

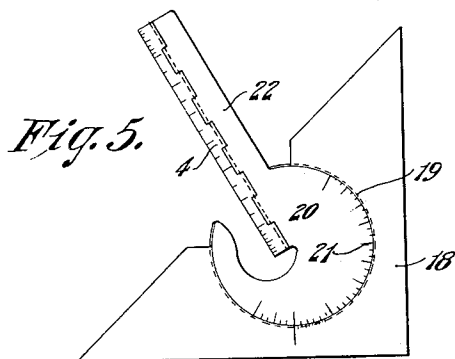
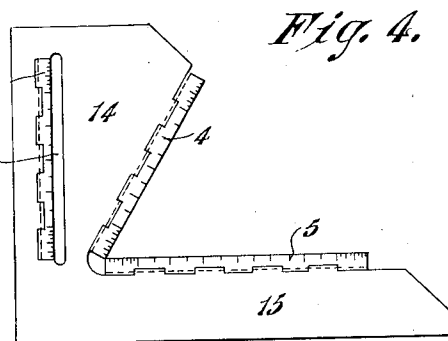
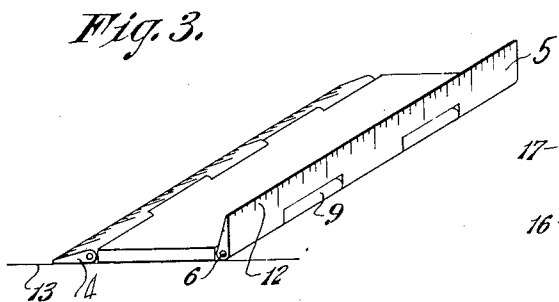
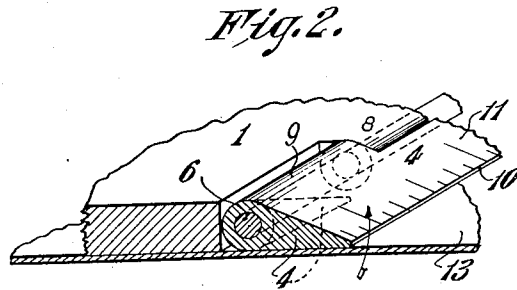
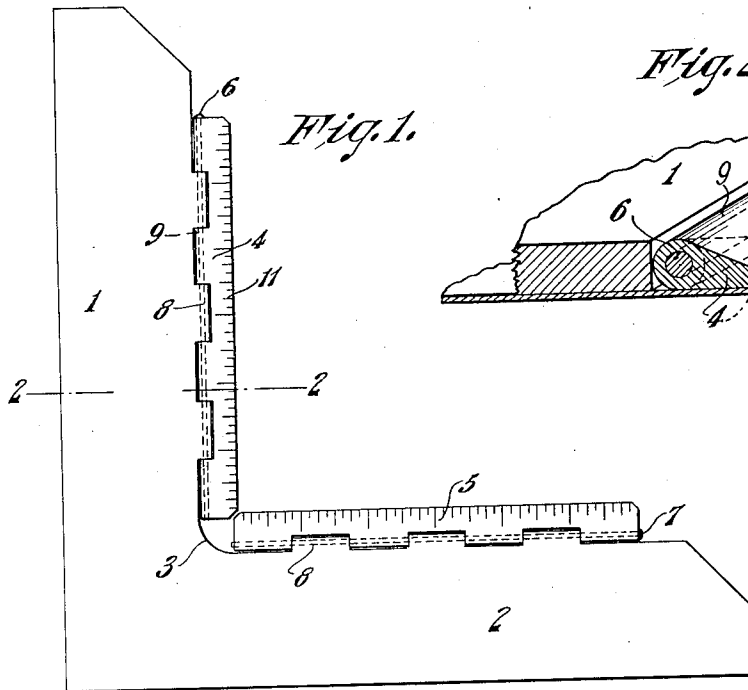
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R. B. WARE

1,945,987

DRAFTING DEVICE OR UTILITY

Filed June 10, 1932



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1,945,987

DRAFTING DEVICE OR UTILITY

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Application June 10, 1932. Serial No. 616,394

4 Claims. (Cl. 33—75)

This invention relates to improvements in drafting devices, or utilities, and more particularly, it relates to an attachment designed to be used on right angle triangles, rulers, squares, and other well known accessories used by a mechanical draftsman.

An object of the invention is to provide a scale member that is pivotally or hingedly connected to an edge, or edges, of a triangle, a ruler, or other drafting articles, so that it may readily assume a position or lie flat down on the drafting board, or paper. A further object is to provide a hinge scale member that is graduated on both of its sides, said hinge scale being preferably triangular in cross section, so that its thin edge, or apex, will permit the user to use the scale close down on the paper.

