May 3, 1927.

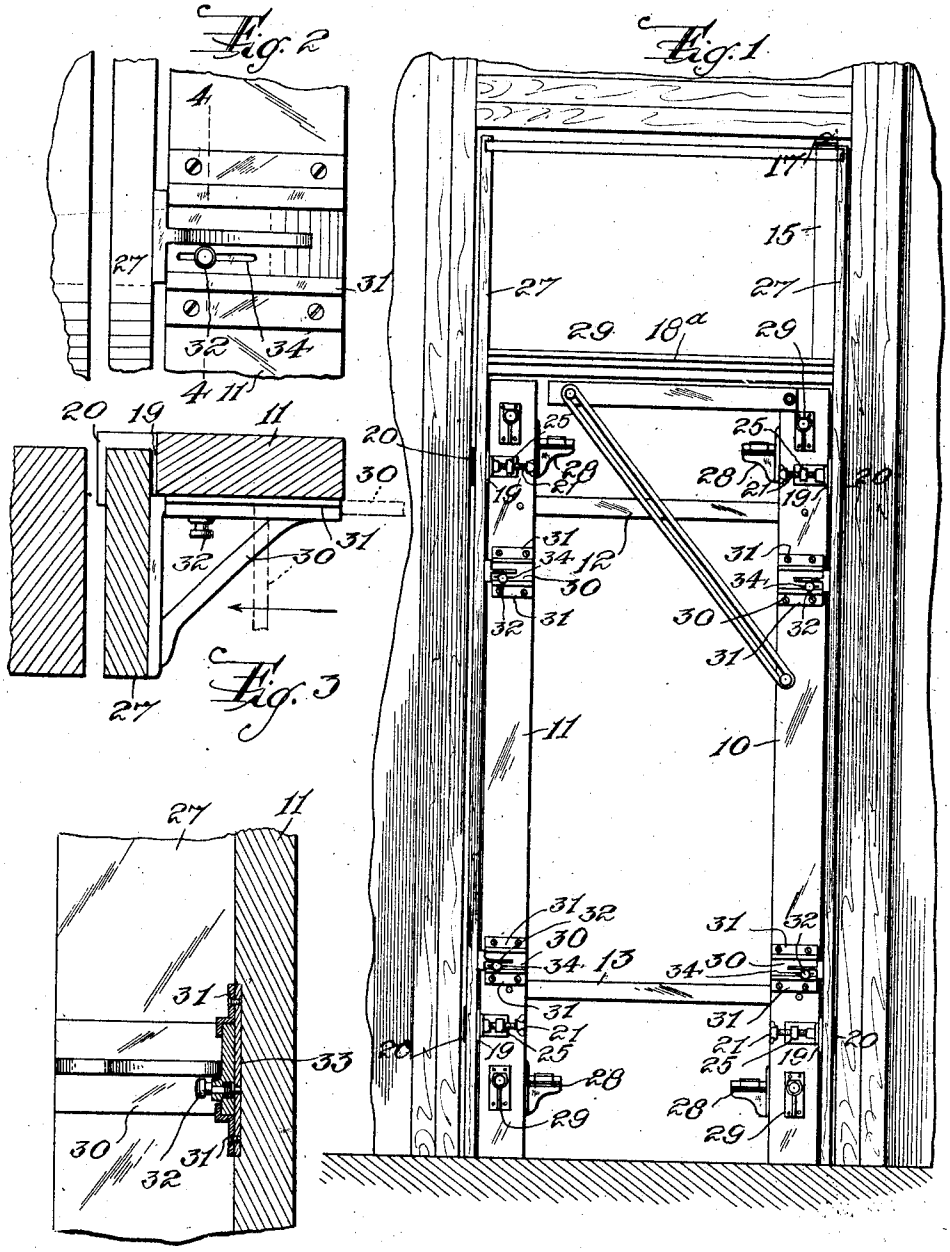
J. C. HANSEN, JR

1,627,175

LEVELING DEVICE

Filed Nov. 28, 1925

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 5

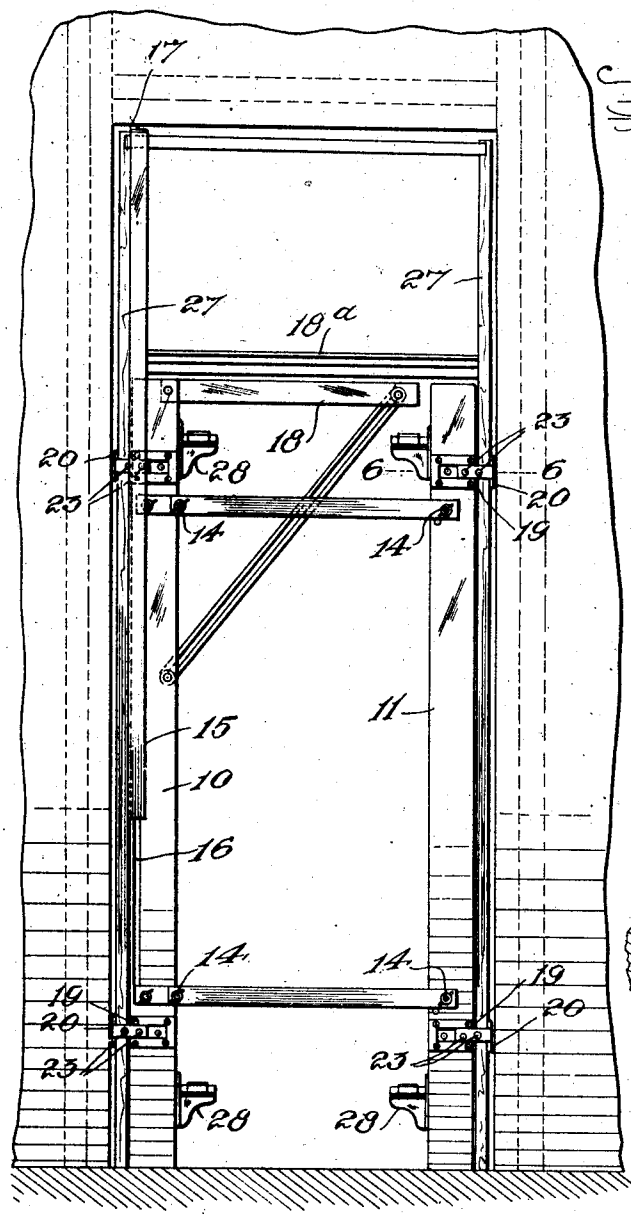
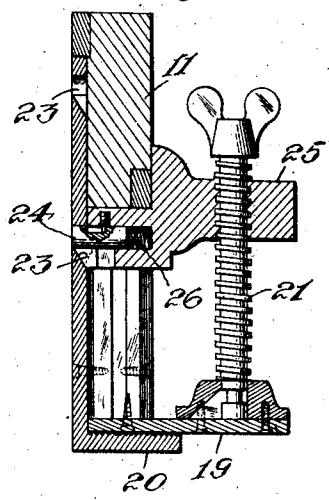


Fig. 6



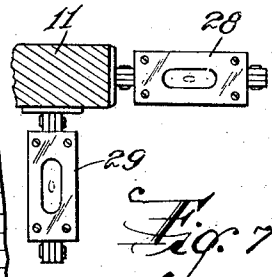


Fig. 7

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UNITED STATES PATENT OFFICE.

JOHN C. HANSEN, JR., OF NEWARK, NEW JERSEY.

LEVELING DEVICE.

Application filed November 28, 1925. Serial No. 71,916.

This invention relates to a leveling device primarily designed to permit the accurate and quick setting of door jambs and similar frames and is an improvement over my prior Patents #977,735, of December 6, 1910, and #1,066,606, of July 8, 1913.

The improvement resides in the elimination of several elements, one of them being the interchangeable arms which form the substantially fixed jaws for the clamps of the door jambs, one arm being inserted now and this being so disposed so that it can be used for various widths of doors and various widths of material of the door jamb.

The other improvement is the elimination of the plumb-bob and the addition of several squares at the back end of the plumb rules for assuring the disposition of the door jamb at the sides perpendicularly relative to the plane of the plumb rules.

