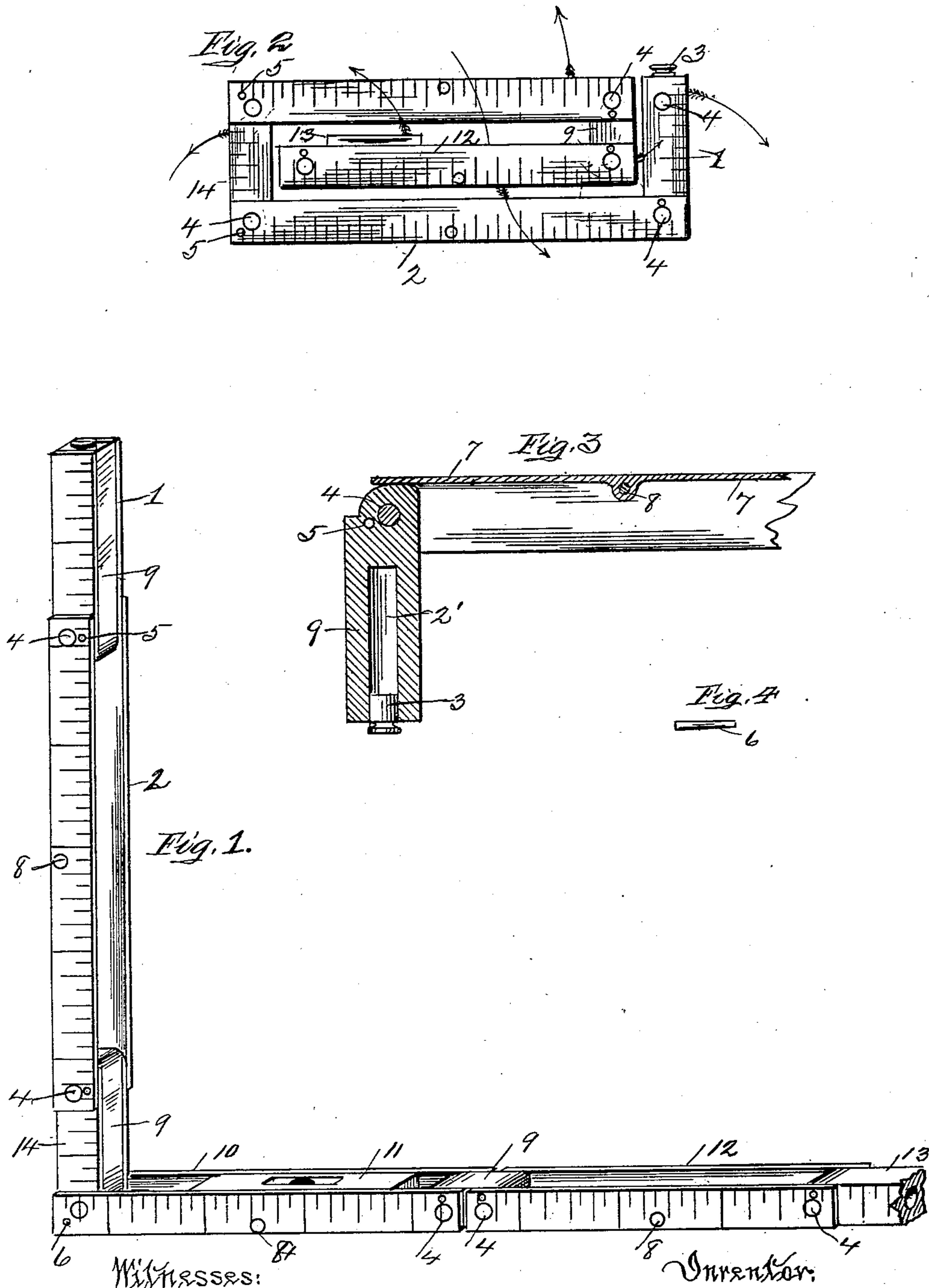


No. 733,570.

