front end of the screw is the contact member 75 which is adapted to cooperate with the rear end 86 of the shuttle box extension 21.

The arm 70 is provided with the pin 76 and the plate 55 is provided with a pin 77, between which is connected the coil spring 78 for drawing the arm 70 and the latch bar 50 in counterclockwise direction, as shown in Fig. 2.

In operation, when the loom is stopped and the shipper lever 31 is moved to inoperative position, as indicated by the dotted lines on Fig. 1, the clutch operating rod 36 will be moved rearwardly permitting the spring 78 to draw the bar 50 downwardly so that the notch 58 will engage with the block 60 and the dog 67 will be received in the notch 57, provided the lay is not at or adjacent its rearmost position 30.

When the necessary adjustment has been made to permit the loom to continue to operate, as for example, the replacement of the filling in the shuttle or the connection of the broken weft and/or warp threads, or mechanical adjustments due to derangements of the operating mechanism, it will be impossible for the loom operator or weaver to start the loom with the lay in its intermediate position, due to the fact that the clutch rod 36 would be firmly held in rear position due to engagement of the latch 60 and the notch 58.

The weaver or loom operator will then have to actuate the wheel 42, or some other suitable mechanism to move the lay rearwardly to substantially its back-center position, at which time the contact element 86 on the shuttle box extension 21 will contact with the contact member 75 on the screw 73.

This contact, as indicated in Fig. 4, will lift the notch 58 from the latch 60 so that there will no longer be engagement therebetween, whereupon the loom operator may move the shipper lever 31, initiating operation of the loom.

The dog 67 at this time will be pulled forward to contact with the sloping edge 69 of the notch 57. This will further elevate the bar 50 and move the lever 70 still farther backwardly so that the contact element 75 will not contact with the shuttle box element 86. The engagement of the dog 67 with the edge 69 of the notch 57 will also assure locking of the bar 50 out of engagement with the latch 60.

It is thus apparent that the loom operator or weaver may only start the loom when the lay has been moved to its back center position and assurance is had that the last filler thread before such stoppage will be beat up with the proper force and stress into position at the fell of the woven fabric.

The device of the present invention eliminates need for rigid supervision of weavers, and particularly of the apprentice weavers to assure production of crack-free merchandise, and also greatly reduces the cost of maintenance of the loom, inasmuch as it is not necessary to be absolutely certain that all bearings are adjusted without play and that the clutch linings are in perfect condition.

What is claimed is:

1. In combination with a loom having a beating device, manually actuated mechanism for stopping and starting operation of said loom, means to lock said mechanism upon stoppage of the loom when said beating-up device is substantially in advance of its back-center position, and means automatically actuated to unlock said mechanism upon movement of the beating-up device to substantially its back center position.

2. In combination with a loom having a beating up device, manually actuated mechanism for stopping and starting operation of said loom, means to lock said mechanism upon stoppage of the loom when said beating-up device is substantially off its back center position and manual means to actuate said device to release said locking means, said beating-up device upon movement to its back center position automatically releasing said locking means.

3. In a loom having a reciprocating lay and a manually actuated shipper lever for initiating and stopping operation of said lay, a locking device for locking said starting lever when said loom is stopped with the lay in advance of its rearmost position, and releasing means to release said locking device automatically when said lay has been manually moved to said rearmost position before starting.

4. In a loom having a reciprocating lay and a manually actuated shipper lever for initiating and stopping operation of said lay, a locking device including a latch arrangement for locking said starting lever when said loom is stopped with the lay in advance of its rearmost position, and releasing means having a bump-off lever connected to said latch arrangement to release said locking device when said lay has been moved to said rearmost position before starting.

5. In a latching device for looms, provided with a reciprocating lay, a shipper lever, a clutch and an operating rod extending from said shipper lever to said clutch, a latching device for preventing initiation of operation of the loom when the lay has been stopped substantially forward of its back center position, said latching device consisting of a central horizontal pivot element, a latching lever extending forwardly from said pivot element and a knock-off member extending upwardly from said pivot element, said rod being provided with a latch member and cooperating with said latching lever, and said lay being provided with a contact member to cooperate with said knock-off member to cause unlatching of said latch lever when the lay has been moved to substantially its back center position.

6. In combination, with a loom having a lay, a shipper lever, a clutch and a rod between said shipper lever and said clutch; an attachment for preventing initiation of actuation of said lay when the lay is off back-center, said device including a latch member and a dog member carried by said rod, a latching lever being provided with a cam for said dog and a locking notch for said latch member, a knock-off member for cooperation with said lever to cause said latch member and locking notch to be disengaged when said lay has been moved to its rearmost position, and a resilient means to draw said lever notch into engagement with said latch member.

