S. M. DICK.

GARAGE.

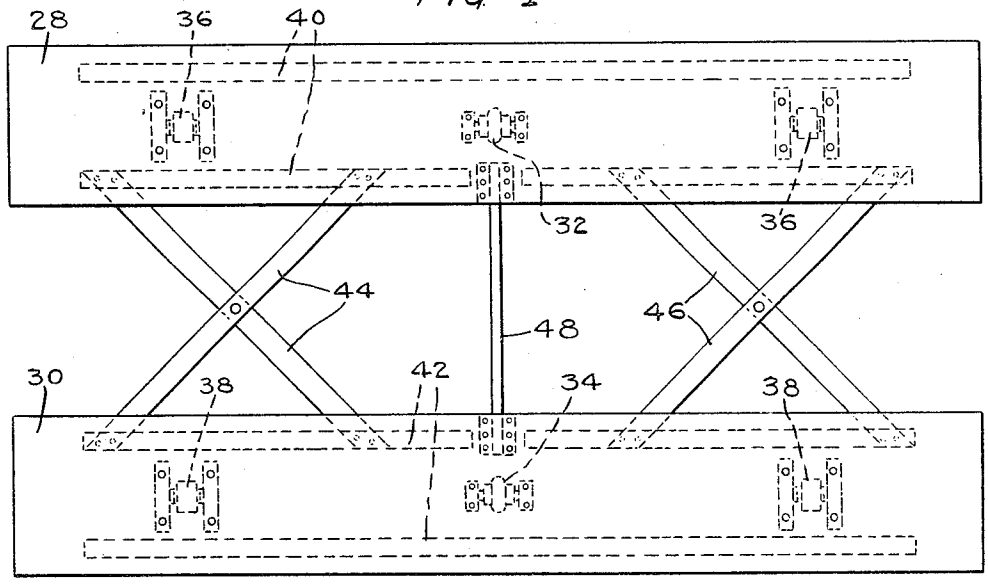
APPLICATION FILED AUG. 28, 1920.

1,435,153.

Patented Nov. 14, 1922.

