

B. J. Barber,

Cutter Head.

No. 101,701.

Patented Apr. 12, 1870.

Fig. 1

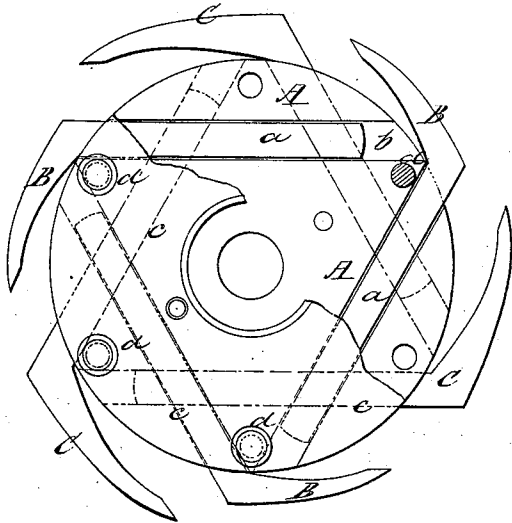


Fig. 2

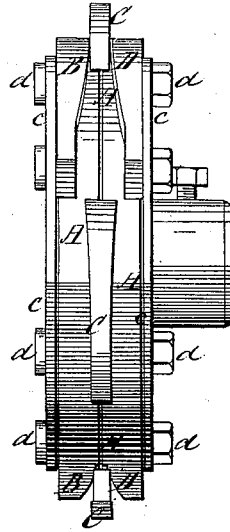


Fig. 3

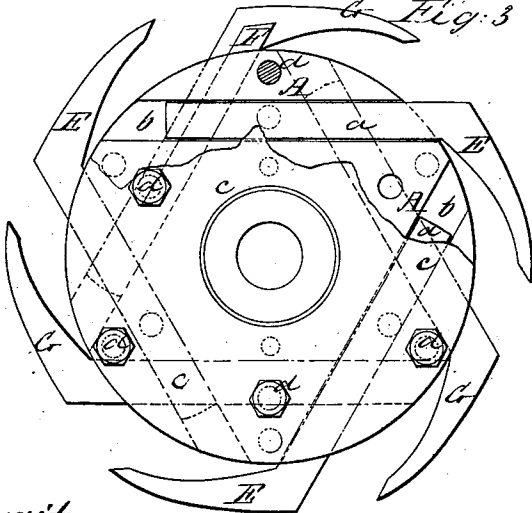
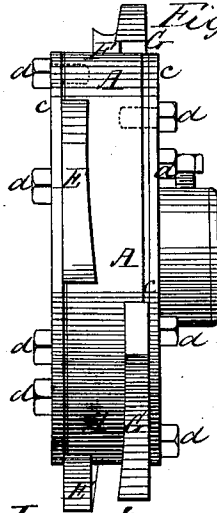


Fig. 4



Witnesses.

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B. J. BARBER, OF BALLSTON SPA, NEW YORK.

Letters Patent No. 101,701, dated April 12, 1870.

IMPROVEMENT IN CUTTER-HEAD FOR PLANING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, B. J. BARBER, of Ballston Spa, in the county of Saratoga and State of New York, have invented a new and useful Improvement in Tongueing and Grooving-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a face view, partly in section, of my improved grooving-head.

Figure 2 is an edge view of the same.

Figure 3 is a face view, partly in section, of my improved tongue-head.

Figure 4 is an edge view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new manner of arranging the cutters on the heads of tongueing and grooving-machines, with a view of preventing the tearing of the wooden fiber, and the consequent cracking of the wood, which is frequently occasioned on the ordinary machines now in use.

In the ordinary machines, the cutters on the heads were shaped with their edges in conformity with the edge to be produced on the wood, the whole edge of each cutter extending the entire width of the plank to be tongued or grooved, and it frequently happened, especially on not well-seasoned lumber, that the cutter cracked and split the wood.

In order to overcome this, I have so arranged my cutters that they will whittle the wood gradually down to the desired edge, and have made separate cutters for each edge, so that one cutter will only act on a portion of the edge of the wood, and not at the same time as the others act on the same edge. One of my cutters will, therefore, even if it would not have the whittling action, be unable to crack the wood, as it only acts on a small portion of the edge, not taking in the whole width of the board.

A in the drawing represents the head, carrying the cutters:

The head for grooving carries three sets of cutters, B, C and D. There are four (or more or less) of each kind on each head.

Those, B and D, for planing off the outer edge of the wood, are or may be set opposite each other, that is to say, in pairs, as shown in fig. 2, while each cutter of the central grooving set C is set out of line with the others, so that it will not act on the same portion of the edge of the wood at the same time when the others are in operation. Thus, each of the outer cutters B and D acts independently on a portion of the edge near the face of the board, while the central cutter also acts independently to make the groove.

In the same manner are the cutters E F G arranged on the tongueing-head, shown in figs. 3 and 4.

In this case, I prefer to also set the outer cutters E G out of line, as in fig. 4, so that they may not at the same time work on the recess cut by them, and, therefore, not strain the tongue produced by them, while the middle cutter F, which only serves to plane the edge of the tongue, may, without injury, be set in line with one of the outer cutters, and may even be attached to one of the same.

The cutters are all, with the exception of the one for planing the tongue, hook-shaped, their outer edges receding but slightly from the line of the circle described by their cutting-edges, as shown in the drawing. They are set with their shanks, *a a*, into grooves, *b*, produced on the faces of the head, and are fastened by means of clamping-plates, *c*, that are, by means of screws or bolts, *d*, secured to the faces of the head, as shown. Each cutter can therefore be adjusted without taking anything apart, by merely slackening some of the screws *d*.

The central cutters C are fitted into grooves of the split head, as shown, and clamped by the two parts of the head.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

A series of curved side knives B D and central knives C, of unequal reach, and having their shanks, *a*, arranged on the rotating cutter-stock A in grooves *b*, and clamped by the plates *c e*, all as shown and described.

B. J. BARBER.

Witnesses:

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