PATENT CLAIMS

1. A restaurant system (1) comprising at least one working area (2) for cooking and/or preparing food and/or drinks and at least one guest area (3), wherein working area (2) and guest area (3) are connected via a transport system (4) for food and/or drinks, and wherein the transport system is designed to transport food and/or drinks from the working area (2) to the guest area (3), wherein the transport system (4) has at least a first transport section (5), in which the transport of food and/or drinks from the working area (2) to the guest area (3) takes place at least in sections by means of the force of gravity,

   characterized in

   that the transport system (4) has a second transport section (6), which is located upstream of the first transport section (5) in a provided transport direction (A) of the food and/or drinks, wherein the second transport section (6) has an elevator (7), which is designed to transport the food and/or drinks into a position, which is located at a higher point as compared to the guest area (3).

2. The restaurant system according to claim 1, **characterized in that** the elevator (7) is designed to transport the food and/or drinks upwards substantially inversely parallel to the force of gravity.

3. The restaurant system according to claim 1 or 2, **characterized in that** the elevator (7) has at least one movable elevator unit (8), which carries the food and/or drinks by means of the elevator (7) during the transport of the food and/or drinks.

4. The restaurant system according to claim 3, **characterized in that** the elevator unit (8) can be moved between a receiving position (12), in which the food and/or drinks, which are to be transported, can be supplied to the elevator unit (8), and a transfer position (13), which is arranged above the receiving position (12) and in which the elevator unit (8) can transfer the food and/or drinks to the first transport section (5).

5. The restaurant system according to claim 4, **characterized in that** the elevator (7) has one or two or a plurality of sensors, which detect the reaching of the receiving position (12) and/or of the transfer position (13).

6. The restaurant system according to claim 4 or 5, **characterized in that** the elevator unit (8) has at least one barrier (9), which, in a closed state, blocks a movement of the food and/or drinks carried by the elevator unit (8), and which, in an open state, releases a movement of the food and/or drinks carried by the elevator unit (8), in particular a transfer to the first transport section (5).

7. The restaurant system according to one of claims 4 to 6, **characterized in that** the elevator (7) has one or two or a plurality of guide rods (10), which are preferably arranged substantially vertically, for guiding the elevator unit (8) in response to the movement between receiving position and transfer position.

8. The restaurant system according to claim 7, **characterized in that** for guiding purposes, the elevator unit (8) has two or three or a plurality of

wheels (11) on the guide rod or the guide rods (10), which are arranged in such a manner that at least two of the wheels (11) are moved along opposite sides of the guide rods (10) in response to the movement of the elevator unit (8).

9. The restaurant system according to claim 7 or 8, **characterized in that** a stationary connector (14) is arranged on or close to an upper end of the guide rods (10) in such a manner that the food and/or drinks can be transferred via the connector (14) to the first transport section (5), starting at the elevator unit (8) in the transfer position (13) thereof.

10. The restaurant system according to claim 9, **characterized in that** the position of the connector (14) on or close to the upper end of the guide rods (10) can be adjusted, in particular one or a plurality of fastening means (15) of the connector (14) on one or a plurality of the guide rods (10) can be fastened to the guide rod or the guide rods (10) in a detachable and offset manner.

11. The restaurant system according to one of claims 4 to 10, **characterized in that** the elevator (7) has a drive system (16) comprising a motor (17) and at least one or at least two traction elements (18), which are moved by the motor, in particular traction ropes or tie bars 5, wherein the elevator unit (8) is connected to the traction element or to the traction elements (18) in such a manner that the elevator unit (8) is moved by means of the traction element or the traction elements (18).

12. The restaurant system according to one of claims 4 to 11, **characterized in that** the elevator (7) comprises an emergency shut-off system, wherein the emergency

shut-off system comprises a number of contact elements, which corresponds to the number of the traction elements (18), wherein one contact element is in each case in contact with a traction element (18) during normal operation and is interrupted in the case of malfunction.

13. The restaurant system according to one of claims 4 to 12, **characterized in that** the elevator (7) comprises a brake mechanism comprising brake elements, wherein the brake effect of the brake elements is impeded by means of the traction elements (18) during normal operation, and slow down the elevator during malfunction.

14. The restaurant system according to one of claims 4 to 13, **characterized in that** the elevator has a protective box (24), which surrounds the elevator unit (8) in the receiving position (12) thereof at least laterally, and/or that the elevator unit (8) has a protective box, which is movable with the elevator unit (8) and which surrounds the elevator unit (8) at least laterally.

