July 3, 1951 H. C. COCHRAN 2,559,280

CENTER AND ECCENTRIC POINT MARKER

Filed Aug. 7, 1946 2 Sheets-Sheet 1

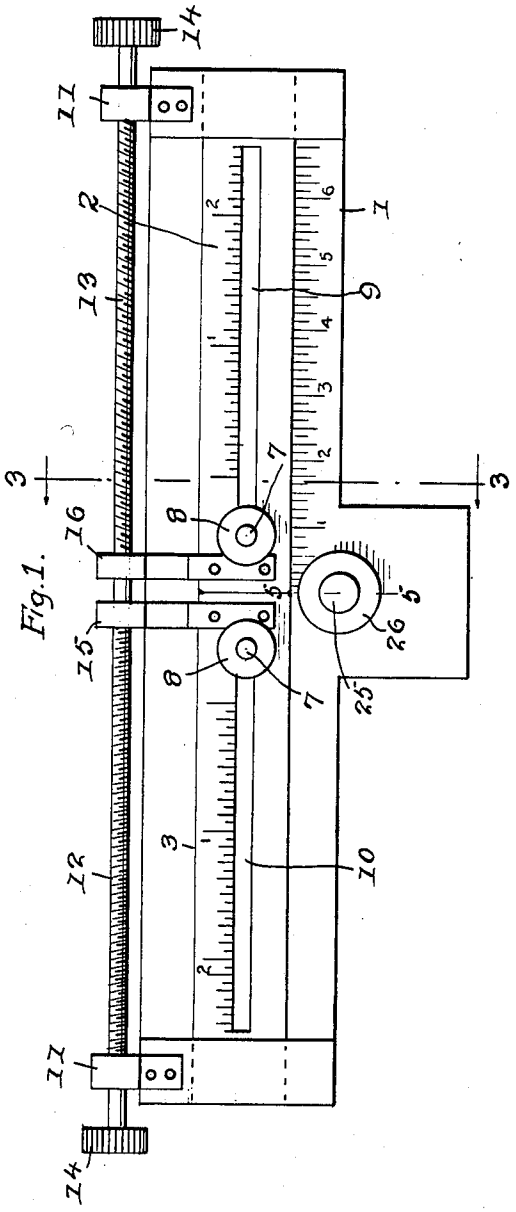


Fig. 1.

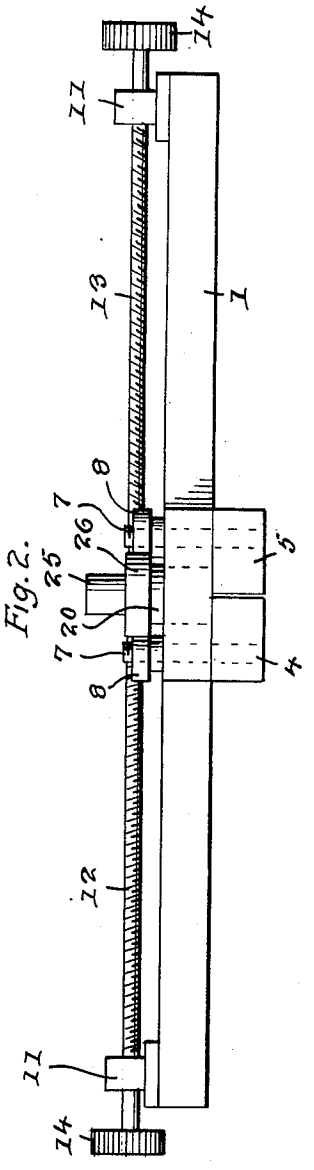


Fig. 2.

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Fig. 3.

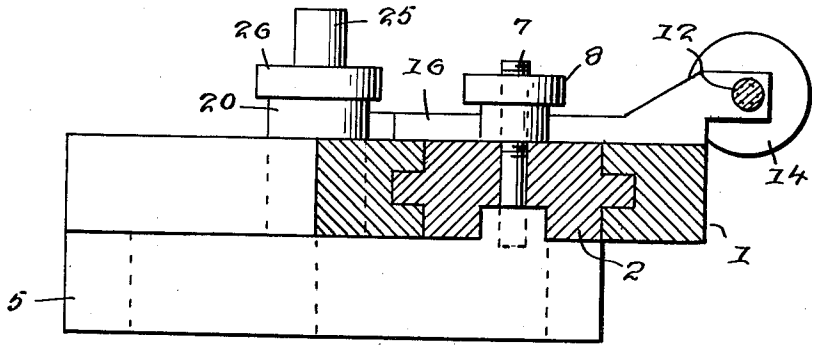


Fig. 4.

