L. W. MOORE.

DRAWING BOARD.

APPLICATION FILED MAR. 17, 1919.

1,395,200.

Patented Oct. 25, 1921.

2 SHEETS—SHEET 1.

FIG. 1.

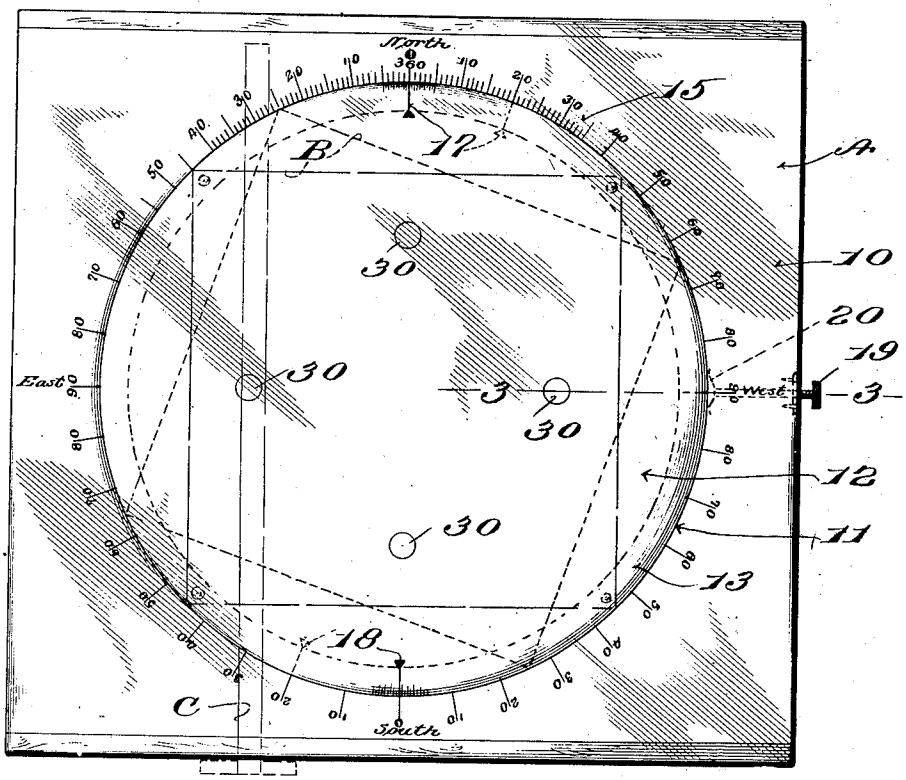


FIG. 2.

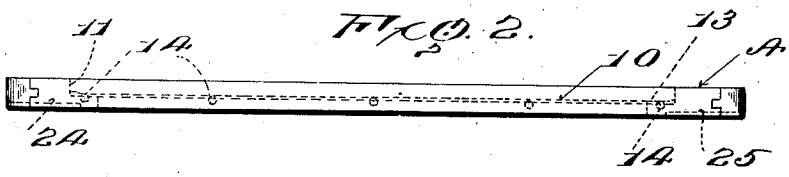
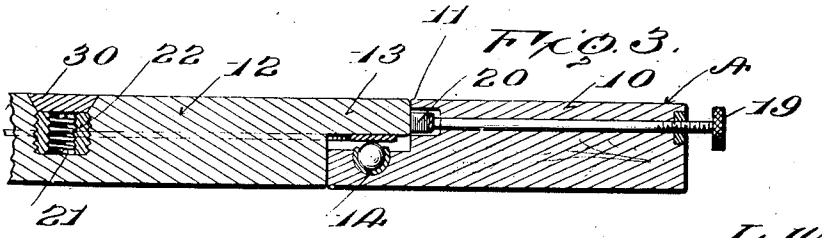


FIG. 3.



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2 SHEETS—SHEET 2.

FIG. 5.

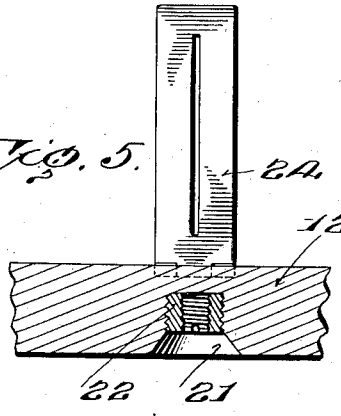


FIG. 6.

