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(54) SUPPORT SYSTEM FOR AT LEAST ONE TREATMENT STATION FOR A PERSON

(57) Support system for at least one treatment station (P) for a person (U) comprising a main body (2) and positioning means for bringing said main body to a predetermined position with respect to said treatment station.

Said main body (2) comprises lighting means directed towards the underlying treatment station (P) for a person and means for aspirating the air present underneath the main body, between said body (2) and the station (P).

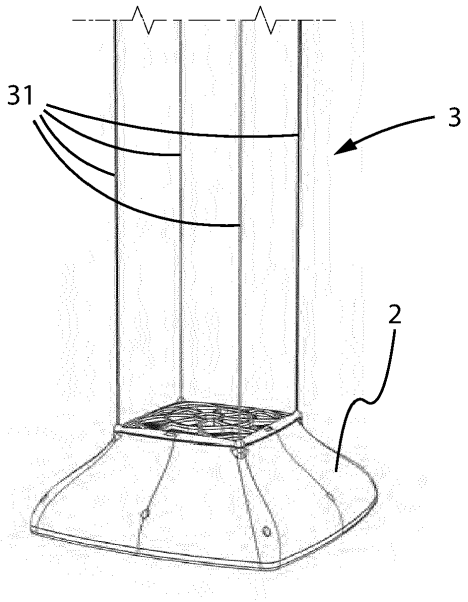

Fig. 1

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Description

[0001] The present invention refers to a support system for treatment stations for a person.

[0002] In particular, the present invention relates to the field of beauty, therapeutic, or cosmetic treatment centres, or centres where services of said type are provided to people, in which there are stations where people themselves are treated, comprising ergonomic chairs, couches, or similar stations in which the person can be comfortable for the treatment.

[0003] Normally, in said stations, between one type of treatment and another, or before or after a treatment, there are periods of time in which the person remains in the station without being treated; said period of time can also be rather long. For example, in beauty salons and in particular in hairstyle salons, between one step of washing and another, or a hair dye, or a similar treatment, it is possible that the person remains in the station with wet hair.

[0004] In patent 202015902339482 an equipment is proposed which is positioned in the vicinity of the station where the person is, in particular in the vicinity of his/her head and comprising heating means which are adapted to heat said person and in particular the upper part of the body thereof when the person is sitting. Said heating means are preferably an infrared lamp.

[0005] The Applicant has noted that systems different from those mentioned above being adapted to heat the surrounding environment and the upper portion of the body of the person (in particular his/her head and hair) can also be positioned in said stations.

[0006] For example, specific lighting means and/or suction means and/or active filtering means can be placed in said position close to the treatment station for the person.

[0007] The present invention proposes a support system for treatment stations for a person having the features of the attached claim 1.

[0008] Further features of the present invention are contained in the dependent claims.

[0009] The features and advantages of the present invention will be more apparent from the following, illustrative and non-limiting, description of an embodiment of the invention, referring to the attached schematic drawings, in which:

- figure 1 illustrates a perspective view of a treatment system according to the present invention;
- figure 2 illustrates an exploded view of the main body of the treatment system according to a first embodiment of the invention;
- figure 3 illustrates an exploded view of the main body of the treatment system according to a second embodiment of the invention;
- figure 4 illustrates an exploded view of the main body of the treatment system according to a third embodiment of the invention;
- figure 5 illustrates in a perspective view the base of the main body of figures 2, 3 and 4;
- figure 6 illustrates in a top view the base of the main body of figure 5;
- figure 7 illustrates in a side view the base of the main body of figure 5;
- figure 8 schematically illustrates two systems according to the present invention placed on two treatment stations.

[0010] With reference to the mentioned figures, the support system according to the present invention is used in association with treatment stations for people, such as for example armchairs, or couches, in the medical, cosmetic, aesthetic field, or similar places where treatments for a person, etc., are carried out.

[0011] For the purpose of the present invention, association means that the support system can be positioned even not directly on the station, but in the same environment of the station, so as to interact with the person being in the station. Said system comprises a main body 2 and positioning means for bringing the main body to a predetermined position with respect to said treatment station P for a person U. Said positioning means are preferably suspension means 3 comprising a plurality of tie rods 31 (for example steel cables) which support the main body from above and meanwhile possibly provide the electrical energy necessary for treatment devices present inside said body thereto. In this way, the suspension system does not interfere with either the station or an operator O which needs to move freely around the station itself. Said positioning means also allow the height adjustment of the main body with respect to the station P.

