

J. BARKER.
CARPENTER'S STEEL SQUARE.
APPLICATION FILED JUNE 8, 1907.

952,176.

Patented Mar. 15, 1910.

Fig. 1

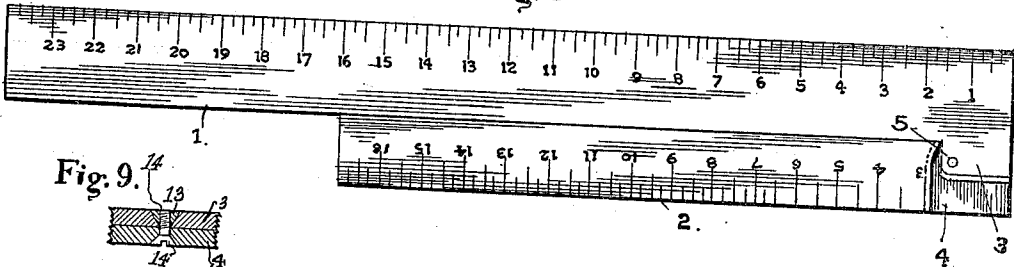


Fig. 9.

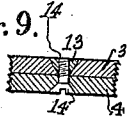


Fig. 3

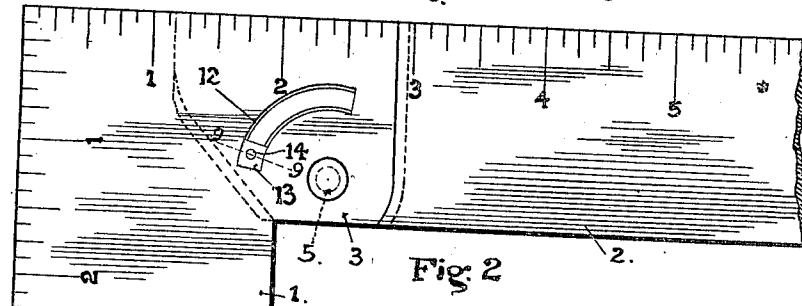
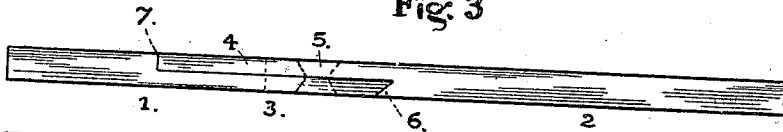


Fig. 2

Fig. 4

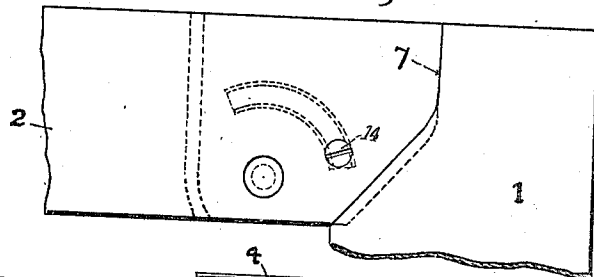


Fig. 7

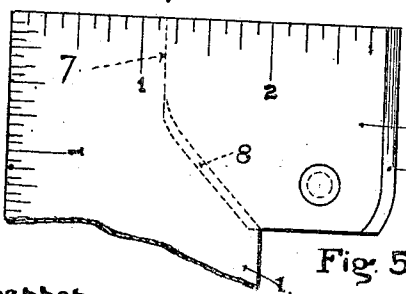
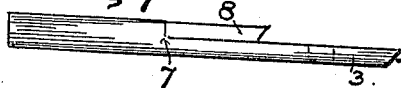


Fig. 5

Fig. 8

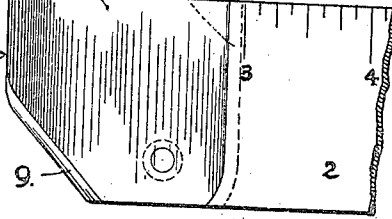
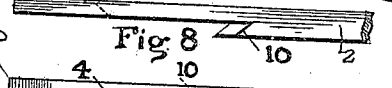


Fig. 6

Witnesses
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UNITED STATES PATENT OFFICE.

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CARPENTER'S STEEL SQUARE.

952,176.

Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed June 3, 1907. Serial No. 377,006.

To all whom it may concern:

Be it known that I, JOHN BARKER, resident of the city and county of San Francisco and State of California, have invented new and useful Improvements in Carpenters' Steel Squares, of which the following is a specification.

This invention relates to an improvement in a carpenter's steel-square; and it has for its object chiefly to provide a steel-square in which the two blades or members are united by a joint that permits one member to be folded against the other member, so as to bring the instrument into a smaller compass capable of being stowed in the tool-box, when not in use.

