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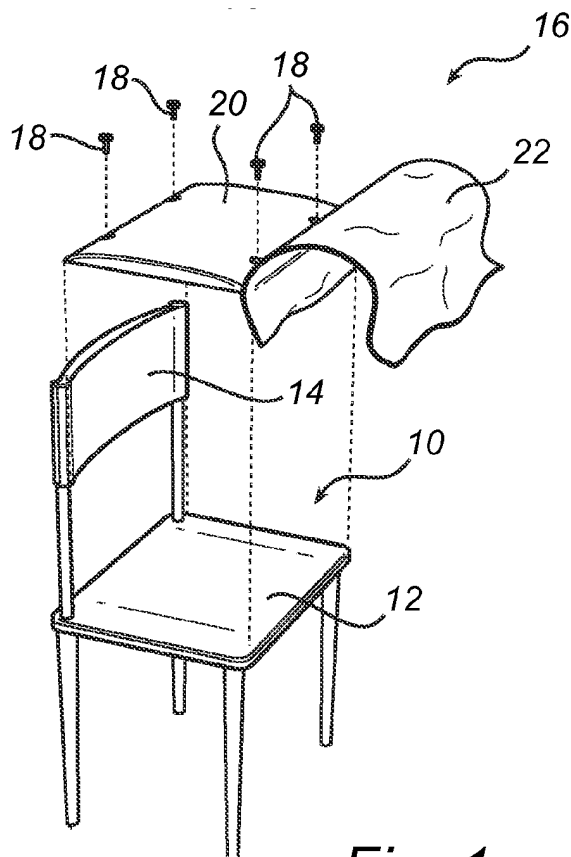
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(54) **Rain protection device for an outdoor spectator seat**

(57) A rain protection device for an outdoor spectator seat comprises a seat cushion (20) and a rain protection cover (22), wherein the rain protection cover (22) is arranged to be moved between a rain protection position, in which the rain protection cover (22) covers the seat

cushion (20), and an uncovering position, in which the seat cushion (20) is exposed, wherein the rain protection cover (22) is provided with a drip edge (34) being arranged to hang down over the edge (24a-d) of the rain protection cover (22) in the rain protection position.



**Fig. 1**

## Description

### Field of the invention

**[0001]** The present invention relates to a rain protection device for an outdoor spectator seat.

### Background art

**[0002]** Some sporting events and artistic occasions, such as theatrical performance, may be held outdoors, for several reasons. For instance, a grass-covered foot ball field needs sunlight and rain, and an outdoor concert in fine weather may enhance the musical experience.

**[0003]** Unfortunately, bad weather may impair the experience to a spectator visiting an event, and bad weather may be difficult to foresee when planning the event. Moreover, running the risk of rain, as well as wet from newly-fallen rain, may keep potential spectators away from the event. JP200111119A discloses an outdoor stand being roofed. Thanks to that the spectator seats are protected from rain, both prior to and during the event. One concern regarding a roofed stand, however, is that the outdoor experience is diminished, in particular if the weather happens to be fine.

### Summary of the invention

**[0004]** One purpose of the invention is to solve, or at least reduce, wholly or partially, the above mentioned deficiencies. This purpose is attained by a rain protection device for an outdoor spectator seat, wherein the rain protection device comprises a seat cushion and a rain protection cover, wherein the rain protection cover is arranged to be moved between a rain protection position, in which the rain protection cover covers the seat cushion, and an uncovering position, in which the seat cushion is exposed, wherein the rain protection cover is provided with a drip edge being arranged to hang down over the edge of the rain protection cover in the rain protection position.

**[0005]** A spectator arriving to her or his seat after rainy weather may be spared from getting a wet bottom from the seat thanks to the invention. In the event that rain water is flowing over the rain protection cover, the rain water will drip from the drip edge, past the edge of the seat cushion, instead of flowing along the underside of the rain protection cover and wet the seat cushion, thanks to the drip edge.

