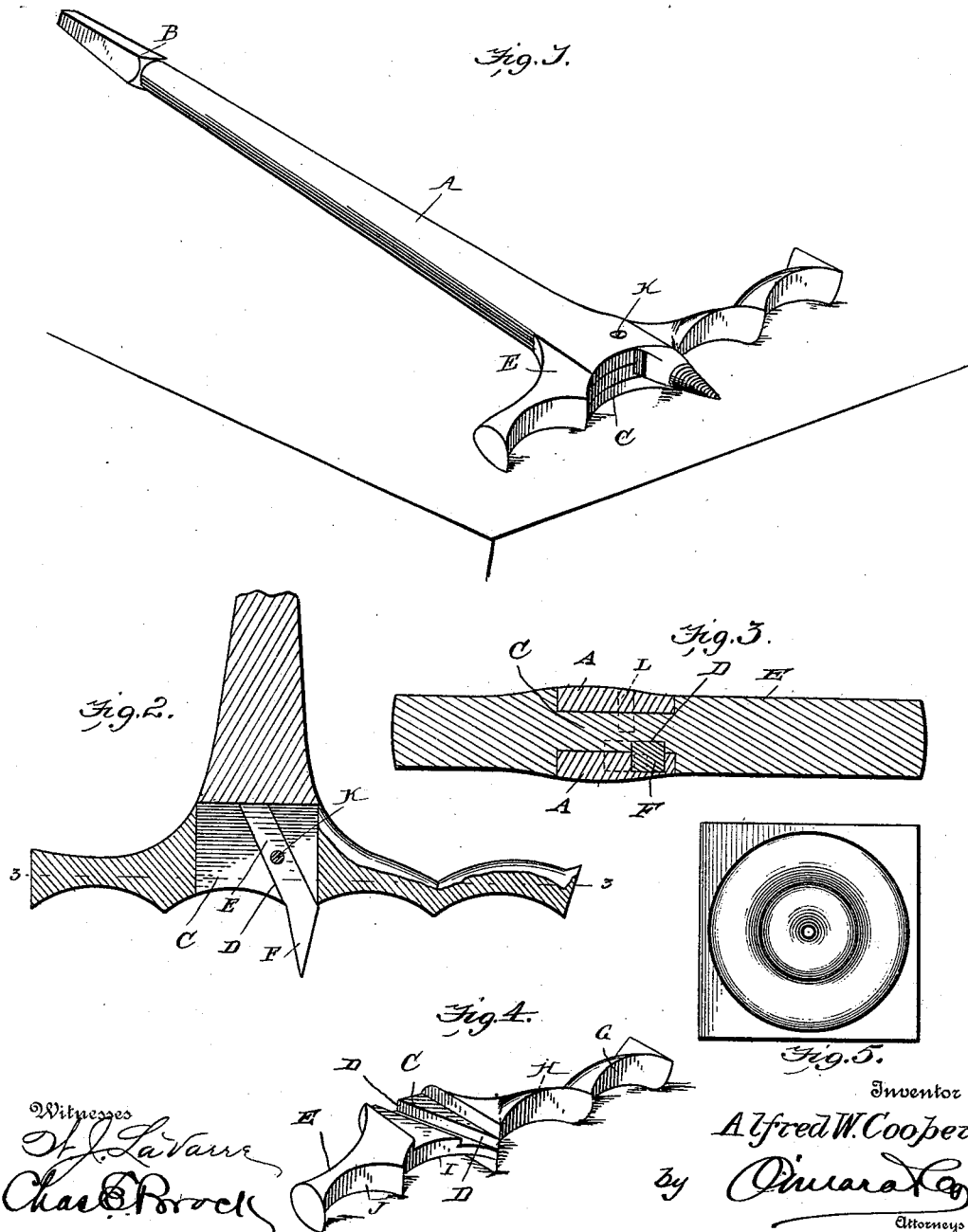


No. 615,251.

Patented Dec. 6, 1898.

A. W. COOPER.
ROSETTE CUTTING BIT.
(Application filed May 3, 1898.)

(No Model.)



UNITED STATES PATENT OFFICE.

ALFRED W. COOPER, OF JUMPING BRANCH, WEST VIRGINIA, ASSIGNOR OF
ONE-HALF TO JAMES H. MILLER, OF HINTON, WEST VIRGINIA.

ROSETTE-CUTTING BIT.

