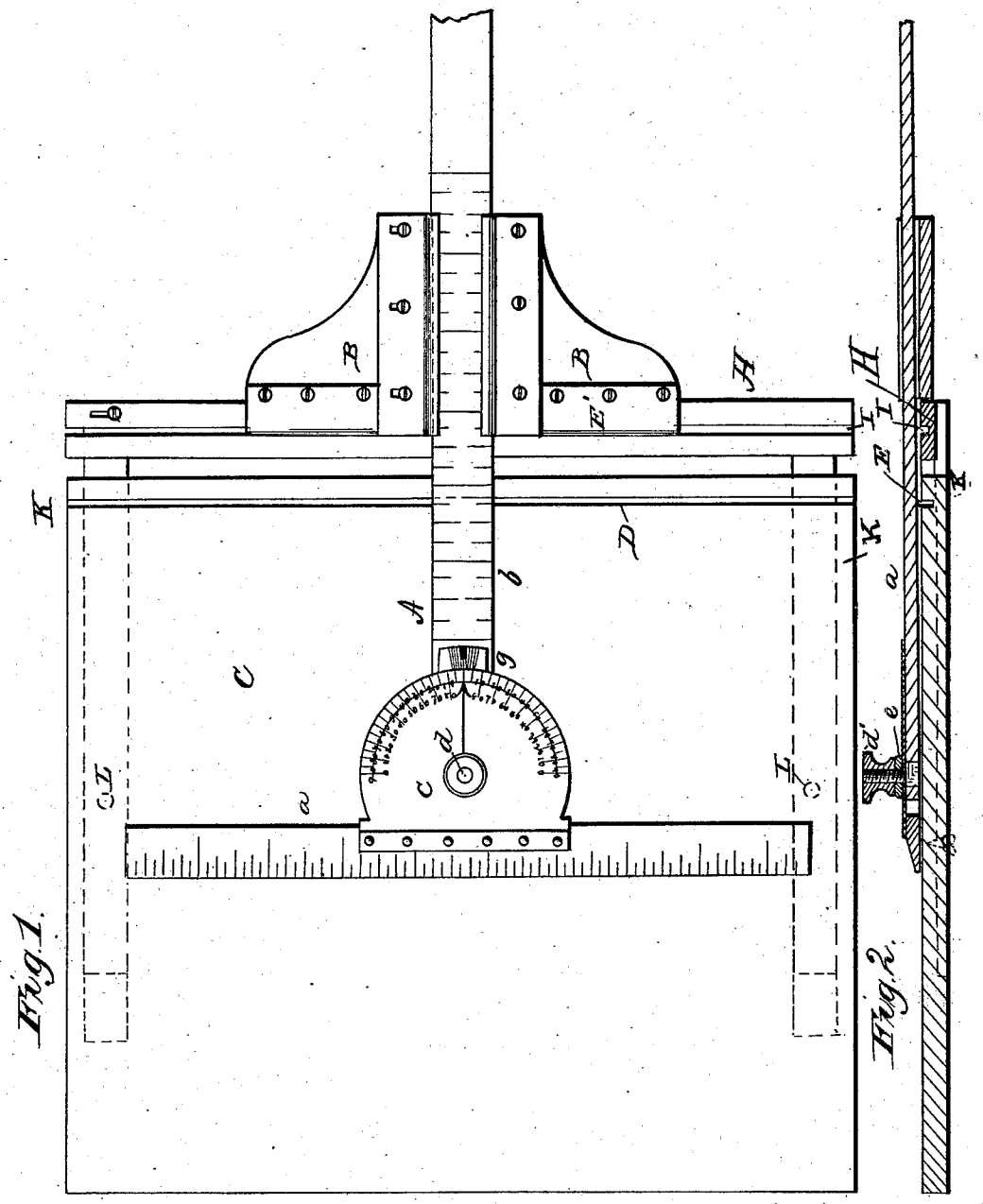
(Model.)

