(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 3 678 264 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
08.07.2020 Bulletin 2020/28

(21) Application number: **19176835.7**

(22) Date of filing: **27.05.2019**

(51) Int Cl.:
H01R 25/14 *(2006.01)*
G09F 7/10 *(2006.01)*
G09F 7/04 *(2006.01)*
H01R 13/62 *(2006.01)*
F21V 21/35 *(2006.01)*
G09F 13/04 *(2006.01)*
H01R 13/66 *(2006.01)*

(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 MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME
Designated Validation States:
KH MA MD TN

(30) Priority: **07.01.2019 CN 201910011433**

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(54) DEVICE PROVIDED WITH LIGHT-EMITTING LOGO

(57) A device provided with a light-emitting logo includes a guide rail, a plurality of sliding seats, a light-emitting logo, a wiring sliding seat and fixed parts. The plurality of sliding seats slide back and forth in a length direction of the guide rail. The light-emitting logo is correspondingly and electrically connected with the plurality of sliding seats and synchronously moves along with the sliding seats. The wiring sliding seat slides back and forth in the length direction of the guide rail and is electrically connected with the light-emitting logo through the corresponding sliding seat. The fixed parts are arranged at the end or on the side wall of the guide rail. The light-emitting logo can be conveniently fixed and electrically connected through the sliding seats and besides. The light-emitting logo can be conveniently and flexibly adjusted in position according to a mounting demand.

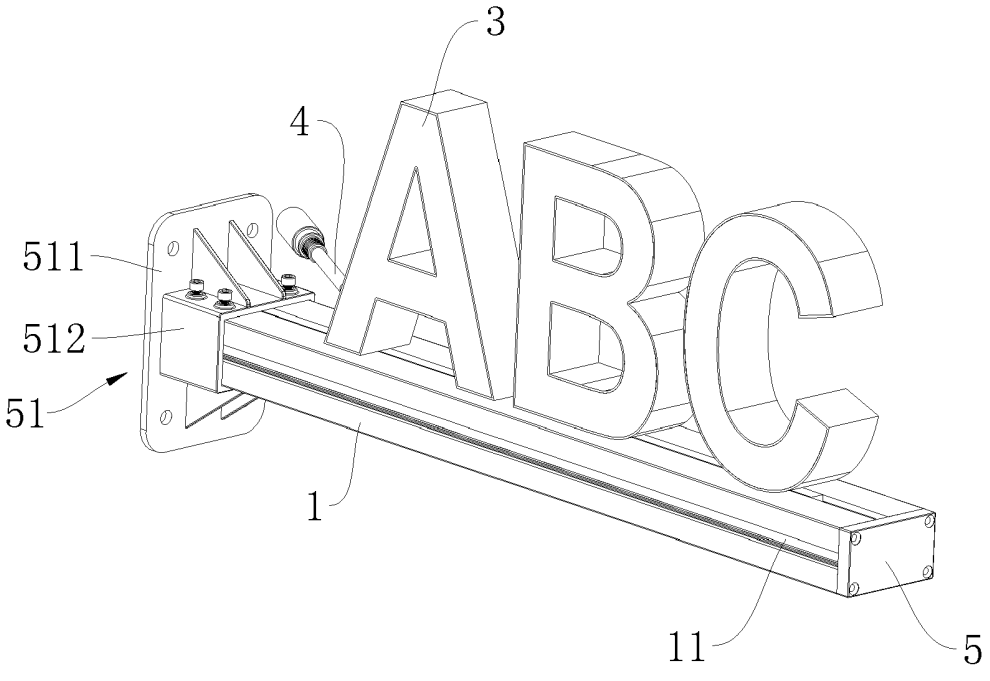

Fig. 1

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Description

Field of the Invention

[0001] The present invention relates to a slide rail assembly and more particularly to a slide rail assembly which includes a first rail and a second rail movably connected to the first rail.

Background of the Invention

[0002] In the prior art, when fixedly mounted, light-emitting logos are mostly fixed on a mounting surface one by one, the fixed light-emitting logos fixed in such way cannot be adjusted flexibly, and holes need to be punched on the mounting surface when the light-emitting logos are mounted, which makes construction complex.

Summary of the Invention

[0003] The invention aims at providing a device provided with a light-emitting logo which is convenient to mount and capable of being flexibly adjusted in position.

