(No Model.)

A. T. PAGE.

COMPOUND TRIANGLE.

No. 482,023. Patented Sept. 6, 1892.

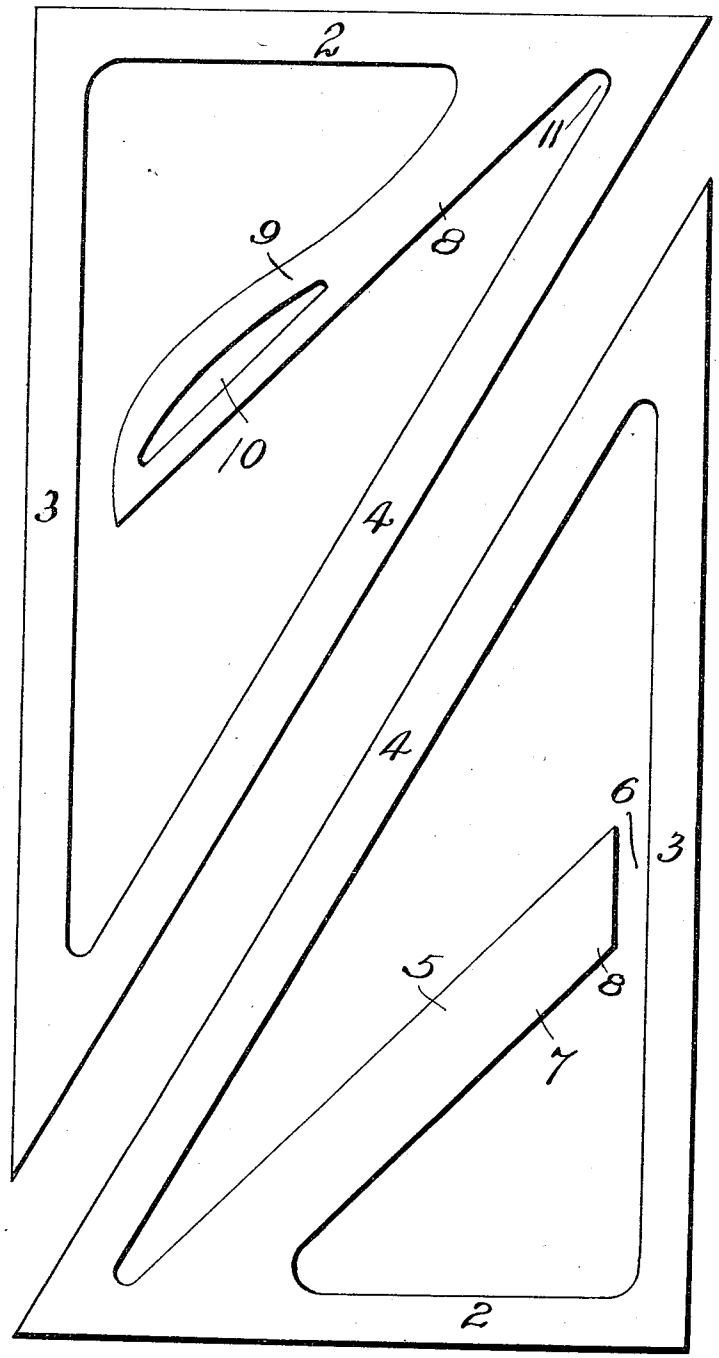

Fig. 1.

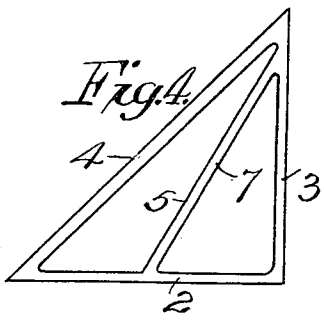

Fig. 4.

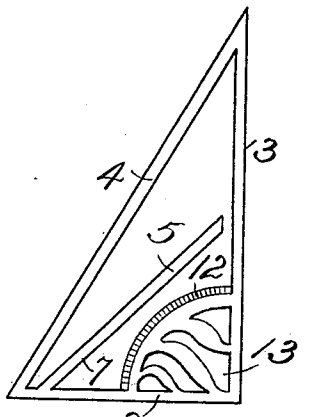

Fig. 3.

