

Description

Lift cage for an open lift shaft

The invention concerns a lift cage for an open lift shaft, wherein the lift cage visible from outside and the cage movement visible from outside act as eye-catcher for persons situated in the surroundings of the lift cage.

Open lift cages with lift cages visible from outside gain evermore importance as architectural element for the structuring of building facades and internal courts. On the one hand, the lift cage serves as transport means and, on the other hand, the cage movement is used as means for influencing the aesthetic make-up of the building. In the case of passenger lifts, lift cages with glazed walls, so-called panorama cages, are used in most cases. In the case of freight cages, lift cages which are as a rule closed are used in open lift shafts or in glazed lift shafts.

The invention as characterised in the claims solves the problem of creating a lift cage which is movable in an open lift shaft, utilises the eye-catcher emanating from the visible cage movement and provides information data of technical, entertaining, educational or promotional kind, to persons situated in the surroundings of the lift cage.

The advantage achieved by the invention is to be seen substantially in that the much observed external cage surface can be used for information and promotion purposes. A further advantage is to be seen in that the lift shaft and the lift cage can be constructed to be more versatile. Further



advantages of the invention are a rapid assembly without tools of the information and promotion means, a connection - which meets the safety requirements - of the information and promotion means with the lift cage and no impairment of the external make-up of the lift cage in case the lift cage is operated without information and promotion means.

The invention is explained more closely in the following by reference to drawings illustrating merely one manner of execution.

There show:

- Figure 1 a lift cage for open lift shafts with an information equipment,
- Figure 2 details of the information equipment,
- Figure 3 a variant of embodiment of a mount for the information equipment and
- Figure 4 a further variant of embodiment of the mount for the information equipment.

In the Figures 1 to 4, a lift cage retained by a carrier frame 2 is denoted by 1. The lift cage 1 consists of a floor 4, which is laid onto a lower yoke 3 of the carrier frame 2, of a floor frame 5, of a ceiling 6 with a ceiling frame 7, of posts 8 connecting floor 4 and ceiling 6 and of at least one door 9. Guide shoes 11, which are arranged at an upper yoke 10 and at the lower yoke 3 of the carrier frame 2, guide the lift cage 1 along not illustrated vertical guide rails. Not illustrated cables, which hold the lift cage 1 and move it along the guide rails in an open shaft, engage at the upper yoke 10. The place of the cable drive can for example be taken by an hydraulic drive, in which a plunger of an hydraulic cylinder engages at the lower yoke 3 of the carrier frame 2. In the case of the



lift cage 1 stopping at a storey, the door 9 together with a not illustrated storey door is opened and the leaving of the lift cage 1 and the boarding of the lift cage 1 is made possible for the lift users. The lift users communicate their travel commands to a lift control by means of call transmitters 13 arranged at a panel 12 and are informed by the lift control, in a given case by means of a display 14 arranged at the panel 12 and a loudspeaker 15. A glazing, which is arranged between the base frame 5, the post 8 and the ceiling frame 7 and serves as cage wall, gives the lift users a free view into the surroundings of the lift cage 1. In the case of an internal installation, the lift users thereby have the opportunity during their travel to follow the events in the building. In the case of an external installation, the lift users thereby have the opportunity during their travel to follow the events in the surroundings of the building. Open lift shafts do not only give the lift users a free view into the surroundings of the lift cage 1, but also divert the views of the persons situated in the surroundings of the lift cage 1 to the moving lift cage. An information equipment 18, which is arranged at the outward side of the lift cage 1 by means of mounts 17, uses the eye-catcher and provides information data of technical, entertaining, educational or promotional kind to the persons situated in the surroundings of the lift cage 1 without impairing the sight of the users of panorama cages.

Details of the information equipment 18 are illustrated in Figure 2. The mount 17, which is arranged at the post 8 of the lift cage 1 by means of a first screw 19, displays a T-shaped recess 20, in which a slide block 21 is guided. The slide block 21 stands in connection by means of a second screw 22 with a profile 23 arranged at the information equipment 18.





Thereby, the information equipment 18 is detachably connected with the lift cage 1. The information equipment 18 consists of an image screen 24, a promotion carrier 25 and a profile frame 26. The profile frame 26 encompasses the image screen 24 and displays a guide 27, into which the promotion carrier 25 is pushable. In case promotional material, for example promotional placards, are used as information source, the promotion carrier 25 is placed in front of the image screen 24 and the promotional material is arranged on the promotion carrier 25. Furthermore, promotion carriers 25 are provided, which are suitable for the mounting of works of art, such as pictures or sculptures. In the case of the use of the image screen 24, which consists for example of a controllable luminescent diode field, or a plasma image screen or a cathode ray tube screen as information source, the data and energy necessary for this are transmitted to the information equipment 18 by means of a plug socket 28, a plug 29 and a cable 30.

In a further variant of embodiment, the information equipment 18 consists of the image screen 24 and the profile frame 26. In a further variant of embodiment, the information equipment 18 consists of the promotion carrier 25 and the profile frame 26.

A variant of embodiment of the mount 17 for the information equipment 18 is illustrated in Figure 3. The mount 17 displays a bore, into which a latching pin 31 with a lock is inserted. Thereby, the information equipment 18 is made theft-proof.

A further variant of embodiment of the mount for the information equipment 18 is illustrated in Figure 4. The post 8 of the lift cage 1 serves as mount for the slide block 21. The slide block 21 is arranged in the post 8 to be invisible from outside. The second screw 22 connects the profile 23 of the information equipment 18 with the slide block 21.

