M. E. Carter,

Dovetailing Machine,

No. 57,474, Patented Aug. 28, 1866.

Fig: 2.

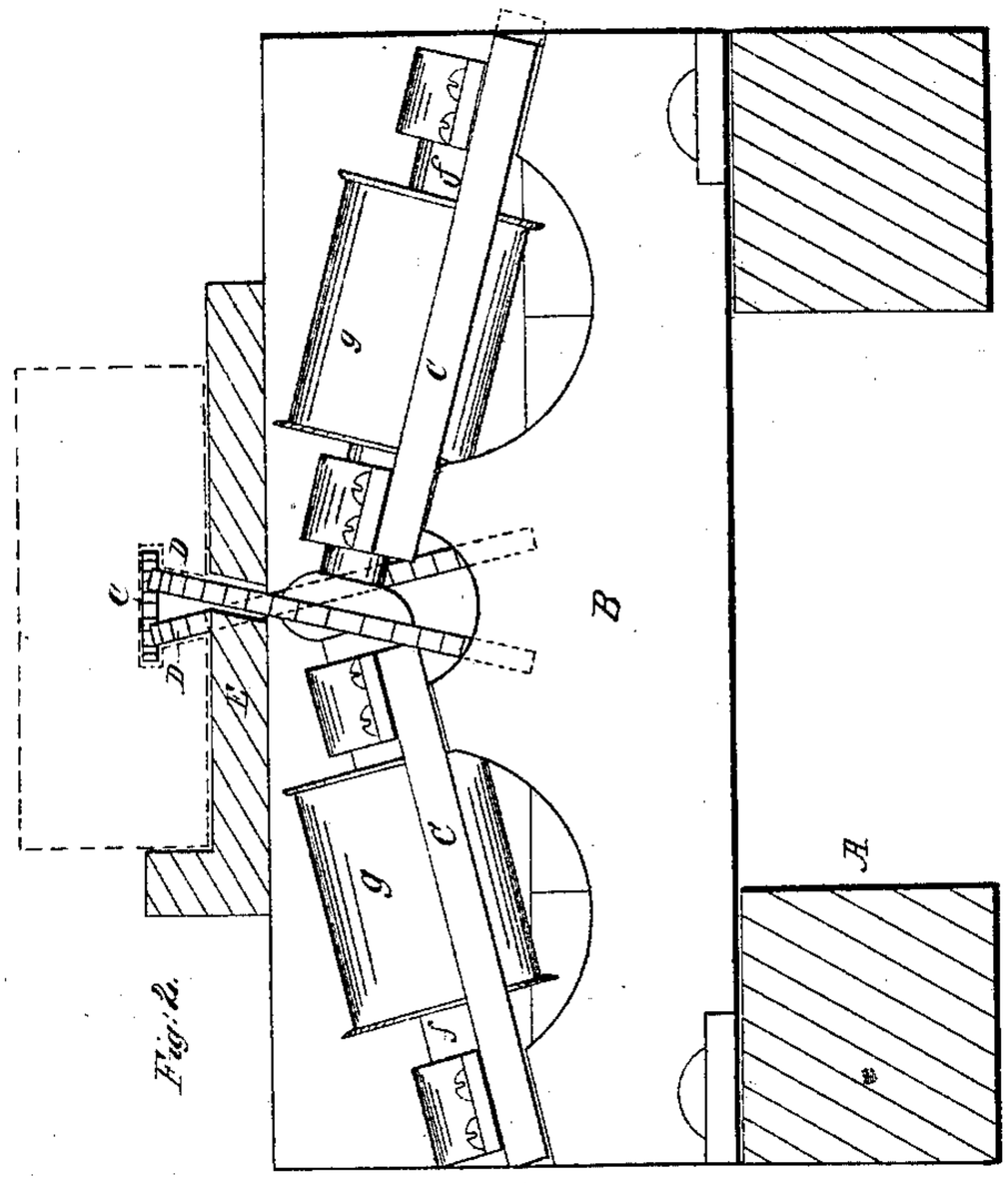


Fig: 3.

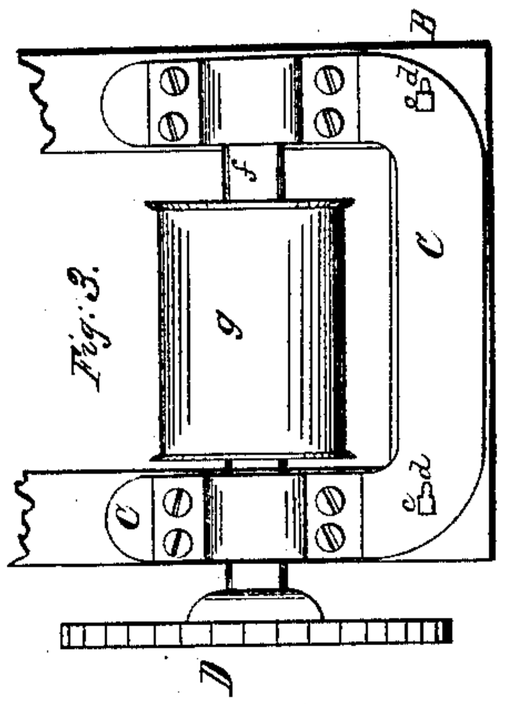


Fig: 1.

