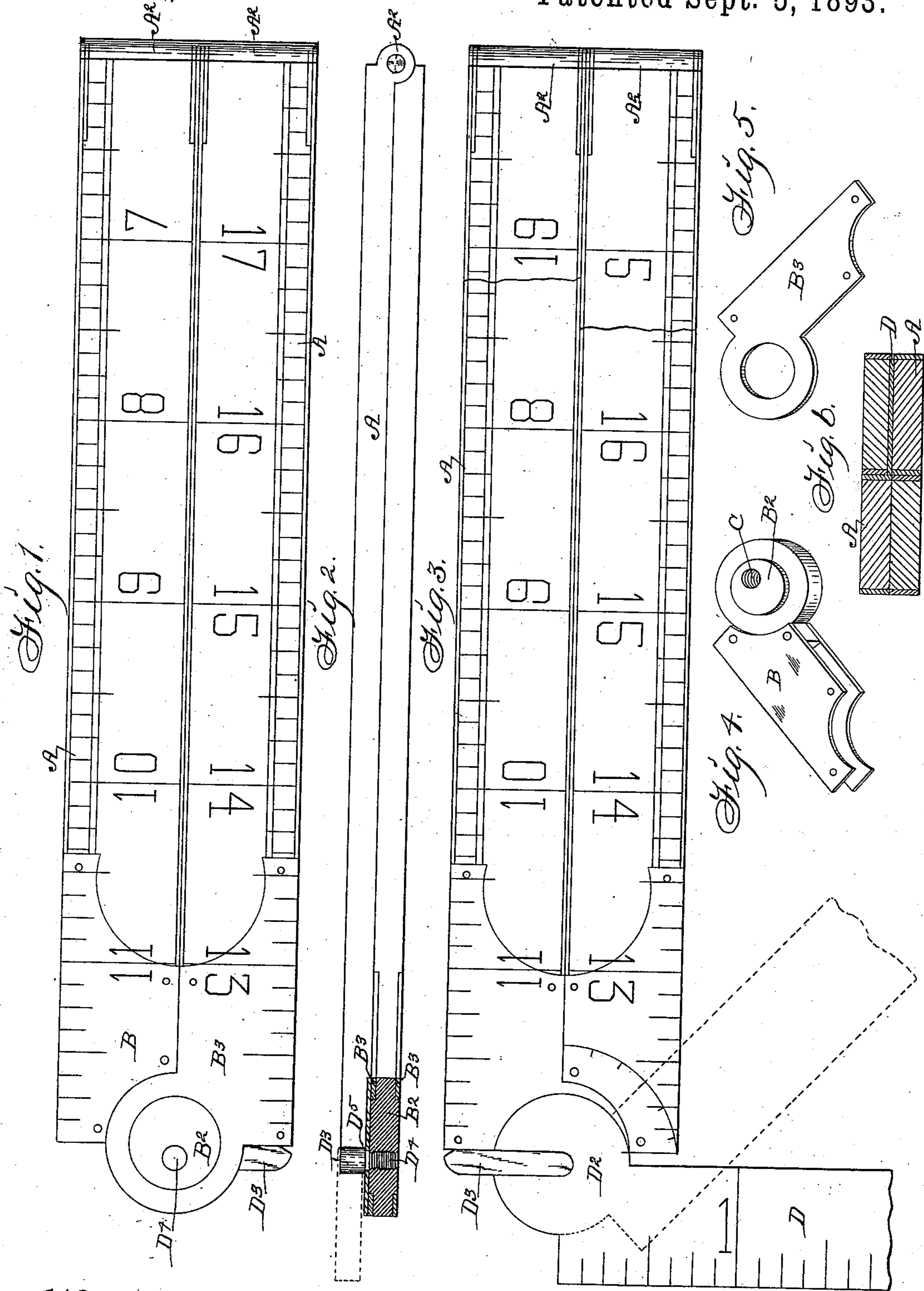


(No Model.)

W. H. H. GARRITT.
COMBINED RULE, BEVEL, AND SQUARE.

No. 504,341.

Patented Sept. 5, 1893.



Witnesses:
W. J. Sankey.
J. Ralph Orwig.

Inventor: William H. H. Garritt,
By Thomas G. Orwig, Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM H. H. GARRITT, OF DES MOINES, IOWA.

COMBINED RULE, BEVEL, AND SQUARE.

SPECIFICATION forming part of Letters Patent No. 504,341, dated September 5, 1893.

Application filed December 13, 1892. Serial No. 455,014. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. H. GARRITT, a citizen of the United States of America, residing at Des Moines, in the county of Polk and State of Iowa, have invented a Folding Rule, Bevel, and Square Combined, of which the following is a specification.