Witnesses.
C. E. Van Dorn.
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ARTHUR T. PAGE, OF MINNEAPOLIS, MINNESOTA.

COMPOUND TRIANGLE.

SPECIFICATION forming part of Letters Patent No. 482,023, dated September 6, 1892.

Application filed May 31, 1892. Serial No. 435,105. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR T. PAGE, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented a certain Improved Compound Triangle, of which the following is a specification.

My invention relates to improvements in triangles for draftsmen; and the object of the invention is to combine the functions of two or more triangles in one device of a neat, compact, and convenient form; and it consists in a triangle having two or more set angles, one or more irregular curves combined therewith, and a protractor, all as hereinafter described, and particularly pointed out in the claims.

The invention will be more readily understood by reference to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a full-sized view of a compound triangle and represents both forty-five and sixty degrees. Fig. 2 shows a similar device having an irregular curve. Fig. 3 shows a forty-five and sixty degree compound triangle provided with a protractor and several irregular curves. Fig. 4 is a forty-five-degree triangle combined with a smaller sixty-degree angle.

As shown in the drawings, I employ a triangle having the base, side, and hypothenuse bars 2, 3, and 4, respectively, the sides of the bars being parallel with one another.

Within the hollow of the main triangle and projecting from one of the acute angles or corners thereof is the supplementary bar 5, extending at any desired angle with respect to the right angle of the triangle. This bar may be joined with the bars 2 and 3, if desired, as shown in Figs. 3 and 4; but I preferably make the gap 6 between the upper end thereof and the side bar 3, in order that a pen may be used on the full length of the inner edge of the part 3.

In place of making the edge 7 of the forty-five-degree bar parallel with the upper edge 8 thereof I may cut the bar to form an irregular curve 9 and, if desired, may also provide the perforation 10 therein to give a second curve, as shown in Fig. 2. The corners 11 of my triangles are preferably curved, as shown, for sake of the appearance of the triangle and its strength; but the corners may be made abrupt, as shown in Fig. 3, if desired. In addition to the two angularly-arranged bars 4 and 5 I arrange in the right angle of the triangle a protractor or quadrant 12, and within the body of the same arrange the perforations 13, having the irregularly-curved edges.

It is obvious that my invention may be employed in connection with triangles of other forms than the right-angled triangle and that several of the supplementary angle-bars may be arranged within the main triangle, thus providing within a small space and at a very low cost a complete drafting device, and by means of which many combinations of acute, obtuse, and right angles may be readily made, which with ordinary triangles would require much time and study to make. For instance, a simple combination of a fifteen-degree angle can be made by first placing the base of the triangle on the T-square and drawing a line along the thirty-degree bar, and then, after pushing forward the triangle, a line drawn along the forty-five-degree bar will complete the fifteen-degree angle. Other combinations may be made by changing the position of the triangle on the T-square.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. As a new article of manufacture, a compound triangle composed of the three main side pieces or bars 2, 3, and 4, respectively, forming within themselves a triangular space, and a projection extending from the inner side of one of said bars into said triangular space, substantially as described.

2. As a new article of manufacture, a compound triangle composed of the side pieces or bars 2, 3, and 4, forming within themselves a triangular space, and a projection extending from the base of the triangle into said space, said projection being provided with a straight upper edge and an irregularly-curved lower edge, substantially as and for the purpose specified.

3. As a new article of manufacture, a compound drafting-instrument composed of the three bars 2, 3, and 4, forming a triangular

space within themselves, and a bar 5, projecting from the base-bar 2 into the triangular space, and a protractor 12, arranged within said space and provided with perforations having irregularly-curved edges, substantially as described, and for the purpose specified.

In testimony whereof I have hereunto set my hand this 19th day of May, A. D. 1892.

ARTHUR T. PAGE.

In presence of—
C. G. HAWLEY,
FREDERICK A. LYON.