[0012] In an alternative version of the invention, said positioning means can be different but equivalent to those illustrated. For example, they can comprise rigid elements, such as pedestals and section bars, adapted to position the main body in the same position, for example illustrated in figure 7.

[0013] Said main body 2 comprises lighting means directed towards the underlying treatment station P for a person and means for aspirating the air present underneath the main body (in particular between said body 2 and the station P). The main body comprises a base 21 on which said devices are positioned and a preferably dome-shaped upper covering 22 covering the base.

[0014] Said base is preferably concave so that the effect of air suction by said suction means is optimized, since the concavity determines a suction channel.

[0015] The lighting means preferably comprise two lighting sources 23 and 24 and the suction means comprise a motorized fan 25 placed between the two sources. Said lighting sources are preferably LED lamps. Even more preferably said LED lamps are adjustable in intensity, for example by means of a suitable regulator present in an external control C for turning the lamps on or off, or by means of a remote control T. Said lighting sources are mounted on said base in correspondence of lower

openings 211 and 212 which allow the passage of the lighting.

[0016] Said lighting sources 23 and 24 are arranged inclined so as to concentrate the light beam on the head to be worked and in such a way as not to cause particular disturbance to the operator. In particular, the inclination angle R of said sources corresponds to the concavity angle C of the base on which they are mounted. The fan 25 is also mounted on the base in central area in correspondence with a central opening 213 closed by a lower grille 214 able to allow air intake from below, but meanwhile to prevent the suction of any dirt inside the main body 2.

[0017] The dome 22 is open at the top and this opening is closed by an upper grille 221 designed to allow the flow upwards above the main body of the air sucked by the fan below the main body itself.

[0018] According to the second embodiment illustrated in figure 3, the system comprises filtering means for the air sucked in by said suction means.

[0019] Said filtering means 4 are placed inside the main body and include at least one activated carbon filter (preferably a pair of overlapping filters 41 and 42, at least one of which is a HEPA filter).

[0020] Said filtering means are preferably placed inside a specific cartridge 43.

[0021] When the system is placed above a hair treatment station in a beauty salon, said filtering means allow to filter ammonia and to remove other smells of chemical substances exhaled by the used trichology products. The system will thus make the air healthier and more breathable for both the user and the operator. According to the third embodiment illustrated in figure 4 the system comprises in addition to said filtering means for the air sucked in by said suction means also means for sterilization comprising at least one UVC lamp 5 for sterilizing the air and also internal filters.

[0022] The lamp 5 is preferably positioned between the suction means and the filtering means 4.

[0023] Preferably, said UVC lamp emits radiations at a frequency of 253.7 Nm, which allows it to sterilize germs and bacteria, but not to produce ozone (harmful to the environment and to human) at said frequency.

[0024] The system will thus make the air healthier and more breathable for both the user and the operator, also coming to recycle the indoor air of the salon.

[0025] In said embodiment, a pre-filter 6 is also arranged, being placed between the suction means and the lamp 5.

[0026] A power supply 71 for the suction means, a power supply 72 for the UVC lamp and a module 73 for managing the adjustment of the lighting of the LED lamps by means of a remote control can also be present inside the main body.

Claims

1. Support system for at least one treatment station (P) for a person (U) comprising a main body (2) and positioning means for bringing said main body to a predetermined position with respect to said treatment station, **characterized in that** said main body (2) comprises lighting means directed towards the underlying treatment station (P) and means for aspirating the air present underneath the main body, between said body (2) and the station (P).

2. System according to claim 1, wherein said lighting means comprise two lighting sources (23, 24) and the suction means comprise a motorized fan (25) placed between the two sources.

3. System according to claim 1, wherein said lighting sources are LED.

4. System according to claim 1, wherein the main body comprises a base (21) on which said devices are positioned and a preferably dome-shaped upper covering (22) covering the base.

