

(No Model.)

D. W. ABBOTT.

POLISHING WHEEL.

No. 299,311.

Patented May 27, 1884.

Fig. 1.

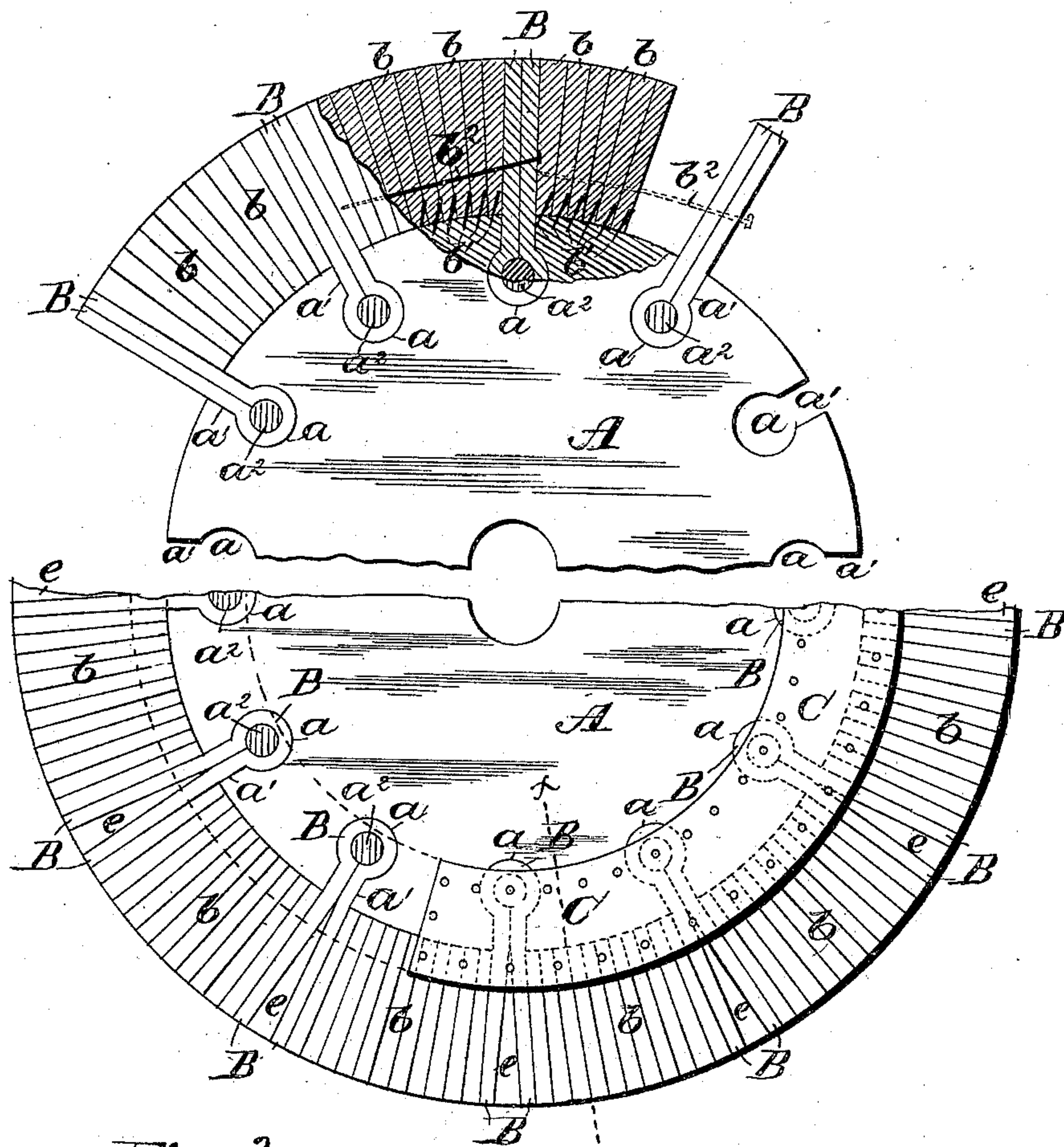


Fig. 3.

