July 17, 1956 W. A. BARRON 2,754,891

DETACHABLE BACK REST

Filed Jan. 24, 1955

Fig. 1

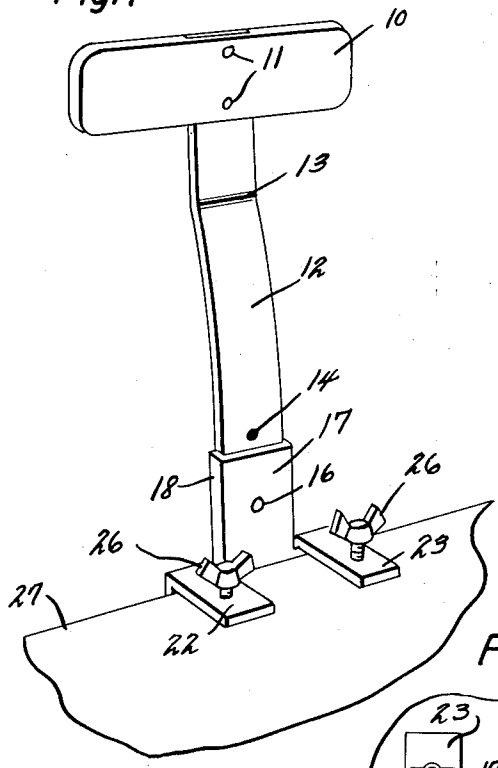


Fig. 2

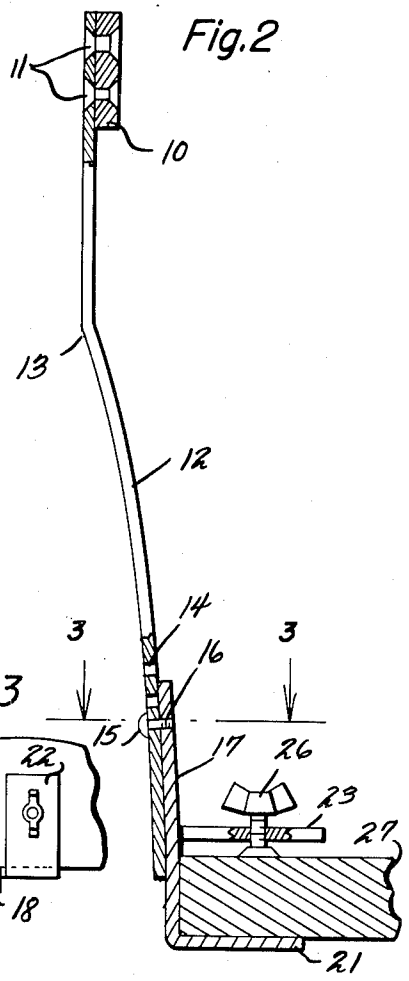


Fig. 3

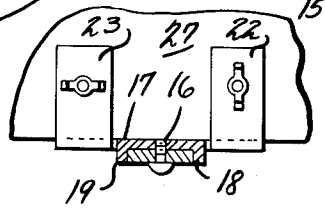


Fig. 4

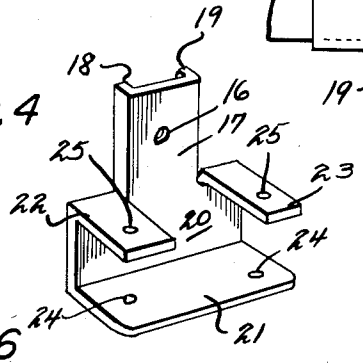


Fig. 5

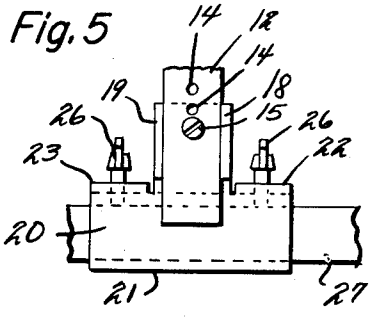
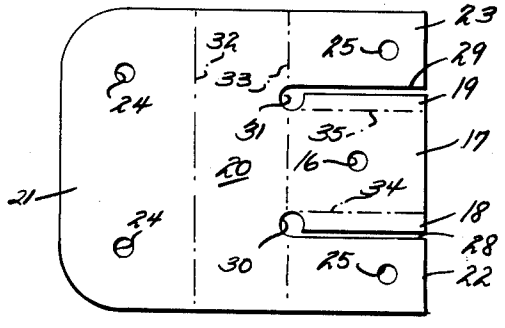


Fig. 6



INVENTOR

WILLIAM A. BARRON

BY Wilkinson & Mawhinney

ATTORNEYS

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DETACHABLE BACK REST

William A. Barron, Newnan, Ga.

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1 Claim. (Cl. 155—133)

The present invention relates to detachable back rest and has for an object to provide a portable back rest with means for detachably mounting the same upon bleacher seats, boat seats or the like.