[0004] In order to fulfill this purpose, the technical scheme adopted by the invention is as follows:
A device provided with a light-emitting logo includes a guide rail, a plurality of sliding seats, a light-emitting logo, a wiring sliding seat and fixed parts, wherein the plurality of sliding seats slide back and forth in a length direction of the guide rail; the light-emitting logo is correspondingly and electrically connected with the plurality of sliding seats and synchronously moves along with the sliding seats; the wiring sliding seat slides back and forth in the length direction of the guide rail and is electrically connected with the light-emitting logo through the corresponding sliding seat; and the fixed parts are arranged at the end or on the side wall of the guide rail.

[0005] Wherein, at least one side wall of the guide rail is provided with a sliding chute in sliding connection with the plurality of sliding seats.

[0006] Wherein, a positive plate and a negative plate are respectively arranged on two opposite side walls of the sliding chute and are respectively and electrically connected with electrodes on two side walls of the wiring sliding seat in a sliding manner.

[0007] Wherein, each sliding seat includes a slide block, a positive column, a negative column, a first circuit board, a positive fixed column, a negative fixed column and a strong magnet, wherein the positive column and the negative column are embedded into two opposite side walls of the slide block, the first circuit board is arranged in a cavity of the slide block and is electrically connected with the positive column and the negative column, the positive fixed column and the negative fixed column which have upper ends exposed out of the top of the slide block penetrate through the first circuit board, the strong magnet covers an opening in the lower end of the cavity of the slide block and attracts a magnetic sheet laid at the bottom of the sliding chute; and the positive column and the negative column are respectively in sliding connection with the corresponding positive plate and the corresponding negative plate.

[0008] Wherein, the light-emitting logo includes a shell, a lamp shade and a lamp panel; the lamp shade is cooperated with the open end of the shell; the lamp panel is arranged in a cavity defined by the lamp shade and the shell; and each positive fixed column and each negative fixed column are fastened with the shell through insulating parts and are electrically connected with the lamp panel through conductive connecting pieces.

[0009] Wherein, one fixed part is a mounting base fastened at one end of the guide rail; the mounting base includes a mounting plate and a fixed sleeve integrally arranged on one side wall of the mounting plate; and a mounting sleeve is arranged at one end of the guide rail in a sleeving manner and is fastened with the end of the guide rail through screws.

[0010] Wherein, one fixed part is a clamping piece clamped in a clamping groove formed in one side wall of the guide rail; the clamping piece is arranged in an L shape; mounting holes are formed in two side walls of the clamping piece; and at least one side wall of the clamping piece has a connecting part used for being clamped in the clamping groove formed in the side wall of the guide rail.

[0011] Wherein, clamping grooves are formed in the side walls of the guide rail, and a positive plate and a negative plate are arranged in the clamping groove formed in each of the side walls of the guide rail.

[0012] Wherein, second circuit boards used for the parallel connection of the positive plate and the negative plate which are located in each clamping groove formed in the side walls of the guide rail are respectively arranged at two ends of the guide rail; and an end cover is arranged on the outer side of each second circuit board in a pressing manner and is fastened to the end surface of the guide rail.

[0013] The invention has the following beneficial effects: the device includes the guide rail, the plurality of sliding seats, the light-emitting logo, the wiring sliding seat and the fixed parts, wherein the plurality of sliding seats slide back and forth in the length direction of the guide rail; the light-emitting logo is correspondingly and electrically connected with the plurality of sliding seats and synchronously moves along with the sliding seats; the wiring sliding seat slides back and forth in the length direction of the guide rail and is electrically connected with the light-emitting logo through the corresponding sliding seat; and the fixed parts are arranged at the end or on the side wall of the guide rail. According to the device based on this structural design, the light-emitting logo can be conveniently fixed and electrically connected through the sliding seats, and besides, the light-emitting logo can be conveniently and flexibly adjusted in position according to a mounting demand.

Brief Description of the Drawings

[0014]

Fig. 1 is an axonometric drawing of a device provided with a light-emitting logo of the invention;

Fig. 2 is a front view of the device provided with a light-emitting logo of the invention;

Fig. 3 is a sectional view along A-A in Fig. 2;

Fig. 4 is partial enlarged view of part B in Fig. 3;

Fig. 5 is another mounting method of the device provided with a light-emitting logo of one embodiment.

