

No. 683,254.

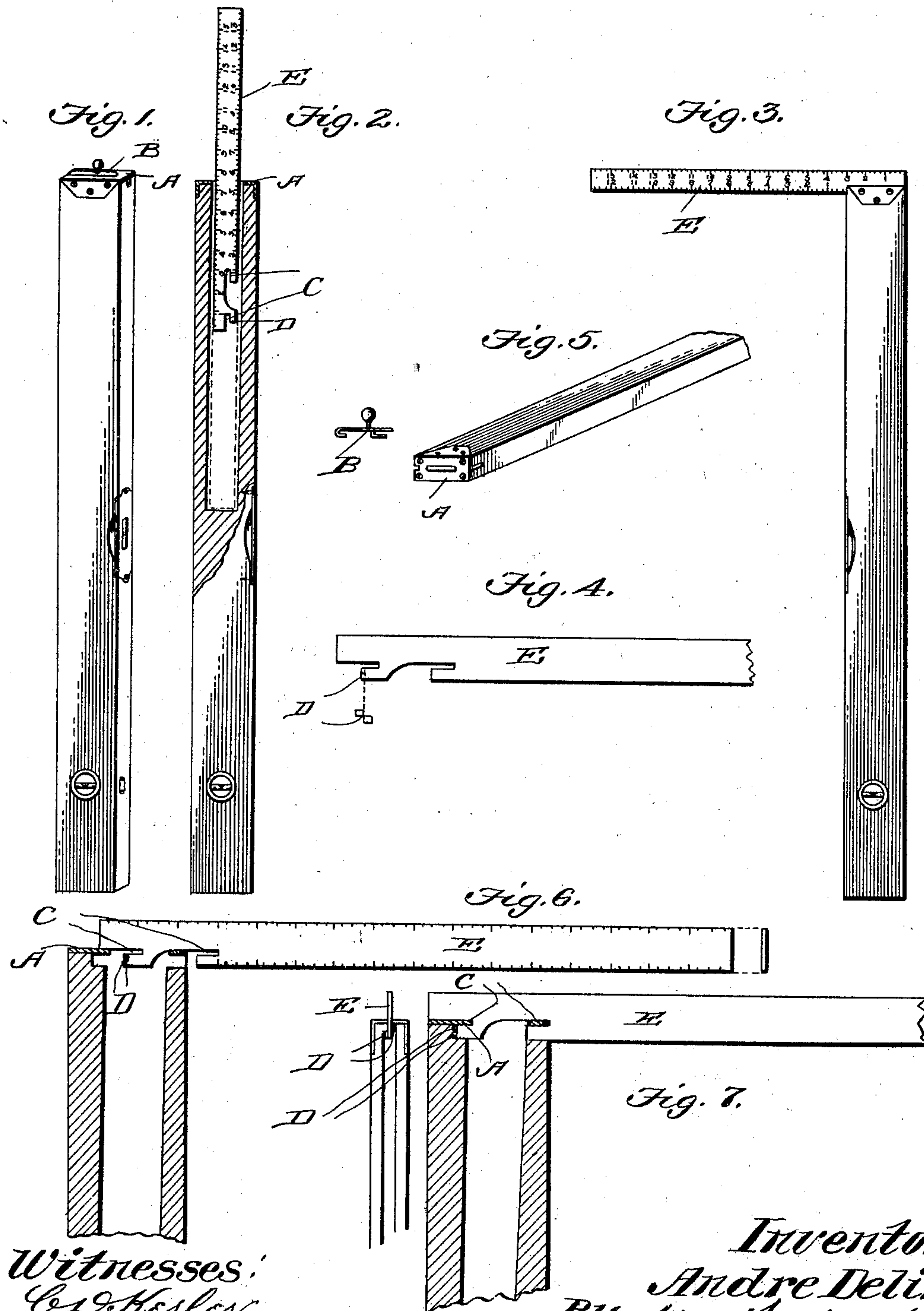
Patented Sept. 24, 1901.

A. DELIN.

COMBINATION TOOL FOR SQUARING PURPOSES.

(Application filed July 12, 1900.)

(No Model.)



Witnesses:  
C. S. Kesler  
J. B. Keeler

Inventor  
Andre Delin  
By *Alban Audin*  
Atty.



