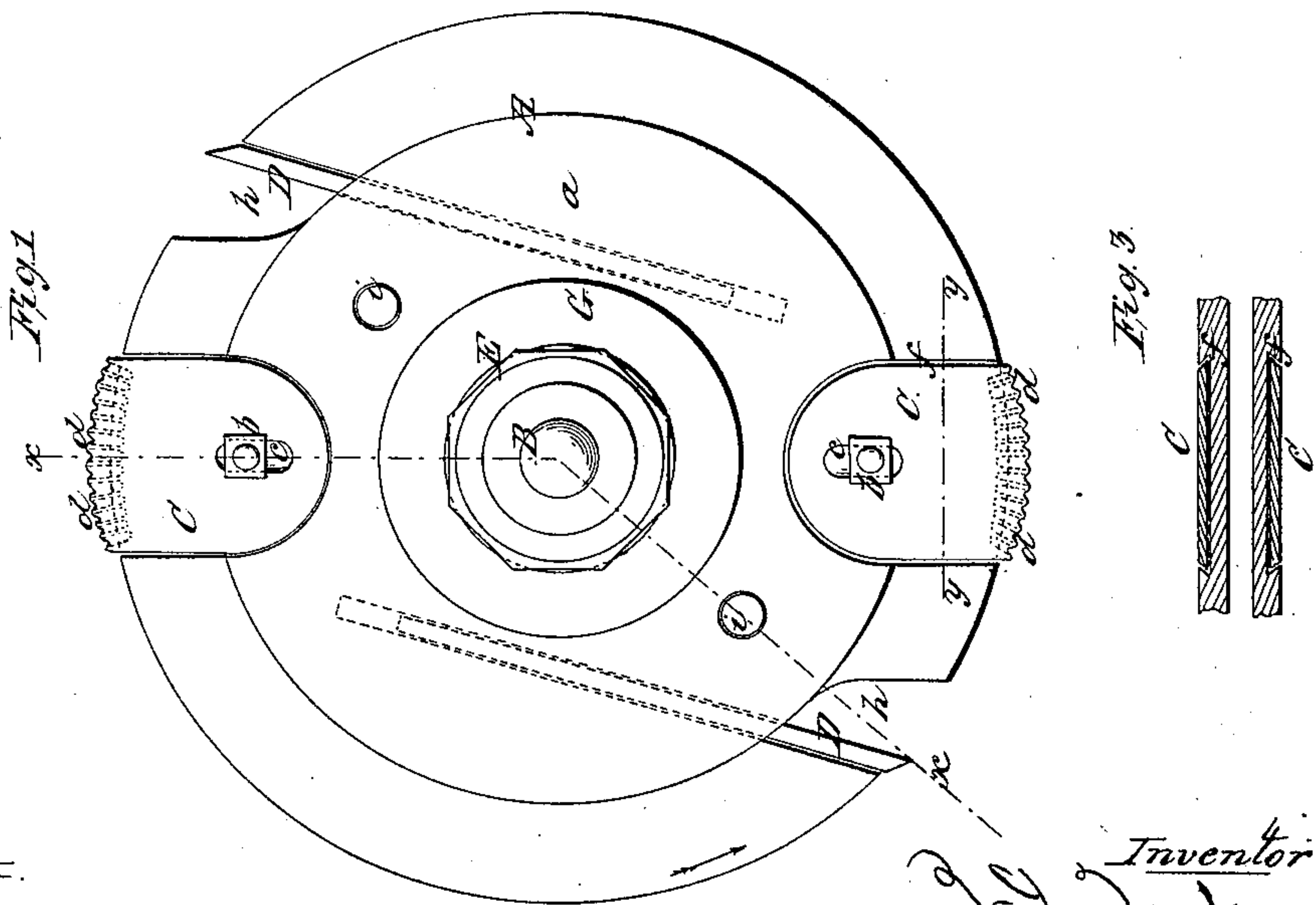
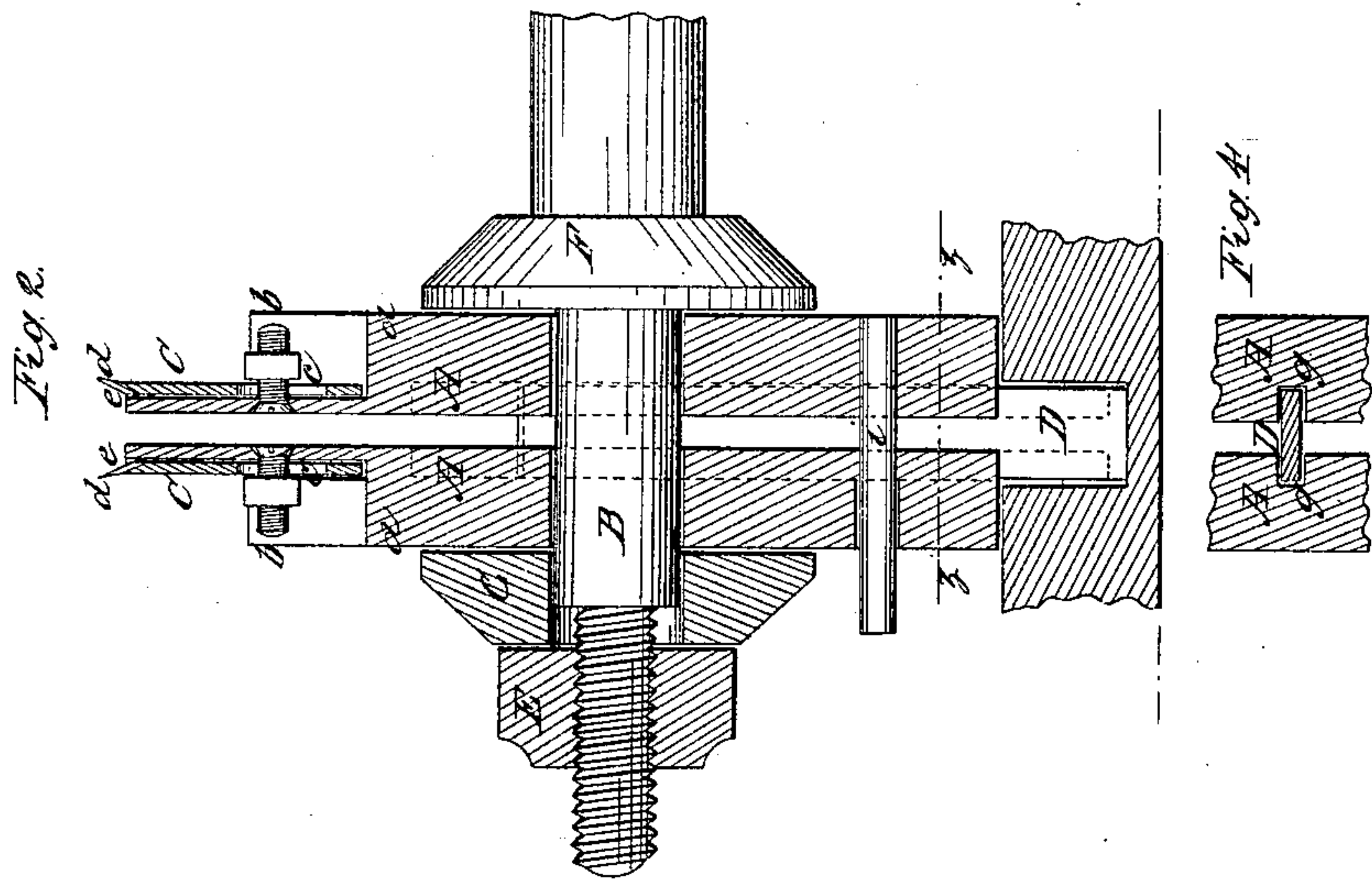


