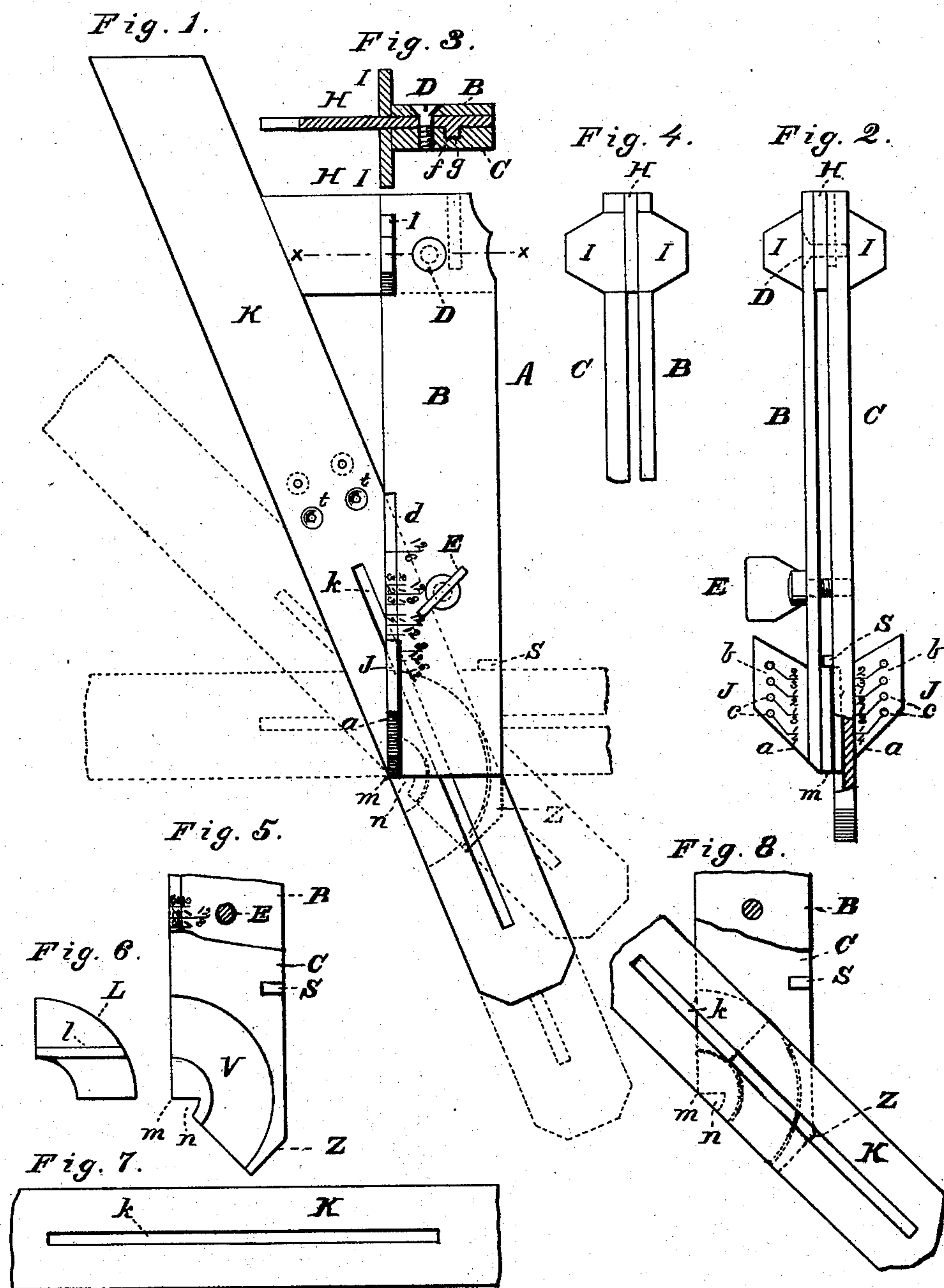


(No Model.)

