



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:  
**03.07.2024 Bulletin 2024/27**

(21) Application number: **23220198.8**

(22) Date of filing: **23.12.2023**

(51) International Patent Classification (IPC):  
**A47C 1/12** <sup>(2006.01)</sup> **A47C 7/74** <sup>(2006.01)</sup>  
**A47C 11/00** <sup>(2006.01)</sup> **A47C 1/024** <sup>(2006.01)</sup>  
**A47C 31/00** <sup>(2006.01)</sup>

(52) Cooperative Patent Classification (CPC):  
**A47C 31/008; A47C 1/0242; A47C 1/12;**  
**A47C 7/742; A47C 7/748; A47C 11/005**

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB**  
**GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL**  
**NO PL PT RO RS SE SI SK SM TR**  
Designated Extension States:  
**BA**  
Designated Validation States:  
**KH MA MD TN**

(30) Priority: **27.12.2022 EP 22216840**

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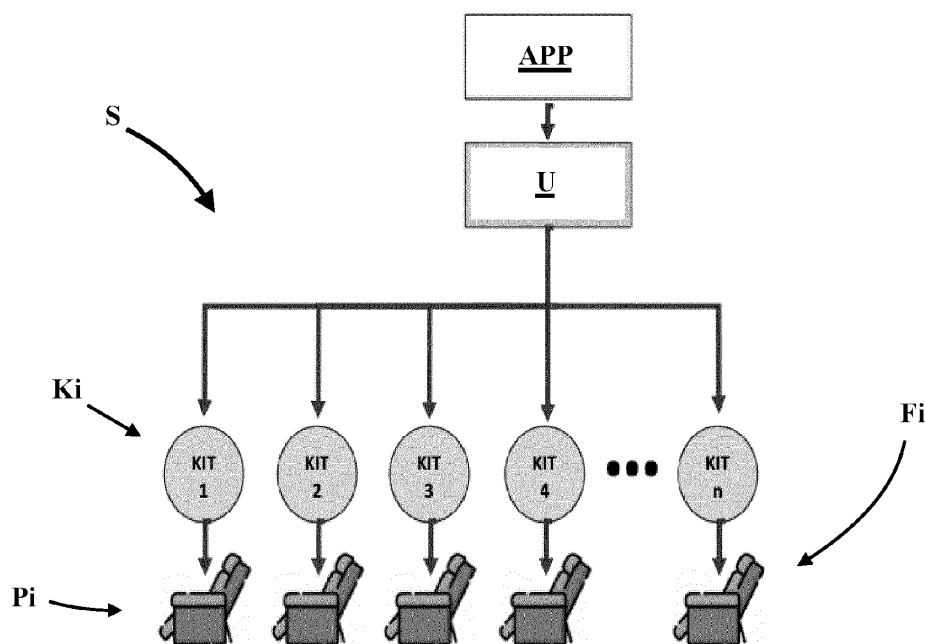
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(54) **SELECTIVE ARMCHAIR OPERATING AND CONTROLLING SYSTEM ON A HALL**

(57) Operating system (S) for operating and controlling armchairs in a hall, comprising a multiplicity of armchairs (Pi) arranged side by side in series to form a plurality of rows (Fi) of said armchairs (Pi), each single armchair (Pi) being reclining; and actuator means (Ai) for switching from a closed upright position of said reclining chair (Pi) to an extended open relaxation position; char-

acterized in that each said armchair (Pi) further comprises a kit (Ki) made up of a plurality of accessory means (Mi) for customizing said armchair (Pi); a device (Cbi) for detecting and controlling said accessory means (Mi), and a master unit (U) adapted to manage and control all said devices (Cbi) for detecting all said seats (Pi) of all called files (Fi).



**FIG. 1**

## Description

**[0001]** This invention relates to an armchair operating and controlling system on a hall.

**[0002]** The invention in question is advantageously used in public or public or even private events halls as in cinema or motion-picture theater halls, concert halls, theater halls or shows in general, to which the description that follows will make explicit reference without losing in generality.

