

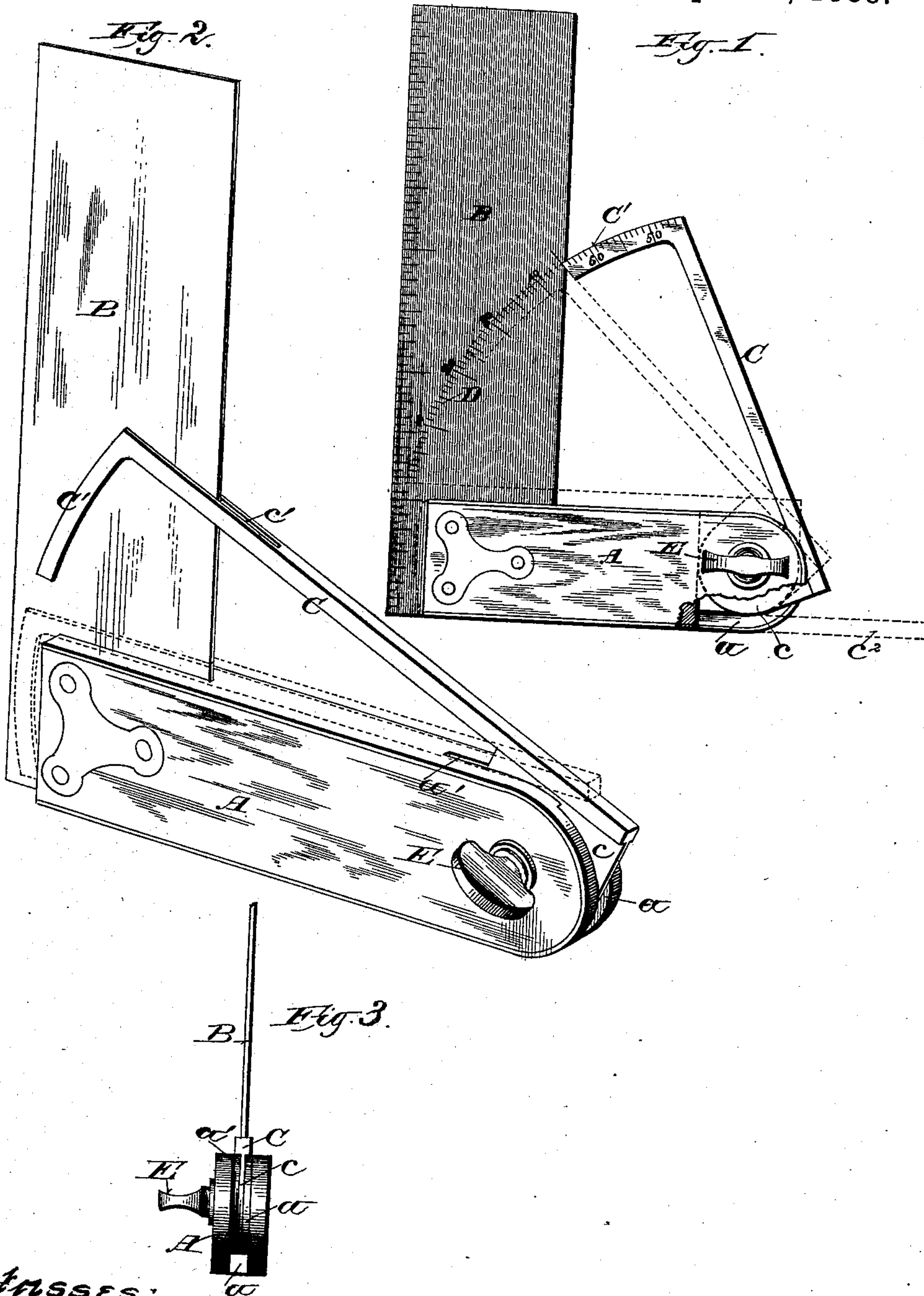
(No Model.)

F. N. VIOLET.

TRY SQUARE AND BEVEL PROTRACTOR.

No. 389,780.

Patented Sept. 18, 1888.



Witnesses:

E. J. Ames  
George M. Goll

Inventor

Francis N. Violet  
By Chas. R. Goss,  
Attorney.



