Aug. 23, 1960 L. F. BERTA, JR 2,949,798

DOOR PULL TEMPLATE

Filed July 16, 1959

Fig 1

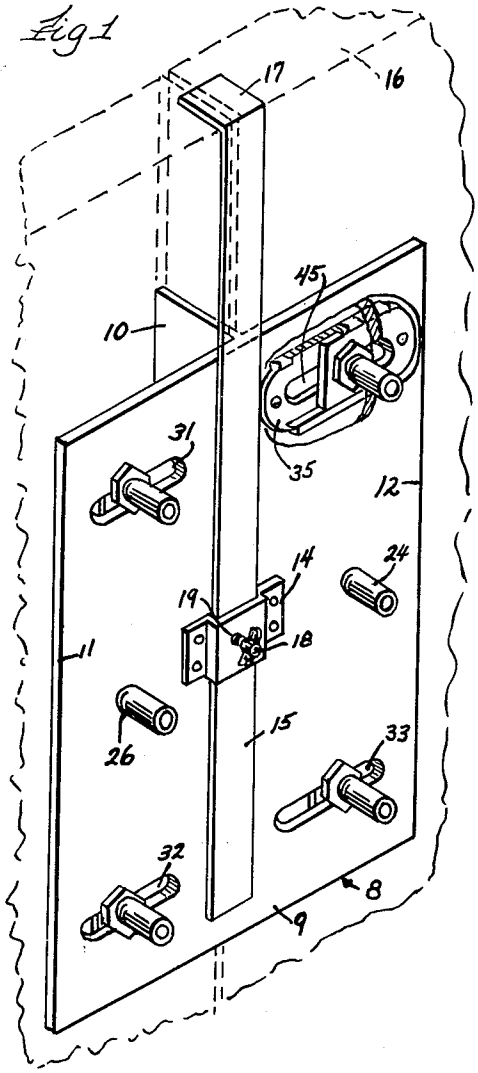



Fig 2.

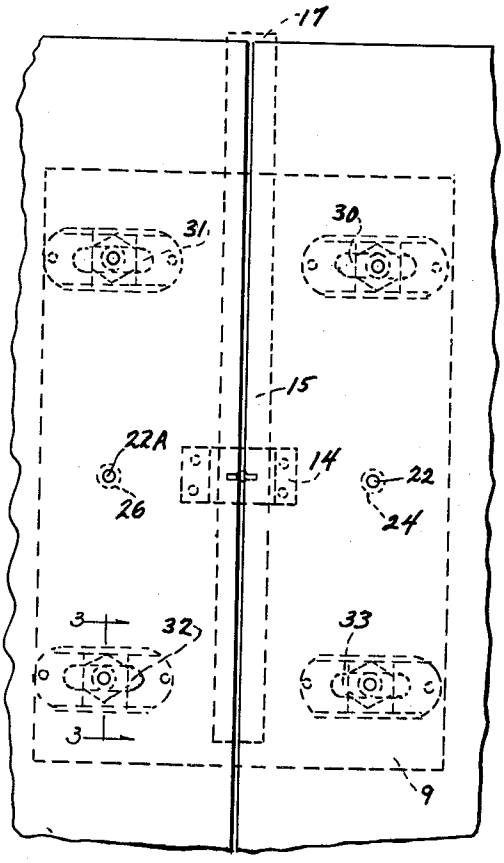



Fig 3.

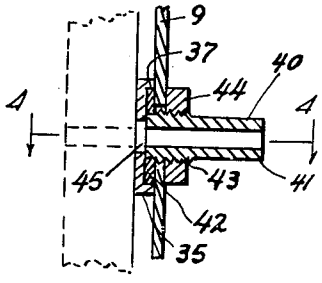
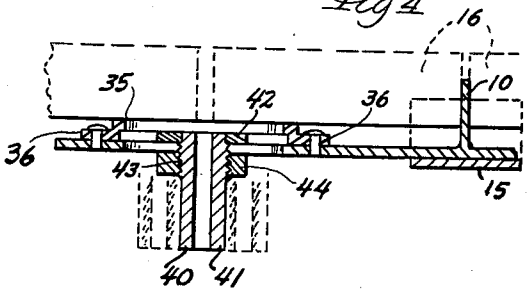



Fig 4




INVENTOR.
Louis F. Berta, Jr.
BY
Joseph B. Lindecker.
Attorney.

United States Patent Office

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# DOOR PULL TEMPLATE

Louis F. Berta, Jr., 2444 106th St., Toledo 11, Ohio

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1 Claim. (Cl. 77—62)

This invention relates to carpenters' implements, and more particularly to a gauging, marking and drilling instrument for setting door pulls.

