April 19, 1966 J. H. SOUTHERN 3,246,399

DRAWER AND DOOR PULL LOCATING TOOL

Filed Nov. 5, 1963

FIG. 1.

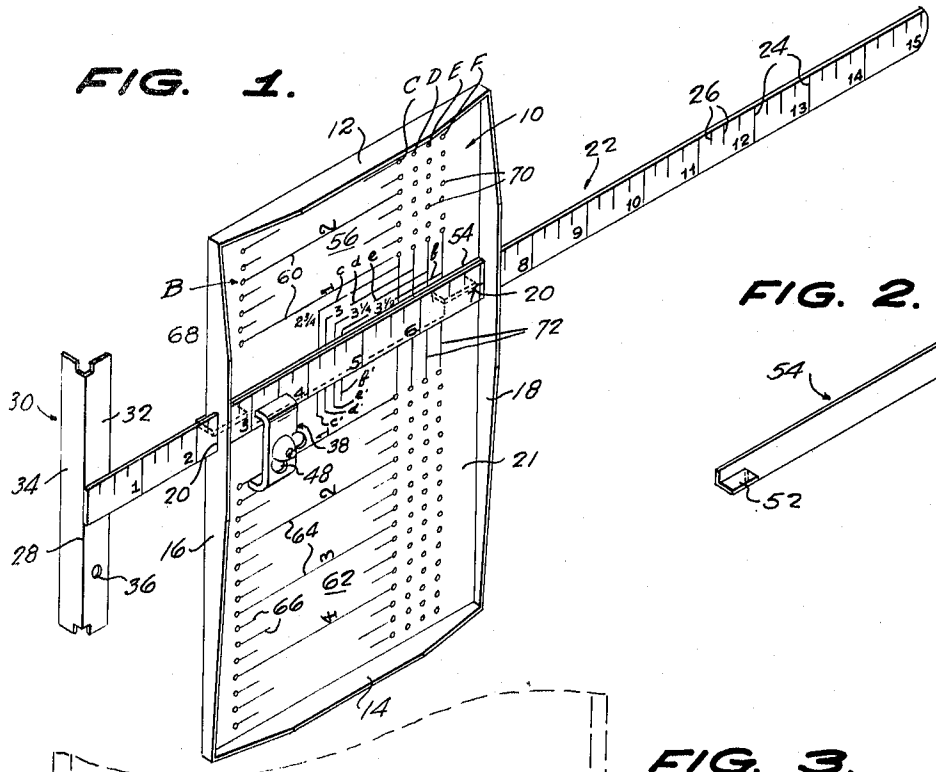


FIG. 2.

FIG. 3.

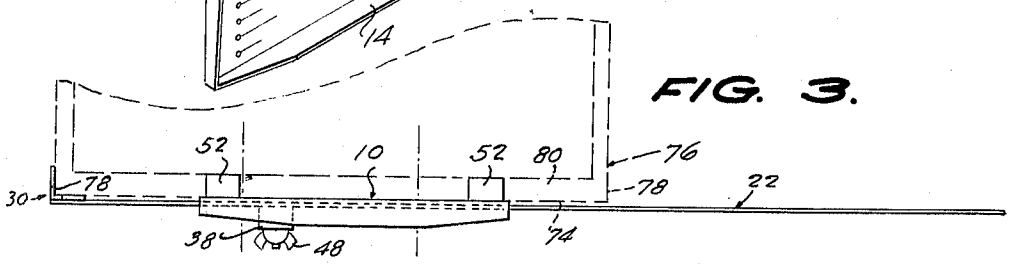


FIG. 4.

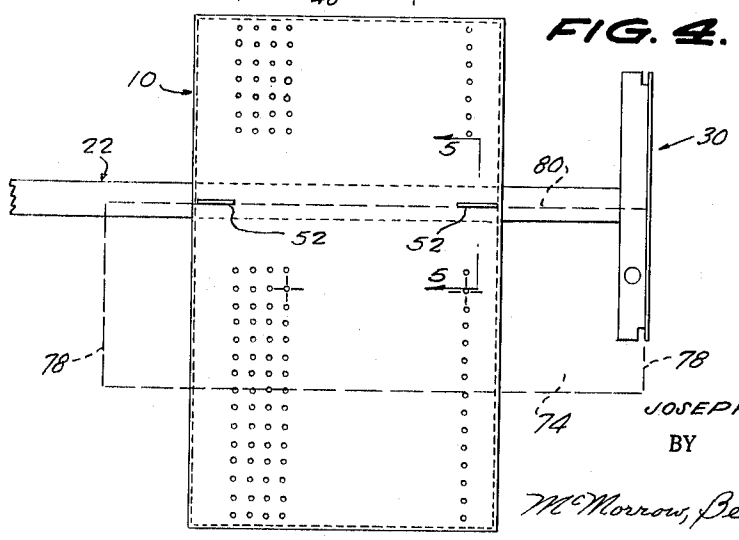
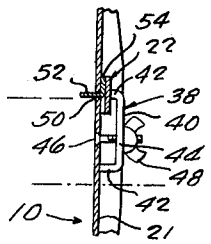


FIG. 5.



