H. J. J. GRONAGER.

COMBINATION SQUARE AND BEVEL.

APPLICATION FILED JUNE 3, 1916.

1,255,158. Patented Feb. 5, 1918.

Fig. 1.

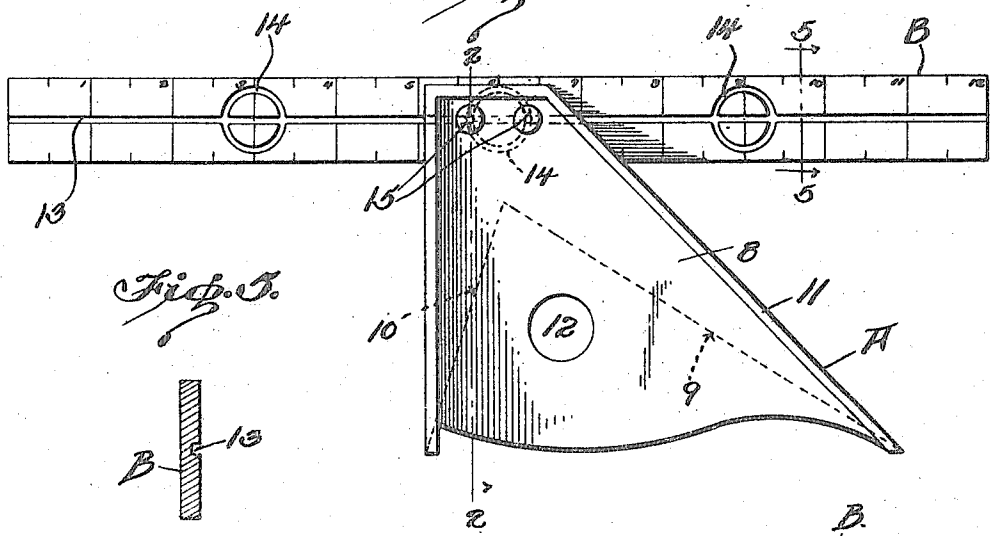


Fig. 4.

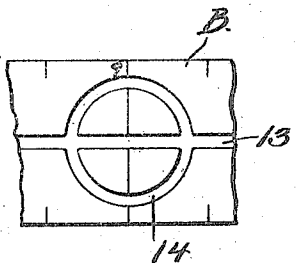


Fig. 5.

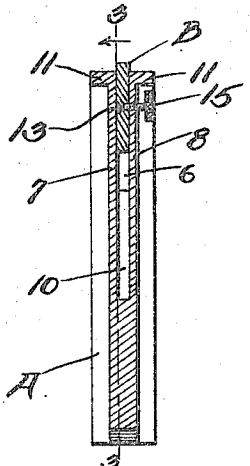


Fig. 2.

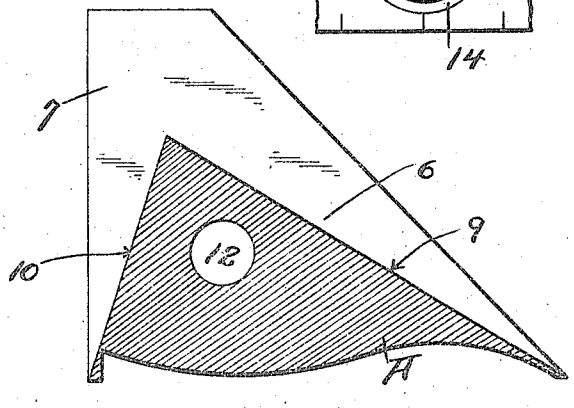


Fig. 3.

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HOLGER J. J. GRONAGER, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR OF ONE-HALF TO ERICK CLAESON, OF BRIDGEPORT, CONNECTICUT.

COMBINATION SQUARE AND BEVEL.

1,255,158. Specification of Letters Patent. Patented Feb. 5, 1918.

Application filed June 3, 1916. Serial No. 101,589.

