Patent claims

1. Safety brake (20, 120) of an escalator (1) or a moving walkway, which safety brake (20, 120) includes at least one locking member (21, 121), which is arranged so as to adopt a release setting or a locking setting by means of a pivot movement about a pivot axle (22, 122), wherein the locking member (21, 121) in the locking setting engages in at least one moved part (4, 6, 17, 18) of the escalator (1) or the moving walkway and blocks this, characterised in that the safety brake (20, 120) comprises a linear guide (23, 123) by which the locking member (21, 121) is linearly guided relative to the pivot axle (22, 122) between a first position (25, 125) and a second position (26, 126) and the linear guide (23, 123) is mounted on a stationary part (5, 52) of the escalator (1) or the moving walkway by the pivot axle (22, 122).

2. Safety brake (20, 120) according to claim 1, wherein the locking member (21, 121) has an abutment surface which in the locking setting is supported at an abutment (53) which is arranged at the stationary part (5).

3. Safety brake (20, 120) according to claim 1 or 2, wherein a resilient element (27, 127), which positions the locking member (21, 121) relative to the pivot axle (22, 122) in the first position (25, 125), is arranged between the pivot axle (22, 122) and the locking member (21, 121).

4. Safety brake (20, 120) according to claim 3, wherein the locking member (21, 121) has a passage in which the resilient element (27) is arranged.

5. Safety brake (20, 120) according to claim 3, wherein the resilient element (127) is arranged at the outer side of the locking member (21, 121).

6. Safety brake (20, 120) according to any one of claims 1 to 5, wherein the locking member (21, 121) has a slot (23) serving as the linear guide (23).

7. Safety brake (20, 120) according to any one of claims 1 to 5, wherein the linear guide (123) is arranged at an outer side of the locking member (21, 121).

8. Safety brake (20, 120) according to any one of claims 1 to 7, wherein this

comprises an actuating element (30, 130) which pivots the locking member (21, 121) about the pivot axle (22, 122) from the release setting to the locking setting.

9. Safety brake (20, 120) according to claim 8, wherein the actuating element (30, 130) is a spring-loaded electromagnet (30), a pneumatic cylinder (130), a hydraulic cylinder (130), an electric motor, a setting motor, a step motor or a servomotor.

10. Safety brake (20, 120) according to any one of claims 1 to 9, wherein a switch (50), which interrupts a current line (51) of a drive unit (6) of the escalator (1) or the moving walkway, is actuable by the locking member (21, 121).

11. Escalator (1) or moving walking with at least one safety brake (20, 120) according to any one of claims 1 to 10 and further comprising, as stationary part, a support structure (5) with a first deflecting region (15) and a second deflecting region (16), a second deflecting wheel pair (18), as moved part, rotatably mounted in the second deflecting region (16), insofar as present a first deflecting wheel pair (17) rotatably mounted in the first deflecting region, and an endless step belt or plate belt, which is arranged between the two deflecting regions (15, 16) and which is deflected by deflecting wheels (41, 42) of the deflecting wheel pair (17, 18), characterised in that the locking member (21, 121) in the locking setting blocks the deflecting wheel pair (18) associated with the safety brake (20, 120).

12. Escalator (1) or moving walkway according to claim 11, wherein a collar (46) with projections (47) is arranged laterally at the deflecting wheel (42) of a deflecting wheel pair (17, 18) and the locking member (21, 121) in the locking setting stands in the way of at least one of these projections.

13. Escalator (1) or moving walking walkway according to claim 12, wherein the pivot axle (22, 122) of the locking member (21, 121) is arranged orthogonally to an axis of rotation of the deflecting wheel pair (17, 18).

14. Escalator (1) or moving walking walkway according to claim 12 or 13, wherein the collar (46) is arranged to be rotatable relative to the deflecting wheel (42) and a slip clutch (49) is present between the deflecting wheel (42) and the collar (46).

15. Escalator (1) or moving walking walkway according to claim 14, wherein the slip torque of the slip clutch (49) is settable.

16. Escalator (1) or moving walking walkway according to claim 15, wherein the slip torque of the slip clutch (49) is settable elastically according to a spring characteristic or settable elastically according to a progressive spring characteristic.

