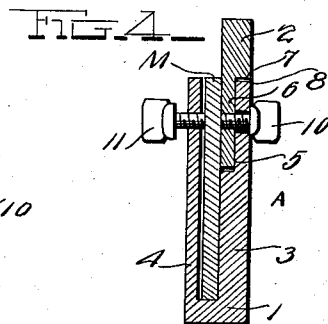
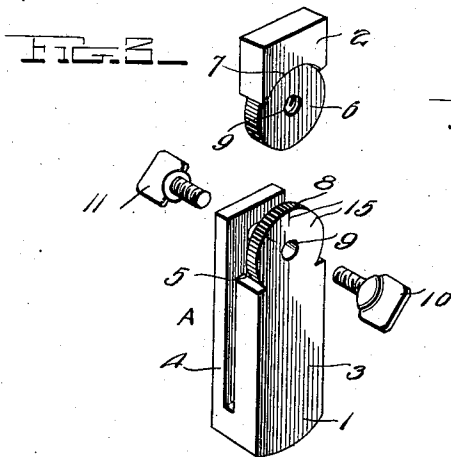
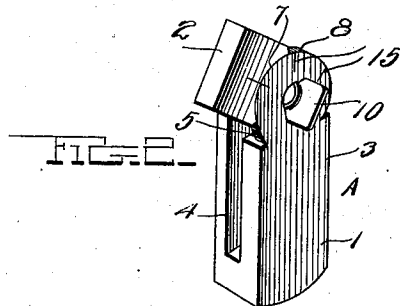
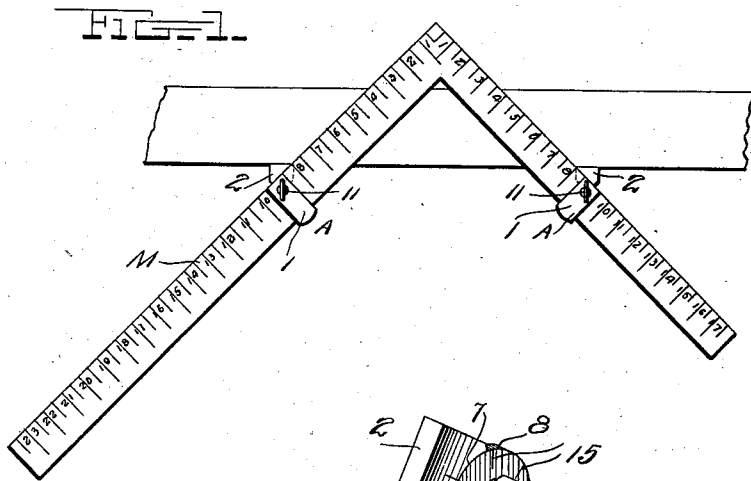


J. F. CLARK & J. F. DORSEY.
ATTACHMENT FOR SQUARES.
APPLICATION FILED JUNE 27, 1911.

1,014,453.

Patented Jan. 9, 1912.



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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR SQUARES.

1,014,453.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, JOSIAH F. CLARK and JOHN F. DORSEY, citizens of the United States, residing at Thompson, in the county of Susquehanna and State of Pennsylvania, have invented certain new and useful Improvements in Attachments for Squares; and we 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 measuring instruments, and more especially to squares; and the object of the same is to produce an attachment which may be applied to any straight edge having a comparatively thin body, and especially to a square, so that the same may be used as a miter gage.

The above and other objects are carried out by the construction hereinafter more fully described and claimed, and shown in the drawings wherein—

Figure 1 is a plan view of an ordinary carpenter's right-angular square with two of these attachments applied and adjusted so that, as the dotted line indicates, this square may be used to indicate an angle of 45 degrees across its own angle which is 90 degrees. Fig. 2 is an enlarged perspective view of one of the attachments removed from the square. Fig. 3 is an edge view thereof with the head and its holding screw removed and turned slightly aside so as to be seen in perspective. Fig. 4 is a central vertical section through the attachment and a cross section through a T-square held therein between the two set screws.

In the drawings the letter M indicates in the present instance an ordinary square, although it might indicate any measuring instrument or straight edge whose thickness is not too great to permit it to be inclosed within our attachment A yet to be described. Thus it will be clear that this attachment may be used at the rear edge of a saw-blade, and while it may have a wide variety of uses we prefer to employ it on the ordinary square as shown in the drawings and whereof each arm is marked with a scale and numerals as shown.

