J. C. RORICK.

BEVEL-SQUARE.

No. 184,177. Patented Nov. 7, 1876.

Fig. 1.

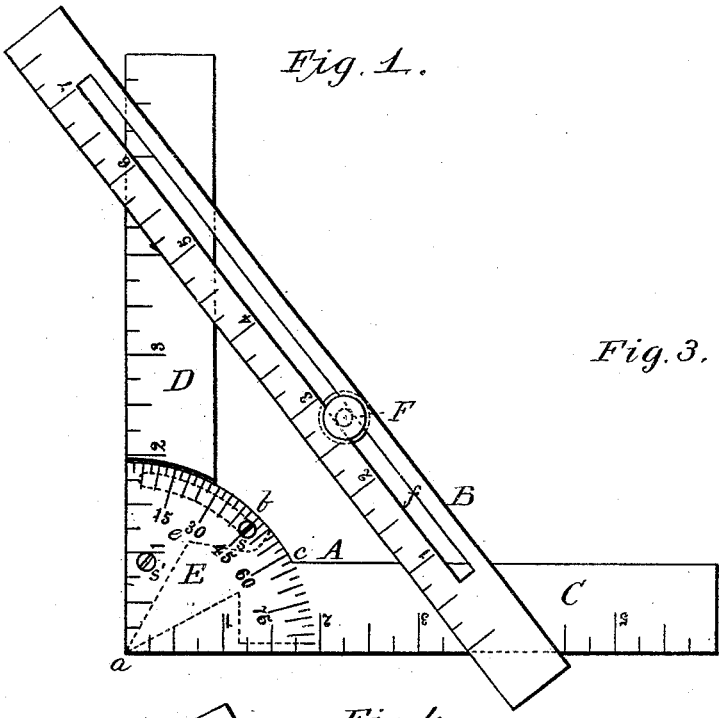



Fig. 3.

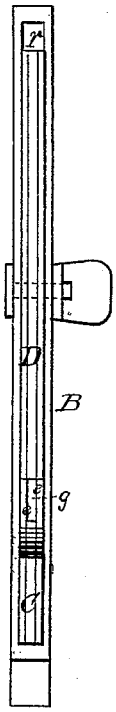


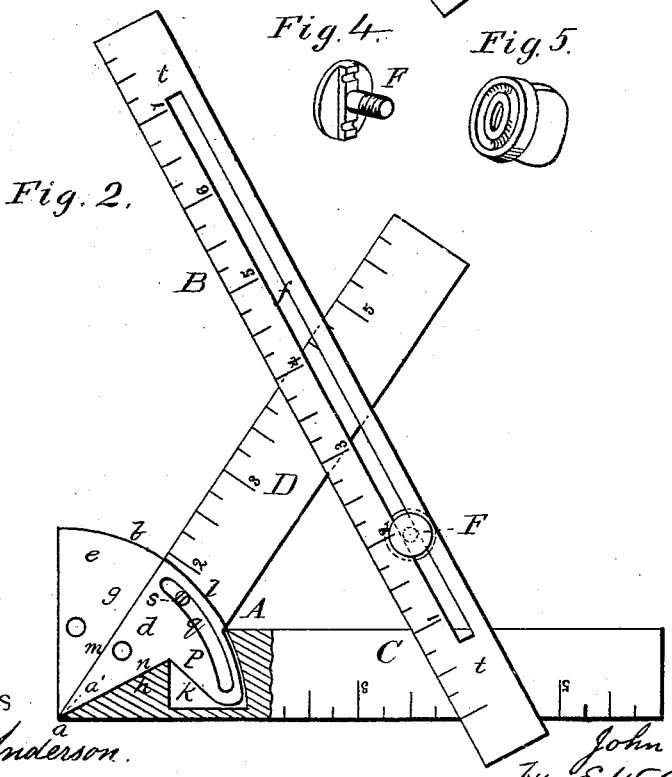

Fig. 4.




Fig. 5.



Fig. 2.




WITNESSES

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# UNITED STATES PATENT OFFICE.

JOHN C. RORICK, OF WAUSEON, OHIO.

## IMPROVEMENT IN BEVEL-SQUARES.

Specification forming part of Letters Patent No. **184,177**, dated November 7, 1876; application filed October 9, 1876.