We claim:

1. A safety brake for an escalator or a moving walkway, the safety brake comprising:

a locking member, the locking member being configured to adopt a release setting or a locking setting through a pivot movement about a pivot axle, the locking member being configured to, in the locking setting, engage and block a moved part of the escalator or of the moving walkway;

a linear guide, the linear guide being mounted on a stationary part of the escalator or of the moving walkway by the pivot axle, the linear guide being configured to linearly guide the locking member, relative to the pivot axle, between first and second positions; and

a resilient member being arranged between the pivot axle and the locking member, the resilient member positioning the locking member relative to the pivot axle in the first position.

2. The safety brake of claim 1, the locking member comprising an abutment surface, the abutment surface being supported in the locking setting at an abutment arranged at the stationary part.

3. The safety brake of claim 1, the locking member comprising a passage in which the resilient member is arranged.

4. The safety brake of claim 1, the resilient member being arranged at an outer side of the locking member.

5. The safety brake of claim 1, the linear guide being positioned in the locking member.

6. The safety brake of claim 1, the linear guide being arranged at an outer side of the locking member.

7. The safety brake of claim 1, further comprising an actuator, the actuator being configured to pivot the locking member about the pivot axle from the release setting to the locking setting.

8. The safety brake of claim 7, the actuator comprising a spring-loaded electromagnet, a pneumatic cylinder, a hydraulic cylinder, an electric motor, a setting motor, a step motor, or a servomotor.

9. The safety brake of claim 1, the locking member being configured to actuate a switch, the switch being configured to interrupt a current line of a drive unit of the escalator or of the moving walkway.

10. An escalator or moving walkway, comprising:

a stationary part, the stationary part comprising

a support structure with a first deflecting region and a second deflecting region, and

a moved part, the moved part comprising a deflecting wheel pair rotatably mounted in the second deflecting region;

an endless step belt or plate belt, the step belt or plate belt being arranged between the first and second deflecting regions and deflectable by the deflecting wheel pair; and

a safety brake, the safety brake comprising,

a locking member, the locking member being configured to adopt a release setting or a locking setting through a pivot movement about a pivot axle, the locking member being configured to, in the locking setting, engage and block the moved part,

a linear guide, the linear guide being mounted on the stationary part by the pivot axle, the linear guide being configured to linearly guide the locking member, relative to the pivot axle, between first and second positions, and

a resilient member being arranged between the pivot axle and the locking member, the resilient member positioning the locking member relative to the pivot axle in the first position.

11. The escalator or moving walkway of claim **10**, further comprising a collar with projections, the collar being arranged laterally at the deflecting wheel pair, the locking member obstructing at least one of the projections when the locking member is in the locking setting.

12. The escalator or moving walkway of claim **11**, the pivot axle of the locking member being arranged orthogonally to an axis of rotation of the deflecting wheel pair.

13. The escalator or moving walkway of claim **11**, the collar being rotatable relative to the deflecting wheel pair, the escalator or moving walkway further comprising a slip clutch between the deflecting wheel pair and the collar.

14. The escalator or moving walkway of claim **13**, the slip clutch having a settable slip torque.

15. The escalator or moving walkway of claim **14**, the settable slip torque being settable elastically according to a spring characteristic or settable elastically according to a progressive spring characteristic.

16. The escalator or moving walkway of claim **10**, the deflecting wheel pair being a first deflecting wheel pair, the escalator or moving walkway further comprising a second deflecting wheel pair, the second deflecting wheel pair being rotatably mounted in the first deflecting region.

17. A safety brake for an escalator or a moving walkway, the safety brake comprising:

a locking member, the locking member being configured to adopt a release setting or a locking setting through a pivot movement about a pivot axle, the locking member being configured to, in the locking setting, engage and block a moved part of the escalator or of the moving walkway; and

a linear guide, the linear guide being mounted on a stationary part of the escalator or of the moving walkway by the pivot axle, the linear guide being configured to linearly guide the locking member, relative to the pivot axle, between first and second positions and being positioned in the locking member.