Aug. 22, 1950 J. E. MACKAY 2,519,676

FOOT MEASURING APPLIANCE

Filed March 7, 1947

FIG. 1.

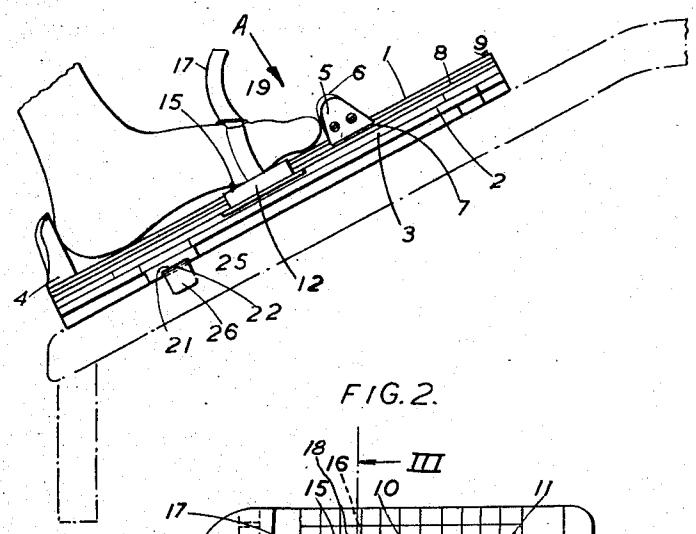


FIG. 2.

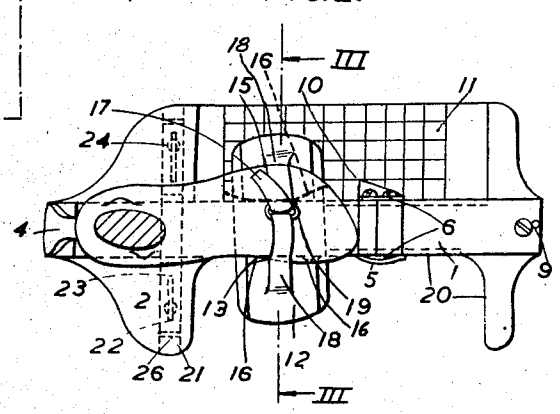
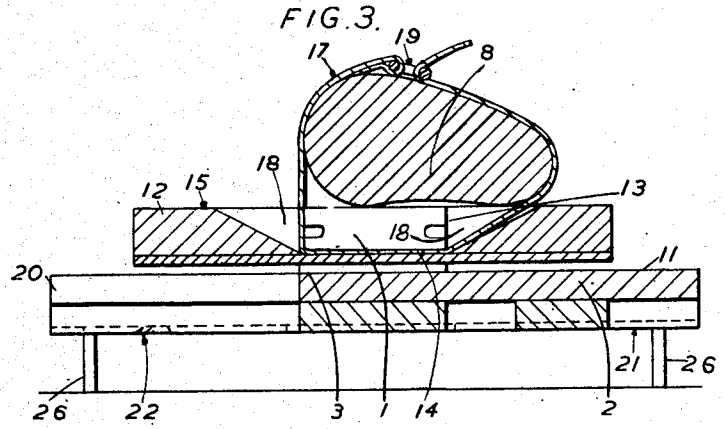


FIG. 3.



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FOOT MEASURING APPLIANCE

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2 Claims. (Cl. 33—3)

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This invention relates to an improved foot measuring appliance, primarily intended for use by retailers of footwear which is available in stock sizes and fittings.

The present invention relates more particularly to a foot measuring appliance of the kind which comprises a base, a heel stop carried by said base, a second stop slideable relative to the heel stop for contacting the toe end of the foot and indicating the required footwear size on a scale disposed alongside of said base, and an intermediately disposed member swivelly adjustable to enable a measuring tape carried thereby to be passed over the widest part of the foot for gauging the girth dimension thereof.

The main object of the invention is to provide an improved appliance of the kind above specified which can be used speedily and easily for determining the two basic measurements of the foot which, I consider, suffice to enable the retailer to decide the size and fitting of footwear required, namely, the overall length of the foot and the girth dimension of the foot at its widest part. The length of the foot is generally expressed in terms of a number, well known to the public as the size of the footwear, and this "size" can be directly indicated on a scale mounted on the appliance.

The term "fitting" is generally employed to designate the width of the footwear required and to ensure correctly fitting footwear a range of widths, for example four different widths, are generally provided for each "size" of footwear. The effective width of the foot is gauged in appliances of the kind above specified by measuring the girth of the foot at its widest point, viz. on a line which is diagonally disposed in relation to the longitudinal plane in which the foot normally lies, and this diagonal line may be considered as passing through the metatarsal joints of the "big" toe and the "little" toe.

A further object of the invention is to provide improved means whereby the girth of the foot may be readily and accurately determined. The gauging measurement thus obtained, which is preferably expressed in terms of some arbitrary units or standards instead of a direct linear measurement, may be compared with a series of corresponding units set out alongside of the "size" of the footwear directly indicated on the scale by the means provided for gauging the overall length of the foot.

A still further object of the invention is to provide an appliance of the character above referred to which is of compact form and adapted for use

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on the existing shop furniture comprising a platform for the foot of the person being fitted to rest upon, this platform being frequently constructed on an integral part of a stool for the shop assistant.

