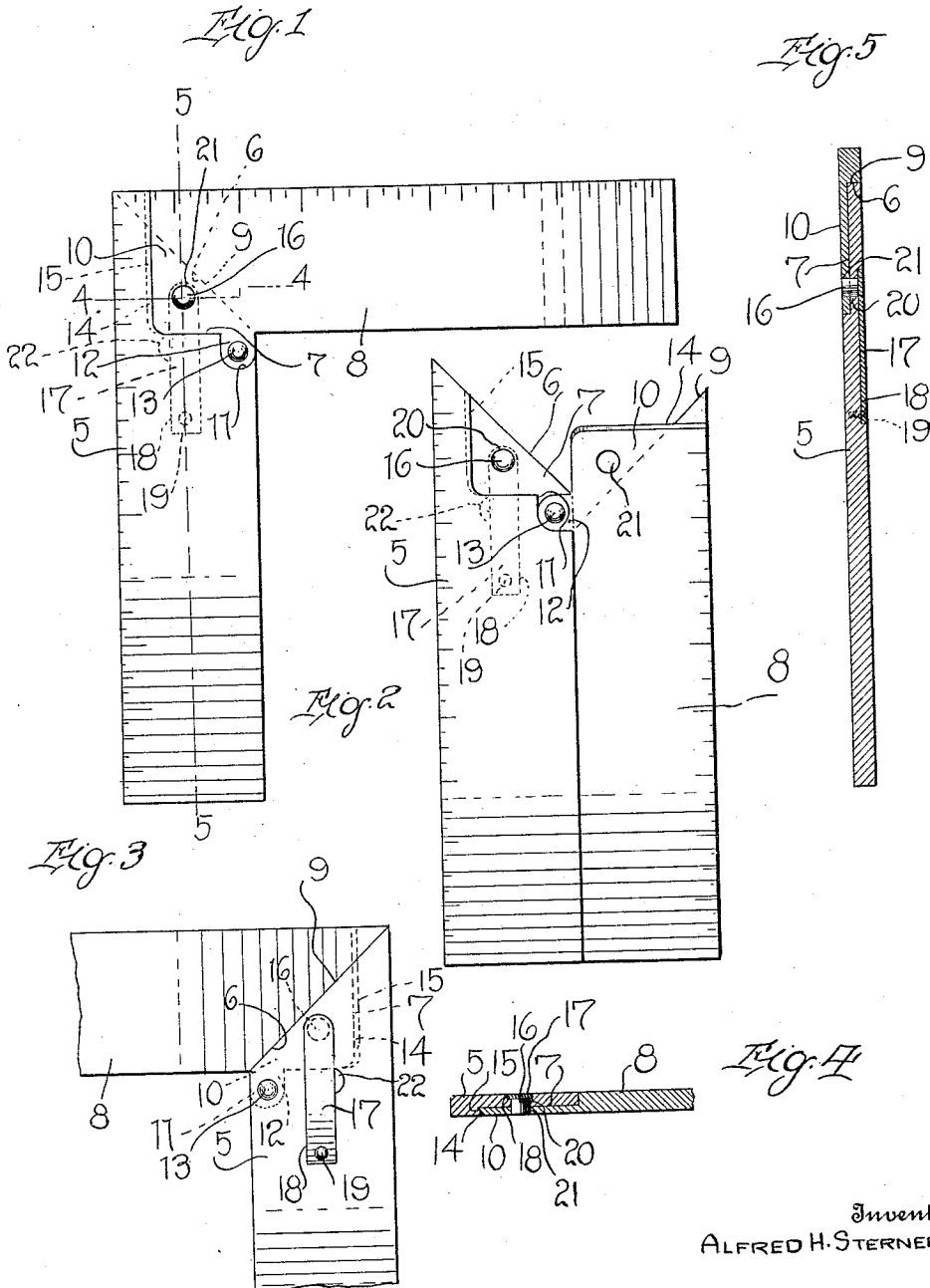


A. H. STERNER.
FOLDING SQUARE.
APPLICATION FILED FEB. 7, 1914.

1,114,656.

Patented Oct. 20, 1914.



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FOLDING SQUARE.

1,114,656.

Specification of Letters Patent.

Patented Oct. 20, 1914.

Application filed February 7, 1914. Serial No. 817,284.

To all whom it may concern:

Be it known that I, ALFRED HENRY STERNER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Folding Squares, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to carpenters' or mechanics' squares and more particularly to a folding square such as that shown and described in my prior application for patent filed January 17, 1914, Serial No. 812,808.

The present invention has for its primary object to provide simple and efficient means for securely locking or holding the parts of the square in position for use.

The invention has for another important object to provide a locking means mounted upon the body blade of the square which will offer no obstruction to the proper manipulation of the square in use or when the parts are in their folded position.

It is a further object of the invention to materially increase the convenience and serviceability in use of the folding square disclosed in my prior application above referred to, without complicating its construction or greatly adding to the cost of manufacture thereof.

