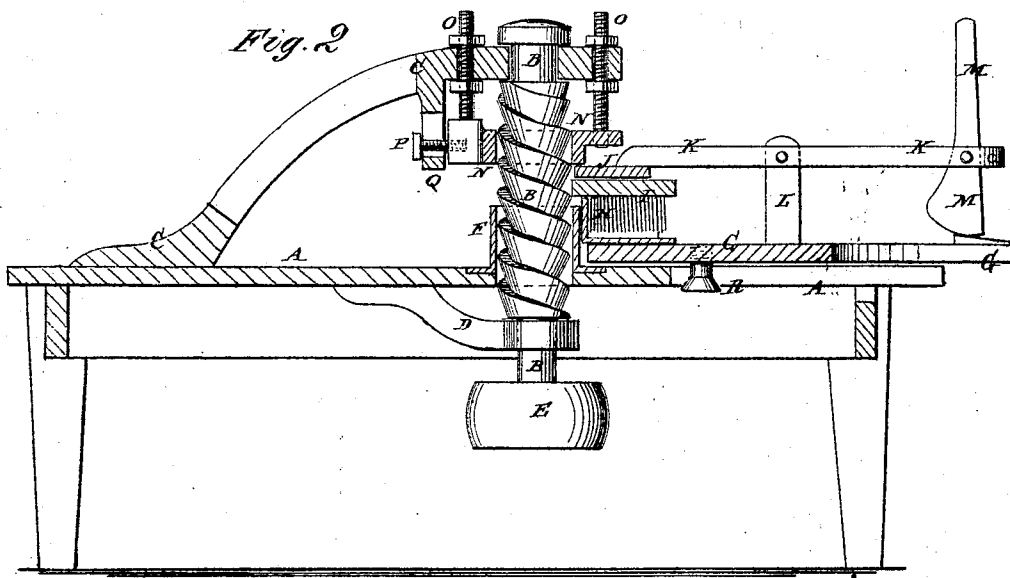
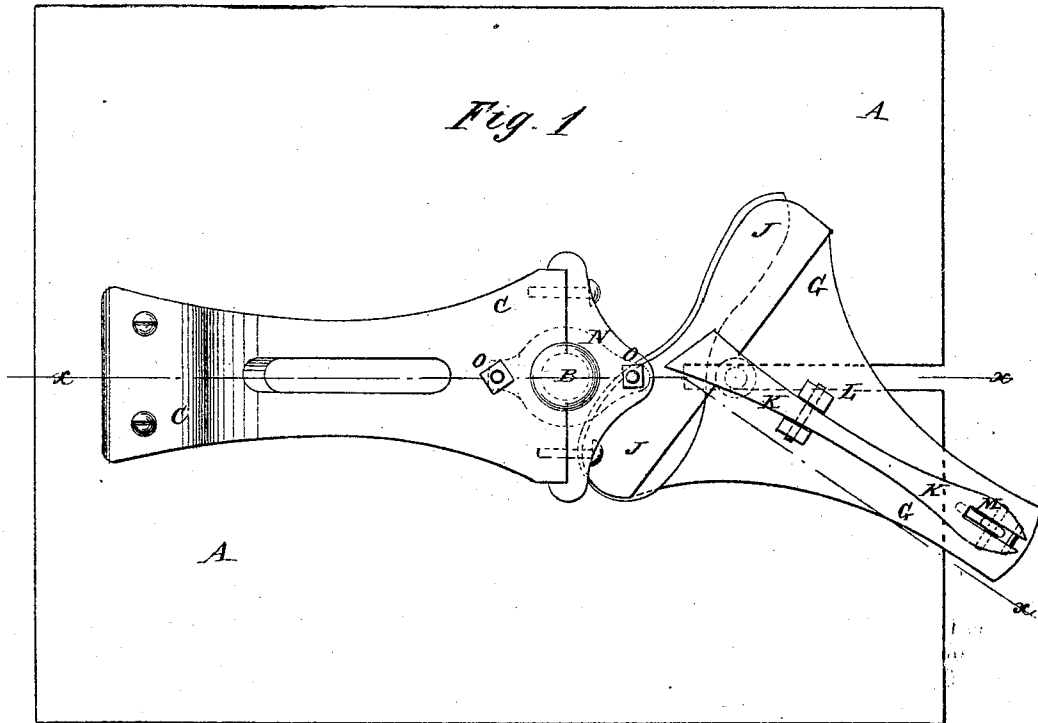


J. AMES, Jr.

Machines for Shaping Brush-Woods.

