

F. DOX.  
 SEGMENT TRIMMING INSTRUMENT.  
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1,426,263.

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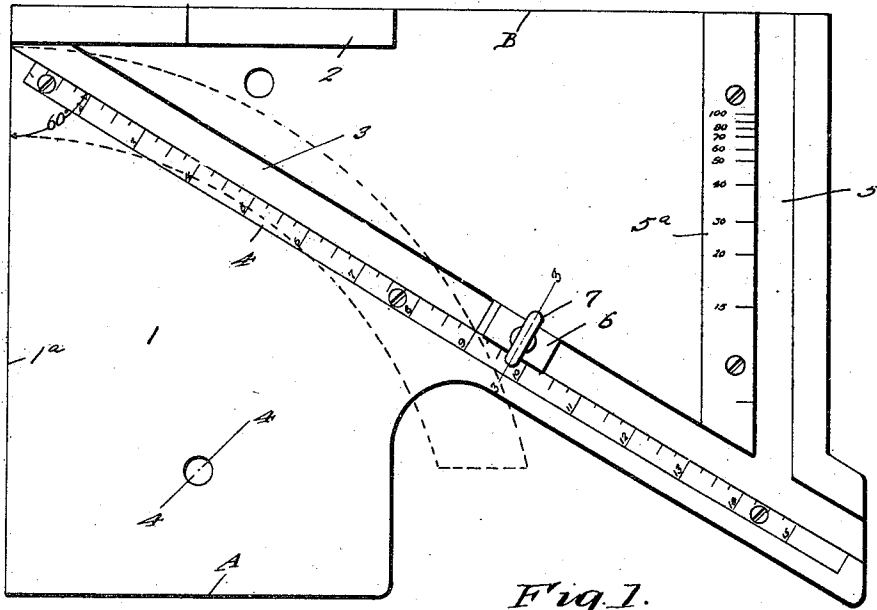


Fig. 1.

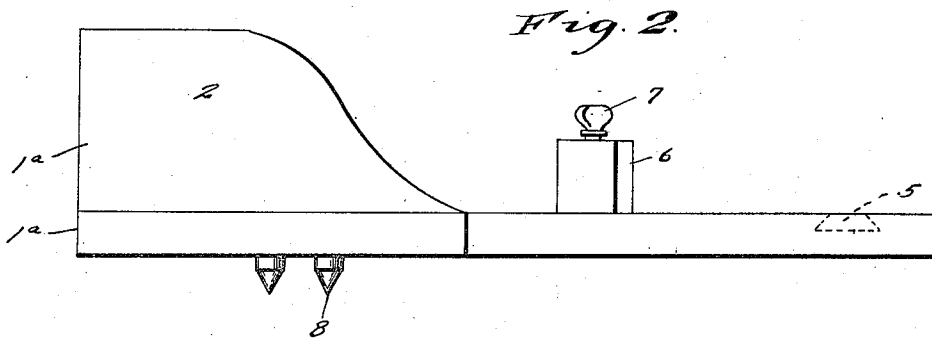


Fig. 2.

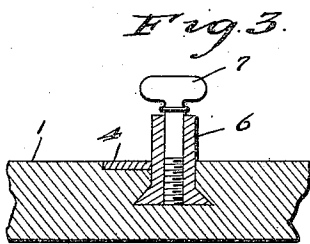


Fig. 3.

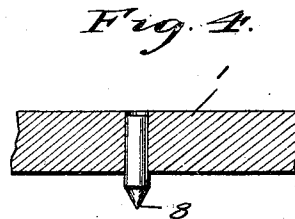


Fig. 4.

R. Q. Thomas

WITNESSES

Frank Dox

INVENTOR

BY Victor J. Evans

ATTORNEY

# UNITED STATES PATENT OFFICE.

FRANK DOX, OF PITTSBURGH, PENNSYLVANIA.

## SEGMENT-TRIMMING INSTRUMENT.

1,426,263.

Specification of Letters Patent. Patented Aug. 15, 1922.

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*To all whom it may concern:*

Be it known that I, FRANK DOX, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented new and useful Improvements in Segment-Trimming Instruments, of which the following is a specification.

This invention relates to trimming instruments, and more particularly to an instrument or device specially adapted for use in trimming the segments used in constructing cylindrical patterns.

One of the main objects of the invention is to provide a device of the character stated of simple construction and operation which may be produced at small cost. A further object is to provide a device by means of which the ends of segments to be used in a cylindrical pattern may be accurately trimmed on a radius corresponding to the radius of the pattern so as to insure accurate fit of these segments end to end. Further objects will appear from the detailed description.

In the drawings:—

Figure 1 is a top plan view of a device constructed in accordance with my invention.

Figure 2 is a front view.

Figure 3 is a section taken substantially on line 3—3 of Figure 1.

Figure 4 is a section taken substantially on line 4—4 of Figure 1.

