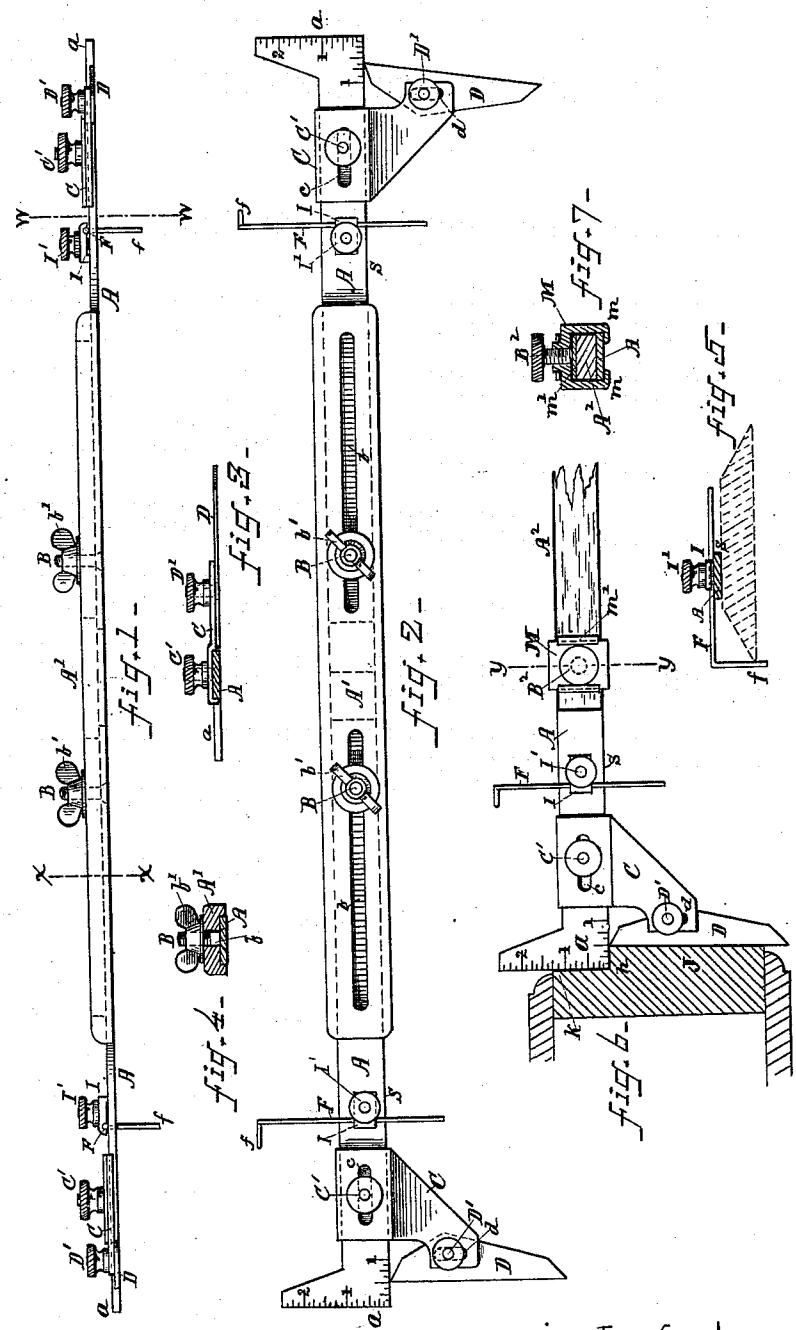
(No Model.)

D. W. MACKER.

THRESHOLD MEASURING GAGE.

No. 408,496. Patented Aug. 6, 1889.



Witnesses

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UNITED STATES PATENT OFFICE.

DEAN W. MACKER, OF GRAFTON, MASSACHUSETTS.

THRESHOLD-MEASURING GAGE.

SPECIFICATION forming part of Letters Patent No. 408,496, dated August 6, 1889.

Application filed April 10, 1889. Serial No. 306,671. (No model.)

To all whom it may concern:

Be it known that I, DEAN W. MACKER, a citizen of the United States, residing at Grafton, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Threshold-Measuring Gages, of which the following, together with the accompanying drawings, is a specification sufficiently full, clear, and exact to enable persons skilled in the art to which this invention appertains to make and use the same.

The object of my present invention is to provide a convenient and serviceable gage for use in fitting the thresholds of doors, whereby the several necessary measurements and lines can be taken from the doorway and then be conveniently and accurately transferred or marked on the board from which the threshold is formed, thereby avoiding the loss of time and labor consumed by the usual method of taking and transferring separately the series of measurement and obviating the liability of making errors and the production of non-fitting joints. These objects I attain by a gage-instrument constructed substantially as described, the particular subject-matter claimed being hereinafter definitely specified.