15. The restaurant system according to one of claims 4 to 14, **characterized in that** the elevator (7) has one or two or a plurality of sensors, which detects or detect an intervention in the route of the elevator unit along the guide rods by an operator.

16. The restaurant system according to one of claims 4 to 15, **characterized in that** the first the first transport section (5) of the transport system (4) comprises at least two sliding rails and/or roller guides (19), which run substantially parallel, in particular at least two sliding rails and/or roller guides (19), which have a substantially circular or oval or rectangular cross section, on which the food

and/or drinks are transported by means of transport aids (20), in particular sliding supports and/or sliding devices and/or rolling devices, at least in sections by means of the force of gravity, and that the elevator unit (8) has a number of transfer rails (21), which run substantially parallel and the number of which corresponds to the number of the sliding rails and/or roller guides in the first transport section (5) and which, during the transport of the food and/or drinks with the elevator (7), carry the food and/or drinks, which are placed into the transport aids (20), wherein, in the transfer position (13) of the elevator unit (8), the transfer rails (21) form a continuation of the sliding rails and/or roller guides (19) in the first transport section (5) in a direction opposite to the provided transport direction (A) of the food and/or drinks.

17. The restaurant system according to claim 9 and according to claim 16, **characterized in that** the connector (14) has a number of intermediate rails (22), which run substantially parallel, and the number of which corresponds to the number of sliding rails and/or roller guides in the first transport section (5), which form a continuation of the sliding rails and/or roller guides (19) and which are arranged between the sliding rails and/or roller guides (19) and the transfer rails (21) in the transfer position (13) of the elevator unit (8).

18. The restaurant system according to claim 16 or 17, **characterized in that** the transfer rails (21) and/or the intermediate rails (22) are inclined downwards in the direction of the provided transport direction (A) of the food and/or drinks.

19. The restaurant system according to one of claims 16 to 18, **characterized in that** the transfer rails (21) and/or the intermediate rails (22) are formed of a plurality of wheels or rollers (23), which are arranged consecutively and which are supported rotatably, and the axis of rotation of which is in each case oriented substantially vertically to the transport direction (A) provided at the position thereof.

20. A method for operating a restaurant system according to one of the preceding claims 4 to 16, comprising the steps:

- positioning the elevator unit (8) in its receiving position (12);
- subsequently supplying food and/or drinks to the elevator unit (8), in particular by means of placing into or placing onto the elevator unit (8);
- subsequently moving the elevator unit (8) comprising the supplied food and/or drinks from the receiving position (12) into the transfer position (13);
- subsequently transferring the food and/or drinks to the first transport section (5);
- subsequently transporting the food and/or drinks via the first transport section (5) to the guest area (3), namely at least in sections by means of the force of gravity.

PATENT CLAIMS

1. A restaurant system (1) comprising at least one working area (2) for cooking and/or preparing food and/or drinks and at least one guest area (3), wherein working area (2) and guest area (3) are connected via a transport system (4) for food and/or drinks, and wherein the transport system is designed to transport food and/or drinks from the working area (2) to the guest area (3), wherein the transport system (4) has at least a first transport section (5), in which the transport of food and/or drinks from the working area (2) to the guest area (3) takes place at least in sections by means of the force of gravity,
whereby the transport system (4) has a second transport section (6), which is located upstream of the first transport section (5) in a provided transport direction (A) of the food and/or drinks, wherein the second transport section (6) has an elevator (7), which is designed to transport the food and/or drinks into a position, which is located at a higher point as compared to the guest area (3)
whereby the elevator (7) has at least one movable elevator unit (8), which carries the food and/or drinks by means of the elevator (7) **whereby** the elevator unit (8) can be moved between a receiving position (12), in which the food and/or drinks, which are to be transported, can be supplied to the elevator unit (8), and a transfer position (13), which is arranged above the receiving position (12) and in which the elevator unit (8) can transfer the food and/or drinks to the first transport section (5)
characterized in that,
the first transport section (5) of the transport system (4) comprises at least two sliding rails and/or

roller guides (19), which run substantially parallel, in particular at least two sliding rails and/or roller guides (19), which have a substantially circular or oval or rectangular cross section, on which the food and/or drinks are transported by means of transport aids (20), in particular sliding supports and/or sliding devices and/or rolling devices, at least in sections by means of the force of gravity, and that the elevator unit (8) has a number of transfer rails (21), which run substantially parallel and the number of which corresponds to the number of the sliding rails and/or roller guides in the first transport section (5) and which, during the transport of the food and/or drinks with the elevator (7), carry the food and/or drinks, which are placed into the transport aids (20), wherein, in the transfer position (13) of the elevator unit (8), the transfer rails (21) form a continuation of the sliding rails and/or roller guides (19) in the first transport section (5) in a direction opposite to the provided transport direction (A) of the food and/or drinks.

