

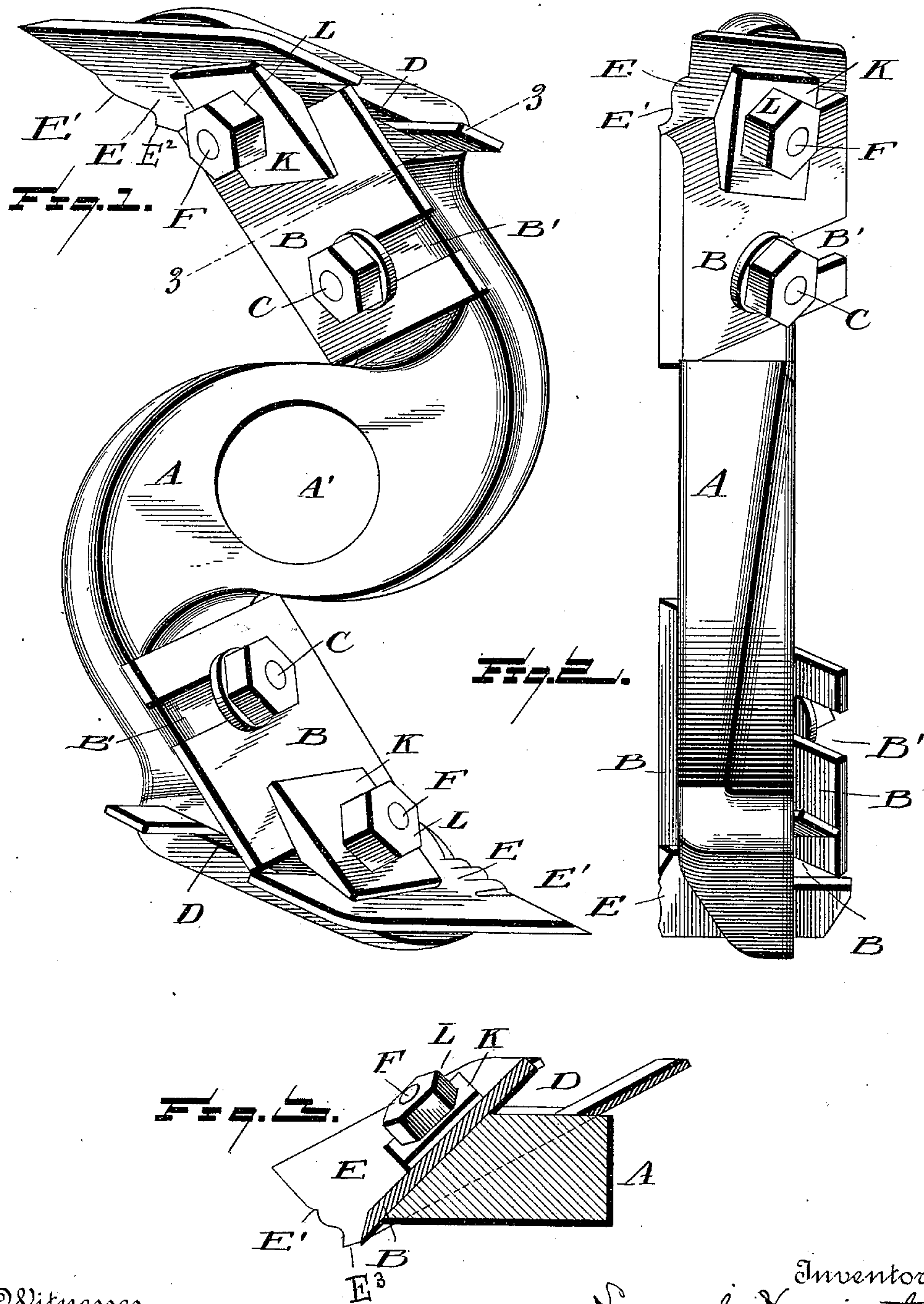
No. 644,514.

Patented Feb. 27, 1900.

S. HARRINGTON.
CUTTER HEAD.

(Application filed July 18, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL HARRINGTON, OF BALTIMORE, MARYLAND.

CUTTER-HEAD.

SPECIFICATION forming part of Letters Patent No. 644,514, dated February 27, 1900.