7. A latching device for looms comprising a plate to be bolted to the side of the loom, a stud extending outwardly from said plate, a sleeve pivotally connected to said stud and horizontal and a vertical lever member connected to said sleeve, the upper portion of said vertical member being provided with an adjustable stop for contact with the lay structure and said horizontal lever being provided with a locking notch and a cam notch, the connecting rod between the shipper lever of said loom and the clutch of the loom being provided with a cooperating latch to fit in the latching notch and with a dog to fit in said cam notch, said device being also provided

Aug. 7, 1934. M. M. GLEICHMAN 1,969,002

GARAGE FLOOR CONSTRUCTION

Filed May 21, 1929 4 Sheets-Sheet 1

Fig. 1

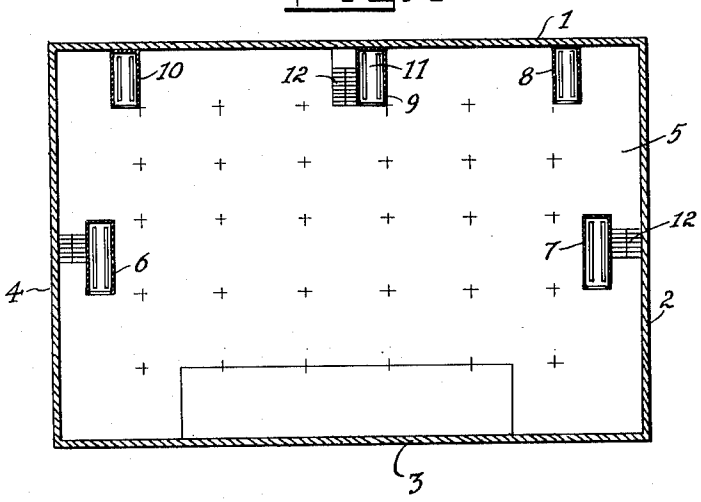
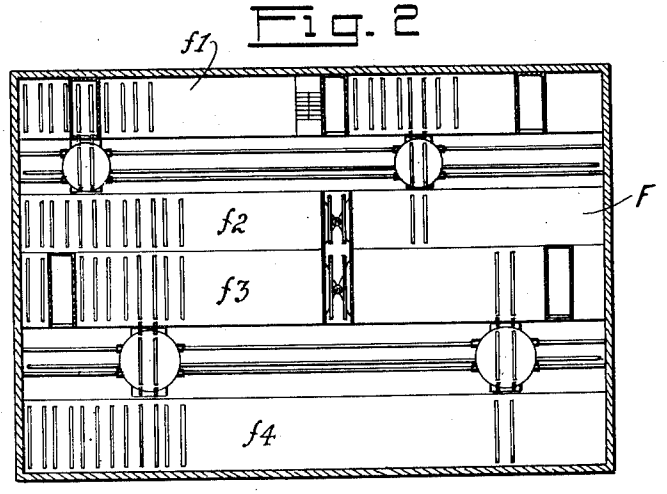


Fig. 2



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GARAGE FLOOR CONSTRUCTION

Filed May 21, 1929 4 Sheets-Sheet 2

Fig. 3

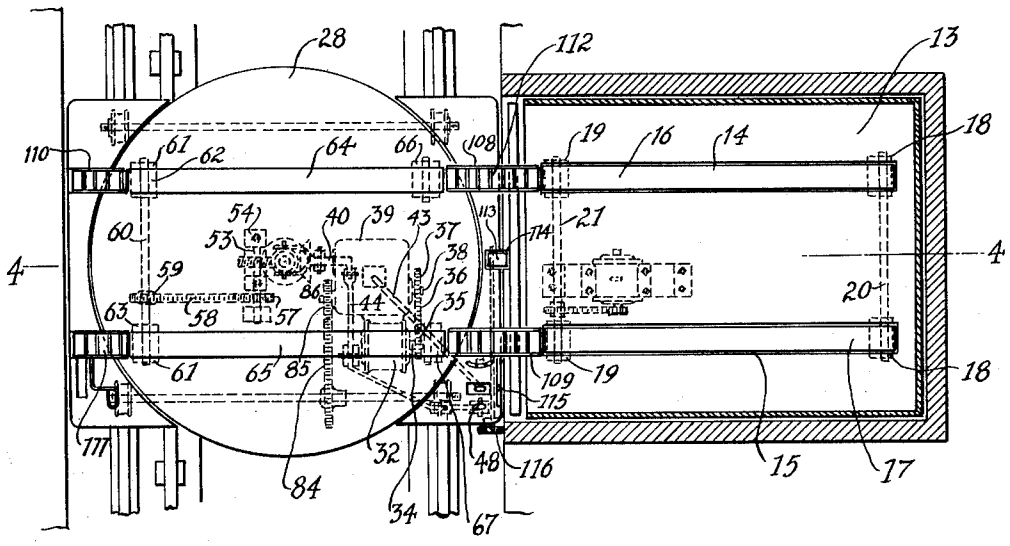
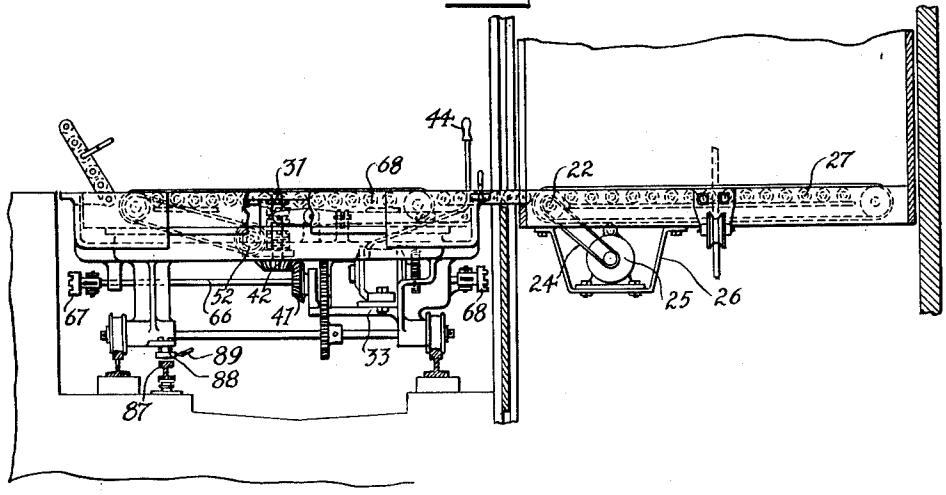


