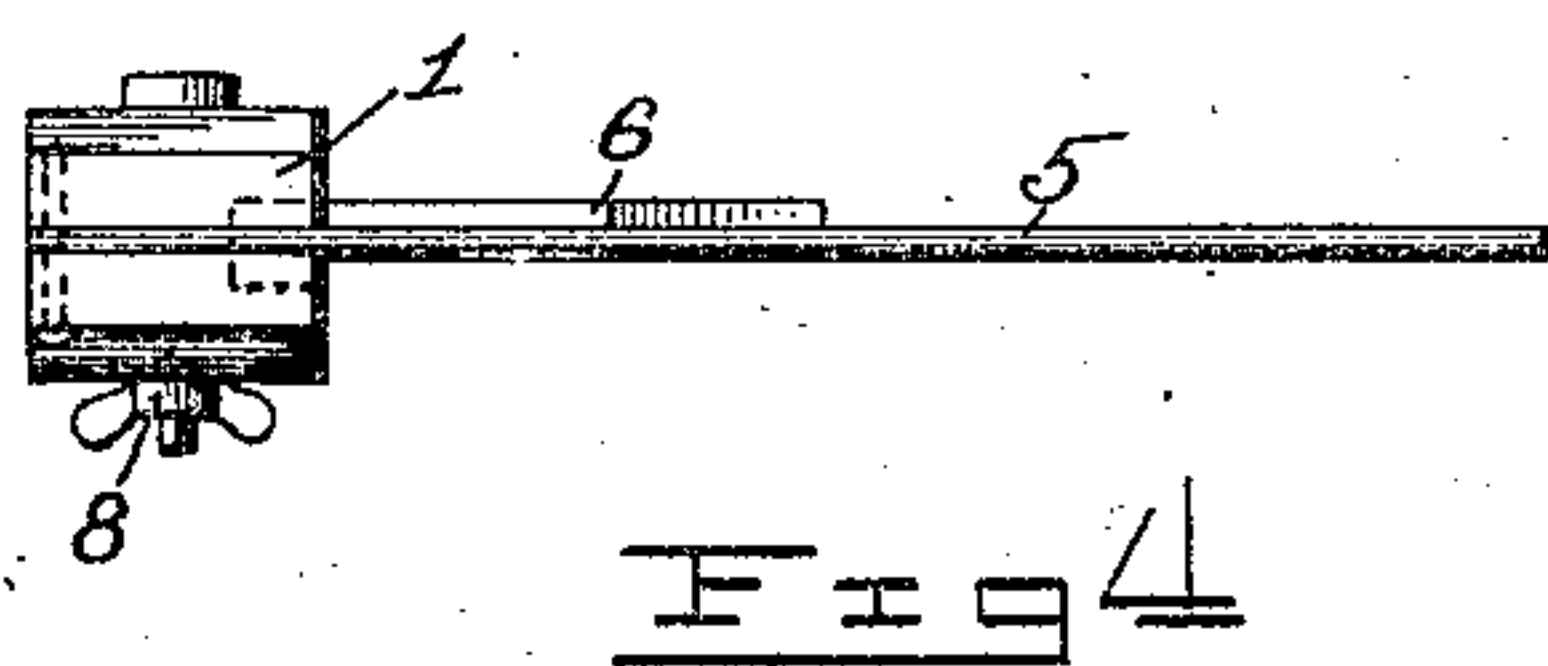
