C. E. BILLINGS.

CARPENTERS' SCRIBING TOOLS.

No. 194,761. Patented Sept. 4, 1877.

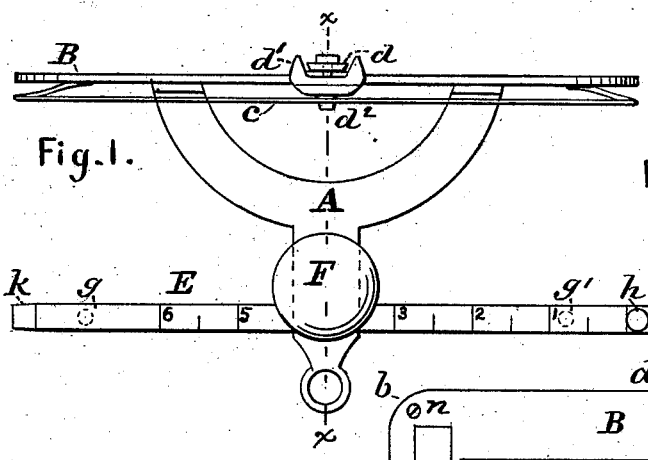


Fig. 1.

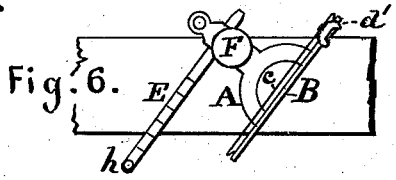


Fig. 6.

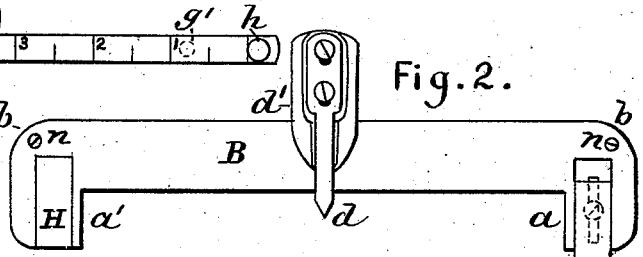
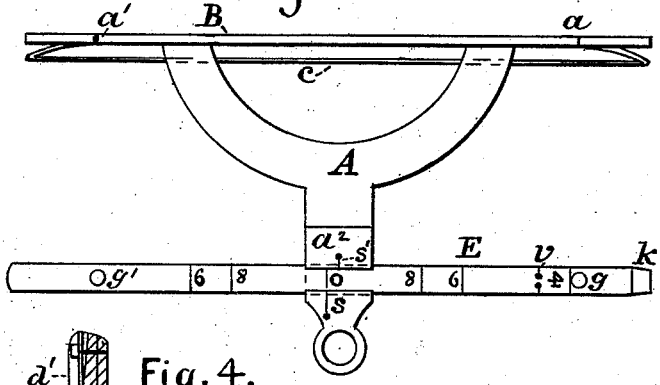


Fig. 2.

Fig. 3.



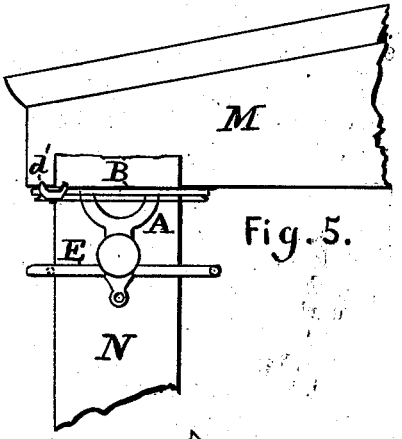


Fig. 5.

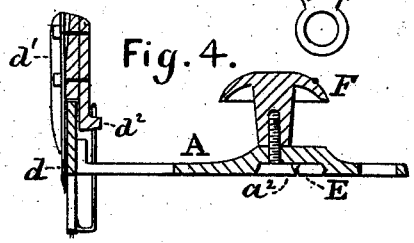


Fig. 4.

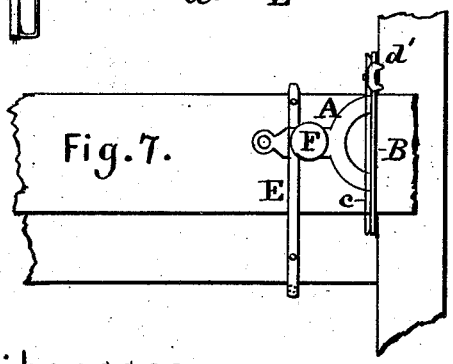


Fig. 7.