**[0006]** According to one embodiment, the rain protection cover, in its uncovering position, is arranged to be attached to a backrest of the spectator seat. This embodiment will protect the spectator from being wet by a wet backrest. This embodiment may also comprise a back padding to enhance the sitting comfort for a sitting spectator. Preferably, to allow a spectator to, fast, easily and without any tools, be able to attach the rain cover to the backrest of the spectator seat, the rain cover is pro-

vided with fastening means. Suitable fastening means for this purpose may be for instance Velcro fastening, press studs, hooks, etc.

**[0007]** According to another embodiment the rain protection cover, in its uncovering position, is arranged to hang down from a front edge of the seat cushion. This embodiment is comparatively cheap since it is not necessary that the cover is attachable to the backrest. By front edge is meant the seat cushion edge closest to the hollow of the knee of the spectator.

**[0008]** The rain protection device according to the two embodiments above may comprise a transparent plastic pocket. Such rain protection device is easily configured to display different messages by having an exchangeable information piece of paper in the plastic pocket.

**[0009]** In the event that a spectator, after using the spectator seat, forgets to flip down the rain protection cover, the rain protection device may comprise drainage openings to mitigate the consequences of a shower of rain.

**[0010]** Preferably, the rain protection cover is arranged to be attached to the seat cushion in the rain protection position. Thereby the rain protective effect of the cover is preserved even at hard wind. Alternatively, the drip edge of the rain protection cover may be provided with weights.

**[0011]** According to another aspect of the present invention the above mentioned purpose is attained by a spectator seat provided with a rain protection device according to the above described rain protection device. Preferably, the rain protection device is fastened to the spectator seat, thereby minimizing the risk of a spectator moving or bringing along the rain protection device. This embodiment provides accordingly very low maintenance costs for an outdoor stand having rain protection devices. By fasten is meant an fix attachment which a spectator may not easily detach without using tools. Suitable fix attachments for this purpose may be glue, screws, rivets, hoops, etc.

**[0012]** The spectator seat may be provided with a rain protection garment which is fastened to the spectator seat via a string, which allows a spectator to always have access to a rain protection garment. Thus, the spectator at an outdoor spectator seat is less likely to get wet even if it begins to rain. In addition, the risk that a spectator will obstruct the view for a spectator behind by using an umbrella which he or she had brought along is lowered. The notation string should be interpreted widely. In this document the notation string should comprise straps, threads, rope, cords, chains, cables, etc.

**[0013]** The rain protection garment may for instance be a rain cape, rain coat, rainwear, rain poncho or any other suitable rain protection garment.

**[0014]** Preferably, the spectator seat is provided with a rain protection garment cover.

**[0015]** According to yet another aspect of the present invention the above mentioned purpose is attained by a spectator seat comprising fastening means for attach-

ment of a rain protection device according to the above described rain protection device. Such fastening means may for instance be welded nuts, quick locks or spring clamps at suitable locations.

**[0016]** According to yet another aspect of the present invention the above mentioned purpose is attained by use of a rain protection device according to the above described rain protection device at a spectator seat.

#### Brief description of the Drawings

**[0017]** The above mentioned and further features and advantages of the present invention is disclosed as follows by means of preferred but nonlimiting embodiments, and with reference to the appended drawings.

Fig. 1 is an exploded view showing a spectator seat and a rain protection device.

Fig. 2 is a schematic view in perspective of a spectator seat with a rain protection device in its uncovering position.

Fig. 3 is a schematic view in perspective of a spectator seat with a rain protection device in Fig. 2 in its rain protection position.

Fig. 4 is a schematic view in perspective of a spectator seat with another embodiment of a rain protection device in its uncovering position.

Fig. 5 discloses the rain protection device in Fig. 4 in its rain protection position.

Fig. 6 is a schematic view of a spectator seat having a rain protection garment.

#### Detailed description of preferred embodiment

**[0018]** Fig. 1 discloses a spectator seat 10 having a seat 12 and a backrest 14. A rain protection device 16 is riveted onto the seat 12 by rivets 18.