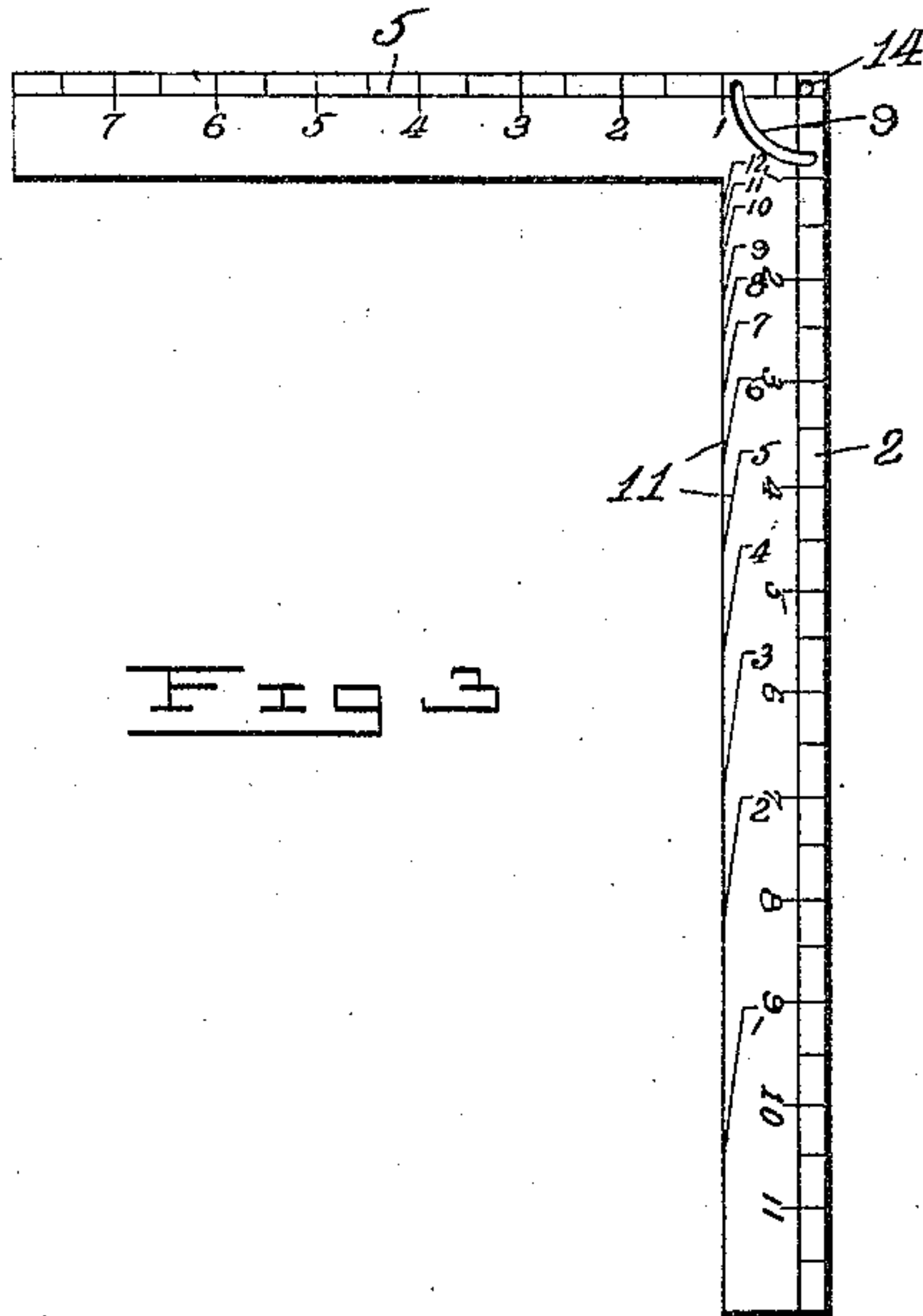
