Oct. 13, 1964 G. F. McKIE 3,152,835

SEATING ACCESSORY FOR USE WITH CHAIRS ARRANGED IN A SERIES

Filed Sept. 21, 1962

Fig. 1

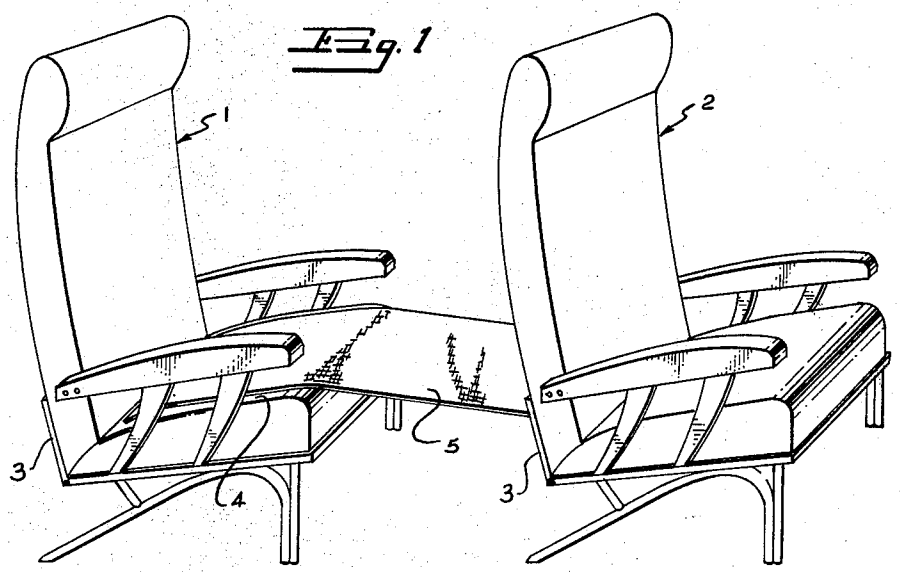


Fig. 2

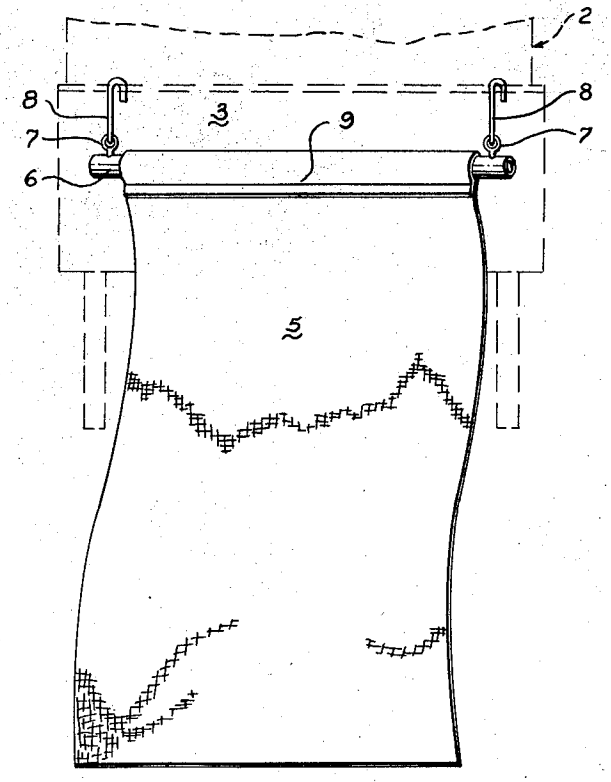
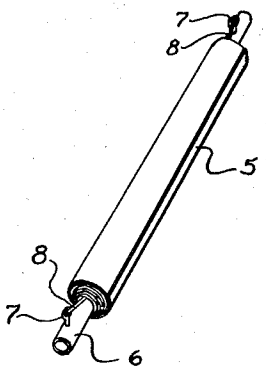


Fig. 3



INVENTOR.
GEORGE F. McKIE
BY Browning, Simms, Hyer & Eickenroht

United States Patent Office 3,152,835
Patented Oct. 13, 1964

3,152,835
SEATING ACCESSORY FOR USE WITH CHAIRS ARRANGED IN A SERIES

George F. McKie, 3217 SulRoss, No. 17, Houston, Tex.
Filed Sept. 21, 1962, Ser. No. 225,275
1 Claim. (Cl. 297—423)

This invention is a seating accessory to be used with chairs arranged in a series. It is especially useful in bus, airplane and railway train seating arrangements but is not limited to such use.

Seating arrangements on public transportation vehicles frequently require that a passenger have little choice as to the position of his body during a trip. Chairs on such vehicles usually have backs that may be adjusted in inclination but provide for little variation in the position of the feet of a passenger, and such variations in foot position as are provided by the seating arrangement are adapted to a mythical average person so that an actual passenger who is not average frequently becomes uncomfortable during an extended trip.

It is an object of this invention to provide a device for increasing the comfort of a person who must sit for long periods of time in a chair arranged in a series of chairs.

Another object is to provide a device of the above class which provides a very large number of body positions which are easily variable at will.

Another object is to provide a device which provides an infinite number of positions of the feet of the passenger or user which are easily adjustable to any selected position.

Another object is to provide a device of the above class which prevents excessive fatigue of a person who must sit for a long period of time in a chair arranged in a series of chairs.

