Jan. 13, 1942. C. M. MARTIN 2,270,069

POSTURE GAUGE

Filed March 10, 1941 2 Sheets-Sheet 1

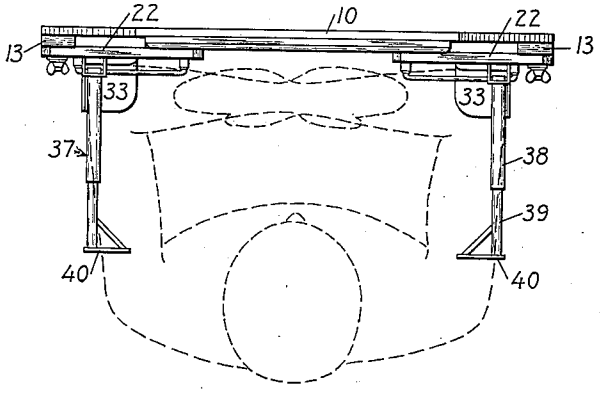


FIGURE 3

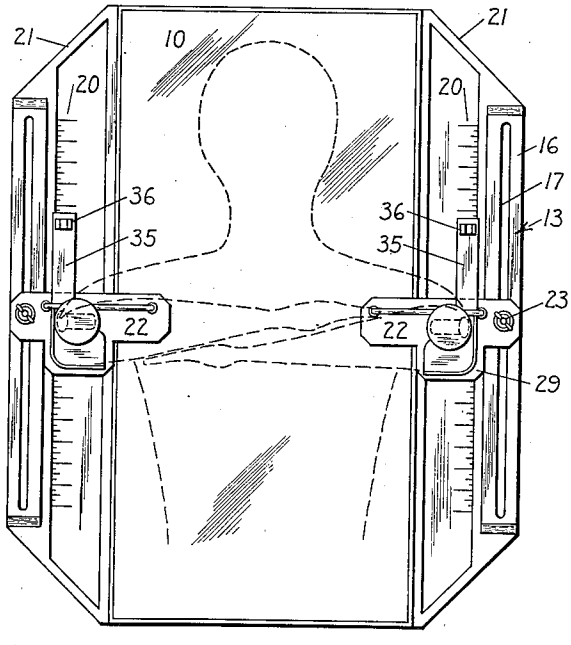


FIGURE 1

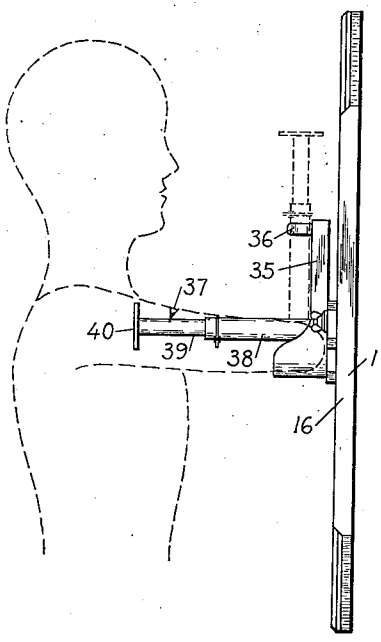


FIGURE 2

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POSTURE GAUGE

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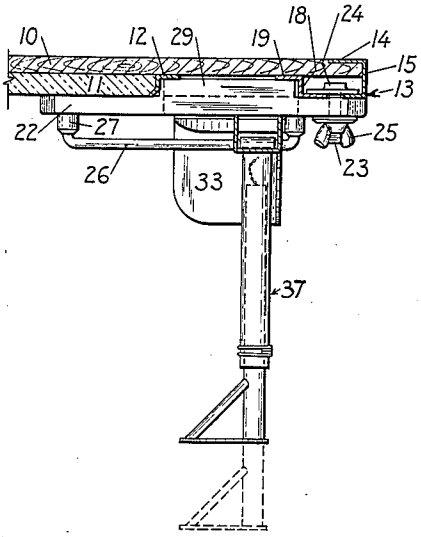


