

(No Model.)

J. E. DUNCAN.
TRY AND BEVEL SQUARE.

No. 547,540.

Patented Oct. 8, 1895.

Fig. 1.

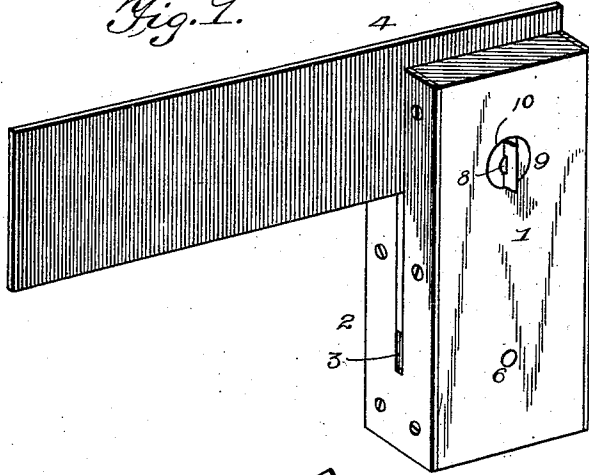


Fig. 2.

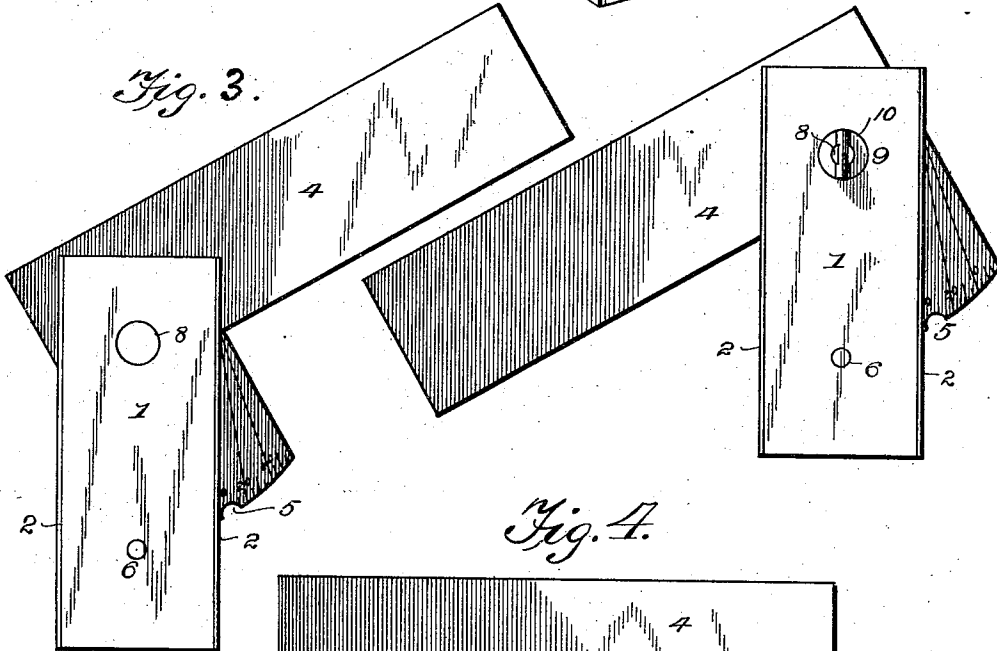
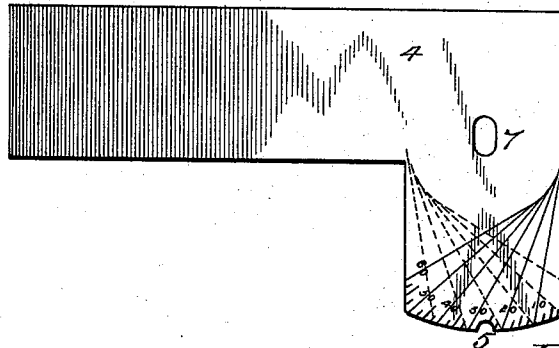


Fig. 4.



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Witnesses

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UNITED STATES PATENT OFFICE.

JAMES EUGENE DUNCAN, OF CENTRALIA, WISCONSIN.

TRY AND BEVEL SQUARE.

SPECIFICATION forming part of Letters Patent No. 547,540, dated October 8, 1895.

Application filed September 28, 1894. Serial No. 524,366. (No model.)

To all whom it may concern:

Be it known that I, JAMES EUGENE DUNCAN, a citizen of the United States, residing at Centralia, in the county of Wood and State of Wisconsin, have invented a new and useful Try and Bevel Square, of which the following is a specification.