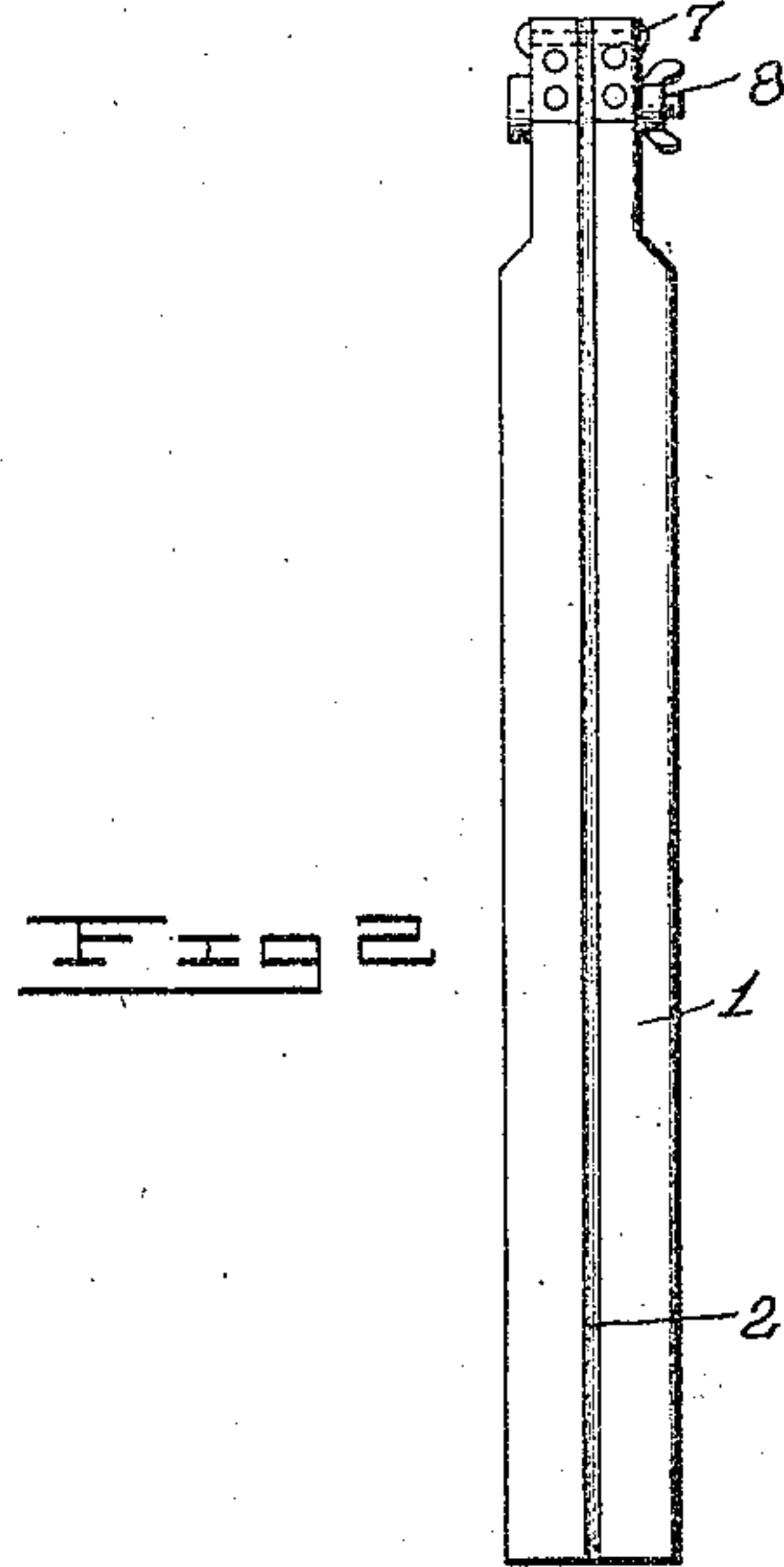