**[0019]** The rain protection device 16 has a seat cushion 20, and a rain protection cover 22 made of galon.

**[0020]** Fig. 2 discloses the rain protection device 16 in an uncovering position, in which the rain protection cover 22 hangs down from a front edge 24a of the seat cushion 20, along the front edge of the spectator seat. The seat cushion 20 comprises a padding cover 26, and a padding 28 of soft foam plastic. The padding cover 26 may be provided with an opening (not shown) for exchange of the padding 28, or for removing the padding 28 during installation of the rain protection device 16 at the spectator seat 10. The seat cushion 20 may for instance be attached to the spectator seat 10 using rivets 18 at the corners of the padding cover 26, which is shown in Fig. 2, or using rivets through the bottom of the padding cover 26 and the seat 12. Of course, the rain protection device 16 may be attached in other manner.

**[0021]** Moreover, the seat cushion 20 is provided with a transparent plastic pocket 30 having an opening 32. The seat cushion 20 may thereby easily be made to supply information, such as seat numbering or a commercial

message, by bringing in an information piece of paper in the pocket 30. When necessary, the information piece of paper is easily exchanged through the opening 32.

**[0022]** Fig. 3 discloses the rain protection device 16 in a rain protection position, to which the rain protection cover 22 is moved by pivoting about the front edge 24a of the seat cushion 20. The rain protection cover 22 covers the seat cushion 20 in the rain protection position. Since the rain protection cover 22 is made by bendable galon it will hang down over the edge 24a-c of the seat cushion and is thereby forming a drip edge 34 around the edges 24a-d of the seat cushion 20. Thereby the rain water flowing along the rain protection cover 22 flows down the side of the seat cushion 20, to prevent the rain water to penetrate between the rain protection cover 22 and the seat cushion 20. In a preferred embodiment, the rain protection cover 22 covers the seat 12 and hangs down over the edges of the seat 12, thereby avoiding water penetration between the seat cushion 20 and the seat 12.

**[0023]** In the embodiments shown in Figs 1-3, the rain protection cover 22 is arranged to be moved forwardly to cover the front edge of the seat cushion 20. This feature makes the rain protection device particularly suitable for use at side-by-side attached spectator seats, forming rows of spectator seats.

**[0024]** Fig. 4 discloses yet another embodiment of a rain protection device 16. In the embodiment according to Fig. 4 the rain protection cover 22 is arranged to be pivoted around the rear edge 24c of the seat cushion 20. Fig. 4 discloses the rain protection device 16 in its uncovering position, in which the rain protection cover 22 being attached to the backrest 14 of the spectator seat 10. Moreover, the rain protection cover 22 is provided with a backrest padding 36 of foam plastic, and has a transparent plastic pocket 38 suitable for exchangeable information piece of paper, in accordance with the description above in connection to Figs 2-3.

**[0025]** Both the seat cushion 20 and the seat 12 are provided with drainage openings 40 to guarantee that rain water may flow away from the seat 12 and the seat cushion 20 if a spectator would forget to flip down the rain protection cover 22 to its rain protection position after an event is finished. The drainage openings 40 may also help to air damp between the seat cushion 20 and the rain protection cover 22, if the rain protection cover 22 has been flipped down to the rain protection position over a wet seat cushion 20.

**[0026]** Fig. 5 discloses the rain protection cover 22 in rain protection position. The upper side of the rain protection cover 22 is provided with Velcro fastening 42a. The back surface of the backrest 14 is provided with corresponding Velcro fastening 42b, by means of which the rain protection cover 22 may be attached in the uncovering position such that the backrest padding 36 provides a soft backrest for a spectator to rest her or his back against.

