

Jan. 18, 1927.

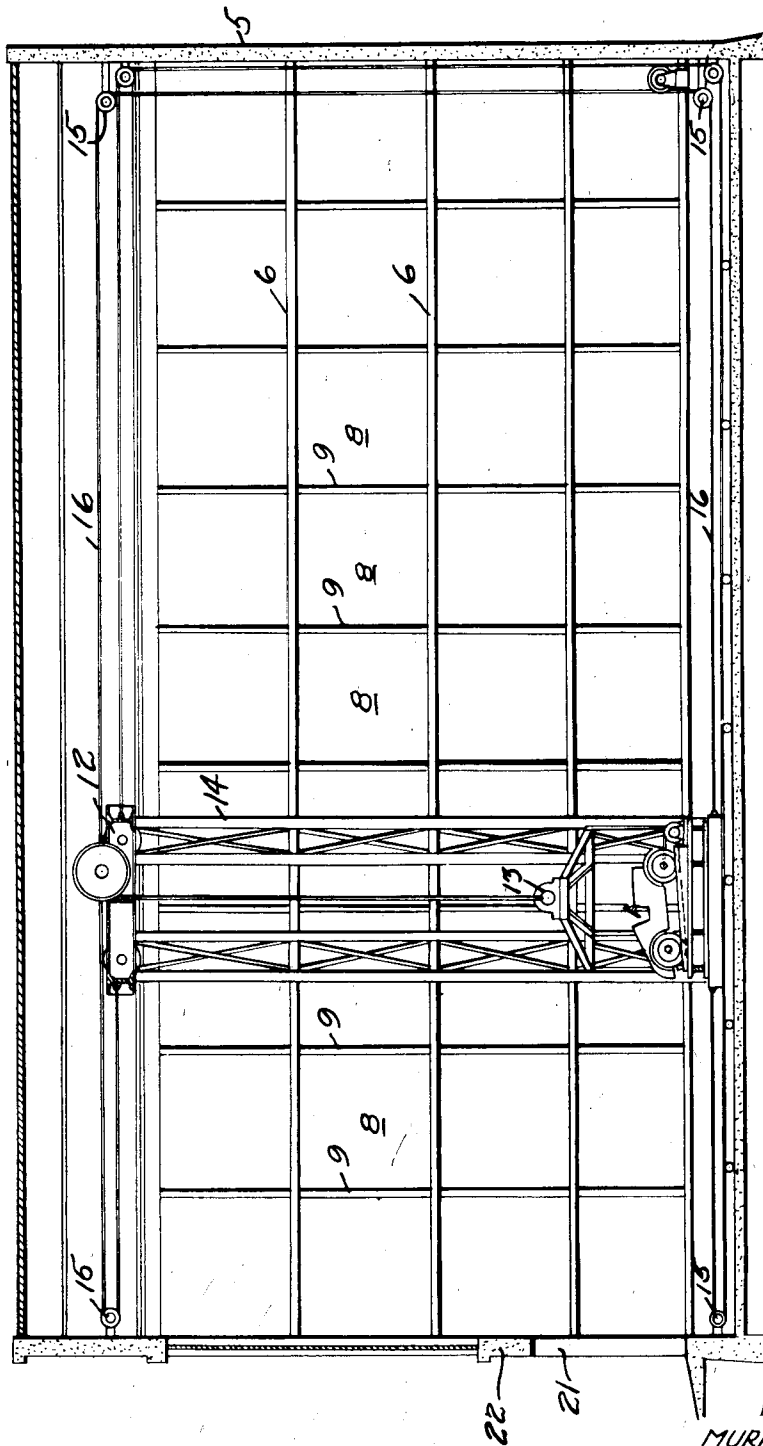
1,614,905

M. C. TUNISON

GARAGE

Filed July 26, 1923

2 Sheets-Sheet 1



INVENTOR

MURRAY C. TUNISON

BY

Joseph B. Gardner
his ATTORNEY