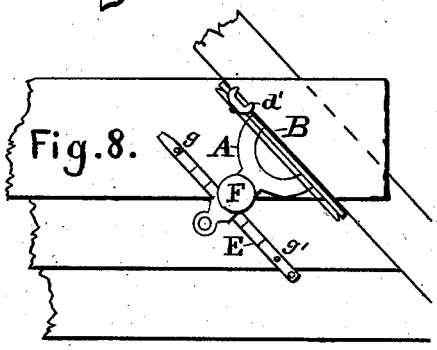


Fig. 8.

Witnesses:

H. A. Daniels

A. P. Lacey

Inventor:

Clark E. Billings

by A. Burris

Attorney.

UNITED STATES PATENT OFFICE.

CLARK E. BILLINGS, OF WARREN, VERMONT.

IMPROVEMENT IN CARPENTERS' SCRIBING-TOOLS.

Specification forming part of Letters Patent No. **194,761**, dated September 4, 1877; application filed April 7, 1877.

To all whom it may concern:

Be it known that I, CLARK E. BILLINGS, of Warren, in the county of Washington and State of Vermont, have invented certain new and useful Improvements in Carpenters' Scribing-Tools; and I do hereby declare that the following is a full, clear, and exact description thereof, which 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 the letters of reference marked thereon, which form a part of this specification, in which drawings—

Figure 1 is a plan view of the combined tool. Fig. 2 is a face view of the scribing-plate and marker. Fig. 3 is a view of the under side of the tool. Fig. 4 is a vertical section on line *x x* of Fig. 1. Fig. 5 shows the application of the tool in marking boards at right angles, and scribing in window and door casings. Fig. 6 shows the application of the tool in marking miters. Fig. 7 shows the application of the tool in scribing in weather-boarding. Fig. 8 shows the application of the tool in scribing in boards at the gable end of a building.

My invention relates to a carpenter's tool, consisting of the combination of various devices, adapting the tool for use in squaring and mitering boards and timbers, marking weather-boarding, scribing in window and door casings, and such like purposes, as hereinafter more fully described.

A is a frame, to which is attached by screws a scribing-plate, B, having ends *a* a^1 formed at right angles to the body of the plate, and is rounded on the upper edge, as shown at *b*.

A guide-rod, *c*, arranged parallel with the edge of the plate, is attached at each end to the angular ends *a* a^1.

A scribing-tool, *d*, is adjusted in a seat in the holder d^1, which is provided with a slot to receive the edge of the plate, and with a stop and guide lug, d^2, projecting under the rod to guide and hold the scriber in place on the plate. The seat of the scriber *d* is inclined at the upper part to adjust the scriber laterally, and it is secured to the holder by set-screws through slots in the upper part of the tool to adjust it lengthwise.

E is a bar, provided with two studs, *g g'*, near the ends and on the same side of the bar, and with one stud, *h*, on the other side of the bar. This bar is also provided on one side with a measuring-scale of inches and fractions of inches, and on the other side with marks for adjusting the tool for squaring and mitering, as hereinafter described, and one end, *k*, is provided with a screw-driver point for operating the screws of the combined tool.

The under side of the frame A is provided with a recess to receive a beveled plate, a^2, to which is rigidly fixed a screw extending through a hole in the frame, and fitting a female screw in the stem of the knob F. The recess in the frame is long enough to receive the bar E, the edges of which are beveled to fit the bevels on the edge of the plate F, and on the frame A, to hold the bar and allow it to be moved endwise to adjust the tool, as required.

The angular ends *a* a^1 are provided with recesses to receive the adjustable plates H, which are held by set-screws inserted through slots in the angular ends to adjust the length of the squares for scribing in thick boards. Screws *n n* are adjusted in the scribing-plate for stops to the marker in marking weather-boarding.

In using the tool for squaring and mitering, the bar E is placed in the frame with the side having two pins, *g g'*, downward, and the end marked 4, near the screw-driver point, on the side of the frame marked 4. To draw lines at right angles to the edge of a board, adjust the bar with the mark 0 on the bar, at the long mark on the frame, designated by *s* on the drawings. This position of the bar places the pins *g g'*, respectively, on lines drawn at right angles to the face of the plate B from the inner edges of the squares *a* a^1, so that when the square *a* and pin *g* are placed against the left-hand edge of a board, the plate B will be at right angles to that edge of the board, and when the square a^1 and pin *g'* are placed against the right-hand edge of the board, the plate B will be at right angles to that edge of the board, and the marker, held in proper position, is moved along the plate, marking a line at right angles to the side against which the tool is placed.

