Jan. 8, 1952 J. E. GOODEVE 2,582,115

POSTURE ATTACHMENT FOR CHAIRS

Filed Dec. 4, 1948

Fig. 1.

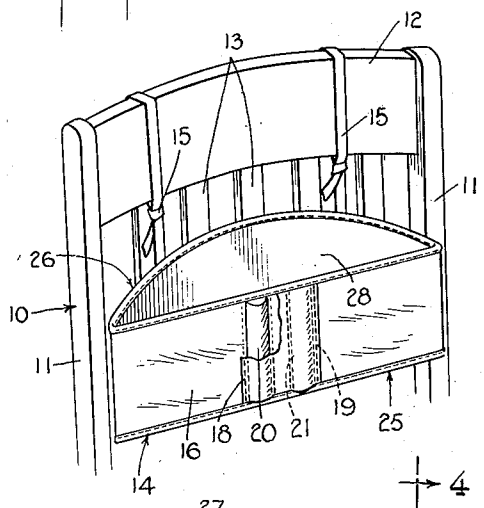



Fig. 4.

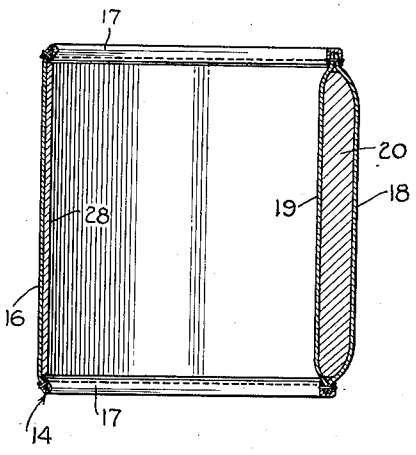



Fig. 2.

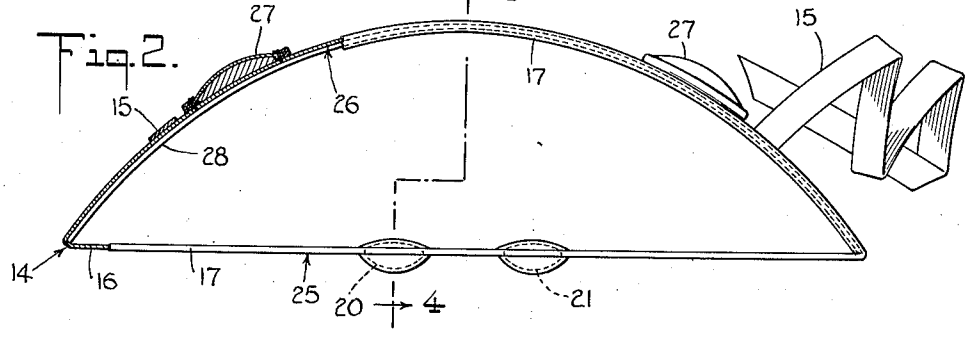
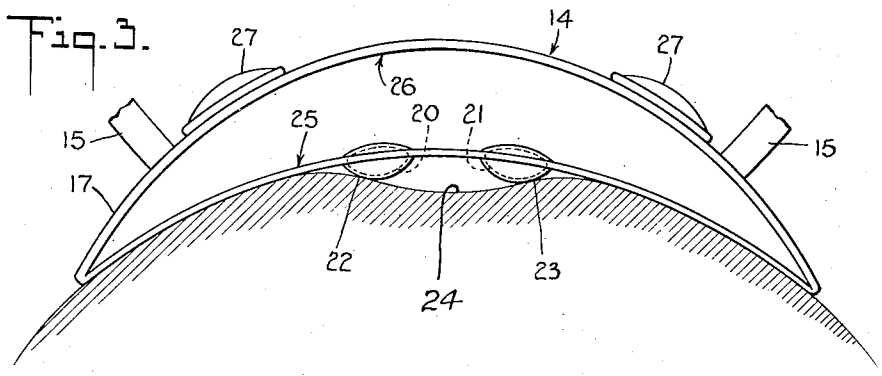



Fig. 3.




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## POSTURE ATTACHMENT FOR CHAIRS

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8 Claims. (Cl. 155—182)

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This invention relates to devices for use in bracing or supporting the back, particularly when a person is seated in a chair, but which may be utilized in conjunction with a bed, couch or the like, to accomplish the purposes hereinafter more fully set forth. More particularly, the invention deals with a posture attachment comprising a ring or loop band of predetermined width within which is disposed a stiffening strip of material capable of being flexed to shape the resulting device into a crescent or similar contour. Still more particularly, the invention deals with a device of the character described having means on the back engaging portion thereof to prevent crowding of the fleshy or muscular part of the back at the spine, as well as means for aiding in support of the rounded part of the device upon a chair back for the purpose of minimizing rocking or swinging movement of the device.