M. GATES.
ADJUSTABLE MITER BEVEL.

No. 406,724.

Patented July 9, 1889.



Witnesses

Villette Anderson,
Mary Boylin

Inventor

Matthias Gates
By his Attorney
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UNITED STATES PATENT OFFICE.

MATTHIAS GATES, OF WICHITA, KANSAS.

ADJUSTABLE MITER-BEVEL.

SPECIFICATION forming part of Letters Patent No. 406,724, dated July 9, 1889.

Application filed April 3, 1889. Serial No. 305,833. (No model.)

To all whom it may concern:

Be it known that I, MATTHIAS GATES, a citizen of the United States, and a resident of Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Adjustable Miter-Bevels; and I 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a view of the invention. Fig. 2 is an edge view. Fig. 3 is a transverse section on line *x x*, Fig. 1. Figs. 4, 5, 6, 7, and 8 are detail views.

This invention has relation to certain improvements upon the adjustable miter-bevel for which Letters Patent No. 392,508 were granted to me on the 6th day of November, 1888.

In the accompanying drawings, illustrating the invention, the letter A designates the stock or body of the instrument, consisting of the two plates B and C, which are connected by the main support-screw D and the clamp-screw E.

At one end of the stock, near the seat of the screw D, the plate C is longitudinally grooved or slotted at *f* to receive the tenon *g* of the try-square blade H, so that when secured between the stock-plates B and C by means of the screw D its exact position is secured. The stock-rests, which project laterally from the plates B and C at this end of the stock, are indicated at I I.

J J represent the miter-marker flanges, which project laterally from the edge portions of the plates B and C at the fulcrum end of the stock, the edges of said flanges being beveled, as at *a a*, to mark a square miter, and having the indicator-lines, as at *b*, on their faces to prevent the marking of miters of less angular opening, these indicator-lines *b* terminating in perforations *c*, through which the point of a pencil may be thrust in setting the mark on the work.

The pitch-scale of the plate B is indicated at *d*, and miter-marks 1-2, 1-3, &c., are arranged thereon in addition to the pitch-marks 12-6, 12-8, &c. In miter work on thick timber the miter-marks on the pitch-scale can be

used in adjusting the bevel-blade K. The miter-flanges on the stock will serve for inch stuff, but for thicker timber the bevel-blade will be employed.

The bevel-blade K lies between the plates B and C, its outer edges being even with the center point of the stock at *m*. This bevel-blade is slotted, as at *k*, to receive the rib-guide *l* of the arc slide L, which moves in the arc-shaped bearing V of the stock-plate C, said arc-shaped bearing being centered on the point *m*. In order to provide for a pitch of 12 to 6, or approximating thereto, I have formed an extension of the stock-plate C, as at Z, said extension carrying an extension of the arc-shaped bearing V, so that when the bevel-blade is used in marking such a pitch there will be sufficient bearing for the arc slide to prevent shaking and secure exact work. The extension Z is separated from the center point *m* of the stock-plate by the notch *n*.

The plate B is provided with a right-angle stop S, against which the bevel-blade is adjusted when it is designed that said bevel-blade shall project at right angles to the stock. The bevel-blade K is also provided with perforated rabbet-gages *t t* countersunk on each side near the upper end of the slot *k*.

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

1. In an adjustable miter-bevel having the stock-plates B and C, the miter-flanges having their bevel edges extending back from the center point *m* and having the indicator-marks and perforations for miter-bevels of less angular opening, substantially as specified.

2. An adjustable miter-bevel consisting of the stock-plate B, having the clamp-screw E and right-angle stop S, the slotted stock-plate C, having the arc-bearing extension Z beyond its center point, the try-square blade, clamp-screw, the slotted bevel-blade having rabbet-markers, and the slide, substantially as specified.

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

MATTHIAS GATES.

Witnesses:

JOHN MENDENHALL,
J. F. ADAMS.