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ATTACHMENT FOR DRAWING BOARDS.

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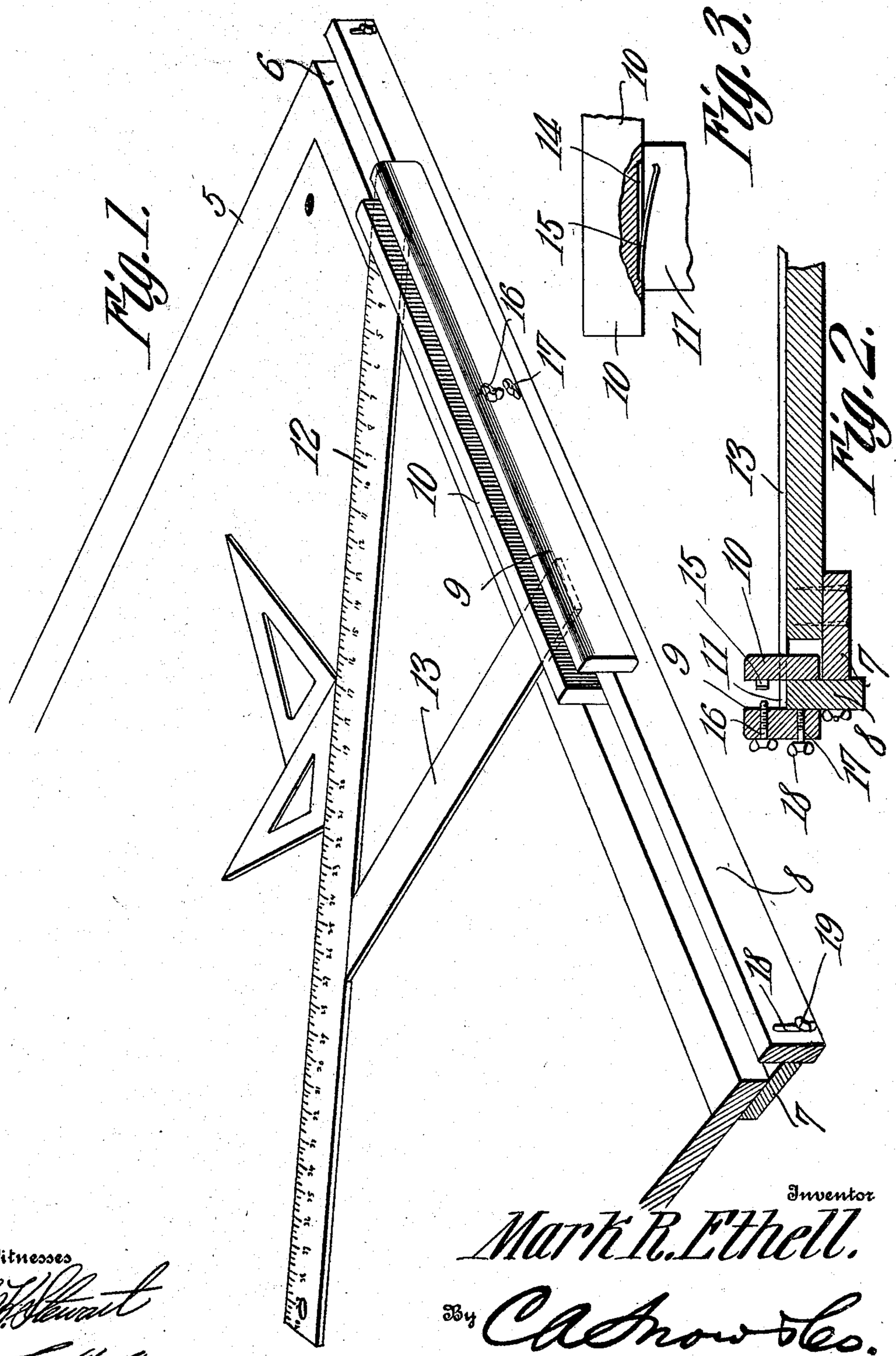

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ATTACHMENT FOR DRAWING-BOARDS.

