July 15, 1958 E. C. GRAY 2,842,860

AUTOMATICALLY CENTERING DRAWER HANDLE MARKING DEVICE

Filed Aug. 16, 1957

FIG. 1

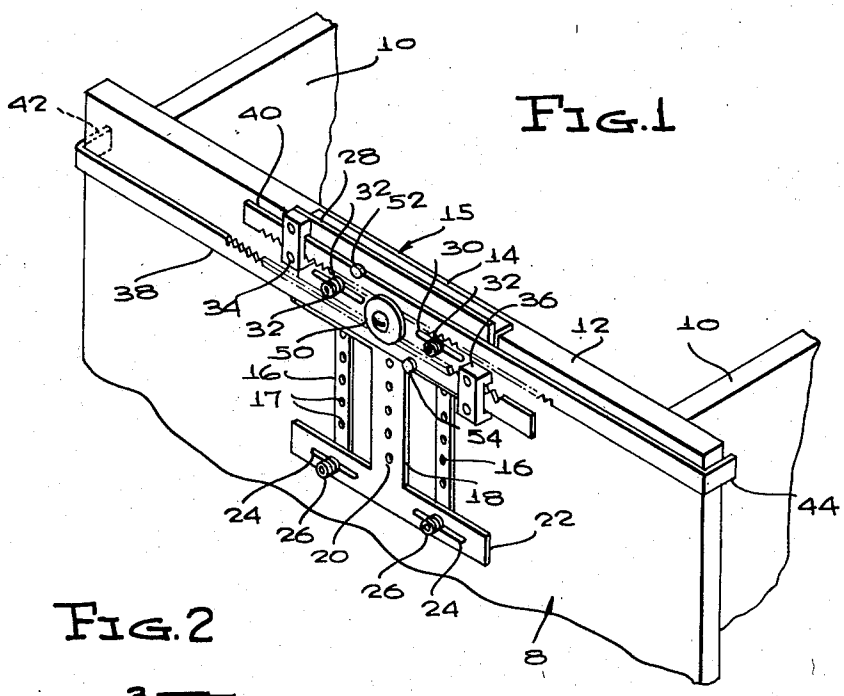


FIG. 2

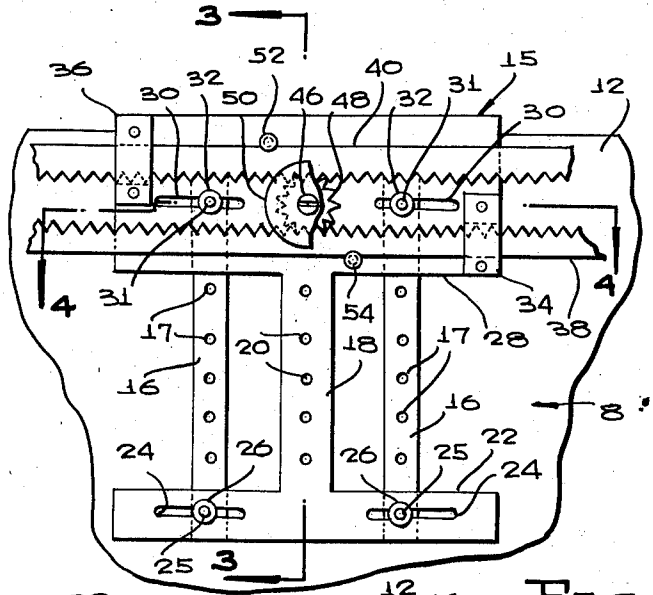


FIG. 3

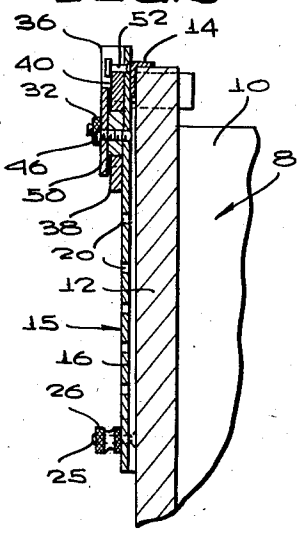
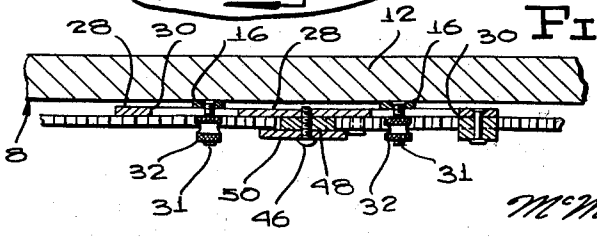