**[0027]** One problem, if it starts to rain at an event, is

that spectators, who brought umbrellas with them to the event, will open their umbrellas and thereby obstruct the view for the spectators behind. Fig. 6 illustrates a device which contributes to reduce this problem. A spectator seat 10 is provided with a cover 44 arranged to accommodate a rain protection garment 46. The rain protection garment 46 is attached to the spectator seat 10 via a string 48. The string 48 may for instance be sewed on, glued, or vulcanized to the backside of the rain protection garment 46, and riveted, fastened with screws or in any other way attached to the spectator seat. Thanks to the string 48 being attached to the backside it may be made relatively short without hindering a spectator wearing the rain protection garment 46 from rise up for instance for giving standing ovation. A preferred length of the string 48 is between 40 and 150 cm.

**[0028]** Since the rain protection garment 46 is attached to the spectator seat 10, via the string 48, there is always a rain protection garment 46 near for a spectator who thereby never need to get wet or use an umbrella in the event of rain.

**[0029]** The rain protection garment cover 44 may be provided with drainage holes facilitating outflow in case water would penetrate the rain protection garment during rainy weather. The rain protection garment may also be designed as a net bag to provide ventilation and drying its contents after rain.

**[0030]** To summarize, the above description concerns a rain protection device arranged to be installed at an outdoor spectator seat, wherein the rain protection device comprises a rain protection cover arranged to be flipped down over a seat cushion. The rain protection cover has a drip edge which, in its rain protection position, covers the seat cushion and around the seat cushion and the seat of the spectator seat, and a backrest padding which in uncovering position forms a comfortable backrest cushion arranged to be attached to the backrest of the spectator seat. A rain protection garment is fastened at the spectator seat with a string, and is arranged to be stored in a rain protection garment cover at the spectator seat.

**[0031]** The invention has mainly been described referring to a few embodiments, but may be modified in different ways within the scope of the appended claims. For instance, the invention is not limited to use at spectator seat in sports arenas, outdoor theatres and outdoor scenes; it may also be suitable for other outdoor seats for spectators, such as hunting towers and bird-watching hide-outs, seats under the open sky in sighting boats and sighting busses, etc. Moreover, a flexible rain protection cover made of galon has been disclosed. In addition a rigid rain protection cover, for instance made by PVC, would work and is covered by the appended claims.

**[0032]** The rain protection garment being attached to a spectator seat constitutes a separate, second inventive concept, on which a divisional patent application may be based. This second inventive concept lowers the risk that a spectator at an outdoor spectator seat will get wet if its

starts to rain, as well as lowering the risk that a spectator using an umbrella will obstruct the view for spectators behind. These advantages will be accomplished by a first aspect of said second inventive concept with a rain protection garment characterised by a string, which is attached to the backside of the rain protection garment, wherein the string is arranged to be attached to an outdoor spectator seat. The string ought to at least have a length of 40 cm and the string as well as its fastening at the backside ought to have a tensile strength of at least 100 N. The risk that a spectator should pull off the rain protection garment and bring it home is lowered due to the tensile strength of the string.

**[0033]** According to a second aspect of said second inventive concept the advantages of an outdoor spectator seat is accomplished by an outdoor spectator seat, being fastened to a rain protection garment via a string. Preferably the string has a length of at least 40 cm. Moreover, it is preferred that the string, as well as the fastenings of the string onto the spectator seat and the rain protection garment, has a tensile strength of at least 100 N.

## Claims

1. A rain protection device for an outdoor spectator seat, wherein the rain protection device (16) comprises a seat cushion (20) and a rain protection cover (22), wherein the rain protection cover (22) is arranged to be moved between a rain protection position, in which the rain protection cover (22) covers the seat cushion (20), and an uncovering position, in which the seat cushion (20) is exposed, wherein the rain protection cover (22) is provided with a drip edge (34) being arranged to hang over the edge (24a-d) of the seat cushion (20) in the rain protection position.
2. A rain protection device according to claim 1, wherein the rain protection cover (22), in its uncovering position, is arranged to be attached to a backrest (14) of the spectator seat (10).
3. A rain protection device according to claim 2, wherein the rain protection cover (22) comprises a back padding (36).
4. A rain protection device according to claim 1, wherein the rain protection cover (22), in its uncovering position, is arranged to hang down from a front edge (24a) of the seat cushion (20).
5. A rain protection device according to anyone of the preceding claims, further comprising a transparent plastic pocket (30, 38).
6. A rain protection device according to anyone of the preceding claims, wherein the rain protection cover

(22), in its rain protection position, is arranged to be attached to the seat cushion (20).