5. System according to claim 4, in which this base is preferably concave so that the effect of air suction by said suction means is optimized, since the concavity determines a suction channel.

6. System according to claim 2 and 4, wherein said lighting sources are mounted on said base in correspondence of lower openings (211, 212) which allow the passage of the lighting and the fan (25) is also mounted on the base in central area in correspondence with a central opening (213) closed by a lower grille (214) able to allow air intake from below.

7. System according to claims 2 and 4, in which the dome (22) is open at the top and this opening is closed by an upper grille (221) designed to allow the flow upwards above the main body of the air sucked by the fan below the main body itself.

8. System according to claim 1, comprising filtering means for the air sucked in by said suction means.

9. System according to claim 8, in which said filter means (4) are placed inside the main body and include at least one activated carbon filter.

10. System according to claim 8, comprising in addition to said filtering means for the air sucked in by said suction means also means for sterilization which include at least one UVC lamp (5) for sterilizing the air and also internal filters.

11. System according to claim 10, wherein the lamp (5)

is positioned between the suction means and the filter means (4).

12. System according to claim 3, in which said LED lamps are adjustable in intensity, by means of a suitable regulator present in an external control (C) for turning the lamps on or off, or by means of a remote control (T).

13. System according to claim 1, in which said positioning means are suspension means (3) comprising a plurality of tie rods (31) which support the main body from above.

14. System according to claim 13, in which said positioning means allow the height adjustment of the main body (21) with respect to the station (P).

15. System according to claims 2 and 5, in which these lighting sources are arranged inclined so as to concentrate the light beam on the head to be worked and in such a way as not to cause particular disturbance to the operator.