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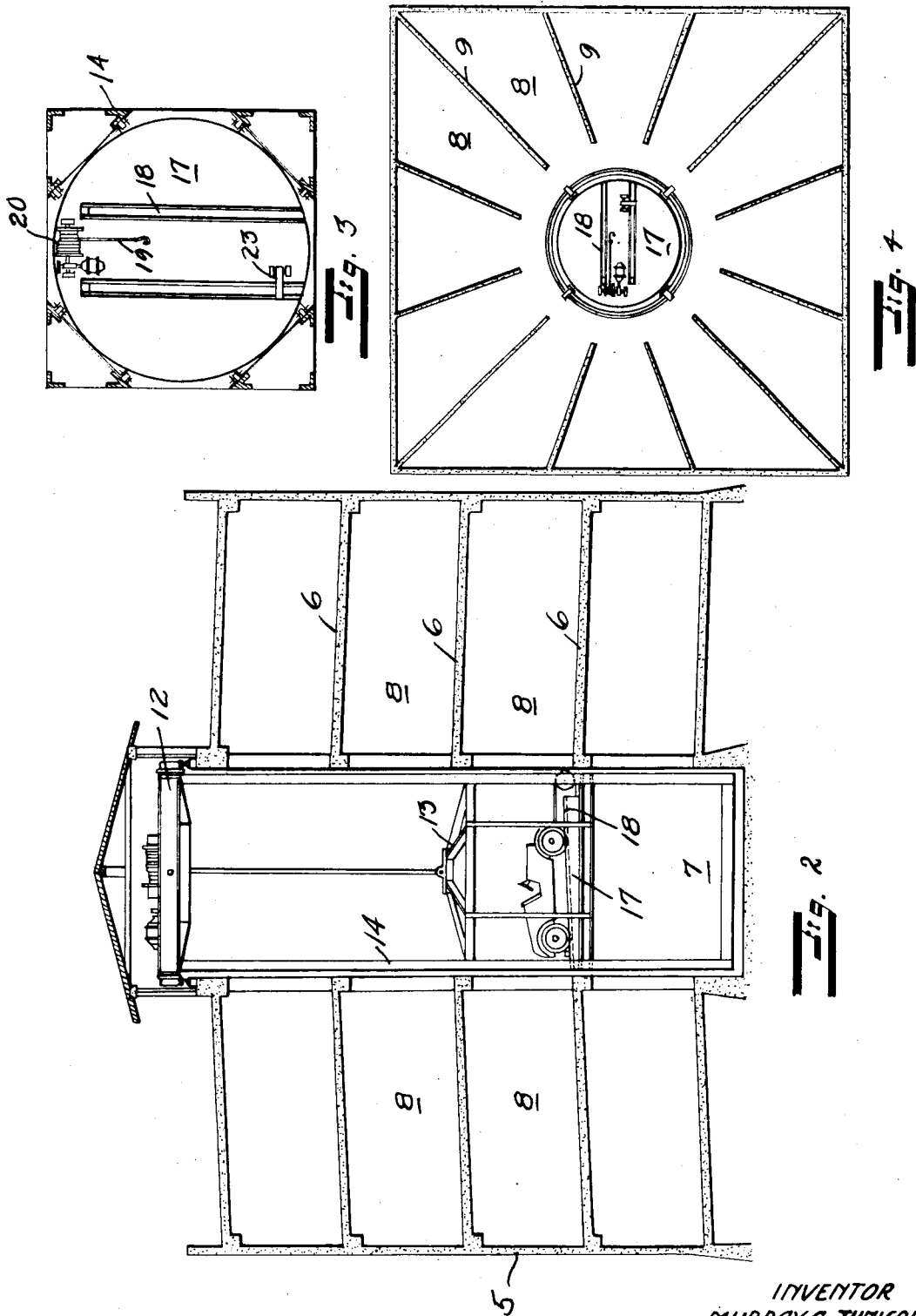
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INVENTOR
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UNITED STATES PATENT OFFICE.