3 SHEETS—SHEET 1.

FIG. 1



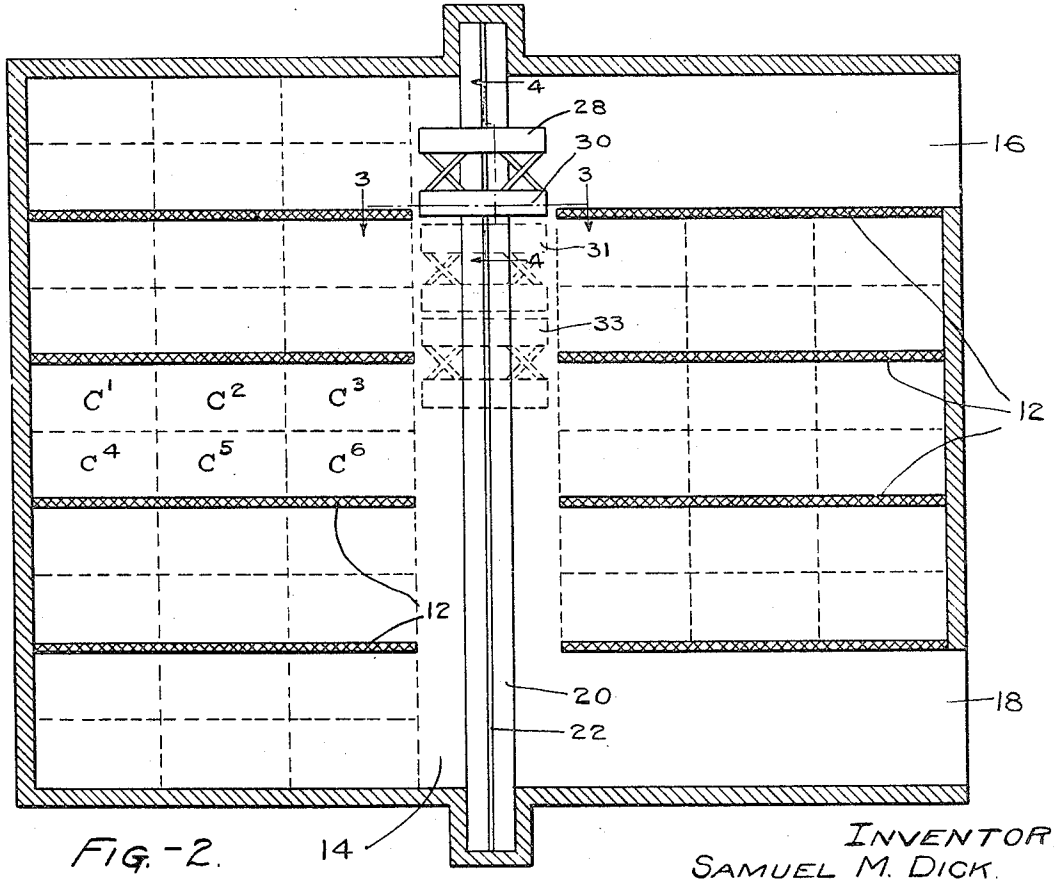


FIG. 2.

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3 SHEETS—SHEET 2.

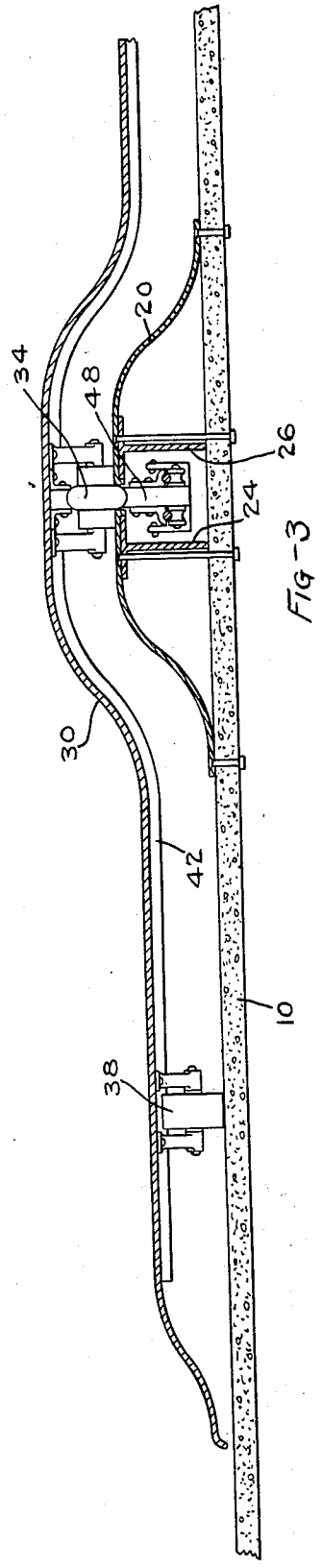


FIG-3

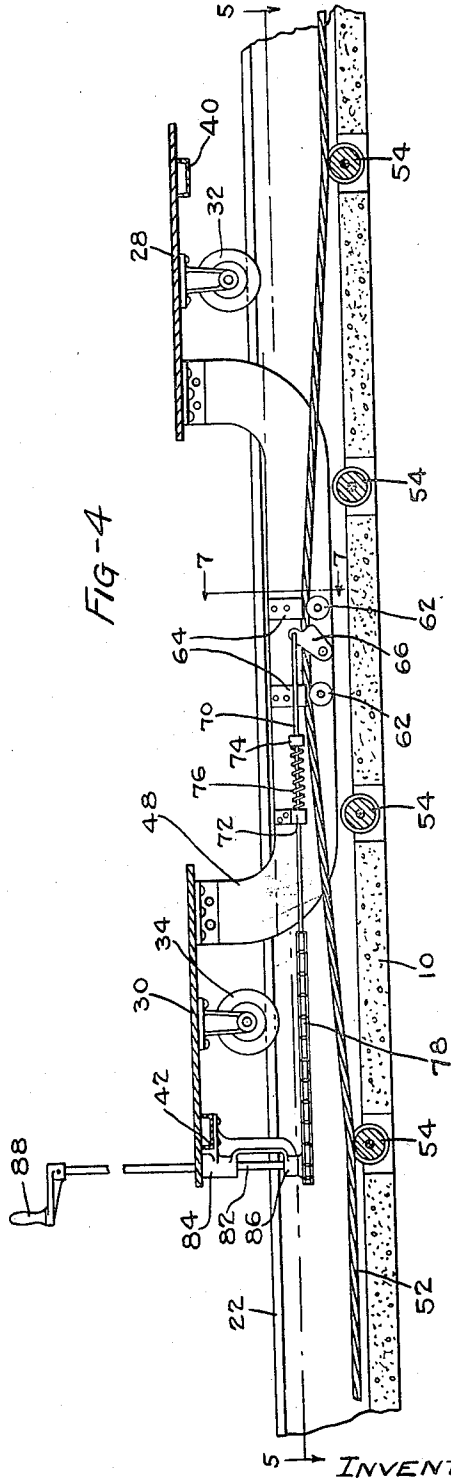


FIG-4

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APPLICATION FILED AUG. 28, 1920.

