

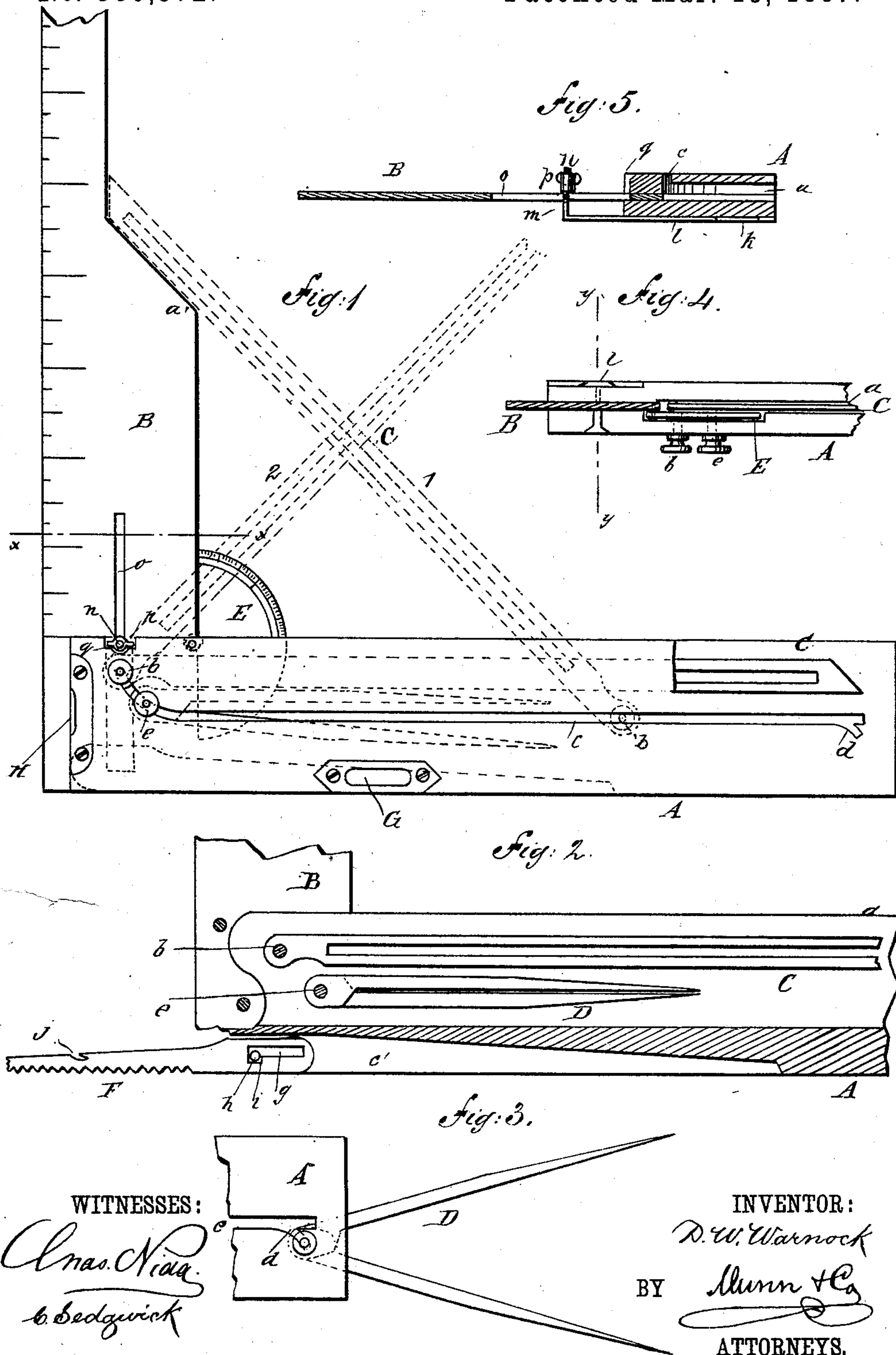
(No Model.)

D. W. WARNOCK.

COMBINATION TOOL FOR SQUARING, LEVELING, &c.

No. 359,372.

Patented Mar. 15, 1887.





# UNITED STATES PATENT OFFICE.

DAVID WESLEY WARNOCK, OF LEXINGTON, KENTUCKY.

## COMBINATION-TOOL FOR SQUARING, LEVELING, &c.

SPECIFICATION forming part of Letters Patent No. 359,372, dated March 15, 1887.