FIGURE 6

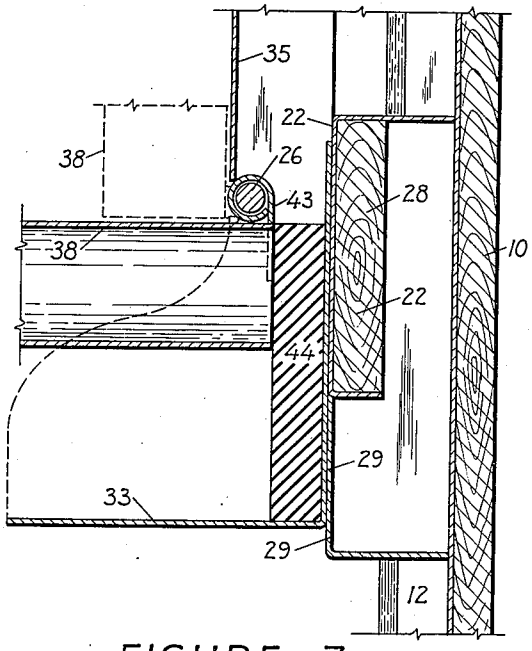


FIGURE 7

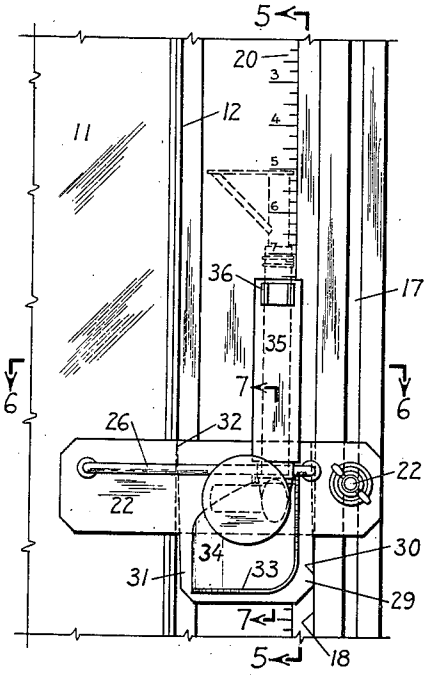


FIGURE 4

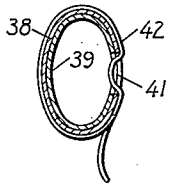


FIG. 8

FIGURE 5

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2,270,069

POSTURE GAUGE

Clifford M. Martin, Denver, Colo.

Application March 10, 1941, Serial No. 382,560

8 Claims. (Cl. 33—174)

This invention relates to improvements in posture gauges and has reference more particularly to an improved gauge of the type shown, described and claimed in my copending application, Serial No. 314,915, filed January 22, 1940.

It is well known that posture has an important bearing upon health and that only few people, comparatively speaking, habitually assume a body posture which even approaches the ideal and which permits the nervous system and the vital organs of the body to function properly.

It is the object of this invention to provide a posture gauging apparatus which can be used in schools, in the home and by the medical profession to demonstrate correct posture and assist in obtaining the same.

The above and any other objects that may hereinafter appear and which may be determined from a reading of my above identified patent are attained by means of a construction and an arrangement of parts that will now be described in detail and for this purpose reference will be had to the accompanying drawings in which the invention has been shown in its preferred form, and in which:

Figure 1 is a front plan view of the device forming the subject of this invention, the position of the body being indicated by broken lines;

Figure 2 is a side elevation of the device shown in Figure 1, the position of the body being indicated by broken lines;

Figure 3 is a top plan view, the position of the body being indicated by broken lines;

Figure 4 is a front elevation of the adjustable elbow support and shoulder positioning device;

Figure 5 is a view partly in side elevation and partly in section taken on line 5—5, Figure 4, the inoperative position of the shoulder positioning arm being indicated by dotted lines;

Figure 6 is a view partly in section taken on line 6—6, Figure 4 and partly in top plan view;

Figure 7 is a section to substantially full size, taken on line 7—7, Figure 4; and

Figure 8 is a cross section taken on line 8—8, Figure 5.