*To all whom it may concern:*

Be it known that I, JOHN C. RORICK, of Wauseon, in the county of Fulton and State of Ohio, have invented a new and valuable Improvement in Bevel-Squares; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my invention. Fig. 2 is a vertical central section of my invention. Fig. 3 is an edge view of the same; and Figs. 4 and 5 are detail views.

This invention has relation to bevel-squares for the use of carpenters and others; and it consists in the construction and novel arrangement of the cleft quadrant end of one arm of the square, the radially-adjustable arm having a curved guide-slot and centering extension, and the four-barred rule or straight-edge, having its bars separated by two longitudinal slots, designed, respectively, to receive the branches of the square, and the shank of the set-screw, as hereinafter fully shown and described.

In the accompanying drawings, the letter A designates the adjustable square, and B the four-barred rule or straight-edge used in connection therewith. The square A is made in two parts or branches, whereof one, which is used as the base, is lettered C, and the other, which is adjustable in relation to said base, is marked D. The arm or branch C is provided at one end with a quadrant-extension, E, whereof the center is located at the angle *a* of the square, and the marginal arc *b* joins the inner edge of this arm at *c*. This quadrant-extension is cleft edgewise, in such a manner as to form two cheek-plates, *e*, between which an angular tongue, *d*, of the adjustable arm D is received, said tongue being nearly equal in thickness to the width of space between the plates *e*.

The cleft *g* is not designed to extend entirely through from edge to edge of the base-arm; but it extends from the angle *a* to the angle *c*, outward. The floor or bottom of the cleft extends radially, as shown at *h*, from the central angle *a* toward the angle *c* for a certain distance, beyond which it dips into the metal of the arm, forming a recess, *k*.

The adjustable arm D is reduced by forming shoulders *l* on each side, at the head of the tongue *d*, said shoulders having concave curvature, to correspond with the arc of the quadrant-extension, with which they are in contact when the branches are connected, so that the adjacent parts are flush with each other at this joint. The tongue *d* is bounded on one side by the extended edge of the arm, as shown at *m*. At its apex or point *a'* it corresponds with the angle *a* of the quadrant-arm; but the angle of the tongue is acute, and its inner border *n* extends from the apex toward the inner end of the shoulder *l* for a certain distance, beyond which the arm extends outward, as shown at *p*, to provide a border for the curved guide-slot *q*, which is formed in the tongue upon a curve which has its center at the apex *a'*.

When the branches are connected, the apex *a'* of the tongue is brought in contact with the floor *h* of the cleft at the angle, and the parts are connected, and held firmly as adjusted by means of a clamp-screw, *s*, or other suitable device.

It is apparent that the arm D can be adjusted to measure a number of angles less than ninety degrees, and that the adjustment can be readily fixed by the means referred to.

For many purposes, the rectangular adjustment of the two arms does not require to be varied, and, in order to secure them with precision in this relation, a second fastening or screw, *s'*, passing through the quadrant cheeks and tongue, may be used. When the smaller angles are measured between the branches, the slot-extension *p* of the tongue is received into the recess *k*. The circular margin of the quadrant is graduated for angular measurement, and scales are marked on those edges of the arms which extend in the direction of the angle *a*. It will be observed that the scale of the adjustable arm is continued upon that edge of the quadrant-extension with which it corresponds.

The rule or straight-edge B, which is used in connection with this square, is slotted longitudinally from edge to edge, as shown at *r*, for the reception of the arms C and D. It is

formed of two plates with transverse blocks or end pieces secured between the same. For the passage of the clamp-screw F, the bar is slotted through from side to side, as shown at *f*. This slot extends longitudinally also, but is shorter that the slot *r*, the metal of the sides being left intact at *t*, at each end, to strengthen and brace the bars of the rule against the transverse strain of the fastening.

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

1. A bevel-square consisting of a base-branch, C, having the cleft quadrant end extension E, and the radially-adjustable arm D, having the curved guide-slot *q*, shoulders *l*, and angular centering-tongue *d*, substantially as specified.

2. The combination, in a bevel-square, of the cleft quadrant-arm C, the adjustable arm D, and the four-barred rule B, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN C. RORICK.

Witnesses:
W. C. KELLEY,
CORNELIUS MCCLARREN.