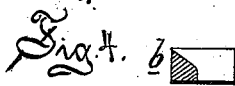
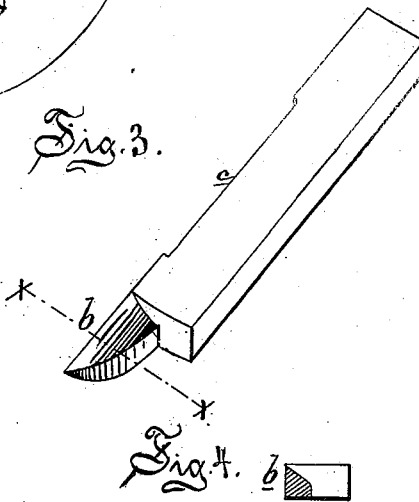
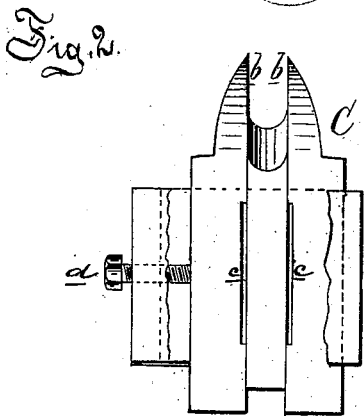
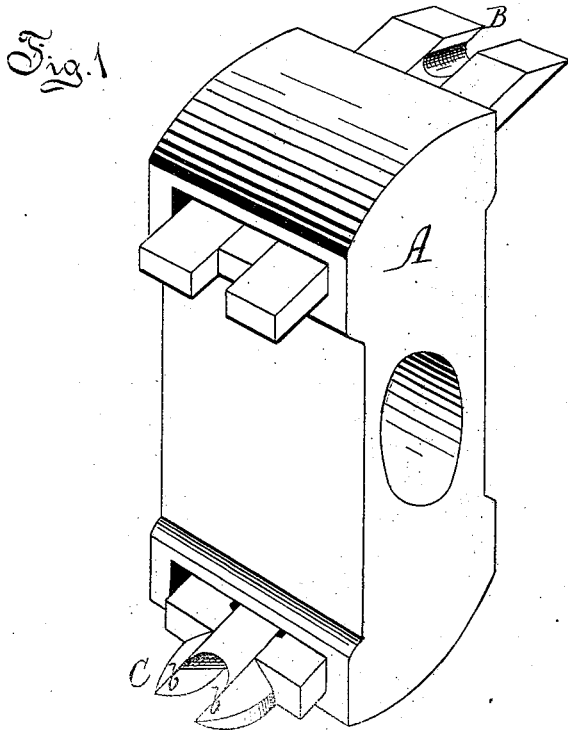


J. B. STOCKHAM,
CUTTER-HEADS.

No. 195,180.

Patented Sept. 11, 1877.



Attest:
Edward Parshall,
Wm. P. Spalding.

Inventor:
J. B. Stockham
By Atty
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UNITED STATES PATENT OFFICE.

JEROME B. STOCKHAM, OF JACKSON, MICHIGAN.

IMPROVEMENT IN CUTTER-HEADS.

Specification forming part of Letters Patent No. 195,180, dated September 11, 1877; application filed July 12, 1875.

To all whom it may concern:

Be it known that I, JEROME B. STOCKHAM, of Jackson, in the county of Jackson and State of Michigan, have invented an Improvement in Cutter-Heads, of which the following is a specification:

The nature of my invention relates to an improvement in the bits or knives used in cutter-heads for molding the tongue on one edge of flooring or other matched stuff; and its object is, principally, to plane the sides of the tongue with one set of knives as fast as the other set forms it by routing the material down at each side, whereby the machine can be run at a higher speed, will require less power to run it, and the knives much less labor to keep them in order.

The invention consists, first, in a cutter-head for tongue-molding, having one set of knives for routing the material down at each edge of the tongue, and another set for planing the sides of the tongue; and, secondly, in recessing the middle part of the inner side of each outer bit, for the purpose more fully hereinafter set forth.

Figure 1 is a perspective view of a matcher-head fitted with a set of my improved tongue-knives. Fig. 2 is a plan of the said knives in the cutter-head, a portion of which is broken out. Fig. 3 is a perspective view of one of the side bits. Fig. 4 is a cross-section of the same at *xx*, Fig. 3.

In the drawing, A represents a cutter-head, fitted with one set of tongue-knives, B, made up of three separate bits, and secured by a set-screw, *a*, in the slot of the cutter-heads.

It has heretofore been customary to use two sets of these knives to form the tongue on matched stuff, which is done by the side chisels routing down the lumber at the edges, leaving a tongue in the middle, whose edge was rounded by the center concave bit. This process left the sides of the tongue rough, on account of the fibers being torn away by the chisels, which are sharpened only at the ends. This causes them to draw hard, requiring much

power to run them, and wears away the inner side of each where it projects beyond the middle bit, requiring it to be frequently trued up by grinding the entire length of the inner side.

My improvement consists in taking the chisel-bits C of one set of cutters and beveling off their ends to a point, and then beveling this end to form a cutting-edge, *b*, next to the center-bit, which is made a trifle narrower than that of the other knife, B, whereby the cutters C plane the sides of the tongue, while the chisels of the cutter B rout down the edges of the lumber to a shoulder. This leaves the sides of the tongue perfectly smooth, and saves the side wear on the chisels of the knives B.

The inner side of each side or outer bit is recessed, as at *c*, for the greater part of its length, leaving a bearing against the middle cutter only at the ends. This allows the body of the cutter to spring inwardly a little under the pressure of the set-screw, which fastens it in the slot, and makes it less liable to work loose and fly out of the cutter-head while at work. This recess also decreases the labor of dressing up true the sides of these and the ordinary cutters, when necessary, as only the raised ends require to be ground.

What I claim as my invention is—

1. The combination, with the cutter-head A, of a three-bit matcher-knife, the slots *c* formed in the inside of the side bits, and the screw *a* set through the side of the cutter-head against the knife opposite the said recesses, constructed and arranged substantially as described and shown.

2. The cutter-head A for tongue-molding, having the three-bit knife B with square-side chisel-bits, and the three-bit knife C constructed with side bits beveled to a point and having the cutting-edge *b*, the several parts being constructed, arranged, and combined substantially as described and shown.

JEROME B. STOCKHAM.

Witnesses:

H. F. EBERTS,
H. S. SPRAGUE.