Application filed February 18, 1886. Serial No. 192,349. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID WESLEY WARNOCK, of Lexington, in the county of Fayette and State of Kentucky, have invented a new and useful Improvement in Combination-Tools, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a side elevation. Fig. 2 is a side elevation with the side of the body of the tool removed. Fig. 3 is a detail view showing the compasses in position for use. Fig. 4 is a transverse section taken on line *x x* in Fig. 1. Fig. 5 is a section taken on line *y y* in Fig. 4. Similar letters of reference indicate corresponding parts in the different figures of the drawings.

The object of my invention is to provide a combination-tool for squaring, leveling, plumbing, centering cylinders, laying off angles, starting a saw-kerf for cutting a key-hole, and for cutting lace-leathers for belting.

My invention consists in various instrumentalities by which these objects are attained, as hereinafter more fully described.

The body A of the combination-tool is provided with a longitudinal groove, *a*, in one edge thereof, and to one end of the body and in the longitudinal groove is secured the square blade B, which is cut away at an angle of forty-five degrees upon its inner edge near the body A, forming a beveled shoulder, *a'*, for receiving and supporting the end of a slotted bar, C, when in the position shown in dotted lines, Fig. 1. The bar C is fitted to the slot of the body and is provided with a pivotal pin, *b*, which projects through a slot, *c*, formed in the side of the body, and retains the bar C in the body A, while admitting of adjusting it in position for use, or folding it into the body A when not in use. The end of the slot *c* nearest the blade B is curved toward the blade, and the opposite end of the slot is provided with a branch, *d*.

In the groove *a* of the body of the instrument is placed a thin pair of compasses, D, with a pivotal pin, *e*, projecting through the slot *c* in the side of the body A. When it is desired to use the bar C, the compasses D are drawn forward in the slot into the branch *d* and the pivotal pin of the bar C is moved for-

ward to the extremity of the slot *c*, beyond the branch *d*, when the pivot of the compasses may be moved back into the slot *c* and the compasses may be pushed back entirely within the body A.

When the bar C is folded over upon the shoulder *a'*, as shown in dotted lines 1, Fig. 1, a left miter can be obtained; and when the bar has been pushed back in the slot *c* to the angle of the body and blade and then inclined outward at an angle of forty-five degrees, as shown in dotted lines 2, said figure, a right miter can be obtained. By this construction both right and left miters can be obtained without reversing or turning the square over.

In the body A is formed a cavity, into which the protractor E may be turned when not in use. The outer edge of the body A is provided with a slot, *c'*, for receiving a key-hole saw, F, which is provided with a slot, *g*, in the wider end to receive a pin, *h*, passing through the body A, and at one end of the slot *g* is formed a notch, *i*, in which the pin *h* is received when the saw-blade is opened.

To facilitate the opening of the saw-blade, the back thereof is provided with a nick, *j*, for receiving the thumb-nail for lifting it out of the handle of the body A. In one side of the body, near the middle thereof, is secured a spirit-level bulb, G, and to the end of the body A, at one side of the blade B, is secured a spirit-level bulb, H. The bulbs G H are employed for leveling and plumbing in the usual way.

The body A of the square also forms the body of the plumb and level.

In a transverse groove, *k*, formed in one side of the body A, is placed a steel bar, *l*, which is bent at right angles at its extremity toward the blade B, and is formed into a knife, *m*, having a shank, *n*, which projects through a slot, *o*, in the blade B, and is provided with a nut, *p*, for clamping the bar *l* and knife *m* in any desired position along the length of the slot *o*.

The knife *m* is designed for cutting lace-strings for belting, and is made adjustable to admit of cutting laces of different widths. When the knife *m* is not in use, it is moved forward into a notch, *q*, in the edge of the body A.



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

1. The combination of the body A, having  
5 slots *a c*, the blade B, provided with the beveled shoulder *a'*, and the slotted bar C, provided with the pivot *b*, substantially as herein shown and described.

2. A combination-tool consisting of the body  
10 A, having slots *a c*, the blade B, having the beveled shoulder *a'*, the slotted bar C, provided with the pivotal pin *b*, the compasses D, provided with the pivotal pin *e*, the protractor E, the spirit-level bulbs H G, and the  
15 bar *l*, carrying the lace-cutting knife *m*, substantially as herein shown and described.

3. A combination-tool consisting of the body A, having slots *a c c'*, the slotted bar C, having the pivotal pin *b*, the compasses D, provided with the pivotal pin *e*, the saw F, having the  
20 slot *g* and arranged to fold in the slot *c'* of the body A, the blade B, having the beveled shoulder *a'*, the folding protractor E, the adjustable lace-cutting knife *m*, and the spirit-level bulbs H G, secured in the end and side of the body A,  
25 substantially as herein shown and described.

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Witnesses:

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