Fig. 4



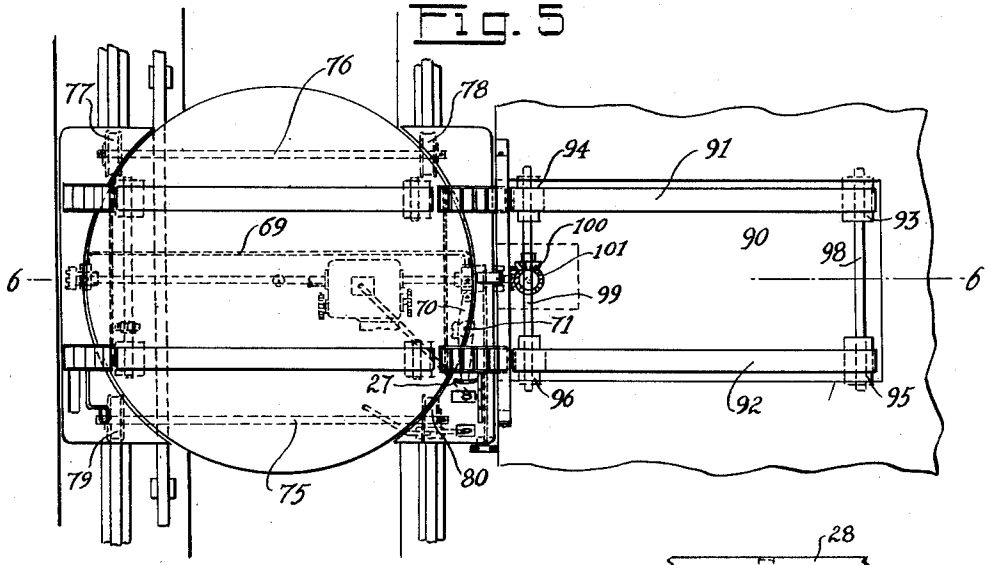
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GARAGE FLOOR CONSTRUCTION

Filed May 21, 1929 4 Sheets-Sheet 3

Fig. 5



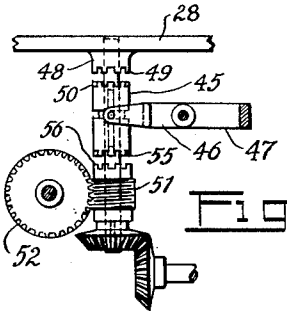
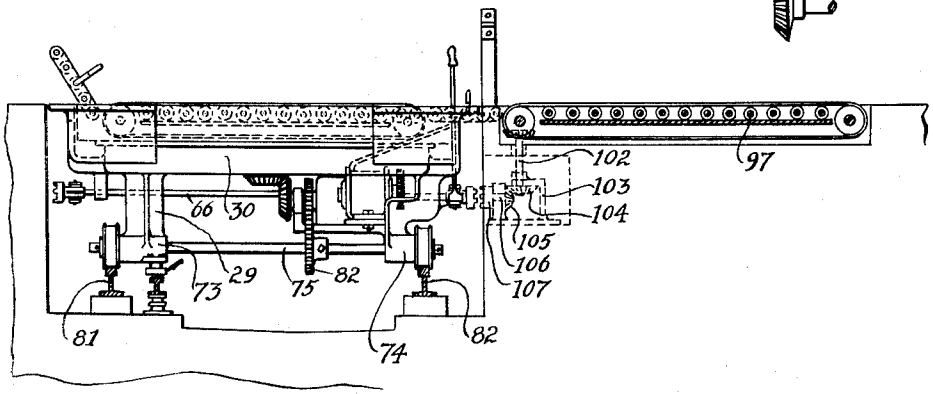