Application filed July 18, 1899. Serial No. 724,274. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL HARRINGTON, a citizen of the United States, residing at Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Cutter-Heads for Woodworking-Machines; 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 of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in cutter-heads for making moldings, panels, &c.; and it consists in the provision of cutting-knives so held upon the cutter-head that in the revolutions of the latter the knives will have a shearing or drawing-cutting contact with the surface of the wood, thus making it possible with my improved device to cut cross-grained or knotted wood and leave a smooth molding-surface.

More specifically, the invention resides in having a cutter-head preferably of S shape, which at its center is apertured to be fitted over a shaft, each arm of the cutter-head carrying a plurality of blades, one being disposed with its cutting edge substantially parallel to the edge of the arm, while the outer cutting-blade is disposed at an obtuse angle to the inner cutting-blade and so disposed with relation to each other that the cutting edges of each blade will have a shearing contact with the board which is being molded or made into a panel.

To these ends and to such others as the invention may pertain the same consists in the novel construction, arrangement, combination, and adaptation of parts, as will be hereinafter more fully described and then specifically defined in the appended claims.

My invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form part of this application, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a plan view of my improved cutter-head. Fig. 2 is an edge view showing the

relative arrangement of the knives, and Fig. 3 is a sectional view on line 3 3 of Fig. 1.

Reference now being had to the details of the drawings by letter, A designates the cutter-head, which I prefer to make in substantially S shape, as shown in the drawings, said head being apertured at A' for the reception of the operating-shaft, to which the head is to be keyed. On the radiating arms of the head are disposed the cutter-knives B, which are adjustably held to said arms by means of the bolts C, which are carried by or integral with said arms, each of said knives being slotted, as at B', to allow of an adjustment of the knives. Near the outer end of each arm are formed the grooves or slots D, which are preferably at acute angles to the planes in which said knives B are disposed, the bottom wall of each recess being forwardly and downwardly inclined, as illustrated in the drawings. These recesses or grooves are provided to receive the end cutting-knives E. Each of these end cutting-knives E has a cutting edge E', which is so shaped as to cut a particular outline or molding, the under cut or inner edge of each of said end cutting-knives having an upwardly-cutting portion E², while the extreme upper and forwardly-projecting part of the cutting-knife, as at E³, is downwardly and rearwardly disposed, thus forming a downwardly-cutting edge portion. When the knives are adjusted in position, the inner edge of each end knife is flush with the cutting edge of each of said knives B, and the outer edge of each knife B is beveled away and adapted to contact with the upper inclined face of the end cutting-knife, so as to hold the latter securely in place when the knives are clamped to the cutter-head.

Mounted on each arm of the cutter-head is an integral bolt F, which is threaded, and upon this bolt is carried a washer K, the under surface of which is angled, so that each angled face will fit against one of the knives, and a nut L is mounted on the threaded bolt and bears against said washer, which securely clamps and holds the cutters in their proper adjusted relation upon the cutter-head.

In the drawings I have illustrated the beveled edges of the cutting-knives reversely arranged with reference to each other for the

purpose of convenience in cutting either hard or soft wood.

From the foregoing it will be noted that the essential features of my invention consist in the position in which the end cutters on the arms of the cutter-head are held, which position gives a clean shearing or draw cut as the knives are caused to revolve and will cut moldings to a feather-edge across the grain of the wood, knots, &c., and will cut any kind of wood, leaving a smooth and glossy surface, with little resistance, being able to cut at varying depths without jar or vibration.

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

1. A cutter-head for making moldings, panels &c., consisting of the substantially-S-shaped head, cutting-blades mounted on the arms of said head and parallel with the edges of said arms, and the end cutting-blades mounted in recesses in said arms and having their cutting edges at obtuse angles to the first-mentioned cutting-blades, as shown and described.

2. In combination with the cutter-head, substantially S-shaped, the cutting-blades B mounted with their edges parallel to the front faces of said arms, the end cutting-blades mounted in recesses in said arms, the lower walls of said recesses being at an inclination, the outer ends of each blade B resting upon the upper faces of the end cutting-blades, and means for holding the blades to the cutter-head.

3. In combination with the cutter-head having radiating arms, the blades B mounted thereon, the end cutting-blades mounted in recesses in the ends of said arms, the inner cutting portion of each of said end blades being flush with the cutting edge of the blades B and the angled washer, and means for holding the blades to the cutter-head, as shown and described.

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

SAMUEL HARRINGTON.

Witnesses:

ANDREW J. CALLANS,
WM. H. JONES.