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To all whom it may concern:

Be it known that I, MARK R. ETHELL, a citizen of the United States, residing at Bloomington, in the county of McLean and State of Illinois, have invented a new and useful Attachment for Drawing-Boards, of which the following is a specification.

This invention relates to attachments for drawing boards and more particularly to a combined T square and triangle especially designed for use by architects, draftsmen and other persons in drawing surveys, plans and the like or in making maps, charts and other drawings or tracings.

The object of the invention is to provide a comparatively simple and inexpensive device of this character which may be readily attached to a drawing board or table and by means of which a T square may be held true upon the board at all times without special attention on the part of the draftsman.

A further object of the invention is to provide a combined T square and triangle capable of being readily reversed and used either as a right or left hand instrument, provision being made for locking the instrument at any desired position of adjustment on the edge of the drawing board.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a perspective view of a drawing board provided with an attachment constructed in accordance with my invention. Fig. 2 is a detail transverse sectional view showing the manner of mounting the head of the T square on the guide rail of the board. Fig. 3 is a detail plan view partly in section showing the manner of mounting the spring.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved device forming the subject matter of the present invention is principally designed for attachment to a drawing board or table and by way of illustration is shown in connection with a drawing board of the ordinary construction in which 5 designates the upper surface of the board and 6 the front longitudinal edge thereof.

Secured to the bottom of the board 5 is a longitudinal strip 7, the free end of which is provided with a vertically disposed flange 8 preferably extending the entire length of the board and disposed in spaced relation to the edge 6, said flange forming a guide rail for the head of the combined T square and triangle.

The head of the T square is formed of parallel longitudinal strips 9 and 10, which bear against the opposite sides of the guide rail 8 and are spaced apart by transverse strips or blocks 11, which latter rest upon the edge of the guide rail and serve to assist in preventing tilting movement of the instrument when the latter is moved back and forth over the upper surface of the drawing board.

Secured to one end of the strip 10 is an obliquely disposed blade 12, which, in conjunction with the perpendicular blade 13 forms a triangle. The blade 13 is rigidly secured to the blade 12 and longitudinal strip 10 and is disposed at right angles to the latter thereby to form the straight edge of the T square.

Formed in the inner face of the longitudinal strip 10 on each side of the spacing blocks 11 are grooves or depressions 14 in which are seated leaf springs 15, the free ends of which are adapted to bear against the inner face of the guide rail to assist in holding the T square steady and prevent wabbling of the same.

As a means for locking the combined T square and triangle in different positions of adjustment on the guide rail 8 suitable clamping screws 16 and 17 are provided, said screws being preferably arranged in vertical alinement and provided with winged heads 18 constituting finger pieces by means of which the screws may be adjusted to cause the inner ends thereof to bear against the outer face of the guide rail 8, so as to lock the instrument against accidental movement.

Attention is here called to the fact that the T square is reversible so that the same may be used either as a right or left hand instrument, the clamping screws and leaf springs 15 being so arranged that one of said screws and springs will bear against the guide rail when the instrument is in either position. It will also be noted that the in-

ner ends of the blades 12 and 13 extend through the longitudinal strip 10 to form the spacing blocks 11, this construction not only serving to reinforce and strengthen the instrument but also serving to maintain the members 9 and 10 in their proper spaced relation so as to prevent binding or wedging action between the head of the instrument and the guide rail 8.

The flange or guide rail 8 is adjustable vertically of the attaching member or strip 7 so as to adapt the device to tables of different thicknesses, and thus permit the blade to lie flat on the upper surface of said table. This adjustment is accomplished by forming the opposite ends of the member 8 with vertically disposed slots 18 arranged to receive suitable adjusting screws 19, which latter engage the strip 7 and serve to lock the guide rail in adjusted position.

