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M. T. SANDERS

TREAD AND RISER MARKER

Filed Feb. 14, 1924

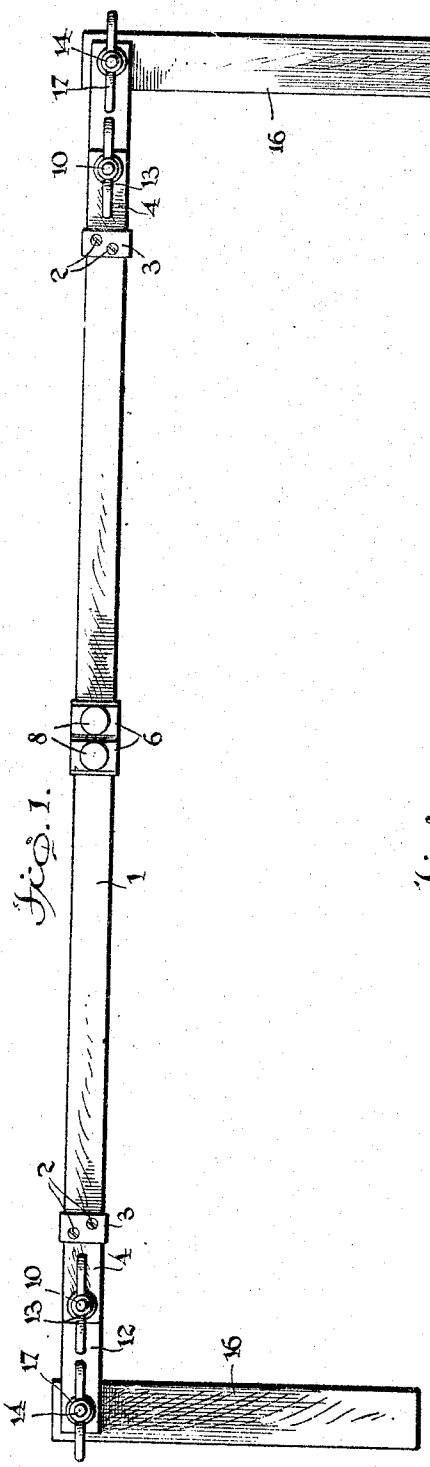


Fig. 1.

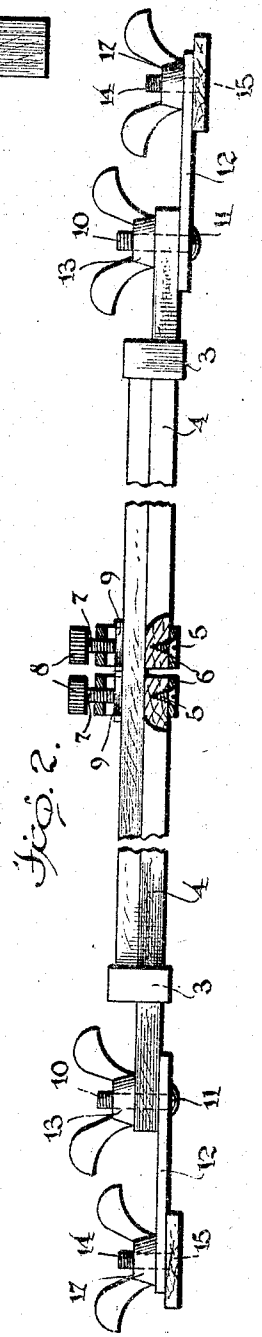


Fig. 2.

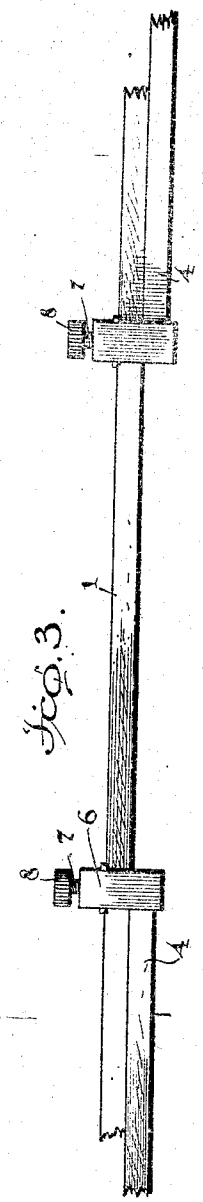


Fig. 3.

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UNITED STATES PATENT OFFICE.

MERLE T. SANDERS, OF ASHLAND, KENTUCKY.

TREAD AND RISER MARKER.

Application filed February 14, 1924. Serial No. 692,721.

To all whom it may concern:

Be it known that I, MERLE T. SANDERS, a citizen of the United States, residing at Ashland, in the county of Boyd and State of Kentucky, have invented certain new and useful Improvements in Tread and Riser Markers, of which the following is a specification.

