

(No Model.)

A. B. CAMERON.
WOOD CHANNELING MACHINE.

No. 422,912.

Patented Mar. 11, 1890.

Fig. 1.

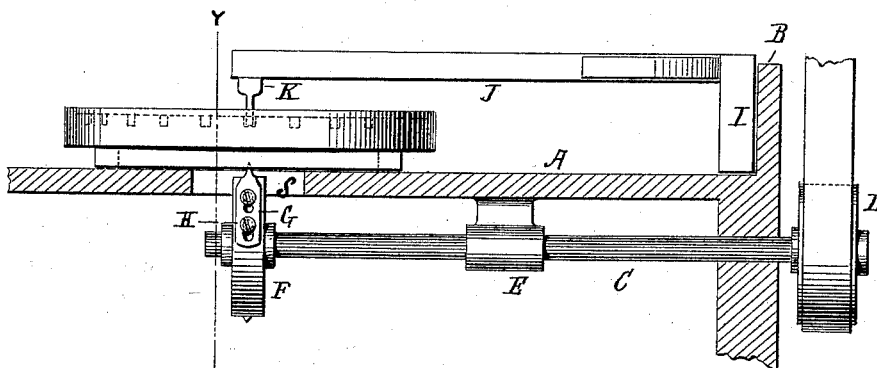


Fig. 2.

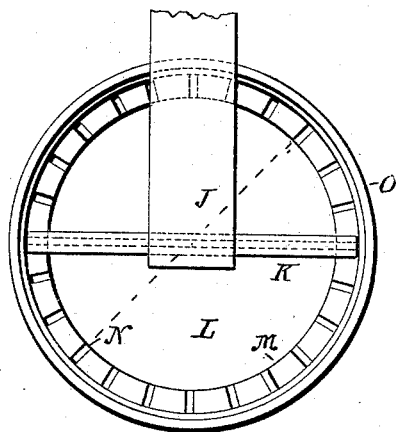


Fig. 3.

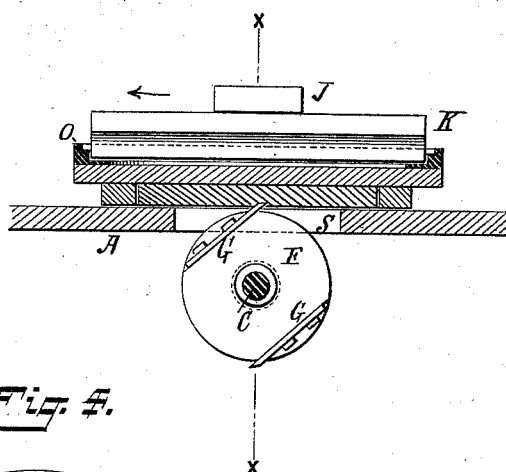
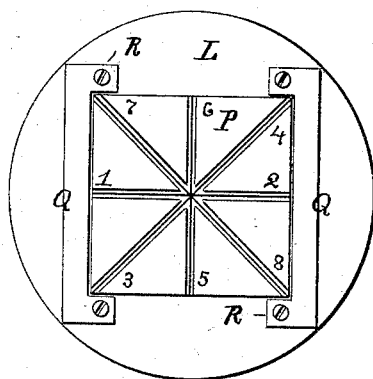


Fig. 4.



WITNESSES:

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WOOD-CHANNELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 422,912, dated March 11, 1890.

Application filed December 10, 1889. Serial No. 333,194. (No model.)

To all whom it may concern:

Be it known that I, ALLAN B. CAMERON, of Williamsport, Lycoming county, Pennsylvania, have invented a new and useful Improvement in Wood-Channeling Machines, of which the following is a specification.

My invention relates to machines for making grooves or channels transversely the surface of panels, &c., for the purpose of producing ornamental patterns *in intaglio* or relief thereon; and it consists in the combination, with a table and a rotary cutter operating through an opening in said table, of a guide-plate to which the work to be channeled is attached and means, as more particularly hereinafter described, whereby said guide-plate may be set and held in various positions, so that said cutter may produce channels or grooves at various angles on the surface of said work.

In the accompanying drawings, Figure 1 is a vertical section of the machine on the line X X of Fig. 3. Fig. 2 is a top view of the guide-plate and fixed cross-bar entering the same. Fig. 3 is a vertical section on the line Y Y of Fig. 1. Fig. 4 is a bottom view of the guide-plate, showing the work attached thereto.