Fig. 12

Fig. 6



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GARAGE FLOOR CONSTRUCTION

Filed May 21, 1929 4 Sheets-Sheet 4

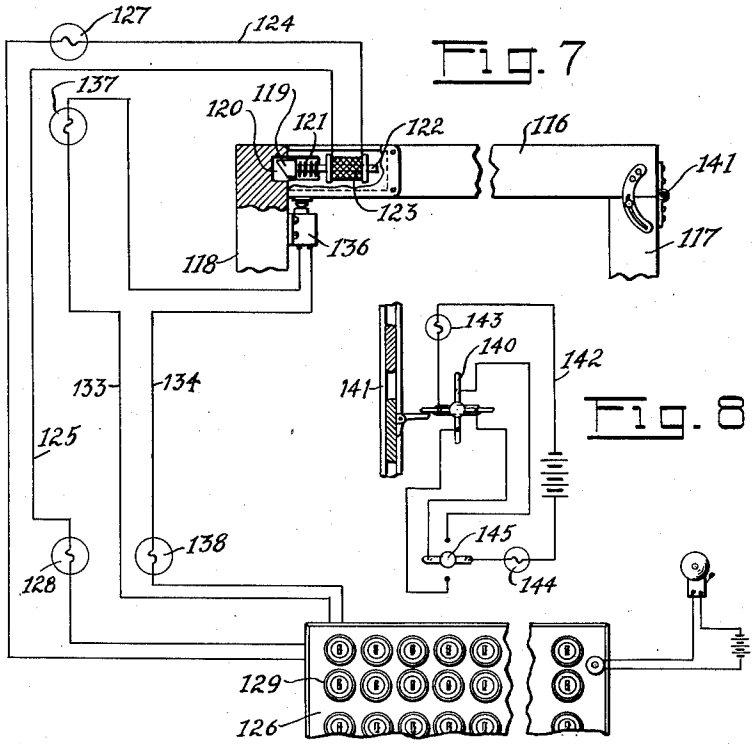


Fig. 7

Fig. 8

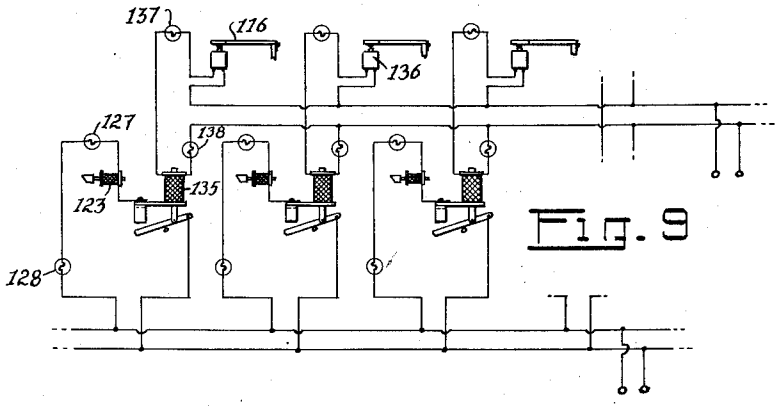


Fig. 9

Fig. 10

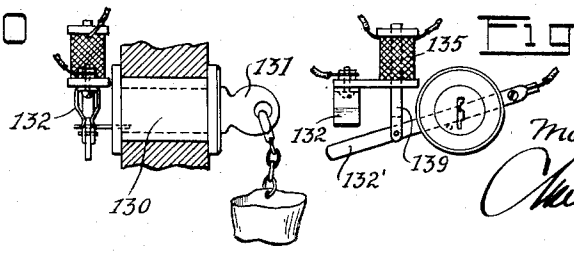


Fig. 11

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UNITED STATES PATENT OFFICE

1,969,002

GARAGE FLOOR CONSTRUCTION

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Application May 21, 1929, Serial No. 364,771

3 Claims. (Cl. 214—16.1)

This invention relates to new and improved mechanism whereby motor vehicles may be more conveniently and economically stored within a building designed for the housing of such vehicles such, for instance, as a public garage.

Another object of the invention is to provide new and improved mechanism whereby a greater number of motor vehicles may be deposited or stored upon a given floor space than has obtained in mechanisms of this character as hitherto constructed.

Another object of the invention is to provide mechanism for storing motor vehicles such that the danger of vehicles being carried into contact with each other and thereby damaged during the movement of such vehicles on the storage floor of the garage is eliminated.

A further object of the invention is to provide new and improved mechanism for storing motor vehicles and a new and improved system for the distribution and checking of the stored vehicles, whereby the garage owner and the patrons are afforded a greater degree of protection against theft, unauthorized removal and unauthorized use of the motor vehicles while in storage.

A still further object of the invention is to provide a new and improved construction of the floor of a garage whereby motor vehicles can be moved to and deposited in their designated spaces with the expenditure of a minimum amount of manual labor.

