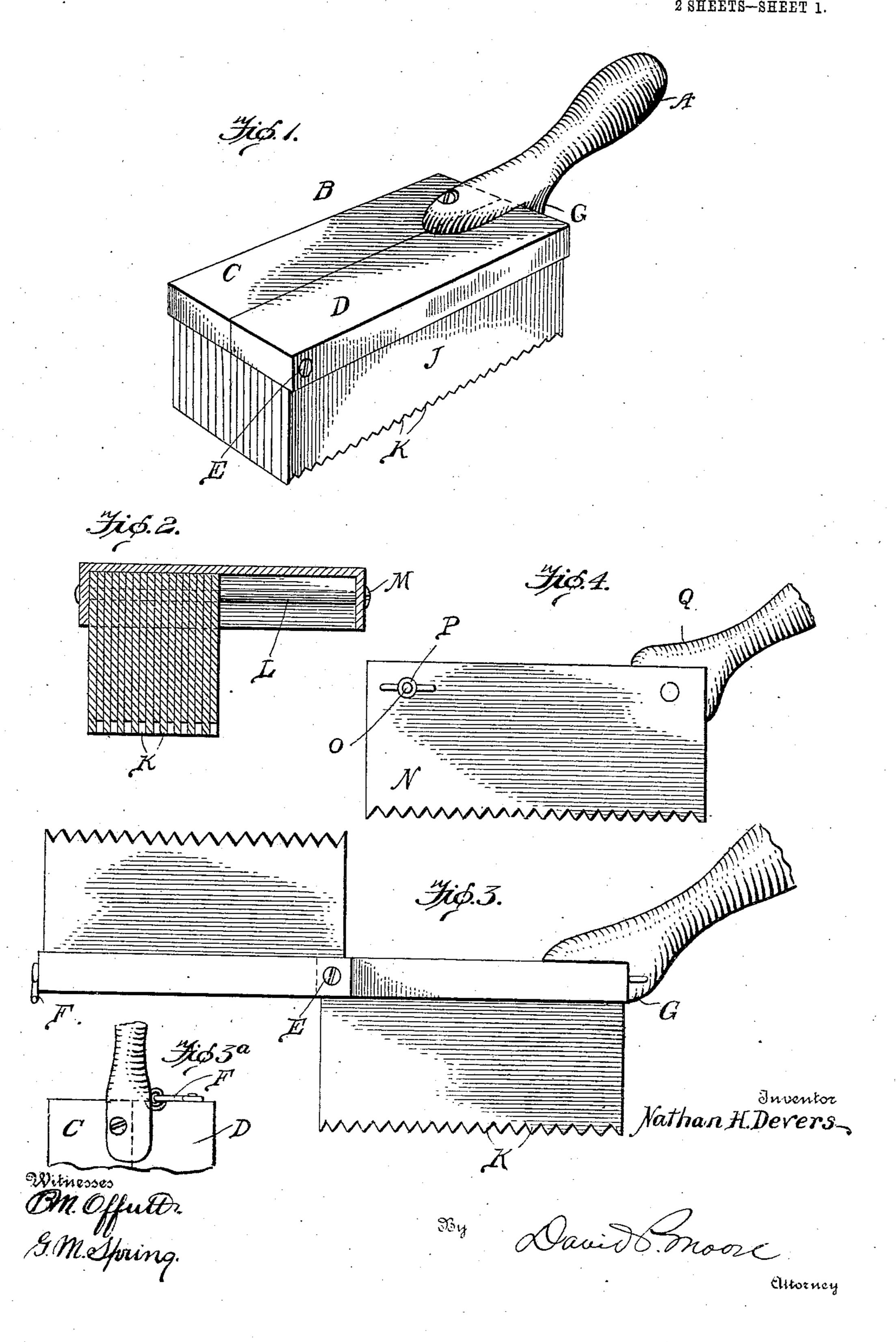
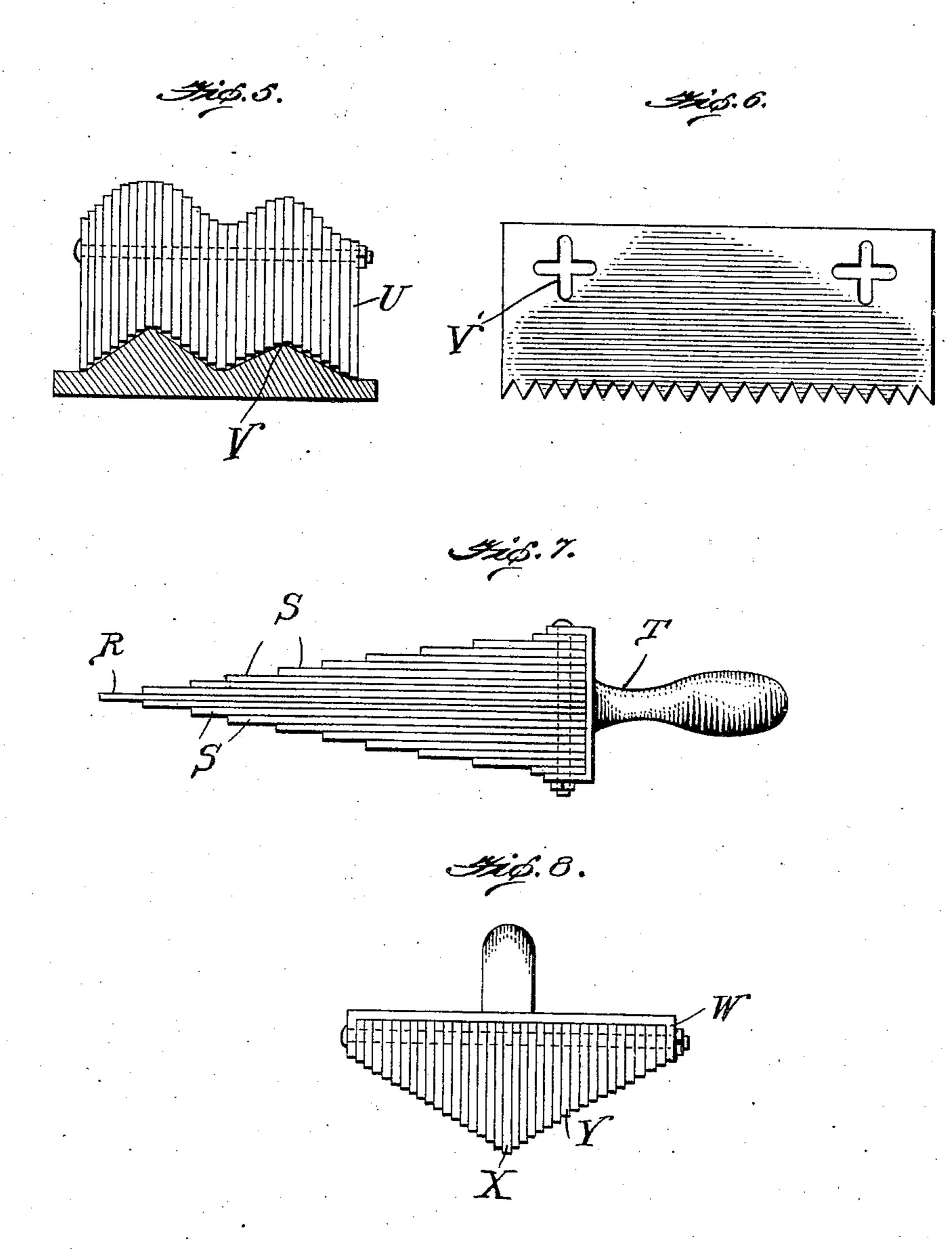
N. H. DEVERS. WOODWORKING TOOL. APPLICATION FILED DEC, 15, 1906.