2. The restaurant system according to claim 1, **characterized in that** the elevator (7) is designed to transport the food and/or drinks upwards substantially inversely parallel to the force of gravity.

3. The restaurant system according to claim 1, **characterized in that** the elevator (7) has one or two or a plurality of sensors, which detect the reaching of the receiving position (12) and/or of the transfer position (13).

4. The restaurant system according to claim 1 or 3, **characterized in that** the elevator unit (8) has at

least one barrier (9), which, in a closed state, blocks a movement of the food and/or drinks carried by the elevator unit (8), and which, in an open state, releases a movement of the food and/or drinks carried by the elevator unit (8), in particular a transfer to the first transport section (5).

5. The restaurant system according to one of claims 1 to 4, **characterized in that** the elevator (7) has one or two or a plurality of guide rods (10), which are preferably arranged substantially vertically, for guiding the elevator unit (8) in response to the movement between receiving position and transfer position.

6. The restaurant system according to claim 5, **characterized in that** for guiding purposes, the elevator unit (8) has two or three or a plurality of wheels (11) on the guide rod or the guide rods (10), which are arranged in such a manner that at least two of the wheels (11) are moved along opposite sides of the guide rods (10) in response to the movement of the elevator unit (8).

7. The restaurant system according to claim 5 or 6, **characterized in that** a stationary connector (14) is arranged on or close to an upper end of the guide rods (10) in such a manner that the food and/or drinks can be transferred via the connector (14) to the first transport section (5), starting at the elevator unit (8) in the transfer position (13) thereof.

8. The restaurant system according to claim 7, **characterized in that** the position of the connector (14) on or close to the upper end of the guide rods (10) can be adjusted, in particular one or a plurality

of fastening means (15) of the connector (14) on one or a plurality of the guide rods (10) can be fastened to the guide rod or the guide rods (10) in a detachable and offset manner.

9. The restaurant system according to one of claims 1 to 8, **characterized in that** the elevator (7) has a drive system (16) comprising a motor (17) and at least one or at least two traction elements (18), which are moved by the motor, in particular traction ropes or tie bars 5, wherein the elevator unit (8) is connected to the traction element or to the traction elements (18) in such a manner that the elevator unit (8) is moved by means of the traction element or the traction elements (18).

10. The restaurant system according to one of claims 3 to 9, **characterized in that** the elevator (7) comprises an emergency shut-off system, wherein the emergency shut-off system comprises a number of contact elements, which corresponds to the number of the traction elements (18), wherein one contact element is in each case in contact with a traction element (18) during normal operation and is interrupted in the case of malfunction.

11. The restaurant system according to one of claims 3 to 10, **characterized in that** the elevator (7) comprises a brake mechanism comprising brake elements, wherein the brake effect of the brake elements is impeded by means of the traction elements (18) during normal operation, and slow down the elevator during malfunction.

12. The restaurant system according to one of claims 3 to 11, **characterized in that** the elevator has a protective box (24), which surrounds the elevator unit

(8) in the receiving position (12) thereof at least laterally, and/or that the elevator unit (8) has a protective box, which is movable with the elevator unit (8) and which surrounds the elevator unit (8) at least laterally.

13. The restaurant system according to one of claims 3 to 12, **characterized in that** the elevator (7) has one or two or a plurality of sensors, which detects or detect an intervention in the route of the elevator unit along the guide rods by an operator.

14. The restaurant system according to claim 1 and according to claim 7, **characterized in that** the connector (14) has a number of intermediate rails (22), which run substantially parallel, and the number of which corresponds to the number of sliding rails and/or roller guides in the first transport section (5), which form a continuation of the sliding rails and/or roller guides (19) and which are arranged between the sliding rails and/or roller guides (19) and the transfer rails (21) in the transfer position (13) of the elevator unit (8).

15. The restaurant system according to claim 1 or 14, **characterized in that** the transfer rails (21) and/or the intermediate rails (22) are inclined downwards in the direction of the provided transport direction (A) of the food and/or drinks.

16. The restaurant system according to one of claims 1 to 15, **characterized in that** the transfer rails (21) and/or the intermediate rails (22) are formed of a plurality of wheels or rollers (23), which are arranged consecutively and which are supported rotatably, and the axis of rotation of which is in

each case oriented substantially vertically to the transport direction (A) provided at the position thereof.