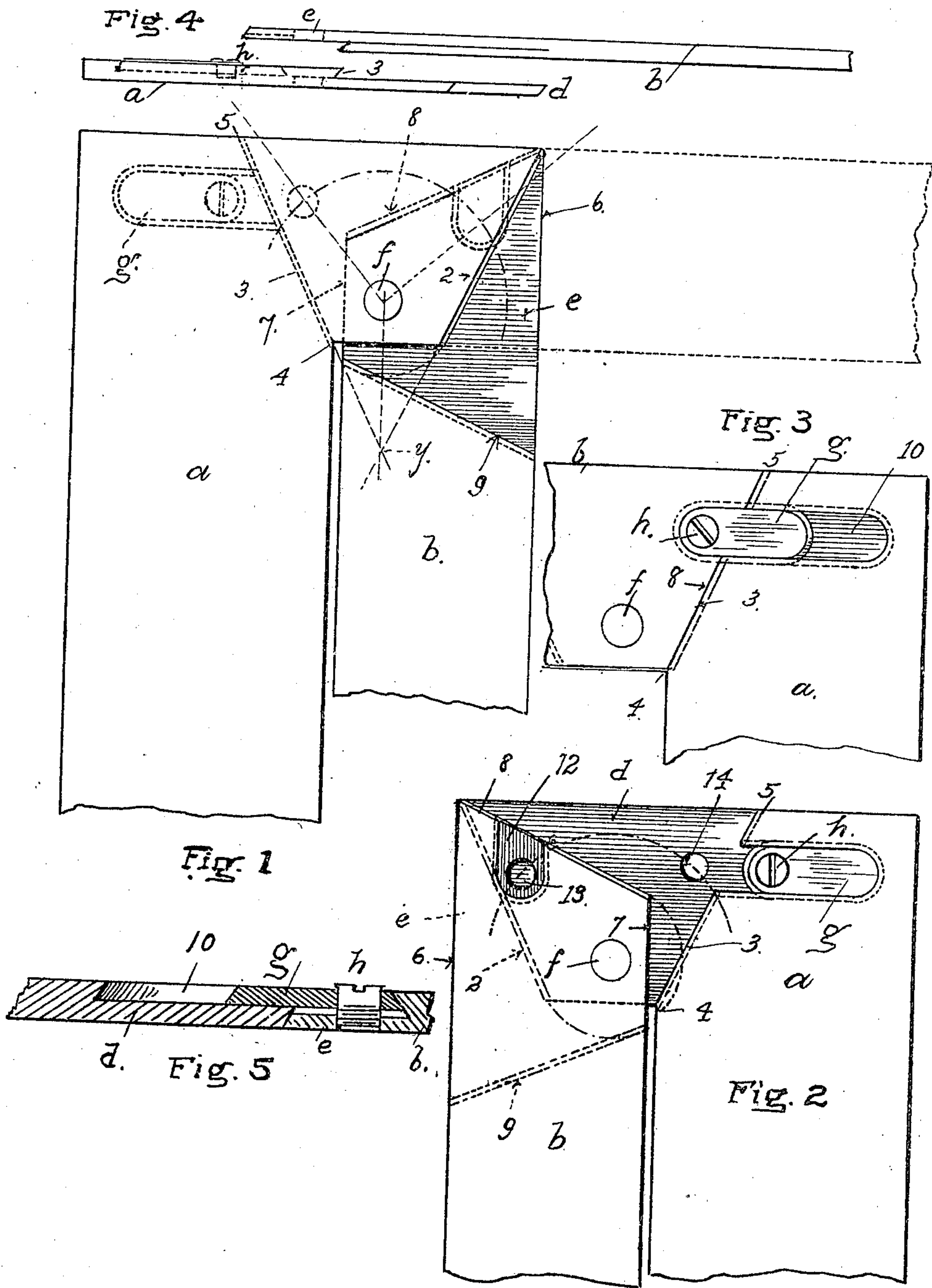


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CARPENTER'S SQUARE.
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952,177.

Patented Mar. 15, 1910.



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UNITED STATES PATENT OFFICE.

JOHN BARKER, OF SAN FRANCISCO, CALIFORNIA.

CARPENTER'S SQUARE.

952,177.

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To all whom it may concern:

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

This invention relates to improvements made in a carpenter's steel square of that type or description in which the blades are arranged to fold together in order to bring the square into a smaller compass for carrying.