MURRAY C. TUNISON, OF LOS ANGELES, CALIFORNIA, ASSIGNOR TO THE FIRM OF NUNN & TUNISON, COMPOSED OF SAMUEL J. NUNN AND MURRAY C. TUNISON, OF OAKLAND, CALIFORNIA.

GARAGE.

Application filed July 26, 1923. Serial No. 653,875.

My invention relates to a garage in which automobiles may be stored or parked on a plurality of floors.

An object of the invention is to provide a garage which will enable a large number of automobiles to be quickly placed therein or removed therefrom without necessitating the use of the power of the automobile.

Another object of the invention is to provide a garage in which the automobiles may be placed in positions most advantageous for parking them in a minimum area, without requiring the use of a large amount of valuable flooring space for turning them.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of my invention which is illustrated in the drawings accompanying and forming part of the specification. It is to be understood that I do not limit myself to the showing made by the said drawings and description, as I may adopt variations of the preferred form within the scope of my invention as set forth in the claims.

Referring to said drawings:

Figure 1 is a vertical longitudinal section through the garage of my invention.

Figure 2 is a vertical transverse section of the garage.

Figure 3 is a plan of elevator platform used in the garage.

Figure 4 is a horizontal section of a slightly modified form of the garage.

Briefly expressed the garage in its preferred embodiment comprises a plurality of floors each of which is provided with a row of stalls at opposite sides of a shaft in which is mounted an elevator adapted to move horizontally as well as vertically. The flooring of the stalls slopes downward from the passage, and the elevator is provided with a revoluble platform which is sloped similar to the stall flooring. Means are carried on the platform, which in conjunction with the sloping platform and flooring enable an operator to readily move the

automobile into or out of their stalls as well as into or out of the garage building, without using the power of the automobile.

A detailed description follows:

As illustrated in Figures 1 to 3 of the drawings the garage comprises a rectangular structure 5 provided with any suitable number of floors 6. Extending centrally and longitudinally in the structure is a shaft or passage 7 which divides each floor into spaces suitable for subdivision into stalls 8. There is thus provided on each floor a row of stalls at opposite sides of the common passage 7. The stalls 8 are here shown divided by suitable partitions 9 but it is to be understood that the term stall as here used is intended to include automobile parking spaces whether or not said spaces are actually separated by dividing means of one form or another.

Suitably supported at the top of the shaft for horizontal movement from one end of the shaft to the other, is a carriage 12 from which is suspended an elevator 13. The latter is guided in its vertical movement by means of a frame 14 which is fixed to and is supported by the carriage 12. Tilting of the frame 14 is prevented by means of the cable 16 which passes over pulleys 15 and is fixed to the carriage and to the bottom of the frame in a manner that will cause all portions of both carriage and frame to move forward or backward simultaneously.

Mounted on the elevator for movement about a vertical axis is a revoluble platform 17 of sufficient size to allow an automobile to completely rest thereon. The platform is provided with inclined tracks 18 upon which the automobile is run when moved on or from the platform.

The flooring of the floors 6 is sloped downward from the shaft 7 at an inclination preferably similar to the tracks 18, and means are provided which in conjunction with the sloping tracks and the stall flooring will enable an operator to quickly and easily move the automobiles into or out of the building and into or out of the stalls,

without utilizing the power of the automobile. As here shown said means comprises a simple power-operated towing device which is carried directly on the revoluble platform of the elevator. The towing device is provided with a cable 19 wound on a drum 20 and equipped at its free end with a hook or other instrument suitable for quick attachment to an automobile.