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3,246,399

DRAWER AND DOOR PULL LOCATING TOOL

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This invention relates to a novel adjustable drawer and door pull locating tool, for marking the locations of both single and double pulls.

The primary object of the invention is the provision of an efficient, versatile, and easily used device of the kind indicated, which enables more quickly, accurately, and easily determining the locations of pulls on drawers and doors, as compared to present methods of time-consuming and laborious cross-marking of the surfaces of drawers and doors to obtain the locations, and which eliminates the trouble and expense of providing a number of different templates, where drawers and doors of different dimensions are involved.

Other important objects and advantageous features of the invention will be apparent from the following description and the accompanying drawing, wherein, for purposes of illustration only, a specific form of the invention is set forth in detail.

In the drawing:

FIGURE 1 is a perspective view of a device of the present invention;

FIGURE 2 is a perspective view of the gauge bar of the device;

FIGURE 3 is a schematic top plan view showing the device applied to a drawer;

FIGURE 4 is a fragmentary front elevation showing the device reversed and applied to a drawer;

FIGURE 5 is an enlarged fragmentary vertical transverse section taken on the line 5—5 of FIGURE 4.

Referring in detail to the drawing, the illustrated device comprises a vertically elongated rectangular base plate **10**, formed along its top and bottom edges, with lateral flanges **12** and **14**, respectively, and, along its left-hand and right-hand edges, with lateral side flanges **16** and **18**, respectively, which extend to the same side of the base plate as the flanges **12** and **14**.

On a level about one-third the way down from the top flange **12**, the side flanges **16** and **18** are formed with aligned vertically elongated slots **20**, located close to the front surface **21** of the base plate **10**. A horizontally elongated flat slide bar **22**, herein shown at fifteen inches in length, slides removably through the slots **20**. The face of the slide bar **22** is formed with inch graduations **24**, subdivided by quarter inch graduations **26**. Fixed on the slide bar **22**, with its apex **28** coinciding with the zero end of the one-inch mark, is a right-angled angle iron cross head **30**. The cross head **30** has a first flange **32** to whose forward surface the slide bar **22** is suitably affixed, and a second rearwardly extending flange **34**. A hole **36** is provided in the first flange **32**, which is spaced below the slide bar.

Means for holding the slide bar **22**, in longitudinally adjusted relation to the base plate **10**, comprises a U-shaped clamp **38** having a cross member **40** with rearwardly extending legs **42**, on its ends. The cross member **40** is provided with a centered hole **44** to accept a clamping bolt **46** which is anchored to the base plate **10** and extends forwardly therefrom, and has thereon a wing nut **48**.

The bolt **46** is located adjacent to the left-hand side of the base plate **10** and is spaced below the slide bar **22**, whereby one of its legs **42** bears against the forward surface of the slide bar **22**, and its other leg against the front surface **21** of the base plate, as shown in FIGURE 1. Loosening the wing nut **48** permits the slide bar to be adjusted relative to the base plate **10**, and tightening the wing nut secured the slide bar in any adjusted position.

The base plate **10** is formed with a pair of longitudinally spaced longitudinal slots **50**, which are horizontally aligned with each other and located on a line with the mid-height or longitudinal centerline of the slide bar **22**, as shown in FIGURE 5. The slots **50** are provided to receive right-angular lugs **52** extending rearwardly from a flat vertically disposed, horizontally elongated gauge bar **54**, which is initially positioned between the slide bar **22** and the front surface **21** of the base plate **10**. The gauge bar lugs **52**, as shown in FIGURE 5, extend rearwardly beyond the base plate **10**.

As shown in FIGURE 2, the lugs **52** of the gauge bar **54**, are preferably formed by being cut out of the lower edges of the gauge bar and bent up to right-angular relation thereto.

The front surface of the base plate **10** is provided, spaced above the slide bar **22**, with an upper two-inch scale **56** comprising vertically spaced upper horizontal inch graduations **58**, subdivided by quarter inch graduations **60**, reading upwardly.

Spaced below the slide bar **22** is a lower four-inch scale **62**, reading downwardly, which comprises vertically spaced horizontal one-inch graduations **64**, subdivided by quarter inch graduations **66**.

