

(No Model.)

E. V. CLEMENS.

BEVEL SQUARE.

No. 251,524.

Patented Dec. 27, 1881.

fig. 1

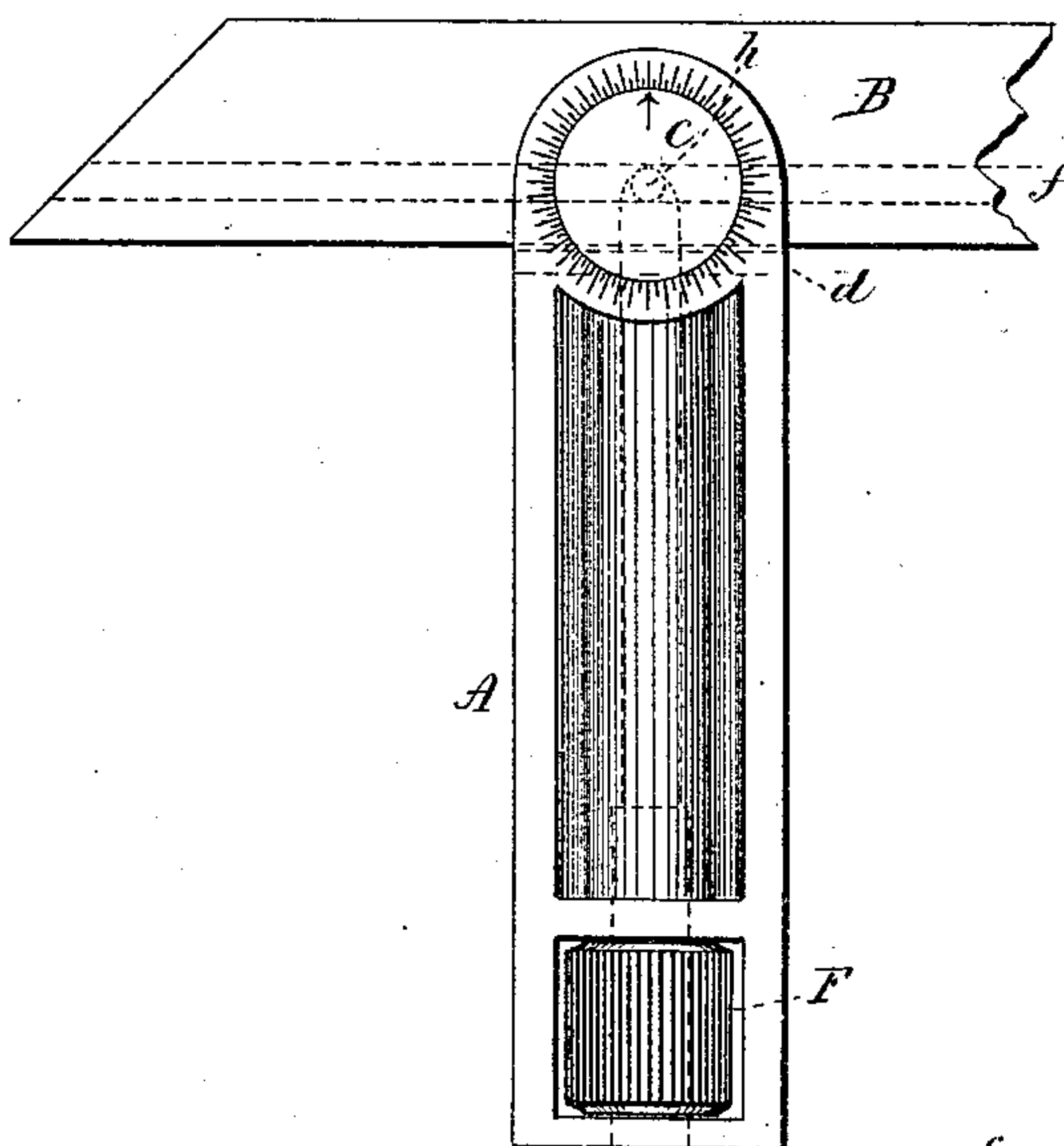


fig. 2

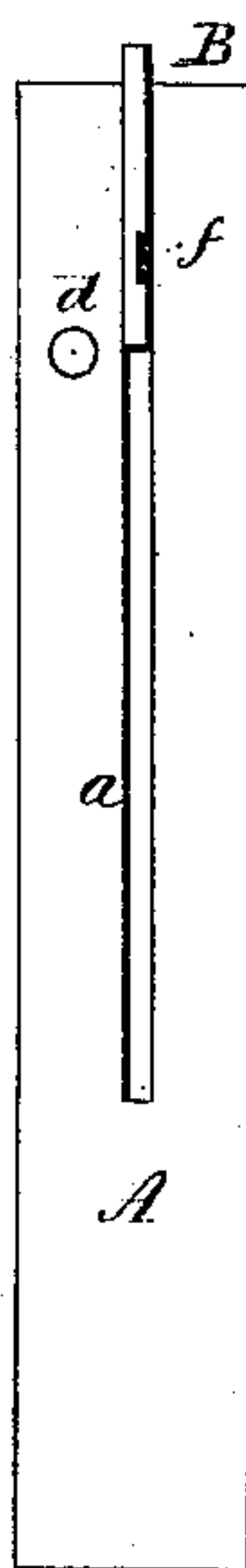


fig. 3