This invention relates to measuring instruments and more particularly to gages for use in determining the correct length and angle of stair treads and risers.

This invention has for its primary object the provision, in a manner as hereinafter set forth, of a combined tread and riser marker having various adjustments whereby the user is enabled to lay off at one operation the correct length and angle at either end of the treads or risers of a stairway.

This rule is particularly intended for use in building enclosed stairways where an ordinary folding rule could not be used to correctly measure or span the distance between the inner sides of the stair casing.

The final object of the invention is the provision, in a manner as hereinafter set forth, of a tread and riser marker of compact design, easily and quickly adjusted to the desired position, strong, durable, and inexpensive to manufacture.

The invention will be best understood from a consideration of the following detail description taken in connection with the accompanying drawings forming part of this specification, with the understanding that the invention is not confined to any strict conformity with the showing of the drawings, but may be changed and modified so long as such changes and modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:

Figure 1 is a top plan view of a device embodying this invention.

Figure 2 is a side elevation of the same partly broken away and with parts thereof in section to show details of construction.

Figure 3 is a detail side elevation of the central portion of the marker showing relation of the parts when the tool is in open position.

Referring now to the drawings in detail wherein like characters of reference indicate corresponding parts throughout the several views shown, there is indicated at 1 a bar of substantial width and length, preferably formed of hard wood such as box wood or other wood usually used in the manufacture of rules, although applicant does not desire to limit himself to the use of wood in this instrument, but may make the same of metal or a composition substance or any other appropriate material. This central bar 1 has secured over each of its ends, by means of screws 2, a guide loop or collar 3, here shown as of rectangular contour and as shown the loops are so secured that one-half of the collar depends below the body of the main bar 1 to allow for the passage therethrough of a longitudinally shiftable bar 4. There are two of these bars 4 as shown and they are held in parallel opposed relation beneath and against the under surface of the main bar 1 by means of the collars 3 above referred to. These opposed bars 4 are adapted to move toward and away from one another along the longitudinal axis of the main bar 1. In addition to the collars 3 carried by the main bar 1 to guide the shiftable bars 4, each of the shiftable bars has secured to and around its inner end, by means of screws 5 a collar 6. These collars are of substantially rectangular contour as are the collars 3 and are larger than the collars 3 and surround or have passed through their upper portions for shiftable movement therethrough the body of the main bar 1. These guide collars 6 further have apertures formed through the top cross connecting portions and through these apertures are threaded screw members 7 each having a knurled head 8 and pivotally connected at its inner end within the collar 6 binding plates 9, which binding plates, as is clearly shown in Figure 2 of the drawings, are adapted to be forced against the top of the main bar 1 by revolving the screws 7, to bind the shiftable bars 4 against the under surface of the main bar 1 to set the position of the bars as desired.

The outer or free end of each of the shiftable bars 4 extends beyond the collar 3 and the end of the main bar 1 and has passed therethrough a bolt 10 having a head 11 and securing between this head and the under surface of the free end of the shiftable bar

one end of a link member 12 through which the bolt 10 passes. At the upper side of the shiftable member 4 the free end of the bolt is engaged by a wing nut 13 by means of which the head 11 is tightened against the under surface of the link 12 to bind the same against the under side of the shiftable bar 4.

The outer end of each of the links 12 also has an aperture therethrough and also has passed therethrough a second bolt 14 having a head 15 between which head and the under side of the links 12 there is secured a freely movable terminal bar 16. Threaded onto the upper or free end of the bolt 14 is a wing nut 17 by means of which the head of the bolt is tightened against the under side of the swinging extension 16 to bind the same in position at any desired angle.

From the foregoing description it may be seen that a marker is provided which may be extended between enclosed walls to obtain the exact distance from the inner side of one wall to the inner side of the opposite one and by means of the shiftable link member 12 and the swinging terminal arm 16 various angles may be determined and laid off upon a piece of material at one operation and with greater ease than has heretofore been possible.

Having thus described my invention what I claim is:

A stair tread and riser marker comprising, a main bar of substantial length, a closed guide collar surrounding and depending from each end of said main bar, a pair of parallel end opposed bars shiftable longitudinally of said main bar through said guide collars, a rectangular collar of greater length than said other collars surrounding each inner end of each shiftable bar and said main bar and having its upper end extended above the main bar, securing members extending through the lower end of each of the last mentioned collars into and securing the same to a shiftable bar, a locking screw extending through the upper end of each collar of greater length and having a bearing plate swivelled thereto within the collar and bearing upon the top of the main bar to lock the bars together, a link member pivotally secured at one end to the outer end of each shiftable bar, a terminal bar pivotally secured at one end to the other end of each link, and tightening means at each pivotal point for securing the links and terminal bars in position.

In testimony whereof, I affix my signature hereto.

MERLE T. SANDERS.