H. F. RUDOLPH.

T-SQUARE GUIDE.

APPLICATION FILED FEB. 16, 1920.

1,389,904. Patented Sept. 6, 1921.

Fig. 1.

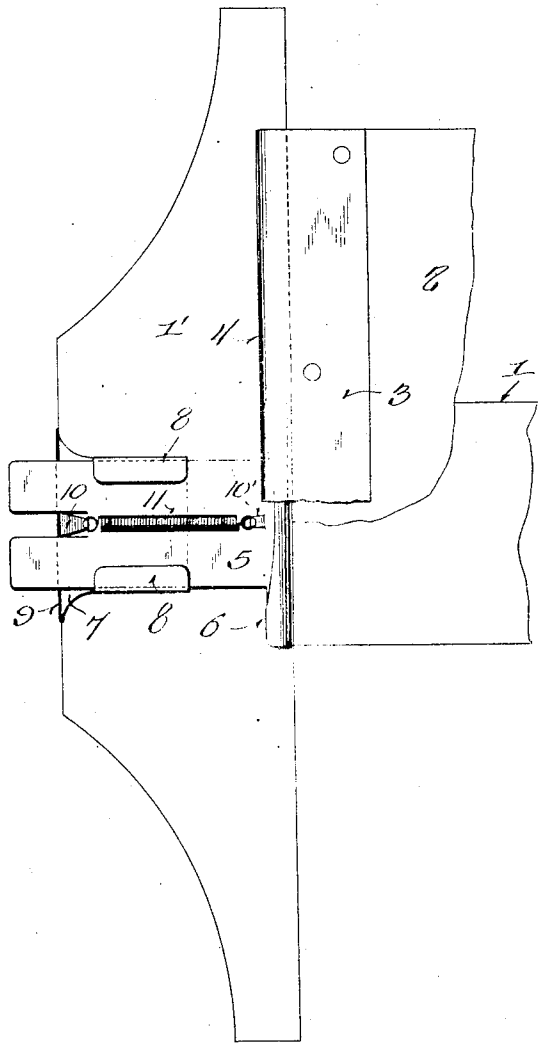
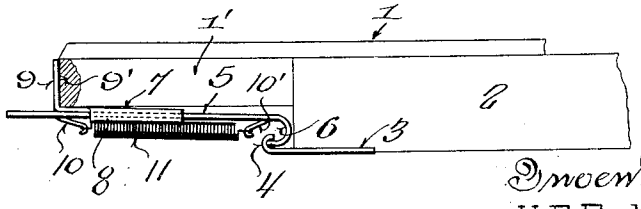


Fig. 2.



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T-SQUARE GUIDE.

1,389,904. Specification of Letters Patent. Patented Sept. 6, 1921.

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To all whom it may concern:

Be it known that I, HERBERT F. RUDOLPH, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in T-Square Guides; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention relates to means for guiding T-squares and has primarily for its object the provision of a device adapted to urge the square into proper engagement with the drawing board and at the same time permitting it to be freely manipulated upon the board.

A secondary object of the invention is the provision of a device of this character which can readily be detached when so desired.

Another object of the invention resides in the provision of a spring connection between the square and board whereby the device is adaptable to different sized squares.

With the above and other objects and advantages in view, which will be apparent as the description proceeds, my invention resides in the novel features of construction, combination and arrangement of the parts as hereinafter described and defined by the appended claim.

In the accompanying drawings:

Figure 1 is a bottom plan view in elevation of a portion of drawing board and T-square with the invention attached thereto.

Fig. 2 is an end elevation of the same.

Referring now more particularly to the accompanying drawings, the numeral 1 designates a T-square blade of the standard width provided with a head 1′ adapted to engage the edge of the drawing board 2. Connected to the bottom surface of the drawing board adjacent one of its edges and extending throughout its entire length is a guide rail 3 having its exposed edge upturned to form a groove 4.

Connecting the T-square with the drawing board is a shoe having a shank plate 5, provided at its inner end with an upturned toe 6, adapted to engage the groove 4 of the guide rail 3.

It will be noted that the intermediate portion of the toe is cut away to reduce friction relative to the rail groove, and that the contact points therebetween are spaced apart approximately the width of a standard T-square to thereby prevent tendency of the T-square to wabble when manipulated.

The outer end of the shoe shank plate 5 is provided with a centrally disposed longitudinal slot, which slot in conjunction with means extending from an attaching plate 7, to be hereinafter described, serves as an auxiliary guide for the shank plate, it being understood that the attaching plate is in telescopic union with the shank plate.

The attaching plate 7 is provided with longitudinally disposed inturned flanges 8, adapted to embrace the edges of the shoe shank-plate 5 and said attaching plate is also cut away centrally, so as to provide material for an upset tongue 10, which tongue extends into the slot of the shank-plate, previously mentioned, and serves as an auxiliary guide for it, the same together with the upturned flanges 8 constituting a three point bearing element to thus insure easy slippage between the attaching plate and shank plate.

As best shown in Fig. 2, the outer end of the attaching plate 7 is folded to form a flange 9, that is secured to the T-square head 1′, preferably by means of burs 9′ which are embedded in the edge of the head. The shank-plate portion of the shoe is also cut out near its desired portion, which cut out portion is upset from the plate body to form a tongue 10′, for the purpose of securing one end of a coil spring 11, the other end thereof being secured to the tongue 10, previously mentioned.

From the foregoing description, it will be seen that the entire article is constructed from two sheet-metal blanks and that the tongue 10 not only serves as a means for attaching the spring, but also acts as a guide in conjunction with the slotted end of the shank plate. Hence, no machine work except operation to the dies, are required in manufacture, all rivets, bolts or the like being dispensed with, whereby accuracy is obtained and the cost of production is reduced to a minimum, it being borne in mind that due to the various sliding connections and provision to prevent cramping in all of them, the device is capable of moving or slipping readily without a tendency to wabble or a tendency to produce a jerky motion, which must be avoided in developing micrometric movement of the T-square necessary in such work.

I claim:

The combination with a drawing board having a grooved rail, of a T-square attaching means comprising a rectangular attaching plate provided with folded longitudinal edges constituting guides and an upturned rear edge for securement to the head of a T-square, an integral centrally disposed tongue upset from the plate body, a one-piece sheet metal shoe in telescopic union with an attaching plate, the shoe comprising a shank-plate portion having a centrally disposed end slot engageable with the attaching plate tongue, the shank-plate portion being extended beyond the width of the plate body at its inner end and upturned to form a rail engaging toe, the surface of which toe is cut away intermediate of its ends to form two points of contact with the rail at a distance apart, approximately equal to the width of a T-square blade, whereby friction is reduced and the tendency of the T-square blade to wabble is resisted, a tongue upset from the shank-plate portion near its inner end, and a spring connecting the shank-plate tongue and attaching plate tongue, adapted to draw the telescopic plates together, whereby the working edge of the T-square head is yieldingly held to the surface of the board.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

HERBERT F. RUDOLPH.