In the drawings, Figure 1 is a side view of my improved threshold-gage. Fig. 2 is a plan view of the same. Fig. 3 is a transverse section at line *w w*. Fig. 4 is a transverse section at line *x x*. Fig. 5 is a section showing the side fingers and the manner of their use. Fig. 6 is a plan view of one end of the gage, illustrating the manner of adjusting it to the door-jamb when taking the dimensions. This figure also shows a modified clamp for holding the adjustment of the lengthening-bar, and Fig. 7 is a transverse section of the same at line *y y*.

In referring to parts, A A denote two extension-pieces, which, in connection with the slotted bar A′, form an extensible measuring-rod that can be lengthened and shortened, and retained fixed at any desired length or extension by the clamping-studs B, which pass through slots *b* in the bar A′, and are provided with thumb-screw heads *b′*, as indicated. The extension-pieces A are best fitted to slide in a groove formed in the part A′, or otherwise guided in connection therewith. Said pieces A have squares at their ends *a*, which are preferably graduated by lines indicating inches and parts of inches. Adjustable arms C are fitted upon the extension-pieces A near the square ends, and clamped by thumb-screws C′, that pass through longitudinal slots *c*, for retaining the arms at positions of adjustment, as shown. Said arms C carry at their outer ends swinging bevel gaging-plates D, that are retained by clamping-screws D′, which pass through slots *d* in the end of arms C, the slots being disposed with their length in a direction transverse to the length of the extension-pieces, or so that the bevel-gages can move to or from the graduated head *a*, and also swing to any desired bevel or inclination in relation thereto.

Transverse gages or fingers F, having offset ends *f*, are adjustably connected with the extension-pieces by the clamp-plates I and thumb-screws I′. Said finger-gages can be extended so that their offset ends will stand at greater or less distance from the straight edge S of the bar A.

When taking dimension of a doorway for fitting a threshold, the several clamp-screws are loosened and the ends of the finger *f* turned upward. The instrument is then placed within the doorway and extended so that the ends or squares *a* fit into the door-rabbet, as indicated in Fig. 6. The nuts *b′* on screws B are then tightened. The arms C are next slipped outward so as to bring the bevel-plates D against the face of the door-jamb J whether the latter are square or splayed, accurately fitted or more or less out of true position, and the screws C′ and D′ are then tightened to hold the arms and plates in positions corresponding to those of the jambs. The attendant then notes the measurement of the rabbet width from the shoulders *h* to the angle *k*, as indicated on the graduated square *a*. The gage can then be lifted out from the doorway and placed upon the board or threshold to be fitted, the two finger-gages F being set to equal distance from the edge-line S, so as to give a parallel position to the gage by hooking the fingers *f* onto the edge of the board, as indicated in Fig. 5. The operator then simply marks the board about the ends of the gage and makes his cuts as indicated thereby, thus

insuring an accurate fit and performing the entire operation by a single transfer of measurements more accurately and in much less time than can be done by the ordinary method of fitting.

In Figs. 6 and 7 I have shown a clamp device M, which can be made to accompany the instrument in case a very wide door, beyond the limit of the center bar A′ on the gage, is to be fitted. With this clamp M the extension-pieces A can be attached to any long stick or bar of wood A^2, temporarily made for the purpose. Said clamp is made with a loop or arms *m*, that embrace the piece A, and with a clamping-screw B^2 for binding it thereon. A wear-plate *m′* can be arranged in the loop, if desired, as shown in Fig. 7.

This threshold-gage can, if desired, in some instances be made and used without the lateral gage-fingers F, as the proper position for placing the tool can easily be determined by first marking a line upon the board frame on which the threshold is to be formed parallel with the edge thereof, and then placing the tool so that the straight edge S of the extension-piece A will correspond with such line for giving the position of the gage on the board.

I claim as my invention, to be secured by Letters Patent—

1. A gage for the purpose specified, consisting of the extensible bars having squared outer ends, the adjustable laterally-projecting arms fitted to slide longitudinally on the extensible bars and carrying swinging bevel-plates, the inner ends of which are adjustable against the side of said bars, as set forth, with thumb-screws or clamp devices for retaining the several parts at positions of adjustment, all arranged for operation substantially as described.

2. The combination of the slotted center bar A′, the extension-pieces A, provided with square end having graduations thereon, the adjustable arms C, the swinging plates D, adjustably attached to said arms, and thumb-screws for retaining the several parts at position of adjustment, substantially as set forth.

3. In a gage for the purpose specified, the combination, with the extension-rod having the end squares *a*, arms C, and the adjustable bevel-plates D, of the laterally-disposed adjustable gage-fingers F, and clamp devices for retaining the same, substantially as and for the purpose set forth.

Witness my hand this 6th day of April, A. D. 1889.

DEAN W. MACKER.

Witnesses:
CHAS. H. BURLEIGH,
ELLA P. BLENUS.