

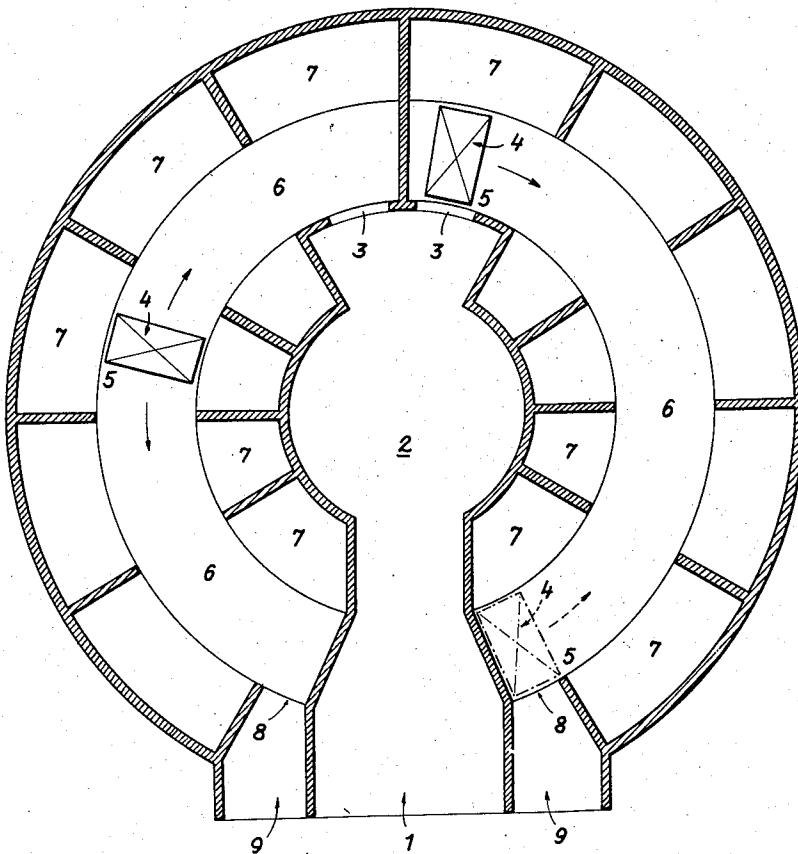
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GARAGE

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GARAGE

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This invention relates to a garage, particularly to a multi-story garage.

To meet the demands of practical operation, a garage, particularly a multi-story garage, must fulfill some important requirements, which may be outlined as follows:

A receiving area for incoming vehicles must be provided, which enables the car to be handed over without waiting time to the garage personnel for performing all other garaging operations.

The paths travelled by a car during delivery to and from the garage and in the garage must not cross each other.

It must be possible to garage the cars and move them to the service stations with the aid of one and the same equipment, e. g. with an elevator tower.

The entrance and exit of the garage must lie beside each other in order to enable or facilitate the driving of the car from a traffic area into the garage and the introduction of the car coming out of the garage into that traffic area.

The vehicle must automatically make a turn of about 180 deg. between its delivery into the garage and its delivery out of the garage in order to eliminate the need for reversing the car or for using turntables or providing reversing areas.

Corresponding to the receiving area in the delivery story, areas for service stations etc. should be available in any other story and should be accessible without requiring a movement through other rooms.

In the previously known garages, great difficulties are involved in the conveyance of the vehicles to their parking places and to their positions of departure. Whereas the use of conveying equipment, such as elevator towers, facilitates the acceptance of the vehicles by the conveying equipment and the delivery to the parking place, the vehicles are held back on their way to the conveying equipment and before their delivery to the point of departure, with long waiting times involved. The area required for the necessary movements of the cars and their transfer from story to story, e. g., by ramps, reduces the actual parking area. For this reason the provision of reversing areas, turntables or ramps and a repeated crossing of the various passageways cannot be avoided in the previous garages.

A multi-story garage is known, which has a passageway, which is closed in itself, for several wheeled platforms, which deliver the vehicles to the parking places and from the same to a common entrance and exit. Such a garage does not permit the aforesaid requirements to be fulfilled because the elevators hinder each other during the delivery of incoming and outgoing cars and during the garaging operation. This involves considerable losses of time. In particular, it is not possible to deliver incoming vehicles without causing an obstruction of the traffic.