The invention is illustrated in the accompanying drawings in which Figure 1 is a back view of the device in position in a doorway. Figure 2 is a face view of a square secured to the back of each side piece or plumb rule. Figure 3 is a top view of the device shown in Figure 2 and Figure 4 is a vertical section thereof on line 4—4 in Figure 2. Figure 5 is a front view of the parts shown in Figure 1. Figure 6 is a section of one of the clamps taken on line 6—6 in Figure 5 and Figure 7 is a view showing how a pair of right angled levels are secured to a plumb rule.

The device comprises a pair of plumb rules 10 and 11 which are supported in parallel relation and are properly spaced by two detachable cross pieces 12 and 13, these being detachable to enable the device to be collapsed. They are held in place by suitable means such as the set screws 14. An extension strip 15 sliding in the slot 16 holds the device in place after it is adjusted and set by forcing the pointed end 17 into the head joint of the doorway. A gauge 18 can be extended to guide the installation of the transom rail 18ª. So far as described, the device is not new being shown and described in my prior patent.

In my improved device, the sliding jaw 19 is moved toward and from the fixed jaw 20 by the screw 21. The guides 22 hold the sliding jaws in the faces of the plumb rules, these jaws being disposed on the front of the plumb rules and on the outer edges thereof and being spaced a slight distance from the top and bottom thereof.

The fixed jaws 20 are fixed when in use but are adjustable in that they have a multiplicity of openings 23, in the drawings I show two in each one, these openings being adapted to receive a spring pin 24 slidably arranged in the base of the bearing 25 of the screw 21 and being normally held in position by a spring 26. The jaws can thus be adjusted to receive the side jambs 27 of the door frame, the jaws being adjusted both for the width of the doorway and also for the thickness of the material comprising the side jambs 27.

This construction eliminates the carrying in the device as in the previous constructions of the long and short jaws with the plumb rules, as in this construction the jaws 20 can be changed as to their extension by pressing in on the spring pin 24 with a nail or similar implement and then the fixed jaws 20 can be moved to an extended or retracted position and the spring pin snaps into the proper hole 23 and the adjustment is complete.

In fixing the device in position before the side jambs are clamped, the plumb rules are made level by the spirit levels 28, these being usually arranged on the inner edges of the plumb rules 10 and 11 and being supplemented by spirits levels 29 arranged at right angles thereto on the front or rear faces of the plumb rules.

In addition to these features it is essential that the side jambs 27 be both perpendicular with the plane of the plumb rules so that their adjustment in this direction is completed when they are clamped and for this purpose I arrange squares 30 and in the drawing I show four, two on each side, mounted on the back of the plumb rules, these squares being slidably arranged in the slides 31, each of them held in position by a suitable means such as the screw 32 seated in the bottom plate 33 and in screw-threaded engagement therewith so that when the screw 32 is screwed down tight, its respective square is held in its adjusted position.

When the screw 32 is released, the square can be moved in the slideways 31 as the square is provided with a slot 34 through which the screw 32 passes.

It will be evident from this description

that the adjustable squares 30, when used in conjunction with the clamps, not only hold the side jambs parallel as to the front or rear edges, but hold them parallel for their entire width, that is, they are both perpendicular to the plane established by the plumb levels 10 and 11.

I claim:

1. A leveling device comprising a pair of plumb rules, means for holding the rules in parallel relation, sliding jaws adjustable to and from the outer edges of the rules, a holding jaw for each adjustable jaw, each holding jaw having a series of openings for the reception of a pin, and a spring pin in the rule for entrance into a selected opening in a jaw whereby the jaws can be adjusted for various widths of doors and also for various thicknesses of door jamb material.

2. A leveling device comprising a pair of plumb rules, means for holding the rules in parallel relation, clamps for holding the side jambs of a door frame parallel with the outside edges of the rules, slides on the rules, and squares insertible into the slides and when so positioned engaging the jambs for alignment perpendicularly relative to the plane of the rules.

In testimony whereof I affix my signature.

JOHN C. HANSEN, JR.