PATENTED JULY 14, 1903.

A. E. VICTOR.  
COMBINATION RIGHT ANGLE SQUARE AND LEVEL.  
APPLICATION FILED DEC. 27, 1902.

NO MODEL.



Witnesses:  
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*Att'y.*



# UNITED STATES PATENT OFFICE.

ALBERT E. VICTOR, OF McKEESPORT, PENNSYLVANIA, ASSIGNOR OF ONE-THIRD TO WALTER GESSNER, OF McKEESPORT, PENNSYLVANIA.

## COMBINATION RIGHT-ANGLE SQUARE AND LEVEL.

SPECIFICATION forming part of Letters Patent No. 733,570, dated July 14, 1903.

Application filed December 27, 1902. Serial No. 136,828. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT E. VICTOR, a citizen of the United States, residing at McKeesport, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Combination Right-Angle Squares and Levels, Either Vertical or Horizontal, of which improvement the following is a specification.

This invention relates to an improved combination right-angle square, level, a measuring device and other useful combinations; and it consists in the certain details of construction and combination of parts, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a perspective view of my improved combination-tool opened in the form of a square, the same being constructed and arranged in accordance with my invention. Fig. 2 is a plan view of the tool folded in compact form. Fig. 3 is an enlarged sectional view showing a portion of one of the hinges together with the back spring and the receptacle for the reception of the locking-pins when not in use. Fig. 4 is a detail view of one of the locking-pins.

To put my invention into practice and thereby form a combination-tool for mechanics' use, I provide a suitable number of graduated strips of various lengths and connect them together by hinges in the manner shown at Fig. 1 of the drawings. The first section consists of two short strips 1 arranged at either side of a filling, 9 (see Fig. 1,) consisting of a rectangular piece of metal, shown in section at Fig. 3, the same being provided with a central bore 2' and stopper 3, in which a number of small pins 6 are placed, the use of which will be hereinafter described. This same piece 1 is formed with a hinge portion 4 to connect with the next adjoining section 2, which consists of two of the graduated strips and a back spring 7, said spring being secured in position by a rivet 8 and the one end bearing against a shoulder formed on the hinge of the first-mentioned section 1 and the other end of the spring on the shoulder of the hinge of the next section 14. This section is similar to the first section 1 and is in its turn connected to another section 10, similar in form to the second section 2. The filling 9 of the third section, however, is not provided

with a central bore. The section 10 last described is fitted between the strips with a spirit-level 11 and is connected by hinge-joints 4 and filling 9 to another of the same construction. Each of these two last-described sections 10 and 12 are alike with the section 2, being fitted with a back spring 7. The last section 13 is formed in the same manner as the first section 1.

At Fig. 1 of the drawings I have shown the tool bent in the form of a try-square, and in the same form it may be used as a horizontal or vertical indicator. The forms of the hinge connections are such as to make the tool a perfect square when bent as shown in said figure. The entire section may be straightened the one in line with the other to form a rule for measuring distances, or the same may be folded in convenient form, as shown at Fig. 2 of the drawings.

Should the hinge-joints of either or any of the sections become loose from constant wear, small pins 6 are inserted in openings 5, formed through each joint, which pins when not in use are stored in the receptacles 2', formed in the end sections.

This tool will be found useful to mechanics for various purposes, which it is thought not necessary to enumerate.

Various modifications and changes may be made in the details of construction without departing from the spirit of the invention. Therefore I do not wish to confine myself to the exact construction shown and described.

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

The herein-described combination-tool consisting of a plurality of sections, said sections each comprising a pair of graduated strips, and a back spring, blocks arranged between said sections and having the ends of said strips pivoted thereto, said blocks being hollow and engaged by said back springs, and stoppers arranged in the openings of said blocks.

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

ALBERT E. VICTOR.

In presence of—

JOHN GROETZINGER,  
M. HUNTER.