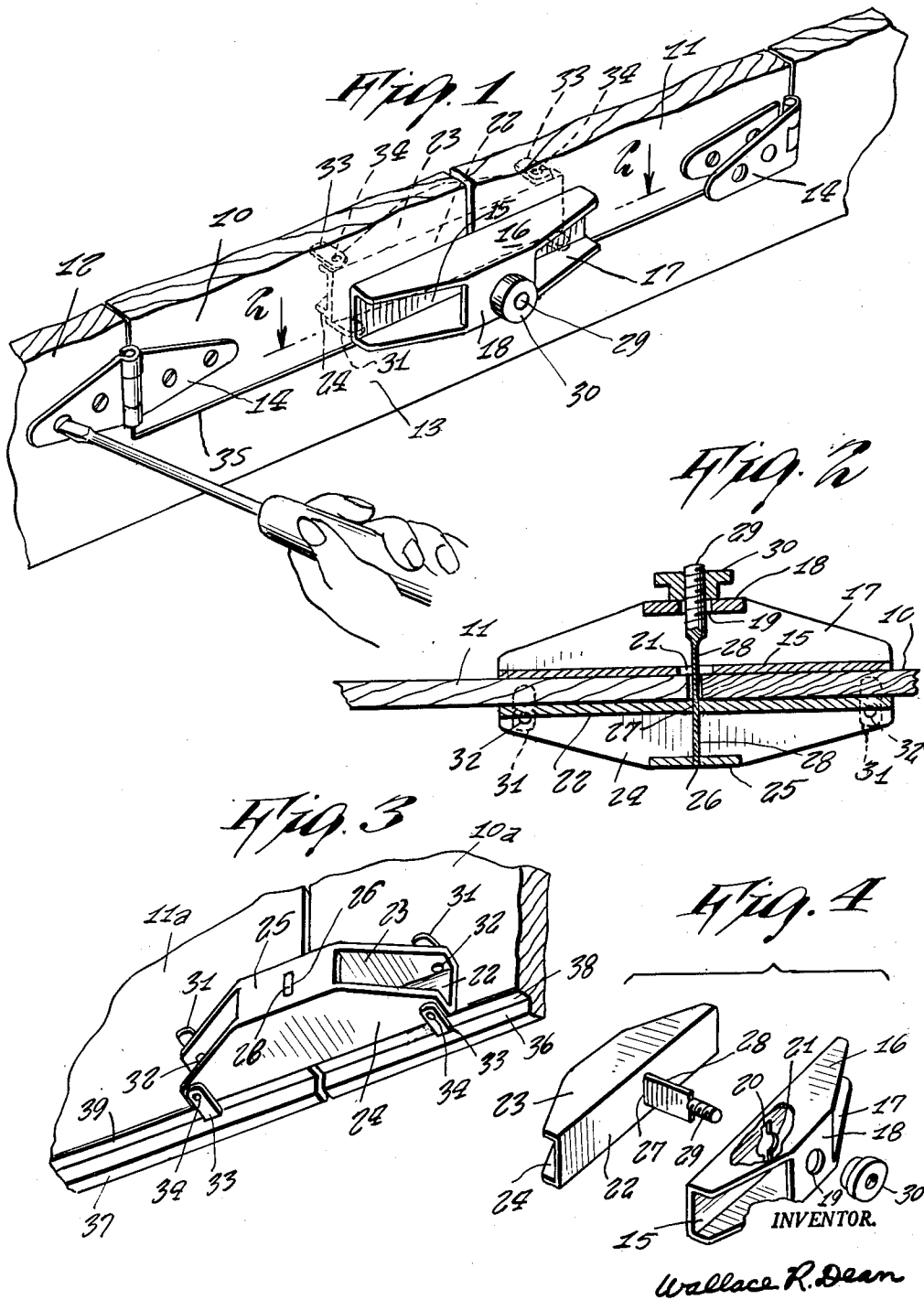


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W. R. DEAN
CABINET DOOR CLAMPS
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CABINET DOOR CLAMPS

Wallace R. Dean, Beaver, Utah

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1 Claim. (Cl. 144—297)

This invention relates to cabinet door clamps.

It is an object of the present invention to provide clamps for hanging cabinet doors which are indispensable for holding double cabinet doors of varying thickness and any size, either "lip" or "flush," while they are attached to the cabinet with a surface type hinge.

It is another object of the present invention to provide cabinet door clamps of the above type wherein the doors are held as a unit in correct alignment, given an even and correct center gap and are given the proper clearance at the bottom of the cabinet to provide an accurate bottom line for the doors.

Other objects of the invention are to provide cabinet door clamps bearing the above objects in mind which are of simple construction, has a minimum number of parts, are inexpensive to manufacture and efficient in use.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which:

Figure 1 is a perspective view showing a preferred embodiment of the present invention in operative use;

Fig. 2 is a horizontal sectional view taken along the line 2—2 of Fig. 1;

Fig. 3 is an inside perspective view of the invention shown in operative use at the bottom of the cabinet doors in the same manner as Figs. 1 and 2; and

Fig. 4 is an exploded perspective view shown partly broken away of the top door clamps.