1,435,153.

Patented Nov. 14, 1922.

3 SHEETS—SHEET 3.

FIG-5

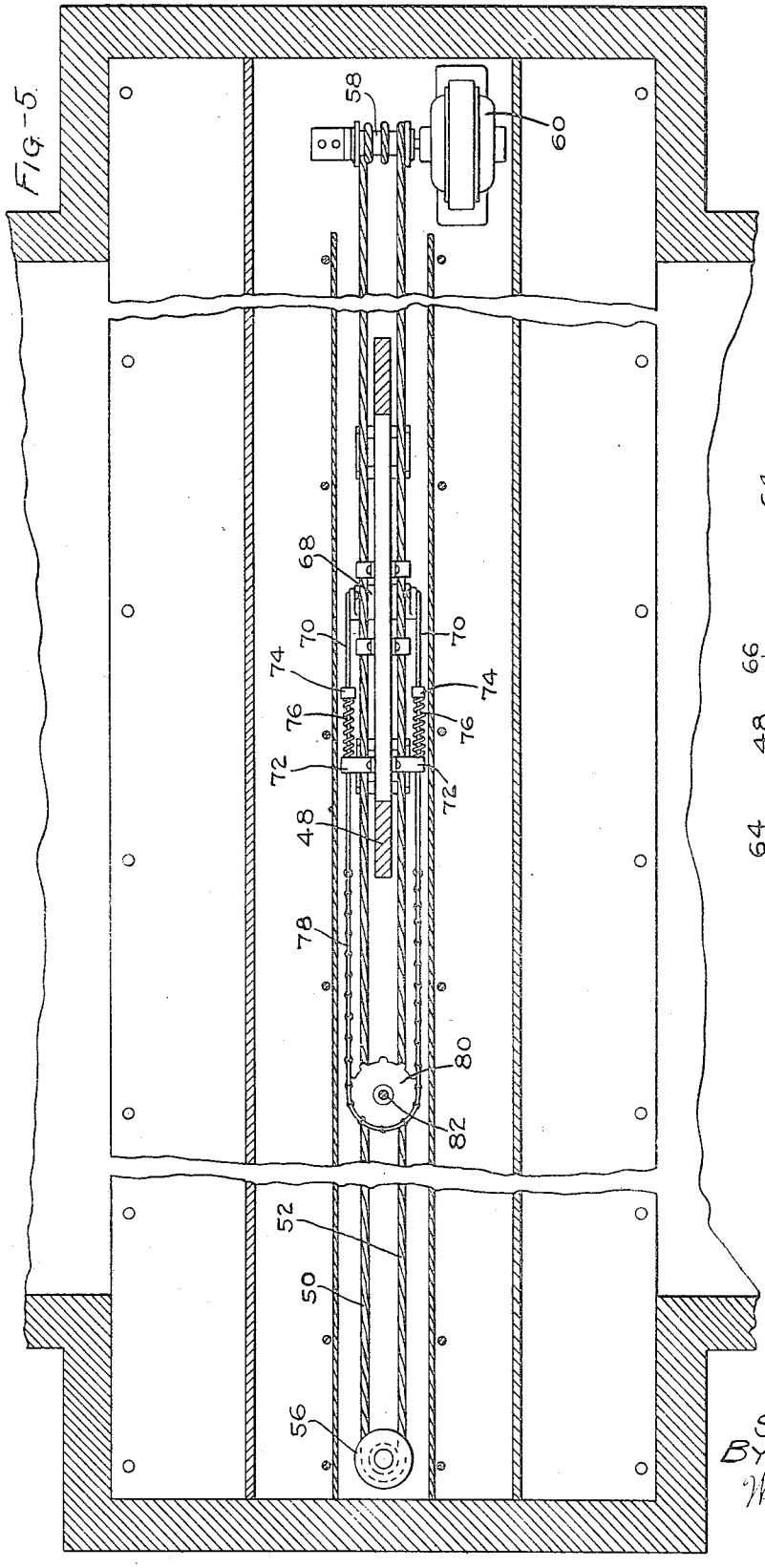


FIG-6

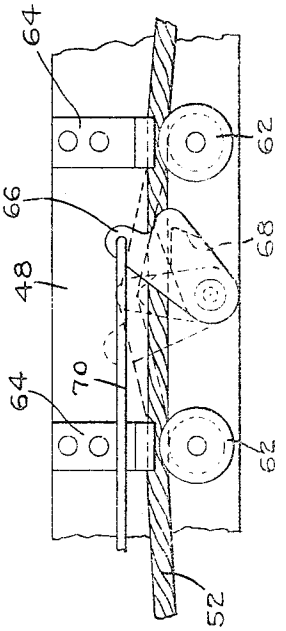
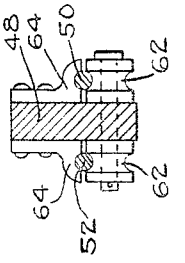


FIG-7



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Patented Nov. 14, 1922. 1,435,153

UNITED STATES PATENT OFFICE.

SAMUEL M. DICK, OF MINNEAPOLIS, MINNESOTA.

GARAGE.

Application filed August 28, 1920. Serial No. 406,680.

To all whom it may concern:

Be it known that I, SAMUEL M. DICK, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Garages, of which the following is a specification.

My invention relates to garages and an object is to economize space and provide for compactly storing cars or automobiles in such manner that it will be an easy matter to remove the various cars from time to time as the owners desire to use them.

The full objects and advantages of my invention will appear in connection with the detailed description thereof and the novel features embodied in my inventive idea will be particularly pointed out in the claims.

In the accompanying drawings, which illustrate the application of my invention in one form,—

Fig. 1 is a top plan view of a carriage which is employed in carrying out my invention. Fig. 2 is a plan view of the floor of a garage showing the carriage in one of the positions which it may assume. Fig. 3 is a view in vertical section on the line 3—3 of Fig. 2. Fig. 4 is a view in vertical section on the line 4—4 of Fig. 2. Fig. 5 is a view in horizontal section on the line 5—5 of Fig. 4. Fig. 6 is an enlarged view of a portion of the device as it appears in Fig. 4. Fig. 7 is a view in vertical section on the line 7—7 of Fig. 4.

Referring to the particular construction shown in the drawings, the numeral 10 designates the floor of a garage or storage space which as shown in Figs. 3 and 4 may be the customary cement floor. The cars are ordinarily stored in such manner as to leave passageways 12 between each two rows of cars so that owners may have access to their cars at all times, as, for instance, when they wish to place articles in the cars without taking the same out of the garage. The cars are also stored on both sides of an aisle 14 while driveways 16 and 18 are, in ordinary service, left at one side of the aisle 14 leading to the ends of this aisle. Fig. 2 shows the floor space filled with cars arranged in groups of six, there being two rows with three cars in a row for each group. It is obvious that there may be more than three cars in a