

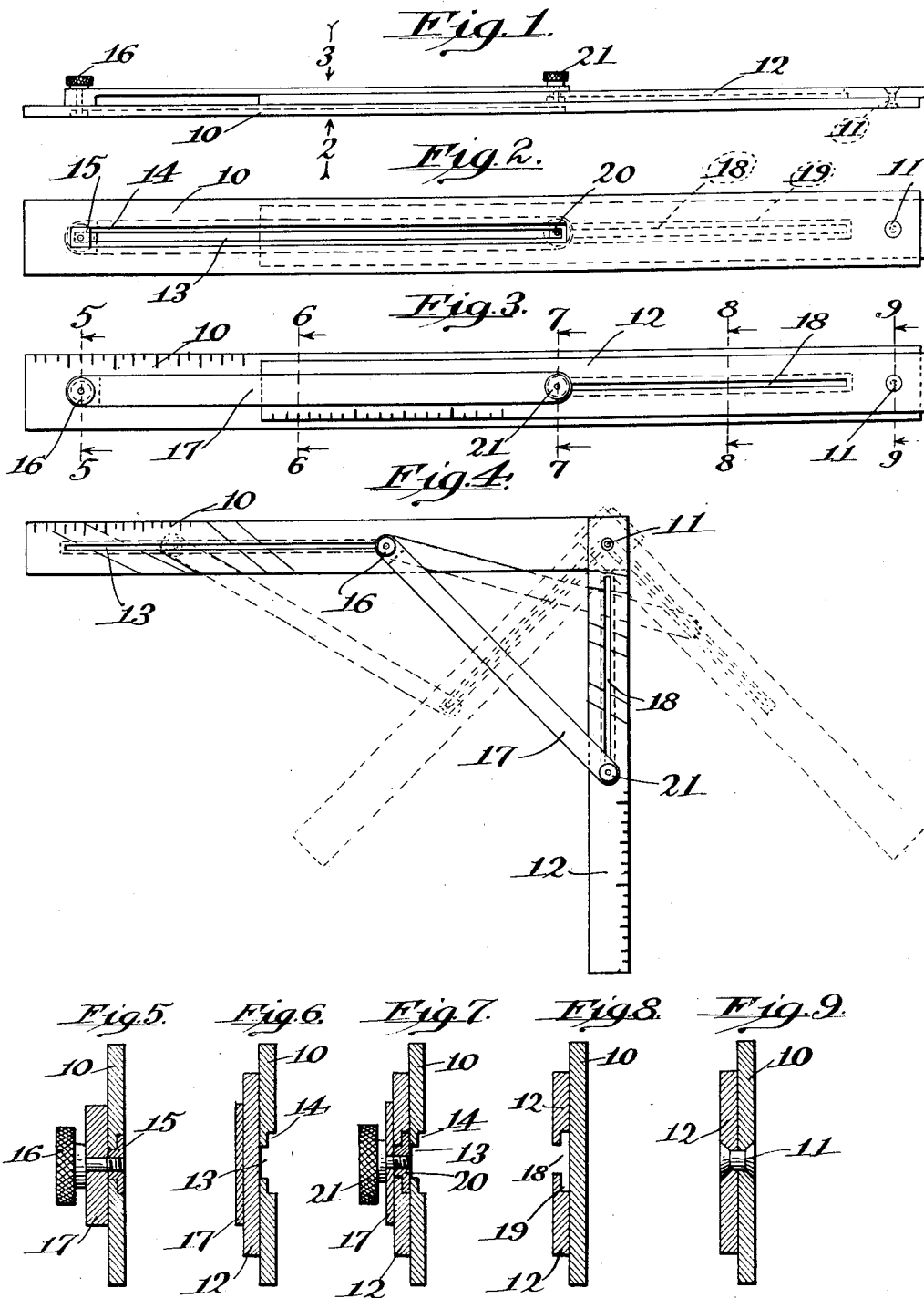
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FOLDING SQUARE

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FOLDING SQUARE

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My invention relates to a folding square and has for its principal object, the provision of a relatively simple, practical and inexpensive folding square that may be conveniently employed by carpenters, mechanics, draftsmen and the like for facilitating their work and which square is constructed so that it may be readily and conveniently folded into compact form while not in use or when packed for storage or transportation.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangement of parts that will hereinafter be more fully described and claimed and illustrated in the accompanying drawing, in which:

Fig. 1 is a side elevational view of the square as the same appears when closed or folded.

Fig. 2 is a view looking against the underside of the folding square, as indicated by the arrow 2 in Fig. 1.

Fig. 3 is a top plan view of the folding square.

Fig. 4 is a plan view of the square in open position, with the legs or blades thereof 90° apart and with dotted lines showing one of the legs shifted into different angular positions.

Fig. 5 is an enlarged cross section taken on the line 5—5 of Fig. 3.

Fig. 6 is an enlarged cross section taken on the line 6—6 of Fig. 3.

Fig. 7 is an enlarged cross section taken on the line 7—7 of Fig. 3.

Fig. 8 is an enlarged cross section taken on the line 8—8 of Fig. 3.

Fig. 9 is an enlarged cross section taken on the line 9—9 of Fig. 3.

