Sept. 24, 1957 B. E. MAXWELL 2,807,095

DEVICE FOR MARKING POSITIONS OF SECURING MEANS FOR DOOR AND DRAWER PULLS

Filed April 12, 1956 2 Sheets-Sheet 1

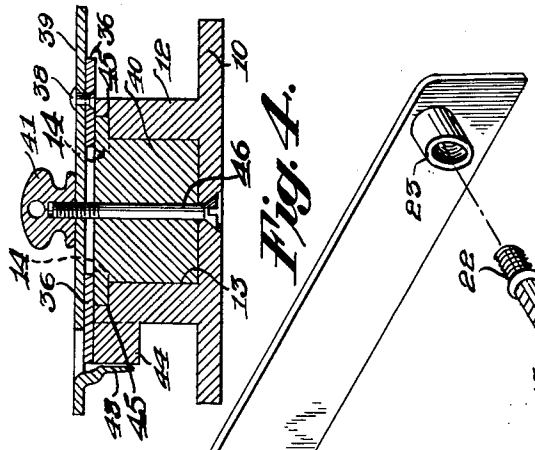


Fig. 4.

Fig. 1.

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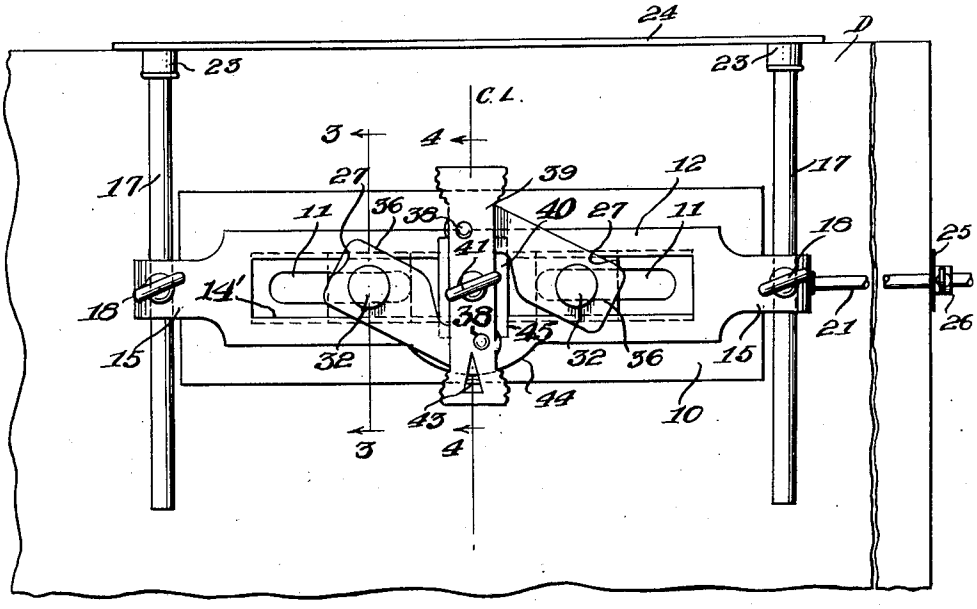


Fig. 2.

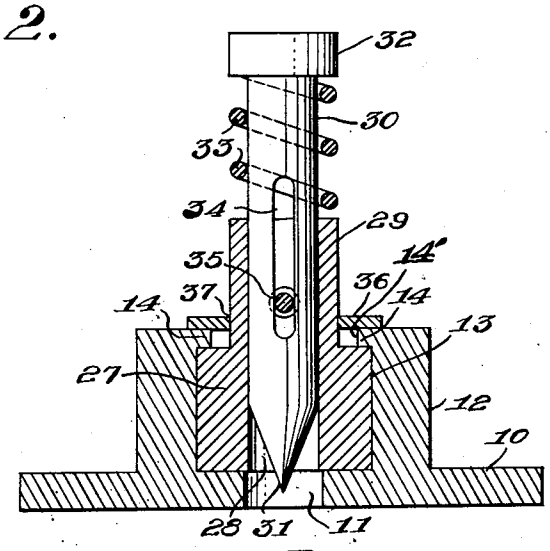


Fig. 3.