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The technical information consists for example of statements about the cage speed, number of lift users, lift size, statistical evaluations and analyses of the passenger traffic, fault reports or notices for certain persons. The entertaining as well as also the promotional information consists for example of comics, films or spots. The image screen information is communicated for example in the form of text, graphics, images or image sequences.

In a further variant of embodiment, a representational information carrier, for example in the form of an Easter bunny, an apple, an Emmentaler cheese, a wine glass or a beer jug is provided, wherein the representational information carrier is detachably connected with the lift cage 1 by means of mounts 17 at a place of the lift cage 1, which does not impair the view of the lift users. The mentioned forms and figures consist for example of inflatable sleeves or of foamed materials, such as STYROPOR.

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Patent Claims

1. Lift cage (1) for an open lift shaft, wherein the lift cage (1) visible from outside and the cage movement visible from outside act as eye-catcher for persons situated in the surroundings of the lift cage (1), characterised thereby, that the lift cage (1) displays an information equipment (18) providing information data of technical, entertaining educational or promoting kind to persons situated in the surroundings of the lift cage (1).
2. Lift cage according to claim 1, characterised thereby, that the information equipment (18) comprises an image screen (24).
3. Lift cage according to claim 2, characterised thereby, that the image screen (24) is a luminescent diode field, a plasma image screen or a cathode ray tube screen.
4. Lift cage according to claim 1, characterised thereby, that the information equipment (18) comprises an advertisement carrier (25) for the arrangement of promotional material or art objects.
5. Lift cage according to claim 2, 3 and 4, characterised thereby, that the information equipment (18) comprises a profile frame (26), which carries the image screen (24), with a guide (27) and that the advertisement carrier (25) is settable in front of the image screen (24) and retained by the guide (27).



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6. Lift cage according to claim 1, characterised thereby, that the information equipment (18) is a representational information carrier, for example in the form of an Easter bunny, an apple, an Emmentaler cheese or a wine glass.
7. Lift cage according to one of the preceding claims, characterised thereby, that the information equipment (18) is detachably connected by at least one mount (17) arranged at the lift cage (1).
8. Lift cage according to claim 7, characterised thereby, that the mount (17) displays a T-shaped recess (20), in which a slide block (21) is guided, wherein the slide block (21) stands in connection with a profile (23) arranged at the information equipment (18).
9. Lift cage according to claim 8, characterised thereby, that the mount (17) displays a bore, into which a latching pin (31) with a lock is insertable.
10. Lift cage according to claim 7, characterised thereby, that at least one slide block (21) is arranged to be invisible outside in at least one post, which serves as mount, of the lift cage (1) and stands in detachable connection with the profile (23) arranged at the information equipment (18).

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Summary

This lift cage (1) consists of a floor (4) laid onto a lower yoke (3) of a carrier frame (2), of a floor frame (5), of a ceiling (6) with a ceiling frame (7), of posts (8) connecting the floor (4) and the ceiling (6) and of at least one door (9). Guide shoes (11) guide the lift cage (1) along not illustrated, vertical guide rails. A glazing (16), which is arranged between the floor frame (5), the posts (8) and the ceiling frame (7) and serves as cage wall, gives the lift users a free view into the surroundings of the lift cage (1). An open lift shaft gives not only the lift users a free view into the surroundings of the lift cage (1), but also diverts the views of the persons situated in the surroundings of the lift cage (1) to the moving lift cage (1). An information equipment (18), which is arranged by means of mounts (17) at the outward side of the lift cage (1), uses the eye-catcher and provides information data of technical, entertaining, educational or promotional kind to the persons situated in the surroundings of the lift cage (1).

(Figure 1)