Other objects and aims of the invention, more or less specific than those referred to above, will be in part obvious and in part pointed out in the course of the following description of the elements, combinations, arrangements of parts and applications of principles, constituting the invention, and the scope of protection contemplated will be indicated in the appended claims.

In the accompanying drawings wherein I have illustrated a preferred form of embodiment of my invention:

Figure 1 is an elevational view of the ground or entrance floor of a garage constructed in accordance with my invention;

Figure 2 is an elevational view of a typical plan of a floor upon which the storage of motor vehicles in accordance with my invention is to be accomplished;

Figure 3 is an elevational view on an enlarged scale showing the floor plan of one of the elevators and the table or carrier upon which the motor vehicle is deposited from the elevator;

Figure 4 is a vertical sectional view taken from Figure 3 substantially on the line 4—4;

Figure 5 is an elevational view of one of the storage spaces showing the table or carrier in operative relation therewith;

Figure 6 is a vertical elevational view of Figure 5 taken substantially on a line 5—5;

Figure 7 is a schematic view showing certain of the control devices;

Figure 8 is also a schematic view showing another of the control devices;

Figure 9 is also a schematic view showing another of the control devices;

Figure 10 is a view partly in section and partly in elevation showing a detail of construction;

Figure 11 is an elevational view of Figure 10; and

Figure 12 is a view on an enlarged scale of the clutch mechanism associated with the motor vehicle carrying table.

Referring now to the drawings wherein similar reference characters refer to similar parts throughout the several views thereof, the reference numerals 1, 2, 3 and 4 represent the walls of a typical shaped garage, and 5 denotes the ground floor thereof, to which access may be had through one or more doors not shown. The reference numerals 6, 7, 8, 9 and 10 denote a plurality of elevator shafts in each of which operates an elevator 11; 12 denotes a stairway which, as usual, is located adjacent one or more of the elevator shafts.

For purposes of this specification, the floor space 5 will be designated the classification floor; that is to say, it is the floor upon which the motor vehicles are driven and their storage destination classified by an employee of the garage owner, whereby the distribution of the motor vehicles will be such that a maximum number of them will be deposited in the various floor spaces provided upon the several floors of the garage. It is intended that vehicles of predetermined sizes shall be classified so that they will be stored together.

The reference character F denotes a typical floor space located above the classification floor indicated at 5, and it will be understood that the arrangement of the floor spaces such as is indicated at 14 will be provided on all the floors of the building above the classification floor 5.

The elevator shafts 6 to 10, inclusive, it will be noted, extend through the various floors of the garage, the arrangements being such that the elevators 11 will deliver vehicles from the classification floor 5 to any one of the floors of the building.

Referring now to the elevators, which are, of course, all similarly constructed, the floor 13 of

each elevator is cut away at the locations 13 and 14 so as to provide spaces adapted to receive the traveling belts 16 and 17, respectively, said belts being endless. These belts travel over pulleys 18 and 19 mounted upon the shafts 20 and 21, suitably journaled on supports provided in the floor 13 of the elevator, the shaft 20 being a driven shaft and the shaft 21 being a driving shaft. Shaft 21 is provided with a pulley 22, which receives a belt 24 driven as by means of a motor 25 supported in the housing bracket 26, secured underneath the floor of the elevator. Thus it will be seen that the motor through the shaft 21 drives both of the endless belts 16 and 17, respectively. The upper length of both of the belts rest upon a plurality of rollers 27, which are journaled upon suitable supports. These rollers form a support for the endless belts when the road wheels of the vehicle to be stored rest upon the belts.

The endless belts are spaced apart to correspond with the lateral distance between the walls of a motor vehicle and are so disposed that when a vehicle enters the space provided between the walls of the elevator the road wheels will automatically rest upon the belts. Therefore, when the motor 25 is supported, the endless belts will discharge the motor vehicle from the floor of the elevator on to a supporting and carrying means which will presently be described.

The reference numeral 28 denotes a table or carrier for the motor vehicles. This table or carrier, by means which will presently be described is mounted upon a truck, the construction being such that the table has a rotary movement independently of the movement of the truck and that the truck and table move in unison in a linear direction. The table which is suitably supported for rotary movement on the frame 29 of the truck 30, is operated by means of a central shaft 31.

Referring now to Figures 3 to 6, inclusive, of the drawings, the reference numeral 32 denotes a motor which is supported upon a suitable bracket 33, carried by the truck 30. This motor is provided with a shaft 34 having mounted thereon a sprocket 35 carrying a sprocket chain 36 which drives a sprocket wall 37 mounted upon a shaft 38. Shaft 38 extends into a transmission mechanism enclosed in a casing 39, and leading from the transmission mechanism, the details of construction of which are not shown herein, is a shaft 40 upon which is mounted the beveled gear 41. Beveled gear 41 meshes with the beveled gear 42 and this beveled gear 42 is connected with a shaft 31 which rotates the table 28. The direction of rotation of the beveled gear wall 41 is controlled by the transmission mechanism within the casing 39, the operation of the latter being determined by a lever 43 having an operating handle 44. Thus it will be seen that the direction of the rotary movement of the beveled gear 41 is determined by the transmission mechanism within the casing 39.