Another object of the invention is to provide a detachable back rest for use in stadia and the like which is so constructed and arranged that it may be attached to the rear edge of a seat and subsequently removed therefrom in such a simple and easy manner that the same may be accomplished by a child as well as an adult.

A further object of the invention is to provide a detachable back rest which admits of being stored easily when not in use and which is light in weight for ease in carrying.

A still further object of the invention is to provide a detachable back rest of such a unitary character that it will not interfere with anyone sitting in any seat adjoining the one to which the detachable back rest has been applied.

It is also an object of the invention to provide an improved form of detachable back rest which will provide adequate support for the back of the user and which therefore relieves the fatigue which is caused by attempting to sit erect in a backless seat such as to be found in stadia, in the bleachers in baseball parks, and upon boats.

It is also a feature of the invention that the thumb screws or other form of attaching means that may be employed to connect the clamp of the improved back rest to a seat are located at the top of the clamp and not on the bottom thereof to the end of promotion convenience and rapidity in effecting the attachment and the detachment of the back rest.

It is also the purpose of the invention to provide an improved detachable back rest that may be manufactured cheaply and which will provide an adjustment for the back support to enable this support to be brought to a proper elevation with respect to the person occupying the seat.

With the foregoing and other objects in view, the invention will be more fully described hereinafter, and will be more particularly pointed out in the claim appended hereto.

In the drawings, wherein like symbols refer to like or corresponding parts throughout the several views.

Figure 1 is a perspective view of one form of detachable back rest constructed in accordance with the present invention and shown in applied position upon a seat which is partly broken away.

Figure 2 is a vertical sectional view, taken on a slightly enlarged scale through the detachable back rest and seat, the latter being partly broken away.

Figure 3 is a top plan view taken on a reduced scale on the line 3—3 in Figure 2.

Figure 4 is a perspective view of the combined clamp and adjustable standard socket shown apart from the seat and from the standard and back support.

Figure 5 is a rear elevational view of the device as applied to a seat with the standard broken away.

Figure 6 is a plan view of a piece of sheet aluminum or other appropriate material stamped to shape prior to being bent to the form of Figure 4.

Referring more particularly to the drawings, which show only one embodiment of which the invention is susceptible, 10 designates a back support which is connected by rivets or other fastenings 11 with a flat resilient standard 12 preferably of sheet steel or other appropriate metal. In this standard 12 is an offset 13 in order to bring the forward surface of the support 10 to a correct vertical position for engaging the back of the user.

The lower end portion of the standard 12 is provided with a plurality of vertically spaced holes 14 for selective engagement by a screw or other fastening 15 which engages a tapped hole 16 in the front upright wall 17 of the standard socket. Bent backwardly from the side edges of the upright wall 17 are flanges 18 and 19 for engaging opposite edges of the standard 12 for the purpose of supporting the same from casual edgewise movement.

The standard socket is carried by a clamp, of which 20 designates the yoke, 21 the base jaw and 22 and 23 laterally spaced top jaws. In the base jaw 21 are preferably provided two or more tapped holes 24. Similarly in the top jaws 22, 23 are tapped holes 25 for the reception of thumb screws 26. These thumb screws have winged upper portion which stand upwardly above the top jaws 22, 23 for easy accessibility to the hand of the user for the purpose of rotating the screws to bind their lower portions against the upper surface of the seat 27, or alternately to release the screws from the seat.

Referring more particularly to Figure 6, the combined clamp and socket unit, as shown in Figure 4, may be conveniently made from a single sheet of aluminum or other appropriate metal. The sheet is cut out to the size and form represented in Figure 6 where spaced longitudinal incisions 28 and 29 are shown as originating at the right hand edge of the plate and penetrating inwardly of the plate to circular cut-out portions 30, 31.

Transverse bend or fold lines 32 and 33 are indicated in Figure 6 to indicate where the jaws 21, 22 and 23 are bent at substantially right angles from the yoke piece 20. The incisions 28, 29 define the width and also the length of the front upright wall 17 and the longitudinal fold lines 34, 35 represent the lines on which the flanges 18 and 19 are bent at substantially right angles rearwardly with reference to the plane of this front wall 17. It will be noted that the circular cut-outs 30, 31 are offset inwardly from the incision lines 28, 29 so as to lie inwardly at the bases of the flanges 18, 19 and to separate the inner ends of these flanges from surrounding portions of the metal of the plate. This construction gives freedom of movement to the flanges 18 and 19 in executing the bending movement of these flanges 18, 19, to the position indicated in Figure 4. The construction is also such as to promote entire independence of the part 17 from the outlying laterally adjacent top jaws 22, 23 to the end that the jaws 22, 23 may be bent over at right angles to the yoke piece 20 while the front wall 17 is permitted to upstand from the yoke piece 20 in the same plane therewith.