With the above and other objects in view the invention consists in certain details of construction, combination and arrangement of parts that I shall hereinafter more fully set forth and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a plan view of a square embodying the present invention in its preferred form, showing the parts held in position for use by the locking device. Fig. 2 is a similar view showing the square folded. Fig. 3 is a plan view looking at the reverse side of the square to that shown in Fig. 1. Fig. 4 is a section taken on the line 4—4 of Fig. 1. Fig. 5 is a section taken on the line 5—5 of Fig. 1.

Referring in detail to the drawing, 5 indicates the body blade of the square, one end of which is cut on an angle as indicated at 6. At this obliquely cut end of the square blade, and extending longitudinally along the shorter longitudinal edge thereof,

a recess 7 is formed in one face of the blade.

8 indicates the foldable arm or blade of the square and this arm at one of its ends is also cut on an angle corresponding to the angular end 6 of the body blade, as shown at 9, said obliquely inclined ends of the blade and arm being adapted for engagement with each other, when said arm is in its open or extended position. The blade 5 and the arm 8 are formed of brass or other suitable metal of the requisite thickness, and a plate 10 extends laterally from the inclined end edge 9 of the arm. This plate may either be integrally formed with said arm or countersunk in one face thereof. The recess 7 is provided with a narrow end portion extending along the shorter edge of the body blade 5 as shown at 11 and the plate 10 has a lug or extension 12 formed on its end to be received in this narrow portion of the recess. This lug is connected to the body blade by means of a pivot pin indicated at 13. The longer longitudinal edge of the plate 10 is beveled as at 14 for engagement with the beveled longitudinal edge 15 of the recess 7 in the body blade.

It will be readily understood from the above description that when the arm 8 is opened or extended to position for use, the same will project at right angles to the body blade 5, the plate 10 on said arm fitting into the recess 7 in the end of the body blade and the beveled edge 14 thereof closely engaging with the beveled edge 15 on the blade. In order to securely retain the arm in this position, I provide a locking pin 16 which is fixed to one end of a spring plate 17. This plate extends longitudinally upon the opposite face of the body blade 5 to that in which the recess 7 is formed and is normally arranged in the longitudinal groove 18 provided in said blade, one end of the plate 17 being securely fixed by the rivet 19 in the end of said groove. The end portion of the blade 5 which is provided with the recess 7 has an opening 20 formed therein through which the locking pin 16 extends. The plate 10 on the arm 8 is also provided with an opening 21 to receive said locking pin, said pin being of such length, that when the same is engaged in the opening 21, the end of the pin is flush with the surface of the plate 10 and does not project beyond the same.

The body blade 5 at one side of the groove 18 therein is provided with a notch 22 so that the finger may be conveniently engaged with the spring plate 17 in order to remove the locking pin 16 from the opening 21 so that the arm 8 may be disposed in its folded position with relation to the blade 5 as shown in Fig. 2 of the drawing.

From the above description, taken in connection with the accompanying drawing, it is believed that the construction and manner of operation of my improved folding square will be readily understood. Assuming that the parts are in their folded position as shown in Fig. 2, when it is desired to use the square, the arm 8 is moved outwardly, the locking pin 16 being depressed with the finger until the edge of the plate 10 moves over the same. When the arm 8 is disposed at right angles to the blade 5, the pin 16 will be projected through the opening 21 by the spring plate 17 and hold said arm against pivotal movement with relation to the blade and maintain the beveled edge 14 thereof in engagement with the overhanging beveled edge 15 on the plate 5. It will be apparent that owing to the manner of mounting the locking pin upon the square blade, the same will present no obstruction to the manipulation or movement of the square upon the board or other surface with which the same is engaged. The arm 8 may be easily and quickly released and moved to its folded position by simply inserting the finger in the recess 22 and pulling outwardly upon the spring plate 17, thereby disengaging the pin 16 from the opening 21 so as to permit of the pivotal or folding movement of the arm. When the parts of the square are folded they present a very compact arrangement so that the square may be conveniently carried in the pocket or will occupy but little space in the tool chest.

From the foregoing it will be seen that I

have devised a very serviceable and convenient instrument for carpenters and mechanics and by the provision of the improved locking device I have materially improved my original invention. At the same time, it will be appreciated that this locking means does not greatly complicate the construction of the invention or add materially to its manufacturing cost. The device is also extremely durable as well as highly satisfactory in practical use.

While I have shown and described the preferred embodiment of my invention, it is to be understood that the same is susceptible of considerable modification therein, and I therefore reserve the privilege of resorting to all such legitimate changes as may be fairly embodied within the spirit and scope of the appended claim. The pin 16 may be square or rectangular in form and provided with a beveled end over which the plate 10 will ride when moved to its open position.

What is claimed is:

A folding square comprising a blade one end of which terminates in an angle and provided in one face with a shallow angular recess the base of which is provided with a second recess that extends to the edge of said blade, an arm, one end of which terminates in an angle adapted to engage the angular end of said blade when in an extended position, a plate carried by said arm adapted to fit flush in said angular recess, a perforated ear formed on the inner edge of said plate and arranged for pivotal movement within said second recess, and means for locking the arm in position.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

ALFRED H. STERNER.

Witnesses:

WM. H. STERNER,
S. E. GELSTON.