Referring by numerals to the accompanying drawing which illustrates a practical embodiment of my invention, 10 designates the main blade of the square which is preferably formed of metal of any desired length and having straight parallel edges. The upper face of this main blade may be provided adjacent to one or both edges with marks properly spaced to form a graduated scale, for instance, inches and divisions thereof.

Pivotally connected in any suitable manner and preferably by means of a rivet 11, to one end of the main leg or blade 10, is a secondary blade or leg 12 having straight parallel edges and which is shorter and slightly narrower than blade or plate 10.

On the upper face of blade 11, adjacent to one or both edges may be formed a graduated scale or scales divided into inches and divisions thereof.

Formed in the outer portion of blade 10 or that portion that is outermost from the pivot 11, is a centrally arranged longitudinally disposed slot 13 and that portion of the slot that is immediately adjacent to the underface of blade 10 is increased in width or countersunk as designated by 14 for the reception of a sliding block 15 that receives the threaded end of the shank of a clamping screw 16 and which latter passes through the end of an adjusting brace member 17 that connects the blades 10 and 12.

In order to accommodate the blade 12 when the same is folded into position on top of blade 10, the end of the adjusting brace 17 is provided on the underside of its end that receives the said clamping screw 16 with an integral block, the thickness of which is equal to the thickness of the blade 12.

Thus when the square is folded, as illustrated in Figs. 1 to 3 inclusive, the adjusting brace 17 is spaced apart from blade 10 for the accommodation of blade 12.

Formed in the inner portion of blade 12 or that portion that is adjacent to the pivot 11, is a centrally arranged longitudinally disposed slot 18 and that portion of the slot immediately adjacent to the underface of said blade is countersunk or increased in width as designated by 19 for the accommodation of a sliding block 20. This sliding block receives the threaded end of the shank of a clamping screw 21, which latter passes through an aperture formed in the end of the clamping brace 17 opposite from the end in which the clamping screw 16 is seated.

The clamping screws 16 and 21, together with the sliding blocks 15 and 20, provide simple and efficient means for clamping the ends of the brace to the blades 10 and 12 so as

to hold the latter in differently adjusted angular positions.

One of the principal features of my invention is, the relative location and the length of the slots 13 and 18. As heretofore described, slot 13 is located in the outer portion of blade 10 and slot 18 is located in the inner portion of blade 12. Such arrangement enables the clamping brace 17 to be readily manipulated so as to hold the blades in differently adjusted angular positions relative to each other and the inner end of slot 13 and the outer end of slot 18 are located equidistant from the pivot 11 so that when the sliding blocks 15 and 20 are located respectively at the inner end of slot 13 and the outer end of slot 18 and the clamping screws 16 and 21 are tightened, the blades 10 and 12 will be rigidly fixed in positions 90° apart. This right angled arrangement of the blades may be very conveniently effected by shifting the sliding blocks carried by the ends of the clamping brace 17 to the proper ends of the slots 13 and 18 and which adjustment may be effected without noting any of the inclined marks on the upper faces of the blades 10 and 12 and which serve as guides for adjusting the blades to different angular positions.

Appearing on the upper faces of blades 10 and 12, are guide lines or marks which are inclined with respect to the straight side edges of the blades and which provide guides for adjustment of the brace 17 so as to position blade 12 at different angles relative to the straight edges of blade 10. These marks may be arranged so that blade 12 may be adjusted to any desired angle relative to the blade 10, for instance, 22½°, 45°, 60° or into angles greater than 90°.

During this rear angular adjustment between the blades 10 and 12, the clamping bolts 16 and 21 are loosened to permit their ready movement through the slots 13 and 18 and if the blades have been properly adjusted, said screws are tightened so as to secure the blades in their adjusted positions.

Thus it will be seen that I have provided a folding square that is relatively simple in construction, inexpensive of manufacture and very effective in performing the functions for which it is intended.

Among the especially desirable features of

my invention are the construction whereby the parts of the square may be folded so as to occupy comparatively little space while not in use and also the arrangement and length of the slots 13 and the length of the clamping brace 17 which enables the blades 10 and 12 to be very quickly shifted into position to form a 90° square.

It will be understood that minor changes in the size, form and construction of the various parts of my improved folding square may be made and substituted for those herein shown and described without departing from the spirit of my invention, the scope of which is set forth in the appended claims.

I claim as my invention:

1. A folding square comprising a pair of pivotally connected blades, one blade being provided in its outer portion with a slot, the other blades being provided in its inner portion with a slot, both of said slots being countersunk, blocks arranged for sliding movement in said countersunk slots, a clamping brace arranged between the two blades, clamping screws seated in said sliding blocks and passing through the slots in said blades and through the ends of said clamping brace and the length and arrangement of the slots in the two blades and the length of the clamping brace being such that when one end of said brace is at the inner end of one of said slots and the other end of said brace is at the outer end of the other slot, the two blades will be disposed 90° apart.

2. A folding square comprising a pair of straight-edged blades pivotally connected to each other at one end, each blade being provided with a longitudinally disposed slot, blocks arranged for sliding movement in said slots, a clamping brace arranged between said blocks, clamping screws seated in said sliding blocks and passing through the ends of said clamping brace and the length and arrangement of the two slots and the length of the clamping brace being such that when the sliding block is at the inner end of one of the slots and the other sliding block is at the outer end of the other slot, the blades will occupy positions 90° apart.

In testimony whereof, I affix my signature.

MICHAEL B. RIZIANU.