The novel features of the invention will be best understood from the following descriptions when taken together with the accompanying drawing in which certain embodiments of the invention are disclosed, and in which the separable parts are designated by suitable reference characters in each of the views, and in which:

Fig. 1 is a perspective view of the upper portion of a chair back, showing one of my improved devices attached thereto.

Fig. 2 is a plan and sectional view of the device, detached.

Fig. 3 is a view similar to Fig. 2, showing the approximate position of the device when engaged by the back of a user; and

Fig. 4 is a section on the line 4—4 of Fig. 2.

In the use of chairs of various types and kinds, and particularly in offices where a chair is occupied over a relatively long period of time, each work day, there is a tendency for the occupant of the chair to bend or slump over in the chair, leaving the back unsupported and braced.

The purpose of my device is to provide on the chair back, means engaging the lumbar area of the back to produce a bracing effect, so as to encourage the occupant of the chair to sit up-right or in proper posture, and in so doing, to minimize fatigue and further, to retain the body in a better physical condition. It is a well known fact that if the spine is maintained in an up-right position as originally intended, fatigue will not be experienced by a person, throughout a day's work, particularly when occupying a chair.

In illustrating one adaptation and use of my invention, I have shown a device adapted for use in conjunction with the back of a chair for support of the back of a person seated in a chair and particularly the lumbar region of the back. In said figure, 10 represents the upper portion of a chair back having side members 11 joined by a top cross-piece 12, the latter having depending rails 13 spaced transversely of the back. Chair backs are usually curved, and in many instances, particularly in offices, chairs are curved vertically as well as transversely.

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At 14 I have shown one of my improved devices which is attached to adjusted position on the chair by a pair of straps 15, or in any other desired manner. The device 14 comprises a loop or band 16, preferably of heavy canvas, upper and lower edges of which are reinforced by finishing or edging strips 17. The band 16 is of sufficient width to cover the major portion of the lumbar area of the back and the strip forming the band will have its ends suitably secured together at any desired position. For example, one end portion 18 may be stitched to the band, as indicated in Fig. 1, whereas the other end portion 19 will overlie the end portion 18 and be secured to the band. These particular stitchings are not shown, as this formation will be readily apparent from the disclosure.

Contained within the overlapped portions 18 and 19 are vertically disposed pads or cushioning members or elements 20 and 21 secured in position by stitching the overlapped portions 18 and 19, as will be apparent. It will be understood that the overlapping of the end portions 18 and 19 will be sufficient to space the members 20 and 21, so as to dispose the same at a position to engage the fleshy or muscular portions of the back at either side of the spine, as indicated, for example, at 22 and 23, in Fig. 3 of the drawing. In other words, at opposite sides of the center back depression 24 of the body in alinement with the spinal column. The extent of the depression 24 varies with different people, but in all instances, the members 20 and 21 will be positioned on the band 12 or the front portion 25 thereof arranged centrally with respect to the center of the back of the body.

Secured to the rear portion 26 of the band in wide spaced relationship to the center of said rear portion, are bumper or check pads 27 adapted to engage the back of the chair or the rungs thereof, for example, the rungs 13, so as to minimize swinging or rocking motion of the rear portion 26. Arranged within the loop formed by the band 16, is a spring strip or member 28 which may be composed of spring metal or spring plastics or a composition board or strip of any type

or kind which is normally straight and adapted to be bent or sprung into the concaved position shown in Fig. 2 of the drawing in arranging the same within the band loop 16, thus producing the crescent shape in said loop, as clearly illustrated in Fig. 2. The width of the member 28 is such as to fit within the finishing strip 17 at upper and lower edges of the band, as will clearly appear from a consideration of Fig. 4. In assembling the member 28 with the loop 15, the member is positioned within the loop so as to centralize the cushion-members 20 and 21 on the front portion 25 of the band and the members 27 on the rear portion thereof. When this assemblage has been made the parts will maintain this relationship by reason of the tensional engagement of the member 28 with the loop 16.

In Fig. 3 of the drawing, I have diagrammatically illustrated a possible position of the device 14 with the back of a person bearing or resting upon the front portion 25 of the device. This body engagement causes the front portion 25 to yieldably flex inwardly and for the member 28 to extend, or in other words, to tend to flatten out, and in this operation, the members 20 and 21 will engage the sections or areas 22 and 23 at the back of the individual using the back-rest and eliminate any squeezing pressure upon the spinal column which might otherwise occur if the members 20 and 21 were not employed.

It will be understood that the device 14 is resilient and if the user of the device moves backwardly and forwardly on the member 25, in a rocking type fashion, in the manner of using a rocking chair, the members 20 and 21 will have a slight rolling action upon the sections 22 and 23 of the body. This rolling action can be beneficial to the end of easing or loosening any tension or stiffness that may prevail along this area of the spinal column or the back adjacent thereto and in a manner, produces the affect of massage, which can be very beneficial. In other words, in addition to providing a posture support for the back, the device may be also utilized as an exercising device in the manner indicated above.