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Fig. 1

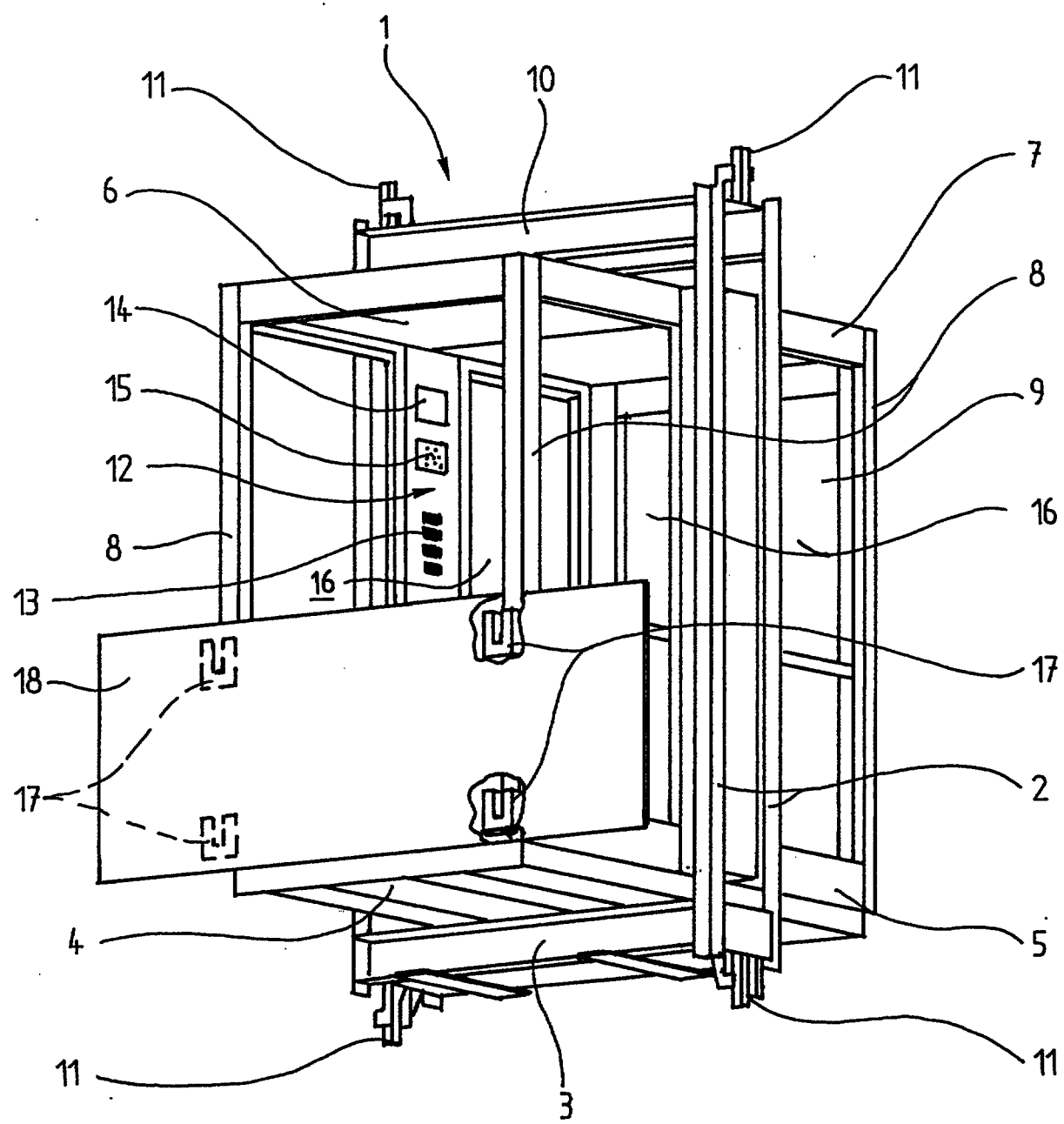


Fig. 2

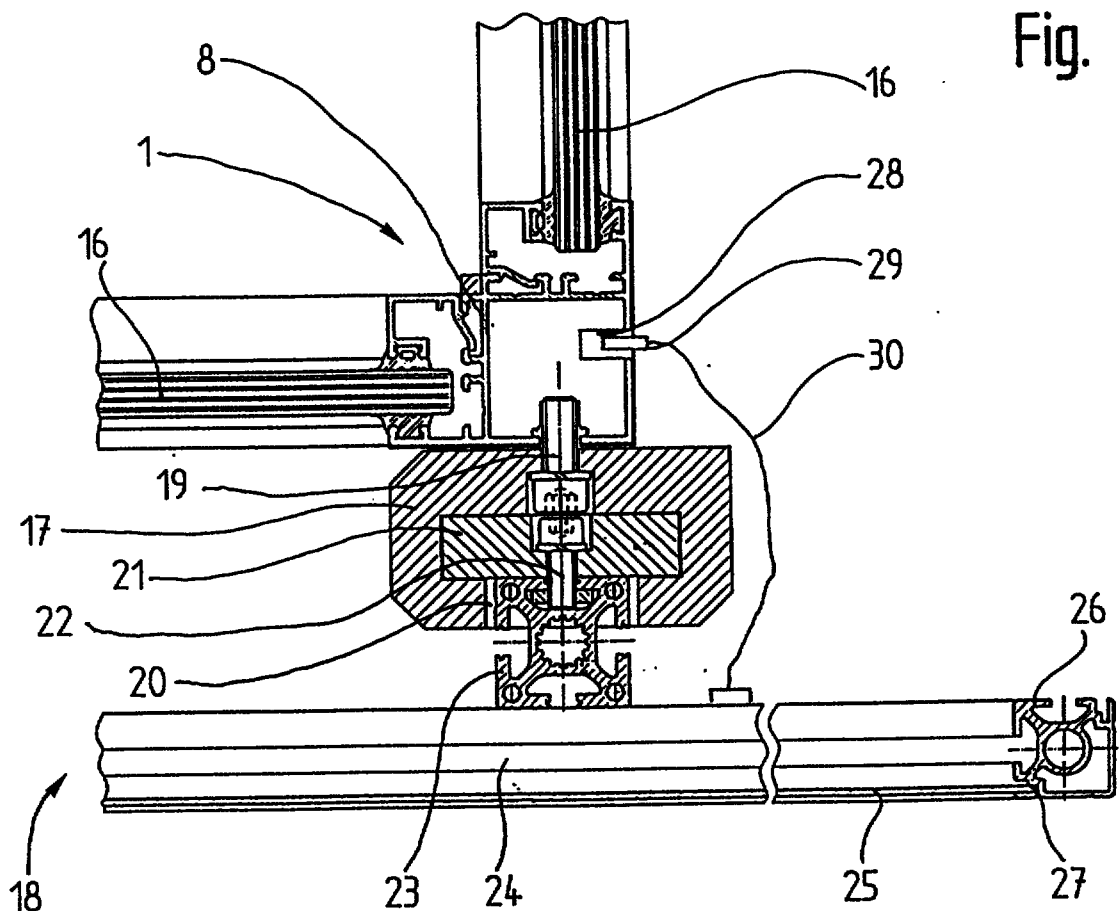


Fig. 3

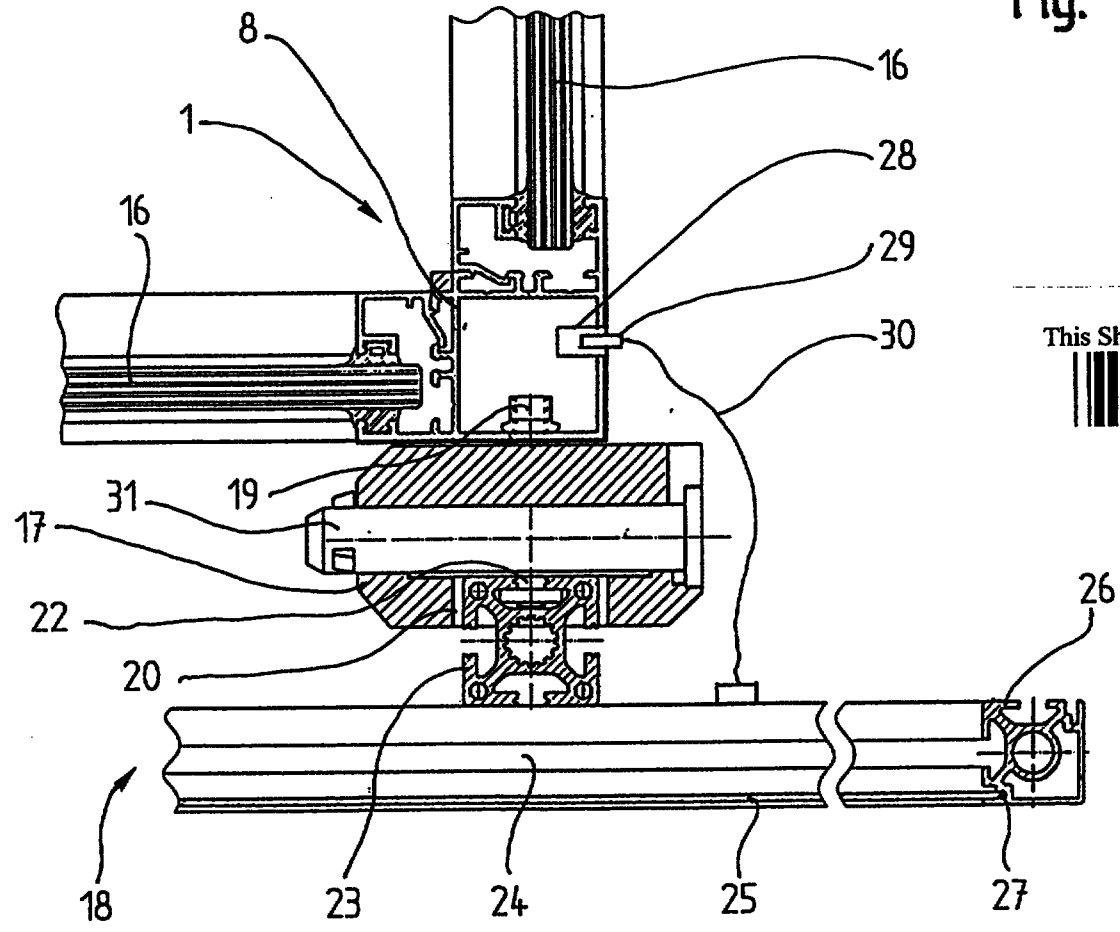
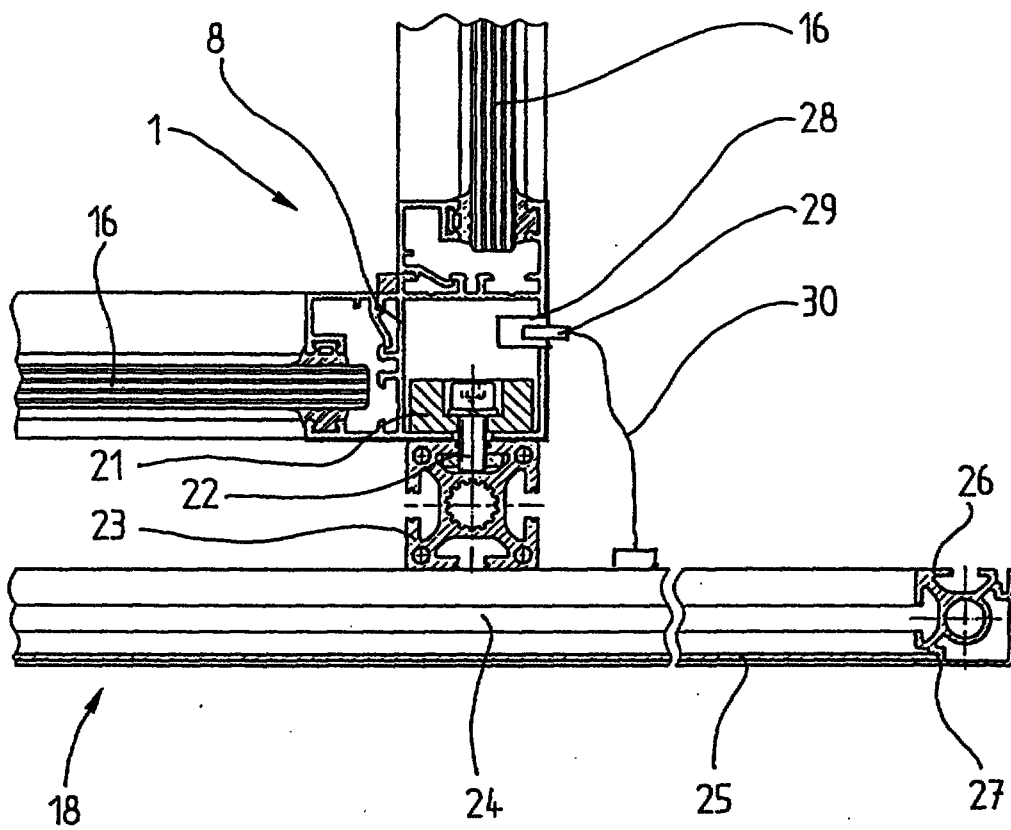


Fig. 4



Description

Lift cage for an open lift shaft

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The invention as characterised in the claims solves the problem of creating a lift cage which is movable in an open lift shaft, utilises the eye-catcher emanating from the visible cage movement and provides information data of technical, entertaining, educational or promotional kind to persons situated in the surroundings of the lift cage.