T. TOSTEVIN.

Drafting Instrument.

No. 238,990. **Patented March 15, 1881.**



Witnesses.
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UNITED STATES PATENT OFFICE.

THOMAS TOSTEVIN, OF COUNCIL BLUFFS, IOWA.

DRAFTING-INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 238,990, dated March 15, 1881.

Application filed December 21, 1880. (Model.)

To all whom it may concern:

Be it known that I, THOMAS TOSTEVIN, of Council Bluffs, in the county of Pottawattamie, and in the State of Iowa, have invented certain new and useful Improvements in Combined Drawing-Instruments; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to an improved drawing-instrument; and it has for its objects to provide a combined square and protractor which can be used in connection with an ordinary drawing-board, but which is preferably employed with a drawing-board constructed particularly for the purpose, and whereby lines may be formed parallel with the vertical or horizontal sides of the board, or at any determined angle thereto, as more fully hereinafter specified. These objects I attain by the apparatus and devices illustrated in the accompanying drawings, in which—

Figure 1 represents a plan view of the drawing-board, showing my improved square and protractor applied thereto, and Fig. 2 a sectional view of the board and the square and protractor.

The letter A indicates a square composed of the two straight-edges or rules *a* and *b*, the straight-edge or rule *a* being securely attached to a segment, *c*, which is swiveled to a threaded pivot, *d*, attached to one end of the straight-edge or rule *b*. The said pivot is provided with a milled binding-nut, *d'*, and washer *e*, by means of which the segment may be clamped securely to the straight-edge or rule *b*, so as to hold the respective straight-edges or rules at any desired angles to each other.

The respective straight-edges or rules may be graduated, if desired; and in order to conveniently set the straight-edge or rule *a* with respect to the straight-edge or rule *b* the segment is graduated, as indicated, and the straight-edge or rule *b* is provided with a graduated abutment, *g*, by means of which the angle of the respective straight-edges or rules may be determined in setting the straight-edge or rule *a*.

The square and protractor, as above described, may be employed in conjunction with any ordinary drawing-board, and, in order to be guided by the edge thereof, is provided with a sliding or adjustable guide, B, which is adapted to slide or be moved and adjusted longitudinally on the straight-edge *b*, the said guide, when the device is used in connection with an ordinary drawing-board, serving in the same manner as the usual cross-piece of an ordinary T-square. In practice, however, I prefer to employ my improved device in connection with a drawing-board peculiarly constructed for the purpose, which drawing-board is indicated by the letter C of the drawings. The said board, at or near any of its edges, is provided with a groove, D, parallel with such edge, in which is adapted to set a lip, E, formed on a plate, E', secured to the guide B, the said lip being capable of a longitudinal movement back and forth in the groove, so that the guide and the square and protractor may be traversed back and forth along the edge of the board.

In order to provide for the further adjustability of the square and protractor, the board is provided with an adjustable edge, H, consisting of a bar of suitable dimensions, having a longitudinal groove, I, similar to the groove D, in which the lip E is adapted to set and travel, the guide in this modification setting against the edge H. The said edge is secured to the ends of two or more bars located in grooves K in the under side of the board, and adjustable therein by means of set-screws L, so that the false edge may be set to or from the edge proper of the board, as may be desired.

The operation of my invention will be readily understood from the above description, the T-square being applied to the edge of the board and used in the ordinary manner, the graduated segment permitting the straight-edge *a* to be set at any angle with respect to the straight-edge or rule *b*, and confined in position by the clamping-nut.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An improved drawing-instrument consisting of the straight-edges *a* and *b*, pivoted segment *c*, and clamping mechanism and cross-piece B, substantially as herein specified.

2. In combination with the combined square and protractor, the sliding guide secured to the straight-edge *b*, substantially as specified.

3. In combination with the board, the adjustable edge having a groove for the lip of the guide, substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of December, 1880.

THOMAS TOSTEVIN.

Witnesses:
S. D. STREET,
J. H. BURROUGHS.