As will be seen by reference to Figure 10, when the motor 31 is in operation, the shaft 31 may be rotated in either direcion, the direction of movement being controlled as aforesaid, by the transmission mechanism. Splined upon the shaft is a clutch member 45, which said clutch member is operated by a forked arm 46, moved by a link 47, as by means of a lever. Provided upon the table and encircling the shaft 32 is a fixed clutch member 48, the teeth 49 of which co-operate with the teeth 50 provided upon the splined clutch member 45. Thus when the lever 48 is operated through the connected chain of mechanism, to move the clutch member 45 upwardly the shaft 31 is connected with the table 28 so that it will be rotated in either direction, the direction of movement being dependent upon the direction of rotary movement of the beveled wheel 41 which, as aforesaid, is controlled through the transmission mechanism within the casing 39.

The reference numeral 51 denotes a worm loosely mounted upon the shaft 31. This worm meshes with the worm wheel 52, provided upon a jack shaft 53, journaled in suitable bearings 54, supported underneath the table. The sliding clutch member 45 is provided with a plurality of teeth 55 which, when the clutch member is moved downwardly, are adapted to establish a driving connection through the teeth 56 provided upon the worm 51. When this engagement is made, a driving connection is established between the shaft 31 and the worm 51. Mounted on the jack shaft 53 is a sprocket 57, which carries the drive chain 58, the latter traveling over a sprocket 59 mounted upon the shaft 60, journaled in bearings 61, supported underneath the table 28. Shaft 60 is provided with the pulley walls 62 and 63, over each of which travels an endless belt, said belt being designated by the reference numerals 64 and 65, respectively. These endless belts extend substantially across the table as shown and travel over the pulleys 66 and 67, suitably journaled underneath the table 28. The table 28 is formed with slots to receive these belts. The upper surface of said belts lie substantially flush with the upper surface of the table and said belts are supported as by means of a plurality of adjacently located rollers 68 suitably journaled in bearings provided in the slots of the table. The belts 64 and 65 are spaced apart a distance equal to the lateral distance between the road wheels of a motor vehicle.

Inasmuch as the direction of rotation of the shaft 31 is controlled by means of the transmission mechanism within the casing 39, it will be seen that when the teeth 55 of the clutch member 45 are in engagement with the teeth 56 provided upon the worm 51, the connected chain of mechanism will through the shaft 60 drive the belts 64, 65, in either direction, as determined by the operation of the transmission mechanism.

The beveled gear wheel 41 is mounted upon the shaft 66, and this shaft, at one end, is provided with a sliding clutch member 67, and at its opposite end with a similarly constructed sliding clutch member 68. These clutch members, as shown in Figure 5, are connected together as by means of the rod 69 so that they may be moved in opposite directions in unison. The rod 69 is connected to a lever 70, pivoted at 71, the opposite end of said lever having an operating handle which extends through an arc shaped slot 72. Thus it will be seen that the clutch members 67 and 68 may be slid in opposite directions, in unison, for a purpose which will be presently understood.

The frame 29 of the truck 30 is provided with the brackets 73 and 74, which form bearings for the axles 75 and 76, respectively; upon each of these axles, at its other ends, are provided the flanged wheels 77—78 and 79—80, respectively. The axles 75—76 are spaced apart as shown, each axle being journaled adjacent the edge of the table, and the axles are arranged in parallel relation with the motor car supporting belts 64 and 65. The wheels 77 to 80, inclusive, ride on

the tracks 81 and 82. Mounted upon the axle 75 is a sprocket 83, which is driven as by means of a chain 84, and the latter is in turn driven by a sprocket 85, mounted upon the shaft 86, which extends from a second set of transmission mechanism located in a casing 39. This second set of transmission mechanism not shown is operated through the link and lever mechanisms 43 and 44, which have already been described as controlling the direction of the rotary movement of the shaft 31. In other words, the construction is such that these link and lever mechanisms 43 and 44 may be manipulated so that the operating motor through the transmission mechanism will rotate the shaft 76 in either direction, whereby the axle 75, through the chain of operating mechanism above described, may be rotated in either direction, whereby the truck 30, which supports the table 28, may be moved as a whole along the trucks 81 and 82.

The reference numeral 87 denotes a fixed contact member, in the nature of a third rail, which is mounted upon suitable insulating supports and which extends in parallelism with the tracks 81 and 82, and engaging this contact member is a shoe 88. The contact member 87 is connected with suitable source of electric current, not shown, and the shoe 88 is connected with one pole of the motor 32 as by means of a lead wire 89, the opposite pole of said motor being grounded to the truck.

