

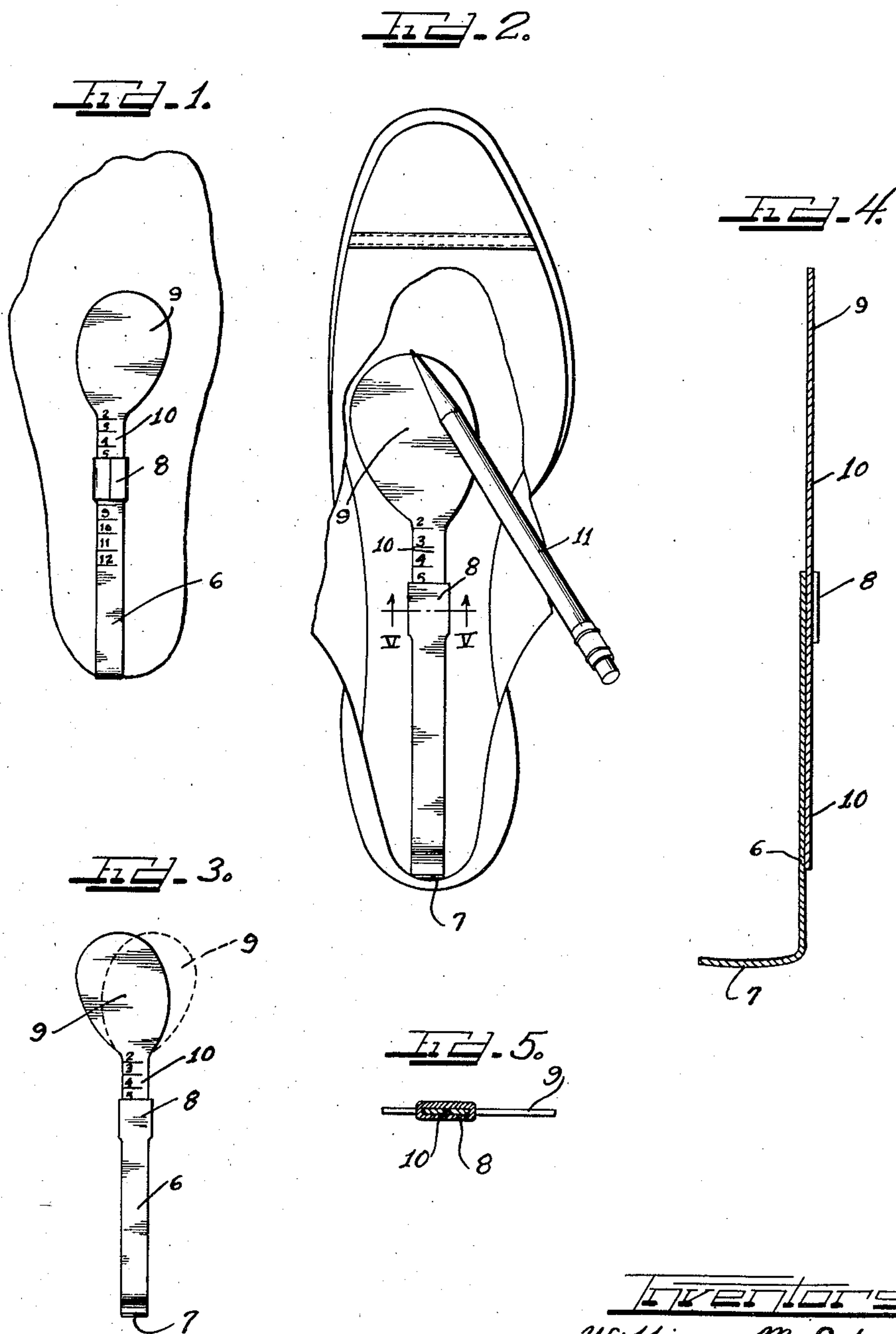
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METATARSAL GAUGE

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METATARSAL GAUGE

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This invention relates to improvements in a metatarsal gauge, and more particularly to a gauge of the character used in connection with a foot and a shoe to locate the position in a shoe for the subsequent placement of a suitable pad for supporting or strengthening the metatarsal arch of a foot, although the invention may have other uses and purposes as will be apparent to one skilled in the art.

