(No Model.) 2 Sheets—Sheet 1.

R. STEEDMAN.

SETTING GAGE FOR DOOR FRAMES.

No. 493,566. Patented Mar. 14, 1893.

Fig. 2.

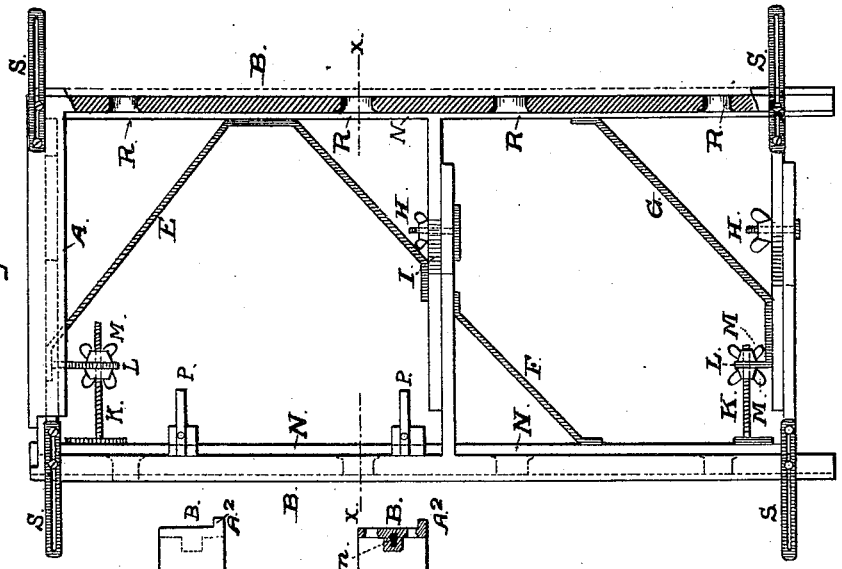


Fig. 3.

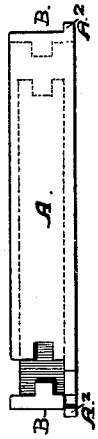
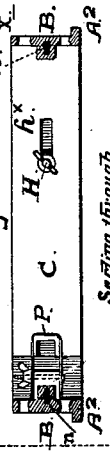
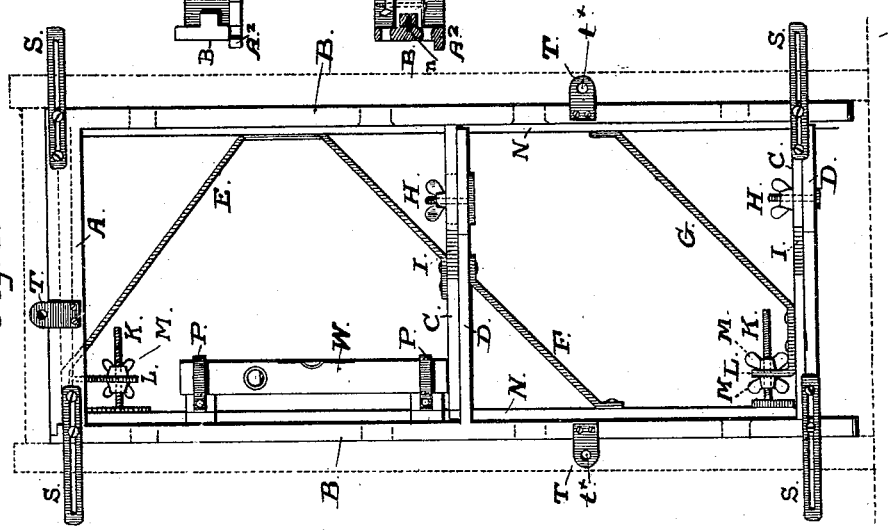


Fig. 4.



Section through — xx Fig. 2. —

Fig. 1.



Witnesses:
Martha Reyner.
William Franklin

Inventor:
Robert Steedman
By Smith & Osborn attys

(No Model.) 2 Sheets—Sheet 2.

R. STEEDMAN.

SETTING GAGE FOR DOOR FRAMES.

