

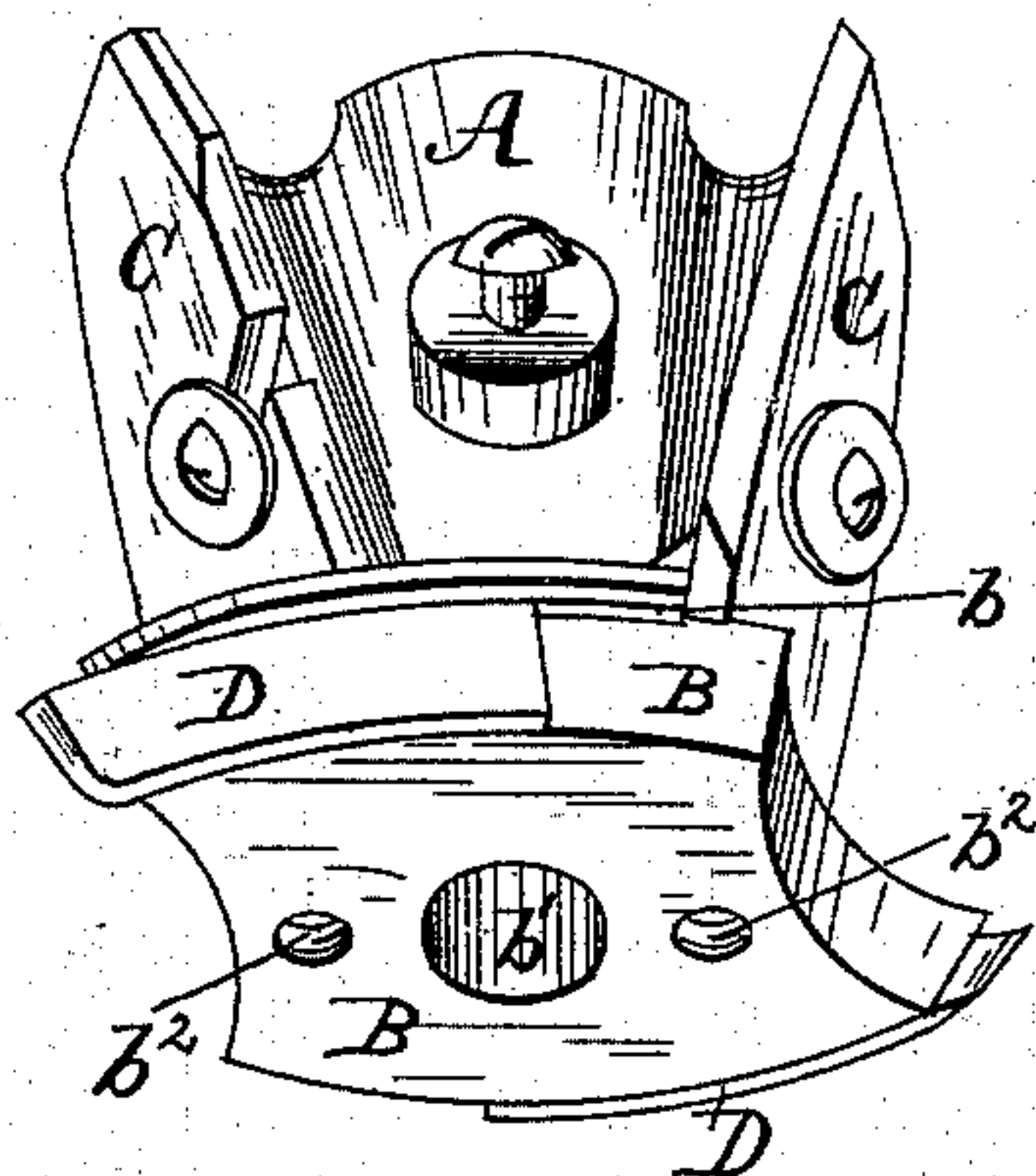
(No Model.)