A main object of the invention is to provide an instrument facilitating the installation of builders' hardware and particularly adapted for use in gauging, marking and drilling cupboard and cabinet doors for pulls and handles, all in such manner as to expedite and simplify accurate installation of such hardware.

Another object of the invention is to provide an instrument of the above described character which is readily adjustable to accommodate doors of various sizes; can be securely held in a selected adjusted position to insure uniform drilling for installation of the hardware on any number of doors.

A further object of the invention is to provide an improved gauging, marking and drilling instrument particularly useful in setting door handles, the instrument being inexpensive to construct, involving relatively few parts, and being easy to use.

Other objects and features of the invention will become apparent from time to time as the following specification proceeds and with reference to the accompanying drawings, wherein:

Figure 1 is a fragmentary perspective view of the instrument embodying this invention, parts shown in section; and applied to a pair of doors shown by broken lines;

Figure 2 is a fragmentary front elevational view of a pair of cabinet doors with the instrument embodying this invention shown by dotted lines when applied thereto;

Figure 3 is an enlarged fragmentary cross-sectional view of the drill bushing forming a part of the instrument embodying this invention, the instrument shown in full lines, the door shown by broken lines, and taken substantially on line 3—3 of Figure 2;

Figure 4 is a cross-sectional view taken substantially on line 4—4 of Figure 3.

Referring to the drawings, the improved gauging and marking instrument is designated generally at 8. The instrument comprises a rectangular plate member 9 of any suitable material, for example, of sheet metal, plastic or the like, formed with the integral center guide flange 10 on the rear side of the plate member 9, said flange 10 extending parallel to the vertical side edges 11 and 12 of the plate member 9 and arranged along the vertical center line equally distant between said side edges 11 and 12. Secured to the plate member 9 on the front side thereof and opposite to said flange 10 is the outwardly bowed strap 14, in which is slidably engaged the vertical slidable rule 15. The upper, or outer end of this rule 15 is provided with a perpendicularly extending flange 17, sometimes referred to as a right-angle stop 17, adapted to be engaged against the top edge of a door 16 being measured by the rule.

As shown in Figures 1 and 2, the strap 14 is arranged so that the rule 15 is parallel to the flange 10 and adjacent the exterior surface of plate member 9. A set



screw 18 is threadedly supported in a threaded bore 19 centrally arranged in said strap 14 and extending from the front to the rear surfaces thereof, said screw 18 being for securing the rule 15 in any desired adjusted, vertical, longitudinal position relative thereto.

The instrument, as described, can be used for either rigth hand or left hand type of doors 16, or both, when the doors 16 are arranged side by side as a pair of doors. Each side of the plate member 9, on opposite sides of the center guide flange 10, is provided with a plurality of spaced slots and holes arranged in predetermined relationship. A single hole 22 is used for the single hole or single screw type of door pull. A duplicate hole 22A is used for single screw type of door pull on a second door of a pair of doors arranged adjacent to each other and in the same vertical plane. Tubes 24 and 26, approximately ¾ inch in length are rigidly secured to the plate member 9 with the center bores thereof in direct alignment with said holes 22 and 22A respectively, said tubes 24 and 26 extending outwardly from the front face of plate member 9 and at right angles thereto. The internal diameters of said tubes are substantially the same as the external diameter of an ⅛ inch drill generally used therewith for drilling guide holes in a door, or doors 16. Directly above and below the holes 22 and 22A are located horizontally elongated slots 30, 31, 32 and 33. Secured to the plate member 9 on the rear side thereof and adjacent said slots 30–33 are arranged the outwardly and rearwardly bowed channel type strap members 35, clearly shown by Figures 3 and 4. If and when strap members 35 are not desired as separate units, the entire rear surface of plate member 9 can be covered with a plate with channel grooves therein and adjacent the slots for purpose to be described later.

As clearly shown by Figures 3 and 4, flanged tubular drill bushings 40 are inserted in each of said slots 30–33, said bushings each consisting of an outwardly extending tubular portion 41 and a rear end flange 42 integrally secured to each other. The tubular portion 41 has a threaded exterior portion 43 to threadedly receive a locking nut 44, said flange 42 arranged in sliding contact with the rear surface of said plate member 9 and said locking nut 44 arranged to be moved into locking engagement with the front surface of said plate member 9, clamping the drill bushing 40 as a unit in a desired location, said slots 30–33 being elongated horizontal slots and said drill bushings 40 being longitudinally adjusted therein. Each of said strap members 35 have end portions 36, a channel groove 37 to receive the flange 42 and a longitudinally horizontally formed drill slot 45. The drill bushing 40 is slidable as a unit between said strap member 35 and said plate member 9, and locked in any desired location by locking nut 44. The internal diameter of said tubular portions being substantially the same as the external diameter of a ⅛ inch drill used therewith.