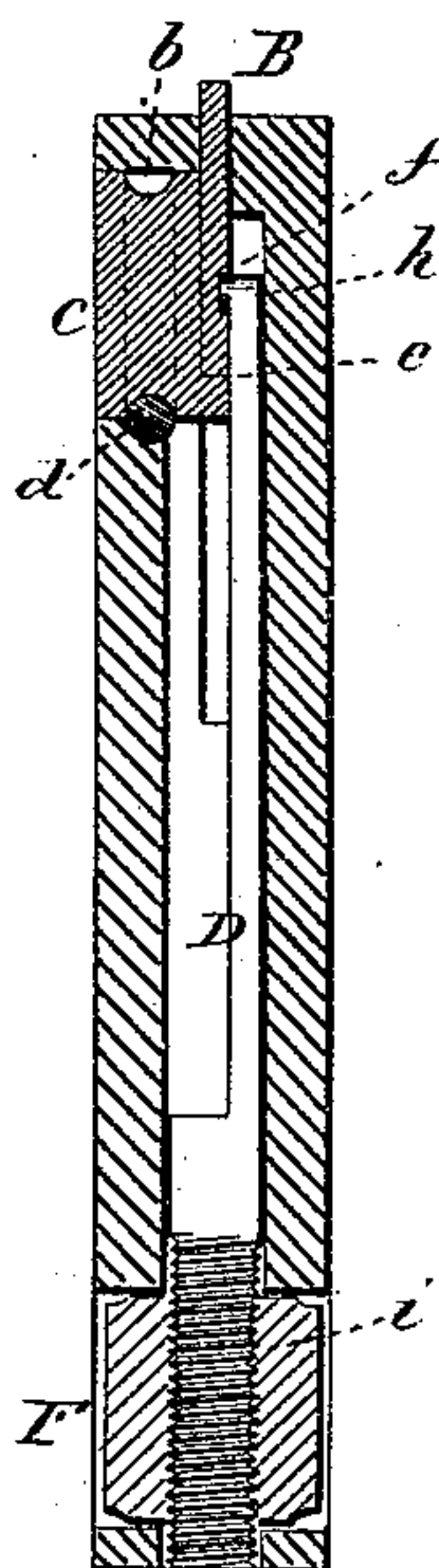
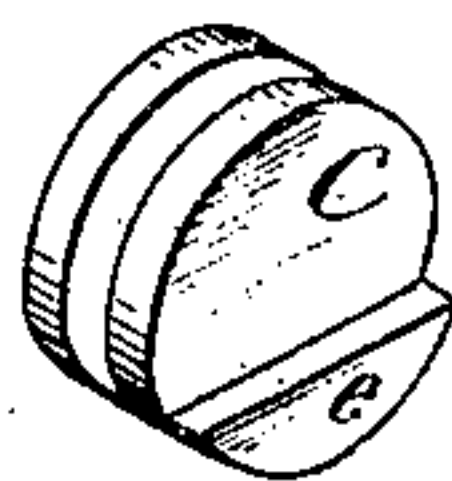


fig. 4



Witnesses:
J. B. Hummery
Jas. C. Earle

Ernest V. Clemens,
Inventor.
By Atty.
J. B. Earle

UNITED STATES PATENT OFFICE.