To all whom it may concern:

Be it known that I, HOLGER J. J. GRONAGER, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Combination Squares and Bevels, of which the following is a specification.

My invention relates to a combination square and bevel.

One object of the invention is to provide a tool or instrument of this nature which may serve as a square and have the stock or handle adjustable relatively to the rule to convert the instrument into a bevel.

Further I aim to provide an article of this nature having a rule provided with a longitudinal groove, and with an annular groove, in combination with a stock having means movable in the said grooves and controlling the relative position of the rule and stock.

In addition, I aim to provide an instrument of this class having a rule, a stock movable thereon adapted to overlap the rule on opposite sides, and having means engageable with the rule to secure the rule and stock in adjusted position.

Other objects and advantages will be pointed out as the description progresses in connection with accompanying drawings illustrating one preferred embodiment.

In said drawings:—

Figure 1 is a view illustrating my improved instrument in side elevation;

Fig. 2 is a cross sectional view on the line 2—2 of Fig. 1;

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2;

Fig. 4 is a fragmentary elevational view of the ruler to better illustrate the grooves provided therein, and

Fig. 5 is a cross sectional view on the line 5—5 of Fig. 1.

Referring specifically to the drawings, A generally designates a stock or handle and B generally designates a rule associated therewith. The stock is preferably grooved or recessed as shown at 6 to provide walls 7 and 8 and straight edges 9 and 10 disposed at an angle to each other and being located at the junction of the walls 7 and 8 with the remainder of the stock. These walls 7 and 8 may be reinforced by means of flanges 11 extending outwardly therefrom and being preferably integral therewith. While the stock may be made of any suitable material, yet I preferably form it of a suitable metal. An opening or aperture 12 is provided through the stock to facilitate hanging or suspension of the tool from a nail or other support.

The rule B is disposed in and operates in the recess 6. A groove 13 is provided longitudinally of the rule at one face thereof, and the rule 13 intersects the line, from which one or more annular grooves 14, provided in the said face of the rule, are described.

Two set screws 15 are provided to work in openings through the wall 8 and extend into the grooves 13 and 14.

The rule B may be made of any suitable material, for instance, metal and if desired be provided with graduations as delineated thereon.

Normally the device will serve as a square since the shanks of the set screws 15 will travel in the groove 13 thereby preventing turning of the stock, and which set screws may if desired, be securely tightened so as to clamp the stock and rule together. In such a position, the stock and rule will have straight edges at a right angle to each other. However, in order to use the device as a bevel, the set screws 15 are then loosened and the stock is then moved to such a position where the two set screws will extend into the desired groove 14 and turn therein and the stock turned from the center of the groove 14. While in this position, the set screws may, of course, be tightened to clamp the stock and rule together. To accomplish the result attained by my device, it will be understood that the shank of the set screws 15 must be a distance apart substantially equal to the diameter of the grooves 14. When the device serves as a bevel, the rule B abuts the straight edges 9 and 10 respectively according to the direction in which the rule is turned.

Since merely the preferred embodiment has been illustrated and described, it is to be understood that changes in the details of construction of the invention may be resorted to within its spirit and scope.

I claim:

1. A tool of the class described having a blade member, a stock member therefor, one of said members having a main groove, and a groove following the path of a circle with

which said main groove communicates, the other of said members having two projections to extend into the main groove and prevent relative turning movement of the members and movable into the second mentioned groove to permit turning movement of one member relatively to the other member.

2. A tool of the class described having a blade provided with a main groove and an annular groove through the center of which said main groove passes, a stock member for the blade, and means on the stock member to operate in said grooves substantially as described.

3. A tool of the class described having a blade provided with a main groove and with an annular groove through the center of which the main groove passes, a stock provided with a recess into which the blade extends, said stock having overlapping walls for the blade at said recess and also having straight edges, set screws mounted in one of said walls and extending into and operating in said grooves, and said straight edges of the stock serving as abutments for the blade in adjusted position.

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

HOLGER J. J. GRONAGER.

Witnesses:
GEORGE M. DUCAS,
GEORGE BEASAY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."