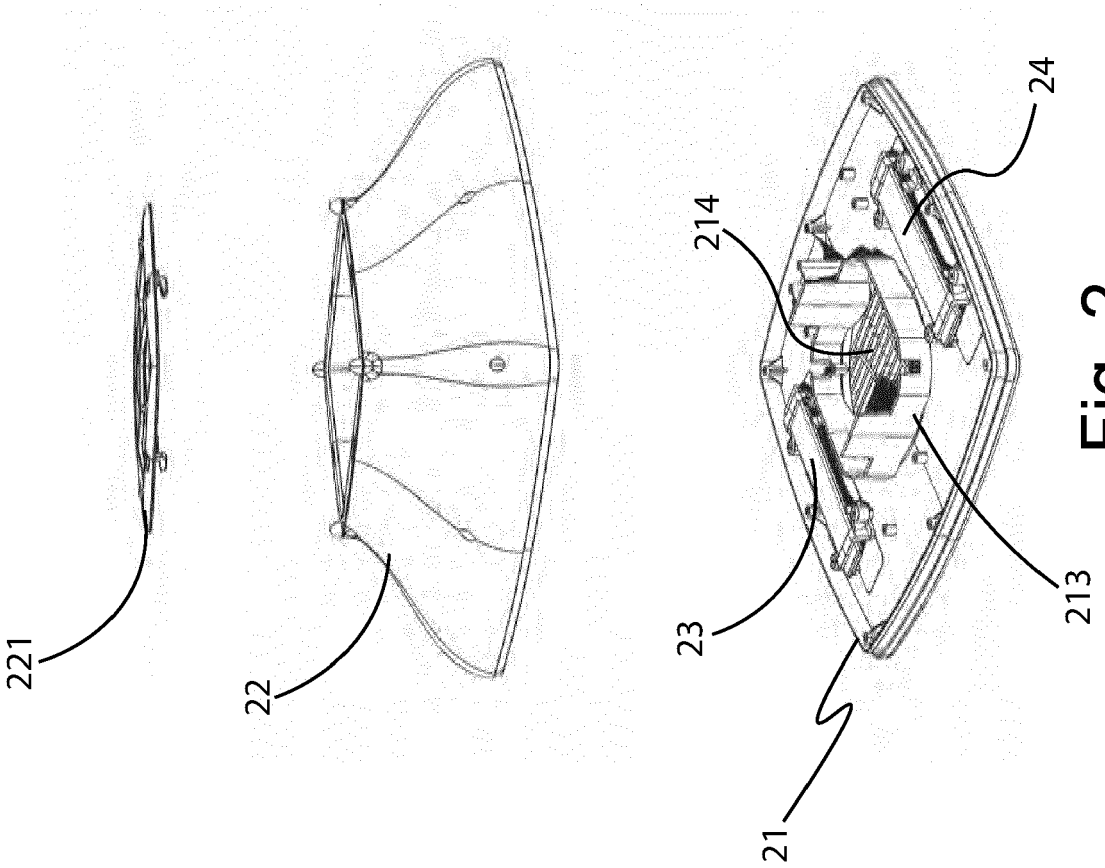

Fig. 2

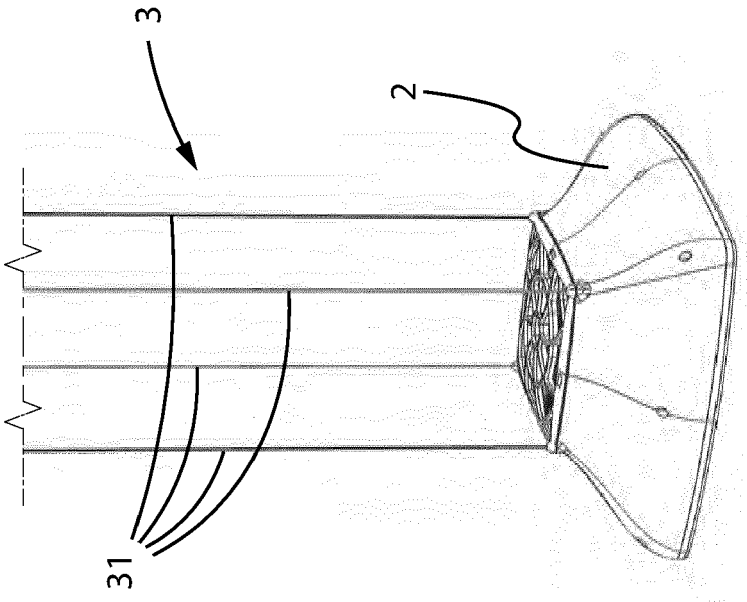

Fig. 1

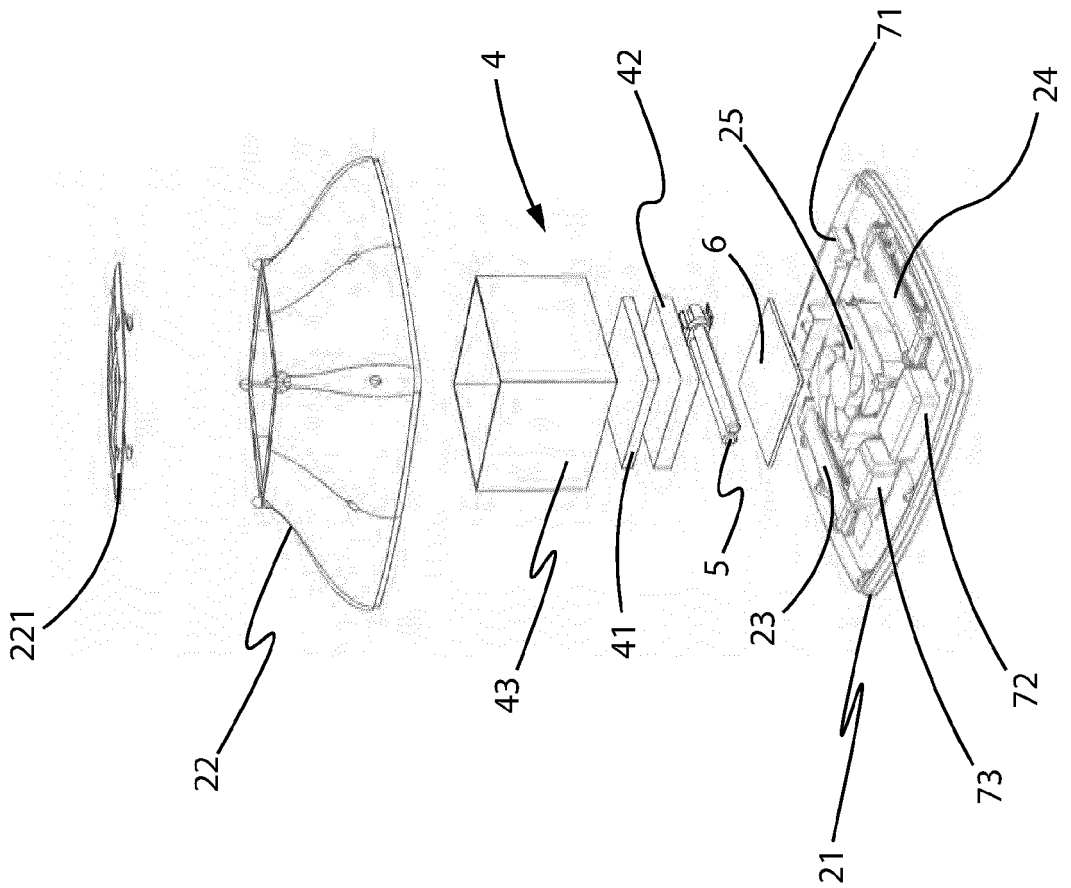
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Fig. 4