The invention embraces a construction of steel-square having the two blades or members permanently united by a hinge-joint of novel construction, in which the true position of the blades at right angles to each other is secured and maintained when the instrument is unfolded for use, and a strong and durable connection of the blades with each other is afforded. The joint is of such character also that by the addition of a clamping-means on one member working in a slot in the other member, the two blades or members may be set at varying angles less than 90°, thereby giving the instrument the additional function of a try-square.

The following description explains at length the nature of the said invention and the manner in which I proceed to construct, produce and carry out the same; reference being had to the accompanying drawing illustrating a steel-square of my invention.

Figure 1 of the drawing represents the square in the folded state for carrying or stowing in the tool-box. Fig. 2 is a view, on an enlarged scale, of the head and portions of the two blades or members in unfolded position, standing at right angles to each other. Fig. 3 is a top-view, or edge-view of Fig. 2. Fig. 4 is a reversed side-view of Fig. 2, showing the parts from the back or opposite side. Figs. 5 and 6 are views in detail of the parts composing the joint. Fig. 7 is a top-view or edge-view of Fig. 5; and Fig. 8 is a corresponding view of Fig. 6. Fig. 9 is a detail cross sectional view, taken on the line 9—9 of Fig. 2.

Referring to the drawing, the reference numerals 1—2 designate the two blades or members of the square; and 3—4—5 the prin-

cipal parts of the joint uniting the blades, and on which they are adapted to fold and lie together in the same plane, as illustrated in Fig. 1, or to open and stand at right angles, as seen in Fig. 2.

The tongue 3 on the blade 1 extending from one side of it is formed integrally with the blade by reducing the thickness of the blade from a point on the end or top edge of the blade about midway of the two sides, as at Figs. 5 and 7, out to the end of the tongue 3. At the junction of the tongue or part of less thickness, with the blade 1 the metal of the blade is under-cut, as represented at 8; such under-cut portion extending from the angle where the tongue springs from the blade 1, in a direction obliquely upward to meet the shoulder 7. The corresponding tongue or part 4 on the blade 2 is similarly formed integral with that blade, but in an inverse relation to the blade, so that when placed together, one overlapping the other, the combined thickness of the two parts 3—4 will equal the thickness of the blades, and their outer faces will lie in a plane with the faces of the blades on front and back.

A joint of ample breadth for stiffness will be formed by extending the tongue 3 beyond or within the pivotal point 5 to about half the width of the blade 1, as to a line 7, so that the tongue 4 on the blade 2 will be of corresponding length from the pivotal point 5 to the end 7^a of the tongue. Any liability to be sprung or weakened at the pivot 5 is overcome, and lateral strains thrown upon the blades when the instrument is adjusted for use are effectively resisted, by forming the beveled edges 6 and 9 on the tongues, and providing reëntering recesses or dove-tailed shoulders 8—10 at the junction of the tongues with the thicker metal of the blades. In the construction illustrated in the drawing the beveled outer edge 6 of the tongue 3 is fitted to the under-cut recess 10, and the two parts interlock for the entire width of the blade 2 and the tongue 3 on the opposite side of the pivotal point 5. The beveled edge 9 of the tongue 4 is fitted to engage the under-cut recess 8 at the back or inner-side of the tongue 3 where it joins the thicker metal of the blade, and the square shoulder 7^a comes to a seat against the shoulder 7 on the blade 1. The pivot 5 is fixed at one end in one blade and upset or headed at the other end,

the hole in the blade being countersunk for that purpose.

I have illustrated in Figs. 2 and 4, a means for securing the blades in working position when the instrument is opened; the same consists of a curved slot 12 formed in the blade 1 and having its opposite sides beveled, and a shoe 13 slidable in the slot, the sides of the shoe being beveled to engage with the beveled edges of the slot. Extending through the shoe and engaging with the other blade, 2, is a screw 14. When the screw is tightened it presses the beveled edges of the shoe against the beveled edges of the slot and thereby locks the blades 1 and 2 together in any position of adjustment they may occupy. This fastening means will enlarge the scope of the instrument by enabling the blade 2 to be set at angles less than 90° with the blade 1, thereby enabling it to serve the purpose of a bevel-square, or a combination square and bevel.

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

A square comprising two blades having tongues of less thickness than the blades and pivotally united, the outer end of each tongue being beveled and each blade having an undercut along the rear portion of its tongue to receive the beveled edge of the tongue on the other blade, one of said blades being provided with a curved slot having its opposite edges beveled, a shoe slidable in said slot and provided with beveled edges to engage with the beveled edges of the slot, and a screw connected to the other blade for pressing the beveled edges of the shoe against the beveled edges of the slot, for locking the two blades in any position of adjustment.

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Witnesses:

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