

SAMUEL WHITESIDES.

Improvement in Planing Machines.

No. 115,401.

Patented May 30, 1871.

Fig. 1.

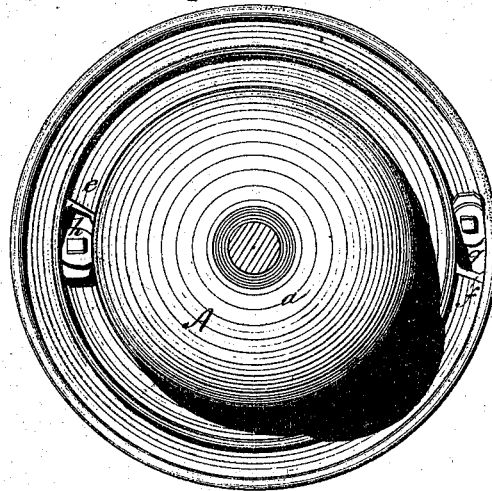


Fig. 2.

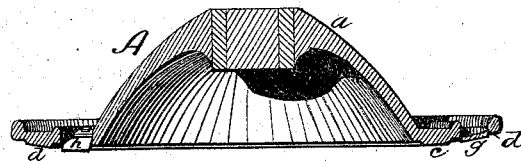
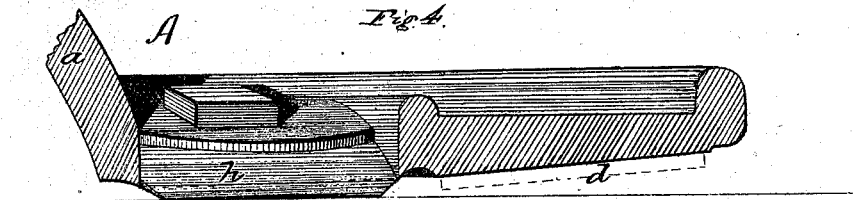


Fig. 3.



Fig. 4.



Witnesses.

Harry King.

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UNITED STATES PATENT OFFICE.

SAMUEL WHITESIDES, OF DE PERE, WISCONSIN.

IMPROVEMENT IN PLANING-MACHINES.

Specification forming part of Letters Patent No. 115,401, dated May 30, 1871.

To all whom it may concern:

Be it known that I, SAMUEL WHITESIDES, of De Pere, of the county of Brown and State of Wisconsin, have invented certain Improvements in Rotary Planer-Heads, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to that class of wood-planers in which the cutter consists of a dish or wheel provided with knives passing transversely through it, and which revolves with its side flat against the wood, the knives traveling in a circular path over the face of the same. The invention consists in an improved manner of constructing the cutter-head and providing it with two knives or sets of knives, one for roughing off the outside of the wood and the other for smoothing or finishing the surface.

Figure 1 is a top-plan view of my cutter-head; Fig. 2, a cross-section of the same; Fig. 3, a sectional view of a portion of the cutter-head, showing the manner of arranging a pair of like knives; Fig. 4, a cross-section of a portion of the cutter-head enlarged.

In constructing my cutter-head I first make a circular plate or disk, A, with a central hub, *a*, for attaching it to the shaft or spindle, the under side of the hub or central portion being concave so as not to bear on the wood when in operation. The under side of the rim I divide into two annular concentric faces, *c* and *d*, the former horizontal in cross-section and the latter inclined upward and outward at an angle of about five degrees, as shown in Figs. 2 and 4. Through the rim I make two holes, *e* and *f*, one through each of the faces *c* and *d*,

and in each of these holes I secure an inclined knife, with its cutting-edge projecting down below the face, as shown. The knife *g*, which passes through the outer face *c*, I set so as to project a considerable distance below said face, and with its cutting-edge inclined parallel with the face, or, in other words, with the outer part of the cutting-edge higher than the inner side. The inner knife *h*, which passes through the inner and horizontal face *d*, I set so as to project very slightly below the same, and with its cutting-edge horizontal.

When the head thus constructed is placed in position and set in motion and the wood fed under it the outer knife *g* takes off coarse chips and reduces the wood, while the inner knife *h*, following after the outer one, smooths and finishes the surface.

The inner horizontal face *c*, through which the smoothing-knife projects, bears upon the wood when in operation and prevents the surface or grain of the same from being raised by the knife, as would otherwise be the case. By this arrangement I am enabled to produce a fine smooth finish to the wood.

Having thus described my invention, what I claim is—

The circular planer-head A, having the annular faces *c* and *d*, the outer face *d* being inclined at an angle of about five degrees, and both being provided with one or more openings for the reception of the cutters, substantially as described.

SAMUEL WHITESIDES.

Witnesses:

JAMES RITCHIE,
ROBERT MAILER.