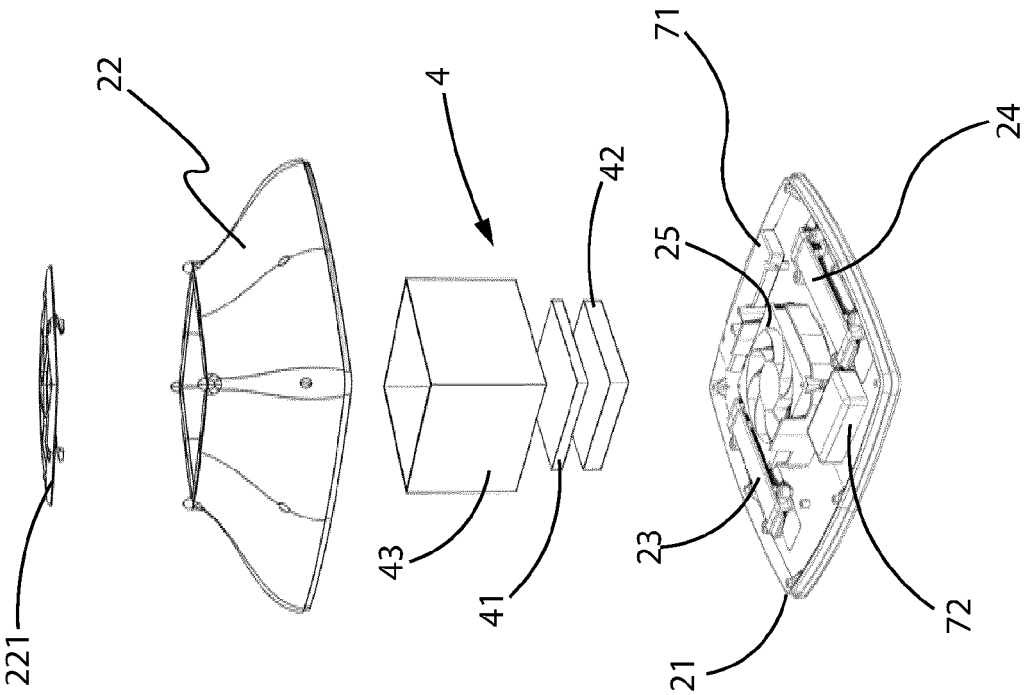
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Fig. 3

