

(No Model.)

R. BINNS.  
BUFFING WHEEL.

No. 306,463.

Patented Oct. 14, 1884.

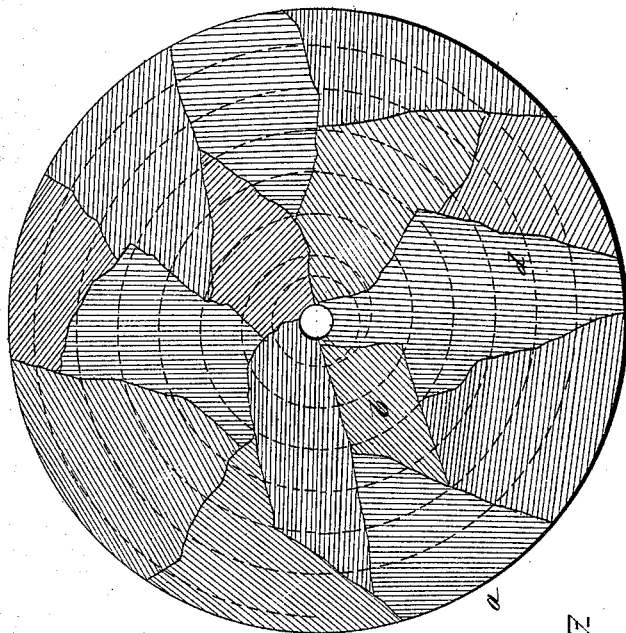


Fig. 2.

Fig. 2.

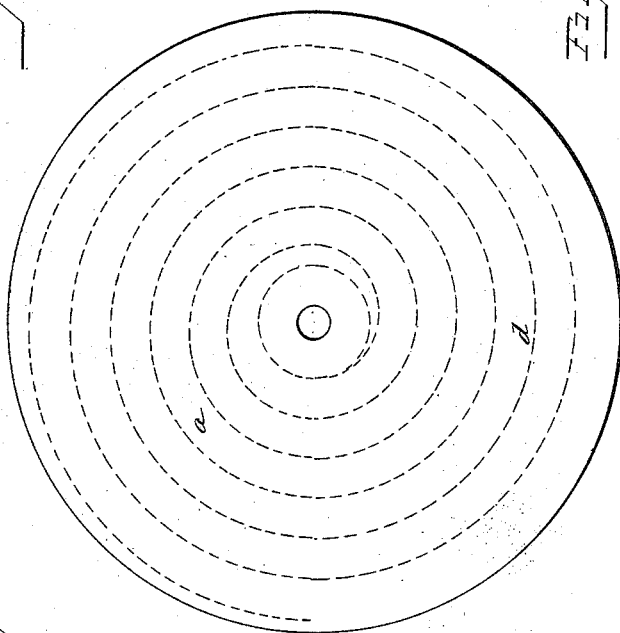
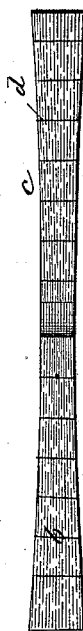


Fig. 1.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

ROBERT BINNS, OF SOUTH WINDHAM, CONNECTICUT.

## BUFFING-WHEEL.

SPECIFICATION forming part of Letters Patent No. 306,463, dated October 14, 1884.

Application filed August 11, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT BINNS, of South Windham, in the county of Windham and State of Connecticut, have invented certain new and useful Improvements in Buffing-Wheels; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

Figure 1 is a plan view of my buffing-wheel, the line of stitching being indicated by conventional broken lines. Fig. 2 is a view in cross-section of one form of my completed buffing-wheel formed of textile fabric or filamentous material; and Fig. 3 is a view similar to Fig. 1, but with the outer layer of fabric removed to show the scraps or pieces of which it may be made.

Heretofore buff-wheels have been made of pieces of textile, fibrous, and other material united by sewing through and through the mass of superposed pieces in radial lines or concentric circles. In using such wheels the workmen open the periphery of the wheel to loosen the pieces, and as the wheel is worn, its periphery being made most dense by and in the lines of stitching, it follows that there will be a constant variation and inequality in the density and effectiveness of the active surface of the wheel. This defect produces bad work. Furthermore, with the radial stitching, as the wheel wears the stitch-threads whip out and cut the workman's hands, and this defect is, if anything, aggravated by sewing in concentric circles. Now, in attempts to overcome these defects, I have found that by sewing the material of the wheel together by stitches arranged in a spiral line continuous from the rim of the wheel to its center I get a wheel of practically

uniform density throughout, and in which the whipping out of the stitches is very materially, if not altogether, removed.

My invention therefore consists of a buff-wheel of textile or other fabric or material sewed together in superposed pieces by stitches extending spirally from rim to center, all as hereinafter particularly set forth and claimed.

In making my wheel I take first a layer or disk, *a*, of textile fabric, as cotton, and upon it place a given quantity of rags, scraps, or fragments of fabric or filamentous material, *b*, at random, taking care only to place the pieces in comparatively even layers when textile materials are used, and upon this mass I lay a second outer whole layer or disk, *c*, and compress the whole mass, and secure it by one or more spiral lines of stitching, *d*, extending from the rim to the center, the stitches going through and through the said mass. These thread-stitches, so arranged, serve to hold the mass compact from the center to the very edge of the wheel, thus preserving a circular periphery, its equal density, and insuring its wearing down evenly to the clamps attaching it to its driver. The woof-threads of the pieces of cloth will extend in every direction, and, as distinguished from a wheel having its layers of whole cloth in which the woof-threads will almost unavoidably run parallel in the several layers, my wheel will to this extent be further enhanced in its tendency to wear down evenly. After the mass is sewed it is cut to shape and provided with an arbor hole or hub.

What I claim is—

A buffing-wheel composed of rags, scraps of textile fabric, filamentous material, or the like, so compressed and united by one or more spiral lines of stitching, substantially as described.

ROBERT BINNS.

Witnesses:

HUBER CLARK,  
E. C. WINCHESTER.