# UNITED STATES PATENT OFFICE.

ANDRE DELIN, OF EVERETT, MASSACHUSETTS.

## COMBINATION-TOOL FOR SQUARING PURPOSES.

SPECIFICATION forming part of Letters Patent No. 683,254, dated September 24, 1901.

Application filed July 12, 1900. Serial No. 23,320. (No model.)

*To all whom it may concern:*

Be it known that I, ANDRE DELIN, of Everett, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Combination-Tools for Squaring Purpose to be Used in Connection with a Level or Plumb-Rule, of which the following is a specification.

My invention consists of making a metal blade to be attached and inserted into an ordinary level or plumb-rule, making a combination-tool which may be used for both leveling, plumbing, and squaring purposes.

The advantages of my improvements are compactness, accuracy, and a saving of labor by the use of the tool.

The accompanying drawings illustrate my invention, in which—

Figure 1 represents the tool with the blade inclosed and in use only for leveling and plumbing purposes. Fig. 2 is a cross-section through the center of the tool and showing the blade of the square half drawn out. Fig. 3 represents the blade drawn out and set in position ready for use either for squaring, leveling, or plumbing purposes. Fig. 4 is a detail drawing of the method of fastening the blade into the headpiece of the level. Fig. 5 represents the metal head and cap which holds the blade in position when in use and covers the opening when blade is inclosed in the level. Fig. 6 represents the metal blade before being pushed into position for squaring purposes. Fig. 7 shows the blade pushed into and held in place by the metal head of the level.

Similar letters refer to similar parts of the drawings.

A represents a metal head with a slot cut in the center, through which the blade of the square is inserted when not in use and into which the blade is fastened when used for squaring purposes.

B shows a side view of the cap, which covers the slot when blade is inserted into level and is fastened into slot by means of bent pieces of metal pushed into the slot and having a slight spring.

C C are slots cut into metal blade and which are pushed into the slot in the metal head A and hold the square in position while in use.

D D are two metal flanges turned in oppo-

site directions and preventing the blade of square being drawn out of slot at A.

E is a metal blade which is figured on both sides for measuring purposes and when fastened into metal cap A is used for squaring purposes. The blade is drawn out, as shown in Fig. 2, until the flanges D strike the metal head A. The blade is then turned at an angle of forty-five degrees with the level, and the slots C C are pushed into metal head A, as shown by Figs. 3 and 6.

I am aware that prior to my invention tools have been used for both leveling and squaring purposes, and therefore I do not claim such a combination broadly; but

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

1. The combination with a level provided with a pocket, a blade slidably mounted in said pocket, a cap on the end of the level partially closing said pocket, and means on one edge near one end of said blade for engaging said cap to hold the blade in position at right angles to the level, substantially as described.

2. In combination with a level provided with a pocket, a blade slidably mounted in said pocket, a cap on the end of the level partially closing said pocket, means on one edge near the end of said blade for engaging said cap to hold the blade in position at right angles to the level, and means for preventing the withdrawal of the blade from the level, substantially as described.

3. In combination with a level provided with a pocket, a blade slidably mounted in said pocket, a cap on the end of said level partially closing said pocket and provided with slots, and tongues provided on one edge near one end of said blade for engaging in said slots when the blade is partially withdrawn from the level and turned at a right angle thereto, substantially as described.

4. In combination with a level provided with a pocket, a blade slidably mounted in said pocket and having on one edge near one end one or more engaging devices and upturned portions, and a cap on the level having slots therein for the passage therethrough of the blade whereby on withdrawing the blade, said upturned portions will engage the under side of said cap to prevent the withdrawal of the blade and upon turning the

blade to a position at right angles to the level, said engaging devices may be brought into engagement with said cap to hold the blade in position, substantially as described.

- 5 5. In combination with a level provided with a pocket, a blade slidably mounted in said pocket, a cap on the end of said level partially closing said pocket and having an opening, means carried by the blade for engagement with said cap whereby the blade may be  
10 held in a position at right angles to the level,

and a slide-plate provided with means for engaging said cap, whereby to close the opening therein when said blade is within the pocket, substantially as described.

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

ANDRE DELIN.

Witnesses:

GEORGE H. WOOD,

ALEXANDER SANDBERG.