D. K. OVERHISER.

CUTTER-HEADS.

No. 183,064. Patented Oct. 10, 1876.

Fig. 1.

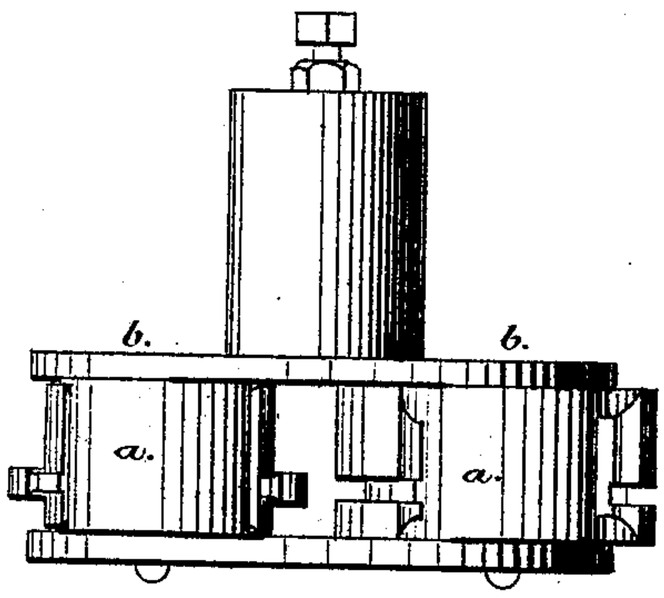


Fig. 2.

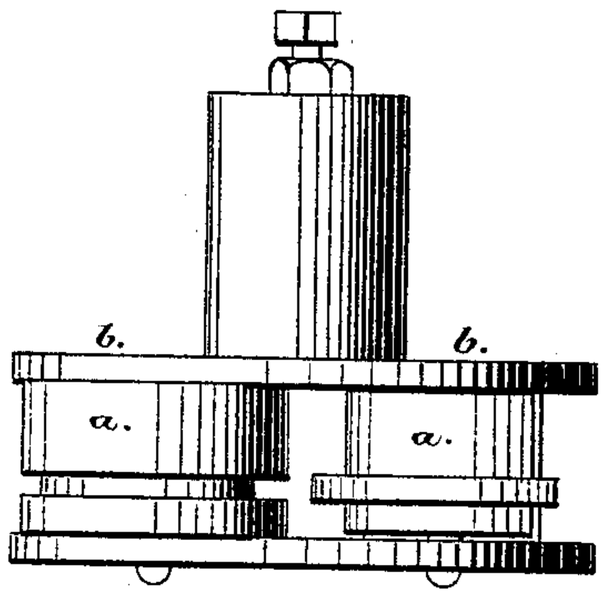


Fig. 3.

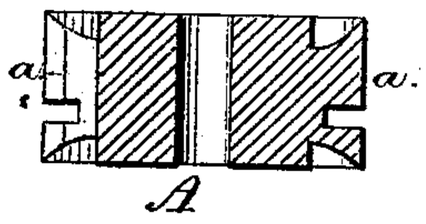


Fig. 4.

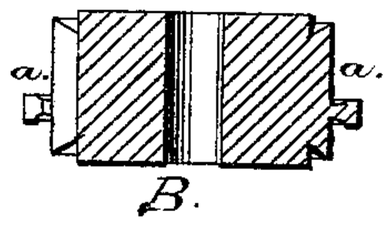


Fig. 6.

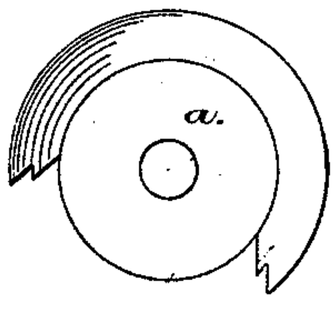
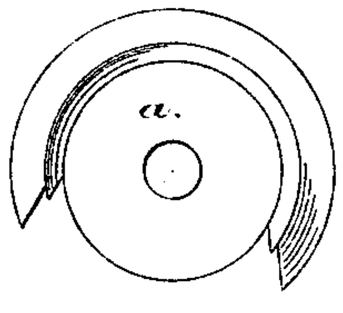


Fig. 6.



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UNITED STATES PATENT OFFICE.

DAVID K. OVERHISER, OF WILLIAMSPORT, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS HIS RIGHT TO SAMUEL I. RUSSELL AND JAMES H. ABBOTT, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN CUTTER-HEADS.

Specification forming part of Letters Patent No. **183,064**, dated October 10, 1876; application filed March 2, 1875.

To all whom it may concern:

Be it known that I, DAVID K. OVERHISER, of the city of Williamsport and State of Pennsylvania, have invented an Improvement in Cutter-Heads, of which the following is a specification:

The object of my invention is to rapidly form on the edge of flooring-boards a tongue and groove for matching and manufacturing wooden moldings by the combination of cutting-teeth formed upon the periphery of a metal wheel by cutting out a section of the projecting periphery in a line slightly tangent to the radius line of the center or body of the wheel, so as to form a tooth on both sides of the section cut out of the projection or projections upon the wheel, for the purpose of cutting right or left.

In the accompanying drawing, Figures 1 and 2 are side elevations of the cutters arranged in the head. Figs. 3 and 4 are cross-sections of the tonguing-cutter A and the grooving-cutter B. Figs. 5 and 6 are plan views of the cutters.

In constructing my machine I usually take a metal wheel of the desired dimensions, and on the iron lathe turning it so as to leave one or more rings, as may be required, projecting above the surface of the wheel when so turned, recessing both sides of the ring or rings projecting upon the wheel in a curvature form, so as to leave the surface of the ring, when toothed, as the cutting-edge.

In forming the teeth I usually cut, at a sharp angle with a file, a notch in the projections on the wheel, the plane line of which is down, crossing the tongue at a line, the base of the curvature that forms the outer edge of the tongue. I then cut, with a file or otherwise, longitudinally on the surface-body of the wheel at a similar angle, forming, as it were, other teeth, but which is for the purpose of giving an edge to the extremity of the groove, for the purpose of rounding the outer edge of the tongue formed upon a board, and exposing the surface of the wheel, which obviates the necessity of a chip-breaker.

For the purpose of holding this tool and operating the same, the tool is bored through at the center and placed between two strong metal flanges, which flanges have holes corresponding to the hole in the cutter, near the outer edge of the flange. The cutter is held between those flanges by strong headed bolts passing through the flange and wheel, and secured on the outside of the other flange by strong burrs. The cutters thus placed and secured and set in proper position at a tangent to the vertical line of the flange, when the whole is put in rapid motion, operate in producing the manufactured article aforesaid.

The cutters are held firmly between the two flanges by the bolts *b b*. As the flanges revolve rapidly the cutter-teeth will strike the edge of the boards at a sharp angle, chipping out the part desired to be removed, and forming thereon the required edge for matching.

It will be evident, as the cutter-teeth are formed upon the wheel, they can be sharpened without removing them, until the entire annular teeth part has been used, remaining firm and intact, for the purpose aforesaid.

I claim—

1. The tonguing-cutter A, constructed and operating substantially as shown and described, and for the purpose specified.

2. The grooving-cutter B, constructed and operating substantially as shown and described, and for the purpose set forth.

DAVID K. OVERHISER.

Witnesses:

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