Frequently, metatarsal pads and the like are placed in a shoe by gluing the pad to the insole of the shoe. It is therefore desirable to know the exact location in a shoe for the placement of the pad to properly correct a particular foot. We are aware that devices have been heretofore made for indicating the position of a metatarsal pad in a shoe in relation to a particular foot, but in each instance of which we are aware, such devices were not sufficiently flexible in that they could not be adjusted differently so that the same device would function satisfactorily for either a left or a right foot, and the devices were not made in a correct position of angularity for the same reason. It is comparatively seldom that a metatarsal pad is placed in a shoe with the longitudinal axis of the pad paralleling the longitudinal axis of the shoe. Consequently, for accurate measurement, a gauge of the desired flexibility must be provided.

With the foregoing in mind, it is an object of the present invention to provide a metatarsal gauge which may be very readily adjusted to properly fit both left and right feet in ascertaining the proper location of a pad relatively to a particular foot.

It is also an object of this invention to provide a metatarsal gauge that will indicate the correct position in a shoe for a metatarsal pad with the longitudinal axis of the pad disposed at an angle to the longitudinal axis of the shoe.

Another object of the invention is the provision of a metatarsal gauge having a portion thereof conforming in general outline to a metatarsal pad, which portion is removable and replaceable in the remainder of the gauge in inverted position so that the gauge as a whole will fit both right and left feet.

Still another object of the invention is the provision of a metatarsal gauge arranged for association with the foot of a user to determine the correct position of the metatarsal pad relative to that foot, and which may also be inserted in a shoe and substantially the outline of the pad traced from the gauge onto the insole of the shoe with an ordinary marking implement.

It is a further aim of the invention to provide

a metatarsal gauge which is very simple and economical in construction and which may be used with great facility.

While some of the more salient features, characteristics and advantages of the present invention have been above pointed out, others will become apparent from the following disclosures taken in conjunction with the accompanying drawing, in which:

Figure 1 is a bottom plan view of a metatarsal gauge embodying principles of the present invention, showing the same in operative position on a diagrammatic illustration of a human foot.

Figure 2 is a fragmentary top plan view of the gauge in position in a shoe, illustrating how the location of a metatarsal pad may be indicated in the shoe.

Figure 3 is a top plan view of the gauge itself, illustrating in dotted lines how the gauge may be adjusted for use in connection with a foot of opposite designation.

Figure 4 is an enlarged central vertical sectional view through the gauge.

Figure 5 is an enlarged transverse vertical sectional view taken substantially as indicated by the line V—V of Figure 2, looking in the direction of the arrows, and illustrating the gauge alone.

As shown on the drawing:

With reference more particularly to Figures 3, 4 and 5, it will be seen that the illustrated embodiment of the invention includes an elongated member or receiving shank 6 having the rear end thereof upwardly turned to form a heel-engaging part 7. The forward end of the member 6 is initially wider than the remainder of the member and has the lateral portions thereof folded under to form a sleeve, indicated at 8. The entire member may be made with a simple stamping operation, if so desired, and the sleeve 8 formed in the same or a succeeding operation, as may be deemed most feasible. Associated with the receiving member 6 is an indicating element 9 having the general outline of a metatarsal pad equipped, preferably integrally, with a measuring shank 10 designed to fit within the aforesaid sleeve 8 with sufficient frictional contact to hold its position against accidental displacement in the normal handling of the instrument.

The shank 10 carries a suitable measuring scale on each side thereof so that the scale will be visible on the underside when the device is placed against the bottom of a user's foot, and visible from the top side when the device is laid in a shoe. The forward edge of the sleeve 8 functions as a constant line from which to read the scale.

It will be noted that the element 9 is preferably formed with its main longitudinal axis disposed at an angle to the longitudinal axis of the shank 10 and member 6. In other words, the element 9 is disposed in the position that a metatarsal pad more frequently assumes when placed in a shoe. With reference to Figure 3, it will be seen that the element 9 together with its shank 10 may be completely removed from the sleeve 8, inverted and reinserted in the sleeve so that the device may be readily adjusted to fit either a right or a left foot, as the case may be.