The advantage achieved by the invention is to be seen substantially in that the much observed external cage surface can be used for information and promotion purposes. A further advantage is to be seen in that the lift shaft and the lift cage can be constructed to be more versatile. Further

advantages of the invention are a rapid assembly without tools of the information and promotion means, a connection - which meets the safety requirements - of the information and promotion means with the lift cage and no impairment of the external make-up of the lift cage in case the lift cage is operated without information and promotion means.

The invention is explained more closely in the following by reference to drawings illustrating merely one manner of execution.

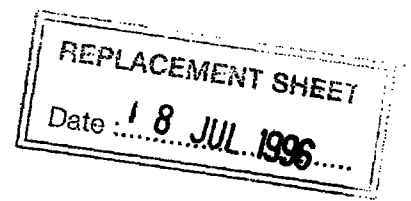
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- Figure 2 details of the information equipment,
- Figure 3 a variant of embodiment of a mount for the information equipment and
- Figure 4 a further variant of embodiment of the mount for the information equipment.

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lift cage 1 stopping at a storey, the door 9 together with a not illustrated storey door is opened and the leaving of the lift cage 1 and the boarding of the lift cage 1 is made possible for the lift users. The lift users communicate their travel commands to a lift control by means of call transmitters 13 arranged at a panel 12 and are informed by the lift control, in a given case by means of a display 14 arranged at the panel 12 and a loudspeaker 15. A glazing, which is arranged between the base frame 5, the post 8 and the ceiling frame 7 and serves as cage wall, gives the lift users a free view into the surroundings of the lift cage 1. In the case of an internal installation, the lift users thereby have the opportunity during their travel to follow the events in the building. In the case of an external installation, the lift users thereby have the opportunity during their travel to follow the events in the surroundings of the building. Open lift shafts do not only give the lift users a free view into the surroundings of the lift cage 1, but also divert the views of the persons situated in the surroundings of the lift cage 1 to the moving lift cage. An information equipment 18, which is arranged at the outward side of the lift cage 1 by means of mounts 17, uses the eye-catcher and provides information data of technical, entertaining, educational or promotional kind to the persons situated in the surroundings of the lift cage 1 without impairing the sight of the users of panorama cages.

Details of the information equipment 18 are illustrated in Figure 2. The mount 17, which is arranged at the post 8 of the lift cage 1 by means of a first screw 19, displays a T-shaped recess 20, in which a slide block 21 is guided. The slide block 21 stands in connection by means of a second screw 22 with a profile 23 arranged at the information equipment 18.



Thereby, the information equipment 18 is detachably connected with the lift cage 1. The information equipment 18 consists of an image screen 24, a promotion carrier 25 and a profile frame 26. The profile frame 26 encompasses the image screen 24 and displays a guide 27, into which the promotion carrier 25 is pushable. In case promotional material, for example promotional placards, are used as information source, the promotion carrier 25 is placed in front of the image screen 24 and the promotional material is arranged on the promotion carrier 25. Furthermore, promotion carriers 25 are provided, which are suitable for the mounting of works of art, such as pictures or sculptures. In the case of the use of the image screen 24, which consists for example of a controllable luminescent diode field, or a plasma image screen or a cathode ray tube screen as information source, the data and energy necessary for this are transmitted to the information equipment 18 by means of a plug socket 28, a plug 29 and a cable 30.

In a further variant of embodiment, the information equipment 18 consists of the image screen 24 and the profile frame 26. In a further variant of embodiment, the information equipment 18 consists of the promotion carrier 25 and the profile frame 26.

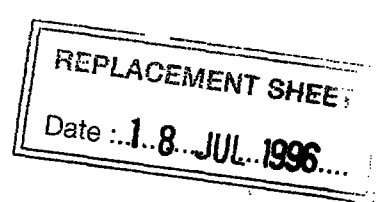
A variant of embodiment of the mount 17 for the information equipment 18 is illustrated in Figure 3. The mount 17 displays a bore, into which a latching pin 31 with a lock is inserted. Thereby, the information equipment 18 is made theft-proof.

A further variant of embodiment of the mount for the information equipment 18 is illustrated in Figure 4. The post 8 of the lift cage 1 serves as mount for the slide block 21. The slide block 21 is arranged in the post 8 to be invisible from outside. The second screw 22 connects the profile 23 of the information equipment 18 with the slide block 21.



The technical information consists for example of statements about the cage speed, number of lift users, lift size, statistical evaluations and analyses of the passenger traffic, fault reports or notices for certain persons. The entertaining as well as also the promotional information consists for example of comics, films or spots. The image screen information is communicated for example in the form of text, graphics, images or image sequences.

In a further variant of embodiment, a representational information carrier, for example in the form of an Easter bunny, an apple, an Emmentaler cheese, a wine glass or a beer jug is provided, wherein the representational information carrier is detachably connected with the lift cage 1 by means of mounts 17 at a place of the lift cage 1, which does not impair the view of the lift users. The mentioned forms and figures consist for example of inflatable sleeves or of foamed materials, such as STYROPOR.



