(No Model.)

H. E. FOWLER.

BUFFING WHEEL.

No. 291,709. Patented Jan. 8, 1884.

Fig. 2.

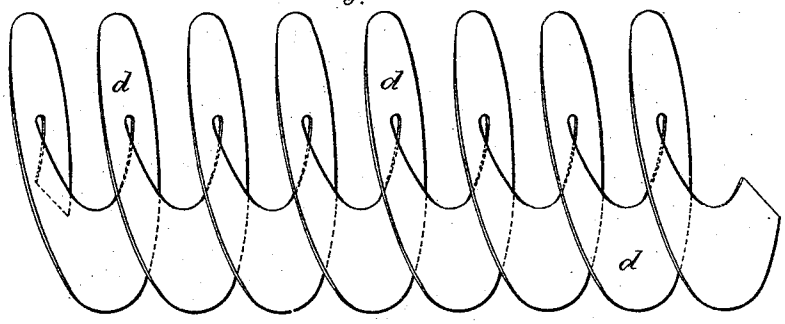


Fig. 3.

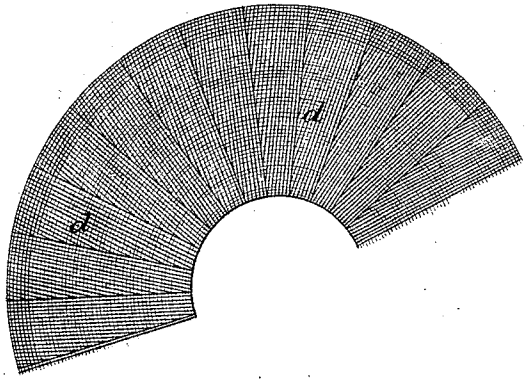
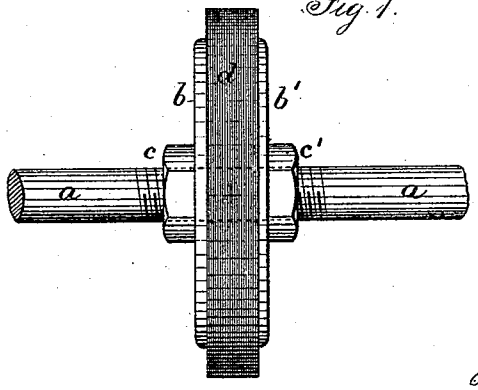


Fig. 1.



Witnesses
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UNITED STATES PATENT OFFICE.

HERBERT E. FOWLER, OF NEW HAVEN, ASSIGNOR TO THE FIBROUS BUFF COMPANY, OF HARTFORD, CONNECTICUT.

BUFFING-WHEEL.

SPECIFICATION forming part of Letters Patent No. 291,709, dated January 8, 1884.

Application filed September 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, HERBERT E. FOWLER, of New Haven, in the State of Connecticut, have invented a new and useful Improvement in Buffing-Wheels, of which the following is a full, clear, and exact description.

In the manufacture of buffing-wheels the fibrous portion for the reception of the polishing-powder is usually made by cutting circular disks of cloth or other fiber, each disk having a central hole for the mandrel of the wheel. These disks are put upon said mandrel until the desired thickness is obtained, and the end blocks and bolts are then secured in place, and the wheel is complete. In these disks of cloth the threads of the warp and woof cross one another at right angles, as in all ordinary cloth, and in use the wheels made of these disks will fray out on four sides, the threads of the warp and woof separating and rendering the disk irregular. This unevenness of the wheel is a great detriment, necessitating trimming the wheel or discarding it altogether.

The object of my invention is to produce a continuous circular fabric for buffing-wheels, wherein the weft-threads all radiate from the center and the warp-threads follow the circular form of the fabric. The advantage of such a fabric is that both edges have a selvage, and in a buffing-wheel made of such a fabric the ends of all the weft-threads are presented on the periphery of the wheel, and in use this buffing-wheel will wear evenly and accomplish superior work.

In the drawings, Figure 1 is an elevation of a buffing-wheel. Fig. 2 is a perspective view of a piece of the continuous fabric, and Fig. 3 is a plan of a piece of the fabric.

The buffing-wheel is, as usual, composed of a mandrel, *a*, end blocks *b b'* and clamping-nuts *c c'* to secure the intermediate fabric, *d*.

My improved fabric *d* is to take the place of the usual disks of cloth. It is woven in a continuous form, with one edge so much shorter than the other that it assumes a spiral form with an opening in the center, the threads of the warp following the circular form of fabric and the threads of the weft standing radially. The weaving is preferably performed in a Jacquard loom, in a manner similar to the weaving of a gore in a corset, so that the fabric is composed of trapezoidal sections, as illustrated in Fig. 3, some of the weft-threads passing all across and others only partially across, so that the weft-threads at the extreme portions of the section converge to a point which corresponds to the axis of the buffing-wheel.

In making a wheel from this fabric a section is cut off of the proper length to produce the desired thickness of wheel and laid in coils around the mandrel, forming a disk or wheel of numerous layers, and these are clamped together or secured in the usual manner.

A buffing-wheel made with such a fabric will wear evenly, the ends of the weft-threads being exposed upon the whole peripheral surface of the wheel, and such buffing-wheel will of necessity be more durable and uniform in its operation than the wheels heretofore made.

I claim as my invention—

1. In combination with a mandrel and the clamping ends of a buffing-wheel, a fabric for the same having one edge longer than the other, so as to be coiled as a flat spiral around the mandrel, the threads of the warp following a circular direction, and the threads of the weft crossing the same in radial lines from the center or axis, substantially as set forth.

2. A fabric for buffing-wheels having one edge longer than the other, so as to be adapted to being coiled up into a flat circular form of numerous layers, substantially as set forth.

Signed by me this 21st day of September, A. D. 1883.

HERBERT E. FOWLER.

Witnesses:

GEO. T. PINCKNEY,

WILLIAM G. MOTT.