Detailed Description of the Invention

[0015] The technical scheme of the invention is detailed as follows in combination with the drawings and specific implementations.

[0016] As shown in Fig. 1 to Fig. 5, this embodiment provides a device provided with a light-emitting logo. The device provided with a light-emitting logo includes a guide rail 1, a plurality of sliding seats, a light-emitting logo 3, a wiring sliding seat 4 and fixed parts 51, 52, wherein the plurality of sliding seats slide back and forth in the length direction of the guide rail 1; the light-emitting logo 3 is correspondingly and electrically connected with the plurality of sliding seats and synchronously moves along with the sliding seats; the wiring sliding seat 4 slides back and forth in the length direction of the guide rail 1 and is electrically connected with the light-emitting logo 3 through the corresponding sliding seat; and the fixed parts 51, 52 are arranged at the end or on the side wall of the guide rail 1. In this embodiment, the specific structure of the wiring sliding seat 4 can be designed with reference to the structures of the sliding seats, and unnecessary details are not given here.

[0017] A preferred implementation of this embodiment is as follows: sliding chutes 11 in sliding connection with the plurality of sliding seats are arranged on the side walls of the guide rail 1; a positive plate 111 and a negative plate 112 are respectively arranged on two opposite side walls of each sliding chute 11 and are respectively and electrically connected with electrodes on two side walls of the wiring sliding seat 4 in a sliding manner; and each sliding seat includes a slide block 21, a positive column, a negative column, a first circuit board 22, a positive fixed column 23, a negative fixed column and a strong magnet 24, wherein the positive column and the negative column are embedded into two opposite side walls of the slide block 21, the first circuit board 22 is arranged in a cavity of the slide block 21 and is electrically connected with the positive column and the negative column, the positive fixed column 23 and the negative fixed column which have upper ends exposed out of the top of the slide block 21 penetrate through the first circuit board 22, and the strong magnet 24 covers an opening in the lower end of the cavity of the slide block 21 and attracts a magnetic sheet 13 laid at the bottom of the corresponding sliding chute 11, and the positive column and the negative column are respectively in sliding connection with the corresponding positive plate 111 and the corresponding negative plate 112. According to this structural design, the sliding seats can be conveniently and flexibly adjusted in the length direction of the guide rail 1, and then the light-emitting logo 3 connected with the sliding seats can synchronously move along with the sliding seats, and the number of the sliding seats can be flexibly increased or decreased according to the mounting demand of the light-emitting logo 3.

[0018] Further, in this embodiment, the light-emitting logo 3 includes a shell 31, a lamp shade 32 and a lamp panel 33, wherein the lamp shade 32 is cooperated with the open end of the shell 31; the lamp panel 33 is arranged in a cavity defined by the lamp shade 32 and the shell 31; and each positive fixed column 23 and each negative fixed column are fastened with the shell 31 through insulating parts and are electrically connected with the lamp panel 33 through conductive connecting pieces 34.

[0019] Besides, by adopting the above structural design, as the sliding chutes 11 are arranged on the side walls of the guide rail 1, for the sake of mutual conduction between the positive plates 111 and the negative plates 112 in the adjacent sliding chutes 11, second circuit boards (which are not marked in the drawings) used for parallel connection of the positive plates 111 and the negative plates 112 which are located in clamping grooves formed in the side walls of the guide rail 1 are respectively arranged at two ends of the guide rail 1; and an end cover 5 is arranged on the outer side of each second circuit board in a pressing manner and is fastened to the end surface of the guide rail 1. According to this structural design, the sliding chutes 11 can be electrified by arranging the wiring sliding seat 4 in any one of the sliding chutes 11.

[0020] A first mounting method of this embodiment is as follows: the fixed part 51 is a mounting base fastened at one end of the guide rail 1; and the mounting base includes a mounting plate 511 and a fixed sleeve 512 integrally arranged on one side wall of the mounting plate 511; and a mounting sleeve is arranged at one end of the guide rail 1 in a sleeving manner and is fastened through screws. In this way, the whole device can be vertically fastened on a mounting surface.

