H. HARD.

Polishing-Wheel.

No. 164,732. Patented June 22, 1875.

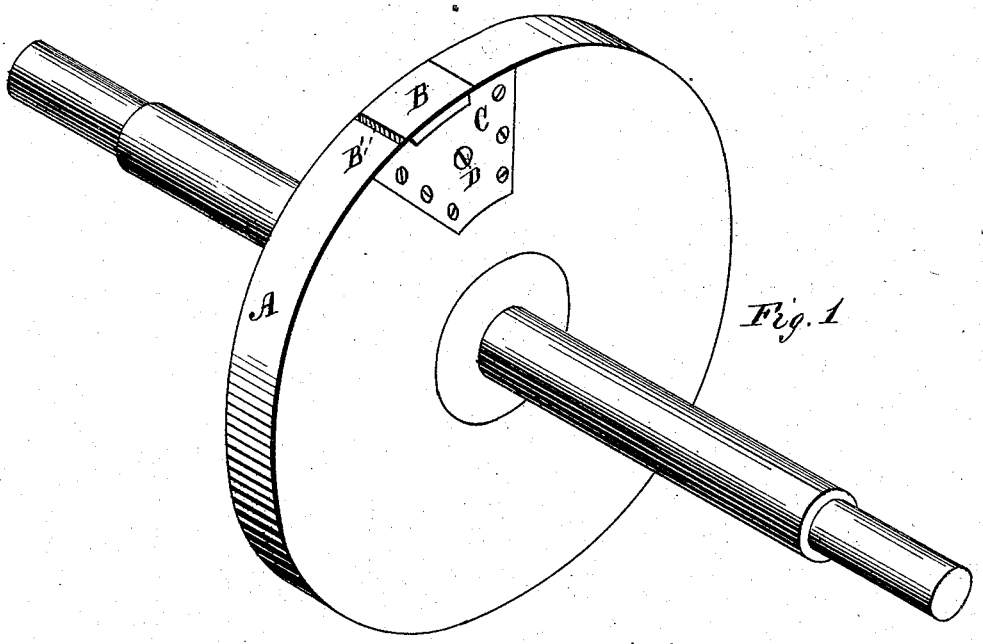


Fig. 1

Fig. 2

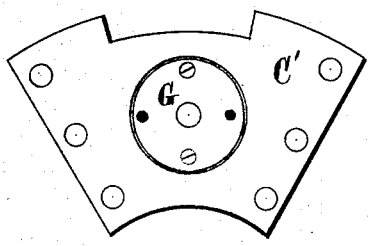
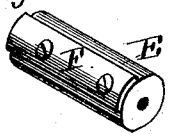


Fig. 3



Witnesses

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UNITED STATES PATENT OFFICE.

HANSON HARD, OF WADSWORTH, OHIO.

IMPROVEMENT IN POLISHING-WHEELS.

Specification forming part of Letters Patent No. **164,732**, dated June 22, 1875; application filed December 16, 1872.

To all whom it may concern:

Be it known that I, HANSON HARD, of Wadsworth, in the county of Medina and State of Ohio, have invented certain Improvements in Machines for Polishing with Sand-Paper or any similiar preparation, of which the following is a specification:

This invention relates, first, to using a roller for holding or fastening the sand-paper or any other similar article to the periphery or surface of a drum or wheel or cylinder as used for smoothing or polishing wood or other substances, operating in such a manner that the paper can be removed and renewed with but trifling loss of time, yet holding it effectually until worn out. Second, to the manner of fastening the roller and keeping it in place.

A is the periphery of the drum or wheel upon which the sand-paper is to be placed. B′ is a slot or passage through which the sand-paper is carried to the roller. C C′ are metal plates, one on either side of the drum, for holding the roller E. D is a screw-bolt passing through the plate C and roller E, and screwing into the metal disk G. This bolt is used to prevent the roller turning around by pressing the plate and roller and disk together. E is a roller to which the ends of the sand-paper are to be fastened. The disk G is attached to one end of the roller, and has two lateral holes for using a wrench or handle for turning it, said disk fitting into and revolving in a corresponding opening in the plate C.

Through a drum or wheel or cylinder made for polishing or smoothing with sand-paper or similar preparations, an opening is formed a little larger than the roller to be used therein, and about one and one-half inch more or less, beneath the periphery. From one side of that opening a slot B′, one-fourth of an inch more or less in width is cut through to the surface of the wheel in a line with its diameter. Metallic plates C C′ are attached to the side of the wheel or drum, &c., for supporting the roller, and the wheel covered and prepared as ordinarily in such cases with felt or cotton or rubber, &c., and operated in the usual manner.

Sand-paper cut into strips in width and length corresponding with the size of the wheel, allowing enough more to reach the roller, is passed around the wheel and the ends attached either directly, or indirectly, to the roller. Then with the wrench or handle inserted into the lateral holes in the disk G, wind up all the slack, drawing the paper as tight as it will bear, and screw up the bolt D. It is now ready for use.

Wheels and cylinders and drums are not new for using sand-paper; but I claim as my invention—

1. The combination of a roller with a wheel or drum or cylinder, for the purpose of holding and tightening the sand-paper, in the manner already described.

2. The combination of the disk G, roller E, plates C C′, and bolt D, substantially as and for the purpose hereinbefore expressed.

HANSON HARD.

Witnesses:

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