In actual use, the center guide flange 10 is placed against the edge of the door, or between two doors of a pair of doors upon which the operation is to be performed, as for example, against the vertical adjacent edges of doors 16 as clearly shown by Figure 4, and the flange 17 at the upper end of the rule 15 is engaged with the top edge of the door or doors 16, such as is clearly shown in Figure 1, whereby the plate member 9 may be moved up or down until its horizontal center line is at a predetermined desired distance from the top edge of the door 16 engaged by said flange 17, as determined by observing the location of holes 22 and 22A if single holes are to be drilled in doors for single pull means. When two holes are to be drilled in each door, for two screw door pulls, or for handles embodying a screw at

each end thereof, the rule **15** is clamped against the plate member **9** by set screw **18** threadedly received in strap **14** after vertical alignment is determined. Then the drill bushings **40** are moved horizontally to an adjusted position in slots **30–33** so they are in proper and desired locations. Similarly, if it is desired to locate the openings for bolts or fasteners for drawer pulls, or other object pulls, the drill bushings can be located by attaching the flange **17** to the top edge of the drawer, and flange **10** being arranged against the end of the drawer. In such an arrangement only half of the instrument is used according to the end of the drawer used thereon.

The plate member **9** is held in a stationary position during the marking of the locations, or drilling the holes by drills placed through the tubes and turned therein. The tubes **24** and **26** and the tubular portions **41** of bushings **40** extend outwardly at right angles to the outer surface of the plate member **9**, thereby providing guiding means for the drills whereby the drilled holes are not only properly located but are drilled in the doors at right angles to the outer surfaces thereof. This feature of locating and drilling holes at right angles to the outer door surface is a very important feature of this invention. The holes are accurately located and drilled by anyone, skilled or unskilled in the carpentry art.

When not in use the rule **15** can be removed from the strap **14** by withdrawing the set screw **18**. The rule **15** can be disposed upon the plate member **9** forming a flat compact parcel for carrying in the tool box.

It will be understood that this embodiment of the invention has been used for illustrative purposes only, and that various modifications and embodiments of the present invention may be effected without departing from the novel spirit and scope thereof.

I claim as my invention:

A portable T-shaped instrument for drilling a plurality of holes to be made in and perpendicularly to the exterior surface of a door panel, said instrument comprising, in combination, a rectangular plate member having three vertically spaced pairs of openings extending therethrough, a rectangular shaped guide flange integrally secured along one of its vertical edge portions to the rear wall of said plate member, said guide flange extending rearwardly and vertically midway between the vertical side edges of said plate member forming a T-shaped instrument, said guide flange extending transversely for the full vertical dimension of said plate member, a single outwardly bowed strap carried by and secured horizontally to the outer surface of said plate member opposite said guide flange arranged on the rear surface thereof, said single strap lying across a rectiliner path which extends vertically midway between the vertical edges of said plate member, a substantially rigid rule extending in the rectilinear path and vertically upon said plate member in a slidable contact with said horizontal strap member, said rule having an integrally, perpendicularly, rearwardly extending flange formed at the upper end thereof forming a stop for slidable engagement with the top of the door panel to be drilled and to hold the plate member in a selected position on said door panel, a set screw threadedly secured within a threaded bore horizontally formed in said strap, said set screw for adjustably securing said rule relative to said plate member, the intermediate arranged pair of said three pair of openings in said plate member consisting of one pair of holes with tubular means rigidly arranged therewith for guiding a drill through said holes into the door panel to be drilled and at right angles to the outer surface thereof, the upper and lower pairs of said vertically spaced openings consisting of four slots horizontally formed in said plate member at equal distances from said intermediate pair of holes and in vertical alignment therewith, a flanged tubular bushing movably arranged in each of said slots, said bushings having a tubular portion and a rear end flange, said bushings for slidable adjustment and placement for a drill to drill holes in the door panel to be drilled, said rear end flange of each of said bushings being larger in width than the width of said slots and arranged in sliding engagement with the rear surface of said plate member, a rearwardly bowed channel type strap member secured to said plate member at the rear of each slot, said rear end flange of each bushing in sliding contact with said channel type strap and slidable therebetween it and said plate member, and said tubular portion of said bushings having a threaded exterior portion with a threaded lock nut arranged thereon and in sliding contact with the outer surface of said plate member for locking said bushings in a selected position in the slots.



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