It is an object of the invention to provide a garage which eliminates the existing disadvantages of known garages and fully complies with the requirements stated hereinbefore. The essential feature of the invention resides in that incoming and outgoing passageways are con-

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nected respectively to an entrance and to a separate exit on the street side, the incoming passageway leading through a receiving area of the garage, which receiving area provides waiting places, to a receiving gate of a semi-circular shaftway and the outgoing passageway leading from a delivery gate of the shaftway, the arrangement being such that the vehicles introduced into the garage and delivered from the garage after having parked therein pass through the shaftway so that they undergo a change in direction by 180 deg. between the entrance and exit and are finally positioned in departing direction at the exit, which is beside the entrance. The invention provides further that one or several stories are provided in the building part which accommodates the parking places and the shaftway, with which the parking places communicate. The various stories may also accommodate washing, maintenance and other services and are interconnected for the vehicles by the shaftway and may be interconnected for persons by stairs or the like. The invention contemplates two embodiments, one of which comprises a receiving area and parking places on both sides of an incoming passageway, each of which sides has a shaftway and an outgoing passageway associated therewith, whereas the other embodiment comprises a receiving area and parking places and a shaftway and an outgoing passageway only on one side of an incoming passageway.

An embodiment of the invention is shown by way of example in the accompanying drawing, which shows a top plan view of the receiving story of the garage.

The incoming vehicle moves through the entrance 1 on an incoming passageway into the receiving area 2 and further to a receiving gate 3 of a semi-circular shaftway 6, in which an elevator tower 5 with a cage 4 is movably arranged. With the aid of the elevator tower 5 the vehicles are moved to parking places 7 arranged along the shaftway 6. Known constructions may be used for the elevator tower and for the devices for delivering the vehicles to and from the parking places and may be driven by mechanical, hydraulic or pneumatic means. A delivery gate 8 is arranged at the other end of the shaftway 6. An outgoing passageway leads directly from the delivery gate to an exit 9.

The receiving area, which is passed through by the passageway for the incoming vehicles, provides waiting places for the incoming vehicles. For this reason the driver can leave the vehicle immediately after it has entered the garage. The actual delivery to the parking places is effected in the usual manner. Vice versa, a desired vehicle can be moved from the parking place by the elevator tower without delay and can be delivered to the driver at the delivery gate.

The drawing shows a two-sided arrangement, which comprises two shaftways with elevator towers and parking places and two receiving and delivery gates. The invention contemplates also a one-sided embodiment, which may comprise, e. g., one half of the construction shown in the top plan view.

Depending on the number of parking places which are arranged one over the other, intermediate stories may be provided above the receiving area 2 in the building part which is occupied by the parking places and shaftways. These intermediate stories provide accommodation for washing, maintenance and other services and are accessible for the vehicles like the parking places by means of the elevator towers. Stairs or elevators (not shown) leading to these central rooms may be provided for the personnel or, where they accommodate coffee bars, for guests.

I claim:

1. A multi-story garage comprising an incoming passageway, an outgoing passageway positioned beside said incoming passageway, a semi-circular shaftway communi-

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cating between a receiving gate at the end of said shaftway remote from said incoming passageway and a delivery gate at the other end of said shaftway, said delivery gate being positioned adjacent said outgoing passageway, parking places arranged in a plurality of stories alongside said semi-circular shaftway and communicating therewith, a receiving area positioned intermediate said incoming passageway and said receiving gate and providing communication therebetween whereby vehicles driven through said incoming passageway into said receiving area may be driven through said receiving gate without altering the forward direction of said vehicles, an elevated tower including a cage for vehicles movable in said shaftway whereby movement of said vehicles through said semi-circular shaftway will change the direction of said vehicles about 180° whereby said vehicles may be driven through said delivery gate and through said outgoing passageway in a forward direction without interfering with the movement of entering traffic or storage of incoming vehicles.

2. A multi-story garage as recited in claim 1 in which said incoming passageway is separated from said outgoing passageway.

3. A multi-story garage as recited in claim 1 in which said parking places are arranged on both sides of said shaftway.

4. A garage as recited in claim 1 which comprises stairs which interconnect said stories for persons.

5. A multi-story garage comprising an incoming passageway, a pair of outgoing passageways positioned one on each side of said incoming passageway, a pair of semi-

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circular shaftways, each communicating between a receiving gate at the end of said shaftway remote from said incoming passageway and a delivery gate at the other end of said shaftway, each of said delivering gates being positioned adjacent one of said pair of outgoing passageways, parking places arranged in a plurality of stories alongside said semi-circular shaftways and communicating therewith, a receiving area positioned intermediate said incoming passageway and said receiving gates and providing communication therebetween whereby vehicles driven through said incoming passageway into said receiving area may be driven through said receiving gates without altering the forward direction of said vehicles, each of said shaftways comprising an elevated tower including a cage for vehicles movable therein whereby movement of said vehicles through either of said semi-circular shaftways will change the direction of said vehicles about 180° whereby said vehicles may be driven through said delivery gates and through said outgoing passageways in a forward direction without interfering with the movement of entering traffic or storage of incoming vehicle.

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