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CHAIR BACK

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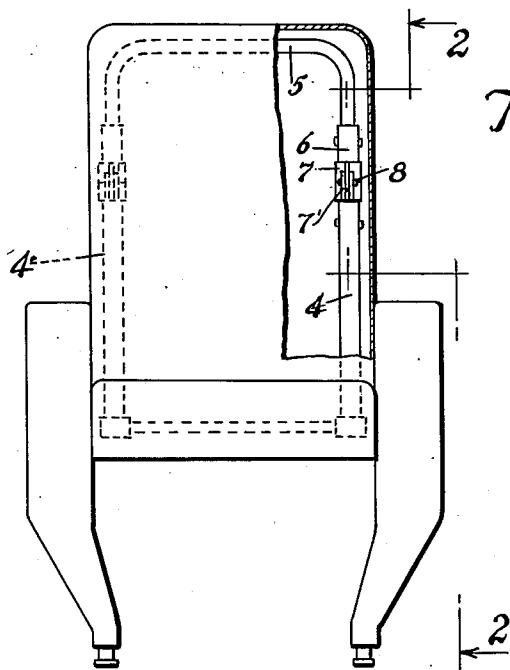


Fig. 1

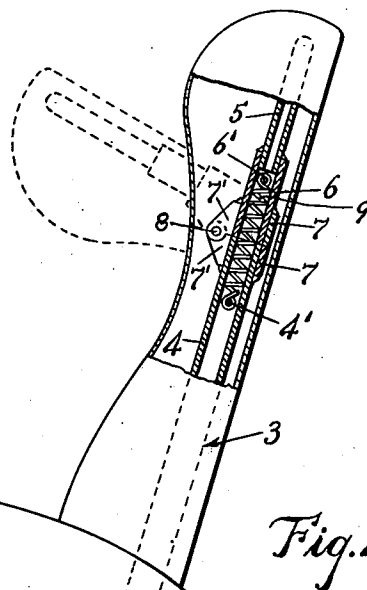
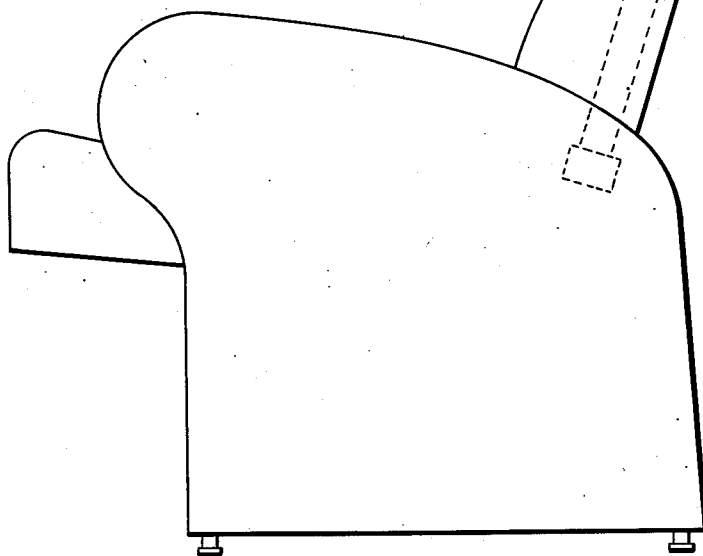


Fig. 2



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UNITED STATES PATENT OFFICE

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CHAIR BACK

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2 Claims. (Cl. 155—178)

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This invention relates to chair backs, and more particularly to a chair back having its top portion yieldable under spring tension relative to the main body of said chair back, whereby it can move forwardly in case of pressure against it from the rear.

It is known that when airplanes crash, or automobiles or coaches under great speed are suddenly stopped, persons sitting behind said chair or seat are thrown forwardly, sometimes with great force and strike the back of the seat in front of them. If the seat backs are rigid, the injury can be serious.

It is the object of my invention to make a chair or seat back the top of which is hinged to the body thereof, with springs to give yieldable tension thereto, so that if a person is thrown forwardly against it, it will yield with the concussion and thus avoid serious injury to the person.

In order to explain my invention, I have shown one embodiment thereof on the accompanying sheet of drawings, which I will now describe:

Figure 1 is a front view of a seat or chair embodying my invention, with a part broken out to display the functioning structure; and

Figure 2 is a side view thereof with a part broken out to show the functioning mechanism; said mechanism being adopted for explanatory purposes.

Referring in detail to the drawings, my invention can be applied to most any type of chair or seat. I have shown a chair such as is used in airplanes or railway coaches.

The back of the chair, as a whole, is designated 3. The frame thereof is preferably formed of tubular members, and as here illustrated, includes two side members 4, 4, with an arched top 5, connected to said side members at its ends with short sections of tubes, as 6, 6, into which the ends of said arched top 5 are secured.

At the juncture of said short sections 6, 6, with said side members 4, 4, are connecting hinges, each hinge including a band portion, as 7, 7, with wing portions, as 7', 7' on said band portions. One band portion 7 is on the upper end of the member 4 and the other band portion is on the lower end of the short section 6, the wing portions 7', 7' of said band portions being hingedly connected, as by a hinge pin 8.

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This arrangement is the same at the opposite sides of the back of the chair, whereby the arched top 5 can be moved forwardly, as indicated in light broken lines in Fig. 2. A coiled spring 9 is placed in said aligned tubular members 4 and 6, at each side, across the juncture thereof, and is secured at its upper and lower ends to said members 4 and 6, as at 4' and 6', whereby as the top of said chair is thrust forwardly, as indicated in light broken lines, said springs 9, 9, are extended and put under tension, as will be understood from the showing in Fig. 2, and when released, said top will be returned to normal position, as indicated in full lines in Fig. 2.

I am aware that my invention can be embodied in different ways, and I do not therefore limit the invention to the details here shown for explanatory purposes, except as I may be limited by the hereto appended claims.

I claim:

1. A chair back which includes two side members having their upper ends connected by a cross member to form a head rest portion on said back, said side members having hinge joints below said head portion with the hinge axes in transverse alinement with each other, whereby the upper ends of said members and said cross member, forming said head rest portion, can be moved forwardly, and means yieldingly holding said head rest portion in its normal upright position.

2. A chair back of the character shown and described and including two side members, a head rest portion supported on the upper ends of said side members, and hingedly connected at its lower edge with said side members whereby said head rest portion can be moved forwardly, spring means yieldingly holding said head rest portion in its upright and normal position, and upholstering cushion means covering said back, including said head rest portion and said hinge means.

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