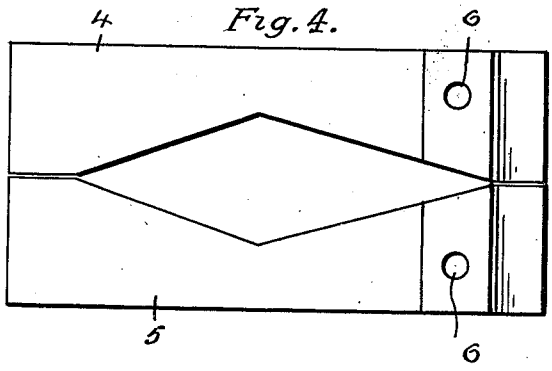
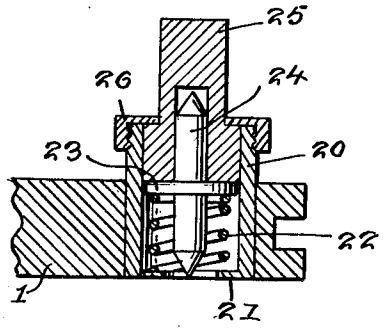


Fig. 5.



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Patented July 3, 1951

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UNITED STATES PATENT OFFICE

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CENTER AND ECCENTRIC POINT MARKER

Henry C. Cochran, Oakland, Calif.

Application August 7, 1946, Serial No. 688,929

2 Claims. (Cl. 33—191)

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This invention relates to improvements in tools, and has for an object the provision of a centering and layout tool for simply and quickly determining and marking the center of round, square, hexagonal or oblong bars or flat surface materials.

A further object is the provision of a centering and layout tool which can be adjusted so that it will determine and mark any given distance off center or from an outside edge inward.

A further object is the provision of a simple centering and layout tool which can be manipulated by any mechanic without requiring skill and experience.

These and other objects are attained by the novel construction and arrangement of parts hereinafter described and illustrated by the accompanying drawings, forming a part hereof, and in which:

Fig. 1 is a plan view of a tool embodying the invention.

Fig. 2 is an elevational view of the tool.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1.

Fig. 4 is a bottom view of blocks used in the tool.

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 1.

Referring to the drawings, the tool is shown to comprise a base 1, upon which are slidably mounted a pair of scales 2 and 3. Positioned under the base 1 are a pair of V-blocks 4 and 5 having holes 6 into which are set studs 7, which receive thumb nuts 8. The studs 7 provide for off center adjustment of the V-blocks by sliding either one of these blocks in slots 9 and 10 cut into sliding scales 2 and 3.

Bearings or bushings 11 supported by the base 1 rotatably support a traversing rod having one side 12 with right hand threads and the other side 13 with left hand threads. Arms 16 and 15 fixed to scales 2 and 3, threadedly receive the traversing rod and travel back and forth thereon, the rod being held in alinement by the bearings 11, and is turned by thumb wheels 14.

When thumb wheel 14 is turned in one direction, the V-blocks 4 and 5 travel away from the center, and when wheel 14 is turned in the opposite direction, blocks 4 and 5 travel towards the center, thus enabling them to be adjusted to the different materials to be laid out.

In Fig. 5 is shown a reversible center punch and scratch awl which is used in the tool. The punch has a bushing 20 which is pressed into the exact center of base 1. The lower part of the bushing has a flange 21 upon which rests a spring 22, the

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latter bearing against a flange 23 on center punch 24. A sliding carrier 25 is associated with punch 24, both of which are normally raised by the spring 22. A cap 26 which screws on to bushing 20 enables the carrier 25 to be removed and the center punch 24 reversed.

In operation, to find the center of a bar, simply turn thumb wheel 14 in the required direction to cause the traversing mechanism to adjust V-blocks 4 and 5 so that the bar is held in the center of the slots in the V-blocks. The center punch carrier is then tapped with a hammer, causing the center punch 24 to make a mark at the exact center of the bar. The punch mark may be made off center at any desired distance by adjusting either one or the other of the V-blocks off center by sliding stud 7 in slot 10, which changes its relation to sliding scales 2 and 3.

For certain types of lay out work it is possible to change the position of block 4 to the position of block 5, and block 5 to the position of block 4. By reversing the blocks in this manner, the straight edges of the blocks are thrown against the surface of the material to be laid out.

The above description is to be considered as illustrative and not limitative of the invention of which modifications can be made without departing from the scope of the invention as set forth in the appended claims.

The invention having been described, what is claimed is:

1. A centering and layout tool comprising a base, a pair of scales slidably mounted on said base, there being a longitudinally-extending slot in each of said scales, a pair of blocks positioned below said base for engaging a work piece therebetween, a stud connected to each of said blocks and extending upwardly through a complemental slot in one of said scales, manually-operable means embodying a thumb nut operatively connected to the upper end of each of said studs for releasably clamping said blocks to said scales, a traversing bar rotatably supported on said base, said bar being provided with oppositely-threaded sections, and interengaging means embodying an arm operatively connecting each of said sections to a complemental scale.

2. A centering and layout tool comprising a base, a pair of scales slidably mounted on said base, there being a longitudinally extending slot in each of said scales, a pair of blocks positioned below said base and provided with opposed V-shaped cutouts for engaging a work piece therebetween, a stud connected to each of said blocks.

and extending upwardly through a complemental slot in one of said scales, the upper end of each of said studs being exteriorly threaded, a thumb nut arranged in engagement with each of said studs for releasably clamping said blocks to said scales, a pair of spaced parallel bushings projecting from said base, a traversing bar rotatably supported by said pair of bushings, said bar being provided with oppositely threaded sections, an arm secured to each of said scales and arranged in threaded engagement with the sections of said traversing bar, and a thumb wheel mounted on each end of said traversing bar.

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