The method of using the gauge results in a quick, simple and very accurate designation of the proper location in a shoe for the disposition of a metatarsal pad for the proper treatment of a particular affliction of a foot. The affliction or weakness of a particular foot is first ascertained in the usual manner. Then the gauge is placed against the sole of the foot, as seen in Figure 1, with the heel engaging portion 7 extending upwardly over the heel of the foot. The element 9 together with its shank 10 is slid inwardly or outwardly relatively to the sleeve 8 until this element is properly seated beneath the affliction. The entire gauge is preferably constructed of sufficiently thin metal to permit the gauge to be flexed in accordance with the longitudinal arch of the foot so that the indication will be accurate.

The gauge is next inverted and placed in a shoe, as indicated in Figure 2, with the heel engaging part 7 extending upwardly and resting against the rear of the heel counter of the shoe, the setting of the shank 10 relatively to the sleeve 8 not being altered. The gauge is held firmly in position on the insole of the shoe, and a suitable marking implement, such as the pencil 11, is used to mark the outline of the element 9 directly upon the insole of the shoe, giving substantially a complete outline for the location of the metatarsal pad. The gauge may be next removed from the shoe and a metatarsal pad glued or otherwise affixed to the insole of the shoe in the proper location so indicated.

If the gauge is set for a right foot and it is desired to measure a left foot, it is a simple expedient to withdraw the element 9 together with its scaled shank 10 from the sleeve 8, invert the element and reinsert it in the sleeve, whereupon the gauge is set for the left foot. The above outlined procedure may then be gone through in connection with the left foot and the proper indication will be had in a left shoe for the disposition of the metatarsal pad.

From the foregoing, it is apparent that we have provided a highly efficient, accurate and easily operable gauge for ascertaining the correct position in a shoe for the placement of a foot-corrective appliance. It will be noted that the gauge is very simple in construction, may be economically manufactured, is light, flexible, and extremely durable.

We are aware that many changes may be made and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and we, therefore, do not purpose limiting the patent granted hereon otherwise than is necessitated by the prior art.

We claim as our invention:

1. A gauge for locating a foot correction appliance, including a heel engaging part having a shank, and an element having the general outline of a correction appliance and also having a

shank, means on one of said shanks for adjustably receiving the other shank, the main axis of said element being disposed at an angle to the axis of its shank, and said element being engageable with the other shank in inverted position to adapt the gauge for use with both left and right feet.

2. In a gauge of the character described, a relatively flat member having an upturned portion to engage the heel of a foot, said member having a sleeve thereon, and an element of the general outline of a correction appliance having a shank slidable in said sleeve, said element being withdrawable from said sleeve, and reinsertable in inverted position to adapt the gauge for use with both right and left feet.

3. In a gauge of the character described, a pair of relatively adjustable elements, one arranged to engage a heel, and one having an element thereon of the general outline of a correction appliance with the main axis thereof disposed at an angle to the remainder of the device, the last said element being engageable with the other element with either side uppermost.

4. A gauge for use in transferring to a shoe a point located when the gauge is first applied to the human foot to indicate the desirable position in the shoe of a foot correction appliance, said gauge comprising a first elongated member having a portion thereof arranged to engage the heel of the human foot, a second elongated member adjustably connected with said first member and provided with an element thereon of the general outline of an elongated correction appliance with the major axis thereof disposed inclined at a fixed angle to the longitudinal axis of said second member, said second member being arranged adjustable at will relative to said first member to incline the major axis of said element to the right and to the left, respectively, of the longitudinal axis of the first member.

5. A gauge for use in transferring to a shoe a point located when the gauge is first applied to the human foot to indicate the desirable position in the shoe of a foot correction appliance, said gauge comprising a first elongated member and a second elongated member in adjustably connected relation, said second member having an integrally formed terminal portion shaped to define the general outline of an elongated correction appliance with the major axis thereof disposed inclined at an angle to the longitudinal axis of said first member, said second member being arranged adjustable at will relative to said first member to incline the major axis of said terminal portion to the right and to the left, respectively, of the longitudinal axis of said first member.

6. A gauge for use in transferring to a shoe a point located when the gauge is first applied to the human foot to indicate the desirable position in the shoe of a foot correction appliance, said gauge comprising an elongated member provided at one end thereof with an element shaped to define the general outline of an elongated correction appliance with its major axis disposed inclined at a fixed angle to the longitudinal axis of said member, said element having a width substantially less than that of the human foot to which it is applied whereby said member is adapted to be applied to the right foot and to the left foot, respectively, with said element in adjusted obverse and reverse position, respectively.

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