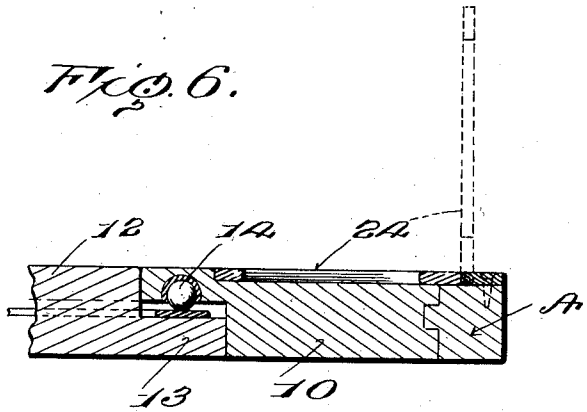
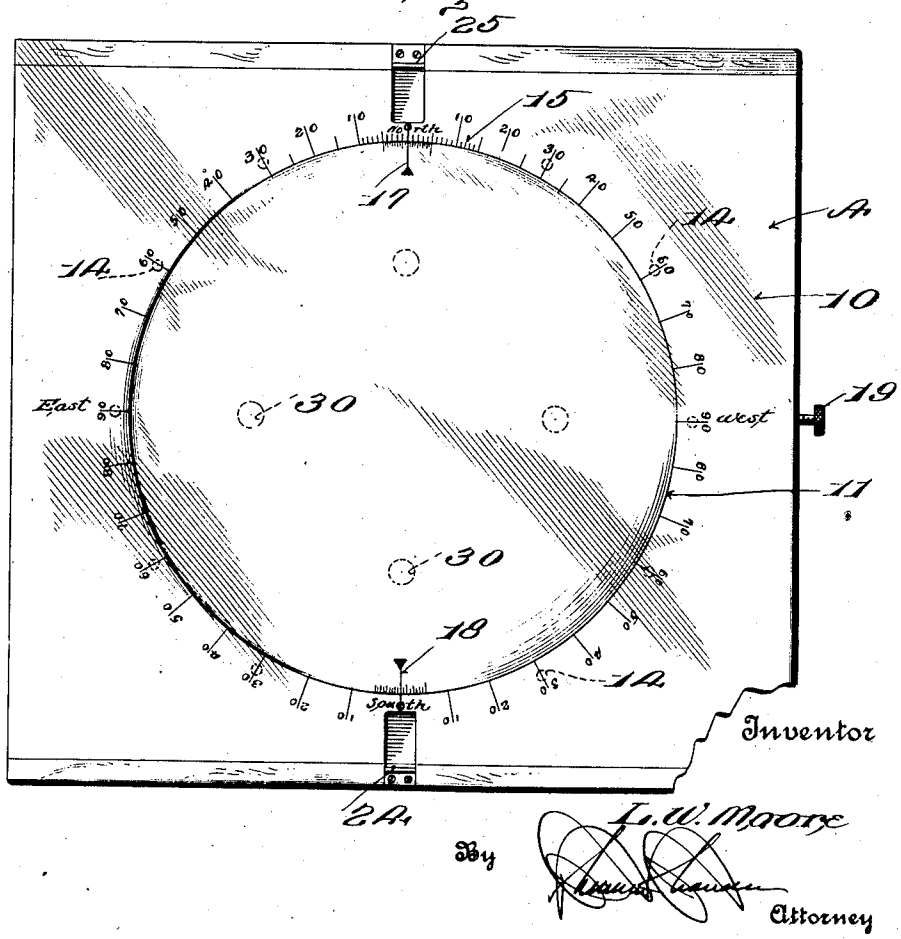


FIG. 4.



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DRAWING-BOARD.

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Application filed March 17, 1919. Serial No. 283,111.

To all whom it may concern:

Be it known that I, LEON W. MOORE, a citizen of the United States, residing at Santa Maria, in the county of Santa Barbara, State of California, have invented certain new and useful Improvements in Drawing-Boards; and I do hereby declare the following to be a full, clear, and exact description of the invention such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to a drawing board and more particularly to the class of drafting boards adapted for office and field use.

The primary object of the invention is, the provision of a drafting board of this character, wherein a piece of work can be laid out with accuracy so that the correct angles can be had and the proper measurements determined with despatch, and in event of an error the same can be detected without requiring the assistance of a small protractor when the board is being used for small office work or in the field, which in the latter use will serve as an ordinary transit.

Another object of the invention is, the provision of a drawing board of this character, wherein the construction thereof is novel in form to assure intricate character work to be plotted either in an office or in a field so that any desired angle may be had with accuracy and the degree disposition thereof determined with despatch.

A further object of the invention is, the provision of a board of this character which is extremely simple in construction, readily and easily operated, thoroughly efficient in its purpose, strong, durable and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter fully described, illustrated in the accompanying drawing and pointed out in the claims hereunto appended.

In the accompanying drawing:

Figure 1, is a top plan view of a drawing board constructed in accordance with the invention, the board being shown by full lines and by dotted lines is indicated a piece of work and a T-square for the drafting of an angle line in the use of the board.

Fig. 2, is an edge elevation thereof.

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

Fig. 4, is a plan looking oppositely from Fig. 1.

