W. J. LAUBENHEIMER.

DRAFTING DEVICE.

APPLICATION FILED JAN. 30, 1920.

1,416,652.

Patented May 16, 1922.

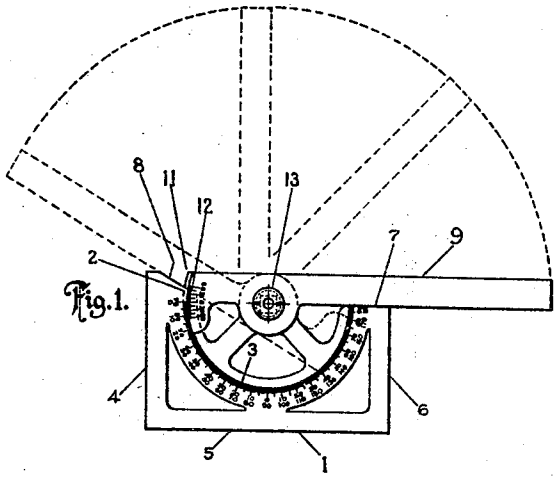


Fig.1.

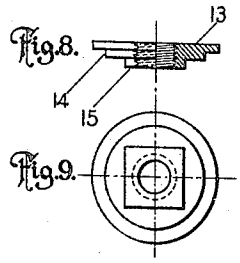


Fig.8.

Fig.9.

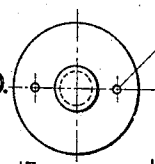


Fig.10.

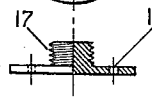


Fig.11.

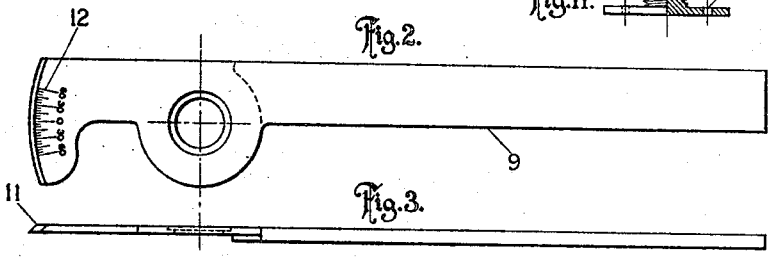


Fig.2.

Fig.3.

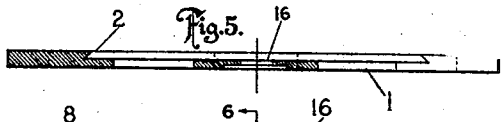


Fig.5.

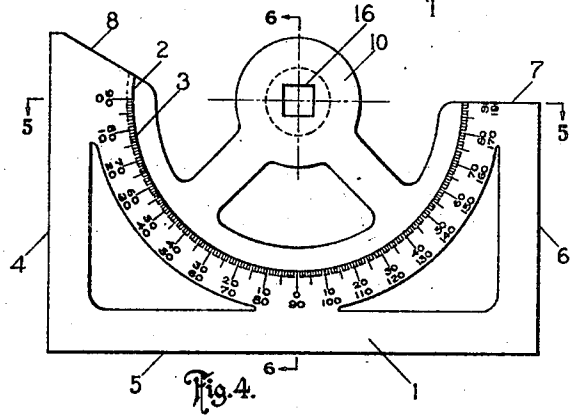


Fig.4.

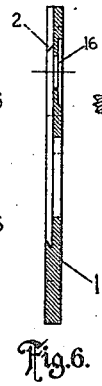


Fig.6.

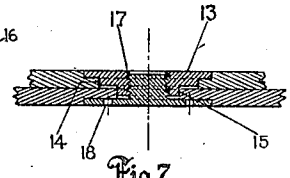


Fig.7.

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DRAFTING DEVICE.

1,416,652. Specification of Letters Patent. Patented May 16, 1922.

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To all whom it may concern:

Be it known that I, WALTER J. LAUBENHEIMER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Drafting Devices, of which the following is a specification.

