

(No Model.)

J. E. DUNCAN.  
FOLDING TRY SQUARE.

No. 489,413.

Patented Jan. 3, 1893.

Fig. 1.

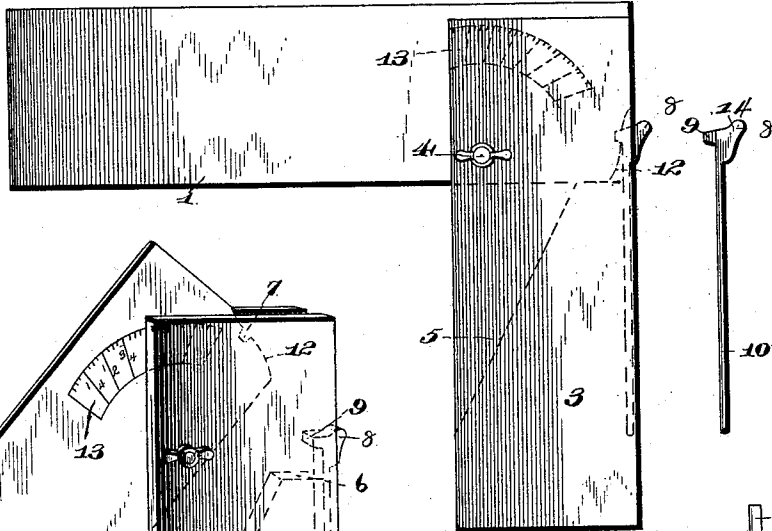


Fig. 2.

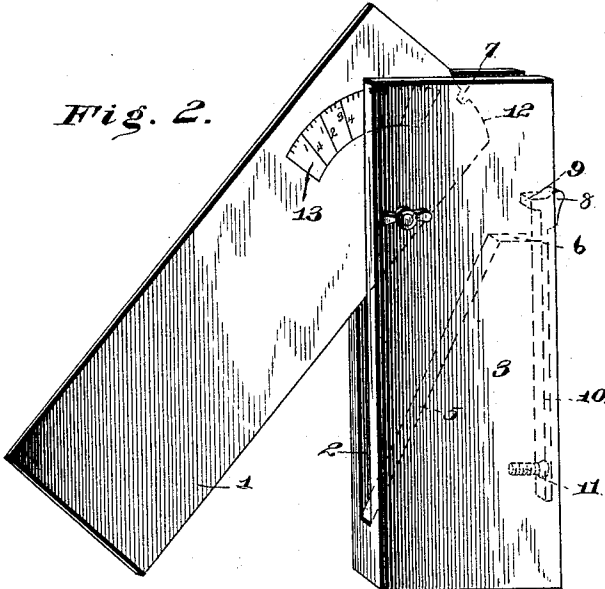


Fig. 3.

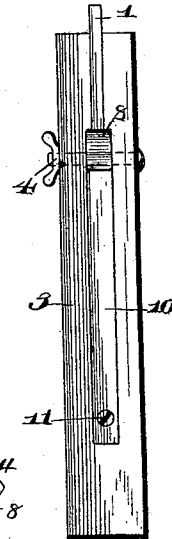
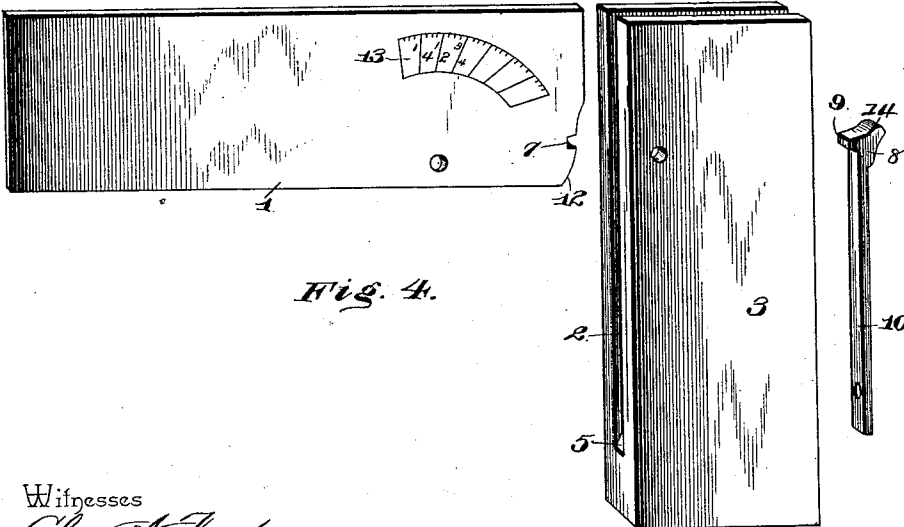


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

JAMES EUGENE DUNCAN, OF CENTRALIA, WISCONSIN, ASSIGNOR OF ONE-HALF TO JOSEPH HENRY WELCH, OF MINNEAPOLIS, MINNESOTA.