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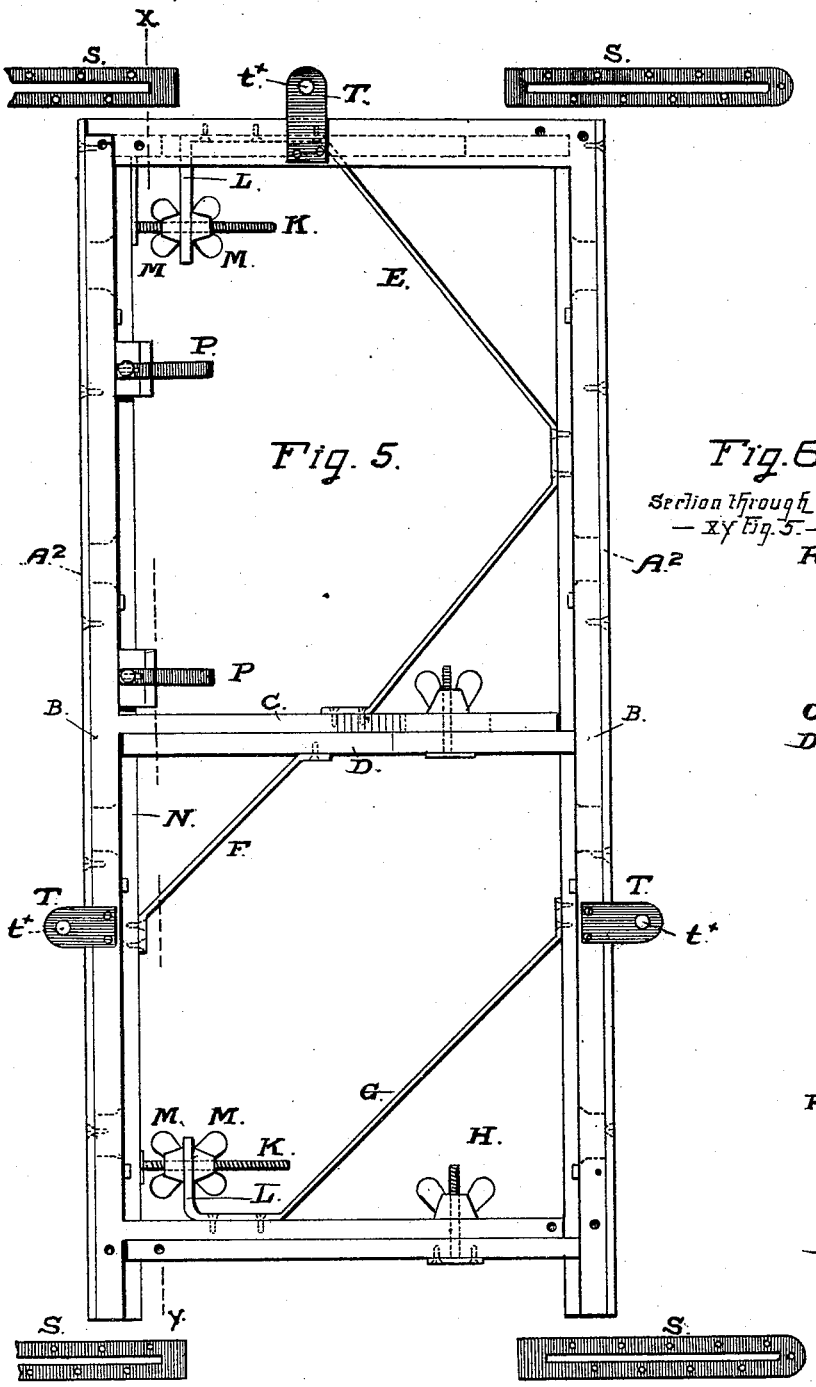

Fig. 5.

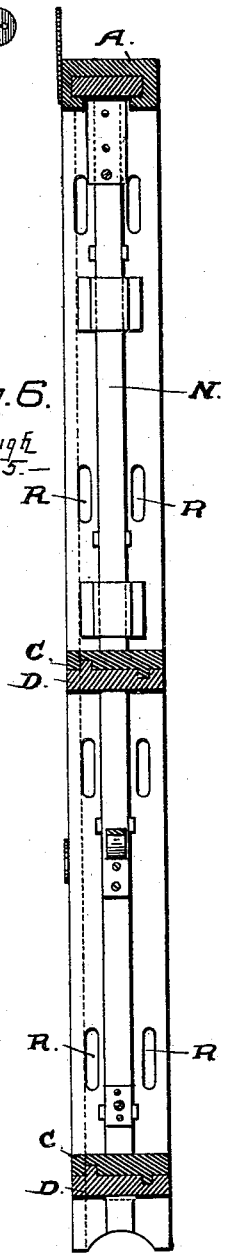

Fig. 6.

Section through — XY Fig. 5. —

Witnesses:
Martha Regner.
William Franklin.