Patent Claims



1. Lift cage (1) for an open lift shaft, wherein the lift cage (1) visible from outside and the cage movement visible from outside act as eye-catcher for persons situated in the surroundings of the lift cage (1), characterised thereby, that the lift cage (1) displays an information equipment (18) providing information data of technical, entertaining educational or promoting kind to persons situated in the surroundings of the lift cage (1).
2. Lift cage according to claim 1, characterised thereby, that the information equipment (18) comprises an image screen (24).
3. Lift cage according to claim 2, characterised thereby, that the image screen (24) is a luminescent diode field, a plasma image screen or a cathode ray tube screen.
4. Lift cage according to claim 1, characterised thereby, that the information equipment (18) comprises an advertisement carrier (25) for the arrangement of promotional material or art objects.
5. Lift cage according to claim 2, 3 and 4, characterised thereby, that the information equipment (18) comprises a profile frame (26), which carries the image screen (24), with a guide (27) and that the advertisement carrier (25) is settable in front of the image screen (24) and retained by the guide (27).





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6. Lift cage according to claim 1, characterised thereby, that the information equipment (18) is a representational information carrier, for example in the form of an Easter bunny, an apple, an Emmentaler cheese or a wine glass.
7. Lift cage according to one of the preceding claims, characterised thereby, that the information equipment (18) is detachably connected by at least one mount (17) arranged at the lift cage (1).
8. Lift cage according to claim 7, characterised thereby, that the mount (17) displays a T-shaped recess (20), in which a slide block (21) is guided, wherein the slide block (21) stands in connection with a profile (23) arranged at the information equipment (18).
9. Lift cage according to claim 8, characterised thereby, that the mount (17) displays a bore, into which a latching pin (31) with a lock is insertable.
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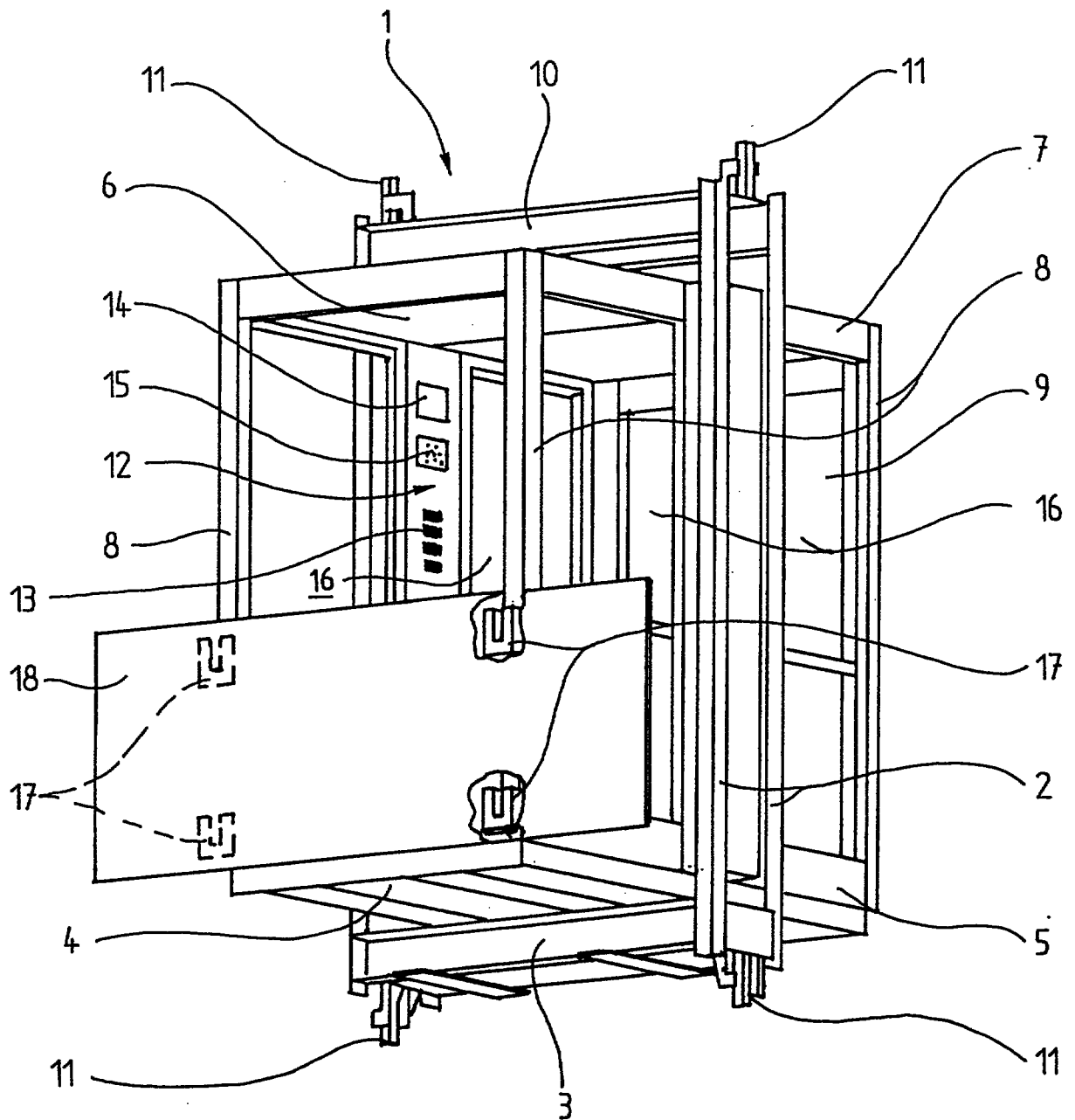
ABSTRACT

LIFT CAGE FOR AN OPEN LIFT SHAFT

This lift cage (1) consists of a floor (4) laid onto a lower yoke (3) of a carrier frame (2), of a floor frame (5), of a ceiling (6) with a ceiling frame (7), of posts (8) connecting the floor (4) and the ceiling (6) and of at least one door (9). Guide shoes (11) guide the lift cage (1) along not illustrated, vertical guide rails. A glazing (16), which is arranged between the floor frame (5), the posts (8) and the ceiling frame (7) and serves as cage wall, gives the lift users a free view into the surroundings of the lift cage (1). An open lift shaft gives not only the lift users a free view into the surroundings of the lift cage (1), but also diverts the views of the persons situated in the surroundings of the lift cage (1) to the moving lift cage (1). An information equipment (18), which is arranged by means of mounts (17) at the outward side of the lift cage (1), uses the eye-catcher and provides information data of technical, entertaining, educational or promotional kind to the persons situated in the surroundings of the lift cage (1).