single row. The cars in each of these groups are for convenience designated C^1, C^2, C^3, C^4, C^5 and C^6. It will be understood that for winter storage it is not necessary to leave the passageways 12 and that the cars can be placed close together instead of being arranged in groups, and in this way more cars can be taken care of. Extending centrally along the aisle 14 is a housing 20 consisting preferably of sheet metal secured to the floor and having a slot 22 extending lengthwise thereof. As shown, the housing is bowed upwardly from the floor and its central portion is reinforced by angle bars 24 and 26. A carriage which includes two platforms 28 and 30 is positioned to travel lengthwise of the housing 20. Each platform is intended to receive a front and a rear wheel of the car which is to be removed. If desired trailers such as indicated in dotted lines at 31 and 33 in Fig. 2 may be coupled to the carriage. The platforms are humped upwardly between their ends and at their middle portions are provided with rollers 32 and 34 secured to the underside thereof and adapted to run along the slot 22 as a trackway. The end portions of the platforms incline downwardly so that the ends just clear the floor, and rollers 36 and 38 which run on the floor are attached to the underside of the platforms adjacent their end portions. If desired metal strips may be set in the floor for the rollers 36 and 38 to run on. The platforms are preferably reinforced by angle bars 40 and 42 and are joined by braces 44 and 46. The platforms are also joined by a yoke member 48 which extends downwardly through the slot 22. The yoke member carries mechanism for clamping upon an endless cable having two stretches 50 and 52 lying in a horizotal plane and preferably supported above the floor upon rollers 54. The cable runs around a pulley 56 at one end of the housing 20 and at the other end of the housing passes around a drum 58 attached to the shaft of a motor 60. On both sides of the central portion of the yoke 48 are mounted pairs of rollers 62, while spaced from these rollers are lugs 64, the stretches of the cable passing between the rollers and the lugs. The carriage will be moved in one direction or the other according to which stretch of the cable is clamped by the clamping device. One means which I have devised for causing the clamping action is as follows: Pivoted to the yoke member between the pairs of rollers 62 are dogs 66 having laterally-projecting cams 68. When the dogs 66 are in the position shown