**[0003]** The purpose of this invention is to create an drive system capable of optimizing the controlled management of armchairs arranged alongside to form multiple adjacent rows of armchairs.

**[0004]** Another purpose of this invention is to create an drive and control system that allows each spectator to manage and move their single session in a personalized and selective way by supporting their needs and their vision and/or listening preferences in events as as in cinema halls or motion-picture theater halls, concert halls, theater halls in general, where any kind of shows or gig are carried out.

**[0005]** The structural and functional characteristics of this invention and its advantages towards the known technique will be even clearer and evident from the claims below, and in particular by an examination of the following description, referring to the attached designs, which show the blocks diagram of one preferred but not limiting the form of realization of an armchairs and control system in question, in which:

- Figure 1 shows the blocks diagram of a favorite but not limiting form of realization of a system of drive and control system in question; and
- Figure 2 another blocks diagram of the system of Figure 1.

**[0006]** With reference to the figures attached 1 and 2 with block schemes, with S a system for operating and control of armchairs is globally indicated, preferably armchairs placed alongside in series in line in order to form a plurality of adjacent rows of armchairs in public events halls or private individuals such as cinema hall, concert halls, theater halls or hall where shows in general public or even private ones take place.

**[0007]** The S system includes a multiplicity of armchairs Pi (P1-PN) placed alongside in series to form a plurality of rows Fi (F1-FN) of armchairs Pi.

**[0008]** Each Pi armchair is of the known type of reclining configuration (seat and/or backrest) through the aim of actuators Ai, for example electrical actuators or similar, from a standing position closed to an extended extended relaxation position so as to allow the viewer sitting in the armchair Pi to stretch the legs and/or to tilt and relax their back comfortably by acting on TRi remote control.

**[0009]** Each Pi armchair is advantageously equipped with a kit Ki formed by plurality of accessory means Mi, which also includes the aforementioned actuator means

Ai to the movement of the seat and/or the backrest, which can be activated via the aforementioned remote remote control TRi.

**[0010]** Preferably but not limited, accessory means Mi include heating means Ri for heating seat of said armchair Pi, for example with heating cloth (or means of conditioning or ventilators of cooling), sensor means SPi for sensing the pressure of th seat capable of allowing the user to an optimal comfort of the seat of armchiar Pi, monitor or screen means Zi (LCD) i.e. tablets or similar, means Ji of signalling by lighting identification of the armchair Pi.

**[0011]** The above cited accessory means Mi may also include other means such as electronic devices (headphones, speakers, alt.monitors etc.) and/or even means Ci for electric recharging smartphones or similar or equivalent electronic appliances.

**[0012]** The signals of personalized and dedicated preference by user, and also of safety and privacy protection of each accommodated user sitting in the single Pi armchair are checked and sent (e.g. via wifi or via connection cables) to a relative CBi device, which is in turn send with a relative signal to a master unit U capable of managing and controlling the flow of information signals from all CBi devices of all the most of all files Fi.

**[0013]** In this way, in use, for example through a special APP interface that is connected (e.g. via wifi or via connection cables) to the master unit U, a controller/manager in charge of the hall is able to detect and coordinate all the customized Pi armchairs, and to issue any alarm signals in the event of malfunctions or other useful information for optimal hall management.

**[0014]** It is to be highlighted that, advantageously, each spectator/user can also make an ordination to the bar or coffee shop of the hall, simply by sending to his CBi device a message of his meal order from his touch screen Zi, so that such order message can reach the bar or coffee shop via the aforementioned unit U connected through said APP.