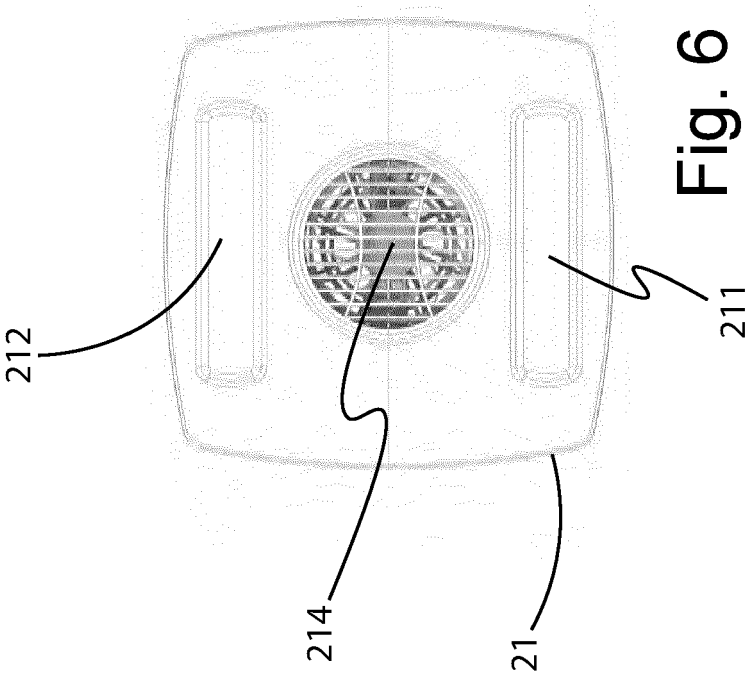

Fig. 6

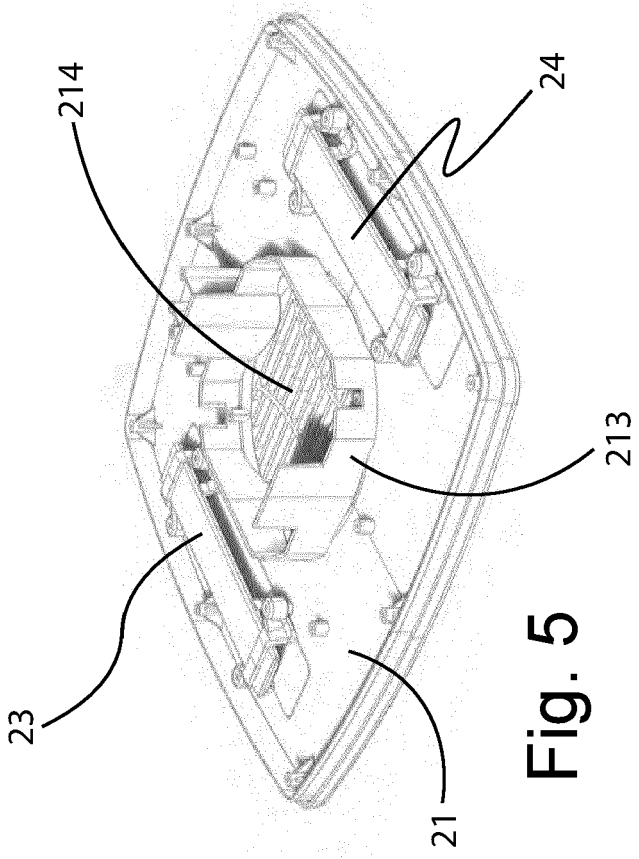

Fig. 5

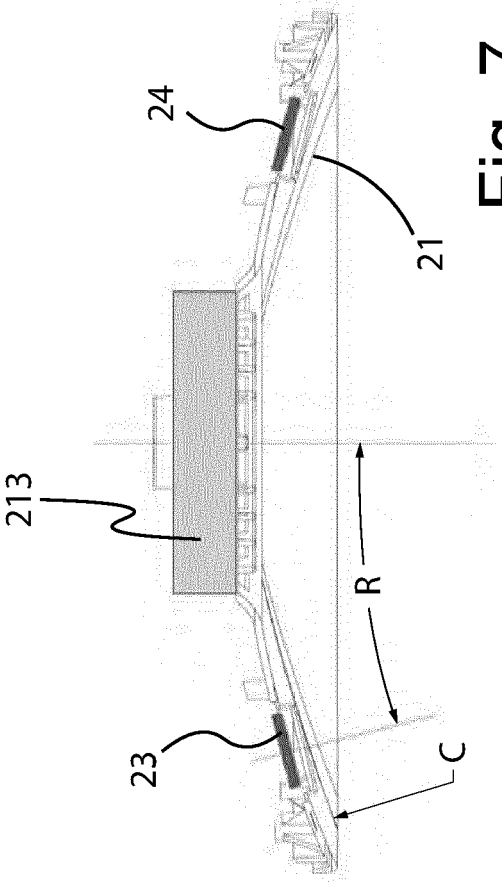

Fig. 7

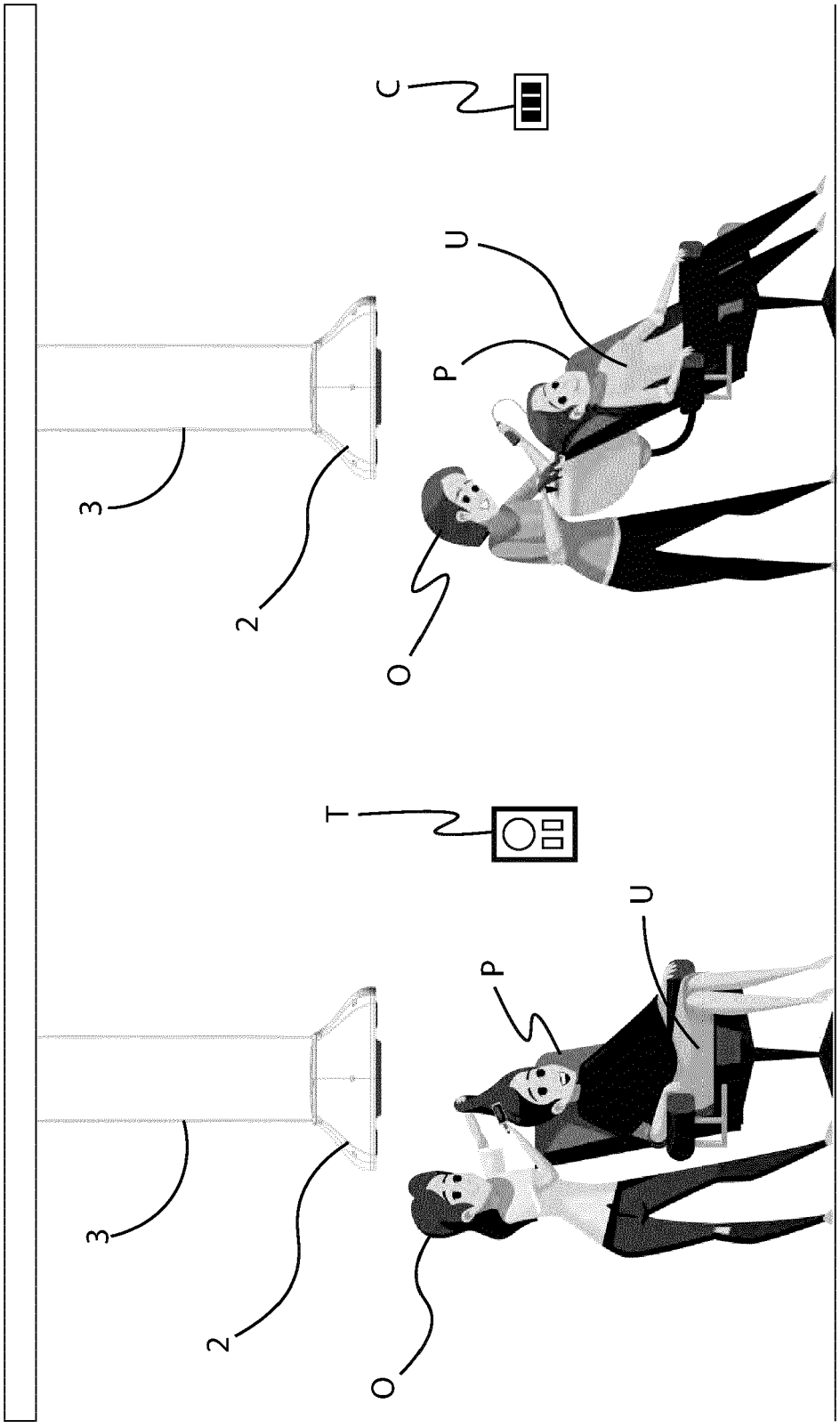

Fig. 8

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EUROPEAN SEARCH REPORT

Application Number
EP 23 16 6134

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	8 May 2023	Nicolás, Carlos

CATEGORY OF CITED DOCUMENTS

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