SPECIFICATION forming part of Letters Patent No. 615,251, dated December 6, 1898.

Application filed May 3, 1898. Serial No. 679,607. (No model.)

To all whom it may concern:

Be it known that I, ALFRED W. COOPER, a citizen of the United States, residing at Jumping Branch, in the county of Summers and State of West Virginia, have invented a new and useful Rosette-Cutting Bit, of which the following is a specification.

This invention relates to that class of wood-working implements designed to bore or cut rosettes or corner-pieces, the object of the invention being to generally improve the construction and operation of such devices, whereby the manufacture of rosettes will be facilitated and a better smoother class of work turned out.

With this object in view my invention consists in a rosette-cutting bit for use with a hand-brace or upon a woodworking-machine, comprising a stem which in the hand-working device is fitted into the chuck of the bit and which in the machine-working device is fitted in the end of a rapidly-rotating shaft, said stem being slotted at its outer end to receive a cutting-bit of peculiar construction secured in the slot by novel means, substantially as hereinafter fully described and afterward specifically pointed out in the claims.

In order to enable others skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view illustrating the rosette-cutting bit constructed in accordance with my invention. Fig. 2 is a central section through the same, the upper end of the stem being broken away. Fig. 3 is a section taken on the plane indicated by the broken line 3 3 of Fig. 2. Fig. 4 is a detail perspective view of the bit or cutter removed from the stem. Fig. 5 is a plan view on a reduced scale of a rosette or corner-piece produced by the operation of my invention.

Like letters of reference mark the same parts wherever they occur throughout the various figures of the drawings.

Referring to the drawings by letters, A indicates the stem, which is illustrated as being provided with an angular end B to fit in the

chuck of a hand-brace; but it will be understood that when the bit is to be used upon a machine the stem A will be properly constructed to be coupled or clutched to the end of the cutter-shaft of the machine. The forward end of the stem A is notched, forming a recess to receive the central portion C of the bit E, the inner wall of the notch or recess being diagonally grooved and one side of the central portion C of the bit being provided with a like diagonal groove D, which when the bit is placed in a recess in the end of the stem will register with the diagonal groove in the inner wall of the recess of the stem and form a diagonal socket to receive a bar E, the outer projecting end of which is formed as a center or gimlet point, which enters the wood before the bit begins cutting.

The bit proper, as illustrated in detail perspective in Fig. 4, detached from the stem comprises two curved cutting edges G and H and two curved smoothing-surfaces I and J, the cutting edges and smoothing-surfaces being arranged upon opposite sides of the point F at proper distances, whereby the cut made by the cutting edges G and H during the rotation of the bit will be continually smoothed by the inclined curved smoothing-surfaces I and J, as described. The bar E may be secured in the diagonal socket by means of a pin K, and a pin or screw L (shown in dotted lines in Fig. 3) passes through one side of the stem into the central portion C of the bit.

The construction and operation of my invention will be readily understood from the foregoing, and while I have illustrated and described in detail what I now consider to be the best means for carrying out my invention I do not wish to be understood as restricting myself to the exact forms and constructions shown, but hold that any slight variation therefrom, such as might suggest itself to the ordinary mechanic, would properly fall within the limit and scope of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A rosette-cutting bit provided with curved cutting edges on one side of the center and curved inclined rubbing or smoothing surfaces correspondingly located upon

the opposite side of the center, in combination with a stem recessed in its outer end to receive the bit, and means for securing it therein, substantially as described.

- 5 2. The combination with the stem A provided with the end recess having the inclined groove in one wall thereof, with the cutter E provided with the central portion C to enter said recess and with the inclined
10 groove D registering with the inclined groove in the wall of the recess in the stem A and forming an inclined socket, and the inclined bar E seated in said socket and provided with a projecting point F, substantially as de-
15 scribed.

3. The combination with the stem A pro-

vided with the end recess, the bit E formed with curved cutting edges G and H, inclined smoothing-surfaces I and J and a central portion C to enter the recess in the stem A, the
20 inner wall of the recess of the stem A and the central portion C of the cutter E being provided with registering inclined grooves forming, when brought together, an inclined socket, the inclined bar E seated in said socket and
25 provided with the point F and the pins or screws K and L for securing the parts together, substantially as described.

ALFRED W. COOPER.

Witnesses:

L. M. NEELY, Jr.,

J. H. JORDAN.