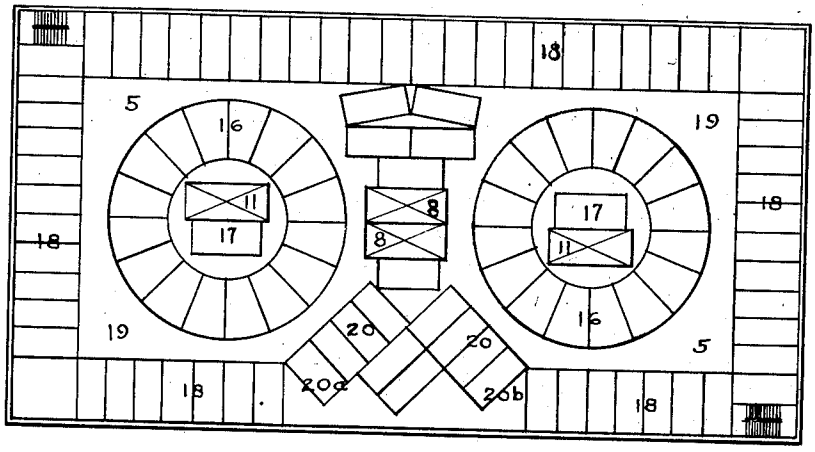
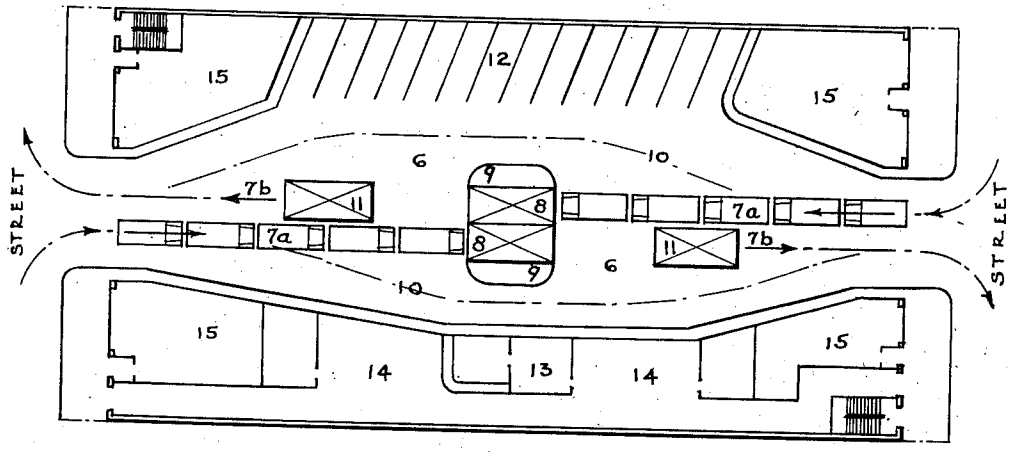
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PARKING GARAGE SYSTEM

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TYPICAL UPPER FLOOR PLAN FIG. 1.



STREET LEVEL PLAN FIG. 2.

Harry E. Warren
INVENTOR

BY F. Bascom Smith
ATTORNEY

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PARKING GARAGE SYSTEM

Harry E. Warren, Bronxville, N. Y.

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4 Claims. (Cl. 214—16.1)

This invention relates to storage buildings, and more particularly to garages for motor vehicles.