## Claims

1. Operating system (S) for operating and controlling armchairs in a hall, comprising a multiplicity of armchairs (Pi) arranged side by side in series to form a plurality of rows (Fi) of said armchairs (Pi), each single armchair (Pi) being reclining; and actuator means (Ai) for switching from a closed upright position of said reclining chair (Pi) to an extended open relaxation position; **characterized in that** each said armchair (Pi) further comprises a kit (Ki) made up of a plurality of accessory means (Mi) for customizing said armchair (Pi); a device (CBi) for detecting and controlling said accessory means (Mi), and a master unit (U) adapted to manage and control all said devices (CBi) for detecting all said seats (Pi) of all called files (Fi).

2. System according to claim 1, **characterized in that** the said accessory means (Mi) include means (Ri) for heating or cooling the seat or backrest of the said single armchair (Pi), sensor means (SPi) for controlling the comfort of the seat and/or backrest of the single said armchair (Pi), means (Zi) on the screen (LCD) or tablet, means (Ji) for signaling and/or lighting identification of the said single armchair (Pi). 5
3. System according to claim 1 or 2, **characterized in that** it comprises means (TRi) for remotely operating each said armchair (Pi) and said accessory means (Mi) for personalizing said armchair (Pi) . 10
4. System according to one or more of the previous claims, **characterized in that** the said accessory means (Mi) include means (Ci) with an electric charging socket for electronic devices. 15
5. System according to one or more of the previous claims, **characterized in that** it also includes digital means (APP) for managing and controlling the said master unit (U). 20

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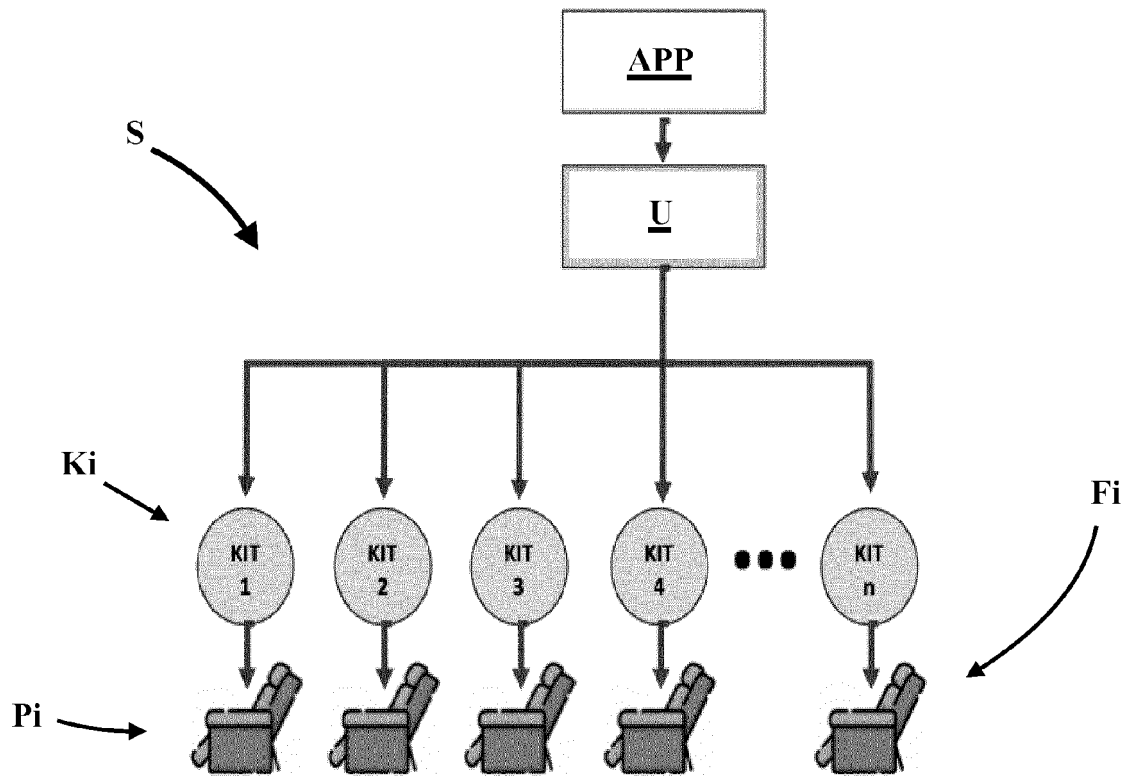