In using the instrument the operator rests his body against the longitudinal strip 9 of the head and by swaying his body in either direction moves the instrument to the desired position of adjustment, the instrument being locked in adjusted position by manipulating the screws 16 and 17, in the manner before stated. If desired, however, the instrument may be adjusted on the upper surface of the board by grasping the head of the instrument in the hand and exerting a slight longitudinal pull thereon in either direction to effect this result.

It will here be noted that by reason of the particular construction of the head the T square may not only be reversed and used as either a right or left hand instrument, but may also be used as an ordinary T square in which event, the outer longitudinal edge of the strip 10 will bear against the peripheral edge of the board or table, in the usual manner. The opposite sides of the blade 12 are preferably graduated to inches and fractions thereof, these graduations being so arranged that when an ordinary triangle is used in connection with the blade, accurate measurements may be had.

From the foregoing description, it will be seen that there is provided an extremely simple, inexpensive and efficient device admirably adapted for the attainment of the ends in view.

Having thus described the invention what is claimed is:

1. The combination with a drawing board having a guide rail secured to one edge thereof, a reversible rule slidably mounted on the upper surface of the board and provided with a head including spaced longitudinal strips bearing against the opposite sides of said rail, and means for locking the rule in different positions of adjustment.

2. The combination with a drawing board having a guide rail secured to one edge thereof, a T square movable over the upper surface of the board and provided with a head including spaced longitudinal strips bearing against the opposite sides of the guide rail, and clamping screws carried by one of the longitudinal strips and engaging the adjacent side of the guide rail for locking the T square in different positions of adjustment on said guide rail.

3. The combination with a drawing board, of a guide rail secured to the bottom of the board and spaced from the adjacent longitudinal edge thereof, a reversible T square slidably mounted on the upper surface of the board and provided with a head including spaced longitudinal strips bearing against the opposite sides of the guide rail, a spring carried by one of the strips and engaging one side of the guide rail, and a clamping device carried by the other strip and engaging the opposite side of the guide rail for locking the T square in different positions of adjustment.

4. The combination with a drawing board, of a guide rail secured to one longitudinal edge thereof, a combined triangle and T square slidably mounted on the upper surface of the board and provided with a head including spaced longitudinal strips bearing against the opposite sides of the guide rail, said instrument being provided with perpendicular and obliquely disposed blades the fixed ends of which are extended through both longitudinal strips of the head and bear against the upper surface of the guide rail, and means for locking the instrument in different positions of adjustment on said guide rail.

5. The combination with a drawing board, of a guide rail secured to one longitudinal edge thereof, a reversible T square slidably mounted on the upper surface of the board and provided with a head including spaced longitudinal strips, spacing members interposed between the strips and arranged to bear against the upper surface of the guide rail, springs secured to the inner face of one of the longitudinal strips and arranged above and below the spacing members, and screws piercing the other longitudinal strip and also arranged above and below the spacing member, said screws being adapted to bear against the guide strip for locking the instrument in adjusted position.

6. The combination with a drawing board, of a guide rail disposed at one edge thereof, a reversible rule slidably mounted on the upper surface of the board and provided with a head including spaced longitudinal strips embracing said rail, means for locking the rule in different positions of adjustment, means for adjusting the guide rail vertically of the board, and means for locking the guide rail in adjusted position.

7. The combination with a drawing board, of an attaching member secured thereto, a

guide rail adjustable vertically of the attaching member, a reversible rule slidably mounted on the upper surface of the board and provided with a head arranged to embrace the guide rail, means for locking the rule in different positions of adjustment, and means for locking the guide rail in adjusted position.

8. The combination with a drawing board, of an attaching member secured to one edge thereof, a guide rail carried by the attaching member and having vertically disposed slots formed therein, a reversible rule slidably mounted on the upper surface of the board and provided with a head including spaced longitudinal strips embracing said rail, means for locking the rule in different positions of adjustment, and clamping devices extending through the slots and guide rail and engaging the attaching member for locking said guide rail in adjusted position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

MARK R. ETHELL.

Witnesses:

HENRY B. HALL,

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