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DEVICE FOR MARKING POSITIONS OF SECURING MEANS FOR DOOR AND DRAWER PULLS

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8 Claims. (Cl. 33—189)

This invention relates to a template or the like and more particularly with a device for marking the correct positions for fasteners such as nails, bolts or screws used to secure door or drawer pulls or handles in position.

As is generally known, a drawer or cabinet door pull or handle is secured in position by means of a pair of screws, and whether a single pull or a pair of pulls is secured to the drawer or door, appearance requires that the pulls be accurately positioned with respect to all four edges of the drawer or door and, for this purpose, a plurality of separate measurements have heretofore been made to properly locate the position of screws by which the pulls are secured to the drawer or door. Not only is the practice time consuming, but it cannot be relied upon for extreme accuracy, and if the screw positions are not accurately located, the pull or pulls will not be in accurate position as is required in the more modern furniture.

Usually, the door or drawer pulls or handles are installed after the door or drawer has been painted or varnished. Measurements are made on the door or drawer, as previously described, and when the positions for the screws are located they are usually marked by a pencil. Through errors of measurement and marking, it has been found that in many instances the pulls, when applied, fail to wholly conceal the pencil marks and an attempt to erase a mark on a painted or varnished surface causes a dull gloss or discoloration, thereby possibly requiring a new finish on the door or drawer.

It is, accordingly, a primary object of this invention to provide a device whereby the position of a pair of pull securing fasteners are accurately located with respect to the edges of a drawer or door without the use of rule measurement whereby the foregoing objections to the present practice are wholly overcome.

Another object of the invention is to provide a device for accurately measuring the positions of fasteners for door or drawer pulls without discoloring marks or the like.

A further object of the present invention is to provide a device whereby the positions of the pull securing screws are located by indents not exceeding in diameter that of the screws by which the pulls or handles are secured to the door or drawer whereby no marks can appear on the drawer or door after the pull is secured in position.

A still further and more specific object of the invention is to provide a device for the above noted purpose which includes a rectangular base together with gauged means for accurately positioning same on the face of a door or drawer and wherein said base is provided with a pair of door or drawer indenting punches which are adjustably supported relative to the lengthwise center of the base.

Still another object of the invention is to provide a template device for marking the positions of door or drawer pulls or the like having simplicity of design, economy of construction and efficiency of operation.

The novel features that are considered characteristic of the invention are set forth with particularity in the appended claims. The invention itself, however, both as

to its organization and its method of operation, together with additional objects and advantages thereof, will best be understood from the following description of a specific embodiment when read in connection with the accompanying drawings, wherein like reference characters indicate like parts throughout the several figures and in which:

Fig. 1 is a view in perspective of a template or marking device in accordance with the present invention with portions disconnected and broken away for clarity of illustration;

Fig. 2 is an elevational or plan view showing the marking device positioned on the face of a door or drawer for marking the positions of a pair of pull securing screws, the door or drawer and the end gauge being broken and foreshortened;

Fig. 3 is an enlarged vertical cross-sectional view corresponding to the plane of line 3—3 of Fig. 2, and

Fig. 4 is an enlarged cross-sectional view corresponding to the plane of line 4—4 of Fig. 2.

Referring now in detail to the drawings, the improved template or marking device, in accordance with the present invention, comprises an elongated rectangular base **10** which is provided with a pair of slots **11** (Figs. 2 and 3) disposed in the longitudinal vertical plane thereof and which are equally spaced from the opposite ends and the transverse center thereof. Integral with and projecting from the outer side or face of said base **10** is a box-like or channel member **12** extending lengthwise of the base and which forms with the base **10** a longitudinal channel **13**. The outer face of the member **12**, opposite the base **10**, is provided with a slot **14'** which is narrower than the channel **13** and is restricted by a pair of laterally disposed shoulders **14**.