One practical embodiment of the invention is shown, by way of example, in the accompanying drawings wherein—

Figure 1 is a side elevation of the appliance mounted on a known form of platform;

Figure 2 is a plan view of the appliance looking in the direction of arrow A, Figure 1, and

Figure 3 is a cross section on line III, III of Figure 2.

In the construction shown the foot of the person being fitted is supported longitudinally on a flat rigid bar 1 fixedly mounted in parallel relation to and above a rigid substantially rectangular base board 2 so as to leave a gap 3 beneath the bar 1, extending practically the full length of the base board 2. Lateral extensions are provided at opposite ends of the base board 2 and the bar 1 is situated adjacent to the side of the base board 2 on which the lateral extensions are provided, so as to leave adjacent the opposite side of the bar 1 a flat plate-like portion. At one end of the bar 1 is a fixed pillar stop 4 which engages and supports the back of the heel, whilst a second stop 5 is mounted for sliding movement over the top face of the bar 1. The stop 5 is adapted to be slid along the bar 1 into contact with the longest toe and is retained on the bar 1 by means of end plates 6 which may have inturned lower edges at 7 which engage within channels 8 extending along the opposite longitudinal edges of the bar 1. A projecting pin 9 prevents detachment of stop 5 in an endwise direction. One of the end plates 6 is provided with a pointer 10 which directly indicates the "size" of the footwear required for the length of foot gauged between the stops 4 and 5 on one of a series of interchangeable scale cards 11 stationed on said flat plate-like portion of the base board 2 alongside of the foot-supporting bar 1. The numerals indicating the size of footwear, are omitted from the drawings for clarity, but are to be given in the first column of the scale card 11; the remaining four columns give alongside of each size numeral a series of numbers, also omitted from the drawing for clarity, corresponding to those on the foot-width measuring tape as referred to later.

Intermediately of the fixed heel stop 4 and the slidably adjustable toe stop 5 is a block 12 slidable on the base board 2 and having a centrally disposed groove 13 therein within which is re-

ceived the bar 1. The floor 14 of the groove 13 of block 12 is disposed below the bar 1 and the depth of the groove 13 is such that the upper face 15 of the block 12 does not project up above the top face of the bar 1 by which the foot is supported. The side walls 16 of the groove 13 are radiused as shown so that each radiused wall 16 can roll on a side of bar 1 as the block 12 swivels under the bar 1 to dispose a measuring tape 17 in the appropriate diagonal or inclined position to embrace the foot at its widest part, that is, on a line extending through the metatarsal joints of the big toe and little toe, as clearly shown in Figure 2. The tape 17 is threaded through the gap 3 above the floor 14 of the groove 13 and extends outwardly and upwardly on opposite sides of the bar 1 through aligned recesses 18 which open into the side walls 16. One end of the tape 17 is provided with a loop 19 through which the other end of the tape may be threaded so as to strap down the foot lightly on to the bar 1. The inside face of the tape 17 carries a series of numerals, not shown, and that numeral which will be seen where the free end of the tape 17 doubles back over the bar of the loop 19 is sought for in one of the four columns opposite to the "size" numeral indicated by pointer 6 of the toe stop 5 in the first column of the scale card 11. A reference at the head of the column where the tape numeral being sought for is found designates the "fitting" required. If the toe stop 5 indicates, for example, that a "size 8" shoe is required for the foot being measured, whilst the tape 17 reveals the numeral 28 which may be found in the third column of the scale card 11 in line with the indicated size numeral "8," the reference "A" for example can be at the head of this third column and designate the "fitting" of footwear required. The scale card 11 is detachably mounted on the base board 2 so as to be interchangeable with other similar cards covering stock footwear sizes and fittings for men's, women's and children's shoes.

In a transverse recess 21 in the underside of the base board 2 a pair of slidable clips 22 are mounted, these clips 22 being slotted at 23 for the passage therethrough of clamping screws 24 which permit of adjustment to the clips 22 to bring the depending lugs 26 thereof into contact with the opposite side edges of an inclined platform 25 which constitutes a known article of furniture for use in shops retailing footwear, the appliance being thus held against lateral movement.

I claim:

1. A foot measuring appliance comprising a rigid substantially rectangular base board having a lateral extension at each end of one side thereof, a rigid longitudinal foot-supporting bar fixedly mounted in parallel relation to and above said base board and adjacent the side thereof having the lateral extensions, a fixed heel stop at one end of the supporting bar, a toe stop slidable on the supporting bar relative to the fixed heel stop and directly indicating on one of a series of interchangeable scales stationed on the plate-like portion of the base alongside of the foot-supporting bar the shoe size required for the length of foot measured, a swivel block adapted for longitudinal sliding movement intermediately of the heel and toe stops, said block having a centrally disposed groove within which to receive said foot supporting bar, side walls of the groove of the swivel block being radiused to permit each radiused wall of the block to roll on the adjacent side of the foot-supporting bar for a swivelling action in relation to the foot-supporting bar, and a measuring tape carried by the slidable swivel block and threaded under the foot-supporting bar with its free ends engageable to strap over the widest part of the foot resting on the longitudinal supporting bar.

2. A foot measuring appliance according to claim 1, and wherein the slidable block has aligned recesses in the opposite side walls of its central groove, the aligned recesses serving to guide the loop of the measuring tape threaded under the bar which is within the groove in the block.

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