When the edges of the board are to be

marked, the marker is moved over the curve down the square, resting against the edge of the board, without moving the tool, and then the opposite square and pin are placed against the other edge of the board, and the marker is moved over and down that square, marking that edge of the board.

To mark square miters, the bar E is adjusted with the mark 4, near pin *g*, on the bar, at the long mark on the frame, designated by *s* on the drawing.

To mark hexagonal and octagonal miters or bevels, the bar is adjusted at the figures 6 and 8, respectively, on the side having the two pins.

The tool is adapted to be used as a left and right hand square when the bar is adjusted at 0, and for a right and left square miter when adjusted at 4, as described. But the bar must be changed to the right and left, respectively, for marking the right and left miters for the six and eight square, or hexagonal and octagonal, miters.

The scribing-plate B is attached to the frame by screws, so that it may be removed and a longer plate attached, when required, for marking wider boards. The marker is readily removed from one plate and attached to another by springing the rod *c* beyond the lug on the marker.

The squares *a* a^1 are long enough to scribe in boards three-quarters of an inch in thickness. To scribe in thicker boards, the adjustable plates H are moved down by means of the slots and set-screws.

Fig. 5 illustrates the use of the tool in marking a board at right angles to the sides, and in scribing in window and door casings. The top casing M being set in place, and the lower end of the side casing N cut and adjusted on the sill, and the upper end against the top M, the tool is placed on N, with the square *a* and pin *g* against the left-hand edge of N, and the face of the squares *a* a^1 against the lower edge of M, and the marker is drawn across the left edge and the face of N. To mark the other edge, the tool is moved to the left till the square a^1 and pin g' bear against that edge which is marked by moving the marker down that square.

The application of the tool in marking miters is shown in Fig. 6 of the drawings, showing the bar adjusted at the mark 4, for drawing square miters.

Hexagonal and octagonal bevels are drawn in like manner by adjusting the bar at the figures 6 or 8, as previously described.

In using the tool for marking siding or weather-boarding, the bar E is adjusted in the frame with the two pins *g* g' upward and outward, and the pin *h* inward against the wall, and the tool is placed in an upright position, with the pin *h* against the lower edge of the last board nailed on, and the face of the squares *a* a^1 against the corner-casing, the lower edge of the board to be marked resting on the inner edge of square a^1 and extending over the corner-casing, as shown in Fig. 6. The marker is then drawn across the board, marking it to fit the edge of the casing. The lap and weather-surface of the siding are regulated by the adjustment of the bar E in the frame, by the short mark s' on the plate. When the bar is set with the mark 6 on the bar at the short mark on the plate, indicated by s' on the drawing, the weather-surface will be three inches. When the bar is set at 5 the weather-surface will be two inches. In scribing in weather-boarding, the small screws *n n* are moved outward far enough to form stops to the marker.

In forming roofs having the usual pitch, where the length of the rafters is two-thirds of the width of the building, the bar E is adjusted with the double mark on the bar, indicated by *v* on the drawing, at the long mark on the frame designated by *s* on the drawing. The tool thus adjusted and placed on a rafter, with one of the squares and pins against one side of the rafter, will mark the bevel of the rafter at the peak of the roof; and by changing the position of the tool so that the other square and the other side of the same pin bear against the same side of the rafter, it will mark the bevel of the lower end or foot of the rafter to rest on the rafter-plate.

In scribing in weather-boarding on the gable ends of buildings, the tool is adjusted as shown in Fig. 7 of the drawings.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the frame A and plate B, the bar E, having pins *g* g' *h*, and adapted to be adjusted for marking squares and miters, substantially as described.

2. The plate B having angular ends *a* a^1 provided with the adjustable plates H, substantially as and for the purposes described.

3. In combination with the plate B and the guide-rod *c*, the holder d^1, having an inclined recess for the adjustable tool *d*, a slot to receive the edge of the plate, and a lug, d^2, extending under the guide-rod, substantially as and for the purposes described.

4. The frame A, having a recess to receive the bevel-plate and adjustable bar, in combination with the bevel-plate F, provided with a screw and knob, substantially as and for the purposes described.

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

CLARK E. BILLINGS.

Witnesses:

HORACE W. LYFORD,

PIERCE SPALDING.