It has heretofore been proposed to use a single annular turntable or rotatable floor structure in the storage space of a garage in order to facilitate the parking and storing of automobiles and in order more efficiently to utilize the available floor area. The above-mentioned rotatable floor structure employs a rotatable turntable interiorly and exteriorly surrounded by annular parking spaces, the latter comprising radially extending parking stalls. Motor vehicles are driven through a driveway in the outer annular parking space onto the turntable, and then by means of the turntable the vehicles are carried to an empty stall. The turntable must also serve as a parking space in order to utilize all the floor area efficiently. As a result the useful size of the turntable is a function of the average wheelbase of conventional motor cars. The diameter of the turntable of this structure has been found to be limited to approximately 70 feet. Turntables of greater diameter, when fully loaded, are subjected to a weight of motor cars which can be driven only with very expensive means which are believed impractical. This limitation in size of turntable constitutes a serious disadvantage for the single turntable structure when it is desired to employ an area substantially larger than that of the turntable for storage purposes. A structure embodying the characteristics mentioned above is shown, for example, in the patent to Swinnerton No. 1,454,348.

The above-mentioned disadvantages have made it unprofitable and unsatisfactory to employ the turntable in the manner heretofore proposed. For example, for efficiently using the space available a driveway has to be located adjacent a street wall and thus it is impossible to keep even a single car waiting without congesting street traffic. The use of only one turntable, for example, on upper floors for carrying cars to and from the stalls necessitates backing of the vehicles onto an elevator either during entrance or exit. Moreover, a flow of constantly entering and outgoing traffic cannot be maintained since the single turntable is available for only one of the moving operations at any one time, and particularly because of the provision of only one driveway and the location thereof relative to the turntable.

Also, the plots or parcels of real estate usually available for a garage, and the floor plans of presently existing garages in traffic congested areas are predominantly rectangular in shape and extend the length of a city block, that is, approximately 200 feet in length. This militates against the use of a single turntable type of garage floor which, as above-mentioned, can only be used efficiently in an area which is substantially square. The area should be less than approximately 110 feet on a side for the single turntable structure.

One of the objects of the present invention is to provide a garage provided in a novel manner with turntables, which garage avoids the above-mentioned disadvantages.

Another object of the invention is to provide a novel garage turntable means which permits a substantially continuous flow of incoming and outgoing traffic.

A further object is to provide a multi-floor garage in which elevator means and mechanical car carrying means are associated in a novel manner to facilitate the packing and arrangement of cars.

An additional object is to provide a novel garage adapted for utilizing the floor area thereof as efficiently as possible, and also adapted for use on plots which are rectangular in area and have "frontal dimensions" on adjoining streets.

The above and further objects and novel features will more fully appear from the following detailed description when the same is read in connection with the accompanying drawing. It is to be expressly understood, however, that the drawing is for purposes of illustration only and is not intended as a definition of the limits of the invention, reference for this latter purpose being had to the appended claims.

In the drawing, wherein like reference characters refer to like parts throughout the several views,

Fig. 1 is a plan view showing diagrammatically an upper floor of a garage embodying the present invention; and

Fig. 2 is a diagrammatic view of a street level floor of said garage.

The form of the invention illustrated in the accompanying drawing, by way of example, comprises a building having a floor area rectangular in shape and having a length substantially twice that of its width, the building being provided with at least one storage floor **5** (Fig. 1) above or below a ground floor **6** (Fig. 2), which is directly available to motor vehicles driving in from adjacent streets. The storage building or garage preferably fronts on two streets and a pair of driveways *7a*, *7b* into and out of the building,

respectively, are provided at opposite ends thereof. As shown in Fig. 2, incoming traffic is directed along driveways 7a to a pair of adjoining elevators 8 substantially in the center of the floor area. Fuel and lubricant dispensing devices may be provided in spaces 9 adjacent said elevators. Driveways 10 connect driveways 7a to driveways 7b for use of cars which enter for the purpose of refueling, etc.

A pair of elevators 11 for outgoing vehicles are provided and each of the shafts of said elevators is preferably located in the path of one of said driveways 7b intermediate one end of the building and the shaft of elevators 8.

By locating the elevator shafts for incoming traffic centrally of the length of the building, it is possible to have a waiting line of, for example, five cars entering from both streets without interfering with the cars leaving the garage by elevators 11.

The remainder of the ground floor 6 can be used, for example, for a short time parking space 12, office space 13, lounge rooms 14, and store areas 15.