Thus it will be seen that the motor 32 may be operated to move the truck 30 in opposite directions along the tracks 81 and 82.

Referring now to Figures 5 and 6 of the drawings, the reference numeral 90 denotes one of the storage spaces for a motor vehicle, it being understood, as shown in Figure 2, that the storage space *f* is cut up into a plurality of adjacently located storage spaces similar to that shown at 90.

By referring to Figure 2 of the drawings it will be noted that this storage space is divided into a plurality of sections and each section is provided with a plurality of unitary storage spaces such as 90, located adjacent each other throughout the length of the floor space.

In the present instance it will be noted that there are four independent storage units provided in the typical floor space designated *f*, and for the purpose of this specification these spaces are designated *f1*, *f2*, *f3* and *f4*, and each of these unitary sections is divided into a plurality of individual storage spaces such as 90. Between the spaces *f1* and *f2* is provided a line of trackage, such as has already been described, as supporting the truck 30, and between the unitary spaces *f3* and *f4* is a second line of trackage. Each line of trackage carries one or more trucks with its rotating table, similar to that which has already been described in Figure 2 of the drawings. Each line of trackage is shown as being provided with two truck assemblies although it will be understood that in practice a greater or lesser number may be employed. It will be seen that by moving the respective trucks along their tracks the tables may be moved opposite the various individual storage spaces in which it is desired to lodge or store a motor vehicle.

Referring now particularly to Figures 5 and 6 of the drawings which show an individual storage space, it will be seen that each space is provided with a pair of laterally spaced movable belts 91 and 92, respectively, which travel between the pulleys 93—94 and 95—96. The belts are supported upon the journaled rollers 97 in a manner identical with that already described in connection with the traveling endless belts of the elevators. The pulleys 93 and 95, which are mounted upon the shaft 98, journaled in suitable bearings provided in the floor or idler pulleys, and the pulleys 94 and 96 drive the belts 91 and 92, said belts being mounted upon a driving shaft 99 suitably journaled in the floor. Mounted upon the shaft 99 is a beveled gear wheel 100, which meshes with the beveled gear wheel 101, the latter being mounted upon the shaft 102, which extends downwardly and has its lower end mounted in a suitable bracket 103. The lower end of shaft 102 carries a beveled gear wheel 104, which meshes with the beveled gear wheel 105, mounted upon a suitably journaled shaft 106; the latter shaft, at its outer end, is provided with a clutch member 107. Thus it will be seen that when the clutch member 107 is rotated, the endless belts 91 and 92 will be driven in a direction depending upon the direction in which rotary motion is imparted to the clutch member 107. The shaft 106 is so located in its receptive space 90 that when one of the tables 28 is moved by its truck to such a position that the endless belts 64, 65 of the table are in longitudinal alignment with the respective end'ess belts 91 and 92 of said space, one of the clutch members 67 or 68 will be in exact longitudinal and vertical alignment with the shaft 107, so that, when the shaft 66 is moved in an endwise direction by the lever mechanism already described, one of these clutch members can be engaged with the clutch member mounted upon one of the shafts 107, whereby there may be established a detachable operative connection between the driving mechanism for the endless belts upon the table with the driving mechanism for the endless belts 91 and 92 of a parallel storage space 90. The arrangements of the parts are such that the respective endless belts of the table and those of a storage space 90 will move in unison in the same direction.

Inasmuch as it is desired to move motor vehicles from the endless belts 64, 65 of the table 28 to the endless belts 91 and 92 of the storage space 90 and to move said motor vehicles in an opposite direction, it is necessary to interpose vehicle supporting connecting platforms between the endless belts of the table and those of the storage space. This object is attained by means of the pivotally mounted saddle plates 108—109 and 110—111. Each of said saddle plates is pivotally mounted upon the truck and each pair of saddle plates is spaced apart a distance equal to that between the endless belts, the construction being such that when the endless belts of a table are in exact longitudinal relation with those of a storage space 90, the saddle plates may be swung downwardly so as to span the space between the ends of the endless belts of the table and those of the storage space. Each of these saddle plates 108 to 111, inclusive, is provided with a plurality of roller members 112, which provide supporting surfaces across which the motor vehicle to be stored may ride when a motor vehicle is being moved to or from one of the storage spaces 90.

In order to hold a truck in the proper operative relation, as above described, with the storage space, means is provided whereby when a truck has been moved to its proper position it may be locked in such position until the operation of moving a motor vehicle to or from a storage space has been accomplished. This object is attained as by means of a pivotally mounted

tongue member 113 on the truck which is adapted to engage with a slot 114 provided midway of the width of each storage space, said tongue adapted to be operated by means of a rod 115, the outer end of which is provided with a foot lever 116, by means of which it may be swung into or out of engagement with any one of the slots provided in the storage spaces.

It will be understood that a similar arrangement of pivotally mounted saddle plates and locking members is provided in connection with the elevator shafts, so that the endless belts of a table may be held in proper registry with the endless belts of each of the various elevators served by a particular truck and its motor vehicle carrying table.