[0021] A second mounting method is as follows: the fixed part 52 is a clamping piece clamped in the clamping groove formed in one side wall of the guide rail 1; the clamping piece is arranged in an L shape; mounting holes 521 are formed in two side walls of the clamping piece; and one side wall of the clamping piece has a connecting part 522 used for being clamped in the clamping groove formed in one side wall of the guide rail 1. According to

this structural design, during mounting, the clamping piece can be fixed to the mounting surface and then be clamped in the clamping groove formed in one side wall of the guide rail 1, so that the device is horizontally fixed to the mounting surface.

[0022] The technical principle of the invention is described above in combination with the embodiment. These descriptions are only used to explain the principle of the invention, but should not be interpreted as limitations on the protection scope of the invention in any way. On the basis of the explanation given here, those skilled in this field can associate other specific implementations of the invention without creative labor, and all these implementations should also fall within the protection scope of the invention.

Claims

1. A device provided with a light-emitting logo, comprising a guide rail, a plurality of sliding seats, a light-emitting logo, a wiring sliding seat and fixed parts, wherein the plurality of sliding seats slide back and forth in a length direction of the guide rail; the light-emitting logo is correspondingly and electrically connected with the plurality of sliding seats and synchronously moves along with the sliding seats; the wiring sliding seat slides back and forth in the length direction of the guide rail and is electrically connected with the light-emitting logo through the corresponding sliding seat; and the fixed parts are arranged at an end or on a side wall of the guide rail.

2. The device provided with a light-emitting logo according to claim 1, wherein at least one side wall of the guide rail is provided with a sliding chute in sliding connection with the plurality of sliding seats.

3. The device provided with a light-emitting logo according to claim 2, wherein a positive plate and a negative plate are respectively arranged on two opposite side walls of the sliding chute and are respectively and electrically connected with electrodes on two side walls of the wiring sliding seat in a sliding manner.

4. The device provided with a light-emitting logo according to claim 3, wherein each said sliding seat comprises a slide block, a positive column, a negative column, a first circuit board, a positive fixed column, a negative fixed column and a strong magnet, wherein the positive column and the negative column are embedded into two opposite side walls of the slide block, the first circuit board is arranged in a cavity of the slide block and is electrically connected with the positive column and the negative column, the positive fixed column and the negative fixed column which have upper ends exposed out of a top of the slide block penetrate through the first circuit board, the strong magnet covers an opening in a lower end of the cavity of the slide block and attracts a magnetic sheet laid at a bottom of the sliding chute, and the positive column and the negative column are respectively in sliding connection with the corresponding positive plate and the corresponding negative plate.

5. The device provided with a light-emitting logo according to claim 4, wherein the light-emitting logo comprises a shell, a lamp shade and a lamp panel; the lamp shade is cooperated with an open end of the shell; the lamp panel is arranged in a cavity defined by the lamp shade and the shell; and each said positive fixed column and each said negative fixed column are fastened with the shell through insulating parts and are electrically connected with the lamp panel through conductive connecting pieces.

6. The device provided with a light-emitting logo according to claim 1, wherein one said fixed part is a mounting base fastened at one end of the guide rail; the mounting base comprises a mounting plate and a fixed sleeve integrally arranged on one side wall of the mounting plate; and a mounting sleeve is arranged at one end of the guide rail in a sleeving manner and is fastened with the end of the guide rail through screws.

7. The device provided with a light-emitting logo according to claim 1, wherein one said fixed part is a clamping piece clamped in a clamping groove formed in one side wall of the guide rail; the clamping piece is arranged in an L shape; mounting holes are formed in two side walls of the clamping piece; and at least one side wall of the clamping piece has a connecting part used for being clamped in the clamping groove formed in the side wall of the guide rail.

8. The device provided with a light-emitting logo according to claim 1, wherein clamping grooves are formed in side walls of the guide rail, and a positive plate and a negative plate are arranged in the clamping groove formed in each of the side walls of the guide rail.

9. The device provided with a light-emitting logo according to claim 8, wherein second circuit boards used for parallel connection of the positive plate and the negative plate which are located in the clamping groove formed in each of the side walls of the guide rail are respectively arranged at two ends of the guide rail; and an end cover is arranged on an outer side of each said second circuit board in a pressing manner and is fastened to an end surface of the guide rail.

