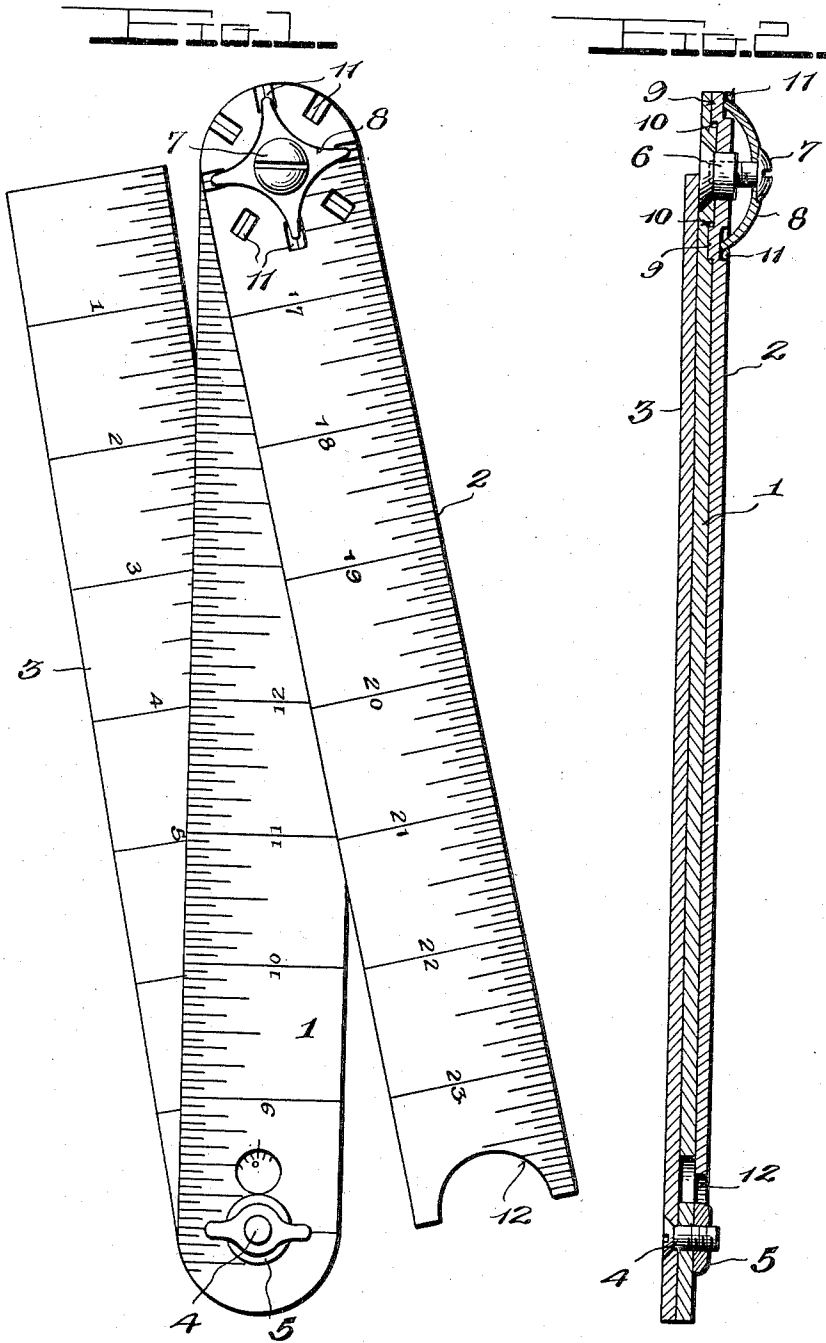


C. F. BENJAMIN.
 COMBINED CARPENTER'S SQUARE AND MITER GAGE.
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1,226,173.

Patented May 15, 1917.



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CLARENCE F. BENJAMIN, OF MILFORD, CONNECTICUT.

COMBINED CARPENTER'S SQUARE AND MITER-GAGE.

1,226,173.

Specification of Letters Patent.

Patented May 15, 1917.

Application filed October 21, 1916. Serial No. 126,948.

To all whom it may concern:

Be it known that I, CLARENCE F. BENJAMIN, a citizen of the United States, residing at the town of Milford, county of New Haven, State of Connecticut, have invented certain new and useful Improvements in Combined Carpenters' Squares and Miter-Gages; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in a combined carpenter's square and miter gage and more particularly to an improvement on the invention shown and described in my application filed April 17, 1916, Serial No. 91,532.

In my prior construction which embodied spaced plates and interfolding blades it was necessary to take hold of the blades to open them from between the plates, such operation being bothersome and difficult.