The box or channel member **12** terminates at its opposite end in lugs **15** which are symmetrical to the central longitudinal vertical plane of the base **10** and the member **12**, and each such lug is provided with a transverse aperture **16** in which is adjustably supported a gauged bar **17** by means of a thumb screw **18**. Each lug is further provided with a tapped aperture **19** in the end thereof, either of which is adapted to removably receive the threaded end **20** of a gauged rod **21**. Corresponding ends **22** of the bars **17** are threaded for removable reception in internally threaded collars **23** projecting from a side of a plate **24** which is engageable with the upper edge of a drawer or door. The rod **21** is provided with a disk **25** which is adjustably supported lengthwise thereof by a thumb screw **26** and this disk **25** is adapted to engage a side edge of a drawer or door.

Slidably disposed within the channel **13** are a pair of blocks **27**, each having a bore **28** whose corresponding ends communicate with said slots **11** and a collar **29** concentric with the bore **28** and extending through said channel member slot **14'**. The blocks **27** are retained in the channel **13** by means of the shoulders **14**. A working punch **30** is slidably supported within each bore **28** and collar **29**, each punch **30** being provided with a pointed end **31** which is movable through the respective slot **11** in the base **10** to provide an indent mark in a door or drawer on which the base **10** is supported. Each punch **30** also includes a head **32** externally of the collar **29** and on the end opposite the pointed end **31**.

A coil spring **33** encircles the shank of each punch **30** with the opposite ends thereof reacting on said head **32** and on the outer end of the collar or cylindrical extension **29**. As best shown in Fig. 3, the spring **33** is such as to normally maintain the pointed end **31** of the punch outward of the door or drawer engaging surface of the base **10** to prevent marring of such surface in the positioning and removing of the device. Each punch **30** is further provided with an axially extending, diametrical slot **34** through which extends a pin **35** whose opposite ends ex-

tend through the walls of the collar or cylindrical extension **29**. The blocks **27**, together with the punches **30**, are uniformly adjustable toward and from the transverse center line C. L. (Fig. 2) of the base **10** and box or channel member **12** and which is preferably effected by means which will now be described.

Plate-like links **36** are each provided with an aperture **37** adjacent one end thereof which freely receives the collar or cylindrical extension **29** of one block **27**. The two links **36** are maintained on the respective collar or extension and in bearing engagement with the upper surface of the box or channel member **12** by means of the pins **35** which extend through the punch slots **34** and diametrically disposed apertures in the collars **29**. The links **36** extend from the collars **29** toward each other and the adjacent ends of the links **36**, or those ends opposite the apertures **37**, are connected by pivots **38** to the underside of a lever **39** which is mounted centrally of the box member **12**. The lever **39** is pivotally connected to a block **40** by means of a screw **46** and thumb nut **41** whose axis is perpendicular to and disposed in the center line C. L. The pivots **38** are equispaced from the axis of the lever pivot **46**. The opposite ends of the lever **39** are transversely widened and laterally serrated, providing finger grips **42** to facilitate manual adjustment of the lever **39** about its fulcrum **41**.

As best shown in Figs. 1, 2 and 4, the block **40** is centrally located within the box or channel member **12** by means of its ends extending into notches **45** in the shoulders **14** of the channel member **12**, and the block may be secured to the base **10** by a recessed screw **46** which is threadedly engaged by the thumb nut **41**. Upon removal of the thumb nut **41**, lever **39** and links **36**, the blocks **27**, and therewith the punches **30**, may be inserted into or removed from the box member **12**. As further indicated in Figs. 1 and 4, at least one end of the lever **39** is provided with a depending pointer **43** which is movable with said lever along an arcuate scale **44** on a side wall of the box or channel member **12**, the scale **44** being calibrated to indicate the distance between the punches **30**, whereby the spacing of the punches may be readily ascertained and corelated to the fasteners for the particular drawer or door pulls.

The improved device is shown in operative position in Fig. 2 wherein the plate **24** is resting on the upper edge of a drawer or door D and the disc **25** is engaged with an edge of a drawer or door. At this point, it is to be observed that the threaded portion **20** of the spacer rod **21** may be positioned in the bore **19** of either lug **15**. By means of the guaged bars **17**, the base **10** may readily be positioned in the proper vertical height for the pulls or handles to be secured and by means of the guaged rod **21**, the base may be adjusted preparatory to the positioning of the device as shown in Fig. 2 and locked by means of the thumb screw **26**.