The attachment itself is preferably of metal and as small as may be conveniently carried in the tool box, and as seen in Fig. 1 it is used in duplicate members when an ordinary right-angled square is to be con-

verted into a miter gage. The specific material to be employed is not important, save that by preference it should be rust proof to withstand the weather, sufficiently hard to withstand accidental blows which it may receive, and finely cut and accurately marked in order that it may be used successfully.

Coming now more particularly to the gist of the present invention, the attachment A comprises a body 1 which is substantially U-shaped in edge view, a head 2, and two set screws to be described later. As seen in Fig. 4, the front arm 3 of the body is preferably made thicker than the rear arm 4 although this is not absolutely necessary, but if this preferred construction is followed the upper inner face of said front arm 3 is cut away as shown at 5 to receive a round ear 6 which depends from the head 2 and is of half thickness as shown. Above said ear 6 the thicker portion of the head 2 is formed with a curved shoulder 7 adapted to pass freely and fit accurately over the rounded upper edge 8 of the front arm 3 of the body member; and alined holes 9 are formed through said ear 6 at its true center and through the front arm at the center of the rounded edge 8. A set screw 10 takes loosely through the hole in the arm 3 and screws into the hole in the ear 6, so that by adjusting this set screw the head member may be drawn tightly up against the body member and held in place. In exact alinement with these holes 9 a set screw 11 takes through another hole in the rear arm 4 of the body from the back of the latter, with its tip directed toward the tip of the front set screw as seen. Finally, the rounded upper edge 8 of this body and the curved shoulder 7 of the head are marked with score marks 15 either by scratching thereon or by embossing the lines or otherwise, with or without indicating figures as desired, at the will of the manufacturer. Thus is produced an attachment which is U-shaped in side elevation and whose rear arm may be said to be rigid while its front arm is divided into a body member and a head member having overlapping ears which are pivotally connected by a concentric set screw, and it is obvious that when this set screw is loosened the head member may be set with respect to the body member at any desired angle as indicated by the score lines and figures, after which the set screw may be tightened up to hold the parts so adjusted.

All this can easily be done without manipulating the rearmost set screw which is obviously for the purpose of clamping the attachment upon the instrument M, and it will
5 be observed that when this rear set screw is set up the blade of said instrument is pressed against the back of the head member, and therefore one set screw may be said to complement and assist the other.

10 It is obvious that the attachment can be slipped onto any instrument whose blade or body is sufficiently thin, and it may be used for various purposes not necessary to describe in detail in this specification. One
15 use is illustrated in Fig. 1 wherein two of said attachments are shown as applied to an ordinary square, with their heads so set at angles to their bodies that the square may be used to find an angle of 45 degrees.

20 What is claimed as new is:

1. The herein described device comprising a rigid body which is U-shaped in side elevation and has a threaded hole through its rear arm, a head having an ear standing inside the other arm of said body, means for
25 pivotally and adjustably connecting the ear with the last named arm, and a set screw through said hole directed toward the back of said ear, for the purpose set forth.

30 2. The herein described attachment for squares and the like, comprising a body which is U-shaped in side elevation and has aligned holes through its two arms, a head having an ear overlapping the front arm of
35 the body and provided with a threaded hole adapted to come into register with that in said front arm, a set screw taking loosely through the latter and engaging the threaded hole in the ear, and a second set screw
40 taking through the rear arm of the body.

3. The herein described attachment for squares and the like, comprising a body which is U-shaped in side elevation and has a threaded hole through its rear arm, its front arm being cut away on its inner face
45 and the remaining thinner portion having a rounded upper edge, a head having a portion of its front face cut away to produce a rounded ear defined by a curved shoulder shaped accurately to fit over said rounded
50 edge, the front faces of the body and head being marked with graduations, and a set screw taking through the rear arm of the body member toward the back of said ear, for the purpose set forth.

4. The herein described attachment for squares and the like, comprising a body which is U-shaped in side elevation and has a threaded hole through its rear arm, its front arm being cut away on its inner face
60 and the remaining thinner portion having a rounded upper edge, a head having a portion of its front face cut away to produce a rounded ear defined by a curved shoulder shaped accurately to fit over said rounded
65 edge, the front faces of the body and head being marked with graduations, a detachable and pivotal connection between said ear and body member, and a set screw taking through the hole in the rear arm and directed toward the inner end of said pivotal
70 connection, for the purpose set forth.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

JOSIAH F. CLARK.
JOHN F. DORSEY.

Witnesses:

GEORGE PATTERSON,
DANIEL M. BIERES.