Inventor:
Robert Steedman
By Smith & Brown Attys.

UNITED STATES PATENT OFFICE.

ROBERT STEEDMAN, OF BERKELEY, CALIFORNIA.

SETTING-GAGE FOR DOOR-FRAMES.

SPECIFICATION forming part of Letters Patent No. 493,566, dated March 14, 1893.

Application filed April 1, 1892. Serial No. 427,332. (No model.)

To all whom it may concern:

Be it known that I, ROBERT STEEDMAN, a citizen of the United States, residing at Berkeley, Alameda county, State of California, have invented certain new and useful Improvements in Setting-Gages for Door-Frames, of which the following is a specification.

My invention relates to the production of a novel tool or contrivance for the carpenter and joiner to facilitate the work of setting door-frames or jambs. I have called this tool a setting-gage for door frames, and shall refer to it by that name in the following description; but it is applicable as well to other frames and can be used to advantage in setting window frames and for similar work where accuracy and uniformity in the frames throughout a building are desired. The following description explains the said construction and the method of setting door-frames with my said contrivances reference being had therein to the accompanying drawings which form part of this specification.

Figure 1 represents in front view a jamb setting gage constructed according to my invention;—the door-jamb being indicated in dotted lines in place around the gage. Fig. 2 is a similar view of the gage with the sides drawn out to take a jamb of greater width, one of the side bars of this gage is shown in section. Fig. 3 is a top view of the frame Fig. 2. Fig. 4 is a cross-section taken through Fig. 2 on the horizontal line $x\ x$. Fig. 5 is a front view of the gage on an enlarged scale with some of the attachments in detail. Fig. 6 is a vertical section through Fig. 5 on the line x Y looking toward the inner face of the left-hand side-bar.

A is the top-rail or head-piece and B B are the up-right side-bars.

C D are cross-bars or rails joining the uprights B B at the bottom and also at about the middle of the frame. These parts are joined together at true right angles to form a gage or pattern frame of the height and width of the door-jamb.

E F G, are diagonal braces fixed between the uprights and the cross-bars to hold the parts stiffly in position. The cross-bars are extensible and the two uprights can be spread apart to set the frames for different widths of jambs, and also to adjust exactly to the jamb. For that purpose the head-piece and the cross-bars are made so that they slide on each other and draw out to spread the uprights equally at top and bottom of two rails one of which is fixed to one side bar of the frame and the other to the opposite side-bar. These bars are fitted to slide upon each other, the top cross-bar is constructed as shown in Figs. 2 and 3 with the lower slide fitted in grooves in the upper slide, and the other cross bars that join the uprights together below the head of the frame are made each of two slides joined by tongues on the face of one bar and grooves in the face of the other bar. The two slides of each bar are held by a clamp screw H, the screw being fixed in one slide and working through a slot $h^{\times}$ in the other slide. The tongues and grooves serve to prevent lateral movement and twisting and the screw clamps the two parts of each bar after the cross-bars are drawn out the required distance.

I I are scales on the sliding cross-bars for setting them at the same points. The divisions of the scales are any convenient fractional parts of an inch and are the same on all the cross-bars.

K is a short screw rod fixed at the end to one side-bar and working through a post or bracket L on the cross-bar with clamping nuts M M on opposite sides of the post to set and hold the screw. By turning one nut the side-bar is moved either out or in, to reduce or to increase the width of the frame and by the other nut the screw is locked and held at that point. There is one of these screws at the top and another at the bottom of the frame.

N is a perpendicular straight edge fixed on or against the inner side of each upright to furnish a true vertical face to which a spirit-level W can be applied in the operation of adjusting and setting the gage-frame perpendicularly in the opening. This part N of the frame I prefer to construct of wood with a stiffening plate n of metal let into it to prevent its springing out of line and to secure a true vertical straight edge. The opposite side of the frame has a straight edge or bar of the same character from which the braces are carried to the cross-bars, but ordinarily the spirit-

level is applied to the straight-edge on one side only as that will give the true perpendicular of the whole frame.

For convenience in using the spirit-level I provide a clamping device at one side of the frame to fix the level in position so that by its means the workman can place his own level in the frame, and instead of applying the level to the straight edge from time to time during the work of adjusting the frame in the opening he will have both hands free to adjust and set the frame.

The clamp is composed of two metal straps or loops P P with screws and nuts to draw up the straps and hold the level against the straight edge. The straps are attached to the side-bar B or against the straight edge N or they are attached to blocks which are fixed over the straight edge as shown in Figs. 5 and 6.