The base plate **10** is perforated by a single left-hand line B of marking holes **68**, close to the left-hand side of the base plate, which are vertically spaced from each other, at one-quarter inch intervals, and which are individually aligned with all of the graduations of the upper and lower scales **56** and **62**, respectively.

Three similar rows C, D, E, and F of marking holes **70**, spaced laterally from each other, at one-quarter inch intervals, are located adjacent to the right-hand side of the base plate **10**, the holes **70** being individually horizontally aligned with all of the graduations of the upper and lower scales **56** and **62**, respectively.

The adjacent holes **68** on the upper scale **56** and the holes **70** of the lower scale **16** are connected by vertical lines **72**, formed on the front surface of the base plate **10**. In addition, the front surface of the base plate is formed with vertically spaced horizontal lines *c*, *d*, *e*, and *f*, which extend in a left-hand direction from the lines **72** corresponding to the rows C, D, E and F of holes. The lines *c*, *d*, *e* and *f* terminate, at their left-hand ends, in right angular, downwardly extending vertical lines *c'*, *b'*, *e'*, and *f'*, which are laterally spaced from each other, at one-quarter inch intervals, and represent 2¾, 3, 3¼, and 3½ distances along the scale of the slide bar **22**.

In use and operation, as for marking on the front **74** of a drawer **76**, the location of a single pull, relative to the ends **78** of the front, and the upper edge **80** of the front, the lugs **52** of the gauge bar **54** are placed upon the upper edge **80**, with the flange **34** of the cross head **30** engaged with one end **78** of the drawer front **74**, the slide bar **22** having been adjusted, relative to the base plate **10**, so as to place the B row of holes at the center of the drawer front. The location of the bolt or screw of the pull is then marked, with a suitable instrument, through the hole of the row B which corresponds to the mid-height point, or other predetermined vertical level, of the drawer front **74** for the installation of the pull. Where the drawer front **74** is of substantially greater length, any of the holes of the rows C, D, E, F may be used like the holes of the row B.

With the foregoing adjustment of the device, the device can then be used, without further adjustment, for marking any number of drawer fronts of the same dimensions, and is capable of being reversed in position, where desired, without further adjustment of the device, as indicated in FIGURE 4.

Where the device is to be used for marking the location of pulls having two bolts or screws, adjustment of the slide bar **22**, relative to the base plate **10**, is made so that any of the rows of holes B, C, D, E or F locates one of the bolts or screws. Then by moving the device on the drawer the location for marking the location of the other bolt or screw is obtained without any change in the adjustment of the slide bar **22**.

For marking the locations of pulls on doors which are taller than the height of the base plate **10**, the gauge bar is removed, after first removing the slide bar from the base plate, and the slide bar then reinstalled on the base plate. The cross head **30** on the slide bar is then optionally engaged with either the top edge or the bottom edge of the door, or the free edge of the door, and the slide bar **22** then adjusted to give the locations, as above explained.

Where double doors are involved, the device having been adjusted for marking one door, is then ready for marking the other door, simply by reversing the position of the device on the other door. In case where the markings to be made on both doors are close to the meeting edges of the two doors, the cross head **30** on the slide bar **22**, is adapted to be engaged over the upper edges of the two doors, with the slide bar in a pendant vertical position and aligned with one of the meeting edges, in such position that the B row of holes determines the position of marking for one door, and any of the rows C, D, E, or F determines the position of marking on the other door.

Alternately, the device can be adjusted to mark a door pull location on one of the two doors, and then reversed to engage the cross head **30** with the lower edges of the doors, without further adjustment of the device, so as to obtain the location for marking the other door.

Although there has been shown and described a preferred form of the invention, it is to be understood that the invention is not necessarily confined thereto, and that any change or changes in the structure of and in the relative arrangements of components thereof are contemplated as being within the scope of the invention as defined by the claims appended hereto.

What is claimed is:

1. A device of the character described comprising a base plate having a front surface, a slide bar mounted on the base plate to slide endwise across the front surface of the base plate, said slide bar having a crosshead fixed on one end thereof and spaced from a related side edge of the base plate, said crosshead having a rearwardly-extending vertical flange disposed at right angles to the length of the slide bar, said slide bar being reversible on the base plate, and means on the base plate and engaged with the slide bar for releasably-holding the slide bar in endwise adjustments relative to the base plate, said base plate being formed with laterally-spaced rows of marking holes extending crosswise of the slide bar, the slide bar having a front surface formed with a linear scale running from the said flange of the crosshead toward the other end of the slide bar, said linear scale having graduations for selective reference to rows of marking holes, said base plate comprising rearwardly extending horizontal lug means, said lug means being located substantially on a level with the longitudinal centerline of the slide bar.