FIG. 4



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AUTOMATICALLY CENTERING DRAWER HANDLE MARKING DEVICE

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5 Claims. (Cl. 33—191)

This invention relates generally to tools for use in cabinet making. More particularly, the invention has reference to a device applicable to a drawer front, so designed that when applied to the front of the drawer it will automatically locate, centrally between the opposite sides of the drawer front, openings through which the punch may be extended for the purpose of marking the drawer front for the subsequent insertion of drawer handle screws.

Center finding devices are known per se, and the present invention is not intended to encompass such devices in the broadest sense. Rather, the invention is a device that is particularly designed for the purposes indicated above, although it may possibly have, of course, additional uses.

A more specific object is to provide a center marking device as stated that will be swiftly and easily applicable to drawers of any width within, of course, a predetermined range.

Another object is to facilitate the marking of openings that will not only be symmetrically disposed with respect to and at opposite sides of the mid-length pin of the drawer front, but also will be arranged to permit marking of openings in predetermined, vertically spaced relation to the top of the drawer.

Another object is to provide a marker for drawer handles as described above which will be applicable not only to drawers of different widths across the front, but also drawers varying to a wide degree with respect to their height.

Still another object is to incorporate, in a center marking device of the character described, means not only for marking openings at opposite sides of the mid-point of the drawer front for use in installing handles of the type receiving screws at the opposite ends of the handles, but also for marking of one or more openings that are at the exact mid-point, for use in attaching knobs of the type having a single screw.

Still another object is to provide a marker as described that will permit the marking of the openings at any of a plurality of selected distances from the top of the drawer.

A further object is to provide a device for the purposes set forth above which will be relatively inexpensive and trouble-free in operation, will not require the use of additional tools such as rulers, and will not damage the drawer in any way.

Other objects will appear from the following description, the claims appended thereto, and from the annexed drawing, in which like reference characters designate like parts throughout the several views, and wherein:

Figure 1 is a fragmentary perspective view of a drawer to which has been applied the marking device constituting the present invention;

Figure 2 is an enlarged, fragmentary front elevational view of the drawer, portions of the marking device being broken away;

Figure 3 is a vertical sectional view on line 3—3 of Figure 2; and

Figure 4 is a horizontal section on line 4—4 of Figure 2.

Referring to the drawing in detail, a conventional drawer generally designated 8 includes side panels 10 and a front panel 12.

The device constituting the present invention has been generally designated at 15 and includes an elongated, horizontal support bracket 14 of right-angled cross section, adapted to receive the top edge portion of front panel 12 as clearly shown in Figures 1–3, whereby the entire device can be suspended from the top of the drawer front.

Side marker strips 16 are symmetrically disposed at opposite sides of a vertical center marking strip 18, and formed in strip 18 is a row of equidistantly spaced apertures 20 spaced along the longitudinal median of the center marker strip 18. Strips 16 are provided with longitudinally and centrally extending rows of equidistantly spaced marker openings 17, which are aligned transversely of the several strips with the corresponding apertures 20 of strip 18.

Integrally formed upon the lower extremity of strip 18 is a lower cross bar 22, coplanar with the strip 18. Cross bar 22 has an integral connection to strip 18 midway between opposite ends of the cross bar, and inwardly from the ends of the cross bar there are formed longitudinally aligned, horizontal slits 24 receiving screws 25 projecting forwardly from the lower ends of strips 16, and threaded to receive knurled nuts of clamping sleeves 26.

A widened top portion 28 integrally formed upon the upper end of the center bar 18 of the frame provides a support plate, and formed in said plate are aligned, horizontally extending slots 30, 30 through which project screws 31 on which are threaded nuts 32. The screws extend through the side bars or marking strips 16, adjacent the upper ends of said strips 16. Accordingly, it will be seen that the strips 16 can be manually adjusted to selected positions, toward and away from the bar 18, thereby to adjust the distance between the strips 16. One need merely loosen the nuts 26, 32, after which the strips 16 are adjusted, and the nuts tightened to bind against the portions 22, 28 of the framing plate.