When the device is to be used, the punches **30** are spaced in accordance with the particular pulls or handles to be attached, the pull fasteners normally having a spacing ranging between 2¼ inches and 3½ inches. As will be apparent from Fig. 2, clockwise movement of the lever **39** will move the blocks **27**, and therewith the punches **30**, away from the center line C. L. with an attendant greater spacing of the punches while counterclockwise movement of the lever **39** will move the blocks and punches toward each other with an attendant lesser spacing of the punches. As the lever **39** is pivoted, the spacing of the punches **30** is indicated by the pointer **43** registering with the scale **44**. When the proper spacing is attained, the punches may be locked in position by tightening the thumb nut **41** which clamps the lever **39** and binds the links **36** between the lever and the top of the channel member **12**.

With the device positioned as shown in Fig. 2, it is necessary only to tap the heads **32** of the punches with a resulting denting of the door or drawer at the proper positions for the screws and such dents provide for initial driving of the screws which may otherwise damage the surface of the door or drawer. After the punching operation, the entire device may be lifted off the door or drawer. In instances where several doors or drawers of like dimension are being provided with similar pulls or handles, the device need be adjusted only once for all and placed as in Fig. 2 on each successive door or drawer to be marked. Obviously, when a pull has but a single fastener, only one of the punches is operated.

Although a certain specific embodiment of the invention has been shown and described, it is obvious that many modifications thereof are possible. The invention, therefore, is not to be restricted except insofar as is necessitated by the prior art and by the spirit of the appended claims.

That which is claimed as new is:

1. A device for marking positions of securing means for a door or drawer pull, comprising a rectangular base having a face for positioning on a door or drawer, an elongated member projecting from the side of the base opposite said face and having a channel therein in symmertical relation to the longitudinal axis of the base, a pair of aligned slots in said base and respectively adjacent each end of the channel, a pair of punches supported by said member for adjustment longitudinally of the channel, said punches being positioned perpendicular to said slots and being movable therethrough for forming indenting marks in the surface of a door or drawer, means for simultaneously adjusting the punches longitudinally of the channel, yieldable means normally maintaining the punches in retracted position beyond the face of said base engageable with a door or drawer, and indexing means adjustably connected to said member and including means engageable with adjacent edges of the door or drawer for predetermined location of the punches relatively to the edges of the door or drawer.

2. The structure according to claim 1, wherein said means for simultaneously adjusting said punches comprises a pair of elements slidably supported in said channel and in each of which one of said punches is supported for axial movement, a block ridgidly supported by said member intermediate the opposite ends thereof and spanning said channel, a lever pivotally supported intermediate its ends on said block, and a link pivotally connecting each end of said lever with one of said slidably supported elements.

3. The structure according to claim 2 wherein each of said pair of slidably supported elements is provided with a cylindrical extension in which a respective punch is axially movable, said links having apertures in their opposed ends receiving said extensions, a pin extended through each extension immediately above the respective link for retaining the links on the respective extensions, each of said punches having an axially extending diametrical slot through which the respective pin extends.

4. The structure according to claim 3 wherein each of said punches comprises an impacting head externally of said extensions and a shank having a pointed end internally of said slidable elements, and said yieldable means comprises a coil spring encircling the shank of each punch and biasing the pointed end within said base away from the face engageable with the door or drawer.

5. The structure according to claim 2 wherein said lever is provided with widened opposite ends having serrated edges for facilitating manual movement thereof about its pivotal axis.

6. The structure according to claim 2 wherein said channel member is provided with a scale on at least one side face thereof, and a pointer on said lever and movable over said scale for indicating the distance between the axes of said punches.

7. The structure according to claim 1 wherein said indexing means comprises a bar extending normal to each end of said channel members and adjustably secured

thereto, and a plate removably secured to said bars and engageable with an edge of a door or drawer.

8. The structure according to claim 7 wherein said indexing means comprises a rod removably supported by one end of said member and having a stop element adjustably supported thereon and engageable with an adjacent edge of said door or drawer.

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