7. A spectator seat provided with a rain protection device according to anyone of the preceding claims. 5
8. A spectator seat according to claim 7, wherein the rain protection device (16) is fastened to the spectator seat (10). 10
9. A spectator seat according to anyone of claims 7-8, further comprising a rain protection garment (46) being fastened to the spectator seat (10) via a string (48). 15
10. A spectator seat, comprising a fastening means for fastening a rain protection device (16) according to anyone of claims 1-6. 20
11. Use of a rain protection device according to anyone of the preceding claims with a spectator seat. 25

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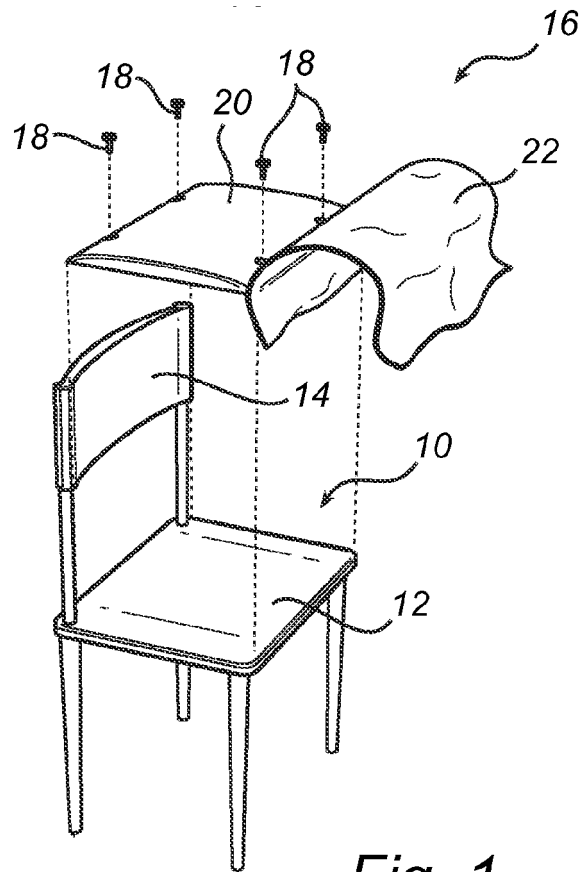