Guide blocks 34, 36 are riveted or otherwise fixedly secured to the frame plate, at the opposite side edges of the widened portion 28, and are rectangularly notched out or recessed on their back surfaces, to receive elongated, horizontally extending positioning arms 38, 40 respectively. Arms 38, 40 at their outer ends have rearwardly projecting, angular extensions 42, 44 respectively engaging against the opposite side edges of the drawer front.

A machine screw or support pin 46 is threadedly engaged in the frame of the device, midway between the opposite sides of the support plate 28, and freely rotatable upon said screw is a spur gear 48. The arms 38, 40 have confronting rack teeth, in mesh with diametrically opposite portions of the spur gear.

A cover plate or disc 50 is centrally apertured to receive the screw 46, and overlies the spur gear.

Cooperating with the blocks 34, 36 in guiding the lower and upper arms 38, 40 respectively are headed rivets or lugs 54, 52 respectively, projecting forwardly from the support plate 28 of the frame with the heads overlying the outer longitudinal edges of the arms 38, 40. Said lugs serve to maintain the arms in mesh with the spur gear, with the arms being at the same time freely slidable in the direction of their lengths.

It will be seen that in use of the device, one need merely dispose the angle bar 14 in engagement with the top edge of the drawer front 12, and with one hand ex-

tend one of the arms, as for example, the arm 40, outwardly for engagement of the extension 44 against the corresponding side of the drawer front. The other arm is automatically extended by this action, since movement of either arm 38 or 40 rotates the spur gear 48 to cause corresponding outward or inward movement of the other arm.

With the extensions 42, 44 in engagement with the opposite sides of the drawer, the frame will be automatically centered medially between said sides, so that a punch can be inserted through selected openings 17 that are in horizontal alignment, for marking the location at which screws are to extend into the drawer for attaching a drawer handle.

Of course, if a knob, having a single, centered fastener element is to be attached to the drawer, the punch is inserted through a selected opening 20 instead of through the openings 17.

Of course, the selection of the openings through which the punch is to be inserted will depend on the height of the drawer. If, for example, the drawer is seven inches high, and the handle is to be centered between the top and bottom edges of the drawer, the openings 17, or the opening 20 as the case may be, that are to be used would be one that would be three-and-one-half inches from the top edge of the drawer. In this connection, suitable graduations or indicia could be provided upon the strips 16 and the center marking strip 18, alongside each of the several openings 17 or 20 thereof, which indicia would indicate the openings that are to be used for centering a handle between the top and bottom edges of a drawer of a particular height. Thus, the indicium "seven" could be placed alongside certain openings 17 and 20, all in horizontal alignment, which openings would be the ones that are to be used when the angle bar 14 is resting upon the top edge of a drawer seven inches high.

In this way, the handle will be automatically centered medially between opposite side edges of the drawer, and also medially between the top and bottom edges thereof. One need merely position the device upon the drawer in the manner shown in Figure 1, after which the only other action necessary is to select the particular openings 17 or 20 as the case may be, and insert the punch therethrough. When the punch has been used to mark the locations for the fastening element or elements of the handle, one thereafter need only remove the device, and drill the aperture or apertures, after which the handle can be readily installed.

It is believed apparent that the invention is not necessarily confined to the specific use or uses thereof described above, since it may be utilized for any purpose to which it may be suited. Nor is the invention to be necessarily limited to the specific construction illustrated and described, since such construction is only intended to be illustrative of the principles, it being considered that the invention comprehends any minor change in construction that may be permitted within the scope of the appended claims.

What is claimed is:

1. A device for marking on a drawer front locations for the fastening elements of a drawer handle, comprising: a frame plate supportable against said front; a pair of marking strips carried by said frame plate at opposite sides of and symmetrically in respect to the center of said frame plate; a spur gear rotatable on said frame plate; and positioning arms extending laterally outwardly from opposite sides of said frame plate and having rack teeth in mesh with the spur gear, for centering the frame plate and marking strips between opposite sides of the drawer, said marking strips each having a plurality of apertures denoting said locations, for marking of the drawer front through selected ones of said apertures, said apertures of each marking strip being spaced vertically of the same, for selection of any of a plurality of correspondingly vertically spaced areas of the drawer front on which the handle is to be mounted.