# UNITED STATES PATENT OFFICE.

FRANCIS N. VIOLET, OF GREEN BAY, WISCONSIN, ASSIGNOR OF ONE-HALF  
TO WILLIAM D. COOKE, OF SAME PLACE.

## TRY-SQUARE AND BEVEL PROTRACTOR.

SPECIFICATION forming part of Letters Patent No. 389,780, dated September 18, 1888.

Application filed November 4, 1887. Serial No. 254,280. (No model.)

### *To all whom it may concern:*

Be it known that I, FRANCIS N. VIOLET, of the city of Green Bay, in the county of Brown and State of Wisconsin, have invented certain new and useful Improvements in a Try-Square; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention consists, essentially, of the combination, with a carpenter's try-square, of an attachment for determining or gaging any desired bevel or angle.

In the accompanying drawings like letters designate the same parts in the several figures.

Figure 1 is a side elevation of my improved device. Fig. 2 is a perspective view of the same, and Fig. 3 is an end view of the stock and an edge view of the blade of the square.

A is the stock and B is the blade of the square, joined in the usual or any suitable manner at right angles to each other.

C is an adjustable arm, formed at one end with a web, *c*, which is inserted and pivoted in a slot, *a'*, formed for the purpose in the free end of said stock A. At the other or free end the arm C is formed with a segmental extension, slotted, as shown in Fig. 2, to embrace the blade B, the slot *c'* extending sufficiently into said arm C to permit its being folded against the inner edge of the stock A, as indicated by dotted lines in said Fig. 2, and to hold it more firmly in place when in engagement with the blade B. An arc, D, described with the outer curved edge of the segmental extension *C'* from the pivot of arm C as a center, is marked upon blade B, and graduated in degrees or other suitable divisions, preferably beginning in the line of the inner edge of stock A and ending at the inner edge of the blade with forty-five degrees, as shown in Fig. 1.

The segmental extension *C'* of the arm C is correspondingly graduated in continuation of the graduation of arc D from forty-five degrees to fifty-five degrees or upward, according to the length of said extension.

The web *c* of arm C is pivoted upon the thumb-screw E, by which it may be clamped

and held in any position or at any desired angle to the stock A of the square. The thumb-screw E is placed a little inside of the longitudinal center of the stock A, and the slot *a'* is enlarged at *a* to receive the end of the arm C and permit its being fully opened into the position indicated by dotted lines at *c'*, Fig. 1, in which position it is flush and in the same line with the outer edge of the stock A, and forms a continuation thereof. The arm C, being narrower than the working or inner face of the stock A, permits the use of the square, as such, in the usual manner, while the arm C may be set at any desired angle from the position *c'*, shown by dotted lines, Fig. 1, to the position in which it is shown by dotted lines in Fig. 2.

I claim—

1. The combination, with a try-square having a slot in the free end of the stock, of an adjustable arm provided at one end with a lateral web, which is inserted and turns in said slot, and a thumb-screw passing through said stock and web a little inside of the longitudinal center of said stock, whereby said arm may be folded against the inner edge of said stock or extended in line with its outer edge, substantially as and for the purposes set forth.

2. The combination, with the stock and blade of a try-square, of an adjustable arm pivoted to the free end of said stock and provided at the opposite end with a segmental extension, substantially as and for the purposes set forth.

3. The combination, with a try-square having the free end of its stock rounded and a slot formed therein, with an enlarged or widened portion to receive the end of an adjustable arm when the latter is extended, of an adjustable arm provided at one end with a thin lateral web, which is inserted and capable of being turned in said slot, a thumb-screw passing through said stock and web, and a shoulder formed in said slot at one end of its widened portion and forming a stop by which the outward angular movement of said arm is arrested in line with the outer edge of said stock, substantially as and for the purposes set forth.

4. The combination, in a try-square, of the blade and stock, an adjustable arm pivoted to the free end of said stock, and provided at the

opposite end with a segmental extension slotted to receive the blade, and a graduated arc marked on said blade, substantially as and for the purposes set forth.

5 5. The combination, in a try-square, with the blade and stock, of an adjustable arm pivoted to the free end of said stock and formed at the opposite end with a graduated arc, and a  
10 graduated arc marked upon the blade of the square and described with the same radius as

the arc of said adjustable arm, substantially as and for the purposes set forth.

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

FRANCIS N. VIOLET.

Witnesses:

W. D. COOKE,  
C. A. VIOLET.