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UNITED STATES PATENT OFFICE.

NATHAN H. DEVERS, OF WASHINGTON, DISTRICT OF COLUMBIA.

WOODWORKING-TOOL.

No. 854,725.

30 appear.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed December 15, 1906. Serial No. 347,968.

To all whom it may concern:

Be it known that I, NATHAN H. DEVERS, a citizen of the United States, residing at Washington, in the District of Columbia, 5 have invented certain new and useful Improvements in Woodworking Tools, of which the following is a specification, reference being had therein to the accompanying drawing.

My present invention relates to improvements in woodworking tools, and has special reference to a device, whereby mortises, or openings of any nature formed to receive different kinds of hardware or joints, are reamed 15 or neatly cleared of all rough surfaces and edges, in a thorough and quick manner and in fact for any purpose where a rasp or sand paper may be used, the said tool being the embodiment of simplicity, durability and in-20 expensiveness. To this end, I attach to a handle a body carrying a series of removably cross or rip saw kind, according to the work desired, and fine or coarse according to the 25 surface and the character of material worked upon. I also provide a means whereby any sized mortise or opening may be operated

I would have it understood that many forms of bodies or frames for holding the blades may be resorted to without departing from the spirit of my invention, but to 35 clearly illustrate the invention, I prefer the forms shown in the accompanying drawings, in which:—

upon, by simply hinging or pivoting a por-

tion of the body of the tool, as will presently

Figure 1 is a perspective view of the complete tool. Fig. 2 is a cross section, to illus-40 trate the method of securing the blades together. Fig. 3 is a side elevation of the tool when being used in smaller mortises. Fig. 3ª is a detail view to show catch. Fig. 4 is a side view of a modified form. Fig. 5 45 illustrates another modified form used for making "trim." Figs. 6, 7 and 8 are views of other modified forms.

Referring to the drawings:—A designates the handle, which may be attached in any 5° desired manner to the body or frame B. This frame, as shown in Figs. 1, 2 and 3, is made in two or more sections C and D, which are pivoted together by the forward bolt or pivot E, so that the sections can be swung to | 55 assume the position, shown in Fig. 3. The

sections are held together, as shown in Fig. 3ª by means of the catch F, and the underside of the handle as at G. This is the normal position of the sections, and especially when used to clear a large mortise, the sec- 60 tions assuming the position as shown in Fig. 3 only when clearing a smaller mortise, at which time the shoulder and bolt E with its clamp, hold the section against "closing."

Mounted in the frame are the series of 65 blades or plates J, whose lower edge is provided with cutting teeth K, which are preferably so mounted in the frame as to alternate or be arranged staggeredly transversely of the frame, so that a better "cut" is pro- 70 vided. These blades may be held in any desired manner, but the bolts L, with set screws M, as shown are preferred.

As shown in Fig. 4, I dispense with the sectional frame, and secure the blades N, together 75 by means of the bolts O, and set screws P, by mounted blades provided with teeth, of the | means of which the blades may be renewed when desired, a handle Q being attached to operate the tool.

> In the form shown in Figs. 5, and 6, I pro- 80 vide each blade U, with the cross-shaped slots V' for the reception of the bolts, and by means of said slots, the cutting edges V, may be adjusted to form grooves and beads for "trim".

> In Fig. 7, I provide a tool for cutting tapered openings or conical counter-sinks for heads of screws and bolts, the central blade R being longer than the blades S, which are held in place by means of the handle and go frame T. To form single grooves or channels in surfaces, I provide the combination. shown in Fig. 8, which consists of the frame W, carrying the central wide blade X, and the graduated narrow blades, Y.

It is evident from the foregoing that I provide a very simple, durable and inexpensive tool, for this character of work, which is thoroughly practical and efficient.

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

1. A woodworking tool, comprising a handle, a frame formed in two sections pivoted together at one end, the other end of one section being connected to the handle, and 105 blades having teeth upon one edge carried by each section the pivoting of the sections of the frame providing a means whereby the tool may be operated in large or small mortises.

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2. A woodworking tool, comprising a handle, a series of sections forming a frame pivoted together at one end, the handle being connected to the other end of one of the sections, means for locking the sections together, and a series of blades having one toothed edge carried by the sections of frame the pivoting of the sections of the

frame providing a means whereby the tool may be operated in large or small mortises.

In testimony whereof I affix my signature in presence of two witnesses.

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NATHAN H. DEVERS.

Witnesses:

DAVID C. MOORE, CLARENCE C. HELLEN.