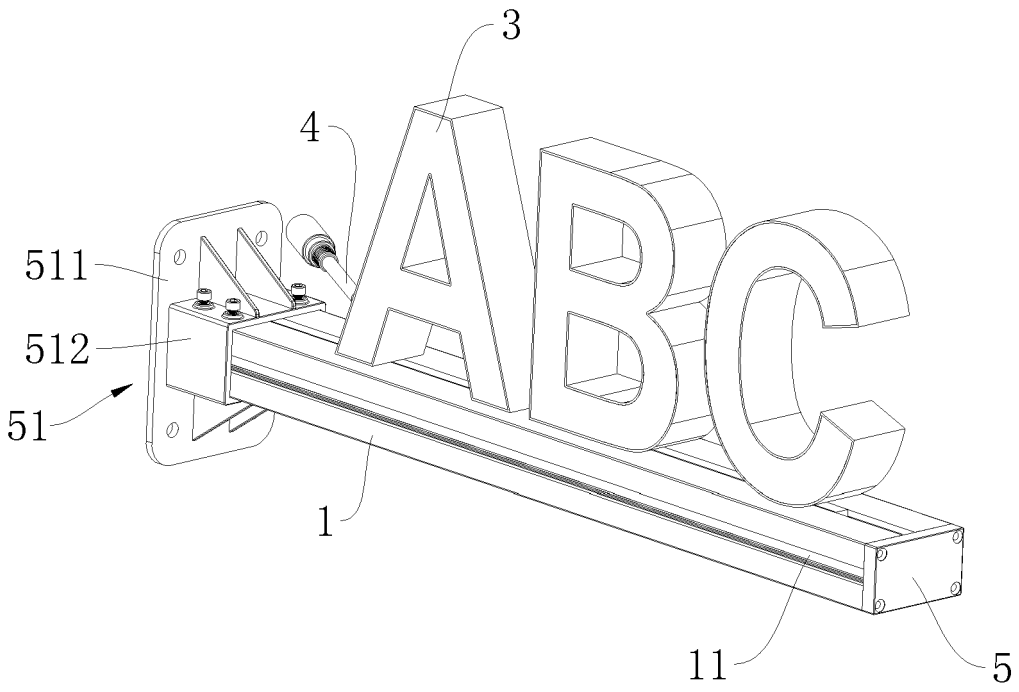

Fig. 1

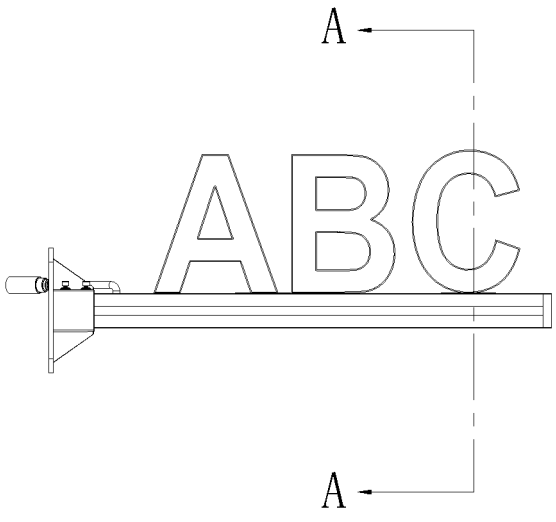

Fig. 2

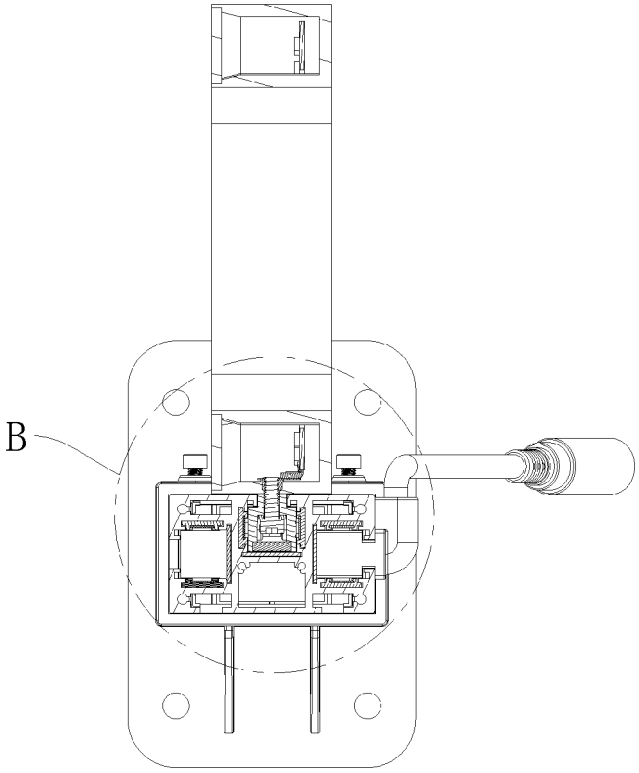

Fig. 3

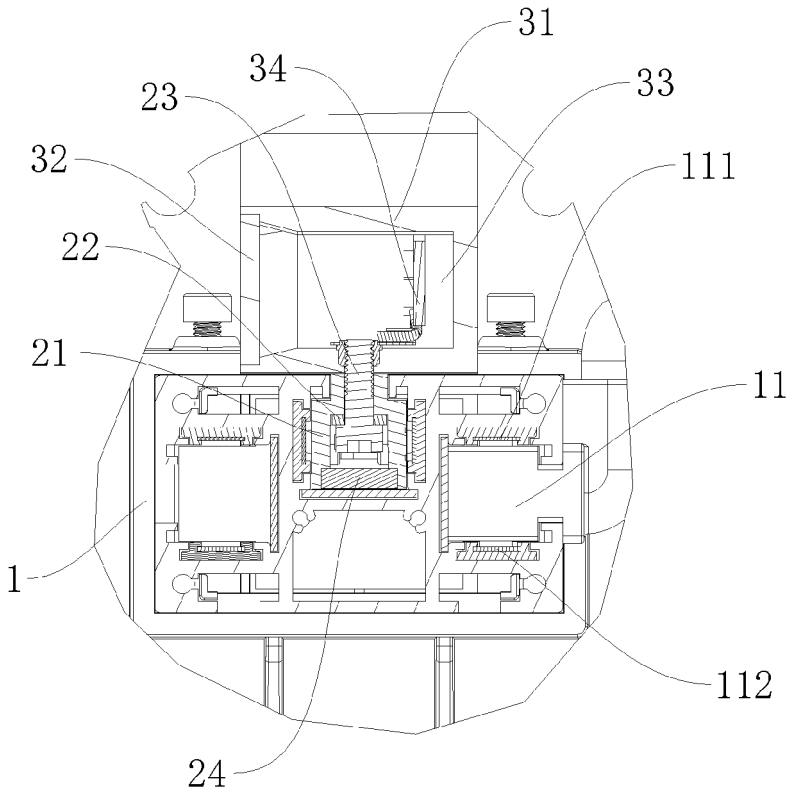

Fig. 4

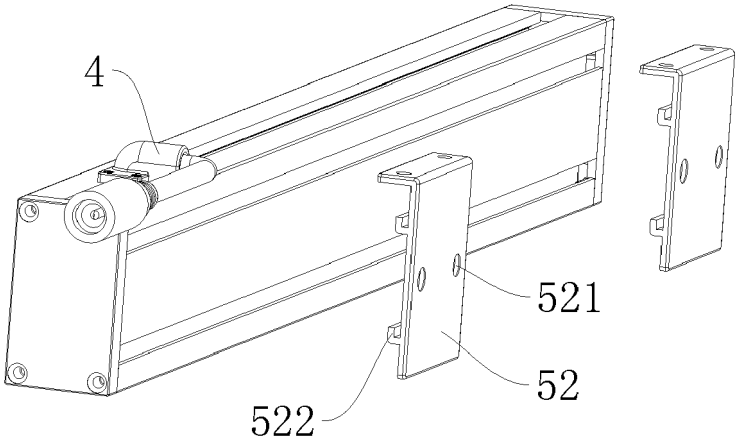

Fig. 5

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EUROPEAN SEARCH REPORT

Application Number
EP 19 17 6835

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Y	* paragraphs [0022], [0026], [0028], [0036]; figures 1,3,6,8 *	4,5,8,9	H01R25/14 F21V21/35 G09F7/10 G09F13/04
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A	* paragraph [0024]; figure 4 *	1	
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H01R
G09F
F21V

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	29 April 2020	Vautrin, Florent

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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EPO FORM 1503 03.82 (P04C01)

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