(Figure 1)

Fig. 1



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Fig. 2

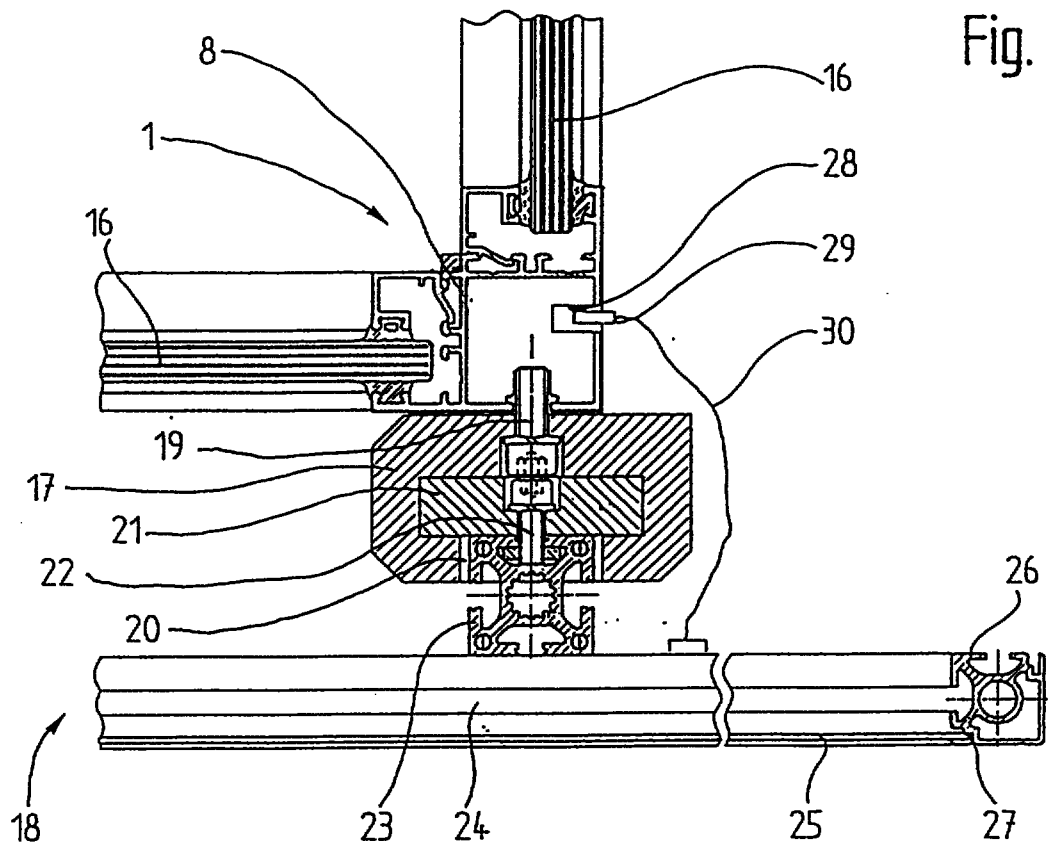


Fig. 3

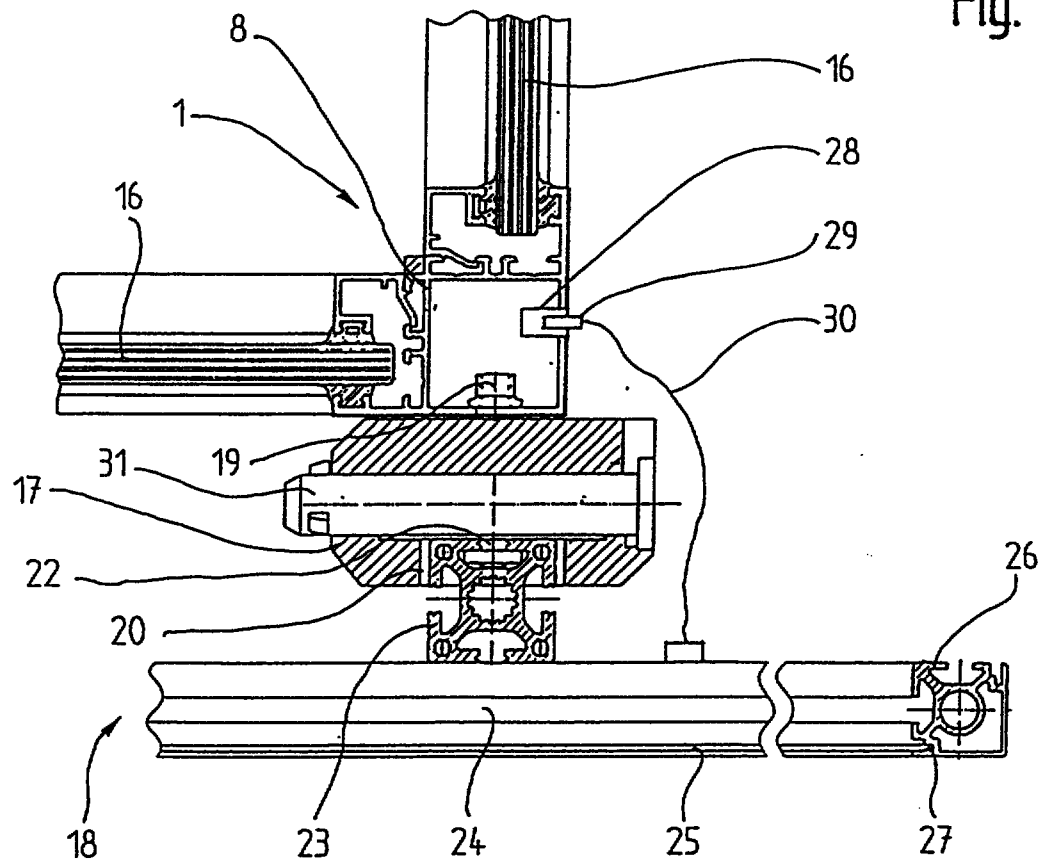
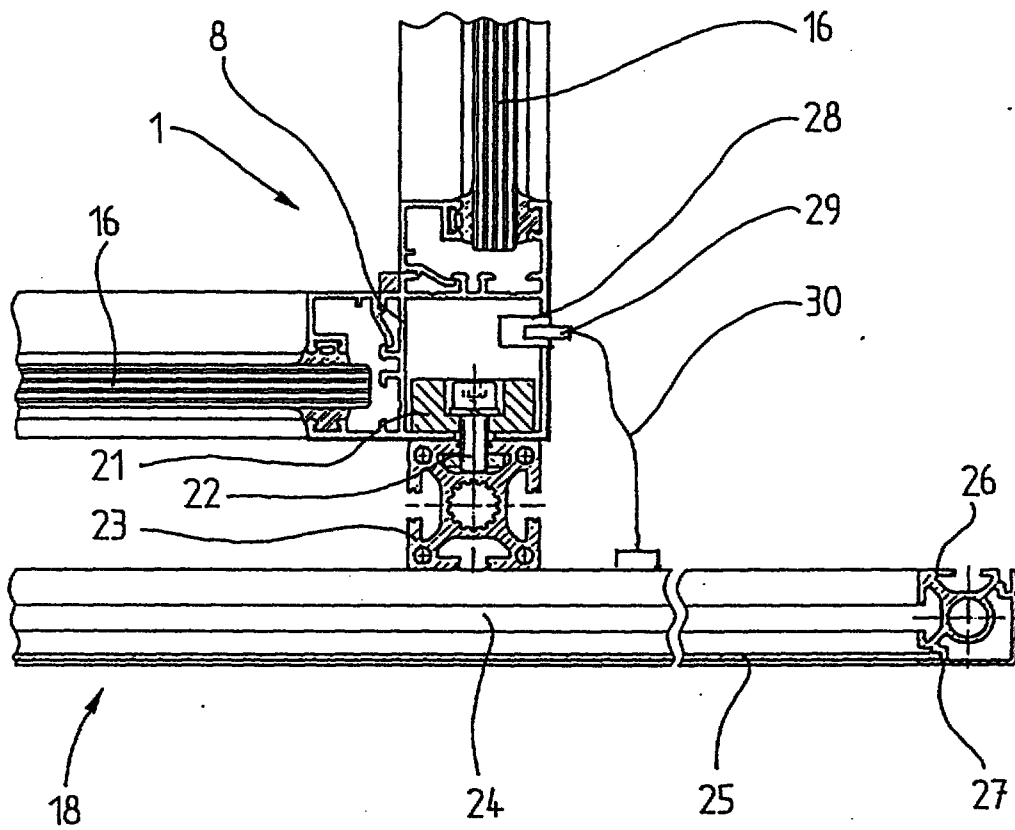


Fig. 4



CLAIMS

1. A lift cage for an open lift shaft, the lift cage being arranged to be visible from outside the shaft so that the cage movement acts as eye-catcher for persons situated in the surroundings of the lift cage, wherein the lift cage carries an information equipment providing information data of technical, entertaining, educational or promotional kind to persons situated in the surroundings of the lift cage, and wherein the information equipment is detachably connected with the lift cage by at least one mount having slidingly interengaged components which are removably secured at or provided by the components of the lift cage and the information equipment, respectively.
2. A lift cage according to claim 1, wherein the information equipment comprises an image screen.
3. A lift cage according to claim 2, wherein the image screen is a luminescent diode field, a plasma image screen or a cathode ray tube screen.
4. A lift cage according to any one of claims 1 to 3, wherein the information equipment comprises an advertisement carrier for the arrangement of promotional material or art objects.
5. A lift cage according to claim 2, 3 and 4, wherein the information equipment comprises a profile frame, which carries the image screen, with a guide, and wherein the advertisement carrier is settable in front of the image screen such as to be retained by the guide.
6. A lift cage according to claim 1, wherein the information equipment is a representational information carrier, for example in the form of an Easter bunny, an apple, an Emmentaler cheese or a wine glass.



7. A lift cage according to any one of claims 1 to 6, wherein the mount comprises a slide housing fixedly secured at a frame member of the lift case, the housing having a T-shaped recessed channel, and a slide block fixedly secured at a profile arranged at the information equipment, the slide block being guided and received in the recess at the slide housing.

8. A lift cage according to claim 7, wherein the mount further comprises a latching pin with a lock, the pin being insertable and lockable in a bore of the slide housing such as to prevent removal of the information equipment from the lift cage.

9. A lift cage according to any one of claims 1 to 6, wherein the mount comprises at least one slide block arranged to be received within a hollow post, of the lift cage, and a fastener fixedly secured at a profile arranged at the information equipment, the fastener extending through an opening in a side wall of the post and being fixedly secured at the slide block.