ERNEST V. CLEMENS, OF ANSONIA, CONNECTICUT, ASSIGNOR OF ONE-HALF
TO FRANKLIN FARREL, OF SAME PLACE.

BEVEL-SQUARE.

SPECIFICATION forming part of Letters Patent No. 251,524, dated December 27, 1881.

Application filed October 28, 1881. (No model.)

To all whom it may concern:

Be it known that I, ERNEST V. CLEMENS, of Ansonia, in the county of New Haven and State of Connecticut, have invented a new Improvement in Bevels; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view; Fig. 2, edge view; Fig. 3, vertical central section; Fig. 4, perspective view of the seat detached.

This invention relates to an improvement in the instrument commonly called a "bevel" or "bevel-square"—that is to say, an instrument in which the blade is arranged to be set at any desired angle—the object of this invention being the ready adjustment of the blade to any predetermined angle; and it consists in a cylindrical seat for the blade arranged in a corresponding cylindrical recess in the stock, so that the said seat may be readily rotated in its recess, combined with the blade and means for clamping it, as more fully hereinafter described.

A represents the stock, which has a vertical slot, *a*, therein, within which the blade B will play in the usual manner. In one side of the stock is a cylindrical seat, C, for the blade. This cylindrical seat is arranged in a correspondingly-shaped recess in and so as to extend through that side of the stock, as seen in Figs. 1 and 3, and on its periphery is an annular groove, *b*, so that a pin, *d*, introduced transversely through that side of the stock will lie partly in said groove *b*, and thus hold the seat C in its place, but yet permit it to rotate; or a screw may be set through the side of the stock, its point entering the groove, and accomplish the same result.

On the back or inside of the seat C is a shoulder, *e*, as seen in Fig. 4, and on which the blade B rests, as seen in Fig. 3. The blade, bearing on the said shoulder, will, as it is turned to different angles, correspondingly turn the said seat C.

As a means for clamping the blade, I construct the blade with a longitudinal groove, *f*, and vertically through the stock is a rod, D, its upper end constructed with a stud or projection, *h*, which enters the said groove *f* in the

blade, as seen in Fig. 3, and also seen in broken lines, Fig. 1. This rod extends down to near the lower end of the stock, where it is fitted with a screw, *i*, and a nut, F, the said nut being arranged in a recess free for rotation, but held so that it has no longitudinal movement. Hence by turning the nut in one direction the rod D will be raised, and in the opposite direction drawn down. When drawn down it clamps the blade upon its seat and presses the seat downward with so much friction in the recess in which it is placed that the blade is firmly held, and is released by the opposite movement of the nut F, so that it may be set to any angle. Other devices may be used for clamping the blade; but this I prefer.

The opening in the stock around the seat C is graduated, as seen in Fig. 1, to indicate the different degrees in the circle, so that the blade may be readily set at any of the said angles, the point on the face of the seat C serving to indicate the angle; or the graduations may be on the face of the seat and the point on the adjacent surface of the stock.

I claim—

1. The combination, in a bevel, of the seat C, arranged for rotation in the stock, constructed with a shoulder, *e*, with the blade B, arranged on said shoulder, and a clamping device substantially such as described, to clamp the said blade upon its seat and the seat in its recess, substantially as described.

2. In a bevel, the combination of the seat C, arranged for rotation in the stock, and constructed with a shoulder, *e*, with the blade B, arranged on said shoulder, said blade constructed with a longitudinal groove, *b*, the rod D extending vertically through the stock and engaging said groove in the blade with a nut, F, substantially as described.

3. In a bevel, the combination of the seat C, arranged in a recess extending through one side of the stock, and graduations around said recess, the said seat constructed with a shoulder, *e*, the blade B, arranged upon said shoulder, and a clamping device substantially such as described, to clamp the blade upon its seat and its seat in the recess, substantially as described.

ERNEST V. CLEMENS.

Witnesses:

VENERIUS MUNGER,
FRANK E. HOADLEY.