2. A device of the character described, comprising a normally vertical base plate, said base plate having front and rear surfaces, vertical forwardly extending flanges extending along the sides of the base plate, said flanges being formed with horizontally aligned vertical slots, a rigid slide bar, said slide bar being longer than the width of the plate and slidably engaged through said slots, said slide bar having a cross head on one end thereof, said cross head having a vertical rearwardly extending flange, horizontal lug means carried by the base plate and extending rearwardly therefrom, said lug means being located substantially on the longitudinal centerline of the slide bar.

3. A device according to claim **2**, wherein slide bar retaining means is mounted on the front surface of the base plate.

4. A device according to claim **2**, wherein said base plate is formed with horizontal slot means, and said lug means comprises a gauge bar positioned between the slide bar and the front surface of the base plate, said gauge bar having lugs extending rearwardly through the horizontal slot means.

5. A device according to claim **2**, wherein the front surface of the base plate is formed with vertical rows of marking holes, some of said rows being uniformly laterally spaced from each other, said rows being arranged in an upper group located above the slide bar and a lower group located below the slide bar, said slide bar having a linear scale for reference to marking holes.

6. A device according to claim **2**, wherein the front surface of the base plate is formed with vertical rows of marking holes, some of said rows being uniformly laterally spaced from each other, said rows being arranged in an upper group located above the slide bar and a lower group located below the slide bar, said slide bar having a linear scale for reference to marking holes, vertical lines connecting the holes of the two groups, a horizontal line located above the slide bar, each of said horizontal lines extending laterally away from a laterally successive one of the vertical lines, said horizontal lines being vertically spaced from each other at distances less than the distances between adjacent vertical lines, said horizontal lines terminating in pendant vertical lines, said pendant vertical lines being laterally spaced from each other at the same distances as the horizontal lines, said pendant lines extending below the slide bar.

7. A device of the character described comprising a base plate having a front surface, a slide bar mounted on the base plate to slide endwise across the front surface of the base plate, said slide bar having a crosshead fixed on one end thereof and spaced from a related side edge of the base plate, said crosshead having a rearwardly-extending vertical flange disposed at right angles to the length of the slide bar, said slide bar being reversible on the base plate, and means on the base plate and engaged with the slide bar for releasably-holding the slide bar in endwise adjustments relative to the base plate, said base plate being formed with laterally-spaced rows of marking holes extending crosswise of the slide bar, the slide bar having a front surface formed with a linear scale running from the said flange of the crosshead toward the other end of the slide bar, said linear scale having graduations for selective reference to rows of marking holes, the holes of the rows being vertically-spaced at similar intervals, some of the rows being laterally-spaced at the same intervals, the scale of the slide bar being subdivided by graduations which are spaced at the same intervals as some rows of holes and the holes of all of the rows, the front face of the base plate being formed with an upwardly-running scale spaced above the slide bar and with a lower downwardly-running scale spaced below the slide bar, the upper and lower scales having horizontal vertically-spaced graduations aligned with holes of the rows of marking holes.

8. A device of the character described comprising a base plate having a front surface, a slide bar mounted on the base plate to slide endwise across the front surface of the base plate, said slide bar having a crosshead fixed on one end thereof and spaced from a related side edge of the base plate, said crosshead having a rearwardly-extending vertical flange disposed at right angles to the length of the slide bar, said slide bar being reversible on the base plate, and means on the base plate and engaged with the slide bar for releasably-holding the slide bar in endwise adjustments relative to the base plate, said base plate being formed with laterally-spaced rows of marking holes extending crosswise of the slide bar, the slide bar having a front surface formed with a linear scale running from the said flange of the crosshead toward the other end of the

slide bar, said linear scale having graduations for selective reference to rows of marking holes, the holes of the rows being vertically-spaced at similar intervals, some of the rows being laterally-spaced at the same intervals, the scale of the slide bar being subdivided by graduations which are spaced at the same intervals as some rows of holes and the holes of all of the rows, the front face of the base plate being formed with an upwardly-running scale spaced above the slide bar and with a lower downwardly-running scale spaced below the slide bar, the upper and lower scales having horizontal vertically-spaced graduations aligned with holes of the rows of marking holes, the front surface of the base plate being formed with vertical lines aligned with some of the rows of marking holes, and with horizontal vertically-spaced lines extending laterally inwardly from successive ones of the vertical lines, said horizontal lines terminating in vertical lines, said pendant line being laterally-spaced at intervals which are fractions of the lateral spacing of the vertical lines and refer to the scale of the slide bar.

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