In order to utilize the space available in the one or more storage floors 5 in the most efficient manner, each of said floors is provided in a novel manner with a pair of rotatable turntables 16 which constitute a part of the floor area. Each of said turntables is slightly greater in radial width than the maximum wheel base of the vehicles to be stored in the garage. Each turntable is located so as to surround one of the shafts of elevators 11 and to provide a parking space 17 for one vehicle within each of said turntables. The shafts for elevators 8 are thus situated intermediate said turntables and incoming vehicles which can be carried to a storage floor on one of said elevators and can be directed onto either of said turntables. Because two turntables are used the diameter of each can be small, for example, approximately 55 feet. The weight to be carried thereby can be economically and easily moved.

A plurality of parking stalls or spaces 18 shown in the drawings by rectangles is preferably provided in the area adjacent the walls of floor 5 in which a maximum number of cars can be parked side by side in a single row surrounding the turntables 16 and directly accessible thereto. The floor area can be further used by parking vehicles in spaces 19 located in the area surrounded by stalls 18, and between shaft of elevator 8, and said turntables, or by locating a plurality of stalls 20 between said turntables forming substantially rectangular areas 20a and 20b angularly disposed relative to each other, each of said areas being closely adjacent to one of the turntables 16 so that vehicles parked therein can be readily driven onto a turntable.

In operation, the vehicles entering the garage by driveways 7a are carried to the storage floors 5 by elevators 8 and driven from the elevators onto one of the turntables 16. The latter is then rotated until said vehicle is in alignment with and adjacent to an empty stall into which the vehicle is driven and thus parked. The vehicle is readily removed from the garage by being driven onto the turntable, the latter being rotated until the vehicle is in line with one of the elevators 11. By providing one or more elevators inside or centrally of the turntable, the garage can be operated without ever having to back a car onto an elevator. When "peak loads" of incoming or outgoing traffic are encountered, for example, three of the elevators can be employed therefor.

There is thus provided a novel garage in which the maximum utility of available space is attained and wherein motor cars are moved with a maximum of speed and ease. By means of two turntables, cars can be readily shifted from one end of the building to the other for any desired purpose; for example, if a customer wishes to exit on a certain street, his car can be moved to a desired convenient stall.

Although only one embodiment of the present invention has been illustrated and described in detail, it is to be expressly understood that the invention is not limited thereto. For example, the number of elevators handling the incoming and/or outgoing traffic can be doubled by placing two elevators adjacent each other where only a single elevator has been shown. Various changes may be made in the design and arrangement of the parts of the structure without departing from the spirit and scope of the invention, as the same will now be understood by those skilled in the art. For a definition of the limits of the invention, reference will be had primarily to the appended claims.

What is claimed is:

1. In a vehicle parking and storing floor substantially rectangular in shape, two annular rotatable floor portions spaced longitudinally and comprising a part of the parking area of said floor, at least one elevator between and adjacent the outer edges of said portions, and at least one elevator within each of said portions.

2. In a garage having a substantially rectangular parking area, two rotatable annular members comprising a portion of said area, means located centrally of each of said members for transporting vehicles to and from said area, means located between said members for transporting vehicles to and from said area, said last named means being adapted to communicate directly with both of said members, and parking stalls adjoining the walls of said area and surrounding said members.

3. In a garage having one or more storage or parking areas, a plurality of elevators for carrying vehicles to said areas, and annular rotatable longitudinally spaced members comprising a part of the parking space of each of said areas, an elevator being located within each of said members and another of said elevators being located between and adjoining the outer edges of each two of said members.

4. In a garage having a parking floor, two rotatable annular members comprising a portion of the parking area of said floor, elevator means located on the interior of said members for transporting vehicles to and from said floor, and elevator means located between said members for transporting vehicles to and from an area of said floor which is adapted to communicate directly with both of said members.

HARRY E. WARREN.