In the drawings reference numeral 10 designates a vertical supporting member which may be formed from a piece of plyboard or similar material. Secured to the front surface of this member is a mirror 11 that is held in place by means of an angle metal strip 12. The mirror is narrower than the supporting board 10 and the latter is provided along each of its vertical edges with a guide 13 which in the embodiment shown, consists of a strip of sheet metal having a flange 14 that extends along the rear of the support 10 and which is connected by means of a wall 15 with the front 16, the latter being provided with a slot 17. The wall 18, terminates in a flange 19 that is secured to the support by screws or other suitable means. The guides on opposite sides of the support are identical with the exception that they are rights and lefts. The front surface of flange 19 is preferably provided with an inch scale as indicated at 20. The inclined edges of the support are provided with metal angles 21 that serve to protect the edges and also to give the device a finished appearance. Adjustably secured to each guide is a slide 22 that has been shown as of greater length than width and which projects over the surface of the mirror as shown in Figures 1 and 4. One end of the slide 22 is provided with an opening for the reception of a bolt 23 whose head 24 is positioned between the front surface of the support and the rear surface of the wall 16 with a wing nut 25 by means of which the slide can be clamped in adjusted position to the guide. A pivot rod 26 is positioned in front of the slide 22 and spaced from the front surface thereof. The ends of the pivot rod are attached to the slide, as indicated by reference numeral 27. The pivot rod extends parallel with the slide and substantially perpendicular to the slot 17 of the guide. In the embodiment illustrated, the slide is formed from sheet metal and has an inner body 28 of wood, as shown in Figure 7. When the slide is made narrow, as shown in the drawing, it is provided with a downwardly extending portion 29 having a wall that projects inwardly along the inner wall of the guide and this downwardly projecting portion serves as a stop for an elbow supporting shelf that will presently be described. The lower outer corner which has been designated by reference numeral 30 engages the inner wall 18 of the guide and serves to limit downwardly rotation. It is apparent that the bolt 22 cannot, by itself, prohibit rotation of the slide, but serves principally to position the slide vertically along the guide. By having a downward projection as above described, whose wall engages wall 18, it is evident that downward rotation is positively prevented without subjecting the clamping bolt 22 to any excessive strains. It will be seen from Figure 4, that the vertical wall of projection 29 is inclined slightly with respect to the lower wall of the slide so that when the latter is turned upwardly about the bolt 22, the slide can move freely and when the lower end of the projection contacts wall 18 of the guide, the slide will be

held in a position at right angles to the slot 17. Where the mirror is held in place by an angle 12, the projection 29 can be provided with a wall 31 whose upper end contacts the angle 12 as indicated at 32. The latter is not necessary because the wall which engages wall 18 serves this function with sufficient effectiveness. It is now evident that the slides 22 may be adjusted vertically along the guides and that they may be adjusted independently of each other for a purpose which will hereinafter appear. Suspended from the pivot bar 26 is an elbow supporting shelf 33. This shelf is slidable along the pivot bar 26 and is provided with a rear wall 34 that engages the front surface of the downward projection 29 and the latter therefore prevents the shelf from turning about the pivot bar. The shelf 33 is provided with an upwardly extending portion 35 whose upper end has a pair of spring clips 36 whose purpose will hereinafter appear. Pivotally attached to the pivot bar is a shoulder positioning arm 37 which is formed from two telescopically related tubular members 38 and 39. Member 39 is the smaller and projects into member 38 and is provided at its outer end with a plate 40 which engages the shoulder of a person in the manner indicated in Figure 3.

Referring now more particularly to Figure 5, it will be seen that the tubular member 39 is provided with a plurality of openings 41. Tubular member 38 has one opening for the reception of an inwardly bent portion of a spring 42 that serves to latch the parts in position in the manner indicated in Figure 8.

Referring now to Figure 7, it will be seen that the inner end of part 38 is provided with a hinge member 43 that encircles the pivot bar 26. When the arm 37 is in horizontal position, its end engages the free surface of the rubber cushion that forms the back wall of the elbow supporting shelf. Due to the fact that the shoulder positioning member 37 is hinged above the upper surface thereof, as shown in Figure 7, its downward movement is limited by its engagement with the rubber pad 44 as above indicated. Arm 37, however, can be folded upwardly into the position shown in dotted lines in Figure 7 and when in this position it is held against accidental downward movement by the spring clip 36 as shown in Figure 5.

In the application above identified, somewhat similar shoulder positioning arms have been shown, but they are not extensible and no elbow support or shelf has been provided. Experience has shown that in order to obtain the best results the person whose posture is being tested should have his arms forwardly extending and his elbows resting on the shelves 33 in the manner shown in Figures 1, 2 and 3. The person to be tested for posture is positioned in front of the device which, for this purpose, is supported at suitable height, either from a wall or from some other suitable support. The person with arms at sides, stands in front of the device and the operator adjusts the position of arms 37 for height and width of shoulders. The person now rests his elbows on the shelves and adjusts the position of his feet accordingly, after which he drops his arms to his sides. The operator now adjusts the length of the arms 37 and positions them as shown in Figure 2. Many people have one shoulder somewhat higher than the other and this makes it necessary to independently adjust the shoulder engaging arms and the elbow supporting shelves.

Since the technic connected with the operation of devices of this type has been quite fully explained in the patent above identified, and since this invention relates to a mechanical improvement, the details of obtaining the desired posture and the advantages and disadvantages of correct and incorrect posture will not be elaborated on in this description.