This invention relates to a drafting device and has for its primary object the construction of a protracting device the usefulness of which may be materially extended over protractors now on the market.

An object of the invention is the novel manner of forming the base member and associating therewith a pivoted arm so that the angular position of the arm may be mechanically regulated.

With these and other objects in view the invention will be better understood from the following detailed description taken in connection with the accompanying drawing wherein

Fig. 1 is a top plan view of the device showing the arm in certain dotted positions.

Fig. 2 is a plan view of the arm removed.

Fig. 3 is an edge view of the arm.

Fig. 4 is a plan view of the base member.

Fig. 5 is a section view on line 5—5 of Fig. 4.

Fig. 6 is a sectional view on line 6—6 of Fig. 4.

Fig. 7 is a sectional view through the locking device.

Fig. 8 is a sectional view through the female member.

Fig. 9 is a top plan view of the female member.

Fig. 10 is a plan view of the female member.

Fig. 11 is a sectional view of the male member.

Again referring to the drawing illustrating one construction of my invention #1 designates a base member which may be constructed of any suitable material and in any suitable manner with the exception that it is to be of uniform thickness throughout for the purpose hereinafter described. This base member is provided with an undercut arcuate groove 2 along which are arranged the scale marks 3. The base member is constructed to have straight edges 4, 5. 6, 7 and 8; the first three for co-operation with the usual T square used in drafting, this insures the proper positioning of the base with relation to the straight edges of the drawing board. The edges 7 and 8 co-operate with the arm 9 now to be described. It will be noted that the base is provided with a disc 10 to which is pivoted the arm 9 so that the beveled end 11 may work in the groove 2. The end 11 is provided with a vernier 12 for co-operation with the scale marks heretofore described. Attention is called to the fact that the arm is pivoted in position to properly co-operate with the edges 7 and 8 thereby fixing certain angular positions of the arm. Included in my invention is the improved form of locking device forming the pivot of the arm. Clearly shown in Figs. 7 to 11 inclusive this locking device consists of a female member 13 having a circular shoulder 14 supporting the arm for arcuate movement and with a square shoulder 15 for reception in the correspondingly shaped opening 16 in the disc 10. The female member 17 is screw threaded into the member 13 and is provided with holes 18 for the reception of an operating device. Thus it will be seen that when the arm is moved to required angular position the member 17 may be tightened into engagement with the member 13 thereby effectively locking the arm in its position.

A feature of this locking device is that the construction is such that the surface of the device will be arranged flush with the surface of the arm and the base member so that the drafting device may be arranged in flat engagement with the drawing board irrespective of which side of the device is arranged in engagement with the drawing board.

The foregoing description is limited to one form of my invention but I wish it to be understood that there are various other manners of constructing the parts and associating same, and therefore, I do not wish to be limited in any manner except as set forth in the claims hereunto appended.

Having thus described my invention what I claim is—

1. A drafting device comprising a base formed with an arcuate undercut groove and scale marks along the groove, and an arm pivoted to the base member and having a beveled edge portion moving in the groove and with a vernier co-operating with the said scale, a pivot for said arm, and clamping means associated with said pivot for flatwise clamping action against the base and arm to hold the arm in adjusted positions.

2. A drafting device comprising a base of uniform thickness, an arm pivoted to the base of a uniform thickness equal to that of the base so that either side of the device may be arranged in flat engagement with a drafting board, said base and arm having co-acting straight edges for limiting the angular position of the arm, a pivot for said arm, and clamping means associated with said pivot for clamping the arm in adjusted position.

3. A drafting device comprising a base of uniform thickness, an arm pivoted to the base of a uniform thickness equal to that of the base so that either side of the device may be arranged in flat engagement with a drafting board, said base and arm having co-acting straight edges for limiting the angular position of the arm, and a locking device operating in flatwise engagement with said base and arm for locking the arm in its angular positions.

In testimony whereof I affix my signature.

WALTER J. LAUBENHEIMER.