, to more efficiently perform its work and with a saving in time of operations.

A further object of my invention is to so construct the buffing wheel of the kind described, that it will cut faster than those of usual construction, and yet will not scratch or otherwise mar the surface being buffed.

An added object of my invention is to construct a buffing wheel of the kind described, by interposing one or more layers of burlap or other similarly coarsely woven and relatively stiff fibrous cloth between adjacent layers of the regular relatively soft cloth, at one or more intervals throughout the thickness of the wheel, whereby the burlap strands will substantially regularly and uniformly present themselves to the work surface of the wheel in an efficient manner.

Many other objects and advantages of the construction herein shown and described, and the uses mentioned, will be obvious to those skilled in the art to which this invention appertains, as will be apparent from the disclosures herein given.

To this end, my invention consists in the novel construction, arrangement and combination of parts herein shown and described, and the uses mentioned, as will be more clearly pointed out in the claims hereunto appended.

In the drawing, wherein like reference characters indicate like or corresponding parts throughout the views,

Figure 1 is a plan view of a buffing wheel, as seen from one side thereof;

Figure 2 is a cross-sectional view taken through the same, substantially along the line 2—2 of Fig. 1; and

Figure 3 is a view somewhat similar to that shown in Fig. 1, but with some of the layers bent back upon themselves in order to illustrate the construction more clearly.

Referring more particularly to the drawing, wherein I have illustrated one of the preferred embodiments of my invention, there is shown a buffing wheel having its peripheral edge as its work face, rather than its side and relatively flat face, and which wheel is mounted upon some rotating element, such as a shaft or the like (not shown) for operation in many stages of wood and metal working, such as for buffing, for example.

Obviously, the aim in buffing operations is to buff the piece of work in the shortest time, and yet avoid scratching or otherwise damaging the surface of said work, and to attain both of these ends, I have so constructed a buffing wheel comprising a partial thickness of the usual, relatively soft and pliant sheets of cotton cloth or other similar material, and the remaining thickness of burlap or other similarly woven material.

The sheets or layers of the cotton cloth are indicated at 1, 1, while 2, 2 indicates the burlap. The burlap or other similarly woven material is of greater thickness than the cotton cloth, is coarser in its weave also, so as to provide a great number of relatively large openings or mesh throughout its area, and of course its fibers are stiffer than those of the cotton 1. The sheet 2 is relatively uniformly woven or otherwise arranged in the course of manufacture, so that its strands act somewhat as small bunches of bristles, as in a brush, at the effective or working face of the wheel, and which is in this instance the peripheral face of the wheel. These strands are substantially uniformly presented transversely to the working face of the wheel, so that they will buff with greater speed, that is, with a more abrasive action, than the peripheral edges of the cotton layers, and yet so as not to cut, scratch or otherwise similarly damage the surface being buffed. This is very much different than if it were sought to interpose a layer of indiscriminately arranged or matted fibers of similar or greater stiffness, in lieu of the regularly woven burlap or similar substance.

Any desired arrangement of the several plies making up the desired thickness of the wheel, may be had, there being any desired proportion of

the burlap to the cotton, dependent upon the kind of work to be buffed, and the entire wheel may be stitched or otherwise secured together as a unit, the stitching 3 being indicated in the present illustration.

As the layers 2 are of material thicker than the layers 1, and are interposed between adjacent sheets 1, 1, at as many intervals as desired, the former will spread or separate the adjacent cloth layers at such points, and hence will permit more air to enter into or become entrapped into the large meshes of the burlap, so that even when the buffer is being given relatively hard usage, by more than usual pressure of the work there-against, there will be little or no tendency of the buffer to become overheated and burn or scorch at its work face.

Further, the relatively large mesh of the burlap will retain larger amounts of the buffing or polishing compound in its interstices, than with a more closely woven material, or even a stiff material that is indiscriminately or unevenly matted or compressed together, and this retention of the polishing compound will be substantially uniform over the entire face of the wheel and not "spotty".

The relatively stiffer fibers of the sheets 2, 2 are arranged so that they will be presented substantially uniformly transverse to the peripheral work face of the wheel, and enable the workman to polish uniformly, at relatively high speeds, without marring the work.

Having thus described my invention, it is obvious that various immaterial modifications may be made in the same without departing from the spirit of my invention; hence I do not wish to be understood as limiting myself to the exact

form, arrangement, construction and combination of parts herein shown and described, or the uses mentioned, except as limited by the state of the art to which this invention appertains, and the claims hereunto appended.

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

1. In a buffing wheel having a peripheral work face, a plurality of layers of cloth, a plurality of layers of coarser woven fibers interposed between some of said first layers, and means securing all of said layers together as a unit.

2. In a buffing wheel having a peripheral work face, a plurality of layers of woven cloth, and a plurality of layers of coarser woven cloth of stiffer fibers interposed between said first layers.

3. In a buffing wheel having a peripheral work face, a plurality of layers of cloth, a plurality of layers of coarser cloth interposed between said first layers and being of relatively stiffer fibers and having substantially regularly spaced mesh, and means for securing all of said layers together into said buffing unit.

4. In a buffing wheel having a peripheral work surface, a plurality of layers of cloth, and a second plurality of layers of cloth interposed between said first layers and being coarser and stiffer than said first layers, so as to be more abrasive than said first layers.

5. In a buffing wheel having a peripheral work surface, a plurality of layers of cloth, layers of burlap interposed between adjacent cloth layers and having its fibers substantially uniformly transverse to said peripheral face, and means for securing all of said layers together as a unit.

LOUIS G. SOMMERS.