The object of the invention is to provide a joint of an improved character for uniting the blade and the arm of a folding steel square, that will hold the blade invariably at right angles to the arm and maintain its true perpendicularity when the square is opened for use, and will have also such stiffness and rigidity when the parts are folded that they will not spring or bend out of line under the handling and rough usage to which a square of this kind ordinarily is exposed.

A further object of the invention is to provide a simple and effective means or device on the square for locking or fastening the blades in position at right angles to each other, and maintaining them rigidly in that position while the square is in use.

These and other objects I attain in and by the peculiar and novel construction of parts and combination of parts constituting my invention, as hereinafter fully described and pointed out in the claim.

Figure 1 of the drawings represents in side elevation the part of a carpenter's steel square of my invention at the junction of the arm and the blade, where those parts join each other at right angles, the blade being shown in full lines folded on the arm, and by the dotted lines as in the extended position. Fig. 2 is a similar view of the same parts in the folded position looking at the opposite side of the square. Fig. 3 is a similar side-view of the parts represented in Fig. 3 showing the blade opened and locked in position. Fig. 4 is an edge view of the two parts of the joint separated but in relative position. Fig. 5 is a cross section through the locking bolt when the blade and arm are locked at right angles.

The arm *a* which is usually longer and broader than the blade *b* in the square used by carpenters is provided with a tongue of

the same width as the blade, but of reduced thickness, being formed integral with the arm so as to constitute a lateral extension standing invariably at right angles to the arm. This tongue is reduced in thickness from the outer end 2, which is cut on a diagonal line, back to a similar line 3 extending diagonally from the corner or inner angle 4 across the arm to a point 5 on the outer edge of the square. The part included between these two lines 2—3, designated as the tongue *d*, corresponds with a similar tongue or part *e* formed on the blade *b* by reducing the thickness of the blade from the edge 6 back to the inner line 7 for the entire width; and the two parts *d*—*e* are fitted together to make a close joint when set one on the other with the blade at right angles to the arm.

The pivot *f* uniting the blade to the arm is located outside the line 3 at which the extension *d* joins the arm *a*, but as close to that line as it is practicable to place it and provide sufficient metal surrounding the pivot to secure the necessary strength in the joint. The position of the pivot is on a line that will bisect the angle included between the outer edge 2 and the inner edge 3 of the tongue—indicated at *y* Figs. 1, 2 and 3—so that having that point for its center, the blade can be turned down or folded close to the arm; as the pivot is in such position with relation to the two parts of the joint that the blade will lie substantially parallel with the arm.

The outer edges 2—8 of the tongues are beveled and the inner edge 3—9 where they join the portions of greater thickness are under cut, as shown, to let in the beveled edges when the blade and arm are set at right angles, with the effect to mutually interlock the two parts and secure a stiff joint. A stiff and rigid joint is insured however by the locking bolt of peculiar and novel construction consisting of a slide-bolt *g* confined in a dovetailed slot 10 in the arm *a*, and fitting a recess 12 in the blade *b*, the latter being undercut or dovetailed along the edges to receive the bolt, which is correspondingly shaped on the sides and end to fit the recess.

The bolt *g* is provided with a screw-stop *h* the threaded end of which being in line with a hole 13 in the recess 12 and a hole 14 in the tongue *d* on the arm serves to draw the parts of the joint tightly together

and fix the blade invariably at right angles to the arm when the blade is opened and the bolt is set out from its slot into the recess.

5 A simple turn of the screw *h* after the bolt is set in line with the threaded holes is sufficient to fix the blade accurately at right angles to the arm. As thus constructed and arranged the parts of this joint have the advantage of maintaining a true perpendicularity of the arm and the blade which is
10 always an important feature in a square of this kind, and of holding the blade invariably at right angles to the arm while opened or adjusted for use.

15 The location of the pivot beyond the line of junction of the arm with the blade but in relatively close relation to it permits the blade to lie substantially parallel with the arm and not at an angle thereto when
20 folded, so that the liability of being sprung or bent or twisted at the joint is very slight and is practically eliminated by this new construction of joint.

I claim:—

In a carpenter's square having the blade 25 adapted to fold on the arm, the combination of an arm having a laterally extending tongue of less thickness than the arm joining the arm on a diagonal line and having an oppositely inclined diagonal outer edge; 30 a blade having a tongue of corresponding thickness and of similar form to the tongue on the arm, the said tongues being pivotally united and having their pivotal points located outside the line of junction of the 35 arm with its tongue, and midway between the diagonal outer edge of the tongue and its line of junction with the arm, and a locking means comprising the slide bolt on the arm, the recess in the blade and means on 40 the bolt for locking it in position when set into the recess in the blade.

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Witnesses:

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