Fig. 1

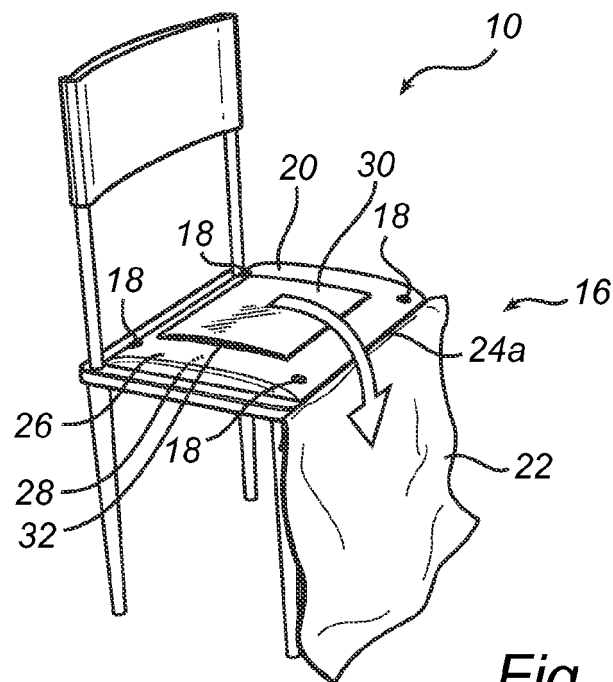


Fig. 2

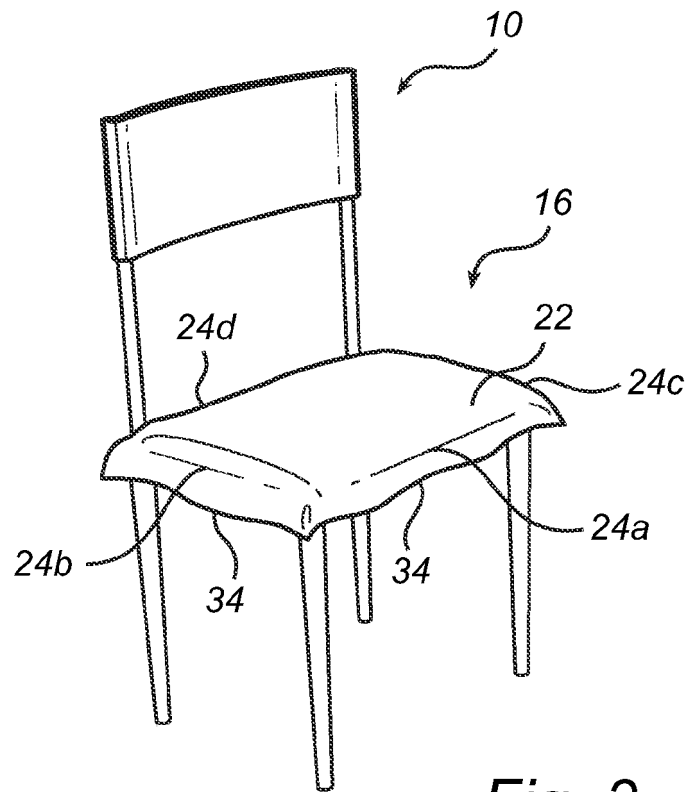


Fig. 3

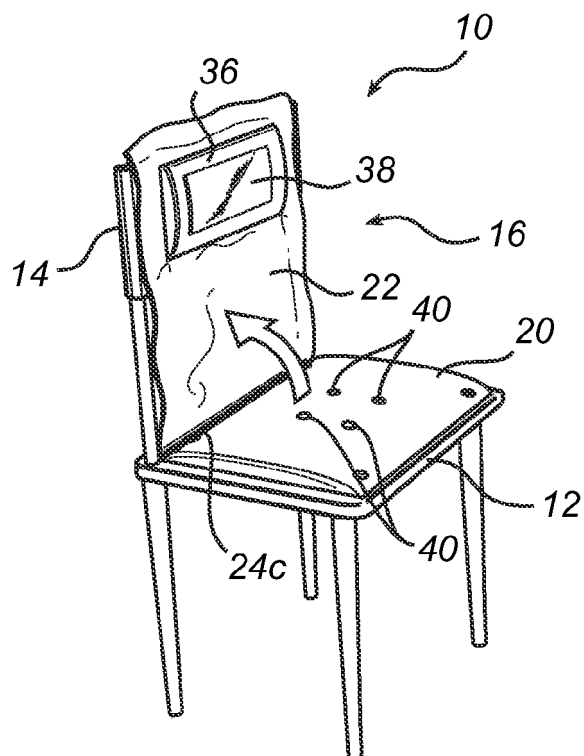
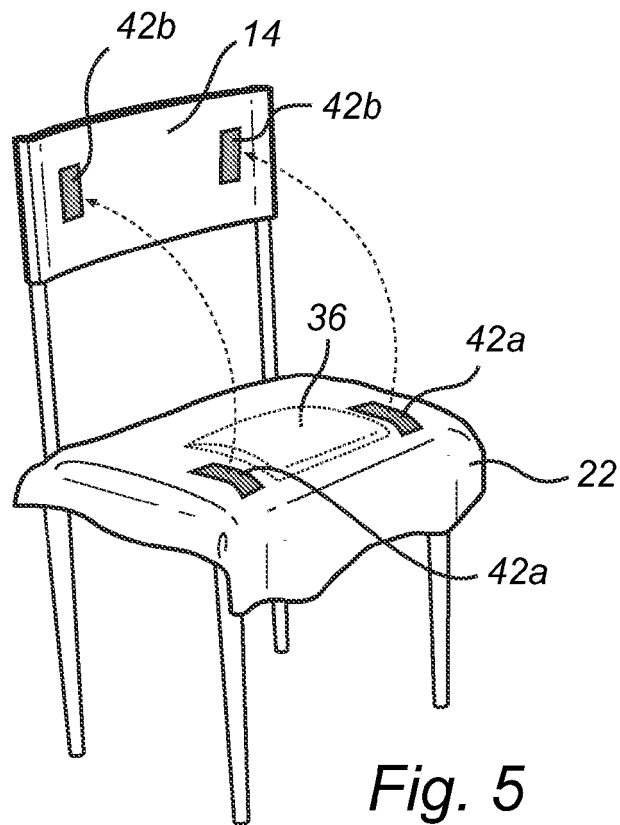
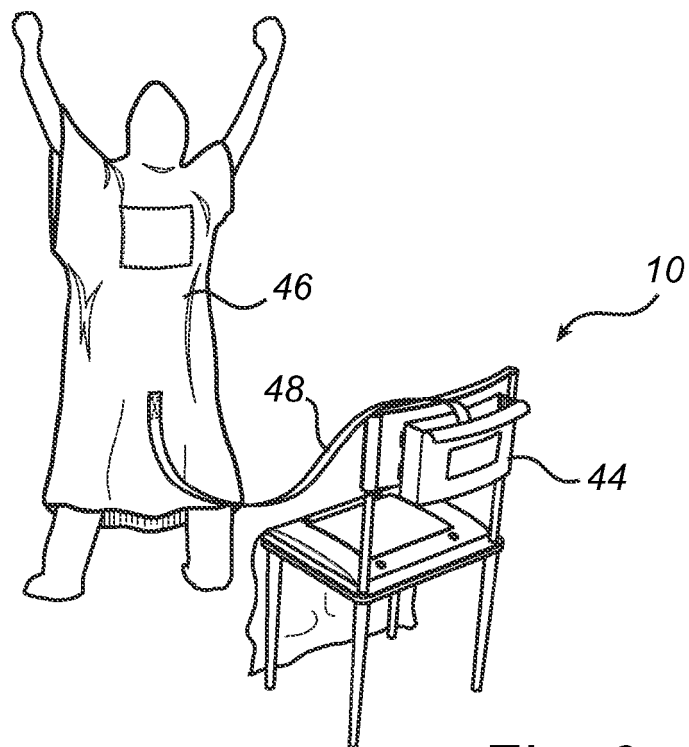


Fig. 4



*Fig. 5*



*Fig. 6*





## EUROPEAN SEARCH REPORT

Application Number  
EP 10 19 3943

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 26 14 594 B1 (KA BE GE KINDERBEKLEIDUNGS UND) 17 March 1977 (1977-03-17)	1-3,5-8, 10,11	INV. A47C7/66 A47C31/11
A	* figures 6-7 * * column 4, line 34 - line 62 *	4,9	
A	DE 195 12 872 A1 (MUELLER HANS [DE]) 10 October 1996 (1996-10-10) * figures 2,3 *	1,2,6-8, 10,11	
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A	US 1 350 021 A (HOLLIDAY JEREMIAH R) 17 August 1920 (1920-08-17) * the whole document *	9	
			TECHNICAL FIELDS SEARCHED (IPC)
			A47C
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 27 May 2011	Examiner Alff, Robert
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 10 19 3943

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27-05-2011

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**REFERENCES CITED IN THE DESCRIPTION**

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