R. H. AINSWORTH.  
CUTTER HEAD.

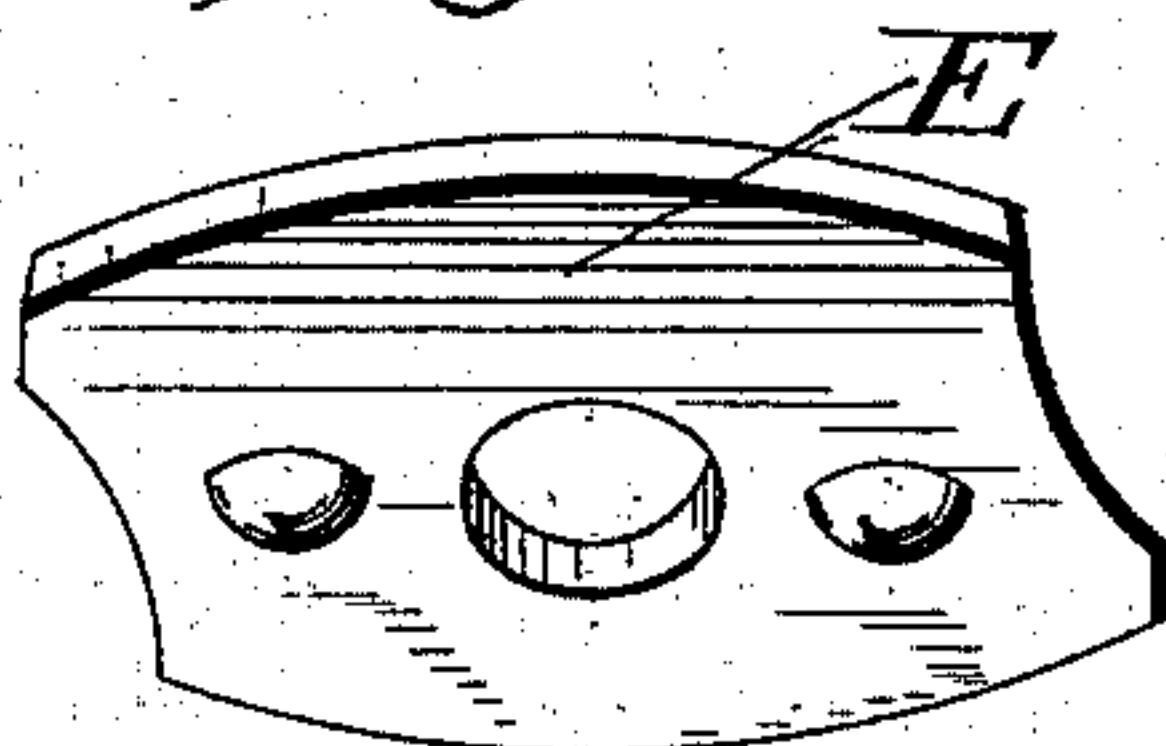
No. 276,323.

Patented Apr. 24, 1883.

*Fig. 1.*



*Fig. 2.*



*Attest:*

*J. M. Burnham.*

*Chas. F. Benjamin.*

*Inventor:*

*Robert H. Ainsworth,*  
*By William Couard,*  
*Attorney.*

# UNITED STATES PATENT OFFICE.

ROBERT H. AINSWORTH, OF MONTGOMERY, ASSIGNOR OF TWO-THIRDS TO  
J. THEODORE HESS AND GEORGE HOUSEL, OF LYCOMING COUNTY, PA.

## CUTTER-HEAD.

SPECIFICATION forming part of Letters Patent No. 276,323, dated April 24, 1883.

Application filed August 5, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT H. AINSWORTH, a citizen of the United States, residing at Montgomery, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Cutter-Heads; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

15 This invention relates to machines for forming panels; and it consists in a peculiar construction and arrangement of the several parts, as hereinafter described.

20 In this invention the surfacing and the molding edges are separated into two distinct cutters, whereby much time is saved in adjusting patterns and the waste of time and material by grinding reduced.

25 In the accompanying drawings, Figure 1 is a front perspective view of my molding-head and cutters attached to an ordinary cutter-head; and Fig. 2, a perspective view of the clamp by which the molding-cutters are secured to the molding-head.

30 A is an ordinary cutter-head.

B is a molding-head cast and bored in a single piece with the cutter-head.

35 C C are ordinary straight or surfacing cutters without any molding-edge. A grooved flange, *b*, is cast or formed on each of the top surfaces of the molded head.

40 D D are molding-cutters, the inner edge of each of which fits into and works in the groove of the flange *b*. These cutters are curved and beveled as required by the shape and movement of the cutter-head A, and with reference to a proper co-operation with the straight cutters C C in forming a molding. The flange and

groove *b* are likewise curved, and the top surfaces of the head B are both curved and beveled to fit the cutters D D at any point or part. When the cutting-edge of one of these molding-cutters D D becomes unserviceable a new edge can be ground on, and this may be repeated till some two-thirds, if not more, of the length of the cutter is gone.

It will be noticed that the wider ends of the cutters C C are so beveled and slanted that the point of the edge describes a line which overlaps the inner line of the cutters D D, and so insures a cleaner straighter edge to the molding raised by the cutters D D than is practicable with the ordinary cutter, which is compelled to form the molding-edge by the mere angle of two cutting-edges. A round orifice, *b'*, serves to admit the revolving shaft of the cutter-head, and round threaded apertures *b<sup>2</sup> b<sup>2</sup>* retain the screws or nuts, by which the clamp E is held and tightened against the face of the head B and the outer edges of the cutters D D.

I am aware that revolving cutter-heads wherein the molding-cutters are detached from the surfacing-cutters have heretofore been described; hence I do not claim such a cutter-head, broadly.

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

A cutter-head for raising panels, consisting of the surfacing-head A, surmounted by the molding-head B, with surfacing-cutters C C and detached paneling-cutters D D, the latter being held in place against the flanges *b* by the clamp E, substantially as herein described.

In testimony whereof I affix my signature in presence of two witnesses.

ROBT. H. AINSWORTH.

Witnesses:

WM. W. HART,

JNO. F. STEVENSON.