No. 145,546.

Patented Dec. 16, 1873.



Witnesses.

A. W. Almquist
Belguisen

Inventor.

Per

J. Ames, Jr.
mmu/fz
Attorneys.

UNITED STATES PATENT OFFICE.

JOHN AMES, JR., OF LANSINGBURG, NEW YORK.

IMPROVEMENT IN MACHINES FOR SHAPING BRUSH-WOODS.

Specification forming part of Letters Patent No. **145,546**, dated December 16, 1873; application filed July 5, 1873.

To all whom it may concern:

Be it known that I, JOHN AMES, JR., of Lansingburg, in the county of Rensselaer and State of New York, have invented a new and useful Improvement in Machines for Shaping Brush-Woods, of which the following is a specification:

Figure 1 is a top view of my improved machine. Fig. 2 is a detail section of the same, taken through the line *xx* in Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention consists in the improvement of brush-stock-shaping devices, as hereinafter described, and pointed out in the claims.

A represents the bench or table of the machine, through a hole in which passes a vertical shaft, B, upon which is formed a spiral cutting-edge, as shown in Fig. 2. The upper end of the cutter-shaft B revolves in bearings in the end of a bracket, C, attached to the upper side of the table A, and its lower part revolves in bearings in the end of a bracket, D, attached to the lower side of said table A. To the lower end of the cutter-shaft B is attached a pulley, E, to which the power is applied by a belt. F is a tubular guard, through which the cutter B passes, and the lower end of which is flanged, and is secured to the table A. The guard F is designed for the brush-holder to rest against, to guard it against coming in contact with the cutter, and to guide it as it is moved along said cutter. G is the base-plate of the holder, the forward edge of which is made in the form of the required edge of the brush-stock. To the upper side of the forward edge of the base-plate G is attached a flange or rim, H, of such a height as to afford space for the bristles of the brush I, so that the said bristles may serve as a guide in placing the brush. The brush I is held securely, while being operated upon, by the plate J, which rests upon the back of the brush, and its forward edge is made of the exact form to be given to the edge of the brush, so as to firmly support the said brush while being operated upon. The plate J is attached to the forward end of a lever, K, which is pivoted to

a stud, L, attached to the base-plate G. To the outer or rear end of the lever K is pivoted the lever M, which has a cam formed upon its lower end, to press against the upper side of the outer or rear end of the base-plate G, so that the brush I may be securely clamped in place by operating the lever-cam M. The part of the plate J opposite the cutter B is further supported against the upward pressure of said cutter by the ring-guard N, through which the cutter passes, and which is supported in place adjustably by screws O, which pass up through the bracket C, and have nuts placed upon them above and below the said bracket C, so that the guard N may be readily adjusted by turning the said nuts up and down. The guard N is further secured and steadied by a set-screw, P, which passes in through a slot in an arm, Q, formed upon or attached to the bracket C, and screws into a lug formed upon the said guard N. By this construction the brush is shaped with an upward cut toward the back of the brush, which leaves the edge around the bristles perfectly true and smooth, the trifling slivering that may be made being around the back of the brush, where it can be readily worked out. To the under side of the base-plate G of the holder is attached a pin, R, which enters a groove or slot in the table A, and serves as a pivot for controlling the holder. If desired, another cutter of a different pitch may be attached to the table A, for sharpening the ends of the brush-stock where the cut is made across the grain of the wood.

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

1. The spiral rotary cutter B and clamp, having upper and lower patterns H J, combined in a brush-shaping machine to allow an upward cut, in the manner described.

2. A guard, N, placed over the clamp, as described, to re-enforce it against the upward pressure of the cutter.

JOHN AMES, JR.

Witnesses:

JAMES T. GRAHAM,
T. B. MOSHER.