A further object is to employ the graduated hinge scale, so that it may serve as a handle for picking up the triangle, or other article, if it is desired to lift it or remove it from the drafting board, or use the opposite side of the graduated scale of the hinge member.

Referring to the drawing:—

Fig. 1 shows the hinge scale member attached to the two inner edges of a square, with the corners of the scale chamfered, or cut off.

Fig. 2 is an enlarged detail sectional view on the line 2—2 of Fig. 1, illustrating the hinge scale, the full lines showing the edge of the scale in contact with the paper.

Fig. 3 illustrates a straight ruler having the hinged scale connected to the opposite edges of the same and with one of the scales shown flat, or in close contact with the paper and the other raised to serve as a handle.

Fig. 4 shows the hinge scale attached to a square, the inner edges of which are arranged at 60° to each other, and one limb of a square having an opening, in which is located a pivoted member, and

Fig. 5 illustrates a right angle triangle with the protractor part having the hinge scale connected to the protractor.

Referring to the drawing in detail:

1 and 2 designate the two limbs of a square, their inner edges being connected with a curved portion 3. 4 and 5 designate the hinged and graduated scale members that are attached to the inner edges of the limbs 1 and 2, by means of the pivot pins 6 and 7, which pass through the projections 8 on the limbs and the projections 9 on the graduated and hinged edges.

Referring to Figs. 2 and 3, it will be seen that the hinged edges 4 and 5, are triangular in cross

section; the graduations being located along the apex edge 10 and on both sides, as shown in Fig. 3.

It is to be understood that the graduations are on opposite sides, or surfaces of the member 4, as indicated at 11, in Fig. 2, and 12 in Fig. 3. From Fig. 2, it will be noticed that the pivoted and graduated edge 4 lies close to a sheet of paper 13. This is also shown in Fig. 3. In Fig. 4, is illustrated a square, the limbs 14 and 15 of which are arranged at 60° to each other, and the pivoted edges 4 and 5 are connected to these edges.

16 shows an opening in the limb 4, on one edge of which is pivotally connected the member 17. This may be graduated, or not, as desired. It may also serve as a handle for lifting the square from the drafting board.

In Fig. 5, is shown a right angle triangle, 18, having the curved cut-out portion 19 and rotatably mounted in this opening, is the member 20 having the graduations 21. This member 20 is provided with an arm 22 to which is pivotally connected the graduated member 4, in the same manner as described in Figs. 1 and 2. The member 20 serves as a protractor for laying off any convenient number of degrees. The triangular graduated member 4 or 5 may be used alone when removed from the drafting utensil.

It will be seen, from this description, that I have provided for drafting utilities of various kinds, each having the edge portion with a pivoted member attached thereto, the graduations being on the pivoted member.

An important feature of my present invention is that it serves to combine two instruments in one, a drafting instrument and scale, that is to say; a triangle and scale member for instance, or, a ruler and scale member, or, a square and scale member as set forth above.

By combining the pivoted member and an instrument, as a triangle and scale, the graduated edge 10 of the pivoted member may be used as a straight edge, for the purpose of drawing lines.

An important feature is that the swinging scales, 4 or 5, makes it possible to use the utilities, or drafting implement, either side up, and still have the thin edge of the scale, or scales, down close to the paper.

The protractor construction, shown in Fig. 5, permits the protractor to be turned over for drawing the opposite angle, without re-setting, and, at the same time, have the thin edge close to the paper. This is a desirable feature, even

if the straight-edge of the protractor is not graduated.

What I claim is:

1. A drafting utensil formed with a plurality of projections and each one of which is formed with an opening extending therethrough, a graduated scale member formed with projections registering between the projections of the utensil member, a pivot pin passing through all of said projections, the said member being substantially triangular in cross section.

2. A drafting utensil formed with a plurality of projections on one of its edges, said projections forming recesses between them, and each one of which is formed with an opening extending therethrough, a graduated scale member formed with projections and entering the recesses between the projections of the utensil member, a pivot pin passing through said pro-

jections, the said member being substantially triangular in cross section and having graduations on two adjacent surfaces.

3. A drafting instrument, having a part pivotally attached to an edge thereof for movement into planes that co-incide with the opposite surfaces of the instrument, said part having graduations on its adjacent surfaces, the part being triangular in cross section and the graduations being located at or near the edge thereof farthest removed from the edge of said drafting instrument.

4. In a drafting utensil of the square type, members triangular-shaped in cross section pivotally connected to the adjacent inner edges of the square, said members having graduations on adjacent faces.

RODNEY B. WARE.

20	95
25	100
30	105
35	110
40	115
45	120
50	125
55	130
60	135
65	140
70	145
75	150