It will be understood that the device can be produced in different sizes, both with respect to width and length, length being determined by the size of the loop and the spring member 28 disposed in the loop. By increasing and decreasing the spring properties of the member 28, the amount of resiliency can be decreased or increased to satisfy different uses. It will also be understood that the loop itself operates to maintain the parts normally in the position shown in Fig. 2, regardless of the extent of flexing in the manner indicated in Fig. 3. In other words, the minute the pressure of the body is relieved from the front portion 25, the device will return to the position shown in Fig. 2.

From a standpoint of description, the band is actually in the form of a ring element and in order to produce the resulting device, it is essential to utilize a spring member which in its normal straight position is of greater length than the diameter of said ring element so as to support the ring element in the crescent-like shape, which is clearly illustrated in Fig. 2 of the drawing.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A device of the character described comprising a ring element of flexible material, an elongated member comprising a strip of spring material of substantially the same width as the width of said ring element, said member being of a length greater than the diameter of said ring element and arranged therein to support the ring element in substantially crescent-form, the crescent-form of said element defining a front body engaging part normally extending in a straight path between terminal ends of said member and a curved back part.

2. A device of the character described comprising a ring element of flexible material, an elongated member comprising a strip of spring material of substantially the same width as the width of said ring element, said member being of a length greater than the diameter of said ring element and arranged therein to support the ring element in substantially crescent-form, the crescent-form of said element defining a front body engaging part normally extending in a straight path between terminal ends of said member and a curved back part, and means for mounting said device on a chair back to support the device upon the front face of said chair back.

3. A device of the character described comprising a ring element of flexible material, an elongated member comprising a strip of spring material of substantially the same width as the width of said ring element, said member being of a length greater than the diameter of said ring element and arranged therein to support the ring element in substantially crescent-form, the crescent-form of said element defining a front body engaging part normally extending in a straight path between terminal ends of said member and a curved back part, means for mounting said device on a chair back to support the device upon the front face of said chair back, and said front part having a pair of cushion-members disposed in close proximity to the central portion thereof.

4. A device of the character described comprising a ring element of flexible material, an elongated member comprising a strip of spring material of substantially the same width as the width of said ring element, said member being of a length greater than the diameter of said ring element and arranged therein to support the ring element in substantially crescent-form, the crescent-form of said element defining a front body engaging part normally extending in a straight path between terminal ends of said member and a curved back part, means for mounting said device on a chair back to support the device upon the front face of said chair back, said front part having a pair of cushion-members disposed in close proximity to the central portion thereof, and said back part having a pair of pads in wide and equal spaced relation to the center of the back part.

5. A device of the character described comprising a ring element of flexible material, an elongated member comprising a strip of spring material of substantially the same width as the width of said ring element, said member being of a length greater than the diameter of said ring element and arranged therein to support the ring element in substantially crescent-form, the crescent-form of said element defining a front body engaging part normally extending in a straight path between terminal ends of said member and a curved back part, means for mounting said device on a chair back to support the device upon the front face of said chair back, said front part having a pair of cushion members disposed in close proximity to the central portion

thereof, said back part having a pair of pads in wide and equal spaced relation to the center of the back part, said element comprising a strip of heavy canvas, and means finishing upper and lower edges of said strip.

6. A device of the character described comprising a ring element of flexible material, an elongated member comprising a strip of spring material of substantially the same width as the width of said ring element, said member being of a length greater than the diameter of said ring element and arranged therein to support the ring element in substantially crescent-form, the crescent-form of said element defining a front body engaging part normally extending in a straight path between terminal ends of said member and a curved back part, means for mounting said device on a chair back to support the device upon the front face of said chair back, said front part having a pair of cushion-members disposed in close proximity to the central portion thereof, and said cushion-members extending substantially the full width of said element.

7. A device of the character described comprising a ring element of flexible material, an elongated member comprising a strip of spring material of substantially the same width as the width of said ring element, said member being of a length greater than the diameter of said ring element and arranged therein to support the ring element in substantially crescent-form, the crescent-form of said element defining a front body engaging part normally extending in a straight path between terminal ends of said member and a curved back part, means for mounting said device on a chair back to support the device upon the front face of said chair back, said front part having a pair of cushion-members disposed in close proximity to the central portion thereof, and said cushion-members extending substantially the full width of said element and being contained within the band forming said element.



8. A device of the character described comprising a ring element of flexible material, an elongated spring member, said member being of a length greater than the diameter of said ring element and arranged therein under tension to support the ring element in substantially crescent-form, the crescent form of said element defining a front body engaging part normally extending in a straight path between terminal ends of said member and a curved back part conforming with and engaging said spring member, and means for mounting said device in connection with a support.

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