Similar letters of reference indicate like parts.

A represents the table of the machine, having an upwardly-projecting edge or side piece B.

C is a shaft rotated by the belt-pulley D and supported in the standard of the machine and in a bearing E. The shaft C carries the cutter-head F, upon which are secured the cutting-knives G. These knives are fastened in place in the usual way by set-screws H, or in any other suitable manner.

I is a flat bar from which projects an arm J. At the end of the arm J is carried the transverse metal bar K. The bar I rests against the upwardly-projecting ledge B of the table.

L is a guide-plate circular in form and provided at its upper side with a ring M, in which are made numerous radial openings, as N, disposed at uniform distances apart. The ring M has a raised ledge or periphery

O. The panel P to be channeled is fastened to the under side of the plate L in any convenient way, and preferably by the clamps Q, which are fastened by screws R to the bottom of said plate. The plate is placed upon the table A with the panel to be cut downward and directly over the opening S in the table, in which opening the rotary cutter revolves. The knives G project sufficiently above the upper surface of the table to enter and act upon the under side of the panel. The cross-bar K enters any two of the diametrically-opposite radial openings N and rests upon the plate L.

The parts being thus arranged, the operation of the machine is as follows: The attendant grasps the bar J and moves it in a lateral direction. (Indicated by the arrow in Fig. 3.) The bar I then slides along the ledge B and the plate L, carrying the work, moves over the rotary cutter. This movement takes place in a straight line, as the ledge B of the table acts as a guide. In this way a channel having a form or cross-section dependent upon the shape of the cutter-edge of the knife G is produced transversely across the under surface of the panel P—such, for example, as shown at 1 2, Fig. 4. Assuming it to be desired to produce upon the surface of the panel a pattern such as shown in Fig. 4, the attendant now raises the bar J, and so lifts the bar K out of the recesses in the plate L. He then rotates said plate over an angle of forty-five degrees, and again drops the bar K into the recesses in the ring M which comes immediately beneath it. The bar K will then assume the position relatively to the plate indicated by the diagonal dotted line in Fig. 2. The plate is then carried over the cutter in the same way as before, when the channel 3 4 is produced on the panel. The same operation is again repeated, the plate being rotated over an angle of forty-five degrees, and in this way the channel 5 6 is made, and in like manner, after another partial rotation of the plate, a channel 7 8 is produced, and thus the desired pattern is completed. Of course the extent to which the plate L is rotated will depend upon the pattern which is sought to be produced, the ma-

chine making upon the surface of the panel more or less radial cuts, as may be desired, with great certainty and accuracy.

I claim—

5 1. The combination of a table having an opening; a rotary cutter below said table and operating through said opening, a loose guide plate having recesses on its upper side on
10 said table, means for fastening the work to be acted on by said cutter on the under side of said plate, an arm above said table and disposed at an angle to the plane of rotation of said cutter and provided with a projection constructed to enter a recess or recesses on said
15 plate, and a leg or standard resting on said table, substantially as described.

2. The combination of a table having an opening, a rotary cutter below said table and operating through said opening, a fixed guide
20 bar or ledge on said table and disposed in a plane parallel to the plane of rotation of said cutter, a loose guide-plate having recesses on its upper side on said table, means for fastening the work to be acted on by said cutter
25 on the under side of said plate, an arm above said table and provided with a projection at one end constructed to enter a recess or re-

cesses in said plate, and at one extremity a bar disposed at right angles to said arm, the said bar resting on said table and against said guide-ledge, substantially as described.

3. The combination of the table A, having an opening S and guide-ledge B, rotary cutter F below said table and operating through said opening, guide-plate L, having recesses on one side, arm J, having bar K, constructed to enter a recess or recesses, and guide-bar I, said bar resting on said table and against said guide-ledge B, substantially as described.

4. The combination of the table A, having an opening S and guide-ledge B, rotary cutter F below said table and operating through said opening, guide-plate L, having on its upper side the ring M, with radial recesses N, arm J, having bar K, constructed to enter
4 diametrically-opposite recesses N, and guide-bar I, said bar resting on said table and against the guide-ledge B, substantially as described.

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Witnesses:

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