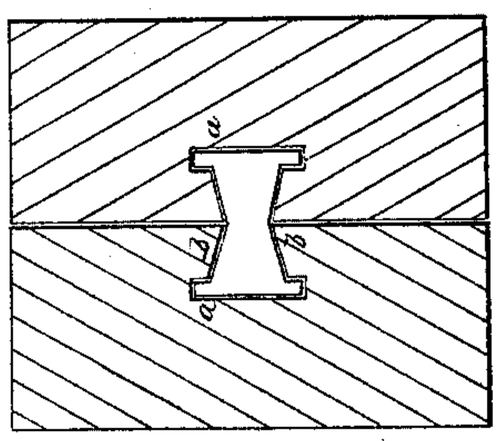
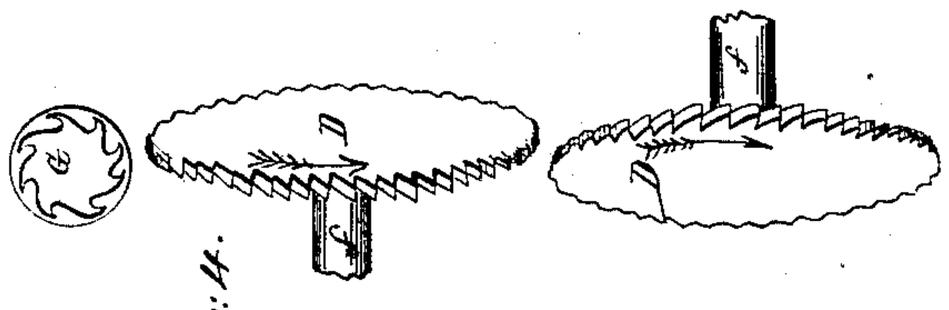


Fig: 4.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

MERRILL E. CARTER, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN MACHINES FOR GROOVING LUMBER.

Specification forming part of Letters Patent No. **57,474**, dated August 28, 1866.

To all whom it may concern:

Be it known that I, MERRILL E. CARTER, of Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Machines for Cutting Grooves in Bars for Extension-Tables; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a cross-section of a pair of extension-bars, showing also one of the slides that connect them; Fig. 2, an end elevation of the machinery by which the grooves are cut in the bars and a vertical section of a portion of the frame in which it rests; Fig. 3, a plan of one of the bearings that sustain the angular cutters; Fig. 4, a diagram showing the position of the several cutters.

Like letters of reference indicate corresponding parts in all the figures.

A patent was issued to Carter and Mets September 6, 1864, No. 44,073, for an improvement in slides for extension-tables, the improvement consisting, essentially, in a double T and double wedging or dovetail form of the slide. The bars fitted together side by side, and the slide connected them, substantially as shown in Fig. 1.

In order to receive the slide thus formed, each bar must be grooved so as to have the T form shown at *a* and the wedging form, narrowing outward, as shown at *b*, which, from the peculiar shape, cannot be made by any ordinary arrangement of cutters.

My present invention consists in the combination of two angular cutters for cutting the wedging sides of the groove with a horizontal one for cutting the T.

As represented in the drawings, A is a frame of any suitable construction, which sustains a secondary double-angular frame, B, for the support of the cutters.

On the frame B rest two bearings, C C, Figs. 2 and 3, of any desirable form, which are capable of a slight inward and outward adjustment by means of screws and slots *c d*, or any equivalent arrangement.

In the bearings C C are mounted shafts *f f*, operated by pulleys *g g*, and having secured to their inner ends angular cutters D D. These cutters are made to cross each other at such an angle, and their tops are situated such a distance apart, transversely, that they cut the sides of the wedge *b* as the bar is fed over the bed E, as indicated in red lines, Fig. 1.

At a proper distance from the angular cutters is situated a horizontal one, G, whose diameter is the same as that of the T portion *a* of the groove which it cuts.

By this simple combination of the cutters I am enabled to form a groove which, from its peculiar form, (the inner portion being of larger size than the outer,) would be very difficult to make in any other manner. The bars are simply fed over the bed E, and the grooves are formed as rapidly as plain grooves, and when the bars have passed over the cutters they are perfectly finished and in condition to receive the slides. By means of the end adjustment produced by the screws and slots *c d* the cutters are adapted to forming grooves of different sizes; but for this purpose but little variation is necessary.

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

The combination of the angular cutters D D and the horizontal cutter G, operating substantially in the manner and for the purpose herein set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

M. E. CARTER.

Witnesses:
J. A. DAVIS,
R. F. OSGOOD.