My invention consists in the construction of a folding rule, in the construction of a bevel and square and in the manner of combining the two so that one will not interfere with the operation of the other, and so that both may be folded together to occupy a minimum of space as hereinafter more specifically set forth, pointed out in my claims and illustrated in the accompanying drawings in which—

Figure 1 is a top or plan view of a complete folding rule, bevel, and square, in a folded position. Fig. 2 is a longitudinal sectional view through the central portion of Fig. 1. Fig. 3 is a top view of a part of the folding rule and the bevel and square fixed in a position at right angles thereto. The dotted lines show the bevel and square in a different position relative to the rule. Figs. 4 and 5 are perspective views of parts of the compass hinge which connects the two central pieces of the rule. Fig. 6 is a transverse sectional view through the central portion of the complete device in a folded position.

Referring to the accompanying drawings the reference letter A is used to designate a folding rule, composed of four sections, the two central ones of which are hinged to each other to move laterally and the end sections hinged to the central ones at the point A² to swing in a plane at right angles thereto in the ordinary manner. The aforesaid central pieces are connected by means of a compass joint one part of which B is attached to one rule section and has the integral journals B² projecting from its side.

B³ B³ are two mating pieces fixed to the remaining rule section and provided with openings to admit the said integral journals B².

C designates a screw-threaded bore extended through the part B of the compass joint at the approximate ends of the rule sections.

D designates a flat straight metal strip having a scale marked thereupon and a concentrically bored circular formation D² formed on its inner corner. This part D is placed upon the inner surface of one of the central pieces of the rule and a part of one of the rule sections is removed to allow the said part D to be folded between the upper and under sections of the rule and to lie flat therein.

D³ designates a lever having a portion D⁴ bent at right angles and provided with an annular shoulder D⁵ and screw threaded throughout the remainder of its length. This screw threaded portion is first extended through the bore in the part D², then screwed into the screw threaded bore C, the lever proper being of such a size and shape that it may be placed parallel with the end of one of the rule sections and the screw-threaded portion is so arranged that the lever will be in a position parallel with the end of one of the rule sections when the portion D is securely clamped thereby. It will now be obvious that the bevel or square is practically connected with but one piece of the folding rule so that when the bevel is not in use it lies parallel with said section and does not interfere with the use of the rule.

The operation of the bevel and square is as follows: The lever D³ is moved away from the end of the rule sections to thereby unscrew the part D⁴ and raise the shoulder D⁵ above the bevel and square to loosen the same. It is then placed in any desirable position relative to the rule either at right angles to serve as a square or at any other angle to serve as a bevel and the lever again placed in a position parallel with the ends of the rule sections to securely clamp the bevel or square in its position.

The rule and bevel and square are both provided with the usual scale as shown in the drawings.

Having thus described the construction and function of the device, what I claim as my invention, and desire to secure by Letters Patent of the United States therefor, is—

1. In combination with a folding rule consisting of a plurality of sections the central ones of which are connected by means of a compass joint substantially as shown, a flat metal bevel or square adapted to lie flat upon one of the sections a bore in the end of said bevel or square, a screw-threaded bore ex-

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tended through the solid portion of the compass joint, and a lever having the annular shoulder and screw threaded portion substantially as set forth extended through the bore
5 in the bevel and square and screwed into the solid portion of the compass joint for the purposes stated.

2. A folding rule bevel and square combined comprising a rule having two or more
10 sections a hinge for connecting the central sections thereof composed of a circular formation having integral journals on its side faces and adapted to be fixed to one rule section
15 and two mating plates having openings to receive said journals fixed to opposite sides of the remaining rule section, a screw threaded bore extended through the solid hinge section
20 a bevel or square having a bore at its one end as set forth and a bent lever having an annular shoulder and a screw threaded portion for the purposes stated.

3. A folding rule bevel and square combined comprising a rule composed of four sections the inner ones connected by means of the compass joint consisting of the part B having the integral journals B² a screw threaded
25 bore extended through the said journals B² a bevel and square having a bore extended through one of its ends and adapted to lie parallel with the inner face of the rule section
30 having the solid hinge section, and a bent lever having an annular shoulder formed thereon and screw threaded to enter the bore in the solid portion of the hinge section adapted
35 to be placed in said screw-threaded bore and lie parallel with the ends of the rule sections substantially in the manner set forth.

WILLIAM H. H. GARRITT.

Witnesses:

W. J. SANKEY,
THOMAS G. ORWIG.