This invention relates to an improvement in combined try and bevel squares, and has for its object to provide a simple, inexpensive, and durable construction of square which shall be capable of being adjusted to any angle and so held.

A further object of the invention is to construct the blade of the square in such manner that it shall comprise a long arm and a short arm, either one of which may be utilized in laying off angles, and whereby the long arm may be adjusted at either an acute or obtuse angle or any desired angle with relation to the handle or head of the square.

Other objects and advantages of the invention will appear in the subjoined description.

The invention consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally embodied in the claim.

In the accompanying drawings, Figure 1 is a perspective view of a combined try and bevel square constructed in accordance with this invention. Fig. 2 is a side elevation of the same, showing the long arm or blade at an acute angle to the head or handle, with a graduated scale upon the short arm or blade thereof. Fig. 3 is a similar view of the opposite side of the square, showing the long arm or blade at an obtuse angle to the handle or head and showing, also, an additional degree-scale upon the opposite face of the short arm or blade. Fig. 4 is a side view of the blade, showing the notch and elongated slot in the short arm thereof.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the accompanying drawings, 1 designates a suitable handle, which is made preferably of wood and faced upon opposite side edges with metal wearing-plates 2 in the usual manner. The handle or head 1, together with the metal face-plates upon its

edges, is provided for a greater portion of its length with a broad slit 3, extending entirely through from edge to edge of the head or handle, and also through the face or wear plates 2, as shown.

4 designates the blade of the square, which comprises a long and a short arm. The long arm may be made of any desired length and width, the thickness of said arm and the short arm as well corresponding approximately to the width of the slit 3 in the head or handle. The short arm of the blade is approximately half the length of the long arm, although it will be apparent that this may be decreased or diminished, as found most expedient or desirable, and works within the slit 3 in the head or handle. The extremity or outer edge of the short arm of the blade is formed with a notch 5, centrally of said edge, and the latter is curved in the arc of a circle struck upon the pivotal center of the blade.

6 represents a transverse pin or stud which passes through the handle or head and is adapted to engage the notch 5 in the short arm of the blade when under the proper adjustment. At or near its inner end, or that end adjacent to the junction of the short arm with the long arm of the blade, the short arm is provided with an elongated slot 7, extending in alignment with the pin or stud 6, said slot operating upon a headed pin or bolt 8, passing through the head or handle 1 and having the end of its shank screw-threaded to receive a thumb or winged nut 9. The winged nut is formed with a hub extension 10, which is adapted to fit within a corresponding socket in the handle or head 1 and against a shoulder, whereby when said nut is turned inward it will bind the handle or head against and upon the blade of the square for preventing relative movement between the parts.

From the foregoing description it will be apparent that by loosening the nut 9 on account of the provision of the slot 7 the short arm of the notch therein may be moved out of engagement with the transverse pin or stud, which will allow either the long or the short arm of the blade to be adjusted to any desired angle with relation to the handle or head. The short arm of the blade is provided upon both faces with degree-scales, the scale

upon one side being adapted to indicate the angle of the square with relation to the head by bringing the same into alignment with the outer edge of the handle, as shown in Fig. 2, while the scale upon the opposite side of the short arm is adapted to register with the inner edge of the handle, as shown in Fig. 3. The lines which compose these scales and indicate the several angles extend practically the whole length of the short arm, and it will be apparent that considerable wear will be required to efface them. It will also be apparent that by reason of the pin or stud 6 and the headed pin or bolt 8 being located such a considerable distance apart an unusual degree of strength is imparted to the connection between the blade and handle and the blade held accurately in the desired position or at a right angle to said head or handle.

By means of the construction described it will be seen that the long arm of the blade may be swung more than three-quarters of a circle around its pivotal pin, thereby imparting to this square a decided advantage over articles of a similar nature as heretofore constructed. It will be seen, also, that either the long or the short arm may be used for laying off angles, and the adaptability of the short

arm for use, as well as the long arm, whereby the device while being used as a bevel-square may be used in circumscribed places, renders the article a very valuable and efficient one.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

A combined try and bevel square, comprising a suitable handle or head provided with a central slit, a transverse pin or stud passing through said head or handle and extending through the slit therein, a pivoted blade having a long arm and a short arm, the short arm having a notch therein for engaging said transverse pin or stud, an elongated slot formed in said blade adjacent to the elbow therein, and a headed pin or bolt passing through the handle and engaging said slot and receiving a winged nut, all arranged for joint operation, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JAMES EUGENE DUNCAN.

In presence of—

F. E. KELLNER,
C. J. DUNCAN.