

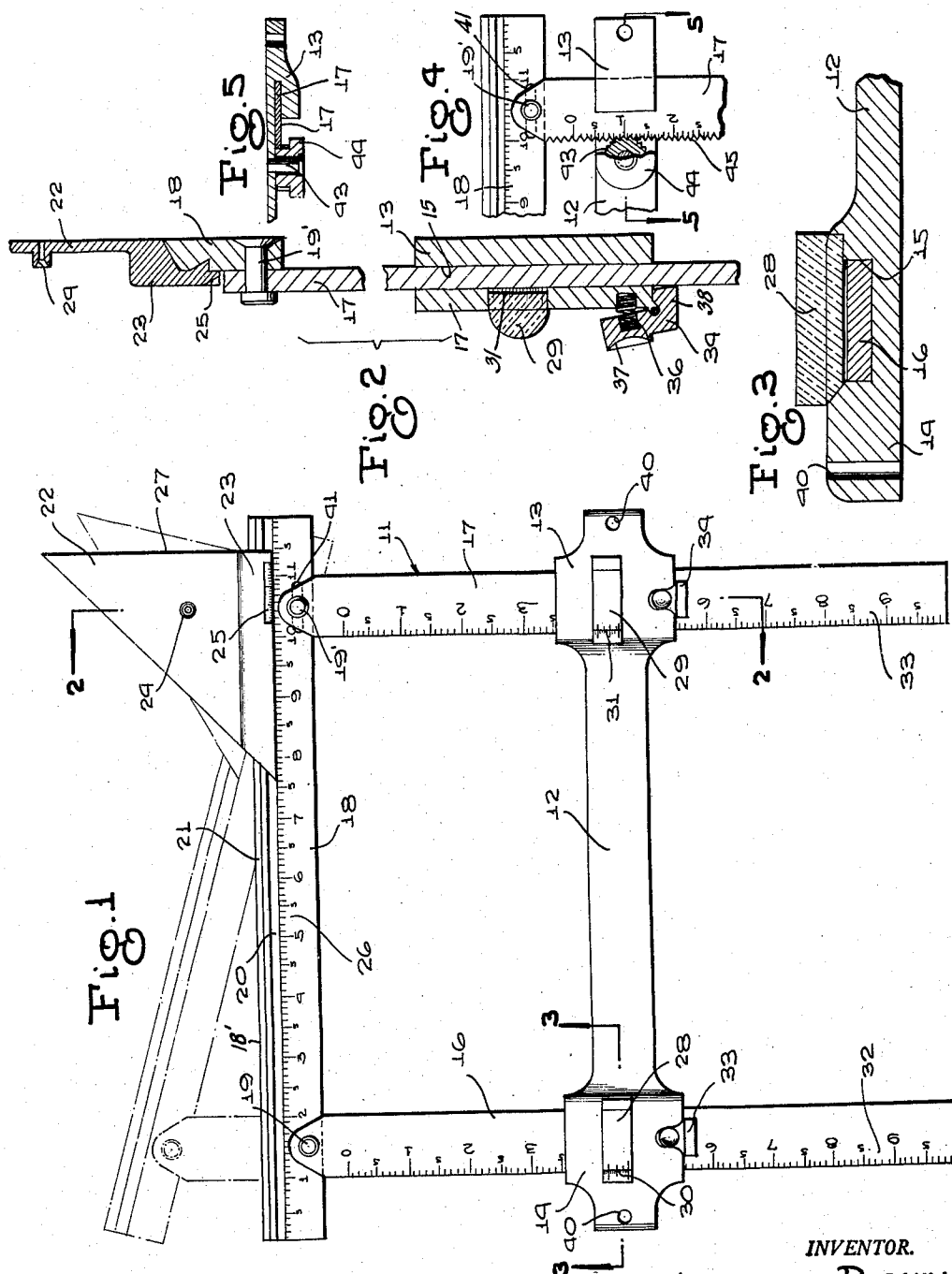
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SCRIBING GUIDE DEVICE

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SCRIBING GUIDE DEVICE

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1 Claim. (Cl. 77—62)

This invention relates to scribing guides, and more particularly to an improved adjustable scribing guide device for use in scribing templates and the like.

The main object of the invention is to provide a novel and improved scribing guide device which is particularly useful in laying out work such as on templates or the like, said device being simple in construction, being easy to manipulate, and providing an accurate means for scribing lines on templates and the like with a considerable saving in time and effort.

A further object of the invention is to provide an improved scribing guide device for laying out work on templates or the like, said device being inexpensive to manufacture, being sturdy in construction, being easy to read, and being relatively compact in size.

Further objects and advantages of the invention will become apparent from the following description and claim, and from the accompanying drawings, wherein:

Figure 1 is a top plan view of an improved scribing guide device constructed in accordance with the present invention.

Figure 2 is an enlarged cross sectional detail view taken on the line 2—2 of Figure 1.

Figure 3 is an enlarged cross sectional detail view taken on the line 3—3 of Figure 1.

Figure 4 is a fragmentary plan view, partly in section, showing an alternative form of the invention.

Figure 5 is a cross sectional view taken on line 5—5 of Figure 4.