The operation of parking the automobile in the garage and its removal therefrom is as follows:

The automobile is arranged to enter the garage through the opening 21 formed in the front wall 22 of the building and leading directly to the ground floor. The carriage, at the time the automobile enters the garage, is positioned at the end of the shaft adjacent opening 21, and the elevator is disposed at the ground floor, the platform thereof being turned so that the lower end of the tracks is adjacent the opening. The automobile may, if desirable, be moved through the opening 21 to the elevator on its own power, or it may be moved upon the elevator by use of the towing cable, however regardless of the manner of moving the automobile it may always be moved head first, thereby considerably facilitating the operation of properly placing the automobile on the elevator. After the automobile is positioned on the elevator, it may be securely retained thereon by means of a hinged chuck 23 which is adapted to be removably positioned behind one of the rear wheels of the automobile. With the automobile thus firmly held, the elevator may be raised and the carriage moved forward until the automobile is positioned opposite the stall in which the automobile is to be placed. The elevator platform is then turned so that when the chuck is removed the automobile due to the sloping platform and flooring, will move backward until it rests entirely within the stall. The elevator and carriage may then be withdrawn for use in connection with another automobile. I have found that for various reasons it is practically impossible to properly attach a towing cable to the rear end of most automobiles. It is thus almost absolutely necessary that the front of the automobile face the towing device when it is desired to draw the automobile upon the elevator. Ordinarily the proper positioning of the automobile for thus rendering the towing thereof practical, would necessitate a turning area of such size as would be prohibitive. With the use however of the revoluble platform the automobile may with extreme ease and readiness be placed in a stall at either side of the shaft with its front end facing the shaft. Resting in its stall in this manner, should it at any time be desired to remove the automobile therefrom, it is merely neces-

sary to position the elevator opposite the stall in the same manner as when the automobile was inserted in the stall, attach the cable to the front axle, and then operate the towing motor. To now remove the automobile to the exterior of the building, the carriage and elevator are moved back to their original position adjacent the opening 21, and the automobile then allowed to roll by gravity out through said opening.

In Figure 4, I have shown a slightly modified construction. In this embodiment the plan of the building is square, and is considerably smaller than that of the structure previously described. Furthermore the carriage is eliminated and the elevator is arranged centrally of the building.

I claim:

1. In a garage, a plurality of floors having stalls at opposite sides of a shaft, an elevator in said shaft movable vertically and horizontally relative to the stalls, and an inclined revoluble platform mounted in said elevator.
2. In a garage, a plurality of floors each having a row of stalls at opposite sides of a shaft and provided with flooring sloping downwardly from said shaft, an elevator movable vertically and horizontally in said shaft, and power operated means carried on said elevator for drawing an automobile from a stall to and upon said elevator.
3. In a garage, a plurality of floors each having a row of stalls at different sides of a shaft and provided with flooring sloping downwardly from said shaft, an elevator movable vertically in said shaft, a revoluble platform mounted in said elevator and inclined similar to said flooring, and power operated means carried on said platform for drawing an automobile from a stall to and upon said platform.
4. In a garage, a plurality of floors having stalls on different sides of an elevator shaft, an elevator mounted in said shaft, a revoluble platform mounted on said elevator, and means carried on said revoluble platform for drawing an automobile thereon.
5. In a garage, a plurality of floors each having a row of stalls on opposite sides of a shaft and provided with flooring sloping downwardly from said shaft, a carriage supported at the top of said shaft and movable horizontally from one end thereof to the other, an elevator suspended from said carriage, a revoluble platform in said elevator having tracks inclined similar to the stall flooring, means carried on said platform for drawing an automobile thereupon, means for guiding said elevator in its vertical movement, and means for preventing the tilting of said guiding means.
6. In a garage, a plurality of floors having stalls at the side of a shaft and provided

with flooring sloping downwardly from said shaft, an elevator in said shaft, and means carried on said elevator for drawing an automobile thereon from a stall

5 7. In a garage, a plurality of floors having rows of stalls at the side of a shaft, a carriage movable horizontally in said shaft, an

elevator mounted in said carriage, and means carried entirely by said carriage for drawing an automobile upon said elevator.

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In testimony whereof, I have hereunto set my hand at Oakland, California, this 27th day of March, 1922.

MURRAY C. TUNISON.