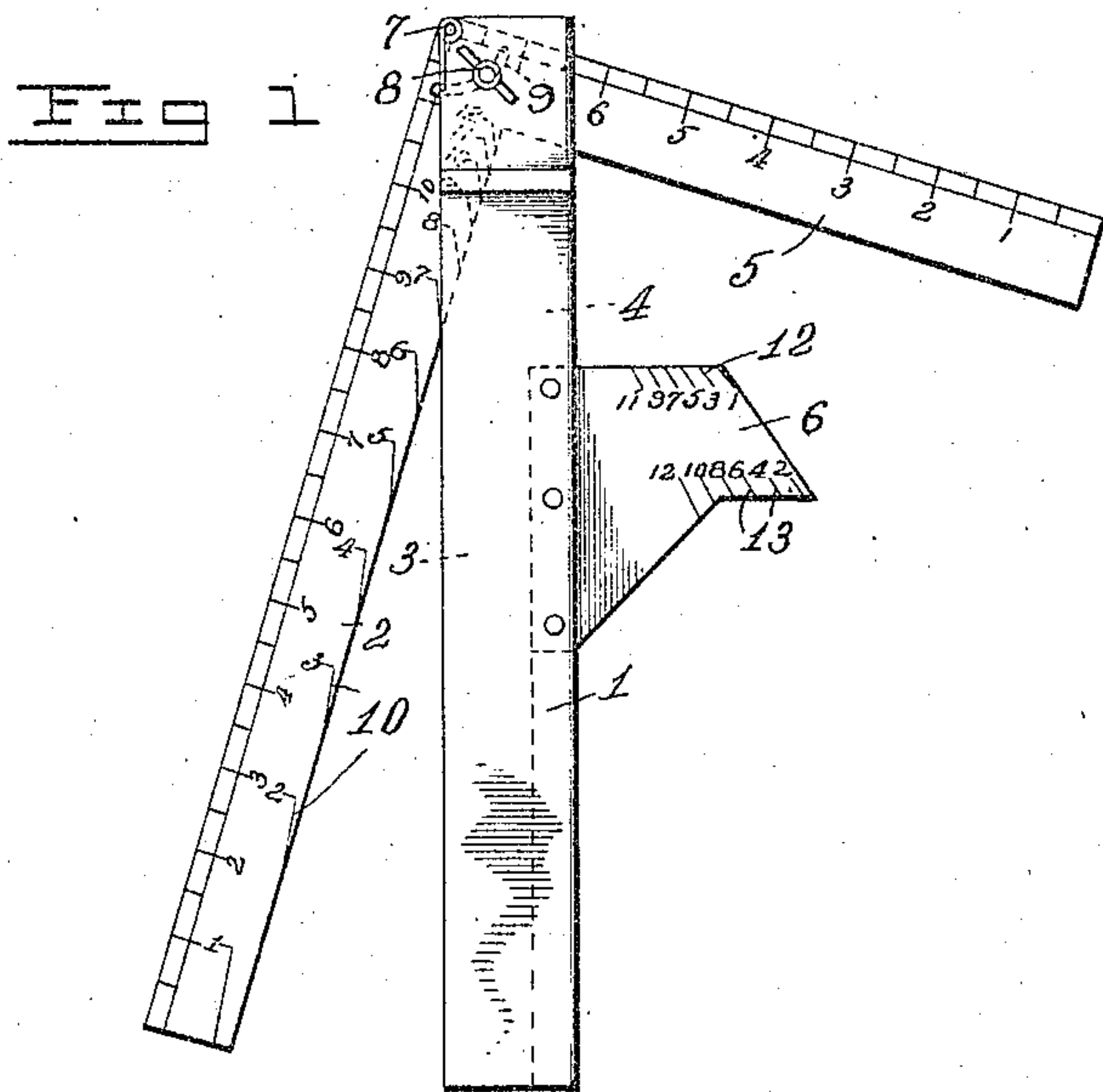