Particular attention is called to the fact that the shoulder positioning means are independently adjustable in a vertical position and also in a horizontal position. It is obvious that different persons are of different widths between the shoulders which makes the horizontal adjustment imperative. The addition of the elbow supporting shelves is of great importance as by this means better results are obtained and the value and effectiveness of the apparatus is greatly increased.

In Figures 1, 2 and 3, a person's body has been shown by broken lines in the position it occupies during the posture gauging operation.

Attention is called to the fact that when the person's elbows are supported on the elbow shelves, the shoulder spacing bars 37 must be in vertical position as shown by dotted lines in Figures 2 and 5, because it is impractical to have the shoulder spacing bar in operative position while the elbows rest on the shelves.

Having described the invention what is claimed as new is:

1. A slide for use with a posture meter having a support and a vertical guide thereon, comprising a substantially flat elongated body adapted for use in a vertical position, said slide having a substantially rectangular projection on its lower edge, the projection being thicker than the body and substantially flush with the outer side thereof, the slide body having a longitudinally extending guide rod secured at its ends thereto, and an elbow supporting shelf slidably suspended from the guide rod for adjustment therealong, one end of the body having means for clamping it in position on the vertical guide.

2. A posture gauging apparatus, comprising in combination, an upright support, two spaced substantially parallel guide members carried by the support, a base slidably connected with each guide, means for limiting rotary movement of the base relative to the guide, a horizontal pivot bar secured at its ends to the base and spaced from the front surface thereof, a shoulder spacing element pivotally attached to each pivot bar, and an elbow supporting shelf suspended from the pivot bar.

3. A posture gauging apparatus, comprising, in combination, an upright support, two spaced substantially parallel guide members carried by the support, a slide movably connected with each guide, means for limiting rotary movement of the slide relative to the guide, a horizontal pivot bar secured at its ends to the slide and spaced from the front surface thereof, a shoulder spacing element pivotally attached to each pivot bar, an elbow supporting shelf suspended from the pivot bar, said shelf having an integral portion extending above the pivot bar, and a friction clip carried by the integral portion for engaging and supporting the shoulder spacing element in vertical position.

4. In a posture gauging apparatus, an upright support, a slotted guide secured to the support, said guide having a wall projecting forwardly from the support, a second guide member spaced from the wall of the support and parallel with

said wall, a slide carried by the slotted guide, a headed bolt for slidably securing the slide to the slotted guide, said slide having a widened portion extending into the space between the two guides and slightly shorter than the distance between the guides, whereby a binding action is obtained, and a body spacer and elbow rest attached to the slide for transverse adjustment.

5. In a posture gauge, in combination, a vertical support, a guide secured thereto, a combined elbow support and shoulder positioning device slidably attached to the guide, said device comprising a slide provided with means for adjustably securing one end to the guide, the slide having a horizontal pivot bar extending parallel with the front surface thereof and spaced therefrom, the pivot bar being attached at its ends to the slide, an elbow supporting shelf positioned below the pivot bar and slidably connected therewith, a shoulder positioning arm pivotally attached at one end to the pivot bar, and stop means for limiting the downward movement of the arm to substantially horizontal position while permitting upward pivotal movement.

6. A device in accordance with claim 5 in which the shoulder positioning arm is extensible and provided with means for latching it in any desired extended position.

7. In a posture gauge, in combination, a vertical support, a guide secured thereto, a combined elbow support and shoulder positioning device slidably attached to the guide, said device comprising a slide provided with means for adjustably securing it to the guide, the slide having a horizontal pivot bar extending parallel with the front surface thereof and spaced therefrom, the pivot bar being attached at its ends to the slide, an elbow support suspended from the pivot bar and slidably connected therewith, a shoulder positioning arm pivotally attached at one end to the pivot bar, stop means for limiting the downward movement of the arm to substantially horizontal position while permitting upward pivotal movement and friction means integral with the elbow support for holding the arm in vertical position.

8. A posture gauge comprising, in combination, a vertical support of extended area, two spaced parallel guides, an elongated slide adjustably associated with each guide, means carried by each slide for clamping it to its guide in adjusted position, the guides having each a wall perpendicular to the support, each slide having a transversely extending wall that projects inwardly adjacent the aforementioned guide wall for engaging the same and limiting rotary movement relative thereto, a pivot bar carried by each slide, said bar being spaced from the front of the slide and attached to the latter at its ends, and an elbow supporting shelf suspended from the pivot bar for sliding movement therealong, and stop means comprising a lateral extension of the slide to limit rotary movement of the elbow supporting shelf.

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