Dec. 12, 1950 S. R. FREASIER ET AL 2,534,009

ADJUSTABLE BACK REST

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Fig. 2.

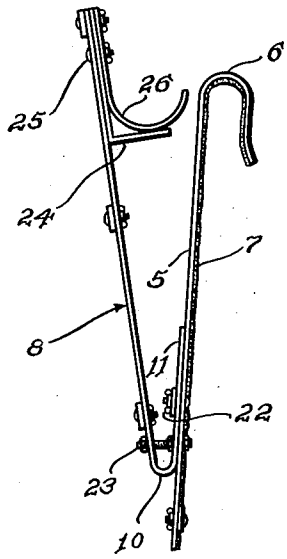


Fig. 1.

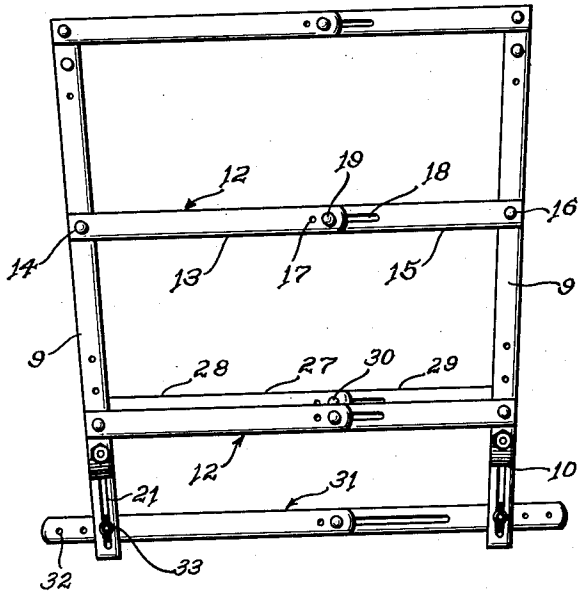
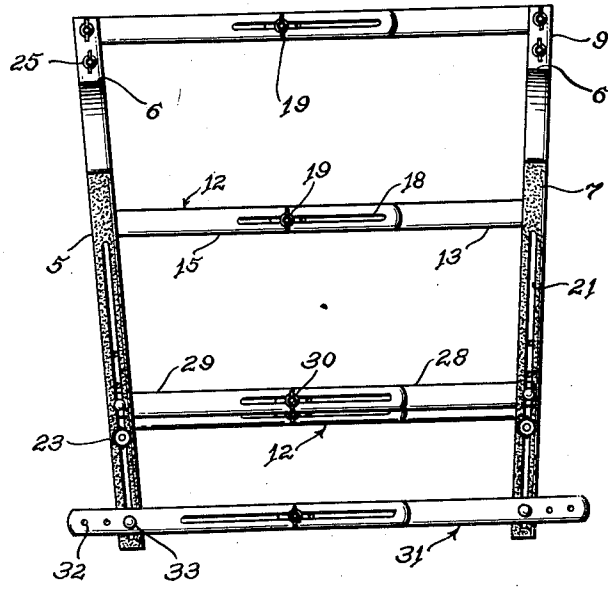


Fig. 3.



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ADJUSTABLE BACK REST

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2 Claims. (Cl. 155—182)

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This invention is a back rest or pad to be mounted upon the upright chair back and to function as a cushion support for the back of the occupant in a manner to afford comfort to the occupant and to hold the back and spine in a proper restful position.

In accordance with our invention, by the use of a back rest contemplated thereby, chairs and seats, including typists' chairs, may be readily converted into posture chairs for all practical purposes, the use of our back rest as an auxiliary back for the chair preventing "slumping" and causing a person to assume an erect position with consequent material decrease in fatigue.

It is therefore a primary object of the present invention to provide a back rest which will supplement the supporting action of the backs of chairs, automobile seats, and the like and will follow closely the principles of posture seating.

A further object of the present invention is to provide a back rest which, while simple in construction and easily applied to practically any type of chair or seat, is, at the same time, capable of maximum adjustment and as conditions of use may suggest or require.

The invention together with its objects and advantages will be best understood by reading the following detailed description with reference to the accompanying drawings, wherein:

Figure 1 is a front elevational view of a back rest embodying the features of our invention;

Figure 2 is a side elevational view thereof; and

Figure 3 is a rear elevational view of the back rest.

Referring more in detail to the drawings, it will be seen that in accordance with our invention, there is provided a pair of straps 5—5 that have their upper portions bent to form hooks 6 for engagement over the back of a chair or seat. To prevent marring or scratching or otherwise injuring the article of furniture to which the back rest is applied, straps 5 have the hook equipped sides thereof provided with facings 7 of felt or other suitable material. The hook-equipped straps 5 serve as an attaching means for a resilient, dimensionally adjustable back rest indicated generally by the reference numeral 8.

In the illustrated embodiment of the invention, the back rest 8 comprises a pair of straps 9—9 which have their lower ends reversely bent as at 10 to provide extensions 11 for direct attachment to the aforementioned straps 5 in a manner hereinafter more specifically set forth.

The straps 9—9 of the back rest are connected together through the medium of a plurality of

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longitudinally extensible resilient strips 12. These strips 12 provide a comfortable support for the shoulders and upper portion of the body of the chair occupant and are arranged in vertically spaced relationship as shown, and may be longitudinally curved if desired.