FIG. 1

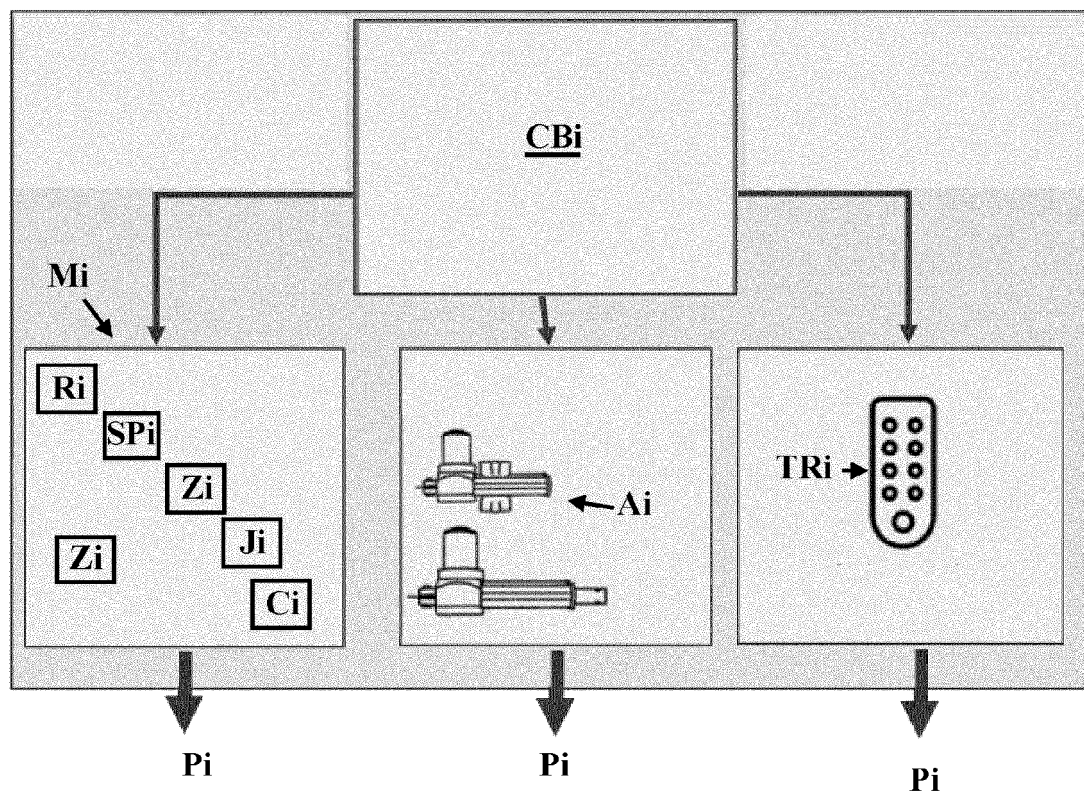


FIG. 2



## EUROPEAN SEARCH REPORT

Application Number

EP 23 22 0198

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EPO FORM 1503 03.82 (P04C01)

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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X	US 2020/214456 A1 (JACOBS MATTHEW [US] ET AL) 9 July 2020 (2020-07-09) * paragraph [0095]; figures 1a, 1b *	1-5	
			TECHNICAL FIELDS SEARCHED (IPC)
			A47C
The present search report has been drawn up for all claims			
Place of search <b>The Hague</b>		Date of completion of the search <b>14 May 2024</b>	Examiner <b>Melo Sousa, Filipe</b>
CATEGORY OF CITED DOCUMENTS			
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		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	

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

EP 23 22 0198

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82