2. A device for marking on a drawer front locations for the fastening elements of a drawer handle, comprising: a frame plate supportable against said front; a pair of marking strips carried by said frame plate at opposite sides of and symmetrically in respect to the center of said frame plate; a spur gear rotatable on said frame plate; and positioning arms extending laterally outwardly from opposite sides of said frame plate and having rack teeth in mesh with the spur gear, for centering the frame plate and marking strips between opposite sides of the drawer, said marking strips each having a plurality of apertures denoting said locations, for marking of the drawer front through selected ones of said apertures, said apertures of each marking strip being spaced vertically of the same, for selection of any of a plurality of correspondingly vertically spaced areas of the drawer front on which the handle is to be mounted, the frame plate having, midway between the marking strips, a corresponding series of vertically spaced apertures, for selection of one of the last named apertures to provide a centered location for a fastening element.

3. A device for marking on a drawer front locations for the fastening elements of a drawer handle, comprising: a frame plate supportable against said front; a pair of marking strips carried by said frame plate at opposite sides of and symmetrically in respect to the center of said frame plate; a spur gear rotatable on said frame plate; and positioning arms extending laterally outwardly from opposite sides of said frame plate and having rack teeth in mesh with the spur gear, for centering the frame plate and marking strips between opposite sides of the drawer, said marking strips each having a plurality of apertures denoting said locations, for marking of the drawer front through selected ones of said apertures, said apertures of each marking strip being spaced vertically of the same, for selection of any of a plurality of correspondingly vertically spaced areas of the drawer front on which the handle is to be mounted, the frame plate having, midway between the marking strips, a corresponding series of vertically spaced apertures, for selection of one of the last named apertures to provide a centered location for a fastening element, corresponding apertures of the side marking strips being horizontally aligned.

4. A device for marking on a drawer front locations for the fastening elements of a drawer handle, comprising: a frame plate supportable against said front; a pair of marking strips carried by said frame plate at opposite sides of and symmetrically in respect to the center of said frame plate; a spur gear rotatable on said frame plate; and positioning arms extending lateral outwardly from opposite sides of said frame plate and having rack teeth in mesh with the spur gear, for centering the frame plate and marking strips between opposite sides of the drawer, said marking strips each having a plurality of apertures denoting said locations, for marking of the drawer front through selected ones of said apertures, said apertures of each marking strip being spaced vertically of the same, for selection of any of a plurality of correspondingly vertically spaced areas of the drawer front on which the handle is to be mounted, the frame plate having, midway between the marking strips, a corresponding series of vertically spaced apertures, for selection of one of the last named apertures to provide a centered location for a fastening element, corresponding apertures of the side marking strips being horizontally aligned, and being also horizontally aligned with corresponding apertures of the frame plate.

5. A device for marking on a drawer front locations for the fastening elements of a drawer handle, comprising: a frame plate supportable against said front; a pair of marking strips carried by said frame plate at opposite sides of and symmetrically in respect to the cen-

ter of said frame plate; a spur gear rotatable on said frame plate; and positioning arms extending laterally outwardly from opposite sides of said frame plate and having rack teeth in mesh with the spur gear, for centering the frame plate and marking strips between opposite sides of the drawer, said marking strips each having a plurality of apertures denoting said locations, for marking of the drawer front through selected ones of said apertures, said apertures of each marking strip being spaced vertically of the same, for selection of any of a plurality of correspondingly vertically spaced areas of the drawer front on which the handle is to be mounted, the frame plate having, midway between the marking strips, a corresponding series of vertically spaced apertures, for selection of one of the last named apertures to provide a centered location for a fastening element, corresponding apertures of the side marking strips being horizontally aligned, and being also horizontally aligned with corresponding apertures of the frame plate, said side marking strips being mounted upon the frame plate for adjustment toward and away from each other, for effecting adjustments in the horizontal distance between horizontally aligned apertures of the respective side marking strips.

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