Fig. 5, is a fragmentary enlarged vertical sectional view showing in detail one of the countersunk nuts.

Fig. 6, is a fragmentary vertical sectional view showing by full lines the lowered position of one of the sights and by dotted lines the raised position thereof.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, A, designates generally the drawing board which comprises the rectangular body section 10 preferably made from wood and of the required size in length, width and thickness, which is formed with a circular rabbeted central opening 11 in which is fitted the circular board section 12 formed with a rabbeted marginal edge 13 to overlap the rabbeted edge of the opening 11 in the section 10, so that the opposite faces of the section 10 will be flush with the opposite faces of the circular board section 12.

Mounted between the rabbeted edges of the sections 10 and 12 at desirable intervals are cups bearing balls 14 which permit smooth and easy movements of the sections with respect to each other. Concentrically of the center opening 11 on the section 10 are suitably marked or otherwise indicated on each face thereof independent scales 15 graduated into degrees of a circle, namely 360°.

On the section 12 is printed or otherwise marked a north indicator 17, while at 18 is printed or marked a south indicator to cooperate with the degree scale 15.

Mounted in the section 10 at the right hand side thereof, is an adjusting screw 19 which operates against a brake spring 20 which plays upon the edge of the section 12, the spring 20 being bowed and the tendency of the screw 19 in its operation being to straighten the spring so as to frictionally hold the section 12 relative to the section 10 on adjustment of either of the same.

Formed in one face of the section 12 at four points thereof equally distant from each other are countersinks or recesses 21 in which are fitted nuts 22 forming threaded sockets for the detachable mounting of the board A upon a tripod for the use of said board in a field, the recesses 21 being normally closed through the medium of remov-

able plugs 30 when the said board is adapted for office use.

Suitably counterseated within grooves in the face of the section 10 which is opposite to that face of the section 12 in which the recesses 21 are formed and near the left hand ends of the north and south edges thereof are hinged folding sights 25 and 24 respectively, normally lowered to inactive position, but adapted to be raised at right angles to the face of the board A when it is used for field work.

To operate the board for office work the side thereof in which the recesses 21 are formed is uppermost. A piece of work as indicated by B in Fig. 1 of the drawing is tacked or otherwise engaged on the board.

It is to be noted that the left hand edge portion of the section 12 is designated as "east," while the right hand edge portion is designated as "west."

In order to plot a line with the course of north 20° west, the section 12 is revolved to the right into the northwest quadrant of the circle until the indicator 17 coincides with the 20° mark on the graduated scale 15 on the section 10 of the board which disposes the piece of work B angularly as indicated by the dotted lines in Fig. 1, of the drawing. A T-square as indicated by C in Fig. 1 is operated back and forth along the south edge of section 10 with the blade of the T-square extended at all times north and south; and as shown in Fig. 1, by positioning the T-square at a bearing of 20° west from any point on the section 12, the desired line can be indicated. It will be apparent that any bearing in any direction may be plotted.

To operate the board in the field, the same may be supported upon a tripod of any approved type by engaging the tripod in the sockets 22 after removing the plugs 30, the board being reversed from the position shown in Fig. 1 for this purpose. The center of the board must be at the center of the tripod when the said tripod is accurately set, thereafter the folded sights 24 and 25 are raised with one of the same positioned at the north end and the other at the south end. The section 10 may now be revolved about the section 12 which is stationary. The indicators are set at zero and the rear sight is taken the same as that with the transit on any object ahead and by the use of the T-square C operating at the south edge of the section 10 a line can be drawn from any desired point and distances scaled.

From the foregoing it is thought that the construction and manner of use of the drawing board will be clearly understood and therefore a more extended explanation has been omitted.

What is claimed is:

1. A drawing board of the character described, comprising a straight edge section having a circular center opening, a center section shaped to fit the opening and revoluble therewithin, said straight edge section having concentric degree marks of a circle thereon and said center section being provided with indicators at diametrically opposite points thereof, and foldable sights carried by the straight edge section for alinement in the direction of a straight line joining said points.

2. A drawing board of the character described, comprising a straight edge section having a circular opening, a center section shaped to fit the opening and revoluble therewithin, said straight edge section having degree marks of a circle thereon around its opening and said center section being provided with indicators coacting with said marks, and foldable sights carried by one face of the straight edge section for alinement in with diametrically opposite points of the same.

3. A drawing board of the character described, comprising a square section having a circular opening rabbeted around its edge, a round center section fitted to the opening and having a rabbeted edge coöperating therewith, antifriction means interposed between the rabbets, said square section having degree marks of a circle thereon and said center section being provided with an indicator coacting therewith, and foldable sights carried by the square section within two grooves in one face thereof adjacent diametrically opposite points of the same.

In testimony whereof, I affix my signature.

LEON W. MOORE.