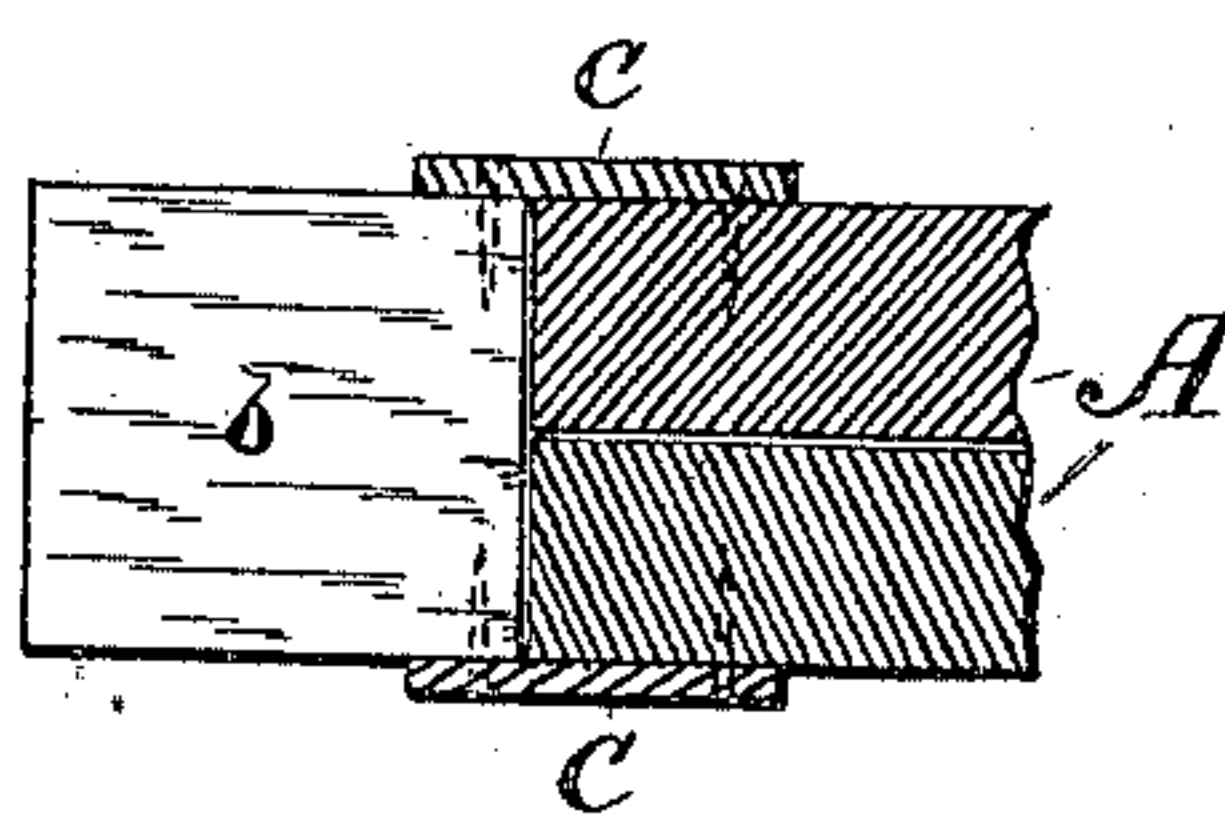
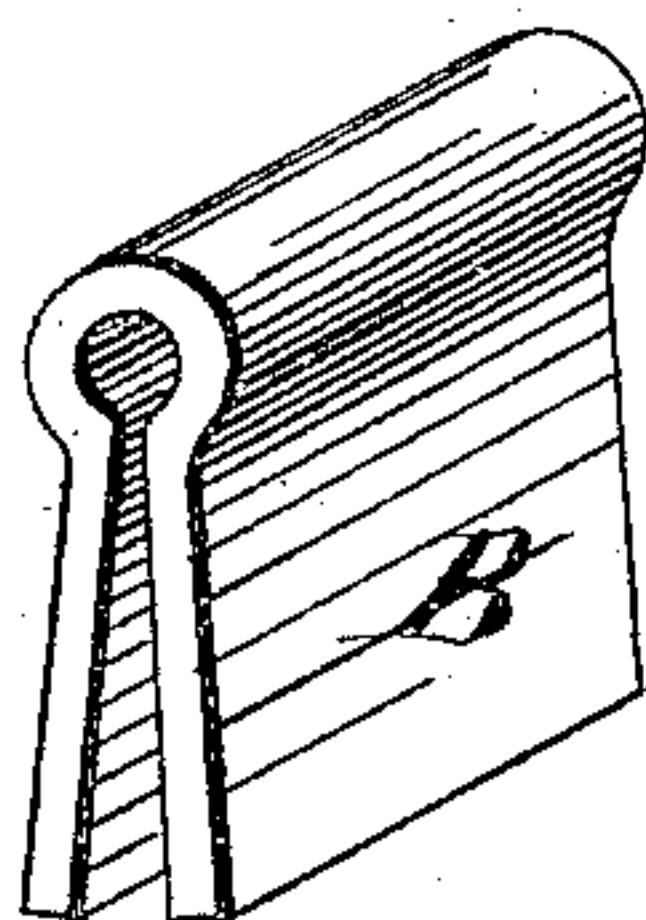


Fig. 2.