## FOLDING TRY-SQUARE.

SPECIFICATION forming part of Letters Patent No. 489,413, dated January 3, 1893.

Application filed May 18, 1891. Serial No. 393,225. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES EUGENE DUNCAN, a citizen of the United States, and a resident of Centralia, in the county of Wood and State of Wisconsin, have invented a new and useful Improvement in Try-Squares, of which the following is a full, clear, and exact description.

This invention relates to try-squares, and consists of the construction and operation of the points thereof as will be more fully hereinafter described and claimed.

The object of the invention is to provide a try square, in which angles may be ascertained and which may be thereby converted into a bevel square the parts thereof being simple and effective in their construction and operation, strong and durable, and easily and readily understood and handled.

In the drawings—Figure 1 is a plan view of an improved try-square having parts thereof in dotted lines and the dog attached and located to one side of said figure. Fig. 2 is a perspective view of the device. Fig. 3 is an end elevation of the same. Fig. 4 is a detail perspective view of the parts of the same device disconnected.

Similar numerals of reference are employed to designate corresponding parts in the several views.

Referring to the drawings:—The numeral 1 designates the blade which is adjustably fitted in a recess 2 of a stock or handle 3. The said blade 1 is pivotally connected to the stock 3 by a bolt and thumb-nut 4, whereby said blade may be adjusted and held in any suitable angle. The recess 2 in a stock or handle 3 is elongated and formed with a beveled wall 5, having a horizontal or square shoulder 6 at the upper end upon which the end of the blade 1 is supported when in horizontal position or at right angles to the stock or handle 3. In the end of the blade is formed a notch 7, and to the stock or handle is secured a dog 8 having a nose 9 adapted to engage the said notch 7 of the blade to hold the latter in true horizontal position or at right angles to the stock or handle 3. The said dog 8 is provided with an elongated spring-arm 10 having its end opposite to that on which the dog 8 is formed secured to the stock or handle 3 by a screw 11, it will thereby

cause the dog to have a yielding movement and a continuous tendency to return to a normal position, as shown in the several figures of the drawings. The lower inner corner of the blade 1 is constructed of rounded form as at 12 to allow the dog-nose 9 to freely move thereover when the blade 1 is shut down for engagement with the said dog.

On the blade 1 is formed a scale 13 which registers with the side or edge of the stock or handle 3 and indicates the angle of adjustment desired or required, as will be readily understood by those skilled in the art.

It will be seen that the try-square may be readily converted into a bevel square and a convenience of construction and operation is thereby provided in a single device. When the device is used as a try-square the blade is positioned as shown in Fig. 1, and when used as a bevel square the blade is adjusted as shown in Fig. 2. To readily assist the operator in disengaging the dog-nose 9 from connection with the notch 7, a projecting end or head 14 is formed with the said dog to be engaged by the end of the finger to draw the same away from the said notch.

Having thus described the invention, what is claimed as new is:

In a device of the character set forth, the combination of a stock or handle having a recess therein with a straight shoulder, a blade adjustably pivoted in advance of said shoulder and the rear end thereof to provide a rear extension to bear on said shoulder a bolt or clamping nut for adjustably pivoting said blade, said blade having a scale thereon concentric with the pivotal bolt thereof and also provided with a notch in the rear end of the same from which the lower inner corner of the blade is rounded, and a dog having a nose and carried by an elongated spring arm secured at one end to the stock or handle, said dog nose engaging the notch in the blade when the latter is brought to bear on the aforesaid shoulder and moving over and guided by said lower inner rounded corner of the blade to said notch, substantially as described.

JAMES EUGENE DUNCAN.

In presence of—

J. W. CANTWELL,  
F. E. KELLNER.