J. L. Taylor,
Cutter Head.

N^o 33,501.

Patented Oct. 15, 1861.



Witnesses
James L. Taylor

Inventor
J. L. Taylor

UNITED STATES PATENT OFFICE.

J. L. TAYLOR, OF NEW YORK, N. Y.

IMPROVEMENT IN GROOVING-MACHINES.

Specification forming part of Letters Patent No. 33,501, dated October 15, 1861.

To all whom it may concern:

Be it known that I, J. L. TAYLOR, of the city, county, and State of New York, have invented a new and useful Improvement or Tool for Dadoing or Cutting Grooves in Boards, Planks, &c., for Joinery Purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, a section of the same taken in the line *xx*, Fig. 1; Fig. 3, a section of a portion of the same, taken in the line *yy*, Fig. 1; Fig. 4, a section of a portion of the same, taken in the line *zz*, Fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to obtain a tool or implement for superseding the ordinary manipulation of plowing or cutting rectangular grooves in boards, planks, &c., which are made in erecting shelving and for various other purposes in joinery.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A A represent two circular cast-metal plates, which are secured on a rotating mandrel B. These plates are each provided with a circular ledge or projection *a* at its outer side, as shown in Fig. 2, and each plate A has two serrated or fleam-toothed cutters C C attached to it at opposite points of its periphery. The cutters C are formed of pieces of steel plate secured to the plates A by bolts *b* passing through oblong slots *c* in the cutters, as shown in Fig. 1. This mode of attachment admits of the cutters C being adjusted farther in or out from the peripheries of the plates A. The teeth *d* of the cutters C are formed by having a basil or bevel *e* at the inner sides of the cutting-edges of the cutters and then filing longitudinal grooves in said basils at suitable distances apart to form the teeth.

The cutters C are fitted radially in dovetail grooves *f* in the outer surfaces of the plates, as shown in Fig. 3.

In the inner sides of the plates A A there

are made grooves *g g*, two in each plate. These grooves are parallel with each other and have a tangential position with the mandrel B. The grooves *g g* are for the purpose of receiving cutters D D, the ends of which are of chisel form and project a suitable distance from the peripheries of the plates A A at the back part of throats *h*, which are made in the plates A, as shown in Fig. 1.

The plates A A are secured on the mandrel B by means of a nut E and collar F, the latter being permanently secured on the mandrel. The nut E bears against a washer G on the mandrel. (See Fig. 2.) One of the plates A has pins *i* attached, which pass through holes in the other plate.

The operation of the implement or tool will be readily seen. The mandrel B is placed in a suitable head and rotated by any convenient power, and the stuff to be grooved is passed underneath it. The cutters C C make vertical cuts or kerfs in the stuff while the cutters D D take out the wood between. (See Fig. 2.) It is designed to have the cutters C project a little farther out from the sides of the plates A than the cutters D, so that the latter will be a trifle narrower than the space between the kerfs formed by the cutters C, and the cutters D thereby prevented from binding in the groove.

This implement or tool has been practically tested and it operates well, performing the desired work rapidly and perfectly. Grooves of different widths may be made by simply employing cutters D of different widths. The cutters C do not require to be changed only as they are worn out.

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

The within-described tool for dadoing or grooving, which consists of the grooved clamping-plates A A, adjustable cutters C C D, guides *i*, and screw-shaft B, arranged, constructed, and operating together in the manner herein shown and described.

J. L. TAYLOR.

Witnesses:

M. M. LIVINGSTON,
JAMES LAIRD.