Referring now more in detail to the drawing, and more particularly to Figs. 1 and 2, 10 and 11 represent a pair of double cabinet doors of the "flush" type which it is desired to mount on the cabinet 12 within the cabinet opening 13 by means of the surface type hinges 14, all in a manner well known to those skilled in the art.

In the practice of my invention, clamps are provided for hanging the cabinet doors, for holding the doors as a unit in correct alignment, to provide an even and correct center gap and to provide the proper clearance at the bottom to provide an accurate bottom line for the doors. A pair of such clamps will be provided for both the upper and lower ends of the doors, these upper and lower pairs being substantially identical except for a slight difference which will hereinafter become clear.

A lower outer clamp is provided and includes a rectangular inner wall 15 (Fig. 4) integrally formed along the upper and lower longitudinal edges thereof at right angles thereto with the substantially trapezoidal top wall 16 and the bottom wall 17, the outer longitudinal edges of the latter being connected by the reduced square front wall 18 having a circular opening 19. The inner face of the rectangular wall 15 is preferably coated with felt, or rubber, not shown, to protect the finish on the outside of the doors, as will be obvious. The inner wall 15 is also provided with the vertically elongated slot 20 having a circular enlargement 21 at the center thereof, the enlargement 21 being aligned with the opening 19 in the front wall 18.

A lower inner clamp is provided and includes the rec-

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tangular inner wall 22 identical in size and shape with the inner wall 15, the inner wall 22 being integrally formed along its upper and lower longitudinal edges at right angles thereto with the trapezoidal top wall 23 and the trapezoidal bottom wall 24. The smaller ends of the top wall 23 and bottom wall 24 are connected by the rectangular wall 25 (Fig. 3) having a vertically elongated slot 26. The inner wall 22 is provided with the vertically elongated slot 27 aligned with the slot 26, an elongated rectangular strap 28 having one end thereof positioned within the slots 26 and 27 and secured thereat by means of welding, the other end of the strap 28 extending outwardly and having an externally threaded stud 29 secured to the end thereof. The stud 29 is adapted to pass through the circular enlargement 21 and circular opening 19 of the outer clamp with the strap 28 passing through the vertically elongated slot 20 thereof, Fig. 4, the clamps being secured together by the extension of the stud 29 outwardly through the opening 19 of the outer clamp and the positioning thereon of the internally threaded hand nut 30 (Fig. 2).

A pair of lugs 31 are pivotally mounted on the under-surface of the bottom wall 24 at the ends thereof by means of the rivets 32 while a second pair of lugs 33 are pivotally mounted on the upper surface of the top wall 25 at the opposite ends thereof by means of the rivets 34 (Fig. 3).

The upper pair of clamps are identical in construction with the lower pair except that the top wall 23 and bottom wall 24 of the inner clamp are devoid of the lugs 31 and 33 for a purpose which will hereinafter become clear.

In operative use, the hand nut 30 is loosened to allow more than the thickness of the doors 10 and 11 between the inner and outer clamps. The strap 28 is placed between the inner vertical edges of the doors (Fig. 1) and the doors are pulled together tight against the strap. For "flush" doors 10 and 11, the lugs 31 and 33 are folded back across the top walls 24 and 25. The tabs 31 are of reduced thickness as compared with the tabs 33 and are unfolded and placed flush against the bottom of the doors 10 and 11 whereupon the hand nut 30 is tightened to hold the doors as a unit and correct the alignment to provide an even and center gap and are given the proper clearance at the bottom by making an accurate bottom line 35 (Fig. 1). The strap 28 will provide the clearance between the doors while the lugs 31 will provide the clearance 35 beneath the doors. The top pair of clamps are similarly positioned with the exception that the lugs 31 and 33 are absent. The hand nut side of the clamps must be on the outside of the doors. The hinges should be installed on the doors before they are put in the clamps. The doors are then set in the frame, resting on the tabs, while the hinges 14 are attached to the cabinet 12 (Fig. 1). The hand nut 30 is then removed from each pair of clamps and the other clamp removed. The doors can then be pulled open by pulling on the bolt 29 of each pair.

As shown in Fig. 3, the clamps may be used with "lip" cabinet doors 10a and 11a formed along their lower edges with the lips 36 and 37 which form with the doors the shoulders 38 and 39, respectively. In this case, the inner bottom clamp is rotated through 180 degrees to permit the folding of the relatively thick lugs 33 under the shoulders 38 and 39. In other respects the use of the clamps are the same. Both the lugs or tabs 31 and 33 will be folded back when not in use.

The tabs 31 and 33 are riveted with flat head countersunk rivets with the snug fit so that they can be turned.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claim.

What I claim as new and desire to protect by Letters Patent of the United States is:

Clamps for hanging cabinet doors comprising a first

plate adapted to be positioned against the inner face of the cabinet doors at the bottom thereof and bridging the gap between the inner vertical edges thereof, a strap adapted to extend through the space between the inner vertical edges of the doors, means for securing said strap to said plate, means pivotally connected to said plate and extending at right angles thereto for supporting the lower edges of the doors and for providing clearance at the bottom of the frame, a second plate adapted to be positioned across

the outer faces of the cabinet doors and bridging the gap between the vertical edges thereof, means for releasably securing said second plate to said strap.

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