in full lines in Fig. 6 the cams 68 will clear the cable, but when one of the dogs is moved into vertical position the attached cam will lift the cable as shown in dotted lines between the lugs 64 so that the cable will be clamped to the yoke in order to impart movement to the carriage. Both dogs 66 are operated by similar means so that a complete description of one of them will suffice. Attached to the movable end of the dog is a rod 70 extending slidably through a bracket 72 attached to the yoke member, and surrounding the rod between the bracket and a collar 74 secured to the rod is a spring 76. The rear ends of the pair of rods 70 are connected by a sprocket chain 78 which is deflected around a sprocket wheel 80 secured to the lower end of a shaft 82. This shaft is rotatably mounted in bearings 84 and 86 carried by the platform 30, and a handle 88 is secured to the upper end of the shaft.

The operation and advantages of my invention will be obvious from the foregoing description. Cars which are to be stored in the garage enter through the driveways 16 or 18 and may be driven directly into the spaces which are in line with the driveways. When such spaces have been filled, or at other times if desired, the carriage is moved into line with that driveway into which a car is driven and the car is run upon the carriage, which may then be operated by causing clamping engagement with the cable to bring the car opposite any desired space at either side of the central aisle 14. The carriage is moved in either direction as may be necessary, according to which stretch of the endless cable is subjected to clamping action. The use of my apparatus renders the removal of cars an easy matter. If it is desired, for instance, to remove the car C^6 the carriage is brought into line therewith, the car is run upon the carriage, which is then moved until it is opposite either driveway, and the car is then run out of the garage. But if it is desired to remove the car C^4, for instance, the cars C^5 and C^6 must first be removed, either by placing them on the trailers or by taking them by the carriage and depositing them in one of the driveways, whereupon the car C^4 may be readily removed in the manner described in regard to the car C^6. With the arrangement shown the most that it is necessary to do to reach any car is to move two cars out of the way. My arrangement provides for a very compact storage of cars without much lost space, and even the driveways may be utilized for storage of cars at night if necessary. During the times, however, when it is necessary to remove cars from time to time the driveways must be kept sufficiently clear to permit the movement of cars therethrough. The height of the housing 20 is not sufficiently great to interfere with the passageway of cars thereover. It is therefore obvious that when it is desired to remove a car, such as C^4, which is blocked by cars C^5 and C^6, and the opposite space is not filled, then the cars C^5 and C^6 may be moved directly across without employing the carriage or trailers to take these cars out of the way.

I claim:—

1. A garage comprising a floor space adapted for storage of cars on both sides of an aisle, a housing extending along said aisle, an endless cable in said housing, means for driving said cable, a carriage adapted to move cars along said aisle, a yoke extending downwardly from said carriage through a slot in said housing, a pair of members pivoted to said yoke, one adjacent each stretch of said cable, a handle mounted on said carriage, and connections between said handle and said pivoted members whereby one or the other of said members will be caused to grip said cable according to the direction in which said handle is moved.

2. A garage comprising a floor space adapted for storage of cars on both sides of an aisle, a housing extending along said aisle, an endless cable in said housing, means for driving said cable, a carriage adapted to move cars along said aisle, a yoke extending downwardly from said carriage through a slot in said housing, a pair of members pivoted to said yoke, one adjacent each stretch of said cable, a sprocket chain attached at its respective ends to said pivoted members, a sprocket wheel over which the intermediate portion of said chain passes, a shaft rotatably mounted on said carriage and to which said sprocket wheel is secured, and a handle on said shaft whereby one or the other of said pivoted members will be caused to grip said cable according to the direction in which said handle is turned.

3. A garage comprising a floor space adapted for storage of cars on both sides of an aisle, a housing extending along said aisle and positioned above the floor, a cable in said housing, means for driving said cable, a carriage adapted to move cars along said aisle, said carriage having platforms which are deflected upwardly intermediate their ends to provide clearance above said housing, and means whereby said carriage may be attached to said cable and detached therefrom.

In testimony whereof I hereunto affix my signature.

SAMUEL M. DICK.