The device includes a flat base plate 1 of substantially rectangular outline one end 1<sup>a</sup> of which forms a straight edge for cutting or trimming the segments. As will be readily understood, in using the device the operator stands facing the edge designated A which, for the purpose of description, may be referred to as the forward edge, the edge B at the side of the base plate opposite to edge A being considered as the back edge of the plate. A stop 2 is provided at the back of plate 1 and extends from straight edge 1<sup>a</sup>. This plate is provided in its upper face with a dove-tail channel 3 which extends at an angle of 60 degrees to straight edge 1<sup>a</sup>, the forward edge of this channel extending from the point of intersection of the inner face of member 2 and straight edge 1<sup>a</sup>. An adjusting or setting strip 4 is set into the upper face of plate 1 and extends from the forward edge of channel 3, this strip being graduated as shown.

A supplemental channel 5 is provided at the other end of plate 1 and extends from the main channel 3, this supplemental channel being disposed in parallelism with straight edge 1<sup>a</sup>. The channels 3 and 5 are open at their outer ends and are adapted to slidably receive a setting block 6 of dove-tail cross section. A setting screw 7 is threaded through this block and provides simple and efficient means for securing the same in adjustment.

I have found that by disposing the forward edge of channel 3 at an angle of 60 degrees to straight edge 1<sup>a</sup> and setting the forward end of block 6 at the mark on plate 4 corresponding to the radius of the pattern in which a segment is to be used, the end of this pattern will be cut on this radius by trimming it along the straight edge 1<sup>a</sup>. For example, assuming that the radius of the pattern is nine inches, block 6 is set with its forward end at the nine inch mark on the scale. After this has been done, the segment is laid upon the upper face of plate 1 so as to be in contact with the forward inner corner of member 2 and with the forward inner corner of block 6. The segment is now cut off along the straight edge 1<sup>a</sup>. After this has been done, the segment is turned over and placed in the same position as before, the other end portion of the segment being cut off along the straight edge 1<sup>a</sup>. By this means, both ends of the segment are cut on radii corresponding to the radius of the pattern to be made thus insuring accurate fit between the ends of the segments.

In cutting segments for patterns having a radius greater than fifteen inches, I remove block 6 from slot 3 and place it in slot 5, using the graduated scale plate or strip 5<sup>a</sup> positioned adjacent to the inner edge of this slot or channel. On this scale, the graduations are not of uniform length since the scale is disposed parallel with straight edge 1<sup>a</sup>. The instrument is, however, used in the same manner when using scale 5<sup>a</sup> as when using scale 4. The graduations on scale plate 5<sup>a</sup> of channel 5 are determined by experiment. For example, a segment of a given radius is placed upon the upper face of plate 1 in contact with stop 2 at the outer end therewith, this segment being so arranged that a radius of the segment coincides with straight edge 1<sup>a</sup>. The point at which the segment intersects slot 5 at the inner edge of scale plate 5<sup>a</sup> is marked on

this plate, this mark or graduation being marked by a number to indicate the radius of the segment. In example, if the segment has a radius of twenty inches the number 20 would be inscribed adjacent to the mark at the point of intersection of the segment with plate 5<sup>a</sup> at the inner edge thereof. In this way the plate 5<sup>a</sup> can be accurately graduated initially, after which the plates for other instruments can be calibrated from the original plate produced by actual experiment.

When the instrument is to be used on a trimmer, I provide a dowel pin 8 which may be inserted into a suitable bore or recess in the bed of a trimmer for holding the instrument against movement. When the instrument is to be used in connection with a rip saw I employ, instead of the dowel pin, a slot and a strip fitting into the same for holding the instrument or the device may be secured in any other suitable manner, as will be understood.

What I claim is:

1. In an instrument of the character described, a base provided at one end with a straight edge, a setting member adjustable on said base along a line disposed at an angle of 60° to said straight edge, and a stop member secured to the base at right angles to the straight edge and intersecting

the path of travel of said setting member.

2. In an instrument of the character described, a base provided at one end with a straight edge and having a channel in its upper face, said channel being disposed at an angle of 60° to the straight edge, a block adjustable longitudinally of the channel, and a stop member secured to the base at right angles to the straight edge and intersecting said channel.

3. In an instrument of the character described, a base provided with a straight edge, a stop member disposed at right angles to the straight edge and intersecting the same, and a block adjustable along a line disposed at an angle of 60° to the straight edge and intersecting the point of intersection of said stop member and the straight edge.

4. In an instrument of the character described, a base provided with a straight edge and with a dovetail groove disposed at an angle of 60° to said straight edge, a stop member intersecting the straight edge, a block slidable in said groove and having its lower portion corresponding in cross-section to the groove, and a set screw threaded through said block and bearing upon the base.

In testimony whereof I affix my signature.  
FRANK DOX.