R R are nail slots or openings provided in the upright bar for setting and driving nails through the jamb at both sides by means of which the jamb can be nailed to place after the adjustment before removing the gage-frame. Soft wood or plain jambs where the nails are driven in below the surface to be covered by the paint are nailed in this manner, from the front face. But hard-wood frames can be toe-nailed from the front in the usual way instead of nailing through the openings R R. A gage-frame intended for special work in setting hard-wood frames need not have those openings in the side-bars.

A^2 are stops or projecting strips fixed by countersunk screws along the outer sides of the upright flush with the front face of the gage to set into the front of the door-frame when rabbeted frames are being set. They are detachable and can be taken off when plain or unrabbeted frames are to be set.

S S are slotted plates or metal strips fixed by screws on the front of the gage-frame at the top and bottom corners and provided with nail-holes for temporarily fixing the gage within the opening in the operation of adjusting the frame to place. The plates are movable on the screws which pass through the slots and into the side bars of the gage so that they can be set to project any desired distance beyond the sides of the gage. A nail is driven through a hole in each one of these plates into the wall or on the sides of the opening in which the jamb is to be set, and the gage and its jamb are thus supported until the jamb is nailed to place.

The jamb is fixed or secured temporarily in the gage-frame by means of small plates or ears T T fastened on the front of the upright at the top and on the sides at several points and provided with holes $t^{\times}$ $t^{\times}$ through which screws are inserted into the wood of the jamb. The screw used for the purpose should have a large head and a sharp point so that it can be readily inserted and removed with the hand. As thus constructed and combined a complete gage-frame for general use on different sizes and styles of door jambs is had. But for special work as on hard-wood jambs for instance where the stops A^2 and the nail-holes R R are not required, and where the spirit-level clamp may not be needed by the workman, the projecting side plates S S may be permanently fixed to the gage instead of being adjustable.

It is only in positions where the gage-frame is to be set quite close to a side-wall or a partition running at right angles to the door opening, as for instance where a jamb is to be set near the corner of a room, that the plates S S require to be reduced in length beyond the outer face or edge of the upright bars, for this purpose alone they are made extensible.

To set a door jamb with this contrivance the workman loosens the screws of the gage and placing it into the jamb or frame he presses and fits it closely against the head and the sides of the frame and then locks the gage by tightening up the screw. He then secures the gage and frame together by inserting screws through the plates T T into the frame, and sets the frame upright into the openings in the wall or partition. In this position a nail is driven into the studding at one side of the opening through one of the holes in the projecting plate S at one corner on the top of the gage and on this point as a center of suspension the gage is shifted over to one side or the other until the spirit-level applied to the straight edge N records a true perpendicular and when that position is obtained the gage is fixed by driving nails through the remaining plates S S at top and bottom. By this adjustment the true perpendicular position of the jamb is obtained and it is then wedged up to place and then nailed before the gage is taken out, after the work is done the gage is removed by loosening the screws and drawing the side bars toward each other sufficiently to let them slip easily out of the door-frame.

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

1. The herein described gage for setting door-jambs and other frames comprising two movable sections formed of the upright side-bars, B, B, the extensible head-piece A, and the extensible cross-bars C D composed of lapping-bars—adapted to slide on each other and clamp-screws to hold them together, the adjusting screws on one sliding section the posts on the opposite sliding section and the clamp nuts on opposite sides of said posts at the top and bottom of the gage, the straight edges in the inner faces of the side-bars a d the projecting plates S S and T T substantially as described.

2. A gage frame or contrivance for setting door-jambs and other frames in openings, comprising two extensible sections formed of upright side-bars and extensible cross-bars

united and stiffened by suitable braces, clamp-screws for securing the two sections in position after adjustment, in combination with the plates T T as means of securing the said gage-frame in the jamb or frame to be set and the plates S S as means of temporarily fixing the gage to the walls or surrounding sides of the opening substantially as described.

3. In a gage-frame of the character described, the combination of the extensible sections composed of the upright side-bars, B B and the extensible cross-bars, A C D the clamp-screws, and nuts, H the adjusting screw and nuts, K M the permanent straight-edges N on the uprights, the projecting plates S S and T T, and the nailing holes R R in the uprights substantially as described.

4. The combination of the two extensible sections formed of upright side-bars and extensible head-piece and cross-bars, the clamping screws and nuts, and the adjusting screws and nuts, the permanent straight-edge N and the spirit-level on said straight-edge, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

ROBERT STEEDMAN. [L. S.]

Witnesses:

EDWARD E. OSBORN,

CHAS. E. KELLY.