WITNESSES:

Hobbes
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DANIEL W. ABBOTT, OF LEETONIA, OHIO.

POLISHING-WHEEL.

SPECIFICATION forming part of Letters Patent No. 299,311, dated May 27, 1884.

Application filed October 25, 1883. (No model.)

To all whom it may concern:

Be it known that I, DANIEL W. ABBOTT, of Leetonia, in the county of Columbiana and State of Ohio, have invented a new and Improved Polishing-Wheel, of which the following is a full, clear, and exact description.

This invention consists of an improved contrivance for the construction of polishing-wheels, whereby the said wheels may be made cheaper and the leather rim may be secured more substantially than as heretofore made, as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is partly a side elevation and partly a sectional elevation of a wheel constructed according to my invention. Fig. 2 is a perspective view of a key-piece of the leather rim. Fig. 3 is a detailed sectional view taken through the disk.

I make a disk, A, of wood, of suitable size, preferably by fastening two or more thin boards together with the grains crossed, through which disk I make a series of holes, *a*, in a circle, a little within the periphery of the disk A, said holes being parallel to the face of the disk. From the holes I make slits *a'* out through the periphery of the disk, somewhat narrower than the holes, said holes and slits being to hold key-pieces B, forming parts of the leather facing of the disk, the rest of which facing is made up of shorter pieces *b*, set endwise on the face of the disk. These key-pieces B consist of doubled strips of leather having an eye formed at the bend, to be secured in the holes *a* by pins or keys *a²* of wood, so that they project out through the slits *a'*, to form part of the leather facing, and to serve for connecting the rest of the intermediate pieces, *b*, which are placed endwise against the face of the disk and toe-nailed to the disk, as represented at *b'*, and are also nailed to the key-pieces B by long nails *b²*, driven through said key-pieces and filling-pieces, as shown in the upper part of Fig. 1. If the filling-pieces *b* be tapered, as represented in the upper part of Fig. 1, to correspond with the converging lines of the radii of the disk, the two parts of the key-pieces may be closed together; but by properly separating the key-pieces with

wedge-shaped pieces *e* the intermediate pieces, *b*, may be suitably packed without tapering them.

C represents a thin-metal ring, which I propose to nail on the sides of the disk, partly on the wood disk and partly on the leather facing, to stay the facing laterally.

I propose to make these wheels without central holes for the mandrels, so that purchasers may readily fit them to the mandrels they have in use.

It will be seen that the plan for securing the leather is simple and efficient, and is alike applicable for making wheels with strong firm leather for roughing purposes or soft stock for smoothing or polishing.

It is to be understood that the key-leather, keys, and filling-leathers are all to be set in glue for firmly uniting them from the inside up to a line about even with the outer edges of the rings C.

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

1. In a polishing-wheel, the key-pieces B of the leather facing, secured in the holes *a* and slits *a'*, in combination with the filling-pieces *b*, toe-nailed to the face of the disk, and also nailed to the key-pieces, substantially as described.

2. The key-pieces B of the leather facing, having wedge-pieces *e*, and being secured in the holes *a* and slots *a'*, in combination with the filling-pieces *b*, substantially as described.

3. The doubled key-pieces B, having an eye in the bend, and being secured in the holes *a* and slits *a'* by a pin or key, *a²*, in combination with the filling-pieces *b*, substantially as described.

4. The combination of the metal rings C with the disk A, the keys *e*, and intermediate filling-pieces, *b*, and the leather facing B *b*, substantially as described.

5. The improved polishing-wheel, consisting of the wood disk A and leather facing composed of key-pieces B and intermediate pieces, *b*, secured to the disk, as described, and re-enforced by the metal rings C, substantially as described.

DANIEL W. ABBOTT.

Witnesses:

M. O. LODY,
S. E. WOOD.