With the present invention, the main object is to provide a square and miter gage of simplified construction which will operate in a more efficient and facile manner.

Further, the invention resides in an improved lock for holding the blades related at a predetermined angle and certain other features of construction, arrangements and combination of parts hereinafter fully described and succinctly defined, the preferred embodiment of the invention being depicted in the accompanying drawing wherein,

Figure 1 is a front elevation of the combined square and miter gage partly opened; and

Fig. 2 is a longitudinal section thereof. Referring more in detail to the drawing, the numeral 1 designates the main or central body part, and 2 and 3 the end blades which are swingingly connected to the opposite end portions of the body part or portion 1 for folding over the opposite side faces thereof.

The pivotal connection between body 1 and blade 3 consists of a headed pin 4 countersunk in the blade 3 and having a threaded end protruding through the opposite face of body 1 to receive a winged nut 5 by the adjustment of which the said blade may be fixedly related.

The body 1 and blade 2 are pivotally connected by a stud or nut 6 and a screw 7 between which latter and the opposing face

of blade 2 is interposed a bowed, star-shaped spring 8. A concentric series of teeth 9 are formed on the inner face of blade 2 for interlocking with a like series of teeth or notches 10 provided in the opposing face of body 1 whereby the blade may be retained in a set position. These teeth may be struck out, as teeth 9, or otherwise formed, as are teeth 10. The fingers or terminals of the spring 8 yieldably engage in the recesses 11 for urging the teeth 9 into their seats, said recesses 11 resulting from the striking out of teeth 9.

The stud 6 has its flared head extending through the body 1 and the tubular shank passing entirely through the blade 2 and internally threaded to receive the screw 7. By proper adjustment of the latter, the desired tension may be placed upon the spring 8 for effecting more or less friction between the teeth 9 and 10.

The free end of blade 2 is provided with a cut-out 12 adapted to embrace the screw 4 and nut 5 for holding said blade against movement from folded position. When the two blades are folded in closed relation, it will be noted that the free end of blade 3 overlaps the stud 6 to serve as a stop against accidental displacement of said stud.

An exceedingly simplified and practical structure is obvious, therefore, in which the operator merely grasps blade 2 and swings it to the desired position, the teeth 9 rising resiliently from the notches 10 to permit of such movement. The teeth will then reseal themselves in other notches identifying the determined adjustment. By proper tensioning of the spring 8, the blade will not swing too stiffly but will move with little exertion.

What is claimed is:—

1. In an instrument of the character described, a main body plate, a blade pivoted to one end of said plate, said pivotal connection consisting of a headed stud countersunk within said plate and having its end internally threaded, a headed screw engaged in the threaded end of the stud, and a bowed spring interposed between the screw head and the adjacent blade.

2. In an instrument of the character described, a main body plate, a blade pivoted to one end of said plate, said pivotal connection consisting of a headed stud countersunk within said plate and having its end internally threaded, a headed screw engaged in the threaded end of the stud, a bowed spring

interposed between the screw head and the adjacent blade, and a second blade pivoted to the opposite end of the opposing face of said plate and adapted in closed position to
5 engage over the head of the stud.

3. In an instrument of the character described, a main body plate, a blade pivoted to one end of said plate, said pivotal connection consisting of a headed stud countersunk within said plate and having its end
10 internally threaded, a headed screw engaged in the threaded end of the stud, a bowed spring interposed between the screw head and the adjacent blade, a second blade pivoted to the opposite end of the opposing face
15 of said plate and adapted in closed position to engage over the head of the stud, and means for locking the free end of the first blade to the main blade and constituting a
20 pivotal connection between the latter and the second blade.

4. In an instrument of the character described, a main body plate having foldable blades pivoted to the opposite faces of said
25 plate and at opposite ends thereof, the pivotal point of one of said blades consisting of

a stud and an engaging screw having a head, said blade and plate having on their contact-
ing faces circular series of concentric spaced
interengaging teeth and notches, and a
30 spring element interposed between said head and blade to effect the resilient engagement of said teeth and notches.

5. In an instrument of the character described, a main body plate, a blade, a stud
35 countersunk within said plate and extending freely through said blade and acting as a pivot therefor, said blade and plate having interengaging teeth and notches, a headed
40 screw engaging said stud, and a spring element encircling said screw and confined between the head thereof and said blade, whereby a friction is imposed between said
blade and plate with said teeth and notches
45 resiliently engaged.

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

CLARENCE F. BENJAMIN.

Witnesses:

F. W. SMITH, Jr.,
M. T. LONGDEN.