Referring to the drawings, the illustrated scribing guide device is designated generally at 11 and comprises an elongated supporting bar 12 having the respective enlargements 13 and 14 on its opposite ends which are formed with the rectangular bores 15 extending transversely thereof, the bores 15 being parallel and slidably receiving respective calibrated bars 16 and 17. Designated at 18 is pivotally a calibrated scribing bar which is connected to the forward ends of the respective calibrated bars 16 and 17, as by the rivets 19 and 19', the bar 18 extending parallel to the support bar 12. The scribing bar 18 is formed with a groove 20 and a rib 21 along its outer or forward longitudinal scribing edge 18', and slidably engaged with said groove and said rib is a right triangular scribing plate 22, having on its upper side along its base edge a shoulder 23, said shoulder being formed to slidably engage the groove 20 and rib 21 to guide the scribing plate 22 longitudinally along the scribing bar 18. The triangular scribing plate 22 is provided with a central drill bushing 24 serving as a means for locating the position of a drill bit for drilling a hole at a fixed distance from the scribing bar 18. Provided along the shoulder 23 is a vernier scale 25 which is arranged adjacent a scale 26 on the scribing bar 18, whereby the transversely altitude edge 27 of the triangular plate 22 may be accurately adjusted along the scale 26 of the scribing bar.

Designated at 28 and 29 are respective semi-cylindrical lenses set into the upper sides of the enlargements

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14 and 13 of the supporting bar 12, said lenses extending longitudinally of the respective calibrated bars 16 and 17. The enlargements 14 and 13 are provided with respective transverse vernier scales 30 and 31 arranged adjacent the scales 32 and 33 on the calibrated bars 16 and 17 and disposed beneath the lenses 28 and 29, whereby the bars 16 and 17 may be accurately positioned relative to the vernier scales 30 and 31 and the alignment of the indicia of the scales 32 and 33 may be observed through the respective lenses 28 and 29.

Pivoted to the lower edges of the respective enlargements 14 and 13, as shown in Figure 1, are respective L-shaped friction dogs 33 and 34 which are biased counterclockwise, as viewed in Figure 2, by respective biasing springs 36 compressed between the upper arms 37 of the friction dogs 33 and 34 and adjacent portions of the enlargements 14 and 13 of the supporting plate 12. As shown in Figure 2, the springs 36 urge the lower arms 38 of the dogs 33 and 34 into frictional engagement with the upper sides of the bars 16 and 17 so as to lock the calibrated bars 16 and 17 in adjusted positions relative to the supporting bar 12. The friction members 33 and 34 may be released by manually rotating said friction members out of engagement with the bars 16 and 17, whereby the calibrated arms 16 and 17 may be adjusted lengthwise thereof and transversely of the supporting bar 12.

In using the device, the supporting bar 12 is anchored in any suitable manner on a workpiece, as by placing a heavy weight on the bar 12, and the calibrated bars 16 and 17 are adjusted longitudinally to position the ruling edge 18' of the scriber bar 18 at a desired angle. The triangular scribing plate 22 may then be moved longitudinally along the scriber bar 18 to position the transverse scribing edge 27 of the triangular plate at a desired position along the bar 18, as determined by positioning the inner scale 25 relative to the proper mark on the scale 26 of the scribing bar 18.

For example, if it is desired to scribe a line at a specified distance from a given line and parallel thereto, the bars 16 and 17 may be set at zero relative to the vernier scales 30 and 31 with the ruling edge 18' of the scriber bar 18 in registration with an existing line on the workpiece. The supporting bar 12 is then anchored, as by placing a heavy weight thereon, and the calibrated bars 16 and 17 are then moved in the required direction relative to the supporting bar 12, for the necessary distances, as observed through the lenses 28 and 29, and the verniers 30 and 31 with relation to the scales 32 and 33 on the calibrated bars 16 and 17. The desired line may then be obtained by scribing along the edge 18' of the scribing bar 18.

The supporting bar 12 is formed with apertures 40, 40 at its outer ends to receive anchoring pins so that such pins may be employed to anchor the supporting bar 12 instead of employing weights. Thus, the work-supporting table on which the device is used may be provided with apertures with which the apertures 40, 40 may be registered, and the anchoring pins may be engaged in the registering apertures to anchor supporting bar 12 on the table.

The scribing bar 18 is formed with a slot 41 through which the rivet 19' extends, providing a pivotal and sliding connection of the calibrated bar 17 to the scribing bar 18, and allowing the scribing bar 18 to be given positions relative to the bars 16 and 17 and the supporting bar 12 other than right angular and parallel positions, as shown in dotted lines in Figure 1.

The drill bushing 24 of the triangular plate 22 is located at a known distance from the edge 18' of scribing bar 18, for example, exactly one inch.

In an alternative form of the invention, shown in

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Figures 4 and 5, the enlargements 13 and 14 are provided with pinion shafts 43 secured thereto at the laterally inward edges of the bars 16 and 17, pinions 44 being journaled thereon and meshing with rack teeth 45 provided on the inward edges of bars 16 and 17. The meshing engagement of the pinions with the rack teeth of the bars 16 and 17 serves to minimize looseness in the connections of the enlargements 13 and 14 to bars 17 and 16 and at the same time allows smooth relative adjustment of these elements.

While a specific embodiment of an improved scribing guide device for laying out templates and the like has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claim.

What is claimed is:

A scribing device consisting of a transversely elongated support bar, a pair of parallel longitudinally calibrated bars, means slidably mounting said calibrated bars on opposite ends of said support bar and confining said calibrated bars to endwise movements crosswise of the support bar, said calibrated bars having first and second ends,

a transversely elongated scribing bar extending between the calibrated bars at the first ends thereof, means fixedly pivoting the first end of one calibrated bar on said scribing bar, means slidably and pivotally connecting the first end of the other calibrated bar to the scribing bar, and a scribing plate mounted on said scribing bar for movement therealong and having therein a drill bit guiding bushing.

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