Thus from a single sheet of material is provided the clamp and the socket. This socket is open at its rear portion but it is confined at the front by the upright wall 17 and at the sides by the flanges 18, 19 which are as deep or deeper than the edgewise dimension of the standard 12. Thus the lower portion of the standard 12 may be fitted readily through the open rear portion of the socket up against the rear face of the upright wall 17 and with its edges engaging the inner faces of the flanges 18, 19. The lower portion of the standard 12 is reinforced at the front and at the side edges to such an extent that a single screw 15 or other appropriate fasten-

ing is all that is required to hold the standard **12** firmly in position in adjusted location within the socket. It will also be noted particularly from Figures 2 and 5 that when the screw **15** occupies the lowermost hole **14** in the lower part of standard **12**, the lower terminal part of the standard **12** overlaps the yoke piece **20** of the clamp which has a forward support upon the rear edge of the seat **27**. It will thus be seen that the lower portion of the standard **12** as to its front face is in contact over a wide area not only with the entire rear surface of the upright wall **17** but also with considerable area of the yoke piece **20**. When pressure is exerted against the upper portion of the standard **12** by the back of the user of the device, it will cause the lower portion of the standard to be moved about the screw **15** as a fulcrum against the front wall and yoke piece to force the yoke piece into firmer engagement with the rear edge of the seat **27** and the jaws of the clamp into firmer engagement with the seat.

In use, the device, being light in weight and simple in construction, is easily carried to the stadium where, with the thumb screws **26** in elevated position, the clamp is easily fitted to the rear edge of a stadium seat **27** or to a boat seat or the like. The upright thumb screws **26**, which are readily accessible from above, are then screwed down upon the upper surface of the seat **27** to bind the jaws **21**, **22** and **23** tightly to the seat **27**.

The standard **12** will have been previously adjusted vertically up and down in the socket in order to bring the cross support **10** to an appropriate position with respect to the upper portion of the back of the user. For a short person the screw **15** may be fitted in the uppermost hole **14**. As shown in Figure 2 such attaching screw **15** is fitted in the lowermost hole **14** so that the standard **12** is at its greatest elevation. The standard **12**, which will preferably be of resilient metal is bowed slightly on a rearwardly and upwardly retreating curve to the offset portion **13** which brings the front surface of the support **10** into substantially a vertical plane to fit throughout its surface area in proper supporting contact with the back of the user. The inherent resiliency in the standard **12** will maintain the support **10** firmly up against the back of the user who may settle himself comfortably upon the seat **27** with his weight thrown back against the support **10** which will yield under the influence of this weight to some extent thus placing the standard **12** under the necessary tension to react in driving the support **10** forwardly into firm contact with the user's back.

The back rest may be easily detached by simply rotating the thumb screws **26** in a counterclockwise direction which will free the clamp from the seat **27** and by simple backward movement the entire back rest will be detached.

The support **10** may be made of wood and for example

of a size ¾" x 2½" x 12". Of course the back support **10** may be made of other suitable material. A convenient size for the spring steel standard **12** is ⅛" x 1½" or ⅛" x 1¼".

The sockets **17**, **18**, **19** can be reversed to project downwardly from the clamp in which event the thumb screws **26** are engaged in the holes **24** of the base jaw **21** which in such event the thumb screws **26** are engaged in the holes **24** of the base jaw **21** which in such event becomes the top jaw.

It will be understood that the plate from which the clamp and socket are fashioned may be of steel as well as aluminum or of other suitable material.

Although I have disclosed herein the best form of the invention known to me at this time, I reserve the right to all such modifications and changes as may come within the scope of the following claim.

What is claimed is:

A detachable back rest comprising a clamp having a yoke piece and spaced jaws angularly extending from the yoke piece and adapted to embrace upper and lower portions of a support with the yoke piece engaging the adjacent edge of the support, means for binding the jaws to the support, a socket comprising a front upright wall extending substantially vertically in line with the yoke piece and supported thereby, and flanges bent backwardly from the edges of the wall, a standard having its lower portion fitted in the socket up against the rear portion of said wall and with its side edges substantially against said flanges and with the lowermost part of the standard extending down and overlapping and bearing against said yoke piece, fastening means for holding the lower portion of the standard against the wall and the lowermost part of the standard against the yoke piece, said fastening means engaging the standard above its major area of contact with the front wall and entirely above the bearing area of the standard against the yoke piece so that pressure exerted upon the upper portion of the standard will cause the major part of the lower portion and the lowermost part of the standard to be moved about the fastening means as a fulcrum against the front wall and the yoke piece to force the yoke piece and the jaws into firmer engagement with the support.

References Cited in the file of this patent

UNITED STATES PATENTS

793,412	Bliss	June 27, 1905
2,021,242	Reyniers	Nov. 19, 1935
2,237,736	Hill	Apr. 8, 1941
2,612,938	Dawkins et al.	Oct. 7, 1952
2,658,559	Beebe	Nov. 10, 1953
2,659,423	Haley	Nov. 17, 1953