Another object is to provide a device of the above type which is inexpensive, simple to make, easily portable and can be made to fit into substantially any type of seating arrangement used in public transportation.

Other objects, advantages and features of this invention will be apparent to one skilled in the art upon a consideration of the written specification, the attached claims and the annexed drawing.

In the present invention, the above objects are attained in a very simple device which includes a sheet of flexible material overlying an upper surface of a seat portion of one chair in a series of chairs and having means cooperable therewith for attaching the sheet to a back of the chair next ahead. The sheet may be of any type of flexible material, such as canvas or other woven fabric made of natural or synthetic fibers, which has a sufficiently high coefficient of friction that it is adapted to be held in place on the seat surface by the weight of a person seated thereon. The sheet should have width enough to cover a major part of the seat portion of the chair, and it is essential that it have sufficient length to provide a bight between the leading edge of the chair on which the passenger sits and the back of the chair next ahead. This bight is adapted to receive the feet of a passenger and preferably is adjustable at any level between floor level and the level of the seat of the chair merely by moving the sheet forward or backward on the surface of the seat of the chair.

It is preferred that a means for maintaining the sheet in laterally extending position be attached to the sheet adjacent to the back of the chair next ahead so that the sheet is laterally extended and forms a hammock-like bight in which the feet and legs of the seated person may occupy an infinite number of positions. Since the depth of the bight is adjustable, when the seated person begins to become tired with feet in one position, he can immediately change the bight to another level of support so that even after long periods of sitting he is not excessively fatigued.

One preferred type of the device of this invention is illustrated in the attached drawings wherein like reference numerals indicate like parts in all figures. In the drawings:

FIG. 1 illustrates diagrammatically two chairs in a series of chairs including one preferred embodiment of this invention;

FIG. 2 is an elevation of a chair in a series having the sheet of FIG. 1 attached to the back thereof; and

FIG. 3 shows the sheet in detached, rolled-up condition.

In FIG. 1 the reference numeral **1** indicates generally one chair in a series of similar chairs and the reference numeral **2** indicates generally the chair next ahead of chair **1** in the series. A sheet of flexible material, illustrated as of woven fabric **5**, is disposed to overly the upper surface **4** of the seat of chair **1** and is attached to the back of chair **2** as shown in FIG. 2. The attachment is illustrated as made by engagement of a pair of hooks **8** with a metallic strip **3** forming a part of the back of chair **2**. The hooks **8** form a preferred means of attachment since substantially all chairs used in present seating arrangements in railway trains, buses and airplanes have a metallic strip substantially corresponding to the strip **3** at the back of each chair. Hooks **8** are attached to a means for maintaining the front end of sheet **5** in laterally extended position, illustrated as a bar formed from a length of lightweight pipe **6**, through intermediate eye-bolt **7**. An end of the sheet **5** is disposed to surround the pipe **6** and is secured in a seam **9** so that the pipe **6**, the eye-bolt **7** and hooks **8** cooperate to form a means for attaching the leading end of sheet **5** to the back of chair **2**.

When not in use the device may be rolled up into a very small bulk as illustrated in FIG. 3 in which the hooks **8** are folded inward upon that part of sheet **5** which surrounds pipe **6** and the remainder of sheet **5** is then rolled up as shown. In this form, the device occupies very little space, is light and easily portable so that a prospective passenger contemplating a long trip on a train, bus or airplane may carry it with him without difficulty.

The operation of the device as shown in FIGS. 1 and 2 is believed to be obvious from the above description. Attachment of the front end of the sheet **5** to the back of chair **2** is made by slipping the hooks **8** over the upper edge of the metallic strip **3**. The sheet is then placed so that it overlies the upper surface of the seat section **4** of chair **1** and is held in place by the weight of a person seated in chair **1**. It will be seen that the length of the sheet **5** is sufficient that the unsupported portion of the sheet between the leading edge of the seat surface **4** and the back of chair **2** is such that this section of the seat will hang in a bight. This bight may have any depth desired from a level approximating that of surface **4** in the position shown in FIG. 1 to a level in contact with a floor supporting the chairs. The depth of the bight may be easily selected by the passenger by adjustment of that portion of sheet **5** overlying seat surface **4**, thus an infinite number of foot positions are possible in which the feet of the passenger are supported in the bight of sheet **5**. Since an infinite number of positions are possible, the passenger may easily select from them a position which fits his individual leg length and when tiring of one position may select any of a great number of other positions which also fit his particular configuration. By making a number of changes in position of and depth of bight, the passenger thus may make a long trip without becoming fatigued by being forced to sit in one position for too long a time.

From the foregoing it will be seen that this invention is

one well adapted to attain all of the ends and objects hereinabove set forth, together with other advantages which are obvious and which are inherent to the apparatus.

It will be understood that certain features and subcombinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of the claim.

As many possible embodiments may be made of the invention without departing from the scope thereof, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

The invention having been described, what is claimed is:

An accessory for a chair in a series of chairs comprising a substantially rectangular sheet of flexible material having sufficient length to overlie a seating surface of one chair in a series of chairs and to provide a bight extending from said seating surface substantially to the back of a chair next ahead in said series of chairs, said sheet being unattached to said one chair but adapted to be held in any selected position on said seating surface by weight of a person seated thereon; a cross bar attached to a leading end of the sheet laterally extending said end of the sheet; and hooks, carried by the cross bar, attachable to a back of the chair next ahead.

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