T. A. BRESNAHAN.

SHOEMAKER'S MEASURE.

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1,033,301.

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Fig. 1.

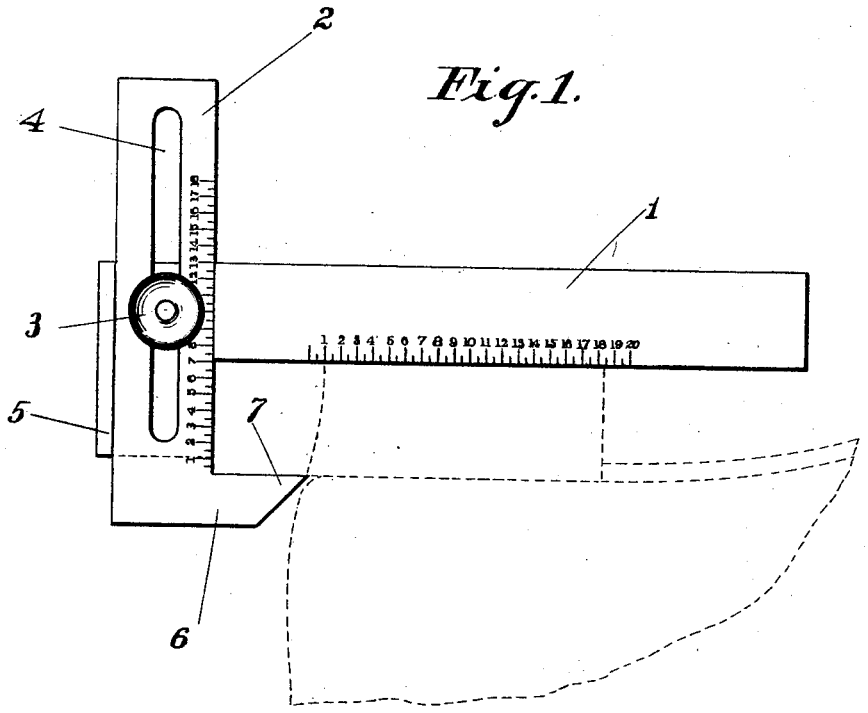
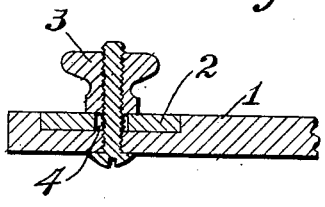


Fig. 2.



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SHOEMAKER'S MEASURE.

1,033,301. Specification of Letters Patent. **Patented July 23, 1912.**

Application filed March 14, 1908. Serial No. 421,200.

To all whom it may concern:

Be it known that I, TIMOTHY A. BRESNAHAN, a citizen of the United States, residing at Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented certain Improvements in Shoemakers' Measures, of which the following description, in connection with the accompanying drawings, is a specification, like reference characters on the drawings indicating like parts in the several figures.

This invention relates to measuring instruments and more particularly to devices for measuring parts of boots and shoes.

In the manufacture of boots and shoes it is customary to apply a roughly formed heel to the heel-seat of the shoe, then to secure the top lift to the heel, and then to trim the edge of the heel. This heel-trimming operation shapes the heel and cuts away the rough portion between the tread or top lift and the heel-seat of the sole. Usually the top lift is of smaller area than the top of the heel, though of similar contour, and thus the heel-trimming operation forms the edge of the heel at an angle or inclination upwardly and outwardly from the top lift. Such inclination is known as the "pitch" of the heel and is variable with the style of the shoe. The pitch is partly dependent upon the height of the heel, the position, area and contour of the top lift and area and contour of the heel portion of the shoe and sole. This heel-trimming operation is of considerable importance. Measurements are required to secure uniformity of trim and uniformity is necessary in the heels of a pair of shoes. Heretofore there has been no instrument to measure the pitch of the heel edge in an accurate or satisfactory manner. The ordinary device for such purpose consisted of an L-shaped measure with the shorter arm adapted to contact with the shoe upper. Such point of contact is considerably above the heel and is generally variable in different shoes especially at the rear of the shoe where the thickness of the rear seam, the molded counter, and the closeness of fit of the upper to the last are rarely uniform in any two shoes. The upper is not a proper guide from which to measure the pitch of the heel edge and the present invention obviates the use of any portion of the upper as such a guide.

It is an object of this invention to provide an improved heel measure, which shall be capable of more accurate measurements than those heretofore in use.

An important feature of the invention consists in means to measure the height and pitch of the heel irrespective of the shoe upper and preferably by contact of the measure with the heel only.

A preferred form of the invention is embodied in the device illustrated in the drawing and comprises means to engage the upper edge of a heel together with means to contact with the top lift and suitable scales to indicate the desired measurements. This device effects more accurate adjustments than others heretofore used and other advantages are that it may be easily applied to the shoe, is quickly and readily adjustable and is simply constructed.

A further advantage of the invention as herein shown is that measurements showing the height and pitch of the heel and the length of tread are made simultaneously.

In the drawing, Figure 1 shows a device incorporating the preferred form of my invention, and illustrating its mode of application to a shoe heel, the heel and a portion of the shoe upper being shown in outline. Fig. 2 is a view of the device in cross section showing how the scale members of the device are arranged to slide upon each other and are adjustably secured together.

The numeral 1 designates a suitable bar, preferably of thin metal, to which a cross-piece 2 is adjustably secured by a thumb nut 3. As herein shown the cross-piece is constructed to slide at a right angle to the bar 1 and across one end thereof, the bar 1 being formed with a cross-head 5 having a slightly depressed guideway adapted to fit the width of the cross-piece 2. A longitudinal slot 4 in the cross-piece 2 permits the thumb nut 3 to be threaded on a bolt which passes through the slot 4 and is secured to the bar 1. The cross-piece 2 is formed with a lateral extension 6 terminating in a point 7 adapted to contact with the upper edge of a heel in the rand crease as shown in the drawing. A scale is cut upon the cross-piece 2 and also upon the bar 1, the latter scale preferably commencing at a point at the same distance as the point 7 from the scale edge of the cross-piece 2.

In applying the device to a heel to make

measurements thereon, the scale edge of the bar 1 is placed in contact with the top lift, that is, with the tread face of the heel, and the cross-piece 2 is positioned relatively upon the bar 1 until the point 7 is in contact with the upper edge of the heel, as shown in the drawing. To assist in obtaining such contact the bar 1 may need to be longitudinally positioned, but when so adjusted the thumb nut 3 may be tightened to hold the parts 1 and 2 as thus adjusted. The scale upon the cross-piece 2 will show the height of the heel, and the scale upon the bar 1 will show the pitch or amount of inclination of the heel edge and also the length of the top lift or tread.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:—

In a device of the class described, a scale member 1, a scale cross piece 2 arranged to slide in a groove formed in an end portion of the member 1 and at right angles to the length of said member, an extension 6 on said cross piece having a point 7 adapted to engage the rand crease of a finished shoe, the point 7 and the commencement of the scale on the member 1 being at the same distance from the scale edge of said cross piece, the point 7 being so positioned as always to be perpendicularly opposite the zero marks of both scales.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

TIMOTHY A. BRESNAHAN.

Witnesses:
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