From the foregoing description it will be seen that a motor vehicle entering the classification floor 5 will be driven to a designated elevator under its own power, and when said motor vehicle has been properly positioned upon the endless belts of that particular elevator, the power of the motor vehicle will be then shut off. The elevator attendant then operates the elevator to cause same to move to its proper floor. The truck serving that particular elevator is then moved along its tracks so that the table of the truck will be positioned, as already described, in operative relation with the elevator, the locking tongue will be manipulated to center and align the endless belts of the table with those of the elevator, and the saddle plates will be swung downwardly to provide the supporting surfaces, as aforesaid, upon which the motor vehicle is to be moved from the traveling belts of the elevator to those of the table.

The motor 25 on the elevator is then operated so that the endless belts 16 and 17 will move the motor vehicle across the saddle plates and on to the endless belts 64 and 65 of the table, the mechanism for the driving of which has already been set in operation. When the motor vehicle has been properly positioned upon the table, the operation of the endless belts is arrested.

The transmission mechanism within the casing 39 is then operated so that the mechanism for driving the truck upon its tracks will be actuated in a manner so as to carry the truck to such a position that the table carrying the motor vehicle will be directly opposite the particular space in which the motor vehicle thereon is to be stored. The centralizing device between the truck and the storage space is operated to lock the truck in proper position, and the driving clutch of the truck is moved into engagement with the driven clutch member of the storage space. The saddle plates are also moved into their proper positions to span the space between the endless belts of the table and those of the storage space. The mechanism for driving the endless belts of the table is again set into operation and through its operative connection with the endless belts of the storage space sets the endless belts of the latter into operation whereby the vehicle is moved in an endwise direction from the endless belts of the table to those of the storage space.

When it is desired to remove a motor vehicle from a space in which it has been stored, the above described chain of operations is reversed, and the vehicle moved from the storage space to the table of a truck, the truck carried upon its tracks to the elevator shaft and moved from the table to the endless belts of the elevator, whereby the elevator may be operated to carry the motor vehicle to the classification floor space 5, from which it may be driven under its own power from the building.

A pair of posts 117 and 118, is located opposite each of the storage spaces 90, the construction being such that when the bar or gate 116 is in the position shown in Figure 7 of the drawings, that space is locked against the entrance or removal of a motor vehicle. The gate is locked in the position shown as by means of a latch 119, which engages with a keeper 120, provided upon the post 118. The latch 119 is normally held in its locked position as by means of an extensile spring 121, which encircles the stem 122, extending it from the latch, said stem forming the armature of a solenoid coil 123. This solenoid coil is connected in a circuit formed by the wires 124 and 125, said wires extending to a key board 126, the latter being preferably located in an office provided on the classification floor 5.

Connected in series in the circuit formed by the wires are the electric lamps 127, 128. Lamp 127 is located adjacent one of the storage spaces and lamp 128 is located at the keyboard, it being understood that there is a lamp similar to 127, located opposite each of the storage spaces and that there is a corresponding lamp 128 for each of the lamps 127.

The key board 126 is provided with a plurality of keys 129, there being a key provided for each of the storage spaces and each key socket controlling a lamp and solenoid circuit such as has been described. Each key socket is located in the cylinder 130 adapted to receive the key 131, and this cylinder when rotated by its key is adapted to operate the switch 132, and close the circuit formed by the wires 124, 125, which circuit includes the solenoid coil 123. The closing of this circuit, energizing as it does the solenoid coil 123, retracts the latch 119, whereby the gate bar 116 may be raised.

The reference numerals 133 and 134 denote another circuit, which includes the solenoid coil 135, the switch 136 and the lamps 137 and 138. The lamps 137 and 138 which are of a color distinguished from the lamps 127 and 128 are located, respectively, lamp 137 opposite a storage space corresponding to that in which the lamp 127 is located, and the lamp 138 is located adjacent the keyboard.

The switch 136 is normally held open by the weight of the gate bar 116 resting upon it. When the first named circuit has been closed to energize the solenoid coil 123, to retract the latch, the lifting of the gate bar 116 closes the switch 136, thereby closing that circuit, the closing of which energizes the coil 135, forcing the switch lever 132' to the position shown in Figure 11, thus opening the first named circuit whereby the lamps 127 and 128 will be extinguished.

The lamps 137 and 138 will, however, be lighted, thereby indicating to the operator at the key board that the gate has been opened, ready to receive or discharge a motor vehicle from the storage space guarded by the said gate bar. When the gate bar 116 is again moved to the position shown in Figure 7, the circuit controlled by the switch 136 is again opened and the lamps 137 and 138 extinguished. The first named circuit, controlled by the switch 132, will remain open until it is again closed by an operation of the key 130.

Thus the lighting of the lamp 127 from the key board advises the operator on the storage space 4 when and where a motor vehicle is to be stored or removed from storage and the lamp 128 ad-