Each resilient strip 12 comprises a section 13 that at one end is secured by bolt and nut means or other fastening element 14 to one of the straps 9 and a complemental section 15 that is similarly secured as at 16 to the other strap 9.

For securing the sections 13 and 15 of a strip 12 at the desired position of longitudinal adjustment, strip section 13 is provided with a plurality of apertures 17 and strip section 15 is provided with a longitudinal slot 18 to accommodate a bolt and nut assembly 19.

For attaching the back rest 8 to the straps 5 and for securing the back rest 8 at the desired position of vertical adjustment with respect to the straps 5, the attaching extensions 11 are provided with a plurality of apertures for registry with longitudinal slots 21 provided in the lower portions of the straps 5 to accommodate bolt and wing nut assemblies 22.

The back rest 8 will have a tendency to flex forwardly with respect to the attaching straps 5, and if desired, the forward position of the back rest 8 with respect to the straps 5, may be adjusted through the medium of bolt and jam nut assemblies 23, the bolts of which assemblies pass through the slots 21 of straps 5 and openings provided therefor in the lower portions of the straps 9. Straps 9 and the attaching portions of stops 24 are complementarily provided with longitudinal rows of apertures to accommodate the assemblies 25. Manifestly, the stops 24 will engage the upper portions of the straps 5 for limiting the movement of the back rest 8 rearwardly. In this connection, it will be noted that with stops 24 in contact with straps 5, the bolt and nut assemblies 23 may be adjusted for securing the back rest 8 against flexing toward or away from the straps 5 when it is desired to eliminate all or any part of the spring action of the back rest.

Also, if any additional spring tension is desired, resort may be had to spring straps 26. These straps 26 have arcuate portions that rest on the free arms of stops 24 and straight, apertured attaching portions through the medium of which and the aforementioned bolt and nut assemblies 25, the auxiliary springs 26 may be secured at the desired position of adjustment on the straps 9. Manifestly, as the back rest 8 flexes rearwardly or in the direction of the straps 5,

springs 26 will engage the straps 5 and exert a force on the back rest 8 tending to urge the latter forwardly in opposition to the weight of the back of the occupant of the chair.

If desired, the straps 5—5 may be secured at the desired position of lateral adjustment with respect to one another through the medium of a stretch bar 27. This bar 27, for illustrative purposes, is shown as consisting of a pair of complemental sections 28, 29. Section 28 is bolted or otherwise secured to one of the straps 5 and section 29 is similarly secured at the desired position of adjustment lengthwise of the other strap 5. Section 28 has its free end provided with a series of openings and section 29 is provided with a slot co-acting with the openings for accommodating a nut and bolt assembly 30 through the medium of which the sections 28, 29 are secured at the desired position of adjustment and consequently straps 5—5 are secured at the desired position of lateral adjustment with respect to one another.

The bar 27 will also be desirable when the back rest is used in connection with typists' chairs which generally embody but a single bar for the back rest proper of such chair, and on other forms of chairs which generally have but a single vertical bar as a part of the back rest thereof.

When the back rest is used in conjunction with ladder back chairs and chairs of similar construction, a cross bar 31 may be employed. This bar 31 is similar to the bar 27 except that the free ends of the sections of bar 31 are provided with a series of openings 32 for selective registry with the slots 21 in the straps 5 to accommodate bolt and wing nut assemblies 33, and in such a manner that the free terminals of the bar 31 may project laterally beyond the straps 5 so as to engage the side uprights of a chair back and thus cooperate with the hooks 6 in supporting the straps 5 in proper position on the back of such type of chair.

It will also be apparent that if desired, a slip-over cover (not shown) may be used in conjunction with the back rest, the back rest being of such a construction as to readily permit of such a cover being placed thereover and over the back of the chair with which the back rest is being used.

As should be apparent from the foregoing, when in use the back rest will closely follow the principles of posture seating and function to convert the chair in conjunction with which it

is used into a posture chair for all practical purposes.

Also the back rest of this invention, as is believed to be manifest, provides a ventilated space between the back of the user and the back of the chair against which the user would normally rest, all to the greater comfort and efficiency of the occupant of the chair.

It will be also understood that the several components of the back rest may be constructed from spring steel, plain band or flat iron of the size ⅛" x 1" or any other resilient material as will provide the desired spring tension between the back rest proper and the hook assembly for supporting the back rest proper in position on the back of the chair or seat in conjunction with which the posture back rest is to be used.

Although we have herein shown a preferred form of the invention, we are nevertheless aware that various changes may be made therein within the scope of the claims hereto appended.

What we claim is:

1. An adjustable back rest comprising a pair of straps having their upper portions bent to form hooks to engage over the back of a chair or seat, a second pair of straps having their lower portions reversely bent and adapted to be secured to the first mentioned straps, and a plurality of resilient strips supported by the second pair of straps providing a cushioned support for the back of the chair occupant.

2. A back rest comprising straps having their upper portions formed to provide hooks to engage over the back of a chair or seat, at least one longitudinally adjustable cross bar connecting said straps together in laterally adjusted position with respect to each other, and an adjustable back rest proper resiliently secured to the straps.

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