E. A. WILLIAMS.
 COMBINED SQUARE AND BEVEL.
 APPLICATION FILED JAN. 12, 1909.

928,569.

Patented July 20, 1909.



Witnesses
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EDMUND A. WILLIAMS, OF JACKSONVILLE, ILLINOIS

COMBINED SQUARE AND BEVEL.

No. 928,569.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed January 12, 1909. Serial No. 471,918.

To all whom it may concern:

Be it known that I, EDMUND A. WILLIAMS, a citizen of the United States, residing at the city of Jacksonville, in the county of Morgan and State of Illinois, have invented certain new and useful Improvements in a Combined Square and Bevel, of which the following is a specification.

My invention relates to improvements in a combined square and bevel for use by carpenters and others, the object being to provide a simple and effective means whereby the square may be readily adjusted to serve as a miter or bevel square and adapted for use in measuring outside and inside corner-angles and bevels, and in making the several cuts required in roof-framing without performing special geometrical calculations to secure them.

My invention consists in certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

Referring to the accompanying drawings in which similar reference numerals indicate corresponding parts in the several views Figure 1, is a view in elevation showing a combined square and bevel provided with my invention Fig. 2, is an end elevation showing the longitudinally slotted stock or handle Fig. 3, is a reverse elevation of the square shown in Fig. 1. Fig. 4, is a top plan view with the handle and square in a normal position.

The device comprises in its construction three main parts, to wit; the handle 1, the bevel blade 6, and the square comprising the blades 2 and 5. The handle 1 is provided with the slot 3 extending its entire length to receive the blade 2 of the square, which is attached to the handle or stock 1 by means of the hole 14 and the pivot 7. The slot 3 extends entirely through the stock or handle 1 from its upper end to the lower edge of the bevel blade 6, said blade 6 being attached to the inner edge of the handle 1 and adjacent to one edge of said slot. The curved slot 9 with the thumb-screw 8 is provided to secure the square in adjusted position relative to the handle or stock 1. The longer blade of the square is represented as being 12 inches, and the shorter blade as 8 inches long, with the usual inch scale on the outer edge of each blade.

On one side of the inner edge of the blade 2 are shown the diagonal lines 10 and on the

other side are shown the diagonal lines 11. These lines are numbered consecutively from 1 to 12 on each side. In Fig. 1, the lines on the inner edge of the blade 2 indicate the angle at which hip-rafters are to be cut, according to the rise per foot and those on the reverse side as shown in Fig. 3 are for common rafters. The lines 12 and 13 on the bevel blade 6 are used for the side cuts of hip-rafters from 1 inch to 12 inches rise per foot. Those used for jack-rafters being placed on the reverse side of said blade. All rafters have two angle cuts, one at each end—the sum of these two angles is 90 degrees so that by taking one angle out of a right angle the remainder is the other angle.

It will be readily understood by the foregoing description taken in connection with the accompanying drawings that by setting the large blade 2 of the square at the angle required according to the rise per foot of the rafter, the small blade will be at the supplement angle—i. e. the remainder of the 90 degrees.

The several sets of angle lines are provided owing to the various rafters requiring different angles according to the rise per foot. Side cuts are made only at the top of hip and jack-rafters and being different from each other, the respective angle lines are placed one on each side of the bevel blade 6. For convenience the lines are so arranged that the even numbers appear on one edge and the uneven numbers on the opposite edge of the bevel blade. The lines are made short with a turn at the inner end of the line, where the number indicating the pitch is placed. The bevel blade 6 is so attached to the handle that it may be moved to either side of the blade 5, according to whether it is desired to use the lines giving the angles for jack-rafters or hip-rafters.

It is obvious that the size of the blade 2 is not limited to 12 inches and that it can be any desired length, also the blade 5 may be made any length that may be found most convenient.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. A device of the character described, comprising a longitudinally slotted handle, a square pivotally attached at its outer corner to one corner of said handle, one blade of said square having diagonal lines adja-

cent its inner edge and adapted to lie in said slot, a bevel blade rigidly attached to said handle on the side opposite said slot, and means to secure said handle and square in
5 adjusted position.

2. A device of the character described comprising a longitudinally slotted handle, a square pivotally attached at its outer corner to one corner of said handle, one blade
10 of said square having diagonal lines adjacent its inner edge and adapted to lie in said

slot, a bevel blade having diagonal lines adjacent its two opposite edges, attached to said slotted handle on the side opposite said slot, and means to secure said handle and
15 square in adjusted position.

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

EDMUND A. WILLIAMS

Witnesses:

WM. E. THOMSON,
J. W. BOYD.